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The Imperative in the Rigveda

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The Imperative in the Rigveda

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List of abbreviations

AB	Aitareya-Brāhmaṇa	abl.	ablative
AV	Atharvaveda	acc.	accusative
AVP	Atharvaveda Paippalāda recension	act.	active
AĀ	Aitareya-Āraṇyaka	aor.	aorist
GB	Gopatha-Brāhmaṇa	caus.	causative
JB	Jaiminīya-Brāhmaṇa	dat.	dative
KB	Kauṣītaki-Brāhmaṇa	desid.	desiderative
MB	Mantra-Brāhmaṇa	impv.	imperative
MS	Maitrāyaṇi-Saṃhitā	inj.	injunctive
PB	Pañcaviṃśa- Brāhmaṇa	instr.	instrumental
RV	Rigveda	int.	intensive
SB	Saḍviṃśa-Brāhmaṇa	loc.	locative
ŚBK	Śatapatha-Brāhmaṇa	med.	middle-voice
	Kāṇva recension	opt.	optative
ŚBM	Śatapatha-Brāhmaṇa	part.	participle
	Mādhyandina recension	pass.	passive
SV	Sāmaveda	perf.	perfect
TĀ	Taittirīya-Āraṇyaka	ppp.	perfect passive
TB	Taittirīya-Brāhmaṇa		participle
TS	Taittirīya-Saṃhitā	pres.	present
YV	Yajur-Veda	red.	reduplicated
		subj.	subjunctive
		voc.	vocative

The place of the imperative in the Rigvedic verbal system

The greatest challenge to those working on the Rigvedic verbal system is visualising it as a system. It is full of asymmetries, big functional gaps on the one hand, and functional overload – two or even more forms having seemingly identical functions, on the other. This makes any system-wide analysis – seeing the big picture, as it were – tricky. Moreover, and this is a point which can hardly be emphasized strongly enough, it is very difficult to appreciate the function of a single item within the system, without being able to understand how it relates to the rest of the system.

The imperatives are a good example of these gaps in the system. Whereas some verbs, as for instance *kr*, *śru*, *bhū*, *av*, *gam*, *dā*₁, *dhā* and other, mostly common verbs have fully attested present and aorist systems with reasonably numerous examples of each, other, equally common verbs, such as *as* and *i*, have no aorist system. Many other common verbs, such as *bhr*, have very limited attestation of their aorist systems and no attested aorist imperatives or injunctives. It is highly debatable, in my opinion, whether this situation can be reasonably be blamed simply on the vagaries of limited attestation in a limited corpus.

Within the aorist system, the second person singular imperative has several endings – *-dhí* for root-aorists, *-si* for sigmatic aorists¹, and *-a* for thematic aorists, while the *-iṣ-2*, *-siṣ-*, and reduplicated aorists are prevented by a morphological limitation from forming an imperative that is differentiated from the injunctive – and the imperative is, after all, differentiated from the injunctive only in the second person singular, third person singular and third person plural – and thus uses the injunctive instead.

This creates a situation where some verbs have two or even three imperative stems – aorist, present, and perfect – while others only have one. Furthermore, within the aorist, some verbs have two forms, injunctive and imperative, which we would expect, as linguists, to have different functions, while others only have one, the injunctive. The implication of this situation is that all of the functions of the aorist imperative are, under certain circumstances, totally contained within the aorist injunctive. In other words, there is nothing that one can do with an imperative that cannot be done with an injunctive, although the opposite is not true.³

Even allowing for the possibility that many forms that may have existed are not attested, this is an anomalous situation.

Furthermore, two verbs, *dā₁* and *dhā*, cannot differentiate the injunctive and imperative in the 2nd person singular but can in the 3rd: the forms *dās* and *dhās* function as both injunctive and imperative, while in the 3rd person we have both *dāt*, *dhāt* and *dātu*, *dhātu*⁴.

The lack of distinction between the injunctive and imperative, even in cases where both exist as separate entities, is easily demonstrable. The following two sentences mean basically the same despite the use of the injunctive in one and the imperative in the other: 6.44.18b *asmábhyam máhi váriṣaḥ sugám kaḥ*, and 1.102.4c *asmábhyam indra váriṣaḥ sugám kṛdhi* ‘For us, O Indra, make space, wide and

¹ See page 43ff.

² Except for the unique form *aviḍḍhí*. Some roots have 2nd pers. sing. root aor. impvs. ending in *-ihí* while the rest of the paradigm has *-iṣ-* aor. forms. See page 94.

³ See page 37ff.

⁴ The verbs *sthā* and *gā* have the same limitations. See pages 37ff and especially 42ff.

easily passable'⁵.

Furthermore, there is no possible distinction between the imperative and the injunctive in the negative, as the injunctive with the particle *mā* functions as the negative of the imperative.

The third person imperative

The Rigvedic verbal system, in common with that of other ancient Indo-European languages, has both second and third person imperatives. Later Sanskrit also has what is described as a first person imperative, but this is in fact a relic of the Vedic first person subjunctive, which has joined the imperative paradigm in the later language.

The question needs to be asked what the province of the third person imperative is, and how it relates to the second person imperative.

Whether the third person imperative is indeed an imperative depends, of course, on the definition given to the imperative. The imperative mood, contrary to conventional wisdom, expresses far more than just commands and orders. Lyons (1977), rather than using the term 'command' for imperative expressions, terms them 'mands', and includes in the term not only commands, but also requests, entreaties, etc. He sees the mand as a subclass of the "directive", which can also include warnings, recommendations and exhortations.

The term mand actually originates with B.F. Skinner⁶, who gave it a far wider, if somewhat cryptic definition:

A verbal operant in which the response is reinforced by a characteristic consequence and is therefore under the functional control of relevant conditions of deprivation or aversive stimulation.

He later explains it in terms of formal grammar, giving it a very wide force:

⁵ See also page 41f.

⁶ Skinner (1957: 35ff.).

‘The mand obviously suggests the *imperative* mood, but *interrogatives* are also mands, as are most *interjections* and *vocatives*, and some *subjunctives* and *optatives*.’

He also details various subclasses, one of which is the “magical mand”, such as ‘Would God I were a tender apple blossom’, and other wishes, ‘the consequences of which have never occurred as a result of similar verbal behaviour’.

Skinner’s definition is psychological more than grammatical, and much too wide for our purposes, but a modification of Lyons’ definition seems suitable for the Vedic imperative.

Lyons (1977: 745) emphasizes the connection between the imperative and the second person:

‘... the imperative is intimately connected with the second person (or vocative). It is implicit in the very notion of commanding and requesting that the command or request is addressed to the person who is expected to carry it out. In so far as the imperative is the mood whose function is that of being regularly and characteristically used in mands, the subject of an imperative sentence will necessarily refer to the addressee.’

and he is dubious about the status of Indo-European third person imperatives:

‘What are traditionally described as first-person and third-person imperatives, however, in the Indo-European languages at least, are not true imperatives, . . . The subject of these so-called imperatives does not refer to the addressee.’

However, Lyons’ definition of the mand is far narrower than that of Skinner, and I believe that a certain widening of Lyons’ definition would allow the admission of third person imperatives as mands, somewhere between the very narrow definition of Lyons, and the very wide one of Skinner.⁷

⁷ Any categorical statement to the effect that “the imperative expresses mands” would therefore need to vary the definition of the mand accordingly. This would of course make the definition somewhat circular, as the answer to the question “what is a mand” would be

The addressee of the second person imperative

The addressee of the second person imperative in the Rigveda is almost always a living being. There are some examples of the 2nd pers. imperative addressing inanimate objects, but in these cases the objects are divine beings in their own right, such as sacrificial instruments, e.g. when the gambler addresses the dice at 10.34.14a *mitrām kṛṇudhvaṃ khálu mṛlátā no* ‘Grant us your friendship⁸, have mercy on us . . .’.

The Soma-stones also appear as the addressees of an imperative: 10.175.2 *grāvāṇo ápa duchúnām, ápa sedhata durmatím / usráḥ kartana bheṣajám* ‘You Pressing-stones, drive away harm, drive away malevolence. Make the cows⁹ into a medicine’.

The addressee of the third person imperative

Most examples of the third person imperative of transitive verbs such as *kṛṇotu*, *kṛṇvantu* or *avatu*, *avantu* are of a type which is analogous to a similar sentence with a second person imperative: e.g. 10.42.11cd *índraḥ purástād utá madhyató naḥ, sákhā sákhibhyo váriṇaḥ kṛṇotu* ‘Let Indra from the front and from the middle as a friend to his friends make free space for us’ is exactly parallel to 9.85.4c *urúṃ no gātúm kṛṇu soma mīdhvaḥ* ‘Make us a wide road, O generous Soma’ as is 8.80.4c *purástād enam [rátham] me kṛdhi* ‘Put it (my chariot) in front for me’ with 8.45.9ab *asmákam sū rátham purá, índraḥ kṛṇotu sātáye* ‘Please let Indra put our chariot in front for booty’ bearing in mind of course that the former has an aorist and the latter a present imperative.

Furthermore, we have 1.84.3cd *arvācínam sū te máno, grāvā kṛṇotu vagnúnā* ‘Let the pressing-stone through its noise make your mind well-disposed’, which has exactly the same ostensibly inanimate subject as 10.175.2 (above).

“anything that can be expressed by an imperative”, and to the question “what does the imperative express”, the answer would be “mands”. I use the term mand anyway, as a practical alternative to “commands, requests, wishes, entreaties, etc.”.

⁸ or “make us into your friend”.

⁹ This is the usual translation of this passage, as it appears, e.g., in Geldner. However, as the plural of words meaning ‘cows’ often means ‘milk’, such an interpretation for this passage would make far more sense.

In 6.69.2cd *prá vāṃ gírah śasyámānā avantu, prá stómāso gīyámānāso arkaīh* ‘Let the hymns being recited aid you (two), and the praises that are sung in songs’, the subject of the verb is the poet’s hymns and praises, which cannot be addressed directly.¹⁰

In addition to these, there are a great many examples of subjects which are inanimate objects or even abstracts, for which there is no 2nd person parallel, e.g. 1.8.5b *mahítvám astu vajríṇe* ‘May there be greatness for the Vajra-bearer’ or 1.24.9b *urvī gabhīrá sumatīṣ te astu* ‘may your compassion be profound and broad’.

An interesting example is: 1.30.12 *táthā tát astu somapāḥ, sákhe vajrin táthā kṛṇu / yáthā ta uśmāśīṣṭáye* ‘May it be so, Soma drinker, our friend, the Vajra bearer, make it as we want, that you hurry,’ which contains a third person mand which fits even Lyons’ narrow definition. “May it be so” in (a) is an exact paraphrase for “make it so” in (b). Both are requests addressed to Indra, as shown by the vocatives *somapāḥ* (V.) and *sákhe vajrin* and are on exactly the same level. *kṛṇu* here could be seen semantically (but obviously not morphologically) as a causative of *astu*, thus making (b) the exact second person parallel of (a). This is not the same as the previous examples, in which the third person imperatives are wishes not addressed to anyone specific, of the type “may there be . . .”.

Given that the range of possible third person subjects is considerably wider than those of the second person, it is understandable that a strict syntactical paradigmatic relationship is not easy to demonstrate. This is however the same for any other forms in the second and third person. The second person environment, sometimes termed interlocutive, and the third person one, termed delocutive¹¹, cannot, by definition, have a one-to-one paradigmatic correspondence; each in many ways has its own grammar and language.

However, a semantic paradigmatic relationship is certainly demonstrable, provided that we accept the definition of the mand. Both the second and third person imperatives are used exclusively for the delivery of mands.

¹⁰ Indeed this use of the third person imperative may be a substitute for the direct addressing of a hymn or artifact found in other literature. This wish is fairly reminiscent of the Greek or Roman asking the Muse for success in composing his poem, a form which does not exist in the Rigveda.

¹¹ These terms date back to Damourette and Pichon (1952).

Imperative vs. optative

The next question that needs to be asked, having established the function of the imperative, is whether the above-mentioned functional overload really exists in the case of mands, or, in other words, did the Vedic poets have any other choice when they wanted to convey a mand but to use the imperative?

It is precisely the kind of wish or hope such as that expressed in 1.84.3cd or 6.69.2cd, which is supposed to be the province of the optative.

The imperative and the optative would seem, according to the conventional descriptions of their functions, to overlap quite considerably. This phenomenon has been recognised for quite some time. Macdonell (1916: 348), for instance, writes of the imperative:

‘The impv. does not express commands only, but also a desire in the widest sense, such as a wish, a request, advice, a direction.’

and of the optative ¹²:

‘The second person is much less common. It is almost exclusively used to express a wish or a request addressed to a god; ...We might here often rather expect the impv., which indeed frequently either precedes or follows the 2. opt. ...The third person is used in the three different senses of wish, precept, or supposition.’

One case where they do not overlap at all is where optatives are used in subordinate clauses to denote a specific kind of conditional clause, as in 6.47.15ab *ká īṃ stavat káḥ pṛṇāt kó yajāte, yád ugrám ín maghāvā viśváhávet* ‘Who would (will) praise him, who would give abundantly, who would worship him, if the generous one always were only to help the powerful?’

Here, the optative is totally distinct from any imperative, as the latter cannot appear in subordinate clauses.¹³

¹² *op. cit.*: 360.

¹³ For the few examples where *si*-imperatives supposedly occur in relative clauses, see p. 59f.

Another set of optatives which do not enter this discussion are the examples of the first person, simply because there is no first person imperative and thus no possible overlap in function.

Therefore where we apparently have a total or partial overlap in function is in the second and third person, present and aorist, between the imperative – including those injunctive forms which function as imperatives – and the optative.

It is quite easy to find examples of pairs of sentences, one of which has an optative and the other an imperative, which are extremely similar if not identical, e.g. 6.68.6-7 ...*asmé sá [rayí] indrāvaruṇāv āpi syāt ... utá naḥ ... sūribhya indrāvaruṇā rayīḥ syāt* ‘[The riches that you (two) give to the sacrificer] ... may that belong to us . . . also may our patrons have ... riches ... O Indra and Varuna.’ compared to 1.184.4a *asmé sá vām mādhvī rātír astu* ‘Let this gift of yours belong to us, O Sweet Ones’.

Occasionally one may feel that optative sentences have more emotional content, to be more pleading: 3.1.23cd *syān naḥ sūnús tánayo vijāvá, ágne sá te sumatír bhūtv asmé* ‘May we have a son of our own, to carry on the clan. Agni, let us have your goodwill’. However, note the imperative in the same sentence. Furthermore, very often imperatives are not lacking emotion either: 1.16.7ab *ayám te stómo agriyó, hr̥disp̥ḡg astu sámtamaḥ* ‘Let this superior prayer touch your heart, and be most beneficial to you’.

In the case of the verb *as*, the distinction may be semantic; among the examples of the form *syāt* there seems to be a preoccupation with riches and property; sentences whose basic theme is “make me rich”, which are so commonly expressed elsewhere with the second person imperative.

In other words, the optative appears to be used for requests for tangible objects, as in 6.68.6c and 3.1.23c above, and the imperative for hopes and wishes, and intangibles, such as grace, kindness, well-being etc., as in 1.24.9b. These seem fairly typical of the average use of these forms. Further examples of the kind of environment typically occupied by *astu* are: 1.185.11ab *idám dyāvāp̥ṥhivī satyám astu, pítar mātár yád ihópabruvé vām* ‘May this come true, O Heaven and Earth, Mother and Father, what I am asking you (two) for’, 1.172.1a *citró vo ’stu yāmas* ‘May your path be bright’ and 1.140.11ab *idám agne súdhitam̐ dúrdhitād ádhi,*

priyā́d u cin mánmanaḥ préyo astu te ‘O Agni, may this well-formed (hymn) be better than the ill-formed hymn, and even dearer to thee than a dear hymn’.¹⁴

There is perhaps a grey area with a certain amount of overlap, but for a good proportion of the examples, this distinction works.

Finally it is worth mentioning that in the absence of any injunctive forms for the verb *as* the only example of a negative contains an optative: 8.19.26cd *ná me stotámatīvā́ ná dúrhītaḥ, syā́d agne ná pāpáyā* ‘Let my priest be neither poor nor wretched, O Agni, nor badly off.’

As to verbs other than *as*, the situation appears to be far different. The key lies in the extreme rarity of the optative. The table (below) shows the number of attestations of optatives versus imperatives for eight very common verbs in the Rigveda. It is obvious that the optatives are very uncommon. There are 1593 imperatives, vs. 76 optatives, of which 44 are from the verb *as*. Without *as* the score is 1344 vs 32, a ratio of exactly 1 to 42. Even *as*, which is the only verb in the group with a significant number of attested optatives, has nearly six times as many imperatives as optatives. In all of the other cases, only *dhā* reaches double figures.

In fact, the reality is that even the meagre numbers shown in the table inflate the actual number of attestations. There are no examples whatsoever of the third person singular active optative of any of these verbs in main clauses. Two attestations of *avet* occur in subordinate clauses, while all of the others – and even these total less than ten examples – are in fact second and third person precatives ending in *-yās*. The rest of the examples are of isolated single middle-voice forms rather than full paradigms, as for instance *dadīran*, *kṛṇvīta* and *dádhīta*.¹⁵

¹⁴ Translation from Klein (1978: 143).

¹⁵ This is confirmed in Michael Meier-Brügger’s unpublished work on the subjunctive and optative, in which he lists no third person singular aorist optatives in *yāt*, except for *vavṛtyāt*, which can also be interpreted as a perfect form – and just a few in *-yās*, the ending *-yāt* thus being limited to the present and the perfect. Meier-Brügger also confirms that with the exception of the forms *syās* and *syāt*, the second and third present active present optative also appear only in a few isolated forms. Plural and middle voice forms appear to be even rarer, with 2nd person plural middle voice forms totally absent.

Forms which appear in grammar books, such as *bhavet*, *bhūyāt* and *gamyāt* are in fact completely unattested in the Rigveda.¹⁶

Whatever the explanation for the extreme rarity of the optative is, we can only reach one conclusion from the available data – that the chief and indeed virtually the only medium possessed by the language of the Rigveda for the expression of what Lyons call *mands*, in other words the spectrum of utterances between an order and an entreaty, is in fact the imperative.

Comparative number of examples, imperative vs. optative

(The table includes 2nd and 3rd persons active and middle, and excludes “syntactical” optatives, i.e. optatives in subordinate clauses)

Verb	Pres . impv.	Aor. impv.		Total impv.	Pres. opt.		Aor. Opt.	Total Opt.
<i>kṛ</i>	118	133		251	2		0	2
<i>as₁</i>	249	0		249	44		0	44
<i>av</i>	120	23		143	1		2	3
<i>bhū</i>	189	113		302	0		7	7
<i>śru</i>	84	91		175	0		1	1
<i>dā₁</i>	43	2	*	45	2	**	0	2
<i>gam</i>	44	209		253	0		7	7
<i>dhā</i>	170	5	***	175	9	**	1	10
Totals				1593				76

Notes:

* *dā₁* has no 2nd pers. aorist imperative.

**Examples of the present optative are med., imperatives are all active.

*** *dhā* has no 2nd pers. aorist imperative.

All numbers from Lubotsky (1997¹).

¹⁶ It would be fair to mention that this information is to be found in Whitney (1924: §§564-568), but is hidden, as all Vedic information is in his book, by the author’s presentation of Vedic and Classical forms side by side, and by his quoting forms which are allowed by Indian grammarians, but are never attested in the actual texts.

The morphology of the imperative

The imperative is one of five moods of the Rigvedic verb. It is different to the subjunctive and the optative in that it doesn't have a separate stem, but rather a set of endings, which are, as mentioned above, differentiated morphologically from the injunctive only in the 2nd person singular active and middle, the 3rd person singular active and middle and the 3rd person plural, active and middle. It can be formed from all three of the main verbal stems: present, aorist and perfect. There is no 1st person imperative in the RV; the forms which are in later texts considered to be 1st person imperatives are part of the subjunctive paradigm in the RV.

All Vedic verb stems fall into one of two classes, thematic and athematic. Both present and aorist stems may belong to either one of these, and are conjugated in the same way in each case. In other words, there is no difference in conjugation between a thematic present and a thematic aorist, or a root (athematic) aorist and a root present.

The endings of the impv. are shown in the following table. Separate thematic endings are only shown when they are different to the corresponding athematic ones.

active

	sing.	dual	pl.
2 athematic	Ø/-dhí/-hi/-tam	-ta / -tana	
2 thematic	Ø/-tāt		
3 athematic	-tu	-tām	-a(n)tu
3 thematic			-antu

middle

	sing.	dual	pl.
2 athematic	-sva	-āthām	-dhvam
2 thematic		-ethām	
3 athematic	-tām	-ātām	-atām
3 thematic		-etām	-antām

Thematic stems are characterised by their lack of ablaut, so that the stem remains the same in all persons and numbers. A characteristic imperative conjugation of a thematic stem would be:

act.

	sing.	dual	pl.
2	<i>bhava</i>	<i>bhavatam</i>	<i>bhavata</i>
3	<i>bhavatu</i>	<i>bhavatām</i>	<i>bhavantu</i>

mid.

	sing.	dual	pl.
2	<i>bhavasva</i>	<i>bhavethām</i>	<i>bhavadhvam</i>
3	<i>bhavatām</i>	<i>bhavetām</i>	<i>bhavantām</i>

Athematic stems, on the other hand, have ablaut throughout, although the rules for its application are not entirely consistent.

The ending *-dhí/-hí*

The conditions which differentiate between the allomorphs *-dhí* and *-hí* are fairly simple, but there are a number of exceptions that need explaining¹⁷. For most of the attested forms the following is a general rule: all stems ending in a consonant take *-dhí*, while *-hí* normally appears after a vowel, e.g. *addhí* (*ad*), but *pāhí* (*pā*). There are, however, a number of cases where *-dhí* occurs after a vowel:

1) Root forms containing an original **-zdh-* or **-ždh-* cluster: *edhi* (*as*), *śādhi*, *śasādhi* (*śās*), *tālhi* (*takṣ*).

2) Disyllabic root aorists from roots ending in *-r*: *kṛdhí* (*kṛ*), *vṛdhí* (*vṛ*), *spṛdhí* (*spṛ*).

3) The form *śisādhi* (*śā*), for which see p. 171.

4) The form *śrudhí* (*śru*), which is explained by Lubotsky (1995¹) as being due to the prevalence of the form in the interior of the *pāda*, and the high proportion of its occurrences in formulae, especially, *śrudhí hávam*. Likewise the form *śṛṇudhí*. As will be shown below, this latter form was coined especially to enable the use of the formula *śrudhí hávam* in certain metrical environments, we may actually entertain the notion that the form *śrudhí* itself is an archaism preserved due to the influence of this same formula, which appears to have had special ritual significance. For more on both of these forms see the chapter ‘Aorist versus present imperative’, especially pp. 82ff.

5) The forms *yódhi* (*yudh*) and *bodhi* (*budh*), which may not have the *-dhí* ending at all, and for which see p. 26.

6) The form *bodhí* (*bhū*), for which see p. 25, and *yuyodhí* (*yu₂*).

Stem-final consonants have regular sandhi before the *-dhí* ending, e.g. *mumugdhí* (*muc*), *śagdhí* (*śak*), etc., while stem-final consonant clusters are simplified so that **-nddhi* > *-ndhi* and **-ṅg-dhi* and **-ṅk-dhi* > **-ṅgdhi* > *-ndhi*. The examples of this development, most of which are derived from *-n*-infix presents, are *aṅdhí* (*añc*), *undhi* (*ud*), *chindhí* (*chid*), *tṛndhi* (*tṛd*), *pṛndhi* (*pṛc*), *bhaṅdhí* (*bhañj*), *bhindhí* (*bhid*) and *vṛndhi* (*vṛj*). The root *añc* is exceptional in also having a form *aṅgdhi*.¹⁸

¹⁷ See also Lubotsky (1995¹).

¹⁸ See also Insler (1972²: fn 9).

The ending is always accented where the accent is preserved: *añdhí* (*añj*), *addhí* (*ad*), *ihí*, *inuhí* (*i*), *kṛṇuhí*, *kṛdhí* (*kṛ*), *jāgrhí* (*gr*), *gṛṇhí* (*gṛ*), *cinuhí* (*ci*), *cikiddhí* (*cit*), *chindhí* (*chid*), *daddhí*, *dehí* (*dā*₁), *dīdhí*, *didhí* (*dī*), *dādyhí* (*dy*), *dhehí* (*dhā*), *dhṛṣṇuhí* (*dhṛṣ*), *pāhí* (*pā*₁ and *pā*₂), *pīpihí* (*pī*), *punhí* (*pū*), *pūrdhí* (*pṛ*₂), *piprīhí* (*prī*), *bhindhí* (*bhid*), *bodhí* (*bhū*), *mamaddhí* (*mad*), *mīmīhí* (*mā*), *mumugdihí* (*muc*), *yandhí* (*yam*), *yāhí* (*yā*), *yuyodhí* (*yu*₂), *rārandhí* (*ran*), *rārandhí* (*randh*), *vāvandhí* (*van*₂), *viddhí* (*vid*), *vīhí*, *vihí* (*vī*), *ūrṇuhí* (*vṛ*₁), *śagdhí* (*śak*), *śuśugdhí* (*śuc*), *śṛṇuhí*, *śṛṇudhí*, *śrudhí* (*śru*), *śiśīhí* (*śā*), *śṛṇhí* (*śṛ*), *stuhí* (*stu*), *jahí* (*han*), with the single exception of the form *yódhi* (see below).¹⁹

The second singular forms ending in *-dhí/-hí* usually have zero-grade of the stem. There are, however, a fairly large number of forms with full grade stems, a full list of which is: *addhí* (*ad*), *edhi* (*as*), *cākandhi* (*kan*), *tāḷhi* (*takṣ*), *pāhí* (*pā*₁ and *pā*₂), *bodhi* (*budh*), *bhāhí* (*bhā*), *bodhí* (*bhū*), *mamaddhí* (*mad*), *mamandhi* (*man*₂), *māhí* (*mā*₁), *yandhí* (*yam*), *yāhí* (*yā*), *yuyodhí* (*yu*₂), *yódhi* (*yudh*), *rārandhí* (*ran*), *randhi*, *rārandhí* (*randh*), *vāvandhi* (*van*₂), *vāhí* (*vā*), *śagdhí* (*śak*), *śādhi*, *śaśādhi* (*śās*), *śiśādhi* (*śā*), *śnathihí* (*śnath*), *sāhí* (*sā*), *stanihi* (*stan*).

The exceptions may be classified in a number of groups:

1) *addhí* and *edhi* are easily explained as analogical reconstructions of root-syllables that would have been lost in zero-grade: **h₁sdhi* would have yielded **sdhi* (a form which is attested in Avestan *zdī*), and **h₁d-dhi* would likely have yielded **dhi*. To this group must also be added *mamaddhí*, *śagdhí* and *tāḷhi*, whose roots cannot form zero-grades.

2) *pāhí*, *vāhí*, *sāhí*, *yāhí*, *bhāhí* and *māhí* show the generalisation of full-grade in root-stems of the type *CeH*. There are no exceptions to this in the second person singular root present and aorist, although there are zero-grade reduplicated-present forms like *rirīhi* from *rā*, *mimīhi* from *mā*, *śiśīhi* from *śā*²⁰ and *jihīṣva* from *hā*₁. This generalisation of the full-grade in this type of root is carried through into the other persons and numbers too, although the retention of the pair *sāhí/sitam* from the root *sā* shows that it is most likely an innovation.

¹⁹ For the possible existence of an archaic form *éhi* see footnote 141.

²⁰ Which also has a full-grade variant *śiśādhi*. For another possible explanation of this form see p.171.

3) *śnathihi* and *stanihi* have *-iṣ-* aorist forms in the rest of their paradigm. The form *aviḍḍhi* may originally have belonged to this group. See page 94.

4) The root *śās* has no ablaut variation in its present stem. See also p. 26.

5) *cākandhi*, *mamandhi*, *yuyodhí*, *rārandhí* (from *ran*) and *vāvandhi* show that reduplicated perfects from *seṭ* and *aniṭ* bi-literal roots of the type *Ceu* and *Cen(H)* always have full-grade in the root in the second person singular impv. There are *no* exceptions to this. Roots of the form *Cer* have zero grade in the same forms: *jāgrhí*, *dādrhí*, *piprhi*. Insler (1972: 554ff.), and later Kümmel (2001: 414) ascribe these forms to an analogy with unattested but very probable 3rd pl. forms such as **rāraṇúr*, Kümmel adding the extra justification (already implied by Insler) that this is the regular ante-vocalic allomorph of a syllabic /n/ followed by a laryngeal, as in the sequence **-rṇH-ur*. If this is the case, then this process must of course have begun with *seṭ* roots and spread to *aniṭ* roots later.

6) *yandhí* and *bodhí* (*bhū*) are genuinely problematic. Insler (1972: 551ff.) explains the former as being patterned after the 3rd pl. ind. aor. form *áyamur*, in the same way as both 2nd pers. sing. impv. *gahí* and 3rd pers. ind. aor. *ágman* have zero grade. However, the problem is not only *yandhí*; there are *no* zero grade aorist forms of this verb at all. Thus, there is only *yantám* and *yánta*, where e.g. *gam* has both zero-grade and full-grade variants. Probably there was more than one influence that brought about this situation. The above rule, under which reduplicated forms of roots of type *Cen(H)* always have full grade in the second person singular imperative was one – there were many forms ending in *-andhí* and almost none ending in *-ahi*. Likewise, *bodhí* could have come under the same influence from forms like *yuyodhí*, and again, there are few root-imperatives ending in *-ūhi*. In the case of the verb *yam*, another influence was probably its sigmatic aorist forms, most notably the form *yámsi*, which also all have full-grade of the root.

As for *bodhí*, since Wackernagel (1896: 1-274) it has been accepted that the form *bodhí* is unoriginal. It is considered to be a redactional replacement for **būdhi*. This theory is often accepted unquestioningly, e.g. by Insler (1972: 559).

Jamison (1997) accepts that the form is unoriginal, but considers that original *bhava* would have been weakened in unemphatic position to **bho*, and then the impv. ending *-dhi* added, finally Grassmann's Law working to replace the initial aspiration. Thus she places *bodhi* in the present system, as an unemphatic variant of *bhava*. Gotō (1987: 218 fn. 454) is cautious, limiting himself to calling this form

“unklar”, but suggesting that the diphthong may have come into being under the influence of such forms as *edhi* from *as*. He calls Wackernagel’s idea “unconvincing”.

Lubotsky (1995²: 224ff.), however, suggests another solution. Following Kortlandt, he reconstructs *bhū* as **b^heH₂u-* rather than **b^heuH-*, thus allowing *bodhi* to be explained as an original, full-grade root aorist impv. **b^heH₂u-dhi*, of the same type as *yandhi*.

7) *yódhi*, *bodhi* (*budh*) and possibly *randhi* may not be conventional root-aorist imperatives at all.

Insler (1972²) explains *yódhi* as an acrostatic (“Narten”) aorist. In the present he quotes the example of the root *sās – sásti – sādhi*, for which the accentuation of the imperative is unfortunately not preserved. Root aorist forms of this type are rarer, although Insler is able to quote the form *jániṣva*.²¹ Insler explains *bodhi* as an analogical formation on the basis of *yódhi*.²²

Mayrhofer (1986²: 111f.) suggests that the form *yódhi* is the result of a resyllabification of **jēudh-dhi* to **jēu-dhdhi*, with consequent simplification of the geminate. He makes no attempt, however, to explain this form’s unique accentuation.

Jasanoff (2002: 292ff.) counters Insler’s argument with two arguments. Firstly, quoting later studies than Insler’s, Jasanoff denies the existence of Narten-style root aorists with **ē : *ǝ* ablaut. Secondly, he states that even if it were to be shown that the root *yudh* did have such an aorist, it could not be shown that it would have an aorist imperative of the type **jēudh-dhi* rather than the more conventional **jūdhdhi*, since the only actual example of a “Narten” present which has a imperative is *stáuti*, whose imperative is *stuhí*.²³ Jasanoff then goes on to suggest that the form *yódhi* and *bodhi* were formed by analogy to the *-si* impv. *jóṣi* citing parallel forms throughout the conjugations of the two verbs. *jóṣi*, he claims, was reanalysed by speakers as *jóṣ-i*, and this *i*-imperative was extended to the parallel roots *yudh* and

²¹ On page 30 I suggest that the form *jániṣva* is the exact middle-voice equivalent of the forms of the type *stanihi*.

²² For more details see also p. 140.

²³ This form is considered secondary by Insler (1972²: 557), who posits original **stódhi*. It is unclear to me why Jasanoff rejects Insler’s example of the verb *sās*.

budh by analogy. A similar process took place in late Hittite, according to Jasanoff, where the *-si* imperative induced the creation of *i* imperatives such as *zāhi* ‘fight’ and *hāni* ‘draw water’.

Bammesberger (1983) reaches the opposite conclusions to those of Jasanoff, claiming that the *i* imperative is inherited from PIE. Bammesberger’s idea seems to me to suffer from a lack of comparative data; there is no *i* imperative in any other IE language which cannot also be shown to have been formed by analogy (as, e.g. the late Hittite forms quoted above).²⁴

It is clear to me that the crux of any discussion of these forms must be the unique accentuation of the form *yódhi*. Nobody, as far as I can see, has ever explicitly called attention to the fact that every other impv. in *-dhí* whose accent is preserved is accented on the ending. The solutions of both Insler (1972) and Jasanoff (2002) would account for the accent, but the problem with the former, as mentioned by Jasanoff, is that there are no other forms of this type to compare it to, and that even the examples that we do have of *-dhí* impvs. which have full-grade in the root are still accented on the ending.

Whatever the historical explanation, we have a pattern created on the basis of the form *jóši*, by which impvs can be formed of the type **CéRC-i*. The hitherto unexplained form *ghóši* is constructed in exactly the same way, as is *cákši*, and the lack of the rest of the parallel forms, indeed the lack of any aorist at all for these verbs, indicates that it is constructed by analogy to *jóši*. Furthermore, there is at least one other form of precisely this type: *randhi*, from the root *randh*. Unfortunately, the accentuation of this form has not been preserved.

Not least among the parallel forms in the conjugations of *yódhi* and *jóši* are the aorist subjunctives *yodhat* and *jóšat*, which alongside the imperative forms exhibit the ubiquitous *-i/-at* pattern seen throughout the examples of the *-si* imperative.²⁵

There is one further attested step in the story of the analogically created *-i* imperative; some of them were at a later date replaced by forms in *-a*. Thus we have *jóši* : *jóša*, *párši* : *parša*, *bodhi* : *bódha*, and *néši* : *neša*. This could have originated when some of the originally aorist subjunctive forms (see p. 34 and p.

²⁴ See also p. 45.

²⁵ Further afield, the intensive form *barb̥hi*, which is plainly analogical, could have been derived from the subjunctive form *barb̥hat*.

140), such as *bódhat*, were reanalysed as thematic presents, and thus would have developed thematic imperatives. Thereafter the other aorist forms of the same type followed suit.

The ending *-dhi/-hi* only occurs with athematic present stems, root aorists, with the exception of the unique form *aviḍḍhi*, which is an *iṣ*-aorist,²⁶ and perfects. However, not all athematic stems take it all the time, the exception being the present stems with the *-nu* and *-nā* suffixes. Thus occur both *kṛṇu* and *kṛṇuhi*, *śṛṇu* and *śṛṇuhi* etc. There is no semantic difference between these forms; the difference is purely metrical and is part of the system described fully in the chapter on the aorist imperative. In the *-nā*- conjugation, two verbs with roots ending in laryngeals, *aś*, and *grh* have 2nd pers. sing. forms – *aśāna*, *grhāṇá*.²⁷ Since, as has been known since de Saussure, *puṇāti* is constructed in the same way as *yunakti*, then the form *puṇīhi*²⁸ is constructed in the same way as *bhaṇdhi* (< **bhangdhi*) i.e. **punHdhi*.²⁹ This is also, of course, exactly analogous to the form *śṛṇuhi*. The forms such as *grhāṇá* are likewise probably analogous to forms such as *śṛṇu*. Gotō (1987: 331) claims that it is “universally accepted” that these forms arose through dissimilation from an original **grhṇānā*, the ending *-na* being formed from the same particle that appears in the 2nd pers. pl. ending *-tana*. Beekes (1999) disputes this, asserting that the form was originally **gr̥bhā* < **gr̥b h̥nH*, to which the above mentioned particle was added. While this explains the forms *aśāna* and *grhāṇá*, it does not explain two other forms, *pr̥ṇā* and *m̥ṇā*.

These are usually explained as secondary thematisations, e.g. by Strunk 1967: 40, LIV 435 fn. 8, and Kellens 1984: 181. Rather, these too are most probably *-dhí*-less variants of the corresponding forms such as *m̥ṇīhi* (**pr̥ṇīhi* is not attested in the

²⁶ See page 94.

²⁷ Other similar forms, such as *badhānā* and *stabhānā*, are found in later Vedic but not in the RV.

²⁸ The attested forms of this type are: *gr̥ṇīhi*, from *gr̥*, “to praise, welcome”, *jānīhi*, from *jñā*, “to know”, *m̥ṇīhi*, from *m̥*, “to crush”, *puṇīhi*, from *pū*, “to purify”, *śṛṇīhi*, from *śṛ*, “to crush”, and *śṛṇīhi*, from *śṛī*, “to prepare”.

²⁹ For the possible conditions under which zero-grade laryngeals produced *ī* in Indic see Jamison (1988).

RV), related in the same way as *śṛṇu* and *śṛṇuhi*.³⁰ As to their construction, we lack both internal and comparative evidence. The most likely explanation is that it is a full-grade form **p̥lneh₁* of the same type as other PIE endingless imperatives from laryngeal-final stems.³¹ If this is true, then Gotō's version of the reconstruction of the forms *aśāna* and *grhāṇá* must be correct – the form **grbhnaH-na* was simplified to *grhāṇá* by dissimilation.

dehí* and *dhehí

These are two more highly problematic forms. Hoffmann (1956: 21) suggests that they are the result of dissimilation of an original **d(h)adzhi*, via intermediate forms **d(h)azdhi* and **dhedhi*. A further dissimilation of the two /dh/ sounds would have achieved the final forms, as noted by Lubotsky (1995¹: 34). This explanation is accepted by Mayrhofer (1986²: 111). According to this theory, it is the presence of the three /d(h)/ sounds in the word that caused a different treatment to similar forms such as *viddhí*.

The situation is complicated by the fact that the verb *dā₁* also has a form *daddhí*. Thus, we need to suppose that 1) either this form was reconstructed on the basis of forms such as *viddhí*, or 2) that *dehí* was coined by analogy to the form *dhehí*. Basically, both scenarios are possible. In either case, we are missing an analogous form **dhaddhi* from the verb *dhā* because Grassmann's Law would have acted on it, causing the creation of an identical form **daddhí*.

The ending -sva

All second person singular middle-voice forms end in *-sva*, ablauting stems are usually zero-grade, and, where the accent is preserved, the ending is accented. A full list of examples is *tr̥ṣva*, *ūr̥ṇuṣva*, *kṛ̥ṇuṣvá*, *kṛ̥ṣvá*, *jih̥t̥ṣva*, *tanuṣva*, *dhatsva*, *dhiṣvá*, *dadhiṣvá*, *dhukṣva*, *mimikṣvá*, *vanuṣva*, *vavṛtsva*, *vṛ̥ṇīṣvá*, *śṛ̥ṇuṣvá* and *yukṣvá*. However, unlike the ending *-dhí*, on those occasions where the stem is full-grade, the stem is accented (where preserved) and not the ending: *ī̇liṣva*, *jániṣva*,

³⁰ Cf. Klingenschmitt (1982: 253), who calls the Avestan form *pəṛəṇā* 'endungslose Form . . . oder von einem thematisierten Stamm . . . '.

³¹ See page 42.

mātsva, māsva, rāsva, sākṣva, sākṣva, trāsva, vāṃsva, vāsiṣva, yākṣva.

The forms *īṣva, jāniṣva* and *vāsiṣva* appear outwardly to belong to a single subclass, however upon further investigation it becomes clear that they are most likely quite different from each other.

The form *jāniṣva* is probably a full grade root aorist, of the same type as *snathihī* and *stanihi*, the rest of whose forms were replaced by *-iṣ-* aorist forms, as happened frequently with root-aorist forms from *seṭ* roots. It is also possible the usual zero-grade second person sing. form **jāsva* would have been replaced by levelling with the rest of the paradigm - *jāniṣta* etc.³² On the other hand, *vāsiṣva* is usually considered³³ to be an *-iṣ-*aorist form. The root *vas* is *aniṣ*, thus precluding any possibility that this is a root-form.

īṣva is more problematic. Narten (1964: 238) considers it to be an innovation constructed on the basis of the root present *īṣte*. Since a form **īṣva* is apparently phonetically impossible in Vedic, this explanation is probably correct. The stem is a reduplicated present < **h₂f-h₂isd-*, with the accent on the reduplicated syllable, as it is throughout the entire paradigm of attested finite forms of this verb. There are very few parallel forms to compare. *mimikṣvā* is one, which has the accent on the suffix, but the closest comparison may be the form *sākṣva*, which could go back to **sé-sḡh-*, and which could thus be originally a perfect form.

The ending *-tu*

The third person singular ending *-tu* is never accented and always attaches to the full-grade stem, e.g. *anaktu, āstu, etu, gantu, gṛṇātu, cinotu, jīgātu, dādātu, dātu, dardartu, dādāhātu, bravītu, vétu, hantu*, etc. The only exceptions to this are the zero grade *bhūtu* and *babhūtu*.

³² See Narten (1964: 118) and p. 93 below, under *avī*.

³³ E.g. by Narten (1964: 238f.).

The second person plural: *-ta* and *-tana*

The 2nd pers. pl. may have both zero and full-grade, e.g. the forms *gata* and *kṛta*, which exist side-by-side with *gánta* and *kárta*. A full list of full-grade second person plural forms, and full-grade/zero-grade second person plural variants is: *íyarta* (r_1), *unátta* (*ud*), *kṛnutá/kṛnóta*, *kṛta/kárta* (*kṛ*), *gata/gánta/gantá* (*gam*), *jīgāta*, *gāta* ($gā_1$), *gāta* ($gā_2$), *datta/dádāta* ($dā_1$), *dhattá/dádhāta*, *dhāta* (*dhā*), *pāta* ($pā_1$), *pātá* ($pā_2$), *punītá/punāta* (*pū*), *yánta* (*yam*), *yātá* (*yā*), *yuyóta* (yu_2), *yunákta* (*yu*), *varita* (*vṛt*), *śṛnutá/śṛnóta*, *śruta/śróta* (*śru*), *sunutá/sunóta*, *sóta* (*su*), *stota* (*stu*), *hinóta*, *heta* (*hi*), *juhuta/juhóta* (*hu*).

While the accent is usually on the stem when it is full-grade and on the ending when the stem is zero grade, there is a noteworthy exception to this in the forms *gánta* and *gantá*. The forms *pātá* and *yātá* exhibit the same accentuation, but they also have the characteristic generalisation of full-grade throughout the paradigm of *CeH* roots.

The following forms have the *-tana* ending: *attana* (*ad*), *anaktana* (*añj*), *aviṣṭána* (*av*), *itana*, *étana* (*i*), *kártana*, *kṛnótana* (*kṛ*), *gántana* (*gam*), *gātana*, *jīgātana* ($gā_1$), *citana* (*ci*), *jujuṣṭana* (*juṣ*), *dadātana* ($dā_1$), *didīṣṭana* (*dīṣ*), *dádāhātana*, *dhattana*, *dhātana*, *dhetana* (*dhā*), *nahyatana* (*nah*), *pinaṣṭana* (*piṣ*), *punītána* (*pū*), *pipartana* (*pṛ*), *pṛṇītana* ($pṛ_1$), *bravītana* (*bru*), *bhajatana* (*bhaj*), *bhūtana* (*bhū*), *mamattána* (*mad*), *yantana* (*yam*), *yātána* (*yā*), *yuyótana* (yu_2), *rániṣṭana* (*ran*), *vavṛttana* (*vṛt*), *śāstána* ($śā_s$), *śnathiṣṭana* (*śnath*), *śrīnītana* (*śrī*), *śṛnótana* (*śru*), *sadatana* (*sad*), *sunótana*, *sotana* (*su*), *hantana* (*han*), *hinotana* (*hi*), *juhótana* (*hu*).

The *-tana* ending is generally attached to the full-grade stem, the exceptions being *itana*, *citana*, *jujuṣṭana*, *didīṣṭana*, *dhattana*, *punītána*, *pṛṇītana*, *vavṛttana* and *śrīnītana*. As can be seen all of these belong to one of three types: 1) those with the *-nā/-nī-* suffix, 2) reduplicated perfects of roots ending in a consonant, and 3) forms which have three syllables. Thus, in four-syllable forms, even in cases where the ending is attached to the zero-grade stem, the syllable preceding the ending is long. The reason for this, as noted by Renou (1952: 264) and Lubotsky (2004) is metrical. If the ending were attached to a zero-grade stem like *kṛṇu-*, the resulting **kṛṇutana* would have four consecutive short syllables and would be metrically awkward. Obviously the forms which have only three syllables are immune to this problem.

A special case is the three occasions in the entire RV where the *-tana* ending occurs with a thematic stem: the form *bhajatana* in 7.56.21c *á na spārhé bhajatanā vasavyè* ‘give us a share in the desirable riches’, *nahyatana* in 10.53.7a *akṣānáho nahyatanotá somyāḥ* ‘Bind fast the ties (straps) to the wagon shaft, O Soma-worshippers’³⁴ and *sadatana*, the aor. impv. of *sad*, at 2.36.3ab *améva naḥ suhavā á hí gántana, ní barhísi sadatanā ráñiṣṭana*, ‘Come to us like you come home, sit down on the altar-grass and rejoice’. The last of these is formed to match the two *-tana* forms *gántana* and *ráñiṣṭana*. In the second example the poet’s intention seems to be to use the form *nahyatana* to gain another *-na-* syllable to enhance this line’s consonance: *akṣānáho nahyatanotá somyāḥ*. In all cases the last syllable of the suffix is lengthened, thus solving the metrical problem.

There is no difference in meaning between the two endings; they are used where metrically convenient, and may allow the use of the same phrase in metres of different lengths, as in 10.78.8c *ádhi stotrásya sakhyásya gāta* and 5.55.9c *ádhi stotrásya sakhyásya gātana*, where the former appears in the cadence of a triṣṭubh pāda and the latter in that of a jagatī pāda. See also p. 72f.

The second person dual

Athematic dual active forms usually have zero grade and an accented ending, as e.g. *kṛtám*, but again, the verb *gam* has both *gatám* and *gantám*, while the verb *yam*, again, has only *yantám*.

A full list of full-grade dual forms, and stems which have both full and zero-grade forms in the dual are: *gantám* (*gam*), *dhātam* (*dhā*), *pātám* (*pā*₁ and *pā*₂), *yantám* (*yam*), *yātám* (*yā*), *yuyutám/yuyotam* (*yu*₂), *volhám* (*vah*), *vartam* (*vṛ*₁), *hinotam* (*hi*).

In those cases where the stem shows full-grade, the accent is still on the ending.

The third person plural ending *-a(n)tu*

While this ending would originally have undergone ablaut, there is in fact only one example of the zero-grade form *-atu* in the entire Rigveda: the form *dadhatu* (*dhā*), which occurs at 7.51.1d.

³⁴ Trans. Klein (1985: 2-39). According to Klein, this is the only place in the RV with the sequence V₁ *utá* V₂ P *utá* V₃ (where P=preverb).

Of the attested forms which preserve accentuation, almost all have the accent on the ending and a zero-grade stem: *sántu* (*as*), *yántu* (*i*), *kṛṇvántu* (*kṛ*), *ciyántu* (*ci*), *punántu* (*pū*) , *vanvántu* (*van*₁) , *vyántu* (*vī*), *śṛṇvántu* (*śru*).

The only exceptions to this are the root-present form *sasántu* (*sas*), whose root cannot form a zero grade but whose accentuation is regular, and *gámantu* (*gam*), in place of the expected **gmántu*, which appears to be built on the aorist subjunctive stem, as in *gámat*.

Other endings

The rest of the athematic imperative endings are poorly attested. The 3rd pers. dual act. ending *-tām* occurs with accentuation only in the forms *dhattām* (*dhā*), *pātām* (*pā*₁), *pipṛtām* (*pṛ*) and *sastām* (*sas*), while the 3rd sing. med. form occurs only in *kṛṇutām* (*kṛ*). As can be seen, the ending is always accented, while the stem behaves in a similar way as it does in the case of the *-tam* ending.

The 3rd du. med. athematic ending *-ātām* is only attested once in the entire Rigveda, in the form *jihātām* (*hā*₁), while the 2nd dual med. ending *-āthām* occurs in the forms *īrāthām* (*r*₁), *mīmāthām* (*mā*₁), *yuñjāthām* (*yuj*), *rārāthām* and *rāsāthām* (*rā*). This last form is one of the very few athematic sigmatic aorist imperatives in the RV. In the case of this ending, the accent is attested once on the ending and once on the stem.

The athematic 3rd pl. med. ending never occurs in a form whose accent is preserved, appearing only in the forms *indhatām* (*idh*), *īratām* (*r*₁), *jānatām* (*jñā*), *dadhatām* (*dhā*) and *jihatām* (*hā*₁).

The 2nd pl. ending *-dhvam*, while not uncommon, does not occur often in forms which preserve their accent. The attested examples are: *kṛṇudhvám* (*kṛ*), *yuñgdhvám* (*yuj*), *vṛṇīdhvám* (*vṛ*₂), which are accented on the ending, and the sigmatic aorist form *trādhvam*, which is accented on the stem. This ending exhibits similar behaviour to *-dhi* in contact with stems ending in consonants, as shown by forms such as *indhvam* (*idh*) < **indh-dhvam*, and *vavṛdhvam* (*vṛt*) < **vavrd-dhvam*, however the form *yuñgdhvám* preserves the /g/, which is most often lost before *-dhi*.³⁵

³⁵ See p. 23.

Thematicisation of athematic stems

A small number of mostly perfect athematic stems have secondary thematic forms, seemingly derived from the subjunctive stem. Examples are: *dādayatam* (*dī*), *pīpaya*, *pīpayata* (*pī*), *pipráyasva* (*prī*), *māmahasva* (*maṅh*), *mumócatam*, *mumócata* (*muc*), *vāvṛdhásva*³⁶ (*vṛdh*) and *vāvṛsasva* (*vṛs*).

From the present stem we have *dadhantu* (*dhā*), and from the aorist we have the forms *bódha*, etc. from the root *budh*, for which see p. 26 and 140, *gámantu* (*gam*), *yakṣatām* (*yaj*), and *rāsatām* (*rā*).

The imperative of the desiderative

There are a very small number of desiderative impvs. in the RV. The most common is the stem *síkṣa*, which, although formally a desiderative of *sak* has to all intents and purposes become a separate root in its own right. Other attested forms are *cikitsa*, from *cit*, *vivāsa* and *vivāsata*, from *van₁* ‘to win’³⁷ and *didhiṣantu* from *dhā* ‘put’.³⁸

The desiderative *cikitsa* appears at 6.47.20cd *bṛhaspate prá cikitsā gáviṣṭāv*, *itthā saté jaritrá indra pánthām* ‘Bṛhaspati, strive to perceive the path for the singer who is so involved in searching for cows, O Indra’ and the same formula appears later at 1.92.23d *-ubháyebyaḥ prá cikitsā gáviṣṭau* ‘for both sides (?) strive to perceive (the path?) in the search for cows’ in a context where it seems to make far less sense. *vivāsa-* appears five times in the impv.; in the sing. only in the formula *vivāsa námasā*, ‘seek to win (him) with homage’, at 5.83.1b, 8.96.12b, and 10.63.5c. In the pl. it appears at 6.15.6c and 8.15.1c. The form *vivāsati* may, as suggested by LIV, indeed be due to an analogy with the form *síṣāsati*, the desid. of *sanⁱ*. However, it is also possible that there was a laryngeal in the desid. *-s-* suffix, as proposed e.g. by Rasmussen (1997: 254), and thus the proto-form is **uⁱ-u^ṅ-Hse-* as

³⁶ This form may have been created to disambiguate the regular form **vāvṛtsva*, which could have been misinterpreted as belonging to the root *vṛt*. See also p. 170.

³⁷ For the distinction between the roots *van₁* ‘win’ and *van₂* (*vanⁱ*) ‘love’, see p. 162.

³⁸ See page 125.

shown also by such forms as *cikīrṣati* from *kṛ* (**kui-kur-Hse-*), *yúyūṣa-* (**ju-ju-Hse-*) from *yu* ‘bind’ and *cikīṣa-* (**kui-kui-Hse-*) from *ci* ‘consider’.

The stative (‘t-less’) middle-voice

The form *duhām*, from the root *duh* ‘to (give) milk’ is the only imperative form attested in the RV³⁹ derived from the IE stative (t-less) middle conjugation,⁴⁰ corresponding to the third pers. sing. and pl. present med. forms *duhé* and *duhré*. A unique imperfect form *áduha* is attested in the MS. The form *duhām* is attested twice at 4.57.7c *sá naḥ páyasvatī duhām* ‘Let the milk-laden one give us milk’ and 1.164.27c *duhām aśvibhyām páyo aghnyéyām* ‘may this milch-cow give milk for the Aśvins.’

The -tāt imperative

The -tāt imperative is quite rare in the Rigveda, there being only 21 separate attested forms⁴¹, two of which occur more than once in repeated pādas.

Semantically, it is something of a wildcard. It is always 2nd person, except in the late funeral hymn 10.154, in which the form *gachatāt* appears several times, all of which are apparently 3rd person.⁴² It is in all cases singular, except for 10.24.5cd, *nāsatyāv abruvan devāḥ, púnar ā vahatād íti*, ‘The gods said to the Nāsatyas, “Bring them back here”’, where it is dual, addressed to the Aśvins. 5.60.6cd, although directly addressed to Agni, could also be addressed to the Maruts, which would

³⁹ The form *sáyām* is attested in the AV, and *padām* in the AVP.

⁴⁰ These forms were first identified by Wackernagel (1907: 310ff). See Narten (1969), Oettinger (1976). The latter disagrees with Wackernagel’s basic premise, that the mid. impf. (or inj.) stative form ended in *o, claiming that such forms as *áduha* are actually later innovations. This is based entirely on its appearing only in post-Rigvedic texts, no explanation having been given on how such an irregular form came to be introduced.

⁴¹ The attested forms are: *avatāt* (8.3.2c), *oṣatāt* (4.4.4b), *kṛṇutāt* (2.30.5d), *carkṛtāt* (1.104.5c), *gachatāt* (10.154.1-4d, 10.154.5d), *dattāt* (10.16.2b), *dahatāt* (3.18.1d), *dhattāt* (3.8.1c), *punitāt* (10.30.5d), *bhavatāt* (3.23.2d), *yachatāt* (1.48.15c), *yācatāt* (9.86.41d), *raḁṣatāt* (4.50.2d), *vahatāt* (10.24.5d), *vocatāt* (5.61.18a), *vittāt* (5.60.6d), *vītāt* (10.11.8d), *vṛhatāt* (1.174.5c, 4.16.12d, in identical pādas), *hinutāt* (10.16.1d).

⁴² Oldenberg (1909: *ad loc.*) believes it to be 2nd pers. but also raises the possibility that it is 3rd pers.

make it plural: *áto no rudrā utá vā nv àsya / ágne vittād dhaviṣo yád yájāma* ‘From there, O Rudrās or Agni, take note now of this oblation of ours, which we will sacrifice.’⁴³

The *-tāt* ending is generally attached to the present stem, however it occurs once with an aorist – *vocatāt* – and once with a perfect stem – *vittāt*. Both of these roots have very scant attestation of their present stems, and these are the principle, or indeed only, imperative stems, and thus exactly equivalent to the present stems of the other roots.

The *-tāt* forms are considered by most scholars to be a ‘future imperative’, although this tendency is most pronounced in the Brāhmaṇas. Thus Macdonell (1916: 348) says: ‘The form in **-tād** has a tendency in V. to express the more remote future, and in B. does so distinctly’ while Whitney (1924: 214) claims that ‘this form appears to have prevailing in the Brāhmaṇas, and traceably but much less distinctly in the Vedic texts, a specific tense-value added to its mode-value – as signifying, namely, an injunction to be carried out at a later time than the present...’ Renou (1952: 368), on the other hand, is less positive, saying only that ‘L’impératif en *-tāt* n’a pas de valeur distinctive: toutefois, en tel ou tel passage ..., il dépend d’une condition qui doit d’abord se réaliser.’

It is true that there is a tendency for the *-tāt* impv. to appear in the apodosis of conditional or temporal clauses; eight of the attested examples appear thus, e.g.: 10.30.5d *yád āsiñcā óṣadhībhiḥ punītāt* ‘when you pour them in, purify with grass’, or 10.16.1cd-10.16.2ab *yadā śṛtām kṛṇavo jātavedó, áthem enam prá hiṇutāt pitṛbhyaḥ / śṛtām yadā kárasī jātavedó, áthem enam pári dattāt pitṛbhyaḥ* ‘when you make him ready (i.e. cooked), O Jātavedas, send him to the fathers. When you have made him ready, entrust him to the fathers.’ The ‘futurity’ of this latter example is assured by the next clause 10.16.2cd *yadā gáchāty ásunītim etām, áthā devānām vaśanī⁴⁴ bhavāti* ‘when he goes on that path of life, then he will be led by the will of the gods’, which appears to be the same structure but in the third person.

That said, it is hardly difficult to find similar clauses with regular imperatives: 10.38.2d *yáthā vayám uśmāsi tād vaso kṛdhi*, ‘as we wish, that you (will) do’, or 4.16.17cd *ghorā yád aya sámṛtir bhávāty, ádha smā nas tanvò bodhi gopāḥ* ‘when

⁴³ Translation based on Klein (1985: 1-283).

⁴⁴ For the meaning of *vaśanī*– see Scarlata (1999: 290).

the fearsome collision shall come, O protector of the stranger, then become the protector of our bodies'.⁴⁵

The rest of the examples of the *-tāt* imperative appear to show no special semantic features to differentiate them from other imperative forms: e.g. 3.23.2cd *ágne ví paśya br̥hatābhí rāyá, iṣám no netá bhavatād ánu dyún* 'O Agni, look here with great wealth, be our leader to refreshment daily', or the previously quoted example at 10.24.5d.

The modal aorist injunctive

As noted elsewhere, sigmatic and reduplicated aorists do not form a second person singular aorist imperative, and instead employ the second person singular of the aorist injunctive in the same function.

More problematic are four root aorists from roots ending in *-ā*: *dhā*, *dā₁*, *gā* and *sthā*, which have no attested 2nd pers. impv. forms, despite the fact that other verbs of a similar root structure do, e.g. *pāhi* (both aor. impv. of *pā₂* 'drink' and pres. impv. of *pā₁* 'protect'), *yāhi* (*yā*), *sāhi* (*sā*), *vāhi* (*vā*), *māhi* (*mā₁* 'measure'). These four roots appear to have nothing in common phonologically which would act as a constraint to forming a 2nd pers. impv. form, and differentiate them from those that do. While it is possible to claim that in the case of *dhā*, Grassmann's Law would have reduced a form **dhāhi*⁴⁶ to **dāhi*, thus creating confusion with an equally unattested form from the verb *dā₁*, this doesn't explain the absence of an imperative from *sthā*, although Grassmann's Law might in this case have created a form such as **stāhi*. It certainly does not explain the absence of **gāhi*.

It is not always simple to decide whether any individual occurrence of the injunctive is modal. Hoffmann (1967: 255-264) cites many examples which he considers ambiguous. Most examples could, if taken individually, be interpreted either as being modal or as belonging to Hoffmann's "general" category (*loc. cit.*: 135-145) e.g. 6.26.1cd *sám yád víśó 'yanta śúrasātā, ugrám nó 'vaḥ párye áhan dāḥ* 'When the tribes meet each other in battle, you give us mighty help on the crucial day', or 'give us mighty help on the crucial day'.

⁴⁵ Translation Klein (1985: 2-105).

⁴⁶ Most certainly not ***dhihi*, ***dihi* as suggested, e.g. by Jamison (1997).

Ideally, it should be possible to find some kind of formal sign as to whether a form is modal or not. Often there is none. However, there are three particles which do seem to be associated with modality and which occur often with the aorist injunctives in examples of this kind; *sá* (of the type known as *sá-figé*), *sú*, and *tú*. While the status of the former is somewhat controversial, it is apparent that it occurs practically exclusively with imperatives and imperative-like forms⁴⁷. Likewise *sú* is confined virtually always to modal formations, while *tú* mostly is.⁴⁸

As they are so common with unambiguous imperatives, I think it is justifiable to consider these as markers of modal injunctives.

Thus of 39 occurrences of the form *dāḥ*, 17⁴⁹ could be considered to be positive modals, the rest being either negative modal⁵⁰ (which of course are always unambiguous) or else belong to Hoffmann's historical or mythological class of injunctives.⁵¹ Of these 17, five are verb initial, and are not marked by either *sú* or *tú* (as *sá-figé* always occurs at the beginning of a *pāda* it cannot occur here). Of the remaining 12, one occurs with *tú*: 1.169.4a *tvám tú na indra tám rayim dāḥ* 'You give us that property, O Indra', one with *sú*: 6.33.1a *yá ójiṣṭha indra tám sú no dāḥ* 'That (exhilaration) which is mightiest, O Indra, give that to us', and two have *sá-figé*: 5.33.6cd *sá na énīm vasavāno rayim dāḥ* 'Give us colourful property' and 9.97.25cd *sá naḥ saḥsrā bṛhatīr iṣo dā, bhāvā soma draviṇovít punāndḥ* 'Give us

⁴⁷ Jamison (1992) finds that of 180 occurrences of *sá-figé*, approx. 160 are associated with imperatives and other modals. A further ten examples occur as correlatives for *yá*-relatives, and there is a further residue of approx. 10 cases which can be explained by "solutions of varying degrees of ad hoc-ness". See also Klein (1996: 22).

⁴⁸ Klein (1982: 12) counts 223 examples of *sú*, of which 130 occur with imperatives, 19 with subjunctives, 11 with optatives and 20 with injunctives, all of which he considers to be modal. *tú* occurs in 46 different sentences, of which 28 are in imperative clauses with expressed verb. Klein details secondary meanings of both of these particles, but the most characteristic occurrences are undoubtedly with imperatives and other modals.

⁴⁹ Verb initial: 2.2.7a, 3.24.5a, 7.1.5a, 10.85.38d, 10.148.4b, Verb not initial: 1.169.4a, 2.4.8d, 5.24.2b, 5.33.6c, 6.13.6b, 6.19.6d, 6.26.1d, 6.33.1a, 7.100.2b, 9.97.25c, 10.30.4c, 10.47.1d.

⁵⁰ 1.104.5d, 1.104.8a, 1.189.5d, 7.1.19a, 7.46.4a, 8.2.15b, 8.48.8d, 8.71.7a, 10.59.4a, 10.128.8d.

⁵¹ 1.121.4a, 6.20.7d. 6.351b is possibly a subjunctive.

thousand-fold, great refreshment, be the property-finder as you are purified, O Soma.’

In addition to this, several of the examples appear together with unambiguous imperative forms, like 9.97.25 above. While this is not necessarily a guarantee that the forms are in fact modal, it is at least a strong indication that they are, e.g. 6.19.6 *śáviṣṭham na á bhara sūra śáva, ójiṣṭham ójo abhibhūta ugrám / víśvā dyumnā vṣṣnyā mānuṣānām, asmábhyaṃ dā harivo mādayādhyai* ‘Bring us the mightiest might, the strongest strong strength, O Exceller. Give us all the mighty strength of men, O Bay-rider, so we may rejoice.’, 5.24.1-2 *agne tvám no ántama utá trātá, śívó bhavā varūthyàḥ / vásur agnír vásusravā áchā nakṣi, dyumáttamaṃ rayiṃ dāḥ* ‘Agni you are the closest to us and our protector. Become our wholesome shelter-giver.⁵² Come here, (being) good Agni, with good fame. Give us brilliant wealth’, and 3.24.5 *agne dá dāsúṣe rayiṃ, vīrávantam páriṇasam / śíśīhí naḥ sūnumátaḥ* ‘Agni, give the devout wealth, an abundance of heroes. Sharpen us for sons.’

Again, it would not be impossible to interpret some of these as belonging to Hoffmann’s ‘general’ category, e.g. 3.24.5, ‘Agni, you give the devout wealth’.

The verb with the greatest number of instances of the modal injunctive is *dhā*. The form *dhāḥ* occurs 45 times, of which 40 are probably modal.⁵³ Of the other five, four are “historical”,⁵⁴ while one appears to be a subjunctive.⁵⁵

⁵² For an alternative translation see Klein (1985: 1-315).

⁵³ Verb initial: 6.19.10d. Verb not initial: 1.26.10c, 1.48.12c, 1.54.11a, 1.54.11d, 1.61.16c, 1.72.7b, 1.171.5c, 2.4.9d, 3.8.3d, 3.17.5d, 3.29.8d, 3.31.19d, 3.36.1a, 3.36.10.c, 3.51.6d, 3.56.6d, 4.6.11.b, 4.17.18b, 4.32.12c, 5.7.9.d, 5.36.5d, 5.83.7a, 6.4.4c, 6.10.6a, 6.13.5b, 6.40.1d, 6.47.9a, 6.47.30a, 7.20.10a, 7.24.5d, 7.77.6c, 7.79.5c, 9.8.8c, 9.90.6c, 10.46.10c, 10.69.3d.

⁵⁴ Verb initial: 3.30.3c, Verb not initial: 1.63.1b, 5.32.5d, 8.96.16d.

⁵⁵ Both *dhāḥ* and *dāḥ* occasionally seem to be subjunctive forms, e.g.: 3.28.5 *agne tṛtīye sávane hí kániṣaḥ, puroḷáśaṃ sahasaḥ sūnav áhutam / áthā devéṣv adhvarám vipanyáyā, dhá rátnavantam amṛteṣu jágrvim* ‘Agni, you will enjoy the offered rice cake at the third pressing, O son of might. Then you will place the sacrifice among the gods, among the immortals, with approval, full of gifts, awake. 4.6.11ab *ákāri bráhma samidhāna túbhyaṃ, sámśāty ukthám yájate vy ù dhāḥ* ‘The prayer has been made for you, O inflamed one. He will recite the incantation, and you will distribute to the sacrificer. One example of *dāḥ* which could possibly be subjunctive is: 6.35.1ab *kadā bhuvan ráthakṣayāni bráhma, kadā stotrē sahasrapoṣyām dāḥ* ‘when will the priests take their seats in the chariot, when will you give the praiser thousandfold nourishment’, however see Hoffmann (1967: 246). The translation of *bráhma* in this example follows Geldner, *ad loc.*

Interestingly, the negative modal syntagma **mā dhāḥ* never occurs.

Of the modal examples, nine appear with *sá-figé*,⁵⁶ and a further one example with *sú*,⁵⁷ and many appear together with unambiguous imperatives, e.g. the following example, which exemplifies two of the three: 10.69.3cd *sá revác choca sá gíro juṣasva, sá vājam darṣi sá ihá śrávo dhāḥ* ‘Burn richly, enjoy the songs, break out the booty, bring glory here’.

In the case of *sthā*, the root-aorist second person singular injunctive is only attested twice, one of which is modal:⁵⁸ 6.24.9bc *préśó yandhi sutapāvan vājān / sthá ū śú ūrdhvá ūtí ariṣanyann* ‘Extend to us refreshment, booty, O Somadrinker, and stand upright with aid, unfailing.’

Here we have not only the particle *sú*⁵⁹ to mark the modality, but also the presence of a second aorist imperative.

The last of the imperative-less ‘-ā’ aorists, *gāḥ*, is attested eight times in the RV, four of which are modal.⁶⁰ Of the other four, three are negative modals,⁶¹ and one is ‘mythical’.⁶² Of the modal examples, one has *sá-figé*: 7.62.2a *sá sūrya práti puró na úd gāḥ*- ‘O Sūrya, rise again in front of us’.⁶³

The other group of injunctives which are commonly employed modally are those of verbs which cannot, for morphological reasons, form a 2nd pers. sing. aor. impv. These are primarily *-iṣ-* aorist forms, of which Hoffmann (1967: 264) quotes examples for the forms *avīḥ*, *tārīḥ* (3x), *yodhīḥ* and *sāvīḥ* (3x). Of these 6.25.1c

⁵⁶ 1.48.12c, 1.54.11a, 1.171.5c, 4.6.11b, 6.4.4c, 7.20.10a, 7.77.6c, 10.46.10c, 10.69.3d.

⁵⁷ 3.36.1a.

⁵⁸ The other example is at: 4.30.12c.

⁵⁹ The particle *u* here is a sentence connector. For the combination *ū śú* see Klein (1982: 16ff.).

⁶⁰ 1.67.6b, 4.16.9a, 7.62.2a, 10.56.3b.

⁶¹ 3.53.2a, 4.3.13a, 10.108.9c.

⁶² 10.1.2d.

⁶³ This despite Geldner’s translation: ‘Du, Sūrya, gehst vor uns wieder auf’. I believe, on the basis of the evidence here and below, that the presence of *sá-figé* is enough to classify the example as modal.

tābhīr ū śú vṛtrahātye 'vīr na 'with that help us in the slaying of obstacles' and 10.120.3d *adāḥ śú mādhu mādhunābhī yodhīḥ* 'fight for that sweet thing with sweetness' have the particle *śú*. Aside from this, the usual mixture of injunctives and imperatives in many of the other examples at least gives a strong indication that they are modal too.

The reduplicated aorist injunctive may also be used modally. There are no examples of a second person singular reduplicated aorist imperative, unless Kümmel (2000: 298ff.) is correct in classifying *pīpīhī* as such.⁶⁴ An example of such usage is the form *tatanah*, from the root *stan/tan* 'to sound'. For the sole example of this form see p.148.

The thematic aorist injunctive is used modally, despite the apparent ability of this type of aorist to form imperatives. Thus we have both *sadaḥ* (6x) / *sada* (5x), *vocaḥ* (9x) / *voca* (1x), and *vidaḥ* (4x) / *vida* (1x). As can be seen, the injunctive is more common than the imperative, and furthermore there is a tendency for the imperative forms to appear in later parts of the RV, suggesting that for some reason the formation of imperatives from this class of aorists was inhibited in the earlier language.

At the other end of the scale are some verbs which have commonly attested root-aorist imperatives. The verb *śru*, for instance, has no attested aorist injunctive forms at all. *gam* has only one attestation of the form *gan* (7.50.1b), which is a negative modal.

A case in point is the verb *kr*, which has the very widely attested aor. impv. *kr̥dhi*, the most commonly attested of all of the aorist imperatives with 100 attestations. The aorist injunctive form *kaḥ* is attested 28 times, of which only two examples are modal. It never occurs with *śú* or with *sá*-figé. Conversely, the imperative form *kr̥dhi* occurs with these two modality-markers numerous times. As Hoffmann correctly points out, one of the occurrences of modal *kaḥ* is a metrical variation of an otherwise almost identical line which contains the form *kr̥dhi*:

triṣṭubh 6.44.18b *asmábhyam máhi várivaḥ sugám kaḥ*

jagatī 1.102.4c *asmábhyam indra várivaḥ sugám kr̥dhi*

⁶⁴ See p. 134.

The other modal example is 1.164.49d *sárasvati tám ihá dhátave kaḥ*, ‘Sarasvatī, bring it here (for us) to suck.’ This is undoubtedly modal and is very similar to other expressions of more or less the same meaning such as *kṛdhi arvāñc-* etc.

Of the other examples of the form *kaḥ*, probably 15 are in fact third person, seven are negative modals and the remainder are either ‘mythical’ injunctives or are ambiguous and unclear.

The form *bhūḥ*, which Hoffmann says has no certain modal examples, does nevertheless occur once with *sá-figé* (6.15.3a), thus making at least one example which I would consider modal, besides the impv. form *bodhí*.

The conclusion must be, as previously shown by Hoffmann, that on the whole there is a complementary distribution between the aor. inj. and aor. impv. in cases where the imperative, for whatever reason, is missing.

The forms *dhāḥ*, *dāḥ*, *sthāḥ*, and *gāḥ*, could have their origins in full-grade, endingless, 2nd pers. sing. imperatives, **dhā*, **dā*, **sthā*, and **gā*⁶⁵. W. Schulze (1892)⁶⁶ identified other endingless full-grade imperatives in Greek dialects, such as $\pi\omega$ and $\iota\sigma\tau\eta$, and Latin *ce-do*, which he compares to Lithuanian *duo-k*. Two out of these three examples are exactly paralleled by two of our four Vedic injunctive forms; *sthāḥ* and *dāḥ*. It is likewise noteworthy that the verbs corresponding to *dhā* and *dā* in Greek lack the $-\theta\iota$ imperative, instead exhibiting the unusual forms $\theta\acute{\epsilon}\zeta$ and $\delta\acute{\omicron}\zeta$. On the other hand, both have genuine third person imperatives, $\theta\acute{\epsilon}\tau\omega$ and $\delta\acute{\omicron}\tau\omega$, corresponding to the attested Vedic forms *dātu* and *dhātu*. The Vedic evidence would seem to indicate 2nd pers. **dhā*, 3rd pers. *dhātu*, etc. While the two paradigms are not directly comparable they do at least indicate that the second person imperative did not end in *-dhi*, while the third person form had the same normal ending as all other verbs.

In favour of this hypothesis is the fact that there really is no reasonable explanation for the lack of these imperative forms. Besides, irregularities of this

⁶⁵ See also Insler (1972: 559). Such forms are also discussed by Dunkel (1985), on which see further discussion on page 95.

⁶⁶ Quoted in Dunkel (1985).

kind are usually best explained as archaisms rather than innovations.⁶⁷ Furthermore, all four of them are very common forms, which are more likely to preserve archaic morphology than less common ones.

The corresponding negative modal injunctives must have also played a role in this process, since the negative counterpart of the imperative **dā* was *mā dās*. Thus confusion was probably inevitable and the highly irregular endingless imperative a prime candidate for reanalysis. The imperative use of the injunctive *could* have originated in this way,⁶⁸ but this doesn't seem to be a necessary step in our argument, as the fact that the injunctive is used in negative modals, and the fact that the second person plural imperative and injunctive are always identical, means that it would only take the most simple of analogies to move the second person singular injunctive into the imperative paradigm. Once the practice of using the injunctive as an imperative had taken hold, it spread to those verbs which do have a separate imperative form, and thus we see examples of forms such as *bhūḥ* and *kaḥ* occasionally used in this way.

The *-si* imperative

There is a group of verb forms, fairly common in the Rigveda, which are formed from the full-grade, accented root and the ending *-si*. They function as imperatives, and on the basis of various evidence, can be shown to be aorists. Quite common in Vedic, there is also one example in Avestan, *dōišī*, at Y.33.13a, from the verb *dis* (Ved. *dis*), 'to show'.⁶⁹

Cardona (1965) provides a quite comprehensive survey of the existing forms. After drawing up a list of forms which he considers belong to this category, he splits them into three groups. Group 1 consists of the roots *mad*, *yaj*, *dah*, *sah*, *ji* and *nī*, which have thematic presents and sigmatic aorists, e.g. *yaja-tyakṣ-*. Group 2 consists of three further roots – *pr*, *p̄*, and *rā*, which have other types of presents and

⁶⁷ Dunkel (1985: 66) explicitly says that these forms belong to an *earlier* morphological layer than the zero grade forms.

⁶⁸ Insler (1972²: 559) suggests that the aorist injunctive form *yodhīs*, used modally at 10.120.3cd is in fact formed on the basis of the anomalous imperative form *yódhi*.

⁶⁹ Kellens (1995: 30), under *dis*.

sigmatic aorists, e.g. *pr̥ṇāti/prās-*. His third group consists of *dr̥, yam, mā, kṣi,*⁷⁰ *vī, juṣ, sad, śru, yudh, hu, cakṣ, naś* and *rad*, which do not have sigmatic aorists. Despite the relatively large number of roots in the third group, the forms in the first and second groups account for 112 occurrences of the *-si* imperative, or over two thirds of the total number of attested instances. Thus, he justifies the classification of the *-si* imperative as part of the sigmatic aorist system.

Next, Cardona goes on to show that very often, third person commands or requests are made by means of the subjunctive. In particular, this is true in the case of the sigmatic aorist system, because of the lack of a third person aorist imperative form for these stems, and the forms of the type *yakṣi* supply second person singular aorist imperatives corresponding to the third person singular aorist subjunctives of the type *yakṣat* – a result of the levelling of the contrast between the subjunctive and the imperative which took place within the sigmatic system (1965: 10). This correlation, or, as Cardona sees it, the usage of an originally imperative form in a subjunctive function (1965: 9), is furthermore assured by the usage of *-si* forms in relative clauses, for which see p. 59 below.

Szemerényi (1966) takes the opposite view. While he accepts Cardona's basic premise that the *-si* imperative belongs to the sigmatic aorist, he suggests that these forms are originally subjunctives which have come to be used as imperatives, again primarily basing his argument on the fact that these forms may appear in subordinate clauses. More precisely, he claims that the *-si* forms are in fact the result of a haplology of the original *-sasi* subjunctive ending – this latter only being attested in one case – *darṣasi*. Thus, while the 3rd sing. may either end in *-sat* or *-sati*, the 2nd sing. regularly ends either in *-sas* or *-si*. In this, as he himself notes, he is accepting an idea which was specifically rejected by Cardona (1965: 9).

Watkins (1968: 140ff.) sees the *-si* imperative forms as inherited from Indo-European, and compares them to the Greek sigmatic aorist imperatives in $-\sigma\omicron\nu$, as in, e.g. Homeric $\lambda\acute{\epsilon}\xi\omicron\nu$, $\delta\epsilon\iota\acute{\xi}\omicron\nu$, etc., noting that the Greek sigmatic aorist, like its Vedic counterpart, cannot take the 2nd sing. aor. impv. ending *-dhi/-θι*.

Watkins analyses the forms as full-grade root + *s* + *i*, where *i* is the deictic particle, presumably the same one as seen in the primary indicative endings *-mi*, *-si*

⁷⁰ See footnote 98, below.

and *-ti*. He considers these forms to be morphologically identical to the 3rd sing. medio-passive, both of which he describes, following Kuryłowicz, as ‘zero-person’.

Bammesberger (1983) rejects Watkins analysis, on the grounds that the particle *-i* is found only in primary endings and is thus excluded both from the sigmatic aorist and from the imperative. However, he accepts the idea of the haplology of the subjunctive, but only in the cases where the *-si* forms occur in relative clauses. For the rest of the forms, Bammesberger suggests that there was an imperative morpheme *-i*, which was added to the full-grade stem to produce such forms as *yódhi*, *bodhi* and *jósi*. This *-i* was then transferred to the sigmatic aorist by analogy.⁷¹

Further afield, Jasanoff (1986 and 1987) has claimed to have found similar forms in Old Irish, Tocharian, and possibly Hittite, Old Prussian and Messapic. See under *śroṣi*, *joṣi* and *nakṣi*, and page 62.

There are several difficulties with these forms, not the least of which is identifying them, as there are several other forms which can end in *-si*, such as the 2nd sing. of root presents, the 1st sing. s-aor. med., and the 3rd sing. aor. medio-passive, a fact considered significant by Watkins (1968) (see above). Some verbs have more than one of these homophonous forms.

Each scholar who has dealt with the subject has produced a different list of extant forms. This work will take as a starting point 26 of the 27 forms appearing in Lubotsky (1997)⁷².

⁷¹ Jasanoff (2002) comes to precisely the opposite conclusion, that the forms *bodhi* and *yódhi* were created by analogy to *joṣi*, and the *-i* subsequently reanalysed as an *-i* imperative morpheme. See page 26.

⁷² I am omitting consideration of the form *vámsi*, which is not a *-si* imperative. This form appears neither in Cardona’s list of forms, nor in other lists quoted by Cardona in his paper. It is however classified as a *-si* imperative by Lubotsky (1997). Narten (1964: 235) and Geldner both consider it to be a 1st pers. middle injunctive, and indeed it is difficult to see how it can be considered an imperative. It occurs once at 5.70.1 *purūrúnā cid dhy ásty, ávo nūnám vām varuṇa / mītra vámsi vām sumatīm* ‘Because it exists so widely, I would win your grace now, O Varuṇa, your goodwill, O Mitra.’

cakṣi ‘show, look’

Root: *cakṣ*; pres. *caṣṭe*; aor. –; no. of occurrences: 2

Occurs at 7.3.6d and 9.97.33a. This is one of only two active forms of this root, the other being the injunctive present form *cakṣur*. The examples are: 7.3.6cd *divó ná te tanyatúr eti súṣmaś, citró ná sūrah prāti cakṣi bhānám*, ‘Your hissing comes like thunder from heaven, show your brilliance, being bright like the sun,’ and 9.97.33ab *divyáḥ suparṇó ’va cakṣi soma, pínvan dhárāḥ kármaṇā devávītau*, ‘Look (down) like the heavenly eagle, O Soma, fattening your streams with a sacrificial act at the divine feast’.

ghóṣi ‘listen’

Root: *ghuṣ*; pres. *ghoṣati*; aor. –; no. of occurrences: 2

This form is controversial. Cardona (1965) mentions it in a footnote, but as it has been considered an imperative in the past, especially by Geldner, and as it appears as an imperative in Lubotsky (1997¹), it should be considered here too.

The two passages in which it appears are 4.4.8a *árcāmi te sumatīm ghóṣy arvák* ‘I sing to your goodwill, listen here’ and 6.5.6d *táj juṣasva jaritúr ghóṣi mánma* ‘favour this (song) of the singer, listen to his prayer’.

Grassmann treats the first as a 3rd pers. sing. medio-passive, and the second as an adjective. Cardona (1965) agrees with Grassmann on the second example, as does Oldenberg (1909: 1, 270) who interprets both passages as ‘lauttönend’. The small number of occurrences of this form and the large number of possibilities preclude a decisive definition.

It is possible that this is in both cases an imperative (see also page 27). However, as the verb has no other attested aorist forms we would have to resort to explaining it as having been formed by analogy from other imperatives of this type.

chantsi ‘appear’

Root: *chand*; pres. *chadáyati*; aor. *achān, chantsat*; no. of occurrences: 1

The form *chantsi* only occurs once, at 1.163.4c *utéva me váruṇas chantsy arvan*, ‘and appear to me as Varuṇa, O swift horse’.

Earlier scholars, such as Whitney (1924) and Macdonell (1916) classed this form as a root present, but the existence of several s-aorist forms indicates that this is a *-si* imperative.⁷³

jéṣi ‘win’

Root: *ji*; pres. *jáyati*; aor. *ajaiṣam, jeh* ; no. of occurrences: 7

This form is clearly derived from the sigmatic aorist stem *jaiṣ/jeṣ*. As usual, it bears a strong resemblance to the subj. aorist *jéṣat*. The form appears at 1.132.4, 2.30.8, 2.30.9, 3.54.22, 6.45.15, 9.4.1 and 9.44.6, e.g. 9.4.1ab *sánā ca soma jéṣi ca pávamāna máhi śrávaḥ*, ‘Win and conquer great fame (for us), O purified Soma’,⁷⁴ where it is clearly an imperative.

jóṣi ‘like’

Root: *juṣ*; pres. -; aor. *juṣa-* ; no. of occurrences: 3, of which two are repeated.

All the forms of this verb appear to be aorist,⁷⁵ with the addition of some perfect forms. A present stem *juṣa-* was later built on the basis of the aorist.⁷⁶

Given the pervasive association between the aorist subjunctive forms in *-sat* and the imperatives in *-si*, we can recognise the existence of a similar pattern here. Cardona (1965: 14) suggests that *jóṣi* is derived from *jóṣat*, which itself appears to be part of a root aorist system, as is the form *ajuṣran*, whereas most other forms derive from a thematic aorist stem *juṣa-*. This derivation is possible, given the absence of any other sigmatic forms for this root. Others, the most recent of whom appears to be Narten (1964: 120), have attempted to explain *jóṣat* as being derived from *jóṣi*. Furthermore, it is possible that this form was created analogically on the basis of *jéṣat/jéṣi*.

⁷³ See Narten (1964:115), Joachim (1978: 79).

⁷⁴ Translation Klein (1985: 2-72).

⁷⁵ As well as the common root aorist forms of this verb, one *-iṣ* aorist form exists, *jóṣiṣat*, at RV 2.35.1.

⁷⁶ Gotō (1987: 154, fn. 242).

The most far-reaching study of the origin of this form is that of Jasanoff (1986), who sees an exact cognate for this form in the Old Irish *tog*, which, he claims, derives from **togōss* with loss of final *i*. See also *nakṣi* and *śroṣi*.

Another imperative form from the same stem, *joṣā*, is attested once, for which see p. 27 and p. 113.⁷⁷

For the possibility that the form *jōṣi* gave rise to the forms *bodhi* (*budh*) and *yódhi* see also page 26.

dárṣi ‘pierce’

Root: *dr̥ / dṛ̥*; Pres. –⁷⁸; aorist: *darṣa-*; No. of occurrences: 10

The root *dr̥* has several s-aorist forms, including *darṣat* and *darṣasi*, and also has what are classified as root aorist injunctive forms, *dar*, and *dart*.⁷⁹ The existence of these forms would seem to undermine the assertion of Cardona (1965: 8) that the possible classification of *yakṣi*, *parṣi*, *satsi*, *yaṃṣi* and *darṣi* (the *-si* imperative forms which can appear in relative clauses) as presents ‘would have some support’ in the case of *darṣi*, unless *dar* and *dart* were themselves considered to be present injunctives, as for one verb to have both a root present and a root aorist would be inconceivable. The verb would accordingly have a root present, with attested forms *dar*, *dart* and *darṣi*, and a sigmatic aorist with a *-si* imperative.

It is also conceivable that *dar* and *dart* are themselves sigmatic aorist forms, **dars-s* and **dar-s-t*.

Most of the examples of *darṣi*⁸⁰ are to be classified as imperatives, e.g. 8.24.4 *á nirekám utá priyám, índra dárṣi jánānām / dhṛṣatā dhṛṣṇo stávamāna á bhara*, ‘Boldly break out the exclusive and private (possession) of the people, O bold Indra, and, being praised, bring it here to us,’ where the parallelism between the forms *ā-darṣi* and *ā-bharā* is obvious.

⁷⁷ See under *parṣi* and *neṣi* for other, similar forms.

⁷⁸ Werba (1997: §414), gives *dṛṇāti*, although this form is not attested in the Rigveda. This verb does have an intensive present *dardarti*.

⁷⁹ The forms **dar-s* and **dar-t* would both regularly yield *daḥ* (cf. *kaḥ* from **kar-s* and **kar-t*), so the latter form must have been rebuilt in a similar way to *áprāt* (see *prāsi*).

⁸⁰ 8.24.4; 1.110.9, 4.16.8; 5.39.3; 6.33.3; 8.6.23; 8.33.3; 9.68.7; 10.69.3.

The one exception is 6.26.5ab, where the form *darṣi* occurs in a relative clause. See p. 59.

dhákṣi ‘burn’

Root: *dah*; pres. *dahati*; aor. *dhakṣa-*; no. of occurrences: 4

This form appears 3 times, together with the further appearance of a form *dakṣi*.

Examples are: 1.76.3ab *prá sú víśvān rakṣáso dhákṣy agne, bhávā yajñánām abhiśastipāvā*, ‘Burn up all the Rakṣasas, O Agni, become the defender of the sacrifices from curses’, 4.4.4 *úd agne tiṣṭha práty á tanuṣva, ny àmítrāñ oṣatāt tigmahete / yó no árātiṃ samidhāna cakré, nīcā tám dhakṣy atasām ná súṣkam*, ‘O Agni, stand up, spread yourself wide, burn our enemies to the ground, sharp-projectile-wielder, he who committed a hostile act against us, O Ignited one, burn him to the ground like dry bushes.’ The parallel between (b) and (d) shows again that this form was considered equivalent to an imperative. Strikingly similar is 6.18.10ab *agnír ná súṣkaṃ vānam indra hetí, rákṣo ní dhakṣy aśánir ná bhīmā*, ‘Like fire (or Agni) burns dry wood, Indra, with your weapon, burn to the ground the Rakṣas like a terrifying thunderbolt.’

Finally, in 2.1.10c appears the form *dakṣi*: *tvām ví bhāsy ánu dakṣi dāvāne*, ‘you shine out, ... to give’. Geldner thinks this is the *-si* form from *dakṣ*, translating ‘sei bereit(?) zu schenken’. This interpretation is made difficult both by the fact that there is no s-aorist attested from this verb, and by the fact that there is no attested combination of *anu-dakṣ*. Although the combination *anu-dah* does exist, the semantics make this interpretation difficult. Grassmann suggests the form may be a vocative. For the present, at least, it seems this form must remain unclear.

nakṣi ‘come, reach’

Root: *naś*; pres. *aśnoti*; aor. *ānaṣ* (root aorist) ; no. of occurrences: 1

This form appears once, at 5.24.2b *áchā nakṣi dyumáttamaṃ rayiṃ dāh* ‘Come here, give us the most shining property’.

All the other attested aorist forms of this verb in the Rigveda are root aorists. However, there exists for this verb a derivative present stem *nakṣa-*. Gotō (1987: 191-192), citing the Young Avestan form *nāšəmna* (~ *nakṣa-māna-*), states that this form originated in the Proto-Indo-Iranian period, and quotes Narten (1964: 160): ‘Ob es sich hier um eine alte Wurzelerweiterung handelt oder ob das sa-Präs. vielleicht Weiterentwicklung eines ursprünglichen sa-Konj. darstellt, läßt sich aus

dem vedischen Material nicht mehr ersehen.” Despite this, the presence of such ‘sigmatic’ forms as these, including the attested forms *nakṣat* and *nakṣati*, would provide an ideal environment for the creation of an imperative form in *-si*, on the basis of such pairs as *yakṣat/yakṣi*.⁸¹

Jasanoff (1986), meanwhile, assigns an even earlier, PIE, date to this form, comparing it directly to the Old Irish *tair*, which he derives from **to-ar-inksi*.

néṣi ‘lead’

Root: *nī*; pres. *nayati*; aor. *anaīṣṭa*, *neṣat* ; no. of occurrences: 10

This verb is conjugated, both in the present and the aorist, in a very similar way to the verb *ji*, and like *jéṣi/jéṣat* from *ji*, shows the pair *néṣi/néṣat*. All aorist forms of this verb in the R̥gveda are sigmatic, although in the Atharvaveda there is an *-iṣ* aorist form *ánayīt*. Furthermore, two athematic forms exist, *nethá* and *ánītām*, which have not been satisfactorily explained, although perhaps they should be classed together with the similarly difficult form *jítam*, from *ji*.

The form *neṣi* appears 10 times,⁸² e.g.: 3.15.3c *váso néṣi ca páṛṣi cáty ámhah* ‘Lead us, O good one, and pass us over troubles’, in which also note the presence of another *-si* imperative, *páṛṣi*.

An imperative form *neṣa*, similar to *joṣa* and *paṛṣa*, is attested at Atharvaveda 7.97.2.

páṛṣi ‘pass, bring’

Root: *pṛ*; pres. *piparti*; aor. *paṛṣat*;⁸³ no. of occurrences: 16⁸⁴

This is one of the commoner examples of the *-si* imperative, which, in the light of the widely attested sigmatic aorist forms of the verb *pṛ*, leaves little room for doubt

⁸¹ See *śru(ṣ)* for a similar example.

⁸² 1.31.18; 1.91.1; 1.129.5; 2.1.16; 2.2.13; 3.15.3; 5.42.4; 6.47.8; 6.61.14; 8.16.12.

⁸³ As well as the sigmatic aorist, which is the most commonly attested, this verb has *-iṣ*-aorist forms (*páṛiṣat*) and reduplicated aorist forms (*apīparan*). This latter form is the only indicative (augmented) form attested for this verb. All the others are subjunctives, and the *-si* imperatives.

⁸⁴ 1.129.5; 1.174.9; 2.7.2; 2.33.3; 3.15.3; 5.3.11; 5.4.9; 6.4.8; 6.20.12; 6.48.10; 7.23.2; 8.67.11; 8.97.15; 8.103.7; 9.1.3; 9.70.10.

as to its morphological affiliation. All of the other attested sigmatic forms of this verb are subjunctives, a fact which has provided ammunition to those wishing to derive the *-si* forms from the aorist subjunctive. The ubiquitous pairing of *-si/-sat* forms is well attested for this verb too; *parṣi/parṣat*.

Another imperative is also attested, *parṣā*, at 1.97.8ab *sá naḥ síndhum iva nāváyā-*, *-áti parṣā svastáye* ‘Bring us over like with a ship over a river for wellbeing’. The semantics, plus the fact that this form appears to occur in a *sá+impv.* construction, leave little doubt that this is an imperative.⁸⁵

The form *parṣi* occurs once in a relative clause, for which see p. 59.

prāsi ‘fill’

Root: *pṛ₁*; pres. *pṛṇāti*; aor. *áprās* (3rd sing. sigmatic); no. of occurrences: 2

This form is attested twice, 1.42.9 and 8.1.23, both times in the expression *prāsy udāram* ‘fill (our) stomach’. In the former example, the form is part of a remarkable string of imperatives, for which see p. 138.

In the light of the context in which it occurs, there can be little doubt either as to the root from which this form is derived, or that it is part of the sigmatic aorist system.

bhakṣi ‘share’

Root: *bhaj*; pres. *bhajati/-te*; aor. *bhakṣ-*; no. of occurrences: 1

The only occurrence of this form is at 7.41.2d:

*prātarjítam bhágam ugrám huvema
vayám putráṃ áditer yó vidhartá |
ādhrás cid yám mányamānas turás cid
rájā cid yám bhágam bhakṣṣṭy áha ||*

‘We would like to call Bhaga, the morning-victor, the mighty one, the son of Aditi, who is the distributor, to whom even he who considers himself weak, even he who is powerful, even a king says: “Share the fortune” ’.

This is a somewhat ambiguous example. Geldner sees this as a first person middle injunctive, while the absence of this example from Hoffmann (1967) indicates that he probably considered it to be an imperative. Semantically, the

⁸⁵ For an account of these forms, see p. 26, Narten (1964: 48, 163,171), and Cardona (1966: 13-14, 17).

imperative strikes me as the better option. In later texts this root also has a reduplicating aorist.

mátsi ‘exhilarate’

Root: *mad*; pres. *mádati*; aor. *matsa-* ; no. of occurrences: 15

This verb has numerous sigmatic aorist forms, including the characteristic pair *matsat/matsi*. Fifteen obviously imperative examples exist.⁸⁶

As this verb is associated with Soma, it occurs mostly in Book 9, and almost all of the examples are contained within the two verses 9.90.5 and 9.47.42, which also share a line in common. For a translation of 9.90.5, and more on the semantics of the form *mátsi*, see p. 146.

māsi ‘measure’

Root: *mā*; pres. *mimīte*; aor. *māhi*, *māsi*, *māsva* ; no. of occurrences: 5

This form occurs 5 times.⁸⁷ The only attested aorist forms of this verb are the imperatives *māhi*⁸⁸ and *māsva*, and the form *māsi*.

An example of *māsi* is 1.92.7cd *prajāvato nṛvāto ásvabudhyān, úšo góagrāñ úpa māsi vājān* ‘measure out booty, rich in offspring and men, with horses at the bottom and with cows on top, O Uṣas’, which is identical in meaning to the root-aorist imperative *māhi*, 4.22.10b *asmábhyaṃ citrāñ úpa māhi vājān* ‘to us, measure out shining booty.’

Māsi can occur among other imperatives, e.g. 2.17.7cd *kṛdhí praketaṃ úpa māsy á bhara, daddhí bhāgāṃ tanvò yéna māmāhaḥ* ‘Make light, share out, bring here, give a share of your self, with which you will be bountiful.’ All the examples of both forms appear with the preverb *upa*.

In later texts, a sigmatic aorist arose for this verb, apparently on the basis of the form *māsi*.⁸⁹

⁸⁶ 1.9.1; 1.175.1; 1.176.1; 9.90.5a (x2); 9.90.5b; 9.90.5c (x2); 9.90.5d; 9.94.5b; 9.97.42a; 9.97.42b; 9.97.42c (x2); 9.97.42d.

⁸⁷ 1.92.7; 1.142.2; 2.17.7; 8.71.9; 9.76.3.

⁸⁸ Three occurrences, at 4.22.10; 7.26.5 and 10.28.12.

⁸⁹ Narten (1964: 47).

yákṣi ‘sacrifice, worship’

Root: *yaj* ; pres. *yajati/te* ; aor. *ayāḥ* (2nd sing. ind.), *yakṣat*; no. of occurrences: 33⁹⁰

Yakṣi is the most common *-si* imperative form, and like *vakṣi*, the second-most common, presents few problems.⁹¹ All of the aorist forms of this verb are sigmatic. For examples and further information see p. 153.

yámsi ‘grant, extend’

Root: *yam* ; pres. *yachati* ; aor. *áyāmsam*, *yamsat*, *yamat*; no. of occurrences: 4

This verb is well attested both in root and sigmatic aorists, and the form *yámsi* exists alongside the somewhat more common root aorist imperative *yandhí*.

This is another form which appears in the string of imperatives at 1.42.9 (see p. 138), thus cementing its status as an aorist imperative. The other two examples are at 5.36.4 and 3.1.22.

It also appears once in a relative clause, at 1.63.8, for which see p. 59.

yótsi ‘fight’

Root: *yudh* ; pres. *yúdhyati* ; aor. *yódhat*, *áyodhīt*; no. of occurrences: 1

This verb has no sigmatic aorist forms at all in the Rigveda, and Narten (1964: 215) only quotes one form, *yutsmahi*, from the Atharvaveda. Even the eminently derivable form **yotsat* fails to appear, leaving the single attestation of *yotsi* as a lone, obviously analogically derived, oddity. The form appears at 1.132.4e *asmábhyam jeṣi yótsi ca* ‘for us win and fight’, together with the form *jeṣi*, on the basis of which it was probably derived ad hoc.

rátsi ‘dig’

Root: *rad*; pres. *radati*; aor. –; no. of occurrences: 1

⁹⁰ 1.13.1; 1.14.1; 1.31.17; 1.36.6; 1.75.5; 1.105.13; 1.142.11; 2.3.3; 2.6.8; 2.36.4; 3.4.1; 3.14.5; 3.17.2; 3.17.3; 5.26.1; 5.28.5; 6.4.1; 6.16.2; 6.16.9; 6.16.24; 6.48.4; 7.9.5; 7.9.6; 7.11.3; 7.16.5; 7.17.3; 7.39.4; 8.102.16; 10.1.6; 10.70.4; 10.70.9; 10.110.3; 10.110.9.

⁹¹ There is one attested occurrence of *yakṣi* in a relative clause in Taittirīya-Saṃhitā 2.16.12.5, but not in the Rigveda. Also, for the very interesting 3rd dual form *yakṣatām*, see p. 153.

This verb, meaning ‘to dig, to clear (a way)’ has, apart from this form, no other attested aorist forms. Joachim (1978: 142) compares the forms of this verb to those of *mad*, which as well as the forms *madati* and *matsi* has other attested sigmatic aorist forms. This may, then, be a case where other sigmatic forms existed but our limited documentation of the language doesn’t include them.

The one occurrence of the form *rātsi* is at 5.10.1cd *prā no rāyā páriṇasā, rātsi vājāya pánthām* ‘with wealth and abundance⁹² clear the way to booty’. In this example the imperative nature of the form is also well supported by the appearance of *ā bhara* in (a).

rāsi ‘give’

Root: *rā*; pres. *ririhi*; aor. *rāsat*; no. of occurrences: 10⁹³

The reduplicated present of this root is not particularly well attested, outside of the imperative *ririhi*. The verb has a strongly attested sigmatic aorist, which lacks indicative forms, but in which we find the usual threesome *rāsat / rāsi / rāsva*. Beginning in the Rīgveda, but more so in later texts, a new thematic present *rāsa-* was derived from the aorist subjunctive forms such as *rāsate*.⁹⁴

The passage 2.11.13-14 contains 4 examples of the form; almost half of those in existence:

2.11.13d *asmé rayiṃ rāsi vīrávantam*

2.11.14a *rāsi kṣáyam rāsi mitráam asmé*

rāsi śárdha indra mārutam naḥ

‘Give us property, consisting of men, give us a dwelling place, give us a covenant. Give us a Marut army, O Indra.’

⁹² For the meaning of *páriṇas*, and for the formula *rāyā páriṇasā*, see Lubotsky (1988). Cf. p. 39.

⁹³ 1.140.12; 2.11.13; 2.11.14a (2x); 2.11.14b; 2.33.12; 3.4.1; 6.4.8; 7.95.6; 9.9.9.

⁹⁴ Joachim (1978: 143-144), Cardona (1965: 17), Narten (1964: 219-221), Gotō (1986: 79, 83).

vakṣi ‘bring, carry’

Root: *vah* ; pres. *vahati/te* ; aor. *ávāt, vakṣat*; no. of occurrences: 24⁹⁵

Narten (1964: 240), cites Lat. *vēxi*, and Cypriot Greek *ἔφεξε* to show that this is a very ancient sigmatic formation. To this LIV² adds Old Church Slavonic *otъ-věsta*. Nearer to hand we also have Avestan (*uz-*)*uuazāt*, which corresponds exactly to Vedic (*ud-*)*vakṣat*.

Virtually all of the existing aorist forms of this verb are sigmatic,⁹⁶ making this form both one of the best attested, and one of the least problematic.

Two examples of this form are listed under *satsi*. The addressee of these forms is usually Agni, requesting that he bring the gods to the sacrifice. Hence the prevalence of the formulations such as 2.36.4 *á vakṣi devám ihá vipra yáḁsi ca*, which account for approx. half of the total occurrences of this form, and also the common proximity of other *-si* imperatives *satsi* and *yakṣi*, other actions associated with Agni in his sacrificial role.

véṣi ‘pursue’

Root: *vī* ; pres. *veti* ; aor. *veṣat*; no. of occurrences: 5⁹⁷

Veṣi, strictly speaking, is the 2nd sing. pres. of the verb *vī* ‘to pursue.’ However, there is little doubt that it is sometimes used imperatively, and as witness to this, we have the aorist subjunctive form *veṣat*. These two are the only aorist forms existing for this verb.

⁹⁵ Lubotsky (1997¹) shows 24 examples of this form, while both Narten (1964) and Cardona (1965) mention 25 examples without listing them. The form *vakṣi* is also the second pers. sing. present of the verb *vaś*, and it is attested twice in the R̥gveda, so it is possible that one of these occurrences was originally assigned to the list. The occurrences listed by Lubotsky (1997¹) are; 1.188.3; 2.3.11; 2.26.4; 3.4.1; 3.7.9; 3.14.2; 3.15.5; 5.1.11; 5.4.4; 5.9.1; 5.26.1; 5.43.10; 6.15.18; 6.16.2; 6.47.9; 7.1.18; 7.78.1; 8.54.6; 8.102.16; 10.3.7; 10.70.3; 10.70.10; 10.73.4.

⁹⁶ A couple of root imperative forms also exist: *volhám* and *volhám*. There have been attempts in the past (Debrunner, Nachtr. zu Wackernagel I 275, 8) to explain these forms as sigmatic. Narten disagrees with this on the grounds that the sigmatic forms should most likely have full-grade in the root. LIV² ascribes them to the root present, on semantic grounds. See also p. 164.

⁹⁷ Once again we have a disagreement on the number of attested forms, Lubotsky (1997¹) giving five, while Cardona (1965) mentions four. With a form this ambiguous, this is hardly surprising. The five forms mentioned by Lubotsky are: 1.76.4; 4.9.5; 4.9.6; 6.4.8; 7.16.5.

Examples include 6.4.8a-c *nū no agne 'vr̥kēbhiḥ svastī, vēṣi rāyāḥ pathībhiḥ pārṣy āmhaḥ / tā sūribhyo gr̥naté rāsi sumnām* ‘Now seek out for us on safe (‘wolf-free’) roads well being, property. Bring us over troubles. Give these to our patrons, (and give) goodwill to the singer’, where the presence of *vēṣi* in the same sentence as two other *-si* imperatives would make it hard to interpret it any other way. Likewise 7.16.5d *yákṣi vēṣi ca vāryam* ‘Make an offering, and seek desirable things’ is hardly mistakable as being an imperative.⁹⁸

śróṣi ‘hear’

Root: *śru* ; pres. *śṛṇóti*; aor. *aśravam, aśrot*; no. of occurrences: 1

This verb, in the R̥gveda, has almost exclusively root aorist forms. The form *śroṣi* and the subjunctive form *śroṣan*, are the only sigmatic forms. In the later language, the root aorist dies out (Narten 1964: 260) and is replaced by sigmatic forms such as *aśrauṣam, aśrauṣīs*, etc.

Here, therefore, we must conclude that the *-si* imperative was formed by analogy. Jasanoff (1987) not only assumes this, but places the derivation in the PIE period, based on the existence of a Tocharian form (*pä*)*klyauṣ*, which he compares directly with Vedic *śroṣi*.

Furthermore, he explains the secondary stem *śroṣa-* as having been derived from a sigmatic aorist subjunctive, in a similar way to the stems *nakṣa-* and *rāsa-*, but also as early as the PIE period. This extended root appears widely in other Indo-European languages, forms appearing in LIV² include, with varying levels of certainty, the unclear Avestan form *səraoṣānē*, Lithuanian *kláusti* (which is shown by its accentuation to be a desiderative and which actually means ‘to ask’), and

⁹⁸ The similarly conjugated verb *kṣi*, ‘to dwell’, has a present form *kṣeṣi*, which is not a *-si* imperative. However, it also has a subjunctive form *kṣeṣat*. Whether this means that the imperative usage is simply unattested, or that the subjunctive form was derived by analogy, e.g. to *veṣat*, is unknown. Cardona (1965: 13) does class one occurrence of this form as an imperative, but I see no conclusive reason to do so. The example is 6.4.4cd *sá tvám na ūrjasana ūrjaṃ dhā, rájēva jer avṛké kṣeṣy antāḥ*, which Cardona translates as ‘give us nourishment; like a king conquer, abide in safety’. While the first injunctive is very likely modal, as it is preceded by *sá tvám*, the second injunctive could belong to Hoffmann’s ‘general’ category, thus corresponding well with an interpretation of *kṣeṣi* as a present indicative – ‘you (always) conquer like a king, you live in safety’. Hoffmann himself takes this approach (1967: 262), except that he also classifies *dhāḥ* as ‘general’, an interpretation which I do not accept, for the above reason (see also Narten (1964: 104), Joachim (1978: 72) under *kṣā*).

klausýti, Tocharian B *klyaušäm*, Old Church Slavic *slyša*, Old High German *(h)losēn*, etc.

The form *śroṣi* is attested once at 6.4.7ab *tvāṃ hí mandrátamam arkaśokaír, vavṛmáhe máhi naḥ śrósy agne* ‘For we have chosen you, the most delightful, with bright flames (or ‘song-flames?’), hear our great (song), O Agni’.

sátsi ‘sit’

Root: *sad*; pres. *sīdati*; aor. *asadat*; no. of occurrences: 12

The forms *satsi* and *satsat* are the only sigmatic aorist forms existing for this verb. Narten (1964) and Cardona (1965: 11) both believe the latter to have been formed from the former on the basis of such pairs as *yakṣi* / *yakṣat*. *Satsat* occurs only once, and so perhaps is rightfully termed an *Augenblicksbildung* on the basis of *satsi* by Narten (*op. cit.*: 262).

The form appears in contexts such as 1.12.4c *devaír ā satsi barhīṣi* ‘With the gods, sit on the sacrificial grass’. The god sitting on the sacrificial grass is of course a recurring theme in the Rigveda, and this form *satsi barhīṣi* occurs in seven out of the ten occurrences of this form. In two of the remaining three, *satsi* occurs together with the form *vakṣi*, e.g. 3.14.2cd *vidvām ā vakṣi vidúṣo ní ṣatsi, mádhya ā barhír ūtáye yajatra* ‘Being wise, bring the wise ones here, sit in the middle on the altar grass . . .’ where the altar grass is of course also the object of *satsi*, albeit with slightly different wording.

The forms *satsi* occurs in a relative clause at 3.30.18bc. See p. 59.

sakṣi ‘defeat’

Root: *sah*; pres. *sahate*; aor. *asākṣi, sakṣat*; no. of occurrences: 1

Most of the sigmatic aorist forms of these verbs derive from the stem *sākṣ-*,⁹⁹ and, according to Narten (1964: 264ff.), those which derive from the stem *sakṣ-* originate from the *-si* imperative form *sakṣi*. These are (predictably) *sakṣat* and *sakṣva*,¹⁰⁰ The verb also has root aorist forms, e.g. optative *sahyāḥ*, and *-iṣ-* aorist forms, such as *ásahiṣta*.

⁹⁹ For the possibility that this was originally a perfect stem and that the aorist forms are analogically derived from it see p. 30 and p. 176.

¹⁰⁰ See also p. 176 for the possibility that the form *sákṣva* may be derived from the root *sac*.

The sole appearance of the form *sakṣi* is at the unfortunately very unclear 5.33.2cd *yá itthá maghavann ánu jóṣaṃ, vākṣo abhí práryáḥ sakṣi jánān*, translated by Geldner as ‘Komm hierher, du Freigebiger, nach deinem Wohlgefallen; fahre her, werde mit den vornehmen (Nebenbuhlern), den (anderen) Leuten fertig!’.¹⁰¹ Despite all the difficulties of this passage, *jánān* and *aryás* are probably the direct object of *prá-sakṣi*, the meaning being ‘defeat the people of the stranger.’ This translation is necessary since *arí* is not an adjective but a masculine noun, and thus *aryás* is best seen as being its gen. sing, rather than an acc. pl. in concord with *jánān*. It is possible that they are two nouns in apposition, but ‘defeat the strangers, the people’ makes far less sense than the previous alternative.

stoṣi ‘praise’

Root: *stu* ; pres. *stumási, stuvánti*;¹⁰² aor. *astoṣi, stoṣat*; no. of occurrences: 1

All of the attested aorist forms of this verb are sigmatic, and thus it exhibits the combination, which was rare in the early language,¹⁰³ of a root present and sigmatic aorist.

The form *stoṣi* occurs once in a difficult passage at 10.22.4d *sjāná stoṣy ádhvanaḥ* ‘having freed (the horses) onto the roads, praise (them)’. Cardona (1965: 4) makes a case, following Oldenberg (1909: *ad loc.*) that the form is a 3rd singular med. injunctive instead.

¹⁰¹ For a summing up of the difficulties of this passage see Oldenberg (1909: *ad loc.*). The problem is the difficulty in identifying the form *yá(h)*. Oldenberg considers the possibility that it could either be a neuter or feminine plural relative pronoun, or a form of the verb *yā*. In the first case the sandhi would most likely have resulted in *yéttā*. If the last option is true, as Oldenberg admits, the difficulties are solved. This solution is also adopted by Geldner. If this were the case, then the form would have to be *yás*, the 2nd sing. pres. subj., which would correspond well with the subj. form *vākṣas* which follows, and also would give some backing to the ultimate classifying of the *-si* forms as subjunctives. If this were a subjunctive, it could even be scanned as disyllabic (<**yaHas*), which would solve the problem of this pāda having only ten syllables. Another problem with this passage, also recognised by Oldenberg, is the apparent need to supply an omitted direct object for the form *vākṣas*, since the verb *vah* is always transitive (see page 164). This passage is not covered in Thieme (1938).

¹⁰² The forms *staumi, stauti* are attested in the Atharvaveda.

¹⁰³ Narten (1964: 276).

hoṣi ‘sacrifice’

Root: *hu*; pres. *juhoti*; aor. - ; no. of occurrences: 1

The verb *hu* has no other aorist forms in the Rigveda, except a medio-passive form *āhāvi*, which occurs twice, at 5.86.6 and 10.91.15. Therefore this form was presumably derived by analogy to similar forms from other verbs. The form *hoṣi* itself only appears once, at 6.44.14cd *tām u prá hoṣi mádhumantam asmai, sómaṃ . . .*, ‘and sacrifice this sweet Soma to him,’ which in itself is unproblematic in its interpretation as an imperative.

-si forms in relative clauses

As already mentioned, there are four examples in the RV¹⁰⁴ of forms ending in *-si* which occur in relative clauses. The attested examples are:

parṣi occurs in a subordinate clause at 1.174.9cd *prá yát samudrám áti śūra pársi, pāráyā turváśaṃ yádum svastí* ‘When you cross the sea, O hero, then take T. and Y. across to well-being’.

satsi – at 3.30.18bc *sám yán mahír iṣa āsátsi pūrvīḥ / rāyó vantáro bṛhatáh syāma* ‘when you gain the great, abundant refreshments, may we be the winners of great wealth’.

yaṃsi – at 1.63.8 *tvám tyám na indra deva citráṃ, iṣam ápo ná pīpayah párijman / yáyā śūra práty asmábhyaṃ yámsi, tmánam úrjaṃ ná viśvádha kṣáradhyai* ‘You, O god Indra, will swell that shining refreshment like water all around for us, with which, O hero, you will bestow upon us our life’s breath, so it will flow always like a strengthening drink’.

And finally *darṣi* at 6.26.5ab *tvám tát ukthám indra barháṇā kaḥ, prá yác chatā sahásrā śūra dárṣi* ‘O Indra, you make this word powerful, when you destroy hundreds, thousands, O hero.’

Of these four forms, *darṣi* can, I believe, be disregarded, if it is indeed a root present¹⁰⁵. It is also different semantically from the other examples, in that it

¹⁰⁴ As well as one example of *yákṣi* in a relative clause at TS 2.6.12.5: *yád agne kavyaváhana pitṛṇ yákṣy ṛtāvídhaḥ* ‘O Agni, when you sacrifice to the Fathers . . .’ which, interestingly enough, corresponds to a third-person passage in the RV containing an aorist subjunctive *yakṣat*: 10.16.11a *yó agníḥ kravyaváhanaḥ pitṛṇ yákṣad ṛtāvídhaḥ*. ‘Agni, who shall sacrifice to the Fathers . . .’.

¹⁰⁵ See p. 48.

denotes a habitual or inherent act (corresponding to the aorist injunctive *kaḥ*), while the other three all denote future actions, in a manner corresponding to that of the subjunctive in relative clauses.

Hoffmann (1967: 183) takes the form *darsi* to be a subjunctive, following Szemerényi (1966), and translates the passage: ‘Du Indra, machst das Wort (*tád ukthám*) machtvoll (*barháṇā kaḥ* Inj. Aor.), damit (*yád*) du Hunderte, Tausende herausschlagest (*darsi*)’. Hettrich (1988: 391 and elsewhere) makes no mention of the imperative and always considers these *-si* forms to be subjunctives.

Narten (1964: 202) and Szemerényi (1966: 3) reach opposing conclusions from these examples; while Narten considers them to be a misuse of an imperative, Szemerényi believes that they prove that the *-si* forms are in fact subjunctives, ‘both originally and in actual use’.

While ‘in actual use’ there is no doubt that these forms do behave like subjunctives, accepting that this is what they originally were involves accepting Szemerényi’s conclusions concerning haplology of an original *-sasi* form. Given the almost complete absence of such forms, it has to be said that Szemerényi makes a compelling case. However, if Jasanoff and Dunkel are right (see below), and the *-si* imperative actually has an Indo-European origin, then the date for the haplology must be set in Indo-European times. However, the haplology is effectively ruled out by Beekes (1981), who claims that the use of primary endings in the subjunctive is an Indo-Iranian innovation. Thus, if the *-si* imperative is indeed of Indo-European age, then its origin must be something else.¹⁰⁶

There can be no doubt that Cardona and Szemerényi are right in assigning the *-si* imperatives to the sigmatic aorist, at least synchronically; not only do most of the verbs discussed here have sigmatic aorists, but a majority of attested forms come from verbs whose aorist forms are exclusively sigmatic. It is, then, no accident that *vaksi* and *yaksi* account between them for over 50 instances.

This said, however, it must also be asked how many of the extant *-si* forms actually belong to verbs that have sigmatic aorist forms other than *-si* and *-sat*. These two forms unquestionably belong together. The existence of one implies the

¹⁰⁶ It has been suggested to me by Kortlandt, that the *-si* imperatives may be a sigmatic aorist in *-s-dhi* that has undergone assimilation to *-si*. While this is not impossible, it does raise issues of accentuation – all *-dhi* forms are accented on the ending – and ablaut, in that most imperatives in *-dhi* have zero grade stems.

existence of the other. However, once this became the case, then any verb to which was added a secondary *-si* imperative would also then receive as a side effect a sigmatic aorist injunctive in *-sat*.¹⁰⁷

Of the verbs in question, the following have other sigmatic aorist forms in addition to those in *-si* and *-sat*:

chand – *achān*, *áchāntsuh* etc.; *chantsi* : *chantsat*.

ji – *ajaiṣam*, *ájaiḥ*; *jéṣi* : *jéṣat*.

dah – *adhāk*; *dhákṣi* : *dhákṣat*

nī – *naiṣṭa*; *néṣi* : *néṣat*

pṛ – *aprāḥ*; *prási*. **prásat* is unattested.

bhaj – *bhāk*; *bhakṣi* : *bhakṣat*

mad – *amatsuh* etc.; *mátsi* : *mátsat*

yaj – *ayāḥ*, *yāt*; *yákṣi* : *yákṣat*

yam – *áyāṃsam*, *ayān*; *yámṣi* : *yámṣat*

vah – *ávāt*; *vákṣi* : *vákṣat*

The following verbs have other sigmatic aorist forms, but only the *-si* and *-sat* forms are active:

rā – *árādhvam*, *árāsata* etc.; *rási*, *rásat*

stu – *astoṣi*, *ástoḍhvam* etc.; *stoṣi* : *stoṣat*. The present has both active and middle, the aorist active only subjunctive, and the aorist indicative only middle.

The following have only *-si* and *-sat* forms:

juṣ – *jóṣi* : *jóṣat*

dṛ – *dárṣi* : *dárṣat*

pṛ – *párṣi* : *párṣat*

vī – *véṣi* : *véṣat*

śru – *śróṣi* : *śróṣan*

sad – *sátsi* : *sátsat*

¹⁰⁷ Indeed, this mutual implication is so all-pervading that it may have played a role in the formation of the forms *yódhi* and *bodhi* on the basis of (*inter alia*) the aorist subjunctive forms *yodhat* and *bódhat* (see also p. 26). Furthermore we may bring into consideration the unquestionably analogical form *barbṛhi* and its probably subjunctive counterpart *bárbrhat*.

sah – sakṣi : sākṣat. Other aorist forms from the stem *sākṣ-* probably originate in a reduplicated stem.

The following have other no sigmatic aorist forms:

mā – only *māhi*, *māsi* and *māsva*.

yudh – only *yótsi*

rad – only *rátsi*

naś – nakṣi. Although an aorist subjunctive form is unattested there is a secondary present stem *nakṣa-* which is likely to be derived from it.

hu – hoṣi

Cardona (1965) has already shown that the large majority of *attestations*, as opposed to roots which have *-si* forms, come from roots which have other sigmatic aorist forms, thus cementing the connection between the *-si* forms and the sigmatic aorist. My grouping shows that once a *-si* form has been coined for a particular root, whether it has other sigmatic aorist forms or not, it is practically automatic that it will also develop a sigmatic aorist subjunctive form. Of those which do not have the subjunctive forms, all but *māsi* are hapax legomena. In the case of *māsi*, the lack of a form **māsat* could easily simply be due to a random lack of attestation.

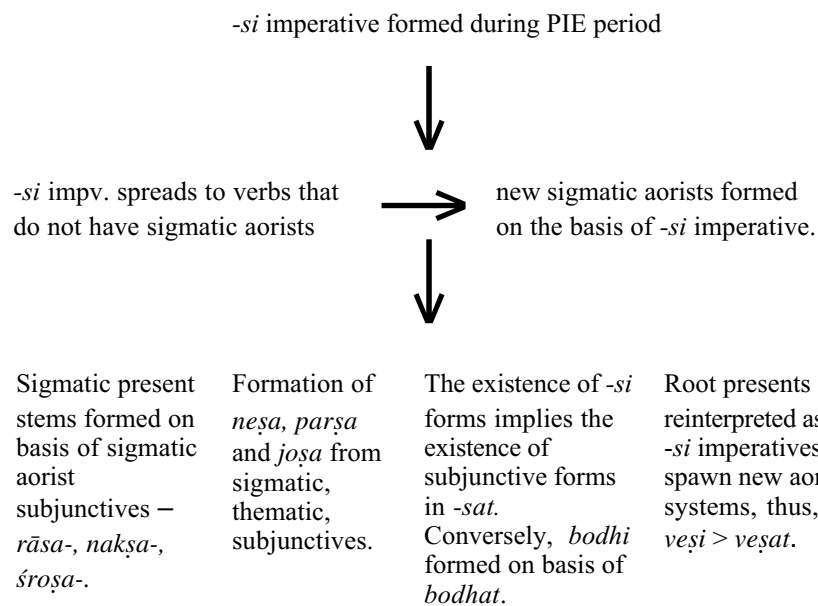
The lack of a form **prāsat* is most likely random, given the comparatively strong status of the sigmatic aorist of *pṝ*. Thus, the *-si* forms may have their origin in the sigmatic aorist, but also, at a later date, some sigmatic aorist forms have their origin in the corresponding *-si* forms.

The question of the origin of these forms has undergone a certain shift since Cardona and Szemerényi. Dunkel (1992:¹⁰⁸ 1997) and Jasanoff have suggested a much earlier derivation, and a much more widespread occurrence of these forms than was originally assumed. Jasanoff's theories concerning the antiquity of these forms have already been mentioned under the forms *śroṣi*, *joṣi* and *nakṣi*. Dunkel (1997: 41) suggests that both the derivation of the *-si* forms by haplology from the subjunctive (if it indeed occurred) and the spreading of the *-si* imperative ending to

¹⁰⁸ In which he suggests that *-si* imperative forms are preserved in the first element of Greek and Latin nominal compounds such as *τερψίμβροτος*, *versipellis* and *flexanimus*. Furthermore, he compares *πλησίσιςτιος* with *prāsi*, *Κλευσιππος* with *śroṣi*, *Ἄναβησίνεως* with Vedic *gāsi*, *Ἄνεξικώμη* with *sakṣi*, *Γευσιστράτη* with *joṣi*, and *Ἡσίδοος* with Vedic *yāsi*.

other aorist stems, in cases such as **kléu-si* (*śroṣi*) actually occurred in what he terms the Middle Indo-European period. As already mentioned, the haplology theory has been seriously challenged by Beekes (1981).

Whatever the actual chronology may be, it seems there is a fairly complicated series of analogical derivations at work. The stages, roughly, were:



Of course, different processes can occur simultaneously and at differing rates with different verbs. However, the most important point is that first the -*si* ending became productive, and then spawned new aorist systems. On the basis of Jasanoff's theories, this may have already begun in the PIE period. Once this happened, other -*si* endings, such as root presents, could be reinterpreted and then spawn aorist systems, as in the case of *veṣi*. The three endings, -*si* / -*sva* / -*sat* became inextricably associated with each other, and the existence of one or two of them implied the other(s).

As to the place of the -*si* forms within the synchronic Vedic verbal system, there is ample evidence to place them as functionally identical to the root aorist imperatives in -*dhi*; they occur many times together with them and indeed in mixed chains of several forms, the most remarkable of which is at 1.42.9. There is also no other way for the sigmatic aorists to form a second person singular imperative. Thus

we have a case of complementary distribution, the root aorists forming the 2nd sing. imperative with *-dhi*, the thematic aorists with *-a*, and the sigmatic aorists with *-si*. The *-iṣ-* aorists have no way of forming it (except for the isolated form *aviḍḍhi*) and thus use other modal forms instead.

Aorist versus present imperative

The precise nature of the functional difference between the present and aorist imperative in the RV has never been properly defined.

The most likely difference between the aorist and present imperatives, should such a difference exist, would be aspectual; the present being imperfective and the aorist perfective. Although the basis for this assumption is principally that in the Greek verbal system this is the difference between them, the Indo-European verbal system seems to have been principally aspect-based rather than tense-based. The category of aspect was inherent in the present and aorist verbal stems.

In Greek this distinction exists from the earliest times and survives until today, so that e.g. τοὺς γονεῖς τιμᾶ (Isocrates 1.16) means ‘honour thy parents’ (now and forever more), while βλέψον πρὸς τὰ ὄρη (Xenophon, Anabasis 4.1.20) means ‘Look (glance) towards the mountains’. An interesting example that illustrates the rather subtle nature of the relationship between the aorist and the present in Greek is the following from Xenophon’s *Cyropaedia* 4.5.47: εἰ μὲν οὖν ἄλλους ἔχετε οἷσιν ἂν δοίητε αὐτούς [τοὺς ἵππους] . . . ἐκείνοις δίδοτε· εἰ μὲντοι ἡμᾶς βούλεσθε . . . ἡμῖν αὐτοὺς δότε, ‘If you have someone else to whom you would rather give [the horses], then offer them to them. However, if you want us [as comrades], then give them to us’. Here the present imperative δίδοτε has an inchoative meaning, translated in all editions as “offer”, while the aorist δότε is perfective ‘give them to us (and have done with it)’.

Hoffmann (1967: 105f. and 269ff.) finds an aspectual distinction for the aorist and present injunctive, particularly when used as negative imperatives “prohibitively” and “inhibitively” respectively, in his terminology.

He also tentatively shows (270ff.) an aspectual distinction even when the injunctive is not used prohibitively, although he is fully aware that this is very difficult to prove.

This difficulty to prove the existence of a distinction is demonstrated even more clearly by Gonda (1962). While showing that the various imperative stems sometimes appear to behave in exactly the same way as in Greek, he is forced to admit that in other cases they behave in exactly the opposite manner. Despite a detailed study of individual verbs, he is unable to find a consistent aspectual distinction, although it seems that he would very much like one to exist.

Other scholars who have researched the matter have come to the conclusion that there is no difference, notably Bloomfield-Edgerton¹⁰⁹ and Whitney¹¹⁰.

This work will show that there is in fact no regular aspectual or semantic difference of the kind that exists within the Greek verbal system. The forms are used interchangeably and are in fact under most circumstances metrical variants. This situation exists, as the data suggests, because the aor. impv. was almost extinct at the time of the composition of the RV, existing only in formulae and as an archaism in places where it was metrically convenient to use it.

However, it will also be shown that the pre-Vedic Indo-European aspectual distinction between the present and aorist modal stems has been preserved in a number of frozen formulae, which were coined at a time when the distinction was still productive.

The aorist imperative as an archaism

The aor. impv. can be demonstrated to be moribund at the time that the RV was composed. It is less common in Book 10 than in the other books, and by the time of the composition of the Brāhmaṇa texts it was in fact completely extinct, only occurring in quotations.

In the RV, the aor. impv. is used interchangeably with the present, often occurring in the same or extremely similar sentences. The hypothesis that there is an

¹⁰⁹ Bloomfield-Edgerton (1930-34: 1-63, 130).

¹¹⁰ Whitney (1924: 220).

aspectual distinction between the two must be discounted, as they both appear in environments in which, if an aspectual distinction did exist, one or the other would be called for.

It is not hard to find instances where the two forms appear in practically the same sentence, as, e.g. 3.47.3a *utá ṛtúbhir \ ṛtupāḥ pāhi sómam*¹¹¹ and 2.37.1d *hotrád sómam \ draviṇodaḥ pība ṛtúbhiḥ*. This example is significant because the adverb *ṛtúbhiḥ* implies a repeated action; if the aorist truly denoted perfective aspect then it shouldn't appear in this environment.

The demise of the aorist imperative

The aorist imperative is a fairly common form in the Rigveda; it appears about 1100 times altogether. By the time of the Brāhmaṇa texts, it had disappeared as a living form, existing only in quotes from earlier texts and in a few mantra lines. The process of elimination of the aor. impv. can be seen to be gradual; by the time that Book 10 of the RV was composed it was rarer than it had been in the earlier books.

The total number of imperative forms in the RV is approximately 5500.¹¹² Of these, as already mentioned, about 1100 are aorists. The break-down by book is shown in Table 1:

<i>Book</i>	<i>Present</i>	<i>Aorist</i>	<i>Total</i>
1	732	196	928
2	161	82	243
3	259	102	361
4	187	53	240
5	265	80	345
6	354	95	449

¹¹¹ Throughout this work the backslash (‘\’) is used to denote the caesura.

¹¹² Where a pāda appears more than once, it is usually counted as more than one example. The only exception to this are the common ending of hymns of Book 7 *yūyām pāta svastībhiḥ sādā naḥ*, which occurs dozens of times but which I counted as one example of the form *pāta*, and the examples of the form *nābhantām*, which although it has 40 attestations in the RV, only actually occurs in two related formulae: *nābhantām anyaké same* and *nābhantām anyakéṣām*. See also p. 128.

<i>Book</i>	<i>Present</i>	<i>Aorist</i>	<i>Total</i>
7	466	119	585
8	615	231	846
9	450	48	498
10	865	134	999
Total	4354	1140	5494

Table 1

These data will be examined in two different ways. First we will consider the average number of imperatives per hymn in each book, and more importantly, the percentage of imperatives in each book which are aorists.

For the first calculation the results are:

<i>Book</i>	<i>Present</i>	<i>Aorist</i>
1	3.83	1.03
2	3.74	1.91
3	4.18	1.65
4	3.22	0.91
5	3.05	0.92
6	4.72	1.27
7	4.48	1.14
8	5.97	2.24
9	3.95	0.42
10	4.53	0.70

Table 2

The main conclusions that can be gained from the data in Table 2 are: The imperative is by a long way more common in Book 8 than in any other book. This will be seen to be the case according to all forms of reckoning. However, the ratio between present and aorist imperatives in Book 8 is not significantly different to that in the other books. The aor. impv. is least common in Book 9, followed by Book 10.

This is of course significant because Book 10 is later than the other books, although a way must be found to explain the even greater rarity of the form in Book 9.

More pertinent information can be gathered from a comparison of the percentage of the total number of imperatives in each book which are aorists, as shown in Table 3. The number of pres. impvs. was added to the number of aor. impvs. in each book, to find the total number of imperatives, and then the percentage of this total number of imperatives comprised by the aorists was calculated:

Book	Percentage of aorists
1	21.12
2	33.74
3	28.25
4	22.08
5	23.19
6	21.16
7	20.34
8	27.30
9	9.64
10	13.41

Table 3

Here again we can see that the aor. impv. is actually the most common in Book 2, and the least common in Book 9, closely followed by Book 10. In the rest of the books the aorist imperatives are in the region of 20-30% of the total number of imperatives.

As we can see, the aor. impv. appears in every case to be least common in Book 9. This is a problem, because if we want to claim that it is rarer in Book 10 because Book 10 is later than the rest of the RV, then we must, on the face of it, make a similar claim for Book 9. No-one, as far as I am aware, has ever made this claim,

although there is a consensus that Book 9 was *compiled* after the other books from material that was originally contained in them.¹¹³

However, no such claim is in fact necessary, as the reason for the comparative rarity of the aor. impv. in Book 9 has nothing to do with the date that it was composed, but rather it is a result of the special vocabulary used in this book.

The most common imperative forms in Book 9 are shown in Table 4:

Form	Number of occurrences
<i>pavasva</i>	127
<i>árṣa</i>	38
<i>srava</i>	33
<i>bhara</i>	22
<i>viśa</i>	13
<i>dhanva</i>	11
<i>bhava</i>	10
<i>jahi</i>	10

Table 4

The first three of these forms, as well as *dhanva*, are highly characteristic Soma-vocabulary, which appear practically exclusively in Book 9. To this list may also be added a further 22 forms of the verb *pū*, bringing the total to 149. So we have a highly dominant element of special vocabulary in this book and *none of them have any attested aor. impv. forms*. If we subtract the number of occurrences of these special key-words from the total number of pres. impvs. in Book 9 we are left with 219, and the percentage of aor. impvs. after this subtraction is 18%, which is only very slightly lower than the percentage in the other books, and higher than the

¹¹³ This is the idea behind Oldenberg's (1888: 251) statement: "Uebrigens ist ohne Weiteres klar, dass Buch IX nicht, wie die Bücher II-VII, vor der Vereinigung dieser Bücher eine Sonderexistenz geführt haben kann, sondern dass es selbst erst ein Product jener Vereinigung ist." One of the few scholars who has attempted to date the language of Book 9 is Wüst (1928: 170), who claims that it is the oldest in the entire RV. Bloomfield (1916: 644) is noncommittal, owing to the fact that most of the repetitions in this book are of verses from the same book. Among more recent scholars Oberlies (1998: 153 fn. 37) has no hesitation in placing Book 9 together with the family Books 2-7 in the earliest stratum of the RV, as does Witzel (1997: 262).

percentage of aorist imperatives in Book 10. There are other forms that only exist in Book 9, such as *kṣara* ‘flow’ (4 attestations), and the addition of these forms would get the percentage even closer to that of the rest of the books.

Thus we may conclude, on all of these grounds, that the aor. impv. is significantly less common in Book 10 than in all of the other books of the RV.

By the time of the Brāhmaṇa texts, the process of the extinction of the aor. impv. was far more advanced, to the point where it is found practically exclusively in quotes from earlier texts. For example, of the 27 examples¹¹⁴ of the form *kṛdhi* in the entire Brāhmaṇa corpus – a paucity which in itself gives an indication of the status of this form at this period – 14 are quotes from the RV,¹¹⁵ one from the Atharvaveda, and nine from the various texts of the Yajurveda. Of the residue of three examples, all are mantra verses of unknown provenance.¹¹⁶ Likewise in the case of *gahi*, of 10 examples¹¹⁷ (counting the two recensions of the Śatapathabrāhmaṇa as one example), four come from the RV, one from the SV and two from the YV. Of the remainder, two are mantra verses of unknown origin,¹¹⁸ and one is a prose passage (ŚBM 1.1.4.12 and ŚBK 2.1.3.16): *tāni vā etāni catvāri vāca ehitī brāhmaṇasyāgahi ādraveti vaiśyasya ca rājanyābandhoścādhavēti sūdrasya*, ‘These then are the four types of speech. *ehi* belongs to the brahmin, *āgahi* and *ādrava* to the *vaiśya* and the *rājanya*, and *ādhava* to the *sūdra*.’¹¹⁹ This

¹¹⁴ TB 2.8.2.7, 3.6.1.2, 2.4.2.3, 2.4.4.2, 3.7.6.21, 2.7.5.2, 2.7.7.5, 2.8.8.7 (x2), 3.7.8.1 (repeated 3 times). AB 2.2.21 (x2), 5.27.2, 7.3.2. ŚBM 3.2.1.30, 3.2.2.22, 4.1.1.13 (=ŚBK 4.2.1.21, 4.2.2.22, 5.1.1.11). TĀ 1.12.1, 2.5.1. JB 1.72, 1.92, 1.221. PB 6.10.13, 15.4.3. MB 1.2.19.

¹¹⁵ MB 1.2.19 has *suputrām subhāgām kṛdhi* whereas RV 10.85.45 has *suputrām subhāgām kṛṇu*(!). One can only speculate as to the circumstances which led to this substitution.

¹¹⁶ TB 2.4.2.3, 3.7.6.21. TĀ 1.12.1.

¹¹⁷ ŚBM 1.1.4.12 (=ŚBK 2.1.3.16), 6.6.3.4, 9.1.2.27. TB 2.4.3.13. TĀ 10.1.5. JB 1.228, 2.145, 3.200., PB 9.2.22. KB 25.8. The form *gahi* appears at JB 3.232 and PB 14.12.2, each time quoting RV 8.98.4a, which is the only time this form is attested in the RV.

¹¹⁸ TĀ 10.1.5. PB 9.2.22.

¹¹⁹ These words are apparently chosen in what the author feels is a decreasing level of politeness. The form *ehi* is adjudged to be both *yajñyatamam* ‘most appropriate for sacrifice’ and *śāntātām[am?]* ‘quietest, gentlest’. A look at the attestations of the form *āgahi* in the RV

passage bears a strong affinity to RV 8.13.14a: *ā́ tú́ gahi pra tú drava*, from which it appears to at least partially receive its inspiration. In any case, the forms are not here used in a directly imperatival sense, and *gahi* certainly need not be part of the living language of the Brahmins of the time.

The form *śrudhi* appears eight times in the Brāhmaṇas,¹²⁰ all of which are quotes from the RV. Likewise *pāhi* “drink” appears 10 times,¹²¹ of which all are quotes from the RV, except TĀ 4.8.2, a mantra verse: *úsra gharmám śiṃṣa / úsra gharmám pāhi*, where *pāhi* could be from *pā* ‘protect’ or *pā* ‘drink’. Houben (1991: 75) translates the line as: ‘O Bull (calf), leave the Gharma (milk), O bull (calf), protect the Gharma’, which in this case would be a present imperative of *pā* ‘protect’.

The aor. impv. as a metrical variant

The aor. impv. is used, with no discernable difference in meaning, as a metrical variant of the present imperative. The basic criterion for the use of any given form is the number of syllables it contains and the metrical structure of the word, rather than the semantic or aspectual value of the verbal stem.

M. Parry (1971: 6 ff.) shows that the traditional composer of oral poetry¹²² had at his disposal a large arsenal of alternate forms of differing metrical value, which could be used without distinction of meaning to fit into the metre where convenient. Parry’s subject matter was Homeric Greek, and his examples – such as the endings -ου / -οιο, -εω / -αο, -σι / -εσσι and variant forms such as ἡμεῖς and ὄμμες – are variants of the type which is also abundant in Rigvedic, examples being 1st pers. sing. subj. *-ā*, *-āni*, 3rd pers. sing. aor. subj. forms such as *gamat*, *gamati*, and 1st pers. plural active endings *-mas* and *-masi*, the locatives with and without *-i* and the

will show that it actually belongs to the gods, who are its sole addressee, as they are in almost every case for the aorist imperative in general. Thus the question must be asked why the form *ā́gahi* is considered so harsh that it is reserved for the third-ranked *vaiśya* caste.

For the accentuation of the form *ehí* see footnote 141.

¹²⁰ ŚBM 2.3.4.31 (=ŚBK 1.4.1.22). TB 2.5.8.11, 2.7.12.5. AB 5.4.13, 5.4.19. KB 22.7. JB 3.56. PB 12.6.4.

¹²¹ AB 5.12.10, 6.11.8. AĀ 5.1.1. KB 22.7, ŚBM 4.3.3.13. TB 2.4.3.13, 2.5.8.11. TĀ 4.8.2. SB 3.1.3. GB 2.2.21.

¹²² The actual meaning of the term “oral poetry” is beyond the scope of this work. For works on the subject see Parry, Nagy (1974), Matasović (1996) and Finnegan (1977).

second plural ending *-ta* and *-tana*. This kind of variant can be shown to be metrically motivated, as in the case of the formulaic *paramé vyòman*, which appears in triṣṭubh cadences, and its metrical variant *paramé vyòmani*, which appears in jagatī cadences. Likewise, the phrases 10.78.8c *ádhi stotrásya sakhyásya gāta* and 5.55.9c *ádhi stotrásya sakhyásya gātana* are differentiated only by the variant verbal endings *-ta* and *-tana*, the former being suited to the cadence of a triṣṭubh pāda and the latter to that of a jagatī pāda.¹²³

The main difference between these examples and the relationship between the pres. and aor. impvs. is that while the former are variant endings, the latter are two different verbal categories, the difference between which has been neutralised. However, since the aor. impv. has been shown to have been an archaism at the time of the composition of the Rigveda – as were the other variants such as the “endingless” locative and the 1st person sing. subj. verbal endings without *-ni* – there is really no reason to suppose that it could not have been simply another variant that the poet kept in his stock of variant forms which could be used whenever the metre demanded.¹²⁴

Limitations on the placement of words within the pāda

A form of a given metrical structure can appear in the overwhelming majority of cases in a fixed position in the pāda. While some types of words are quite versatile and may appear in one of a fixed set of positions, some, most noticeably short-short (U U) and short-short-short (U U U) forms are highly limited in their placement. On the whole, they only appear in one or two positions in any line of a given metrical type. Almost all metrical types can also appear at the beginning of a pāda.

¹²³ See also Korn (1998: 171ff.).

¹²⁴ This is not the first time that it has been suggested that different verbal categories act as metrical variants. Hoffmann (1967: 263) shows that the aorist imperative and aorist injunctive act in a similar manner in 6.44.18b – *asmábhyam máhi várivaḥ sugám kaḥ* and 1.102.4c – *asmábhyam indra várivaḥ sugám kṛdhi*, where an aorist injunctive stands at the end of a triṣṭubh pāda, and an aorist imperative at the end of a jagatī pāda. Renou (1925: 45f.) suggests that the perfect and imperfect act as metrical variants in pseudo-narratives such as RV 1.32.

For the purposes of this study, the placement of UU and UUU forms in 8-, 11-, and 12-syllable lines was examined in detail, as well as the placement of words of some other metrical structures in triṣṭubh pādas.

Disyllabic words UU

In hendecasyllables

Short-short disyllabic words are very limited in their placement, and thus are quite rare in the triṣṭubh, basically falling into two categories, with a small number of exceptions:

pāda-initial – Very common. In this case, obviously, the verb is accented. The form *gahi* is never found in this position. The reason for this is that the form *gahi* never appears without the preverb *ā*. When the verb and preverb are juxtaposed, the combination *ā-gahi* will in effect behave in the same way as a trisyllabic form with the metrical structure —UU; cf. the common placement of the form *gātana* in the cadence of jagatī pādas.

10.116.1a *pībā* sómam \ mahatá indriyáya, *pībā*¹²⁵ vṛtráya \ hántave śaviṣṭha

10.116.1c *pība* rāyé \ śávase hūyámānaḥ, *pība* mádhvas \ tṛpád indrá vṛṣasva

Immediately before the caesura – This is very common, but only occurs where the caesura is after the fourth syllable.

3.35.9d *agnéḥ pība* \ jihváyā sómam indra

2.30.10b *vīryā kṛdhi* \ yáni te kártvāni

6.5.6a *sá tát kṛdhi* \ iṣítás tūyam agne

6.23.7d *urúm kṛdhi* \ tvāyatá ulokám

7.25.5c *satrá kṛdhi* \ suhánā sūra vṛtrá

¹²⁵ The purpose of the vowel lengthening is not always immediately obvious. It is highly likely that some syllables are lengthened regularly even when not marked as such. See the conclusions for more details.

Other possibilities – The two aforementioned positions are by far the most commonly found positions for the UU type. However, a few examples show them in other positions, almost always in conjunction with an enclitic or a preverb. The combination of a monosyllabic particle and the disyllabic impv. form behaves exactly like a trisyllabic word.

6.47.10d *táj juṣasva \ kṛdhí mā devávantam*

8.96.8c *úpa tvémaḥ \ kṛdhí no bhāgadhéyaṃ*

10.104.1d *dadhanvirá \ indra pībā sutásya*

In octosyllables

If anything, these forms are even more limited in their possible placements within the octosyllabic line than within the triṣṭubh.

Pāda initial – This is a fairly unusual placement for the verb, which in the vast majority of cases is situated at the end of the pāda.

1.10.11d *kṛdhí sahasrasám řsim*

9.61.28b *kṛdhí no yaśáso jáne*

1.44.13a *śrudhí śrutkarṇa váhnibhir*

Pāda-final – As mentioned, this is by far the most common position for the verb. The following are just a few of hundreds of examples.

1.4.2a *úpa naḥ sávaná gahi*¹²⁶

1.4.3c *mā no áti khya á gahi*

6.2.10c *samřdho viśpate kṛṇu*

6.53.7a *á rikha kikirá kṛṇu* (also 6.53.8d)

10.85.45b *suputrám subhágāṃ kṛṇu*

1.14.7b *-ágne pátmīvatas kṛdhi*

1.42.6c *dhánāni suśāṇā kṛdhi*

1.127.11d *māhi śaviṣṭha nas kṛdhi*

5.51.14d *svastí no adite kṛdhi*

¹²⁶ See however my remark above about juxtaposition of *gahi* with the preverb *á*. The form *gahi* appears exclusively with the preverb *á* in gayatrī cadences.

Other examples: *śrudhī hávam* – Aside from 9.104.6a *sánemi kṛdhíy asmád á*, most of the examples in which the verb is not either at the beginning or the end of the pāda contain the syntagm *śrudhī (...)* *hávam*.

- 8.66.12d *śáviṣṭha śrudhī me hávam*
 8.82.6a *índra śrudhī sú me hávam*
 8.6.18c *máméd ugra śrudhī hávam*
 8.74.11c *sá pāvaka śrudhī hávam*

A few examples contain variations on the theme of drinking soma:

- 1.15.1a *índra sómam pība rtúnā*
 1.15.3b *gnávo néṣṭaḥ pība rtúnā*
 1.15.4c *pári bhūṣa pība r túnā*
 4.46.1a *ágram pībā mádhūnāṃ*
 8.17.1b *índra sómam pībā imám*
 8.32.19c *índra pība sutānām*

In dodecasyllables

Behave as in octosyllables:

Pāda-initial

- 2.17.7c *kṛdhī praketaṃ \ úpa māsiy á bhara*
 7.16.6a *kṛdhī rátnaṃ \ yájamānāya sukrato*

Pāda-final

- 2.23.7d *sugám no asyaí \ devávītaye kṛdhi*
 8.66.8c *sémám na stómaṃ \ jujuṣāná á gahi*

Two exceptions:

- 6.51.13c *daviṣṭhám asya \ satpate kṛdhí sugám*
 9.85.4d *urúṃ no gātúṃ \ kṛṇu soma mīḍh^uvah*

Disyllabic forms — U

This is a far more versatile type, and thus far more common. There are five possible positions:

Pāda-initial – The examples of pāda-initial *pāhi* are, with one exception, all from the verb *pā* ‘protect’. The aorist imperative of *pā* ‘drink’ only occurs once in this position. The form *piba* is common at the beginning of the pāda. The examples of forms in other positions are all from *pā* ‘drink’.

1.121.14b *pāhī vajrivo \ duritād abhīke*

1.129.9f *pāhī no \ dūrād ārād abhīṣṭibhiḥ*

Immediately after the caesura

2.11.15b *ṭṛpát sómam \ pāhi drahyád indra* (10 sylls)

2.11.17b *tríkadrūkeṣu \ pāhi sómam indra*

Pāda-final

3.35.6b *śasvattamāṇ \ sumánā asyá pāhi*

3.35.8c *tásyāgátyā \ sumánā ṛṣva pāhi*

Immediately before the caesura

3.36.3d *evā pāhi \ pányo adyā návīyān*

4.34.7b *sajóṣāḥ pāhi \ girvaṇo marúdbhiḥ*

Third and fourth syllable before end

3.47.3a *utá rtúbhir \ ṛtupāḥ pāhi sómam*

3.51.7a *índra marutva \ ihá pāhi sómaṇ*

5.43.3c *hóteva naḥ \ prathamāḥ pāhīy asyá*

Trisyllabic words U U U**In hendecasyllables**

This is the most limited form of all, occurring virtually only immediately after the caesura.

1.31.8b *yaśásaṇ kārúṇ \ kṛṇuhi stávānaḥ*

3.30.6d *vísvaṃ satyám \ kṛṇuhi viṣtám astu*

1.100.1d *marútvān no \ bhavat^u y índra ūtí*

4.1.20d *sumṛlīkó \ bhavatu jātávedāḥ*

Only one exception to this has been found in the test corpus:

3.58.7d *sómam píbatam \ asrídhā sudānū*

In octosyllables

Pāda-initial

1.18.1b *kṛṇuhí brahmaṇas pate*

8.13.7b *śṛṇudhī jaritúr hávam*

Middle of pāda

At 3rd syllable

1.13.2c *adyā kṛṇuhi vītáye*

6.53.10c *nṛvát kṛṇuhi vītáye*

10.60.11d *níyag bhavatu te rápaḥ*

At 4th syllable

8.84.3b *nṛmḥ páhi śṛṇudhī gíraḥ*

4.9.7c *asmākaṃ śṛṇudhī hávam*

8.74.8b *cániṣṭhā bhavatu priyā*

In dodecasyllables

In this case the behaviour is the same as in hendecasyllables.

6.48.4c *arvācaḥ sīm \ kṛṇuhīy agné avase*

9.82.4b *pájrāyā garbha \ śṛṇuhī brávīmi te*

1.94.8a *púrvo devā \ bhavatu sunvató rátho*

Trisyllabic words U — U

The most common place for this metrical structure is at the end of the pāda. It is also to be found immediately before the caesura, and pāda-initially.

Pāda-final

5.2.6cd *bráhmāṇīy átrer \ áva tám srjantu, ninditáro \ níndīyāso bhavantu*

7.35.5c *śám na óśadhīr \ vanīno bhavantu*

Immediately before caesura

5.83.7d *samā bhavantu- \ -udvāto nipādāḥ*

7.17.5b *satyā bhavant^{uv} \ āśīšo no adyá*

Pāda-initial

6.51.11d *bhāvantu nah \ sutrātrāsaḥ sugopāḥ*

1.114.11b *śṛṇótu no \ hávaṃ rudró marútvān*

One exception

One example is completely unlike the others:

10.67.11c *paścā mīdho \ āpa bhavantu víśvās*

Traditional phraseology, metre, and linguistic considerations

This study shows that there was a highly organized and predictable system of constraints on the possible position of verbal forms in the Rigvedic poetic technique. Indeed, there is no reason to suppose that only verbal forms were limited this way, and especially, that these rules apply only to the imperative.

The Rigvedic poet, it seems, saw each word as a brick of a certain size and shape which would fit into a slot in the appropriate place in the line.

In this system, the chance of finding semantic differences between different verbal stems is reduced. In some cases, especially where there is a different clause each side of the caesura, the poet is “locked in” by the metre, and has no choice but to use the form he does, thus neutralizing any possible difference between the verbal forms. A partial example would be 10.147.5b *urú kṛdhi \ maghavañ chagdhí rāyāḥ*. It is true that in this example the second verb is also aorist, thus we have an aorist environment and a possible justification for the use of the form *kṛdhi*. However, the point here is that in this case, because of the fixing of the sentence, the poet could not have used the present in the first clause even had he wanted to, as the $\cup \cup \cup$ forms can only go after the caesura, but in this example, that position is occupied by a different clause. The form *kṛnu* is unattested in triṣṭubh pādas, and so the *only* choice the poet had here, if he wished to use any form of the verb *kṛ*, is the form *kṛdhi*. Even if the caesura were after the fifth rather than the fourth syllable, the

opening **urú kṛṇuhi* \ would, according to the findings of this work, be exceptionally rare, only one similar example having been found.

The reason for this rarity lies in the scheme of the triṣṭubh metre, which before the caesura, is either 1) $\underline{\cup} - \underline{\cup} -$ or 2) $\underline{\cup} - \underline{\cup} - \underline{\cup}$.

In the case of variant 2, in which the caesura is after the fifth syllable, forms such as *kṛṇuhi* and *bhavatu* would only fit in this position in a non-standard metrical line. Similarly problematic, and also rare, are the cases where a $- \cup$ form such as *pāhi* occurs immediately after the caesura. This study unearthed only three such examples.

The almost universal use of $\cup \cup \cup$ forms such as *kṛṇuhi* and *bhavatu* immediately after the caesura also raises questions as to the actual quantity of the final vowel in these forms, as the first three syllables after the caesura are supposed to be $\cup \cup -$. While stating that the final syllable of *śṛṇuhi* is always long, Arnold (p.118) suggests that the vowel in other forms ending in *-uhi* was considered short, *inter alia* because of its “rather frequent occurrences before consonant groups”. This would appear not to be the case. In fact *kṛṇuhi* only occurs four times before a consonant group¹²⁷, thus indicating that either the final vowel of *kṛṇuhi* was in fact lengthened, or that the sequence $\cup \cup \cup$ was not only admissible immediately after the caesura, but actually common, both in variants 1) and 2) of the triṣṭubh metre.

The similarity of the behaviour of the forms such as *pibatam*, where the final syllable is often lengthened by position, and *kṛṇuhi*, and the lack of distinction between cases where *kṛṇuhi* occurs before a consonantal cluster and where it does not, would seem to indicate either a constant and regular lengthening of the final vowel in the third position after the caesura, or that that syllable is anceps, i.e. $\underline{\cup}$ rather than $-$.

Likewise, pāda-initial $\cup \cup$ and $- \cup$ raise the same questions about the length of the final vowel. While the *a* in *piba* is sometimes marked as long in this case, in many cases it is not, and the final syllables of the forms *gahi* and *kṛdhi*, when occupying the third and fourth syllables, never are. Does this mean that we should

¹²⁷ 1.31.8, 1.165.9, 4.22.9, and 9.91.5.

assume the second syllables of these forms are always long whether marked or not, or that this syllable is also anceps, $\underline{\cup}$?¹²⁸

Another piece of evidence which brings into doubt the length of the final syllable of the $\cup\cup$ forms is the fact that in 11-syllable lines they can only appear immediately before the caesura if the caesura occurs after the fourth syllable. The fourth syllable is long, but the second syllable of forms such as *kṛdhi* may occur in this position. When the caesura is after the fifth syllable, the fourth syllable is still long, but the first syllable of these forms, which now falls in this position, may not be lengthened and thus they cannot occur.

It is also worth noting that it is only forms ending in *a* and *i* which may undergo lengthening of the last syllable. The vowel *u* is never lengthened, and thus the form *kṛṇu*, for example, cannot (and does not) occur in *any* position in an 11-syllable line.

The triṣṭubh metre is commonly considered (e.g. by Watkins and Nagy) to be catalectic variant of the jagatī; in other words, it was derived from the latter by subtracting the last syllable of the cadence. This explains why the latter jagatī in some cases has more in common with the octosyllables than with the hendecasyllables. For Nagy (1974: 166ff.), the dimetre (8-syllable line) is composed of a 4-syllable opening + a 4-syllable closing, while the 12-syllable trimetre (jagatī etc.) is composed of the same two elements plus an extra 4-syllable colon, i.e. either opening + opening + closing, or opening + closing + closing. Although there are

¹²⁸ The length-neutrality of these syllables does seem a likely conclusion in the light of the long-held view of Indo-European metre, each line of which, according to a succession of scholars, originally had an opening consisting only of a given number of syllables, with no stipulation of length, and a fixed cadence. This idea originated with Meillet, although it did have precursors in the work of Wilamowitz and Bergk. It was later developed by Jakobson, Watkins and Nagy, among others.

Watkins (1963) actually goes so far as to describe the scheme of the *jagatī* line, of which the triṣṭubh is a catalectic variant, as $\underline{\cup}\underline{\cup}\underline{\cup}\underline{\cup}\underline{\cup} \mid \underline{\cup}\underline{\cup}—\underline{\cup}—\underline{\cup}\underline{\cup}$ for the late-caesura variant and $\underline{\cup}\underline{\cup}\underline{\cup}\underline{\cup} \mid \underline{\cup}\underline{\cup}\underline{\cup}—\underline{\cup}—\underline{\cup}\underline{\cup}$ for the early-caesura one. By his reasoning the scheme of the triṣṭubh would be the same, but minus the last syllable, and the new last syllable would then become anceps, thus: $\underline{\cup}\underline{\cup}\underline{\cup}\underline{\cup} \mid \underline{\cup}\underline{\cup}—\underline{\cup}—\underline{\cup}$ and $\underline{\cup}\underline{\cup}\underline{\cup}\underline{\cup} \mid \underline{\cup}\underline{\cup}\underline{\cup}—\underline{\cup}—\underline{\cup}$. As far as the final syllable of the forms *kṛdhi* and *kṛṇuhi* is concerned, for the former, in the majority of cases, we can draw no conclusion, as it occurs in the opening, however in the few cases when *kṛdhi* occurs in the cadence, as in 7.27.5a *nū indra rāyē \ vārivas kṛdhī nah*, its final syllable always occurs where a long syllable is expected, and is indeed marked as long. For the latter, in the early-caesura variant the final syllable would also fall on an anceps syllable, while in the late-caesura variant it would fall on a lengthened one in the “partially regulated inner colon” as Watkins terms it.

several details and complications involved which need not concern us here, the important thing is that the cadence of most octosyllables (U — U U)¹²⁹ is the same as that of the jagatī and thus can accommodate the U U forms such as *kṛdhi*. The hendecasyllables have a different cadence, — U — U, and thus cannot accommodate them.

Phraseological exceptions and archaisms

The fixed placements thus far have been explained as metrical constraints. In other words, verbs of a certain shape are always or usually placed in a certain position or positions in a line because that is where they fit the metre.

Some of the fixed positions are not wholly the result of the metre. The verb *could* fit in other places, but very seldom does – an example being the short-short forms which practically always occur at the end of eight and twelve syllable lines. This type is most likely the result not only of metrical constraints, but also of phraseological convention; the usual unmarked word order is verb-final and if the verb can be in this position that it usually will be, even though it can theoretically also fit into the two preceding syllables. The explanation of the exceptions to these conventions is critical in the search for the relics of a difference between the present and aorist imperative, since they belong to an older level of phraseological convention and thus allow us to identify archaisms within the text.

A case in point is the formulaic *śrudhī hāvam*. This is the only word order attested for this formula, even though it meant that the overwhelmingly common octosyllable phraseology, where the verb was placed at the end of the pāda, was violated. This despite the fact that **hāvam śrudhi* would both fit the meter and conform to the usual standard verb-final phraseology.

The poets, who appear to have been well aware of the problematic nature of the phrase *śrudhī hāvam*, took some measures to accommodate it more easily within the octosyllabic line. On one occasion the phrase was actually split across two lines, so that the verb is at the more usual final position:

1.25.19ab *imām me varuṇa śrudhī, hāvam adyā ca mṛḷaya*

¹²⁹ Except for the trochaic gāyatrī. The anuṣṭubh has no such variant.

The other method used to regularise this formula was to use the form *śṛṇudhī* to replace the verb *śrudhī*. It has already been noticed by Lubotsky (1995) that this form is typically (in fact *only*) used in the same formulae as *śrudhī* (p. 135) and that the ending *-dhi* is ‘probably due to the influence of *śrudhī*.’ However, in addition to Lubotsky’s observations, we may now add that the form *śṛṇudhī* only occurs in octosyllabic lines. Within these lines it occurs four times out of five at the fourth syllable, a position at least more characteristic of octosyllable phraseology than the formula *śrudhī hávam* allows. I believe that the form *śṛṇudhī* was specially coined to allow easier accommodation of the formula *śrudhī hávam* within octosyllabic lines.

The suggestion that a word can be coined in order to comply with the metrical environment in which a formula is used is not unprecedented. Nagy shows that the original formula *śrávas ákṣitam* was replaced by the later *ákṣiti śrávas* because it fits better into the cadence of the Rigvedic octosyllable (1974: 153ff.).

Thus, the fact that *śrudhī hávam* behaves in a phraseologically uncharacteristic manner shows that there is something special about the phrase, more precisely, we are dealing with an archaic fixed formula.

Another syntagma which may well be a traditional formula is *kṛdhī sugám*, in 6.51.13c. This is the only example found of a $\cup \cup$ form which does not appear at the end of a dodecasyllabic line. In all other occurrences of this formula, the word order is reversed. Two things are worth noting: the word order in *kṛdhī sugám* is the same as that in *śrudhī hávam*, and book six is known to be extremely conservative, and thus possibly more likely to conserve ancient phraseology.

Likewise formulae containing *píba* or *pāhī* and *sómam* or a paraphrase thereof, such as *sutásya*, *sutánām* or *mádhūnām* are likely to behave in an uncharacteristic manner. In all of these cases the traditional formula which is shown to be preserved in this manner is of the form VO.¹³⁰

¹³⁰ Klein (1994: 98) also finds that the VO word order is characteristic of formulae. In his study, he found that the verb *han* always preceded its object when used in the context of Indra smiting the serpent.

The form *śrudhí*, as a part of a formula used in prayers to invoke the gods, furthermore, has a precise counterpart in Homeric Greek, where the form κλῦθι¹³¹ is used *exclusively*¹³² in prayers. A selection of examples is:¹³³

Iliad

1.37 – κλῦθί μευ, ἀργυρότοξ', ὃς Χρῦσην ἀμφιβέβηκας

“hear me, you of the silver bow, who have under your protection Chryse . . .”

5.115 – κλῦθί μευ, αἰγίοχοιο Διὸς τέκος, Ἄτρυτώνη

Hear me, child of Zeus who bears the aegis, Atrytone!

10.278 – κλῦθί μευ, αἰγίοχοιο Διὸς τέκος, . . .

Hear me, child of Zeus who bears the aegis, . . .

Odyssey

5.445 – κλῦθι, ἄναξ, ὅτις ἐσσί· πολὺλλιστον δέ σ' ἰκάνω

Hear me, O king, whosoever thou art, as to one greatly longed for do I come to thee

9.528 – κλῦθι, Ποσειδάον γαιήοχε κυανοχαῖτα

Hear me, Poseidon, earth-enfolder, thou dark haired god

3.55 – κλῦθι, Ποσειδάον γαιήοχε, μηδὲ μεγῆρης

Hear me, Poseidon, earth-enfolder, and grudge not in answer . . .

4.762 – κλῦθί μευ, αἰγίοχοιο Διὸς τέκος, Ἄτρυτώνη

Hear me, child of Zeus who bears the aegis, unwearied one

4.767 – ὣς εἰποῦσ' ὀλόλυξε, θεὰ δέ οἱ ἔκλυεν ἀρῆς

¹³¹ For the lengthening of the vowel in κλῦθι see Schmitt §400, and LIV s.v. **k̑leu*.

¹³² This exclusivity extends to Hesiod and the Homeric hymns.

¹³³ Translations by A.T. Murray, from the Loeb Classics editions of Homer's Iliad and Odyssey.

So saying she raised the sacred cry,¹³⁴ and the goddess heard her prayer

Schmitt (§§ 400-405) considers the formula **kludhí moī* (which would have been uttered “mit ausgestreckten Händen”) to be of Indo-European antiquity, although other scholars, such as Matasović (1996) would no doubt disagree, saying it can only be proven to be Graeco-Indo-Iranian. Since it is accepted now that there is no special affinity between Greek and Indo-Iranian, then any commonality between them must be a shared preservation rather than a shared innovation, thus we can accept Schmitt’s assertion of Indo-European age for this formula.

Matasović, who attempts to formulate a methodology for the study of comparative Indo-European poetics, goes to great pains to point out that it is not enough that there is a phonological and morphological correspondence between the compared phrases in order to show that they form a poetic formula; there has to be a correspondence of the textual contexts in which the phrases appear (p. 68ff.). In any other case there is a good chance that we are dealing with simple coincidence, as in the case of phrases meaning “green grass” (p. 74). While it is hard to imagine what other adjective could be used to describe grass, he also dismisses the phrase “living fire” which occurs in Latin and Slavic literature, because there are no contextual correspondences between their occurrences (p. 75). Thus it is vitally important that the expression κλῦθί μεν occurs *only* in prayers in the Iliad. When humans spoke to each other, they used a different expression for “hear me”. The Vedic phrase *śrudhí me* (and *śrudhí hávam*) also occurs only in prayers, but that is not really remarkable considering the subject matter of the Rigveda. In any case, it appears that even by Matasović’s rules, Schmitt was justified in considering **kludhí* to be a method of addressing the gods in prayers.

The later replacement of an aorist imperative by a present – even a newly-coined one such as *śṛṇudhi* – for the sake of metrical or phraseological convenience does not bode well for our chances of finding a semantic difference between the present and aorist imperatives at the time of the Rigveda.

However, the basic formula itself is always older than the attested text, and sometimes may be shown to be of Indo-European antiquity. If the formula contains

¹³⁴ The final example is noteworthy, because the “sacred cry” reminds us of the Rigvedic *háva*. Obviously this similarity is only semantic, not etymological or syntactic.

an aorist imperative, then it is in effect a pre-Vedic aorist imperative rather than a Vedic one. Since we can be sure that in Indo-European times there was a semantic distinction between the aorist and present modal forms, we thus have a ‘micro-environment’ in which this distinction has been preserved in Vedic, despite the fact that elsewhere it has been lost. Thus, if we can identify the basic form of the formula, then we can identify which form of the verb it originally contained and find the original semantic meaning of the verbal stems.

The above gives a criterion which may be used to select candidates for the original formulae - a prevalence or exclusivity of VO word order where OV would be the norm according to the above rules.

As already shown, a few examples have been found. The most obvious is *śrudhi hávam*, for which there are basically no exceptions. The poets may have been aware of the great antiquity and inviolability of this formula. Another is *piba sómam*. This formula is of lesser antiquity than *śrudhi hávam*, and may have consciously been considered less inviolable. Nonetheless there is a preference for VO word order and several examples where the usual word order is violated. This formula does sometimes ‘mutate’, even becoming *sómam pāhi* to fit the cadence of 11-syllable lines.¹³⁵ A noteworthy fact in this case is that the form *pāhí*, when meaning ‘drink’ rather than ‘protect’, almost never occurs pāda-initially. The reason for this is that in cases where the VO word order may be preserved, and where the metre permits it, the underlying formula *piba sómam* is preserved as closely as possible.

These two examples seem to show well the aspectual distinction between the present and aorist that must have existed in Proto-Indo-European, and in Indo-Aryan at a period before the composition of the Rigveda, when many of the later fixed formulae may have been coined. *śrudhi hávam* clearly has perfective and resultative aspect; i.e. it means ‘hear our call now and do as we ask’, or even ‘obey our call’. *piba sómam*, on the other hand, shows imperfective aspect. It is inchoative, the god is not being asked to ‘drink up all of his Soma’ like a child being told to ‘eat up his vegetables’.

¹³⁵ In this case, in effect, we have a complementary distribution between *piba* at the beginning, and *pāhí* at the end of hendecasyllables. Again, hardly a situation that would indicate any semantic difference between the two forms.

On the basis of this, I would add another formula to this list: *jeṣi śátrūn*. While *ji + acc.* usually means ‘capture’ or ‘win something’, in this case it clearly means ‘defeat our enemies’, and thus preserves perfective aspect.

Further observations

Having established this, many occasions of seemingly inexplicable usages become clear. For instance, cases where an entire hymn is written with present-stem forms, among which is one or two aorist forms seemingly with the same meaning and usage.

One example is RV 8.35. Although it is not a simple hymn metrically, largely written in the rare *upariṣṭājjyotis* metre, it has a fairly simple poetic structure with many repetitions and semi-formulaic phrases in which the basic pattern is maintained but the words are replaced. Each pāda (d) occurs three times, of which I only list the first:

4cd *sajóṣasā uṣ sā sūryeṇa ca, iṣam no volham aśvinā*

7cd *sajóṣasā uṣ sā sūryeṇa ca, trír vartír yātam aśvinā*

10cd *sajóṣasā uṣ sā sūryeṇa ca, ūrjam no dhattam aśvinā*

13cd *sajóṣasā uṣ sā sūryeṇa ca, ādityaír yātam aśvinā*

While 7-15d contain disyllabic present imperatives, 4-6d contain the rare form *volham*, the aorist imperative of *vah*. This form only occurs in one other place in the entire Rigveda. It seems fairly obvious that the reason this form was chosen was because it has the same number of syllables as the other forms in the rest of the hymn, not because of any perfective value it may have.

Likewise, in the same hymn, 22cde *á yātam aśviná gatam, avasyúr vām ahám huve, dhattám rátnāni dāśúṣe*, it seems clear that *gatam* was chosen because it sounds similar to *yātam* and *dhattam*, and also because it fits into the characteristic $\cup \cup$ position at the end of a pāda, especially as the form *hatam* has also appeared recently in the same vicinity (16-18b).

Another case in point is RV 7.35, which has approx. 40 imperative forms, mostly third person forms from *bhū* and *as* in the expressions *śám astu* and *śám bhavatu*. The following is the text in full:

1 *śám na indrāgní \ bhavatām* ávobhiḥ, *śám na indrāvāruṇā rātáhavyā*
śám indrāsómā suvitāya śám yóḥ, śám na indrāpūṣāṇā vājasātau

2 *śám no bhágaḥ \ śám u naḥ śámso astu*, *śám naḥ píramdhiḥ \ śám u santu* ráyaḥ
śám naḥ satyásya suyámasya śámśaḥ, śám no aryamā \ purujátó astu

3 *śám no dhātá \ śám u dhartá no astu*, *śám na urūcī \ bhavatu* svadhábhīḥ
śám ródasī br̥hatī śám no ádriḥ, śám no devānām \ suhávāni santu

4 *śám no agnír \ jyótiranīko astu*, *śám no mitrávāruṇāv aśvínā śám*
śám naḥ sukṛtām \ sukṛtāni santu, *śám na iṣiró abhí vātu vātāḥ*

5 *śám no dyāvāpṛthivī pūrváhūtau*, *śám antárikṣam \ dṛśáye no astu*
śám na óśadhīr \ vaníno bhavantu, *śám no rájasas \ pátir astu* jīṣṇúḥ

6 *śám na índro \ vásubhir devó astu*, *śám ādityébhir váruṇaḥ suśámśaḥ*
śám no rudró rudrēbhir jálāśaḥ, śám nas tváṣṭā \ gnābhir ihá śṛṇotu

7 *śám naḥ sómo \ bhavatu* bráhma *śám naḥ, śám no grāvāṇaḥ \ śám u santu* yajñāḥ
śám naḥ svárūṇām \ mitáyo bhavantu, *śám naḥ prasvāḥ \ śám v astu* védiḥ

8 *śám naḥ sūrya urucákṣā úd etu*, *śám naś cátasraḥ pradíśo bhavantu*
śám naḥ párvatā \ dhruváyó bhavantu, *śám naḥ síndhavaḥ śám u santv* āpaḥ

9 *śám no áditir \ bhavatu* vratébhiḥ, *śám no bhavantu \ marútaḥ svarkāḥ*
śám no víṣṇuḥ \ śám u pūṣā no astu, *śám no bhavíttram \ śám v astu* vāyúḥ

10 *śám no deváh savitá tráyamāṇaḥ, śám no bhavantūśaso vibhātīḥ*
śám naḥ parjáno \ bhavatu prajābhyaḥ, *śám naḥ kṣétrasya pátir astu* sambhúḥ

11 *śám no devā \ víśvādevā bhavantu*, *śám sárasvatī \ sahá dhībhir astu*
śám abhiśácaḥ śám u rátiśácaḥ, śám no divyāḥ párthivāḥ śám no ápyāḥ

12 *śám naḥ satyásya \ pátayo bhavantu*, *śám no árvantaḥ \ śám u santu* gávaḥ

śám na ṛbhávaḥ sukṛtaḥ suhástāḥ, śám no bhavantu \ pitáro háveṣu

*13 śám no ajá \ ékapād devó astu, śám nó 'hir budhnyàḥ śám samudráḥ
śám no apāṁ \ nápat perúr astu, śám naḥ pṛśnir \ bhavatu devágopā*

*14 ādityā rudrá \ vásavo juṣanta, idám bráhma kriyámāṇaṁ návīyaḥ
śṛṇvāntu no \ divyāḥ párthivāso, gójātā utá yé yajñtyāsaḥ*

*15 yé devānāṁ yajñtyā yajñtyānām, mánor yájatrá amṛtā ṛtajñāḥ
té no rāsantām \ urugāyám adyá, yūyám pāta \ svastíbhīḥ sádā naḥ*

As can be seen, the forms *astu* and *santu* occupy the characteristic positions of — U forms, either at the end of the pāda or in the third and fourth syllables from the end. As this is one case where *as* and *bhū* have hardly any difference in meaning, is it too far fetched to suggest that the author wished to vary the lines not only in vocabulary but also in the possible positions in which he could place the verb? If he had consistently used *astu* and *santu*, the hymn would have ended up not only very repetitive and monotonous in content, but also would have looked somewhat like a railway timetable, with every verb in the same place (actually two places) in the line! By varying the usage, he is able to place the verb further back in the line, *bhavatu* can (indeed must) go immediately after the caesura, and *bhavantu* immediately before it, as well as at the end.

Index of attested imperative forms in the Rigveda

Root notation and classification are based on that of Lubotsky (1997¹). As that work keeps to a strictly traditional classification it has occasionally been found necessary to reclassify forms under different roots, or, in a few cases, to change the notation of roots. All such instances have been noted. If the form is attested with accentuation then it will appear accented here, otherwise it is listed without accentuation. The number of occurrences of each form is noted in brackets. Hapax legomena are referenced explicitly.

aj ‘drive’

pres. act. 2nd sing. *ája* (6), 3rd sing. *ajatu* (2), 2nd dual *ajatam* (2.39.7b)

pres. med. 2nd pl. *ajadhvam* (6.48.11b)

añc₁ ‘bend’

pres. act. 2nd sing. *aca* (9.97.54d)

añc₂ ‘draw (water)’

pres. act. 2nd sing. *aca* (5.83.8a)

For the meaning of this verb see Hoffmann (1965). Though Hoffmann considers this meaning to be a semantic development from the meaning ‘bend’ of *añc*₁, Mayrhofer (1986: s.v.) suggests this is a separate root.¹³⁶

añj ‘anoint’

pres. act. 2nd sing. *aṅdhi* (9.5.10b), *añdhí* (10.156.3c), 3rd sing. *anaktu* (6), 2nd pl. *anaktana* (10.76.1b), 3rd pl. *añjantu* (2)

ad ‘eat’

pres. act. 2nd sing. *addhí* (6), 3rd sing. *attu* (10.15.8d), 2nd pl. *attá* (10.15.11d), *attana* (10.100.10a), 3rd pl. *adantu* (2)

With the exception of the form *addhí*, the imperative of this verb only appears in late texts; eight times in Book 10, and once at hymn 1.164.40c. Of the occurrences in Book 10, 4 are in syntagmas with *hávis* or *havīm̐ṣi* ‘oblation’. Since the oblation consisted of ghee, this corresponds with the description of ghee as ‘food’ (*anna-*) of the gods, as in e.g. 2.35.11c *hiraṇyavarṇaṃ ghṛtám ánnam asya* ‘gold-coloured ghee is his food’ (of *apám nápāt*). Soma, on the other hand, never occurs together with the verb *ad-*.

arthaya ‘strive for’

pres med. 2nd sing. *arthayasva* (2)

The two occurrences of this forms are in fact repetitions of the same pāda – 2.13.13ab *asmábhyaṃ tát vaso dānāya rādhaḥ, sám arthayasva bahú te vasavyám*, “Strive to give us a gift, O Good One, great is your goodness” in the repeated verses 2.13.13 and 2.14.12.

arṣ ‘flow’

pres. act. 2nd sing. *árṣa* (38), 2nd pl. *arṣata* (4.58.10a), 3rd pl. *árṣantu* (2)

The second person singular of this Soma key-word is entirely restricted to Book 9. This verb characteristically appears – usually with the preverb *abhí* – in expressions such as 9.20.4 *abhy àrṣa bṛhád yáso, maghávadbhyo dhruvám rayím / íṣaṃ stotṛbhya á bhara* ‘flow high honour, secure property for the liberal ones, bring

¹³⁶ See also Joachim (1978: 37).

nourishment for the praisers’. Gotō (1987: 104-105) is adamant that this verb is always intransitive, the acc. being an acc. of goal. This could often be the case, as in 9.63.12 *abhy àrṣa sahasrīṇam, rayīm gómantam aśvīnam / abhī vājā utā śrāvāḥ* ‘flow for thousand-fold property, rich in cows and horses, for booty and for glory’. However, in 9.20.4a (above), there is an extra dative element as well as the accusative. Thus it is entirely possible that *abhī-arṣa* + acc. + dat. and *ā-bhara* + acc. + dat. are in effect synonymous. In other words, *abhī-arṣa yāśas* (acc.) *maghāvadbhyas* (dat.) is exactly parallel to *ā bhara iṣam stotṛbhyas*. Another example with the extra dative (if *naḥ* is indeed to be analysed as dative and not genitive as is done by Geldner) is 9.97.51ab: *abhī no arṣa divyā vásūny, abhī víśvā pāṛthivā pūyāmānaḥ* ‘Flow heavenly goods to us, and all things on earth as you are purified’¹³⁷.

avi ‘help’

pres. act. 2nd sing. *áva* (37), *avatāt* (8.3.2c), 3rd act. *ávatu* (15), 2nd dual *ávataṃ* (23), 3rd dual *ávataṃ* (2), 2nd pl. *avata* (10), *avitā* (7.59.6), 3rd pl. *ávantu* (32)

aor. act. 2nd sing. *aviḍḍhī* (7), 2nd pl. *aviṣṭu* (3), 2nd dual *aviṣṭām* (9), 3rd dual *aviṣṭām* (2), 2nd pl. *áviṣṭa* (7.34.12a), *aviṣṭána* (7.18.25c)

[**aor. inj.** *ávīḥ* (6.25.1c)]

For a discussion of the form *avitā*, which appears at 7.59.6 *ā ca no barhīḥ sádatāvitā ca naḥ* ‘sit on the altar-grass and help us’ and for a history of attempts to classify it as a form of the verb *av*, see Narten (1964: 87). Narten (*op. cit.*: 88) also suggests a different reading, *ā ca no barhīḥ sádatā vitā ca naḥ*, ‘sit on the altar-grass and visit us’, which solves the problem of the irregular form of the verb *av*, and, as she herself admits, introduces a shortened zero-grade form of the verb *vī* which is not attested elsewhere. If we are to classify this form under the verb *av*, then it must be a root aorist with full grade stem (< **h₁eyH-té*, analogous to the form *gantá*), as originally suggested by Meillet (1933: 128). Narten points out that in this case the accent should be on the stem rather than the ending, but there are other such examples, in addition to *gantá* (which Narten mentions), there is also *pātá* and *yātá*, although in both of these cases the full grade has been generalised throughout the paradigm. There are other forms from this verb that could still be

¹³⁷ For the semantics of this verb see also Joachim (1978: 64, particularly fn. 111).

classified as root-aorists, such as inj. *ávīt* (<*h₁euH-t, analogous to the form *kar(t)*),¹³⁸

aviḍḍhi and *aviṣtu* are the only specifically imperative forms created from an -iṣ-aor.

The -iṣ-aor. is often to be seen as a secondary development from an earlier root aor. of a *seṭ* root.¹³⁹ While in other verbs of the same type, the root aorist form of the 2nd pers. sing. is generally preserved (e.g. *śnathihi*, *stanihi*, etc.), the original zero-grade root aorist form would probably have been *ūhí < *h₁uH-dhí, and thus the form *aviḍḍhi* would have been formed by analogy to the rest of the paradigm for the sake of comprehensibility.

as ‘eat’

pres. act. 2nd sing. *asāna* (2)

For the form *asāna*, and similar forms, see p. 28.

as₁ ‘be’

pres. act. 2nd sing. *edhi* (16), 3rd sing. *ástu* (171), 2nd dual *stam* (10.85.42a), 3rd pl. *sántu* (61)

edhi is a perfectly regular development of **as-dhi*, which must have replaced an earlier form from **h₁s-dhi*, cf. Av. *zdī*, Gk. ἰσθί .

as₂ ‘throw’

pres. act. 2nd sing. *asya* (6), 3rd sing. *asyatu* (1.114.4c), 2nd dual *asyatam* (7.104.25c)

pres. med. 2nd pl. *asyadhvam* (10.30.2d)

ās ‘sit’

pres. med. 3rd sing. *āstām* (2), 2nd pl. *ādhvam* (7.33.14c)

Both attestations of *āstām* occur in the repeated pāda: *barhír na āstām áditiḥ suputrā* ‘may Aditi sit on our *barhis*, she of good sons’, at 3.4.11c and 7.2.11c.

¹³⁸ For the variation between long and short *i* from zero-grade laryngeals see Jamison (1988).

¹³⁹ Narten (1964: 68).

i ‘go’

pres. act. 2nd sing. *ihí* (64), 3rd sing. *etu* (51), 2nd dual *itam* (8.101.8c), 3rd dual *itām* (2), 2nd pl. *itá* (17), *étana* (2), *itana* (3), 3rd pl. *yántu* (30)

pres V. (caus.) 2nd sing. *inú* (9.29.4c), *inuhí* (6.10.7a), *inva* (5.4.7c), 3rd sing. *invatu* (4), 2nd dual *invatam* (2), 3rd dual. *invatām* (6.70.6d)

The stem *inu-* is effectively the causative of *i*, as in i.e. 6.10.7a *ví dvéṣāmsīnuhí vardháyélām* ‘scatter the enemies, enhance the refreshment’. Another example of a similar causative stem formation is *jinv-/jīva-*. It would be tempting to describe *hinu-* as the causative of *hā*, but Mayrhofer (1986: s. *HAY*) specifically rejects this, with ample justification.¹⁴⁰

Dunkel (1985) suggests that the form *éta* which appears in such expressions as 5.45.5a *éto nv àdyá sudhyò bhāvāma* ‘come let us have good thoughts today’ and 8.24.19a *éto nv índraṃ stāvāma* ‘come let us praise Indra now’ is in fact a full grade imperative and not $\bar{a} + i$ as it is usually interpreted. He bases this on what he considers to be a full-grade endingless 2nd pers. sing. impv. form $\epsilon\acute{\iota}$ in such Greek examples as $\epsilon\acute{\iota} \dots \acute{\alpha}\kappa\omicron\upsilon\sigma\omicron\nu$ ‘come listen’ (Il. 9.262). This is to my mind highly unlikely, because if it were true, we would have to consider the form *éhi*, in the singular counterpart of this construction, which occurs several times in Book 8 in the formulaic *éhi dráva píba* ‘Come, hurry, drink’ to be the same kind of full-grade imperative. However, in this case, the accentuation clearly shows that the form is actually $\acute{a}+ihi$. If it really were a full-grade imperative form the accent would be on the second syllable, cf. *yandhí*.¹⁴¹

¹⁴⁰ For further discussion of the connection between *eti* and *inoti* see Mayrhofer (1986: s. AY¹, AY²), Joachim, (1978: 39f. and 138). Also Insler (1972³).

¹⁴¹ As shown on page 23, the ending *-dhi* is always accented, except for the single form *yódhi*, if indeed this form does have the *-dhi* ending. Insler (1972²) has suggested that imperative forms with full-grade roots and root-accent could have existed, although he is unable to provide a convincing example. Since the form *éhi* is preserved only in an archaic formula, then maybe this is what we are dealing with here. On the same subject, note the accentuation *ehí* which occurs in the quoted form at ŚBM 1.1.4.12 and ŚBK 2.1.3.16 (see page 71). Since the other forms in the same sentence are accented on their preverbs, this may show that the composers of that text did not recognise a preverb in this form. See also page 123.

*i*₂, *inv* see *i*

ing ‘set in motion’

pres. act. 2nd sing. *ingaya* (4.57.4d)

idh ‘kindle’

pres.med. 2nd pl. *indhvam* (10.101.1b), 3rd pl. *indhatām* (1.170.4b)

il ‘come to rest’

pres. act. 2nd pl. *iláyata* (1.191.6d)

*iṣ*₁ ‘send’

pres. act. 2nd pl. *iṣyata* (1.15.9c)

*iṣ*₂ ‘seek’

pres. act. 2nd sing. *ichá* (4), *ichatu* (7.102.1c), *icháta* (7.104.18a)

pres. med. 2nd sing. *ichasva* (10.10.10d)

iṣany- ‘drive’

pres. act. 2nd sing. *iṣanya* (3.50.3d), 2nd pl. *iṣanyata* (5.52.14d)

For a discussion and bibliography on the connection of this stem to *iṣ*₁ ‘send’ see Mayrhofer (1986: s. *Eṣ*).

īṅkhay- ‘to swing, rock’

pres act. 2nd sing. *īṅkhaya* (3)

All three attestations of this form are in 9.52.3: *carúr ná yás tám īṅkhaya-*, *índo ná dānam īṅkhaya / vadhaír vadhasnav īṅkhaya* ‘that which is like a pot, rock it, O drop, rock the gift, rock with weapons, O weapons bearer’.

īḍ ‘praise’

pres. act. 2nd sing. *īḍiṣva* (8.23.1a)

īr see *r*₁

u ‘weave’

pres. act. 2nd sing. *vaya* (10.130.1d 2x), *vayata* (10.53.6c)

Originally an *-áya-* form built on the *aniṭ* root *u*, < **h₂u-éje-*. From this present stem were later on secondarily derived such forms as the future *vayiṣyánt*¹⁴². The form *vaya* occurs only in 10.130.1d: *prá vayápa vayéty āsate taté* ‘they (the Fathers) sit at the stretched (sacrifice) saying ‘weave this way, weave that way’.

ukṣ ‘sprinkle’

pres. act. 2nd dual *ukṣatam* (6), 2nd pl. *ukṣata* (1.87.2d)

pres. med. 2nd dual *ukṣéthām* (7.64.4c)

A verb with a very limited semantic application; of the eight attestations of the imperative, six occur with the instrumental singular or plural of *ghṛtá-*, and one with the accusative. The other example shows *páyas* instead. There are thus two basic valencies attested: either + acc. + instr. as in e.g. 7.62.5b *á no gávyūtīm ukṣatam ghṛténa* ‘sprinkle our pastures with ghee’, or + acc. + dat. as in 1.87.2d *á ghṛtám ukṣatā mádhvarṇam árcate* ‘sprinkle honey-coloured ghee for the singer’.

ud ‘wet’

pres. act. 2nd sing. *undhi* (5.83.8c), 2nd pl. *unátta* (5.42.3b)

Appears in exactly the same environment as the impv. forms of *ukṣ* – with the instr. of *ghṛtá-*: 5.83.8c *ghṛténa dyāvāpṛthiví vy ùndhi* ‘moisten the heavens and the earth with ghee’ apparently addressed to the rain, and 5.42.3ab *úd traya kavítamam kavīnām, unáttainam abhí mádhvā ghṛténa* ‘enliven the wisest of the wise, moisten him with honey and ghee.’

ubj ‘subdue’

pres. act. 2nd dual *ubjátam* (2), 3rd pl. *ubjántu* (6.52.1c)

This is a secondary root, originally the *-sk-* present of the root *vabh*. First suggested by Osthoff (1884). Osthoff’s position is confirmed by Lubotsky (2001: 39).

¹⁴² Mayrhofer (1986: s. O).

urūṣy- ‘protect’

pres. act. 2nd sing. *uruṣyá* (8), 3rd sing. *uruṣyatu* (8.47.9a), 2nd dual. *uruṣyátam* (6), 3rd dual. *uruṣyátām* (3), 2nd pl. *uruṣyata* (3), 3rd pl. *uruṣyántu* (8.25.10c)

uṣ ‘burn’

pres. act. 2nd sing. *oṣa* (2), *oṣatāt* (4.4.4b), 2nd dual *oṣatam* (7.104.1c)

ṛ1 ‘go, move, rise’

pres. act. III 2nd pl. *íyarta* (8.7.13c)

pres. med. 2nd sing. *īrṣva* (3), 2nd dual. *īrāthām* (8.73.1a), 2nd pl. *īrdhvam* (1.113.16a), 3rd pl. *īratām* (3)

pres. caus. 2nd sing. *arpaya* (2.33.4c), 2nd dual *arpayatam* (7.104.1b)

pres. X 2nd sing. *īraya* (12), 2nd dual. *īrayatam* (10.39.2b)

pres. X. med. 2nd sing. *īrayasva* (2), 2nd pl. *īrayadhvam* (4.34.2d)

The single attestation of the transitive reduplicated present impv. *íyarta* (<*h₃i-h₃er-te) is 8.7.13 *á no rayím . . . íyartā maruto diváḥ* ‘Set in motion for us property from heaven, O Maruts’. The middle voice forms *īrṣva* etc. correspond to this stem. They are predominantly late, and are reflexive, as in e.g. 10.18.8a *úd īrṣva nāry abhí jīvalokām* ‘Move yourself, O Woman, to the world of the living’.

arpayati means ‘to raise up, erect’, while *īrayati* means ‘to set in motion’, as in 4.34.2c *suvīrām asmé rayím érayadhvam* ‘bring us the good-heroed property’ and is derived from the middle voice present *īrte*, which had been reanalysed as belonging to a root *īr*.

Jamison (1983: 124) derives *arpayati* from the root *h₂er ‘to fit’, whence also e.g. Greek ἀρραρίσκω. Mayrhofer (1986: s. *áram*) appears to agree with this (despite treating all the finite forms together under AR¹), however synchronically speaking the two roots *h₃er and *h₂er have merged into a single root *r*¹⁴³.

ṛ2 ‘arrive, hit’

pres. act. 3rd sing. *rchatu* (2), 3rd pl. *rchantu* (10.87.15c)

¹⁴³ See Mayrhofer (1986: s. AR¹), LIV under *1.*h₂er*.

This verb is unattested outside of Book 10. The two examples of the form *ṛchatu* both occur in the same verse, 10.164.5de: *yám dviṣmás tám sá ṛchatu, yó no dvéṣṭi tám ṛchatu* ‘he whom we hate, may it hit him, he who hates us, may it hit him’.

ṛc ‘sing’

pres. act. 2nd sing. *árca* (25), 3rd sing. *arcatu* (10.36.5b), 2nd pl. *árcata* (24), 3rd pl. *árcantu* (2)

ṛd ‘agitate, slay’

pres. act. *ṛdantu* (7.104.24c), caus. pres. *ardaya* (2)

ṛdh ‘attain, thrive’

-ya- pres. *ṛdhyatām* (10.85.27a)

Only occurs once at 10.85.27a *ihá priyám prajáyā te sám ṛdhyatām*. Kulikov (2001) rules out a passive meaning, translating ‘Here let the pleasant thing succeed for you in respect to your offspring’, asserting that the instrumental *prajáyā* refers to the scope of prosperity, as in the case of other verbs of similar meaning, such as *púṣya-*. Earlier scholars, such as Thieme (1958), have understood this form as passive: ‘Let the dear thing be attained here by your offspring’. This verb has a *-nu-* present, *ṛdhnoti*, as well as a *-na-* infix present *ṛṇadhat*, for which no imperatives are attested.

ej ‘move’

pres. act. 3rd sing. *ejatu* (5.78.7c)

kan ‘enjoy’

iṣ-aor. *caniṣtām* (7.70.4a)

perf. act. *cākandhi* (10.147.3a), *cākantu* (1.122.14d)

caniṣtām is probably a nonce-form built on the basis of the superlative *cániṣṭha-*. See Narten (1964: 111f.), and Hoffmann (1952). For the long reduplication vowel of *cākandhi* see Kümmel (2000: 130f.). For the irregular full grade in the root of this form see p. 25.

kr̥ ‘do’

pres. act. 2nd sing. *kṛṇu* (8), *kuru* (2), *kṛṇuhí* (28), *kṛṇutāt* (2.30.5d), 3rd sing. *kṛṇotu* (14), 2nd dual *kṛṇutām* (6), 2nd pl. *kṛṇutá* (9), *kṛṇóta* (5), *kṛṇótana* (5), 3rd pl. *kṛṇvántu* (5)

pres. med. 2nd sing. *kṛṇuṣvá* (14), 3rd sing. *kṛṇutām* (2.5.7b), 2nd pl. *kṛṇudhvám* (27)

root aor. act. 2nd sing. *kṛdhí* (100), 2nd dual *kṛtām* (16), 2nd pl. *kṛta* (2), *kárta* (9), *kártana* (6)

root aor. med. 2nd sing. *kṛṣvá* (8), 2nd pl. *kṛdhvam* (7.34.15b)

a-aor. act. 2nd dual *karatam* (7.65.2b), 3rd dual *káratām* (4.55.3d)

[**aor. inj.** *kaḥ* (2)]

One of the most common verbs in the RV. It is always transitive, and the middle-voice forms are in addition affective, as in 2.26.2bc *bhadrám mánaḥ kṛṇuṣva vṛtratúr̥ye / havíṣ kṛṇuṣva subhágo yáthásasi* ‘make (for yourself) blessed inspiration for surpassing obstacles, make yourself an oblation, so you will be lucky’, or affective-possessive as in 4.4.5b *āvíṣ kṛṇuṣva daívyāny agne* ‘Make your (own) divine [powers] visible, O Agni’.

The expression *prá kṛ* (med.) + dat. means ‘make [a god] well disposed towards yourselves’, as in 1.186.10ab *pró aśvínāv ávase kṛṇudhvam, prá pūṣānaṃ svátavaso hí sánti* ‘make the Aśvins well-disposed towards you, so they will help, (make) Pūṣan (well-disposed), because they are powerful in themselves’.

The form *kuru* occurs twice in the RV, at 10.19.2b *púnar enā ny á kuru* ‘make them [the cows] go back’ and 10.145.2d *pátim me kévalaṃ kuru* ‘make my husband mine alone’. This, and the form *kurmaḥ* (10.51.7a), are the only occurrences in the RV of the later present stem of the verb *kṛ*¹⁴⁴. The a-aorist forms are a secondary derivation from the root-aorist subjunctive stem *kara-*.

kṛṇu and *kṛṇuhí* have a metrically complementary distribution: whereas the former – with one exception – usually appears at the end of eight-syllable lines, *kṛṇuhí* generally occurs in eleven-syllable lines immediately after the caesura. *kṛṇuhí* also appears twice in eight-syllable lines at the third, fourth and fifth syllable.

¹⁴⁴ For the formation of the *kar-/kur-* stem see Hoffmann (1976²).

kṛṣ ‘pull’

pres. act. I *karṣa* (5.83.7c)

pres. IV. *kṛṣatu* (4.57.4b), *kṛṣantu* (4.57.8a)

pres. med. *kṛṣasva* (10.34.13a)

For the difference between the two present stems see Gotō (1987: 112f.).

kṝ₁ ‘scatter’

pres. act. 2nd sing. *kira* (2)

kṝ₂ ‘praise’

int. pres. 2nd sing. *carkṛtāt* (1.104.5c)

kṛp ‘put in order, fit together’

pres. med. 2nd sing. *kalpasva* (1.170.2d)

caus. act. pres. 2nd sing. *kalpaya* (10.18.5d), 3rd sing. *kalpayatu* (10.184.1a)

caus. med. pres. 2nd sing. *kalpayasva* (2)

Kalpasva, in its single attestation means ‘to be tolerant’, or ‘to be in accord with’: 1.170.2cd *tébhiḥ kalpasva sādhuṣā, má naḥ samáraṇe vadhiḥ* ‘Be in real harmony with them [the Maruts], do not kill us in battle’.

The causative means ‘to arrange’, as in 10.18.5cd *yáthā ná pūrvam áparo jáhāty, evā dhātar áyūṃṣi kalpayaiṣām* ‘So that the young doesn’t abandon the old, thus arrange their lifetimes’, while the middle-voice causative is affective, meaning ‘arrange for oneself’: 10.10.12c *anyéna mát pramúdaḥ kalpayasva* ‘Arrange lustful pleasures (for yourself) with some else than me’.

With the exception of the present form *kalpasva*, this verb is only attested in Book 10. *kalpasva* occurs at 1.170.2d, making this a verb of uniformly late distribution.¹⁴⁵

krand ‘cry out’

pres. act. 2nd sing. *kranda* (2), 3rd sing. *krandatu* (5.58.6)

pres. caus. 2nd sing. *krandaya* (6.47.30a)

¹⁴⁵ See also Jamison (1983: 124.).

kram ‘stride’**pres. act.** 2nd sing. *krāma* (10.164.1b)**pres. med.** 2nd sing. *kramasva* (4)**aor. act.** 2nd dual. *kramiṣtam* (1.182.3c)

Gotō (1987: 119) shows that the middle voice forms are durative, meaning “hindurchschreiten, weit dahinschreiten”, as e.g. 4.18.11d (trans. quoting Geldner) *sákhe viṣṇo vitarāṃ ví kramasva* “Freund Viṣṇu, schreite so weit als möglich aus!” while the active forms are “terminative”, *vi-krāma* translated by Gotō as ‘auseinanderschreiten, auseinandergehen’. There is only one example of an imperative from the active stem, with the preverb *apa*: 10.164.1ab *ápehi manasas paté, ’pa krāma parás cara* ‘Go forth, Lord of Thought, stride away, wander far’¹⁴⁶

kṣam ‘pardon, be favourable’**pres. med.** 2nd pl. *kṣámadhvam* (2)

Both examples of the imperative of *kṣam* occur in consecutive hymns in Book 2: 2.29.2cd *abhikṣattáro abhí ca kṣámadhvam, adyá ca no mṛláyatāparám ca* ‘as distributors (of goods), pardon us and have mercy on us today and later’¹⁴⁷ and 2.28.3d *abhí kṣamadhvaṃ yújyāya devāḥ* ‘(You sons of Aditi) be favourable to an alliance, O gods’. Of the other three occurrences of this verb, two of them are in 2.33, and the only one to occur outside Book 2 is the present middle participle form *kṣámamāṇam* at 10.104.6c. Thus, finite forms of this verb are restricted to Book 2 only.

kṣar ‘flow’**pres. act.** 2nd sing. *kṣára* (4), 3rd pl. *kṣarantu* (9.86.37c)

All of the imperative forms, and many of the other occurrences of this characteristic Soma-keyword are restricted to Book 9. With the preverb *abhi* the valency of this verb is highly reminiscent semantically of that of the verb *arṣ* (see p. 92) as in 9.35.3c *kṣárā no abhí váryam* ‘flow choice property to us’, again assuming that *naḥ*

¹⁴⁶ For literature on the stems *krāmati* : *kramate* see Mayrhofer (1986: s. *KRAMi*) and LIV s. *kRemH*.

¹⁴⁷ Translation Klein (1985: 1-188).

is a dative and not an accusative as translated by Geldner, “Fließe uns, zu begehrenwertem Besitz”.

kṣi ‘dwell’

pres. caus. 2nd sing. *kṣayáya* (3.46.2d)

kṣip ‘throw, launch’

pres. act. 2nd sing. *kṣipa* (2.30.5a)

khud ‘insert (penis)’

pres. act. 2nd pl. *khudáta* (10.101.12b)

This is the only appearance of this verb in the RV. 10.101.12ab *kápr̥n naraḥ kapṛthám úd dadhātana codáyata khudáta vājasātaye* ‘The penis, O Men, erect the penis, thrust it, insert it for the winning of booty!’

gam ‘go, come’

pres. act. 2nd sing. *gácha* (6), 3rd sing. *gachatu* (4), *gachatāt* (5), 2nd dual *gáchatam* (20), *gachatām* (3), 2nd pl. *gachata* (10.15.11a), 3rd pl. *gachantu* (2)

pres. med. 2nd sing. *gachasva* (2), 2nd pl. *gachadhvam* (10.191.2a)

aor. act. 2nd sing. *gahi* (84), *gadhi* (8.98.4a), 3rd sing. *gantu* (7), 2nd dual *gatám* (68), *gantám* (14), 2nd pl. *gata* (12), *gánta* (8), *gantá* (6.49.11b), *gántana* (9), 3rd pl. *gámantu* (6)

-iṣ- **aor.** 2nd dual *gamiṣtam* (2)

caus. pres. 2nd sing. *gamaya* (10.152.4d), *gāmaya* (5.5.10c)

With the exception of the forms *gachatam* and *gachatām*, the pres. impv. of the verb *gam* only occurs in Books 9 and 10 of the RV. All of the middle-voice forms of the present impv., which only occur with the preverb *sám*, occur in books 9 and 10. The form (*sam*)*gachasva* occurs twice, but in the same verse of the same hymn – 10.14.8a and d: *sám gachasva pitṛbhiḥ sám yaména- ... sám gachasva tanvā suvárcāḥ* ‘Come together with the fathers, with Yama ... come together with a (new) body (when you are) well-shining’

The second person singular root-aorist form *gadhi* is a hapax legomenon, occurring only at 8.98.4a.¹⁴⁸

The *-iṣ-* aorist form *gamiṣtam* occurs twice in the same hymn in Book 10 at 10.106.3b *paśvéva citrá yájur á gamiṣtam* ‘like two bright animals, come to the sacrifice’ and 10.106.4d. *śruṣṭīvāneva hávam á gamiṣtam* ‘like two attentive (attendants), come to our call’. Narten (1964: 107) calls this a “metrisch bedingte Kunstbildung”, and also classes this with other cases of *-iṣ-* aorist forms which are based on superlatives, such as *caniṣtam* (see p. 99). The basis for this derivation is the form *ágamiṣtha-*, an epithet associated elsewhere with the Aśvins.

For the ablaut variants *gata*, *gánta* and *gantá* see page 31.

For the form *gachatāt* see page 35.

***gā*₁** ‘go’

pres. act. 3rd sing. *jígātu* (2), 2nd dual *jigātam* (2.24.12d), 2nd pl. *jigāta* (2), *jigātana* (5.59.6c)

aor. act. 2nd pl. *gāta* (3), *gātana* (5.55.9c)

[**aor. inj.** *gāḥ* (4)]

This verb is actually entirely missing a second-person singular imperative. The aorist injunctive form *gāḥ* fills the gap. It is attested four times in its modal function, making it the most common “imperative” form of the verb *gā*. See page 40.

***gā*₂** ‘sing’

pres. act. 2nd sing. *gāya* (7), 2nd pl. *gāyata* (28)

aor. act.? 2nd pl. *gātá* (8.2.38)

The form *gātá* appears only at 8.2.38 *gātháśravasam sátpatim, śrávaskāmam purutmānam / káṇvāso gātá vājīnam* ‘The famous-in-song, the true-leader, the desirous-of-fame, the great-souled; Kāṇvas, sing to (or of?) the prize-winner!’ This translation, in which I agree with Geldner, makes far more sense, considering the context (*gātháśravasam* etc.) than translating *gāta* as ‘go!’ However, it is problematic, as the verb *gā*₂ has a sigmatic aorist, and no other root forms at all. Grassmann classes this form under *gā* ‘to go’, but translates it “jemand angehen (mit

¹⁴⁸ See Lubotsky (1995¹: 133ff.).

Liedern) besingen”, and remarks that “der Form *gāta*, die auch zu *gā*, singen gezogen werden könnte”. While *gā* ‘to sing’ + acc. often means ‘to sing (a song)’ as e.g. 2.43.2a *udgātéva śakune sāma gāyasi* ‘O bird, you sing like an *udgātr* singing a *sāman*’ or 10.71.11b *gāyatrām tvo gāyati śakvarīṣu* ‘the one sings a song in *Śakvarī* stanzas’, it can also mean “to sing of, praise” as in 1.21.2 *tā yajñéṣu prá śamsata-, indrāgnī śumbhatā naraḥ / tā gāyatréṣu gāyata* ‘Praise them (two) at the sacrifices, adorn Indra and Agni, O Men, sing of them in songs.’ There is therefore at least no syntactical problem in assigning this form to *gā* ‘to sing’.

gātuy- ‘make way’

pres. act. 2nd sing. *gātuyá* (8.16.12b).

guh ‘hide’

pres. act. 2nd pl. *gūhata* (1.86.10a)

The form *gūhatām*, which Lubotsky (1997¹: 491) classifies as an imperative, is in fact a 3rd person dual active injunctive: 2.40.2ab *imaú devaú jáyamānau juṣanta-, imaú támāṃsi gūhatām ájuṣtā* ‘(All the gods) were happy when these two gods were born, these two abolished the unhappy darkness.’

For long vowel in stem as generalisation of *gūdhá-* see Gotō (1987: 296 fn. 704).

gūrdhay- ‘praise’

pres. act. 2nd sing. *gūrdhaya* (8.19.1a)

Appears only at 8.19.1ab *tām gūrdhayā svàrṇaram, deváso devám aratím dadhanvire* ‘Praise him, the Sun-man, the gods have run to the god, the one with (rays like) spokes¹⁴⁹’. Oldenberg (1909: *ad loc.*) suggests this is an instr. sing. of a fem. noun *gūrdhá*, but this idea has received little or no acceptance. There are no other finite forms of a verbal root *gūrdh*.¹⁵⁰

gr ‘be awake’

pres. med. 2nd sing. *járasva* (2)

¹⁴⁹ Meaning of *aratí* from Mayrhofer (1986: s.v.), following Thieme (1949: 26ff.).

¹⁵⁰ Jamison, (1983: 82) suggests that this form may be a ‘*dh*-extension’ of the root *grā/gṛ* ‘to greet’, or it may secondarily be built to a posited impv. **gūrdhí*, as *śrudhīya* to *śrudhí*. Jamison herself has severe doubts as to the plausibility of this theory.

perf. act. 2nd sing. *jāgrhí* (4), 2nd dual *jāgrtam* (2)

aor. act. 2nd dual *jigrám* (5), 2nd pl. *jigrá* (7.57.6d)

The long vowel in *jāgrhí* is a result of a laryngeal at the beginning of the root, **h₁ger*¹⁵¹.

The aor. impv. examples of this verb are all transitive, the reduplicated stem *ājīgar-* being the aorist of the pres. caus. stem *jāraya-*, which is attested three times in the RV¹⁵²; e.g. 1.158.2c *jigrám asmé revátīh púramdhīh*, ‘make rich wealth awaken for us’.

The aorist occurs twice with *púramdhīh* ‘riches’ as direct object (1.158.2c and 4.50.11c, which is repeated several times elsewhere) and once with *rāyáh* ‘property’ (7.57.6d). The examples of the perfect and present impvs. are intransitive. *jarasva* means ‘wake up’, while *jāgrhi* means ‘be watchful, awake’.

The aor. impv. forms have a short reduplicating syllable, cf. *didhrtam* (q.v. under *dhr*).

gr̥bhi/gr̥hi ‘seize’

pres. act. 2nd sing. *grbhāyá* (13), 2nd pl. *grbhāyáta* (2)

pres. IX act. 2nd sing. *grhāná* (10.103.12b), 3rd sing. *grhñātu* (4.57.7a)

For ‘deverbative’ *grbhāya-* besides *grbhñāti* see LIV s. *gr̥rebh₂* and bibliography in Gotō (1988: fn. 5), Mayrhofer (1986: s. *GRABH*). For class IX impvs. in *-āna*, see p. 28.

gr̥ ‘praise, welcome’

pres. IX act. 2nd sing. *grñihí* (9), 3rd sing. *grñātu* (2), 3rd dual. *grñitām* (10.47.8c), 2nd pl. *grñīta* (10.15.6b)

pres. I med. 2nd sing. *jarasva* (7.9.6c), 3rd sing. *jaratām* (4.4.8b)

aor. med. *gurasva* (3.52.2b)

This “polymorphic” root receives thorough treatment in Gotō (1987: 153ff.). The form *gurasva* appears once at 3.52.2ab: *puroḷāśam pacatyāṃ, juśásvendrā gurasva ca* ‘Enjoy the cooked rice-cake, and welcome it, Indra’. For its classification as an

¹⁵¹ Kümmel (2000: 191ff.), LIV s. *h₁ger*, Mayrhofer (1986: s. *JAR*).

¹⁵² Jamison (1983: 126f.).

aorist imperative, constructed from **gūrṣva* on the basis of the form *juṣasva*, see Gotō (1987: 154, fn. 242). Joachim (1978: 75f.) suggests the forms could be derived from *gṛ̥₂* ‘to swallow’. For the possibility that the root **gūrdh* may be secondarily derived from this root, see page 105.

gopāy- ‘guard’

pres. act. 2nd dual *gopāyátam* (6.74.4d)

gras ‘swallow’

pres. med. 2nd dual *grásetām* (3.53.3c)

ghuṣ ‘hear’

aor. si-impv. *ghóṣi* (2)

See discussion of this controversial form on page 46.

cakṣ ‘look’

aor. -si impv. 2nd sing. *cakṣi* (2)

aor. med. 2nd sing. *cakṣva* (3)

caus. 2nd sing. *cakṣaya* (2)

Almost all occurrences of this secondary root are middle voice: e.g. 7.104.25ab *práti cakṣva ví cakṣva-*, *-índras ca soma jāgṛtam* ‘Look here, look around, O Indra and Soma, be aware’.

The active *-si-impv. cakṣi* means, on one occasion, with the preverb *práti* ‘to show’ 7.3.6cd *divó ná te tanyatúr eti súṣmaś, citró ná sūrah práti cakṣi bhānám* ‘Your crash comes like thunder from heaven, show your brilliance, bright like the sun’, while the other instance of this form, with the preverb *áva*, means ‘to look down’: 9.97.33a *divyáḥ suparṇó ’va cakṣi soma* ‘Look down like a heavenly eagle, O Soma’.

The causative form *cakṣaya* appears twice with the preverb *prá* with the meaning ‘to reveal’ or even ‘illuminate’: 1.134.3def *prá bodhayā púraṇdhiṃ, jārā á sasatīm iva / prá cakṣaya ródasī vāsayośásah* ‘awaken riches, like a lover (awakens) a sleeping woman, reveal the two worlds, let the dawns shine,’ Cf. Jamison (1983: 125), who asserts that *cakṣaya* is the transitive counterpart of an intransitive use of the form *ví caṣte* ‘appear’. No such transitive use with *ví* occurs in the imperative form.

cat ‘hide’**caus. med.** 2nd sing. *cātáyasva* (3)

The form *cātáyasva* + acc. + abl. means ‘to make X hide from Y’¹⁵³ i.e. to drive away’: 2.33.2cd *vy àsmád dvéšo vitarám vy áṃho, vy ámīvās cātayasvā víṣūcīḥ* ‘drive all hostilities, all trouble far away from us, all distress in all directions’.

canasy- ‘take pleasure in’**pres. act.** 2nd dual *canasyátam* (1.3.1c)

A “tertiary derivation” denominative verb from the noun *cānas-*, which in turn is from the verbal root *kan*¹⁵⁴; cf. *manasya-* < *mānas-* < *man-*.

car ‘move’**pres. act.** 2nd sing. *cara* (11), 3rd pl. *carantu* (3)**ci** ‘clear, pile’**pres. act.** 2nd sing. *cinuhí* (6.53.4b), 3rd sing. *cinotu* (10.87.5d)**root aor. act.** 2nd pl. *citana* (4.37.7b), 3rd pl. *ciyántu* (1.90.4b)**iṣ-aor. active** 2nd dual *cayiṣtam* (6.67.8d)

The form *cayiṣtam* is another of those derived from superlative adjectives; cf. *caniṣtam* and *gamiṣtam*.¹⁵⁵ It occurs once at 6.67.8d *yuvám dāsúṣe ví cayiṣtam áṃhaḥ* ‘you two clear away the troubles of the worshipper’. With the preverb *ví*, the root often means ‘to clear (a path)’, as in 6.53.4ab *ví pathó vājasātaye, cinuhí ví mṛdho jahí* ‘clear the paths to the capture of booty, smite away the enemies’ and 4.37.7ab *ví no vājā ṛbhukṣaṇaḥ, pathás citana yáṣtave* ‘Clear the way to the sacrifice, O Vājas, O Ṛbhukṣaṇs’, a theme repeated at 1.90.4b.

¹⁵³ Jamison (1983: 113).

¹⁵⁴ Q.v. page 99.

¹⁵⁵ See pages 99 and 104.

cit ‘perceive’

pres. act. 3rd dual *cetatām* (10.35.1c)

perf. act. 2nd sing. *cikiddhí* (7)

caus. med. 2nd dual *cetayethām* (8.9.10d), 2nd pl. *cetáyadhvam* (3.53.11a)

desid. *cikitsa* (2)

The perfect form *cikiddhí* is by far the most common imperative of this verb, and has transitive meaning ‘to perceive’, as in 4.4.11c *tvám no asyá vácasaś cikiddhi* ‘you take heed of this word for us’ and 2.43.3b *tūṣṇím āsīnaḥ sumatīm cikiddhi naḥ* ‘sitting quietly, perceive goodwill for us’, as does the present *cetatām* 10.35.1c *māhī dyāvāpṛthivī cetatām āpas-* ‘may the great heaven and earth perceive our work’. The causative middle stem appears with the meaning ‘pay attention, be attentive’, with no explicit direct object: 3.53.11ab *úpa préta kuśikāś cetáyadhvam, áśvaṃ rāyē prá muñcatā sudāsaḥ* ‘go to his side, be attentive, let the horse of Sudās go, so he may win property’ and 8.9.10 *yád vām kakṣīvāñ utá yád vyāśva, řṣir yád vām dīrghátamā juhāva / pṛthī yád vām vainyāḥ sādaneṣv, evéd áto aśvinā cetayethām* ‘When K. and the Rṣi V. and D., when P. and V. have called you to the (sacrificial) seats, just then, for that reason, pay attention, O Aśvins.’¹⁵⁶

For the form *cikitsa* and the other desiderative impvs. see p. 34.

cud ‘impel’

pres. act. 2nd sing. *códa* (2), 2nd pl. *codata* (2)

pres. med. 2nd sing. *codasva* (2)

caus. pres. 2nd sing. *codáya* (19), 2nd dual *codáyatam* (10.39.2a), 2nd pl. *codáyata* (10.101.12b)

Jamison (1983: 153) claims that the causative form has a generally later distribution than the synonymous simple present, and thus was used as a replacement for it. As far as the imperative is concerned, two of the four attestations of the stem *codā-* occur in the late Book 1. However, one of them (1.48.2d) is a repetition of 7.96.2d. In any case, the causative stem is far more common than the simple present, suggesting that Jamison is correct, whatever the distribution of the forms. While the med. is usually intransitive (‘hurries’), one example of the form *codasva* is transitive 8.75.6c *vṛṣṇe codasva suṣṭutīm* ‘drive the good praise (destined) for the bull’.

¹⁵⁶ Cf. Jamison (1983: 161ff.).

According to Jamison *ibid.*, this is due to the presence of the transitive *namasva* in the previous verse.

crt ‘bind’

pres. act. 2nd sing. *cṛta* (1.25.21b)

cyu ‘stir’

pres. act. caus. 2nd sing. *cyāvaya* (2), 3rd sing. *cyāvayatu* (10.17.3a)

chand ‘seem’

aor. -si impv. *chantsi* (1.163.4c)

chid ‘split, cut’

pres. act. 2nd sing. *chindhí* (1.133.2c)

jani ‘give birth’

pres. -ya- med. 2nd sing. *jāyasva* (2), 3rd sing. *jāyatām* (3)

aor. med. 2nd sing. *jāniṣva* (6.15.18a)

caus. act. 2nd sing. *janáya* (6), 3rd sing. *janayatu* (10.85.43a), 2nd dual *janayatam* (1.185.3c)

caus. med. *janayasva* (6.18.15d)

The stem *jāya-* is termed by Kulikov (2001: 242f.) not passive but “anti-causative”, by which he means “the intransitive counterpart of a transitive verb in pairs like *jananta sūryam*” (RV 9.23.2) ‘they generated (gave birth to) the Sūrya’ ~ *sūryo ajāyata* (RV 10.90.13) ‘Sūrya was born’ .’ (p. 16). This analysis is based primarily on the fact that the agent or source of the birth is in the ablative rather than the instrumental.

The *-ya-* stem occurs five times in the imperative, all of them in the late books 1 and 10 e.g. 10.183.1cd *ihá prajā́m ihá rayím ráraṇaḥ, prá jāyasva prajā́yā putrakāma* ‘bestowing offspring here, property here, be born with offspring, O desirous of sons’ and 10.43.9a *új jāyatām paraśúr jyótiṣā sahá* ‘let the axe come into being together with light’.

The *-iṣ-* aor. med. forms have a similar meaning to the *-ya-* passives, but occur in earlier books, e.g. 6.15.18a *jāniṣvā devāvītaye sarvátātā svastáye* ‘be born to feed the gods with completeness, for well-being’

The active of the causative, the impv. of which once again mostly occurs late, is the transitive counterpart of the intransitive *jāyate*¹⁵⁷, e.g. 9.97.36d *vardháyā vācam janáyā púram̐dhim* ‘strengthen our speech, generate wealth!’ while the med. of the caus. is affective, i.e. ‘to create for oneself’¹⁵⁸.

jambh ‘crush’

pres. act. 2nd sing. *jambháya* (2), 2nd dual *jambháyatam* (1.182.4a) .

jas ‘go away, wither’

-ya- pres. act. 2nd pl. *jasyata* (1.191.7d)

perf. act. 2nd dual *jajastám* (2)

The transitive perf. only occurs in two instances of a repeated pāda: 4.50.11d and 7.97.9d *jajastám aryó vanúṣām árātīḥ* ‘make the hostility of the stranger, of the aggressors disappear’. The *-ya-* forms are intransitive 1.191.7d *sárve sākám ní jasyata* ‘Let all of you disappear at once’¹⁵⁹.

ji ‘win’

pres. act. 2nd sing. *jáya* (6), 3rd sing. *jayatu* (6.47.26d), 2nd dual *jáyatam* (2), 2nd pl. *jáyata* (2), 3rd pl. *jayantu* (2)

pres. med. 3rd pl. *jayantām* (10.87.18d)

aor. -si impv. 2nd sing. *jéṣi* (7)

root aor. (?) 2nd dual. *jitam* (9.7.9c)

The active forms of this verb are transitive, meaning ‘to win, capture (something)’, e.g. 8.75.12c *saṁvārgam̐ sám̐ rayīm̐ jaya* ‘win booty and property’. The middle voice only occurs once, together with the preverb *pārā*, meaning ‘to lose, gamble away’ at 10.87.18a *pārā bhāgám̐ óṣadhīnām̐ jayantām̐* ‘let them gamble away their share in the plants’.

An extremely interesting example is 8.89.4d *háno vṛtrám̐ jáyā svàḥ* ‘you will smite Vṛtra, (and) win the sun’. The pāda is almost identical to 1.80.3d *háno vṛtrám̐ jáyā*

¹⁵⁷ Jamison (1983: 154).

¹⁵⁸ Gotō (1987: 146 fn 206).

¹⁵⁹ Kulikov (2001: 401).

apáh in which *jáyā* is to be read as a subjunctive *jáyāḥ*. The syntagma *ji- svàḥ* is attested elsewhere; once with an impv. – *svàr jaya* – at 8.15.12c, and once with an imperfect – *ajayaḥ svàḥ* – at 10.167.1d, and, as *súryam jáyat*, at 10.43.5b. *ji- apáh* is further attested at 5.30.5d making it the earlier of the two formulas to be attested. Therefore, if *ji- apáh* is the original (despite on the face of it being attested later), then one may assume that *apáh* was substituted with *svàḥ*, leaving the rest of the *pāda* undisturbed. It is possible that, as the sandhi of the visarga is unstable before /s/ + consonant, that it has simply disappeared and we do in fact have a subjunctive. If, however, the sandhi is regular, then this forces us to read the originally subjunctive *jáyā* as an imperative, because **jáyās svàḥ* should yield **jáyāḥ svàḥ*. The former explanation is to my mind more likely, as the subjunctive makes more sense in this context.

While the present stem mostly means ‘to capture’, with direct object denoting the item captured, the aorist *-si* impv. *jeṣi* can also mean ‘to defeat’ in the formulaic syntagma *jeṣi śátrūn*. This is an instance of a fixed formula preserving the old aspectual meaning of the aorist imperative.¹⁶⁰

The isolated root form *jitam* occurs only at 9.7.9c [*asmábhyaṃ*] *śrávo vásūni sám jitam* ‘[for us] capture glory and goods’.

jīnv ‘impel’

pres. act. 2nd sing. *jínva* (9), 3rd sing. *jinvatu* (4), 2nd dual *jínvatam* (10), *jinvata* (10.66.12d)

See LIV s. **gǵieh₃* and Mayrhofer (1986: s. *GAY*) for the relationship between this stem and *jīv*. Also see above *inoti / invati* s. v. *i*.

jīv ‘live’

pres. act. *jīva* (10.161.4a), *jīvantu* (10.18.4c)

¹⁶⁰ See p. 86.

juṣ ‘like’

a-aor. 2nd sing. *juṣásva* (58), 3rd sing. *juṣátām* (10.165.2c), 2nd dual *juṣéthām* (9), 3rd dual *juṣetām* (5.72.3b), 2nd pl. *juṣádhvam* (6), 3rd pl. *juṣántām* (3)

aor. si-impv. *jóṣi* (3)

secondary thematic aor. impv. 2nd sing. *jóṣa* (10.158.2a)

perf. 2nd pl. *jujuṣtana* (2)

thematicised perf. 2nd dual. *jujoṣatam* (1.93.11b)

The extremely common a-aor. med. form *juṣásva* means ‘find favour in’ and is transitive e.g. 1.12.12c *imám stómaṃ juṣasva naḥ* ‘find favour in this our prayer’. The aor. *-si* impv. *jóṣi*, which appears three times, appears to mean the same at 4.9.7a *asmákaṃ joṣy adhvarám* ‘find favour in our sacrifice’. For the *-si* impv. see also pages 26 and 47.

This verb is unusual in having no present stem. However, in later texts a pres. *juṣate*, is derived from the thematic aor.¹⁶¹

There is also a secondarily thematicised aorist impv. *jóṣa* probably based on the *-si* impv *jóṣi*; cf. *parṣa* from *pr* and the AV form *neṣa* from *nī* (see also p. 27). This form only occurs once at 10.158.2ab *jóṣā savitar yásya te, háraḥ śatám savāñ árhati* ‘find favour, O Savitar, (in those) of whom your zeal is worth a hundred (of their) impulses’, although in this example the direct object is implicit. This form is clearly a later replacement for the *-si* impv., the latter only occurring in the family books, the former only in Book 10.

jūrv see *jṛ***jṛ** ‘make old’

pres. act. 2nd dual *járatam* (2)

va-pres. 2nd sing. *jūrva* (6.6.6d)

aor. act. 2nd dual *jurátam* (1.182.3c)

The present stem *jára-* occurs only in the repeated line 7.67.10c and 7.69.8c *dhattám rátnāni járatam ca sūrīn* ‘give gifts, and allow the patrons to grow old.’ The form *jurátam* is considered by Gotō (1987: 152) to be an aorist, but is thought to be a

¹⁶¹ LIV s. *geus*, Gotō (1987: 154 fn. 242).

present by Narten (1964: 121) and Joachim (1978: 83).¹⁶² The form is only attested once: 1.182.3c *áti kramiṣṭaṃ jurátam paṇér ásuṃ* ‘walk over (him), grind the non-sacrificer’s life,’ with a negative meaning as opposed to the positive meaning (‘allow to grow old’) of the present stem.

The second present stem, *jūrva*, means ‘to grind’¹⁶³. Cf. Lat. *grānum*, Goth *kaurn*.¹⁶⁴ It is only attested once in the imperative, together with the preverb *ní* with the meaning ‘grind down, crush, exterminate’, as in 6.6.6cd *sá bādhasvápā bhayá sáhobhi, sp̄dho vanuṣyán vanúṣo ní jūrva* ‘drive away the dangers with might, attacking the hostile ones, crush our enemies.’

jñā ‘know’

pres. act. 2nd sing. *jānīhi* (2), 2nd pl. *jānīta* (1.94.8c)

pres. med. 3rd pl. *jānatām* (10.191.2b)

The middle voice impv. *jānatām* occurs only at 10.191.2ab, which is remarkable in that it also contains extremely rare instances of middle voice from both *gam* and *vad*: *sám gachadhvaṃ sám vadadhvaṃ, sám vo mánāṃsi jānatām* ‘come together, converse, may your minds know each other’. This sentence exemplifies well the reciprocal force of the preverb *sám*.

For the 2nd pers. sing. present of *-na-* forms like *jānīhi* see page 28.

takṣ ‘fashion’

root. pres. act. 2nd sing. *tāl̥hi* (10.180.2d)

a-aor. 2nd dual. *takṣatam* (7.104.4c), 2nd pl. *takṣata* (7), 3rd pl. *takṣantu* (4.33.8c)

The root *takṣ* is descended from PIE **tetk̑*, which is a secondary root derived from a reduplicated aorist form of the root **tek̑* ‘to create’¹⁶⁵. In Vedic, most scholars agree that the root forms are presents, while the thematic forms are aorists, this, despite the presence of two attestations of the forms *takṣatha*, which looks like a

¹⁶² See also LIV s. **ǵerh₂*.

¹⁶³ There is a similar semantic connection between the possibly related roots *m̄ṛ₁* (< **melh₁*) ‘grind’ and *mlā* (**mleH*) ‘wither’. See Thieme (1939) and Mayrhofer (1986: s. *MLĀ*).

¹⁶⁴ See Gotō (1987: 152f.).

¹⁶⁵ LIV s. **tetk̑*.

present¹⁶⁶. In the impv., however, it is noticeable that while the 2nd pers. sing. is athematic, the rest of the paradigm is thematic, indicating a complimentary distribution or secondary thematisation.

The form *tālhi* appears to be a regular outcome of the proto-form **tetk̑-dhi*, which would have yielded **tadz̑-dhi* by assimilation and then *tālhi* with simplification of the cluster and compensatory lengthening.¹⁶⁷

There seem to be no other instances of a directly comparable consonant cluster. However, similar outcomes are found in the case of such forms as *bālhá-* (< *baṃh*) and *sālhr̥-* (< *sah*). They descend from **bažh-tá* and **sázh-tr̥* respectively, with subsequent transfer of the voiced aspiration by Bartholomae's Law. On the other hand, **važh-tám* (*vah*) yields *volhám*, which is shown by Lubotsky (2000²) to be the result of the preceding /v/¹⁶⁸.

***tan*₁** 'stretch'

pres. act. 2nd sing. *tanu* (1.120.11a), *tanuhi* (5)

pres. med. 2nd sing. *tanuṣva* (5), 2nd pl. *tanudhvam* (2)

Both *tanuhi* and *tanuṣva* appear several times with *sthirá-*, which here means 'bow string', as their direct object. With the preverb *áva*, the meaning is 'to slacken one's bow string'. The differentiation between active and middle is, as expected, dependent on whether the object is one's own bowstring, or somebody else's, e.g. 4.4.5c *áva sthirá tanuhi yātujúnām* 'Slacken the bow strings of those driven by sorcerers'. and 2.33.14cd *áva sthirá maghāvadbhyas tanuṣva, mīdhvas tokāya tánayāya mṛḷa* 'Slacken your bow strings [O Rudra] for the sake of the liberal ones, be merciful to our children, O generous one.' Likewise with a positive meaning, with the preverb *á*: 10.120.4c *ójīyo dhṛṣṇo sthirám á tanuṣva* '(Ever) braver, stretch your bowstring, O daring one.'

***tan*₂** 'thunder', see *stan*

¹⁶⁶ Narten (1964: 123ff.), Joachim (1978: 83f.).

¹⁶⁷ See Wackernagel (1896: 1-175), and also Narten and Joachim (*loc. cit*) who both also entertain the notion that the long vowel may be due to lengthened grade ablaut.

¹⁶⁸ Cf. Wackernagel (1896: 1-275).

tap ‘burn’

pres. act. 2nd sing. *tápa* (6), 3rd sing. *tapatu* (3), 2nd dual *tápatam* (7.104.1a), 2nd pl. *tapata* (8.89.7c)

pres. med. 2nd sing. *tapasva* (10.16.4a)

Act. may be both transitive, as the first two instances of the following example, and intransitive as – apparently – in the third: 3.18.2abc, *tápo śv àgne ántarāṃ amítrān, tápā śáṃsam áraruṣaḥ párasya / tápo vaso cikitāno acítān* ‘burn our closer enemies, O Agni, burn the word of our further enemy, and burn, O good one, seeing the unseen ones.’ The very rare middle-voice is affective – ‘to heat for oneself’¹⁶⁹, as in 10.16.4ab *ajó bhāgás tápasā tám tapasva, tám te śocís tapatu tám te arcíḥ* ‘The goat is your portion, heat it (for yourself) with your heat. Let your light burn him, your flame.’

tilvilāy- ‘be fertile’

pres. med. 2nd pl. *tilvilāyādhvam* (7.78.5c)

tud ‘push’

pres. act. 2nd sing. *tuda* (6.53.6a)

tūrv, tur see *tī***tuś** ‘hurry’

pres. caus. 2nd sing. *tośaya* (8.54.8d)

This root is generally intransitive, the stem *tośa-* always occurring in the middle voice with the meaning ‘hurry’¹⁷⁰. The only example of an imperative from this root is also the only example of the causative stem *tośaya-*, which means ‘to drive,’ or ‘to hurry’ in its transitive sense: 8.54.8cd *máhi sthūrám śaśayám rádho áhrayam, práskaṇvāya ní tośaya* ‘drive great, mighty, unbeatable, bold favour to Praskaṇva.’¹⁷¹.

¹⁶⁹ See also Gotō (1987: 159f.).

¹⁷⁰ Gotō (1987: 166ff.).

¹⁷¹ See also Jamison (1983: 128.).

tṛd ‘pierce, drill’

pres. act. VII 2nd sing. *tṛndhi* (4)

tṛp ‘be satiated’

pres. act. VII 2nd sing. *tṛpṇuhi* (2), 2nd dual *tṛpṇutām* (8.35.10a), 2nd pl. *tṛpṇuta* (1.110.1d)

pres. VI 2nd sing. *tṛmpá* (8.45.22c), 3rd sing. *tṛmpatu* (1.23.7c), 2nd dual *tṛmpatam* (2), 3rd dual. *tṛmpatām* (3.12.3c)

caus. pres. 2nd sing. *tarpáya* (1.54.9c)

caus. med. 2nd dual *tarpayethām* (2)

Joachim (1978: 25) sees no semantic difference between the two pres. stems. This seems to be correct; both are intransitive and, if the source of one’s satisfaction is explicitly mentioned, it is in the genitive: 2.16.6d *índra sómasya vṛṣabhásya tṛpṇuhi* ‘Indra, be satiated with the bull-like Soma’, 4.46.2c *váyo sutásya tṛmpatam* ‘O Vāyu [and Indra] be satiated from the pressed (Soma)’. The active causative *tarpáya* occurs with an accusative direct object and the genitive again denoting the item with which one is satisfied: 1.54.9c *vy àśnuhi tarpáyā kāmam eṣām* ‘attain, fulfill your desire from them (cups full of Soma)’. In other words, it is a true causative of the intransitive present stem with the basic valency maintained throughout – ‘cause your desire to be satisfied from them’. The med. caus. has the same valency, and appears to mean the same. 1.17.3ab *anukāmāṃ tarpayethām, índrāvaruṇa rāyá á* ‘satisfy your desire for property’¹⁷².

tṝ ‘pass’

pres. act. 2nd sing. *tara* (2), 2nd pl. *tarata* (2)

pres. IV act. 2nd sing. *tirá* (12), 2nd dual *tiratam* (7.93.4d), 2nd pl. *tirata* (2), 3rd pl. *tirantu* (3)

pres. IV med. 2nd pl. *tiradhvam* (7.56.14b)

va-pres. 2nd dual *túrvatam* (6.50.10d)

ya-pres. 2nd sing. *tūrya* (8.99.5d)

s-aor. *tāriṣṭam* (2)

[**aor. inj.** *tārīḥ* (4)]

¹⁷² See also Jamison (1983: 140f.).

The stems *tara-* and *tira-* differ in their meaning. The first means ‘to pass through (a place)’, the object, where explicitly mentioned, appearing in the accusative, e.g. 8.75.15a *párasyā ádhi samvátó ’varāñ abhy á tara* ‘from the further area, pass over to those (who are) nearer’. It can also mean ‘overcome’ 9.59.3b *vísuvāni duriṭā tara* ‘overcome all dangers’. The second, which only appears with preverbs, has meanings which vary according to the preverb used, but in all cases the verb is transitive with a concrete object. In a large proportion of its occurrences, it appears in the formula *prá tira áyuh*, ‘extend (someone’s) lifespan’.

The stem *tūrva-*, also transitive, means ‘overcome’, and only appears once in the imperative: 6.50.10cd *átriṃ ná mahás támaso ’mumuktaṃ, túrvataṃ narā duriṭād abhíke*. This example is problematic. It could mean ‘as you freed Atri from the great darkness, bring us out of the danger which is in front of us, O Heroes’¹⁷³, but this is not consistent with the meaning of this form in its other occurrences. This has led Gotō (1987: 163 fn. 258) to suggest that this example is parenthetical: ‘überwindet, ihr Männer!’. Grassmann (1872: s. *muc*) takes the form *mumuktaṃ*, which he reads with no augment, to be an imperative, a position supported by Hoffmann (1967: 150). Interpreting (c) as ‘like Atri, free [me] from the great darkness’ would solve the problem of the otherwise seemingly impossible syntax, as *ná* cannot function as a conjunction.

tūrya is a nonce-formation, appearing once at 8.99.5 *tvám tūrya taruṣyatáh* ‘you overcome your adversaries’. Throughout this hymn there is a word-play on various forms containing the syllable *-tur-*. Gotō (*op. cit.*: 165 fn. 265) suggests that it may be based on a nominal compound-form ^o-*tūrya-*, as in *śatrutūrya-* ‘overcoming the enemy’ and *vṛtratūrya-* ‘overcoming V.’.

The single example of the *-iṣ-* aorist form *tāriṣtam* occurs at 1.34.11c and 1.157.4c¹⁷⁴, and the form appears in the same formula as does *tirá* above: *práyus tāriṣtaṃ* ‘extend our lifespan’¹⁷⁵.

¹⁷³ Cf. Klein (1985: 1-422) ‘As ye freed Atri from the great darkness, (so) cause (us) to pass out of difficulty, when it confronts us, O heroes’.

¹⁷⁴ Narten (1964: 128ff.).

¹⁷⁵ See further Gotō (1987: 160ff.), Joachim (1978: 87f.), and LIV s. **terh₂*.

trā ‘save’

med. pres. 2nd sing. *trāyasva* (4), 3rd sing. *trāyatām* (3), 2nd dual *trāyethām* (5.70.3b), 3rd dual *trāyetām* (10.35.3b), 2nd pl. *trāyadhvam* (10.63.11b), 3rd pl. *trāyantām* (2)

s-aor. med. 2nd sing. *trāsva* (2), 2nd pl. *trādhvam* (2)

The forms *trāsva* and *trādhvam* must be sigmatic aorists and not root aorists both because of the rest of the paradigm, which is sigmatic, and also because of the parallel Gāthā Avestan form *θrāzdūm*¹⁷⁶. Both attestations of the form *trādhvam* occur at 2.29.6cd: *trādhvaṃ no devā nijūro vḥkasya, trādhvaṃ kartād avapādo yajatrāḥ* ‘Save us from the crushing (jaws) of the wolf, save us from falling into the pit, O worship-worthy ones’

daṃś ‘bite’

pres. act. 2nd sing. *daśa* (6.31.3c)

dakṣ ‘put right’

pres. act. 2nd sing. *dākṣata* (2)

For the form *dakṣi*, which has in the past been connected with the root *dakṣ*, see page 49.

dad ‘hold’

pres. act. 3rd sing. *dadatām* (3.53.17c)

This is a secondary root derived from *dāj* ‘give’¹⁷⁷. Cf. also *dadhantu* from *dhā*, in addition to the regular *dadhatu*, which shows a similar kind of thematic derivation, although in the case of *dad* the change in the root’s meaning justifies the classification as a separate root. The imperative appears only at 3.53.17c *índraḥ pātalyè dadatām śārītor* ‘let Indra protect the two wagon-supports (?) from breakage’.

dambh ‘annihilate’

pres. caus. act. 2nd sing. *dambhaya* (2)

¹⁷⁶ Narten (1964: 131).

¹⁷⁷ Gotō (1987: 171f.).

This root is to be distinguished from *dabh* ‘deceive’. See Narten (1968: 131) and Insler (1969).

daśasy- ‘be of service’

pres. act. 2nd sing. *daśasyá* (6), 2nd dual *daśasyátam* (2), 2nd pl. *daśasyata* (5.50.3b)

Probably derived from an unattested **daśas-* (= Lat. *decus*) in the same way as *canasya-* and *manasya-* are derived from *cánas* and *mánas* respectively. See Mayrhofer (1986: *ad loc.*).

dah ‘burn’

pres. act. 2nd sing. *dáha* (14), *dahatāt* (3.18.1d), 3rd pl. *dahantu* (10.87.12d)

aor. si-impv. *dhákṣi* (3)

For the form *dhakṣi* see page 49. The unclear form *dakṣi*, which occurs only at 2.1.10c, has been connected with this verb, but the semantic environment in which it occurs is unsuitable for this to be the case. For further information and examples, see page 49.

dā₁ ‘give’

pres. act. 2nd sing. *daddhí* (8), *dehí* (10), *dattāt* (10.16.2b), 3rd sing. *dádātu* (17), 2nd dual *dattam* (1.34.6b), 3rd dual *dattām* (10.84.7b), 2nd pl. *datta* (3), *dádāta* (7.57.6c), *dadātana* (10.36.10b)

aor. act. 3rd sing. *dātu* (2)

[**aor. inj.** *dāḥ* (17)]

For a discussion of the forms *dehí* and *daddhí* see p.29.

Another problem with the verb *dā* is the lack of a 2nd pers. sing. aor. impv., for which see p. 37ff. and 42f.

dā₂ ‘distribute’

pres. med. 2nd sing. *dayasva* (1.68.6b), 2nd pl. *dayadhvam* (7.37.2d)

dīś ‘show’

red. pres. act. 2nd sing. *didiḍḍhi* (2), 3rd sing. *dídeṣṭu* (7.40.2c), 2nd pl. *didiṣṭana* (2)

didīṣṭana is a rare example of a *-tana* form with zero grade of the root, see p. 31. Kümmel (2000: 246f.) states that these forms must be presents rather than perfects, both because of their semantics, and because the 3rd sing. med. inj. form *didīṣṭa* would have ended in *-at* had it been a perfect.

***dī*₁** ‘shine’

perf. act. 2nd sing. *dīdīhi* (17), *didīhi* (12)

thematicised perfect. 2nd dual. *dīdayatam* (1.93.10c)

Cf. *pīpihi*, *pīpaya*, *pīpayata*. This root was originally only perfect, some forms later being ‘transferred’ to the present. Narten (1987²) shows that one possible starting point for this is the 2nd sing. imperative *didīhi*, which has the same forms as present impvs. such as *piprīhi*, *mimīhi*, etc. Also brought into consideration is the thematicised perf. impv. *dīdayatam*, which is probably constructed on the basis of the subjunctive stem¹⁷⁸. In the RV there are attested examples of both perf. subj. *dīdayat* and pres. subj. *dīdayat* (NB shifted accent), Since the accentuation of *dīdayatam* is not attested we cannot, strictly speaking, be certain whether it is not actually a present. The long reduplication vowel is explained by Kümmel (2000: 21f.) as being both characteristic of roots with a long-vowel zero grade, and also of roots whose perfect has present meaning.¹⁷⁹

***dī*₂** ‘fly’

pres. act. 2nd sing. *dīya* (3), 2nd dual *dīyatam* (5.74.9d)

duvasy ‘honour (with gifts)’

pres. act. 2nd sing. *duvasya* (3), 2nd pl. *duvasyāta* (5)

Derived from *dúvas-* ‘gift’ in the same way as *manasy-*, *daśasy-* etc.

¹⁷⁸ See p. 34.

¹⁷⁹ As Kümmel points out, this is first shown indirectly by Delbrück (1874: 133f.), who tentatively classes the perfects of *dī*, *pī* etc. with long reduplication as intensives. Also LIV (s. **dejh₂*).

duh ‘milk, give milk’

pres. med. 2nd sing. *dhukṣva* (4.57.2b)

aor. med. 3rd sing. *duhām* (2)

sa-aor, act. 2nd pl. *dhukṣata* (6.48.13a)

sa-aor med. 2nd sing. *dhukṣāsva* (8.13.25c)

This verb is mostly found in the middle voice, meaning ‘to give milk’, e.g. 4.57.2b *dhenúr iva páyo asmāsu dhukṣva* ‘Give us [rain] like a cow [does] milk’. The only active imperative form is that of the *-sa-* aorist, which is only attested once: 6.48.13 *bharádvājāyāva dhukṣata dvitā, dhenúṃ ca viśvádohasam / iṣaṃ ca viśvábhojasam* ‘For Bharádvāja now milk the cow who gives all milk, and the all-nourishing nourishment.’

For the form *duhām* see p. 35.

dṛ ‘pierce’

si-impv. 2nd sing. *dārṣi* (10)

int. 2nd sing. *dardṛhi* (3), 3rd sing. *dardartu* (7.55.4b)

perf. 2nd sing. *dāḍṛhí* (1.133.6a)

The intensive is the principle present formation of this verb, although there do exist a few examples of a causative stem *daraya-*. *dāḍṛhí* is the only form of the perfect of this verb with a long reduplication vowel¹⁸⁰. The form itself is only attested once, at 1.133.6a *avár mahá indra dāḍṛhí śrudhí naḥ* ‘blast the great ones down, O Indra, hear us’ and cannot be differentiated in function from a pres. impv.¹⁸¹ Given this, it does seem like that *dāḍṛhí* could be some kind of nonce-variant of the intensive present *dardṛhí*¹⁸².

dṛh ‘fasten, be fastened’

pres. act. I 2nd pl. *dṛṃhata* (10.101.8d)

pres IV act. 2nd sing. *dṛhya* (3)

pres. IV med. 2nd sing. *dṛhyasva* (8.80.7a)

¹⁸⁰ Kümmel (2000: 231).

¹⁸¹ Kümmel *loc. cit.*

¹⁸² Cf. Schaefer (1994: 28f., 135 fn. 395).

dṛṃhata is the only attested example of this present stem which has the accentuation on the root, rather than the suffix. The stem *dṛṃhá-*, which is a thematic stem derived from an old nasal present, is transitive-factitive ‘fasten’, e.g. 10.101.8d *mā vaḥ susroc camasó dṛṃhatā tām* ‘let your cup not leak, fasten it!’ while *dṛḥya-* is intransitive, meaning ‘be fast, strong’, as in 3.30.15a *índra dṛḥya yāmakosā abhūvan* ‘Indra, be strong, the travelling chests are ready’¹⁸³. The middle voice imperative only occurs once, with apparently very similar meaning to the active: 8.80.7a *índra dṛḥyasva pūr asi* ‘Indra, be strong, you are a fortress’.

drā ‘run’

root aor. act. 3rd pl. *drāntu* (10.85.32d)

This verb has no present stem, being attested as a root aor., a sigmatic aorist (only in the subjunctive form *drāsat*), and as a perfect. This aorist appears to have a suppletive relationship with the present of the verb *dru*¹⁸⁴. The forms *drāhi* and *drātu* are attested in the AV.

dru ‘run’

pres. act. 2nd sing. *dráva* (8), 3rd sing. *drávatām* (3.14.3a), 3rd pl. *drávantu* (2)

pres. caus. 2nd sing. *drāváyā* (8.4.11a)

The causative form occurs once with the meaning ‘let flow’: 8.4.11ab *ádhvaryo drāváyā tvám, sómam índraḥ pipāsati* ‘Adhvaryu, let the Soma flow, Indra wants to drink’. The intransitive stem *drava-* occurs several times in Book 8 in the seemingly formulaic sequence *éhi dráva píba*, as for example 8.17.11 *ayám ta índra sómo, nípūto ádhi barhíṣi / éhīm asyá drávā píba* ‘This is your Soma, purified on the altar-grass, come, hurry, drink it’.

dhanv ‘run’

va-pres. 2nd sing. *dhánva* (12), 2nd pl. *dhanvantu* (4)

All but one of the attestations of the imperative of this root are in Book 9, and, addressed to Soma, mean ‘run, flow’. Although the present *dhanva-* was originally a

¹⁸³ Cf. Joachim (1978: 96).

¹⁸⁴ See Narten (1964: 149f.) and Gotō (1987: 178).

-va- stem from the IE root **dhenh₂*¹⁸⁵, by the time of the RV it had become a root in its own right, as shown by forms such as the perfect *dadhanvé* and the aorist *ádhanviṣur*¹⁸⁶.

dhām ‘blow’

pres. act. 2nd sing. *dhama* (10.145.2c)

Appears once, with transitive function: 10.145.2cd *sapátnīm me párā dhama, pátim me kévalam kuru* ‘Blow away my co-wife¹⁸⁷, make my husband mine alone’

dhā ‘put, place, give’

pres. act. 2nd sing. *dhehí* (64), *dhattāt* (3.8.1c), 3rd sing. *dádhātu* (16), 2nd dual *dhattám* (40), 3rd dual *dhattām* (10.184.2d), 2nd pl. *dhattá* (12), *dhattana* (5), *dádhāta* (14), *dádhātana* (11), *dhetana* (2), 3rd pl. *dadhatu* (7.51.1d), *dadhantu* (7.62.6b)

pres. med. 2nd sing. *dhatsva* (10.87.2d), 3rd pl. *dadhatām* (10.18.4d)

aor. act. 3rd sing. *dhātu* (4), 2nd dual. *dhātam* (3), 2nd pl. *dhāta* (4), *dhātana* (7.47.4c), 3rd pl. *dhāntu* (2)

aor. med. 2nd sing. *dhiṣvá* (8)

perf. med. 2nd sing. *dadhiṣvá* (6), 2nd pl. *dadhidhvam* (3)

pres. caus. 2nd sing. *dhāpaya* (10.151.5d)

desid. 3rd pl. *didhiṣantu* (3.8.6d)

[**aor. inj.** *dhāh* (40)]

Like some other roots ending in *-ā*, the verb *dhā* lacks a 2nd pers. sing. aor. impv. form. The aorist injunctive fills the gap. See p. 37ff. for details. For the form *dhehí* see p. 29. With the exception of *dhehí*, the only present form which has no parallel elsewhere is *dhetana*, which must have been formed analogically to *dhehí*. *dhā* is such a well-attested verb that it has a full complement of full- and zero-grade second

¹⁸⁵ Hollifield (1978: 180ff.).

¹⁸⁶ See also Gotō (1987: 178ff.).

¹⁸⁷ For a study of the meaning of the word *sapátnī*, and the history of its interpretation, see Kazzazi, 2001:175f.

person forms, both with and without the *-na* suffix. By comparison, the middle voice forms are very sparsely attested.

The present and aorist active forms are extremely common and invariably transitive. There are only two examples of the pres. med., both of them late, e.g.: 10.87.2d *kravyádo vṛktvy ápi dhatsvāsán* ‘twist the raw-meat eaters around and put them in your mouth’, where the reflexive middle-voice affective meaning is clear. The aorist middle-voice forms are somewhat better represented, The form *dhiṣva* appears twice in Book 6 (18.9c and 22.9c) in the formulaic *dhiṣva vájram háste* ‘take the Vajra in your hand’, and one further time without *háste* at 45.18a. Elsewhere the form occurs with the same affective meaning: 1.91.18d *diví śrávāṃsy uttamāni dhiṣva* ‘take (for yourself) the highest glories’, and 3.6.6a *ghṛtasnūvā rōhitā dhurí dhiṣva* ‘set (for yourself) the two ruddy (horses) whose backs are covered with ghee at (your own) chariot-pole’.

Kümmel (2000: 274f.) considers the possibility that the forms *dadhiṣvá* and *dadhidhvam* may actually belong to the reduplicated present. On purely formal grounds he classifies them as perfects, because the *dhadhi-* stem elsewhere only belongs to the perfect, while the reduplicated present has *dadh-*. He finds that the perfect and present middle-voice forms are equivalent in meaning, both being affective, e.g. 3.40.5ab *dadhiṣvá jaṭhāre sutám, sómam indra váreṇyam* ‘put into your stomach the choice pressed Soma’.

The causative is only attested in the very late 10.151.5, and is in fact a causative variant of the well-known expression *śrād dhā*, ‘to believe’: *śraddhām prātār havāmahe, śraddhām madhyāṃdinam pári / śraddhām sūryasya nimrúci, śraddhe śrād dhāpayehá naḥ* ‘We call on Belief in the morning, on Belief in the afternoon, on Belief at the setting of the sun, O Belief, make us believe here’.

The desiderative *didhiṣantu* appears once at 3.8.6cd *té devāsaḥ sváravas tasthivāṃsaḥ, prajāvad asmé didhiṣantu rátnam* ‘these divine posts situated here; let them want to give us a child-rich gift’¹⁸⁸.

dhāv₁ ‘stream’

pres. act. 2nd sing. *dhāva* (3), 3rd sing. *dhāvatu* (4), 2nd pl. *dhāvata* (2)

¹⁸⁸ For further desiderative imperatives see p. 34.

The present active is intransitive, meaning ‘to flow’. When it has an accusative object, the meaning is ‘flow through’,¹⁸⁹ e.g. 9.49.4a *pavítṛaṃ dhāva dhārayā* ‘flow through the sieve in a stream’.

dhāv₂ see *dhū*

dhunay- ‘rush’

pres. act. *dhunayantām* (3.55.16a)

dhū ‘shake, mix’

pres. act. 2nd sing. *dhūnuhi* (3), 2nd pl. *dhūnuta* (1)

them. pres. 2nd dual *dhāvataṃ*, 2nd pl. *dhāvata*

The stem *dhūnu-* is transitive, meaning ‘to shake’, 3.45.4cd *vṛkṣām pakvām phālam aṅkīva dhūnuhi-*, *-īndra sampāraṇaṃ vāsu* ‘O Indra, shake down helpful goodness, as [one shakes] a tree, ripe with fruit’. Gotō (1987: 186) shows that the form *ā dhāva-* is a technical term used to describe part of the process of preparing Soma, e.g. 8.1.17ab *sótā hí sómam ádribhir ém enam apsú dhāvata* ‘Press it with stones, and ? it in water’. The precise nature of the action, in his opinion, cannot be ascertained, although it may mean ‘shake’ or ‘mix with water’. 1.109.4cd *tāv aśvinā bhadrahastā supāñī, ā dhāvataṃ mádhunā pṛñktām apsú* ‘You two Aśvins, of the blessed hands, having good hands, shake it with honey, mix it in water’¹⁹⁰, probably gives an indication that this interpretation is correct, as it is more or less synonymous with *pṛc* ‘to mix’.

dhūrv ‘destroy’

pres. act. 3rd pl. *dhūrvantu* (6.75.19c)

The IE root of this form is **dh^huer*, as shown by the alternative Vedic stem *dhvára-*, which is not attested in the RV. This leads Gotō (1987: 191) to suggest that the lengthening of the vowel in the stem *dhūrva-* is due to the influence of the form

¹⁸⁹ Gotō (1987: 183).

¹⁹⁰ Or possibly, ‘shake (it), mix it with honey, in the water’.

tūrva- from *tī̄* (q.v.)¹⁹¹. Lubotsky (1997²), on the other hand, finds that the sequence **-urv-* is regularly lengthened when accented.

dhṛ ‘hold’

pres. act. 2nd sing. *dhārāya* (14), 2nd dual *dhārayatam* (2), 3rd dual *dhārayatām* (10.173.5d), 3rd pl. *dhārayantu* (10.18.13c)

med. pres. 2nd dual *dhārāyethām* (6.74.1a), 2nd pl. *dhārayadhvam* (10.70.5d)

aor. 2nd dual *didhṛtam* (2), 2nd pl. *didhṛtā* (1.139.8g)

dhārāya- is the only present stem from this root, with *dīdhṛ-* being the corresponding reduplicated aorist, in the same manner as the usual connection between reduplicated aorists and *-āya-* causatives. LIV s. v. *dher*, quoting the unpublished dissertation by J. Bendahman, asserts that these forms are an original reduplicated present, which was reinterpreted as an aorist on this basis. A further factor in the shaping of the forms of this root is undoubtedly its tendency to mimic the forms of the root *gr*, ‘be awake, awaken’ (q.v.). Thus *jārāya-* : *dhārāya*, *jāgāra* : *dādhāra*, *ājīgar* : *dīdhar*, *jigṛtām* : *didhṛtām* and even *jāgrvi-* : *dādhrvi-*. Since the lengthening of the reduplicating vowel in forms such as *jāgāra* and *jāgrvi-* can be shown to stem from a root-initial laryngeal, and since the root *dhṛ* probably does not have a laryngeal at the beginning, then the original must be *gr*, and *dhṛ* the mimic.

dhṛṣ ‘attack, be brave’

pres. act. 2nd sing. *dhṛṣṇuhí* (1.80.3a)

Occurs only once, at 1.80.3ab *préhy abhīhi dhṛṣṇuhí, ná te vājro ní yaṃsate* ‘Advance, go on, attack, your Vajra will not hold back’. Nowicki (1983: 273f.) is not satisfied with the meaning “be brave” in this context, as occurs, e.g. in Geldner ‘sei mutig’, as the verb appears together with two other verbs of motion. Thus, he concludes, *dhṛṣ* must here be a verb of motion too, meaning “attack”. He sees the same meaning at 1.183.4a: *má vāṃ vṛko má vṛkír ā dadharṣīt* ‘Neither the he-wolf nor the she-wolf shall attack you two’.

nakṣ ‘reach, attain’

pres. med. 2nd sing. *nakṣasva* (8.54.7c)

¹⁹¹ See also LIV s. **dhyer*.

This is a secondary root, derived from *naś*, probably from an unattested aor. subj. **nákṣati*. See p. 49 under *nakṣi*.

nabh ‘pierce, burst’

pres. med. 3rd pl. *nábhantām* (40)

This is the only attested form of this root in the RV, although others occur in later texts. Although it is attested 40 times, it actually only appears in two obviously related formulae: *nábhantām anyaké same*, ‘let all the others (or foreigners) be destroyed’ which occurs 10 times in 8.39, 11 times in 8.40, 10 times in 8.41 and three times in 8.42, and *jyākā . . . nábhantām anyakéṣām* ‘let the bowstrings of the foreigners be destroyed’, which occurs six times in 10.133.¹⁹²

nam ‘bend, bow’

pres. act. *nama* (2)

pres. med. *namasva* (8.75.5b), *namadhvam* (2), *namantām* (5)

The active forms are generally transitive, while the middle-voice forms are intransitive, e.g. 1.129.5a *ní śú namátimatim káyasya cit* ‘Bend down anyone’s arrogance’, and 3.33.9c *ní śú namadhvam bhávatā supārāḥ* ‘bend over, become easy to cross’. However, in 10.142.6c *úc chvañcasva ní nama várdhamānaḥ* ‘bend upwards, bend downwards as you grow’, the active form is intransitive. This is noted by Gotō (1987: 194), who also suggests a possible transitive interpretation: ‘bäume dich auf, beuge nieder [z.B. Brennholz], während du (: Agni) wächst’. Gonda (1979: 98) on the other hand suggests that it may take its middle meaning from the practically synonymous *śvañcasva* which precedes it, suggesting that ‘the repetition of the middle ending immediately after *úc śvañcasva* might be regarded as a superfluity and therefore be avoided’.¹⁹³ Cf. the use of the *hapax* active *pava* together with *pavasva*, under *pū*, p. 135.

The middle voice with the preverb *á* is affective¹⁹⁴, i.e. ‘bend for oneself’, e.g. 8.75.5bc *á namasva sáhūtibhiḥ / nédīyo yajñám aṅgiraḥ* ‘bend him nearer to the (your own) sacrifice with invocations, O Aṅgiras.’

¹⁹² For what little is known about this root see Mayrhofer (1986: s. *NABH*).

¹⁹³ The synonymity of the roots *nam* and *śvañc* was described by Hoffmann (1960).

¹⁹⁴ Gotō *loc. cit.*

namasy- ‘worship’

pres. act. 2nd sing. *namasyá* (5), 2nd pl. *namasyáta* (3)

Denominative stem derived from *námas-* ‘homage’, which is of course in turn derived from the root *nam*. Cf. *canasy-*, *daśasy-* etc.

naś₁ ‘attain’

pres. act. 2nd sing. *aśnuhi* (3), 3rd sing. *aśnotu* (3), 2nd dual *aśnutam* (2), 3rd pl. *aśnuvantu* (2)

aor. si-impv. 2nd sing. *nakṣi* (5.25.2b)

naś₂ ‘perish’

pres. act. 2nd sing. *naśya* (10.97.13d), 3rd sing. *naśyatu* (8.27.18d)

caus. act. *nāśaya* (1.50.11d)

Both the pres. stem *náśya-* and the caus. *nāśáya-* are restricted to the later books of the RV. However, as Jamison (1983: 141f.) points out, the fact that both have Avestan cognates, and that the causative has a cognate in Lat. *nocēre* assure the antiquity of these forms. The pres. act. is intransitive, e.g.: 10.97.13d *sākám naśya nihākayā* ‘disappear together with the snowstorm’, while the causative means ‘make disappear’ 1.50.11cd *hydrogám máma sūrya, harimāṇaṃ ca nāśaya* ‘O Sūrya, make my heartbreak, my jaundice, go away’.

nah ‘bind’

pres. act. 2nd pl. *nahyatana* (10.53.7a).

One of only three forms in the entire RV in which the *-tana* ending occurs on a thematic stem. See p. 32.

nij ‘clean’

pres. act. *ninikta* (10.132.6d)

This is the only existing example of the present stem, occurring only once at 10.132.6cd *áva priyá didiṣṭana, sūro ninikta raśmībhiḥ* ‘show kindness, wash [our sins?] away with the suns rays’.

nī ‘lead’

pres. act. 2nd sing. *nāya* (12), 3rd sing. *nayatu* (5), 2nd dual *nayatam* (2.29.5d), 2nd pl. *náyata* (6), 3rd pl. *náyantu* (3)

pres. med. 2nd sing. *nayasva* (3.35.3a), 2nd pl. *nayadhvam* (2)

-si impv *néṣi* (10)

The act. forms are transitive, e.g. 1.42.7a *āti nah saścáto naya* ‘lead us past our pursuers’, while the rather scantily attested middle voice is affective¹⁹⁵, as in 3.35.3a *úpo nayasva vṛṣaṇā tapuṣpá-* ‘bring (with you) the two bulls (i.e. stallions), protecting them from (over) heat(ing)’¹⁹⁶. For the *-si impv néṣi* see p. 50.

nud ‘push’

pres. act. 2nd pl. *nudata* (10.165.5a)

pres. med. 2nd sing. *nudásva* (7), 2nd dual *nudéthām* (7.104.1d)

The active form *nudata* is one of only three active forms attested for this verb, the others being an imperfect *anudaḥ* and a participle *nudán*. All of the active forms are limited solely to Book 10. The middle voice forms are transitive and usually occur with words meaning ‘enemies,’ such as *mṛdh*, *amitra* etc.

pac ‘cook’

pres. act. 2nd pl. *pácata* (2), 3rd pl. *pacantu* (1.162.10d)

pat ‘fly, fall’

pres. act. 2nd sing. *pata* (2), 2nd dual *patatam* (3), 3rd pl. *patantu* (10.134.5b)

red. aor. *paptata* (1.88.1d)

The reduplicating aorist, which is of the same type as *voca-*, is thought to have developed from the perfect stem *papt-*. Kümmel (2000: 295) suggests this development may have occurred in Proto-Indo-Iranian, while other scholars, such as Leumann (1952: 26) suggest a later period. The idea occurs as early as Macdonell (1916: 175).

¹⁹⁵ Gotō (1987: 197).

¹⁹⁶ Translation based on Klein (1985: 1-369). For the difficult word *tapuṣpá-* see Geldner *ad. loc.*

The present is intransitive, meaning ‘to fly’, e.g. 6.75.16ab *ávaṣṣṭā párá pata, śáravye ...* ‘having been released, fly away, O arrow ...’ or 5.78.1-3c *haṃśáv iva patatam á sutám ūpa* ‘fly like geese to the pressed (Soma-juices)’, which is the only occurrence of the form *patatam*. At 10.134.5ab, *áva pat* means ‘to fall’: *áva svédā ivābhíto, víṣvak patantu didyávaḥ* ‘May the arrows fall all around like drops of sweat.’ The aorist only occurs once and is undifferentiated in meaning: 1.88.1d *váyo ná paptatā sumāyāḥ* ‘fly (to us) like birds, O good-powered ones’.

pad ‘tread’

pres. act. 2nd sing. *padyasva* (6.75.16c)

pan ‘worship, praise’

pres. act. 2nd sing. *panaya* (5.20.1d), 2nd pl. *panāyata* (6.75.6c)

For a treatment of *panāyata* and other forms in *āya* see Hoffmann (1966: 69), See also Gotō (1987: 206), and for a description of the relationships between the various stems belonging to the root, Jamison (1983: 96f).

paś ‘see, look’

pres. act. 2nd sing. *páśya* (7), 2nd pl. *páśyata* (6)

pres. med. *paśyasva* (8.33.19a)

caus. med. *spāśáyasva* (1.176.3c)

This root splits neatly between those forms which don’t have the initial /s/ – i.e. the pres. and impf. – and those that do, which are the aorist *áspaṣta*, the perfect *paspaśé* and the med. caus. *spāśáyasva*. There is also a ppp. *ánu-spaṣta*. All of the *spaś*-forms are med., while the majority of those of *paś* are active. A small number of middle-voice forms from *paś* are attested including the pres. med. impv. *paśyasva*, which is only attested once (see below). Altogether, with the exception of two instances of the med. part. *páśyamāna*¹⁹⁷, all of the attestations of the pres. med. of *paś* are late. The active aorist and perfect are supplied by the root *dṛś*, which also has perfect and aorist middle-voice forms. Jamison (1983: 167) finds that *spaś* “appears to be functioning almost as an independent root in Vedic”, and that it differs semantically from *paś*, in that the latter simply means ‘to see’, while the

¹⁹⁷ 3.31.10a and 7.83.1a.

former means ‘to watch over, spy’. While this semantic difference could easily have originally stemmed from the fact that the *spāś*-forms are always middle-voice (‘to see for oneself’), synchronically there is a suppletive relationship not between *paś* and *spāś* but between *paś* and *drś*¹⁹⁸, with the *spāś* forms having diverged semantically sufficiently to be considered separate. Thus:

	<i>See, look</i>		<i>Watch over, spy</i>
pres.	<i>paśyati</i>	<i>paśyate</i>	-
aor.	<i>ádaṛśam</i>	<i>ádṛkṣata</i>	<i>áspaṣṭa</i>
perf.	<i>dadárśa</i>	<i>dádṛṣe</i>	<i>paspaśé</i>
caus.			<i>spāśáyasva</i>

The pres. middle-voice impv. of *paś* means ‘to look’ in its one attestation: 8.33.19a *adháh paśyasva mópári* ‘look down not up’, while the active is transitive, as in e.g.: 6.9.4a *ayám hótā prathamáh páśyatemám* ‘This is the first *hotar*, look at him’. The caus. form *spāśáyasva* is clearly the caus. of the *spāś* forms, not only by form but by meaning too: 1.176.3cd *spāśáyasva yó asmadhrúg, divyévāśánir jahi* ‘(O Indra) do thou cause (the one) who is our deceiver to be spied out (=discovered). Like a heavenly cudgel, do thou smash him’¹⁹⁹

pā₁ ‘protect’

pres. act. 2nd sing. *pāhí* (70), 3rd sing. *pātu* (35), 2nd dual *pātám* (12), 3rd dual *pātám* (1.185.10c), 2nd pl. *pāta* (82), 3rd pl. *pāntu* (4)

This is an extremely well-attested root. However the huge number of attestations of the 2nd pl. form is misleading, because it only appears in the typical hymn ending of Book 7 *yūyám pāta svastíbhīḥ sádā naḥ* ‘you protect us always with good fortune’.

¹⁹⁸ See also Kümmel (2000:231ff.) and Mayhofer (1986: s. *PAŚ*) for further literature concerning the suppletive relationship between *paś* and *drś*.

¹⁹⁹ Translation Jamison (1983: 167).

***pā*₂** ‘drink’

pres. act. 2nd sing. *pība* (118), 3rd sing. *pībatu* (7), 2nd dual *pībatam* (43), 2nd pl. *pībata* (9), 3rd pl. *pībantu* (4)

pres. med. 2nd sing. *pibasva* (4.35.7c), 2nd pl. *pibadhvam* (3)

root aor. 2nd sing. *pāhí* (25), 2nd dual *pātám* (4), 2nd pl. *pātá* (3)

caus. act. *pāyáya* (4)

The pres. impv. of *pā* is another hugely attested form, mostly, of course in reference to drinking Soma. It is usually transitive, with an accusative object *pībā sómam ...* (passim) but also commonly occurs with a partitive genitive object, as in e.g. 8.37.1g *pībā sómasya vajrivaḥ* ‘drink (of) the Soma, O Vajra-bearer’, which is also repeated a further five times in the same hymn²⁰⁰. By contrast, the middle-voice forms are very rare, a total of six occurrences of all forms (impv. and others) being attested in the entire RV. The middle impv. forms appear three times out of four with the preverb *sám*, with the meaning ‘drink together’ and no object, as in 4.35.7cd *sám ṛbhúbhiḥ pibasva ratnadhébhiḥ, sákhīṃr yám indra cakṛsé sukṛtyá* ‘drink together with the Ṛbhus, who bring gifts, O Indra, whom you made your friends, on account of their good deeds.’ In the same hymn, the form *pibadhvam* is also attested: 4.35.9d *sám mádebhīr indriyébhiḥ pibadhvam* ‘(O Ṛbhus) drink together, with the exhilarations of Indra’. The fourth attestation is with the preverb *ví*: 3.53.10cd *devébhīr viprā ṛṣayo nṛcakṣaso, ví pibadhvaṃ kuśikāḥ somyám mádhu* ‘O Poets, O Seers leaders of men, drink together with the gods the sweetness of the Soma, O Kuśikas’, with apparently similar meaning. Possibly *ví* is distributive: ‘drink together with the various gods’²⁰¹.

The caus. is unusual in that it is missing the characteristic /*p*/ between the root and the suffix. Jamison (1983: 169) remarks that this is most likely avoided because of the /*p*/ in the root. The meaning of the caus. is ‘let drink, give to drink’ as in 1.14.7c *mádhvaḥ sujihva pāyaya* ‘let them (i.e. the gods) drink of the sweet (Soma), O beautiful-tongued one’.

²⁰⁰ For the few occasions where the distinction between the present and aorist of this verb are still upheld, see page 85f.

²⁰¹ Cf. Grassmann (1872: *ad loc.*).

The 2nd sing. form *pība* is one of only two imperatives to appear in *āmređita*, at 2.11.11a: *pībā-pibéd indra śūra sómam* ‘Drink, drink the Soma, O Indra, O Hero.’²⁰²

pīnv see *pī*

pīś ‘carve, paint’

pres. act. 3rd sing. *piṃśatu* (10.184.1b), 2nd pl. *piṃśata* (10.53.7b)

them. aor. 2nd sing. *piśá* (7.18.2c)

piṃśa- is a thematic stem derived from an old nasal stem, cf. *drh*.

pīṣ ‘trample, crush’

pres. act. 2nd pl. *pinaṣtana* (7.104.18b)

pī ‘swell’

pres. act. 2nd sing. *pinva* (4), 2nd dual *pínvatam* (9), 3rd dual *pinvatām* (6.70.6a), 2nd pl. *pinvata* (5.83.6b)

pres. med. 2nd sing. *pinvasva* (3.3.7b), 3rd sing. *pínvatām* (10.36.5a), 2nd pl. *pinvadhvam* (3.33.12c)

perf. 2nd sing. *pīpihí* (2)

them. red. aor. 2nd sing. *pīpayá* (3.15.6a), 2nd pl. *pīpayata* (10.64.12c)

them. perf. 2nd dual *pipyatam* (4), 3rd dual *pipyatām* (6.50.12d), *pipyata* (2.34.6c)

The thematic present *pínva-* has completely replaced an old *-nu-* present **pinoti*, which is attested in Avestan as *fra-pinaoiti* (V. 3.31). This present stem was subsequently reanalysed as a root *pīnv*, from which are attested non-present forms such as perfect *pipinváthuḥ*²⁰³.

For a treatment and further bibliography concerning all of the forms of the root *pī*, see Kümmel (2000: 298ff.), whose classification I follow, with the exception of the form *pīpihi*, which he considers to be a reduplicated aorist. There are valid semantic reasons for this; the red. aor. is mostly factitive while the perf. is mostly – but not exclusively – intransitive-stative. However, if this were the case, this would be the

²⁰² The other form being *stuhi*, at 8.1.30a.

²⁰³ See also Joachim (1978: 106f.) and Kümmel (2000: 310).

only example of a reduplicated aor. with the ending *-hi*. Since the *-hi* ending is common with perfects, then it is far more likely to be an original perfect form. Since the perfect and reduplicated aorist are in any case outwardly very similar forms, this perfect could easily have been transferred to the aorist paradigm, which would have involved the lengthening of its reduplication syllable, and assumed an aorist meaning.²⁰⁴

The forms *pīpaya* and *pīpayata* are most likely secondarily thematicised aorists, for which see Kümmel (*op. cit.*: 300 fn. 495), who also admits to the possibility that they could be hybrid forms derived from a subjunctive *pīpáyat*. See also p. 34.

Semantically, the present active is transitive-factitive: 6.39.5b *īṣaḥ pinva vasudéyāya pūrvīḥ* ‘make much refreshment swell for the giving of goods’, while the middle-voice is intransitive: 3.3.7ab *ūrjā pinvasva sám īṣo didīhi naḥ* ‘swell with power, illuminate refreshment for us.’ The reduplicated forms are all active, and are mostly undifferentiated in meaning from the active present, while on one occasion it has intransitive meaning: 2.39.6b *stánāv iva pipyatam jīvāse naḥ* ‘like two breasts, swell that we may live.’

puṣ ‘flourish’

pres. act. 2nd pl. *puṣyata* (1.94.8c), *puṣyantu* (10.19.3b)

pū ‘purify’

pres. act. I 2nd sing. *pava* (9.49.3c)

pres. I med. 2nd sing. *pávasva* (127), 3rd sing. *pávatām* (2), 2nd pl. *pavadhvam* (9.21.6c), 3rd pl. *pavantām* (2)

pres IX act. 2nd sing. *punīhí* (8), *punītāt* (10.30.5d), 3rd sing. *punātu* (9.67.22c), 2nd pl. *punītá* (9.67.27c), *punītána* (4), *punāta* (9.104.3a), *punántu* (3)

With the exception of the one example of the form *pava* at 9.49.3c, the forms are split neatly between the active-factitive stem *punā-* and the middle-voice/fientive *pava-*. The single example of the form *pava* occurs together with *pavasva* at 9.49.3 *ghṛtām pavasva dhārayā, yajñēṣu devavītamah / asmábhyaṃ vṛṣṭím á pava*. The

²⁰⁴ Kümmel (*op. cit.*: 310) quotes an example of a form *pipīhi*, which appears at MS 4.9.9.: 129.7. This form has a characteristically perfect meaning. The parallel passage in the TĀ has *pīpīhí*, explained by Kümmel as having been influenced by the RVic form. Also, cf. the forms *didīhí* and *didihí*, both of which are perfect.

form *ā pavasva* + acc means ‘become pure’ with acc. of content or goal²⁰⁵, and this example is undifferentiated in meaning from the middle voice. As in the case of the single instance of the active *nama*, which gets its mediality from the juxtaposed verb *śvañcasva*, Gonda (1979: 98) proposes that the middle voice meaning is transferred from the juxtaposed middle form²⁰⁶. Thus we can translate the verse ‘purify yourself as ghee by pouring, be pure for us as (with respect to) rain’²⁰⁷. Every single example of the imperative of *pū* occurs in Book 9, making it the most characteristic Soma keyword of all. Of the 15 examples of the imperative of the factitive stem *punā-*, eight occur in six consecutive verses (22-27) of 9.27. The form *punāta* (9.104.3a) is unique, as the only example of a second pers. pl. form of a stem of this kind to show full grade and accentuation of the suffix, cf. *gānta* etc.

pr ‘bring over’

red. pres. act. 2nd sing. *piṛhi* (2), 3rd sing. *pípartu* (3), 2nd dual *piṛtám* (5), 3rd dual *piṛtám* (1.22.13c), 2nd pl. *piṛtá* (2), *pipartana* (9)

aor. -si impv. *pārṣi* (16)

sec. thematised aor. impv. *parṣa* (1.97.8b)

caus. 2nd sing. *pārāya* (5), 2nd dual. *pārayatam* (2.39.4a)

Jamison (1983: 102) considers the caus. form *pārāya*, which isn’t different in meaning from the reduplicated present, to be the older of the two present stems, because it has an Avestan cognate, while the reduplicating present does not. The latter, she suggests, is formed on the basis of the stem **titarti*, from the root *tī-*, which itself is only attested in one participle form *titrat-*, but which does have an Avestan cognate *titarat*.

For the *-si* impv. *parṣi* and for the form *parṣa* see p. 50. Cf. *joṣa*, and AV *neṣa*.

²⁰⁵ Gotō (1987: 207).

²⁰⁶ See also p. 128.

²⁰⁷ Gonda translates ‘clarify thyself (so as to give) ghee . . . (while) clarify(ing) (thyself) (bring) rain’. Gotō *loc. cit* ‘als (bzw. zur) Schmelzbutter läutere dich . . . für uns läutere dich zum Regen’.

pṛc ‘mix, pour out abundantly, fill’

pres. act. 2nd sing. *pṛndhi* (2.24.15c), 3rd sing. *pṛnáktu* (1.84.1c), 2nd dual *pṛñktām* (5)

red. pres. act. 2nd sing. *pipṛgdhi* (10.10.11d), 2nd pl. *pipṛkta* (3.54.21b)

pres. pass. 3rd sing. *pṛcyatām* (6.28.8b)

Each of the reduplicated forms appears once only, *pipṛgdhi* at 10.10.11 and *pipṛkta* at 3.54.21. Joachim, (1978: 109) suggests that the reduplicated forms may have been created by analogy to other forms with similar meaning, such as *mímikṣa-*, which occurs in very similar contexts. Also, the reduplicated forms appear in environments containing other reduplicated forms.

The passive form appears once only: 6.28.8ab *úpedám upapárcanam, āsú góśúpa pṛcyatām* ‘let this mixture be added to (i.e. mixed with) the cows (or, more likely, with milk)’.

For an example containing the present of *pṛc* see above under *dhū*.²⁰⁸

pṝ1 ‘fill’

pres. act. *pṛñītana* (5.5.5c)

them. pres. 2nd sing. *pṛña* (8), 2nd pl. *pṛñata* (3)

them. pres. med. 2nd sing. *pṛñasva* (2), 3rd sing. *pṛñatām* (3.50.1c), 2nd dual *pṛñethām* (6.69.7b), 2nd pl. *pṛñádhvam* (4)

red. aor. *pūpurantu* (7.62.3d)

-si impv. *pṛāsi* (2)

For the form *pṛña* see page 28f.

The thematic present, which often appears with the preverb *á*, is transitive and usually means ‘fulfil’, often occurring with *kāmam* ‘desire’, e.g. 1.16.9a *sémám naḥ kāmam á pṛña* ‘fulfill this desire of ours’. It can also mean ‘fill’, as in 9.41.5a *mahí ródasī pṛña* ‘fill the two great worlds’.

Two examples of the athematic present impv. that occur without preverbs both belong to the root *pṝ2* (q.v. below), thus the sole example of the imperative of this

²⁰⁸ For the possibility that this root (PIE **pel-k*) may be an alternative form of the root *pṝ* (*pel-h₁*) see Mayrhofer (1986: s. *PARC*, with bibliography), and LIV s. **perk*. This is problematic, as it would preclude comparison with forms outside Indo-Iranian, which contain original *r*.

stem with the probable meaning ‘fill’ is 5.5.5c *prá-pra yajñám pṛṇātana* ‘fulfil the sacrifice’.²⁰⁹

The middle voice present, which is always thematic, means ‘to fill up, become full’, e.g. 3.50.1c *óruvyácāḥ pṛṇatām ebhúr ánnaiḥ-* ‘having wide reach, let him be filled with this food’. The middle voice may also have affective meaning, as in 10.104.2b *nṛ̥bhīḥ sutásya jaṭhāram pṛṇasva* ‘fill your (own) stomach with (Soma) pressed by men’.

The red. aor. form *pūpurantu* corresponds to a caus. *pūrayati*, which is attested in the AV, but not the RV. This form, however, which must have been part of the language of the time, as the aor. is dependent on it for its vocalism²¹⁰. For an example containing the *-si* impv. *prási* see under *pṛ̥₂*.

pṛ̥₂ ‘give’

pres. act. 2nd dual *pṛṇūtám* (7.65.4d), 2nd pl. *pṛṇūtá* (1.23.21a)

root aor. *pūrdhí* (7)

First differentiated from *pṛ̥₁* by Kuiper (1938: 313ff.)²¹¹. While the aorist impvs. of these roots are strictly differentiated, the present stems are the same – *pṛṇāti*. Historically the two roots are completely different; *pṛ̥₁* < **pelh₁* while *pṛ̥₂* < **perh₃*.

The two attested examples of the pres. stem *pṛṇā-/pṛṇī-* of which simplex forms occur both belong to this root, a fact recognised by Kuiper (1938: 319). Thus 1.23.21ab *āpaḥ pṛṇūtá bheṣajám vārūthaṃ tanvè máma* ‘O waters, give a potion, protection for my body’ and 7.65.4d *pṛṇūtám udnó divyásya cároḥ* ‘give (us) of the dear, divine, waters’.

The root aorist form appears, inter alia, in the memorable string of impvs. at 1.42.9ab, where it is clearly differentiated from the *-si* impv. of *pṛ̥₁*, and clearly meant to be synonymous with the following *prá yaṃsi* ‘extend (gifts)’: *śagdḥí pūrdhí prá yaṃsi ca, śísīhí práśy udáram* ‘be powerful, give and extend (gifts),

²⁰⁹ See Kuiper (1938: especially 314-320).

²¹⁰ Jamison (1983: 149).

²¹¹ For further extensive bibliography see Mayrhofer (1986: s. *PAR¹²*). See also LIV s. **perh₃*.

sharpen (us), fill our stomachs.’ This ‘absolute’ usage of the transitive is mirrored in 1.125.5b *yáḥ pṛṇáti sá ha devéṣu gachati* ‘he who gives goes to the gods.’

pyā ‘swell’

pres. med. 2nd sing. *pyāyasva* (3), 3rd pl. *pyāyantām* (1.93.12b)

A secondary root derived from *pī* (see above). All attestations – impv. and other forms – are in Books 1, 9 and 10.

prath ‘extend, spread’

pres. med. 2nd sing. *prathasva* (5.5.4a), 3rd sing. *prathatām* (10.70.4a), 3rd pl. *prathantām* (2.3.5c)

caus. med. *prathayasva* (10.140.4a)

pras ‘ask’

pres.act. 2nd sing. *pṛcha* (3), *pṛchāta* (2)

prā see *pṛ₁*

pṛī ‘gratify, be gratified’

perf. *pipṛīhi* (2)

them. perf. med. *pipṛáyasva* (8.11.10c)

The secondarily thematicised form *pipṛáyasva* is probably built on the subjunctive stem *pipṛáyat*. Cf. *dīdayatam*, *pīpaya*, *pīpayata*. See p. 34. ²¹²

pruth ‘pant, neigh, snort’

pres. act. *protha* (6.47.30c)

The usual translations of this root hardly seem suitable in the context in which this one imperative example occurs: 6.47.30 *á krandaya bálam ójo na á dhā, ní ṣṭanihi duriṭá bádhamānaḥ / ápa protha dundubhe duchúnā itá, índrasya muṣṭír asi vīláyasva* ‘Cry out, give us strength, might, thunder down, pushing away hardships. Snort away (?) mischief from here, O kettledrum.’ Neither “snort”, “pant” nor “neigh” seem quite right here, the meaning of *ápa protha ... duchúnā* certainly being parallel to that of *ní ṣṭanihi duriṭá*, for which see Narten (1993: 319), who translates

²¹² Also Kümmel (2000: 322ff.).

it as ‘donnere los, die Gefahren bannend’. The only other finite form of this verb (the rest being participles) appears with *ásva-* ‘horse’ at 7.3.2a.

bandh ‘bind’

pass. pres. 3rd pl. *badhyantām* (4.57.4c)

The form *badhāná* is first attested in the Atharvaveda. Finite forms of this verb are quite sparsely attested in the Rigveda, despite there being many nominal derivatives. The active pres. is not attested at all. Most of the attested forms are passive, such as this one impv.

bādh ‘repel, push away, push down’

pres. med. 2nd sing. *bādhasva* (9), 3rd sing. *bādhatām* (5), 2nd dual *bādhethām* (6.74.2c), 2nd pl. *bādhadhvam* (7.56.20c)

budh ‘be awake, aware’

pres. act. 2nd sing. *bodhi* (9), *bódha* (5), 3rd sing. *bódhatu* (2.32.4b), 2nd dual *bódhatam* (7), 3rd pl. *bódhantu* (1.29.4b)

caus. 2nd sing. *bodhaya* (8), 2nd pl. *bodhayata* (8.44.1b)

Hoffmann (1967: 232) and Insler (1972, 560ff.) explain the stem *bodha-* as originating in a root-aorist subjunctive. The form *bódhat* is still to be regarded synchronically as such at 4.15.7 *bódhad yán mā háribhyāṃ kumārāḥ sāhadevyāḥ, áchā ná hūtá úd aram* ‘(I thought that) if Prince Sāhadeva shall take note of me by (giving) two steeds, I shall rise up to (him) like one who has been summoned.’²¹³, which is preferable to the alternative, which is to regard it as a present injunctive. Gotō (1987: 217ff., particularly fn. 451) opposes this, on the grounds that the root aorist of *budh* is always middle-voice, and that the stem *bodha-* is always active, and that the active and middle of this root are strictly distinguished in meaning. Insler (*op. cit.*) in fact claims that the synchronically active forms actually have their origin in old “t-less” middle-voice forms, to which were added active endings in the same way as **ásaya*, which became *ásayat*. While in the latter case the rest of the paradigm preserved the identity of the form *ásayat* as a middle-voice form, in the

²¹³ Trans. Insler (*op. cit.*).

case of **bodhā(t)*²¹⁴ it did not, and the forms were subsequently reinterpreted as being active. Once this had happened, the form *bodhi* was coined on the basis of the pattern established by the form *yódhi* and its corresponding subjunctive *yodhat*.

The form *bodhi*, if indeed it does have the origin outlined on page 26, is originally active and not middle-voice, since all imperatives of the type *CéRCi* are active.

The meaning of *bódha-* and the other synchronically active forms is ‘notice, observe, perceive’. The forms *bodhi* and *bódha* have the same meaning, which strengthens the idea that the latter could be derived from the former (p. 27). Furthermore, *bódha* only occurs pāda-initially, with lengthened second syllable, while *bodhi* never does, indicating a metrical complementary distribution. Both may take either a genitive or accusative complement. Examples are: 8.43.27c *agne sá bodhi me vácaḥ*, ‘O Agni, take notice of my speech’, 3.14.7c *tvám víśvasya suráthasya bodhi*, ‘take notice of him who has a good chariot’, 1.147.2a *bódhā me asyá vácaso yaviṣṭha*, ‘take notice of this my speech, O Youngest One’, and 7.21.1d *bódhā na stómam ándhaso mádeṣu* ‘take notice of our praise in your exhilaration from the (Soma) plant’. The meaning of the middle-voice – of which there are no imperatives – is ‘wake up, be awake’, as in 1.157.1a *ábodhy agnír jma úd eti súryo* ‘Agni has awoken, the sun rises from the earth’.

One notable exception to the above is 1.29.4ab *sasántu tyá árātayo, bódhantu sūra rātayaḥ* ‘Let those enemies sleep, let these heroes be awake.’ Gotō (1987: 220) suggests the possibility that ‘Hier hat wahrscheinlich eine akustische Anpassung an *sasántu* eine Rolle gespielt.’

The causative *bodhaya* mean ‘awaken, wake (someone) up’, as in 1.124.10ab *prá bodhayaṣaḥ pṛṇató maghony, ábudhyamānāḥ paṇáyaḥ sasantu* ‘Awaken the givers, O generous Uṣas, let the demons sleep, never awakening’.

bṛh ‘strengthen’

pres. act. 2nd sing. *barhaya* (3)

int. 2nd. sing. *barbṛhi* (10.10.10c)

Wackernagel (1896: 251) shows that the *-hi* ending in *barbṛhi* is an analogical reconstruction; the form should have been **barbṛlhi* (< **barbṛz-dhi* < **barbṛjh-dhi*). If, as was usually the case, the vowel preceding the */*zdhi/* cluster had

²¹⁴ The form *bódhat* is a secondary shortening, according to Insler (*op. cit.*).

undergone compensatory lengthening, then the form would have been **barb̥l̥hi*²¹⁵. For the possibility that the form *barb̥hi* may have been derived from the the form *bárbr̥hat* (see below) on the basis of the relationship between other *-i* imperatives and subjunctives in *-at* see footnotes 25, 107.

Mayrhofer (1986: s. *BARH*) suggests that *barb̥hi* may stem from the PIE root **bhelǵh* ‘swell’, as opposed to the usual derivation from the root **bherǵh* ‘be high’. The form appears only once, at 10.10.10cd *úpa barb̥hi vṛṣabhāya bāhúm, anyám ichasva subhage pátim mát* ‘Lay your arm (like a pillow) under a bull (virile man), find some other husband than me, O happy woman’. The root **bhelǵh* ‘swell’ does provide some Vedic words whose meaning is ‘cushion, pillow’, e.g. *upabárhana-*, as well as the word *barhís-* ‘altar-grass’, so semantically at least this seems possible. The intensive stem appears, with the same meaning, at 5.61.5cd *śyāvāśvastutāya yá, dór vīrāyopabárbr̥hat* ‘she who shall lay her arms under the man who is praised by Śyāvāśva’.²¹⁶

brū ‘say’

pres. act. 2nd sing. *brūhi* (4), 3rd sing. *bravītu* (4), 2nd pl. *brūta* (10.52.1c), *bravītana* (2), 3rd pl. *bruvantu* (4)

The second person *brūta* and *bravītana* plural forms show characteristic zero-grade vs full-grade; cf. *kṛta, kartana*. See page 31.

bhaj ‘share’

pres. act. 2nd sing. *bhaja* (12), 2nd dual. *bhajatam* (10.106.9d), 2nd pl. *bhajatana* (7.56.21c)

pres. med. 2nd sing. *bhajasva* (2)

-si impv. *bhakṣi* (7.41.2d)

caus. *bhājayata* (10.9.2b)

For the form *bhajatana*, which is one of only three thematic stems showing the ending *-tana*, see page 32.

The active impv. almost always appears with the preverb *á*, in which case it means ‘let (someone) have a share in (something)’, with acc. and loc. respectively, e.g.

²¹⁵ cf. *tāl̥hi*.

²¹⁶ See also Schaefer (1994: 39, 157-159).

1.43.8c *ā na indo vāje bhaja* ‘give us, O drop, a share in the prize’. Without *ā*, it means ‘to apportion’ as in 10.106.9d *-āmśeva no bhajataṃ citrām āpnaḥ* ‘Like Amśa, give out to us shining wealth’. The impv. of the middle-voice appears to differ little in meaning or valency: 4.32.21a,c *bhūridā hy āsi śrutāḥ ... ā no bhajasva rādhasi* ‘because you are the famous plenty-giver, ..., give us a share in your gift.’ The causative stem, which is only attested once in the entire RV, means ‘allow to partake’: 10.9.2ab *yó vaḥ śívátamo rásas, tásya bhājayatehá naḥ* ‘That which is your most pleasant sap, allow us to partake of it here’. This meaning, according to Jamison (1983: 129), corresponds to the reflexive meaning of the non-modal middle-voice forms, ‘obtain a share for oneself’²¹⁷.

bhañj ‘break’

pres. act. 2nd sing. *bhandhi* (10.87.4d)

bhā ‘shine’

pres. act. 2nd sing. *bhāhi* (10)

bhid ‘split’

pres. act. 2nd sing. *bhindhí* (3)

bhiṣajya- ‘heal’

pres. act. 2nd dual *bhiṣajyátam* (8.22.10d)

bhī ‘fear’

pres.med. 3rd sing. *bhayatām* (10.42.6c)

bhur ‘move quickly, tremble’

pres. act. 3rd pl. *bhurántu* (10.76.6a)

²¹⁷ Cf. also Gotō (1987: 221f.).

bhū ‘become’

pres.act. 2nd sing. *bháva* (105), *bhavatāt* (3.23.2d), 3rd sing. *bhavatu* (34), 2nd dual *bhávataṃ* (10), 3rd dual *bhavatām* (3), 2nd pl. *bhávata* (6), 3rd pl. *bhávantu* (30)

aor. 2nd sing. *bodhí* (38), 3rd sing. *bhūtu* (42), 2nd dual *bhūtám* (20), 2nd pl. *bhūtá* (11), *bhūtana* (10.30.11d)

perf. *babhūtu* (1.127.10c)

[**aor. inj.** *bhūh* (6.15.3a)]

For the form *bodhí* see page 25.

bhūṣ ‘exert oneself for smbd.’

pres. act. 2nd sing. *bhūṣa* (3), 3rd sing. *bhūṣatu* (8.90.1b), 2nd dual *bhūṣataṃ* (2), 2nd pl. *bhūṣata* (2)

A secondary root derived from *bhū*. For literature regarding this root and its relationship with *bhū*, see Mayrhofer (1986: *ad loc.*) For the meaning, see Lubotsky (1995²: 225).

bhṛ ‘carry, bring’

pres. act. 2nd sing. *bhára* (134), 2nd dual *bharataṃ* (1.109.7a), 3rd dual *bhárataṃ* (10.59.8c), 2nd pl. *bhárata* (17)

pres. med. 2nd sing. *bhárasva* (2), 2nd pl. *bharadhvam* (12)

red. pres. 3rd dual. *bibhṛtām* (6.75.4b)

The hugely-attested present active forms are typically found with the preverb *á* and a dative indirect object with the meaning ‘bring something to somebody’, as in e.g. 1.79.8a *á no agne rayím bhara* ‘O Agni, bring us property’. The much rarer middle-voice forms are affective or affective-possessive: 1.79.10bc *váco gotamāgnáye / bhárasva sumnayúr gírah* ‘Bring your (own) words to Agni, O Gotama, songs of praise, when you want (his) good will’.

The durative-iterative meaning of the reduplicating present stem *bíbhhar-* is well demonstrated by the sole example of an imperative derived from it: 6.75.4b *mātéva putráṃ bibhṛtām upásthē* ‘let the two [ends of the bow] carry [the arrow] like a mother her son in her lap’.

mam̐h ‘lavish’**them. perf. med.** 2nd sing. *māmahasva* (2), 3rd pl. *māmahantām* (20)**pres. caus.** *mam̐haya* (5.38.1d)

The perfect impv. means ‘to be bountiful’. It can have an accusative object, which denotes the item with respect to which the bounty is being requested, as in 3.52.6ab *ṛṛīye dhānāḥ sāvane puruṣtuta, puroḷāsam āhutam māmahasva naḥ* ‘at the third pressing, be bountiful for us with regard to grains, the sacrificed rice cakes’. The third pers. plural form *māmahantām*, while attested a total of 20 times, only occurs in a single formula which comes at the end of most of the hymns between 1.94 and 1.116, and also 9.97: *tān no mītró varuṇo māmahantām, āditiḥ síndhuḥ pṛthivī utá dyauḥ* ‘In this matter, may Mitra and Varuṇa be bountiful, and also Aditi, Sindhu, Pṛthivī and Dyaus.’ The causative form is semantically problematic, mainly because it is very sparsely attested.²¹⁸ For the thematicised perfect stems see p.34.

mad ‘exhilarate, intoxicate’**pres. act.** 2nd sing. *mada* (10.63.3d), 3rd dual *madatām* (1.121.11b), 2nd pl. *mádata* (2), 3rd pl. *madantu* (6.75.18d)**sec. pres. act.** 2nd sing. *manda* (6.18.9d), 3rd sing. *mándatu* (2), 3rd pl. *mándantu* (8)**sec. pres. med.** 2nd sing. *māndasva* (6)**caus.** 3rd pl. *mādayantu* (7.23.5a)**med. caus.** 2nd sing. *mādāyasva* (19), 2nd dual *mādāyethām* (5), 2nd pl. *mādāyadhvam* (8), 3rd pl. *mādayantām* (6)**sec. caus.** 2nd sing. *mandaya* (2)**-si impv.** 2nd sing. *mátsi* (15)**s-aor. med.** 2nd sing. *mátsva* (14)**perf.** 2nd sing. *mamaddhí* (2), 3rd sing. *mamáttu* (12), 2nd pl. *mamattána* (10.179.1d)

The root *mand* is a secondary root derived from *mad*. Since Bartholomae (1897: 85), it has been accepted that the root *mand* is actually derived from the weak perfect stem of the root *mad*. Some scholars (e.g. Renou 1925: 116) have come to recognise

²¹⁸ For drastically different interpretations, see Kümmel (2000: 354f.), Jamison (1983:130f.), and Gotō (1987: 233f.).

that *synchronically* these are two roots, whatever their historical origin. Gotō (1987: 235f.), however, considers them to be two stems from the same root, having come about in a similar way to that suggested by Bartholomae. Kümmel (2000: 367) challenges Bartholomae's basic assumption, suggesting that *mand* may have originated as a nasal present stem from the root *mad*, which later became generalised as a secondary root.

Despite Gotō's assertion (1987: 235) that the stem *máda-* is intransitive, most of the attestations of the imperative of this stem are clearly transitive, meaning 'to delight', e.g.: 10.63.3d *táñ ādityáñ ánu madā svastáye* 'Joyfully greet these Ādityas for well-being'. Indeed, of the remaining attestations of the imperative of the stem *mada-*, only one appears to be intransitive – *mádatā* at 1.182.1b. The transitive examples all have preverbs, (*ánu* x 3, *abhí* x 1), while the intransitive example is simplex, leading to the conclusion that the transitivity is inherent in the preverbs rather than the verbal stem.

The stem *mánda-* differs semantically from *máda-*, meaning 'to intoxicate, exhilarate', usually in the context of Soma, as in 7.22.1a *píbā sómam indra mándatu tvā* 'drink the Soma, O Indra, let it intoxicate you'. The commonly attested *-si* impv. form *mátsi*, most of whose attestations are in Book 9, means the same, as can be clearly seen from 9.90.5, which contains the form no fewer than six times: *mátsi soma váruṇam mátsi mitráam, mátsíndram indo pavamāna víṣṇum / mátsi sárdho márutam mátsi devān, mátsi mahám índram indo mādāya* 'Exhilarate Varuṇa, O Soma, exhilarate Mitra, exhilarate Indra, O purifying drop, (and) Viṣṇu. Exhilarate the Marut horde, exhilarate the gods, exhilarate the great Indra, O drop, for exhilaration'.

The middle-voice variant of this form is its intransitive counterpart 'be intoxicated, rejoice': 8.13.14ab *á tú gahi prá tú drava, mátsvā sutásya gómataḥ* 'come here, run forth, get intoxicated from the milk-rich pressed (Soma).'

The other most-commonly attested form, the middle-voice of the causative is more akin in meaning to the stem *máda-*, meaning 'rejoice', rather than 'be intoxicated' with an accompanying locative or instrumental denoting the cause of the exhilaration, e.g. : 7.29.2c *asmínn ū śú sávane mādayasva* 'rejoice in this pressing', or 1.101.9d *asmín yajñé barhísi mādayasva* 'rejoice in this sacrifice on the altar-grass'.

man₁ ‘think’

pres. med. 3rd sing. *manutām* (6.47.29b)

man₂ ‘wait?, think?’

perf. act. 2nd sing. *mamandhi* (10.27.20)

Only occurs once, at 10.27.20b: *mó śú prá sedhīr múhur ín mamandhi*, which is usually translated, e.g. by Grassmann, Geldner and Insler (1972²: 555), ‘do not drive (them) forth, just wait a while’. Kümmel (2000: 365) rejects this interpretation on formal grounds, suggesting as an alternative that this form comes from the IE root **men* ‘to think of (an idea)’, whose perfect appears in Greek as μέμωνα ‘to have in mind’, in Latin as *memini*, ‘remember’ and in Germanic as the perfecto-present verb *man*, ‘think’. Thus the meaning of this sentence would be ‘do not drive (them) forth, consider for a while’. This form has anomalous ablaut in the root, for which see p. 25.

manth ‘agitate’

pres. act. 2nd pl. *mánthata* (3.29.5a)

mand see *mad*

mahay- ‘exalt’

pres. act. 2nd sing. *mahaya* (4)

mā₁ ‘measure’

pres. act. 2nd sing. *mimīhī* (7), 2nd dual *mimītām* (2), 3rd dual *mimītām* (5.51.11a)

pres. med. 2nd dual *mímāthām* (2)

aor. 2nd sing. *māhi* (3)

-si impv *māsi* (5)

aor. med. 2nd sing. *māsva* (2)

The impv. forms of this verb mostly appear with preverbs – the aorist always with *úpa*, the present either with *úpa*, or *sám* – and generally an accusative object and dative indirect object, with the meaning ‘distribute, measure out’, as in e.g. 3.54.22b²¹⁹ *asmadryàk sám mimīhi śrāvāṃsi* ‘in our direction measure out glories’,

²¹⁹ Repeated at 5.4.2d and 6.19.3b.

and 7.26.5c *sahasrīṇa úpa no māhi vājān* ‘give out to us thousandfold prizes’. The middle-voice forms have similar meaning, and the same valency: 9.93.5a *nú no rayīm úpa māsva ṅvántam* ‘now distribute to us property, rich in men’. Without preverbs, the meaning and valency may again be the same: 4.44.6ab *nú no rayīm puruvīram bṛhántam, dásrā mímāthām ubháyeṣv asmé* ‘Now distribute to us high property, with many heroes, O Wonder-workers, on both sides’. One one occasion, without preverbs and with different valency, it means ‘to measure’, 1.38.14ab *mimīthī ślókam āsyè, parjānya iva tatanah* ‘Measure the sound in your mouth, thunder like Parjanya’.

mā₂ ‘bellow’

pres. act. 3rd sing. *mímātu* (5.59.8a)

mi ‘build’

pres. act. 3rd sing. *minotu* (10.18.13d)

muc ‘free’

pres. act. 2nd sing. *muñca* (2), 2nd dual *muñcátam* (3), 2nd pl. *muñcata* (4), 3rd pl. *muñcántu* (2)

pres. med. 2nd sing. *muñcasva* (10.38.5c)

a-aor. 2nd sing. *muca* (4)

aor. med. 2nd pl. *mucadhvam* (1.171.1d)

perf. 2nd sing. *mumugdḥí* (6) , 3rd sing. *mumoktu* (2), 2nd dual *mumuktam* (2)

thematicised perf. 2nd dual *mumócatam* (5), 2nd pl. *mumócata* (8.67.14b)

Kümmel (2000: 382) states that there is no difference in meaning between the present and perfect stems. While this may be true, there is certainly a difference in their characteristic valency. The perfect form *mumugdḥí* almost always occurs – with a variety of preverbs – with an accusative and an ablative in an expression meaning ‘remove [something bad] from us’, as in 1.24.9d *kṛtām cid énaḥ prá mumugdhy asmát* ‘release the sin we have committed from us’, and 5.2.7c *evásmád agne ví mumugdhi páśān* ‘So remove the bonds from us, O Agni’.

The present, on the other hand, characteristically occurs with reversed valency, as in 6.74.4c *prá no muñcataṃ váruṇasya páśād*, ‘release us from the bond of Varuṇa’. This is not however a hard and fast rule; while the majority of attestations of perfect forms do have the characterically perfect valency, there are a couple of instances in

which the present has the characteristically perfect valency: 4.12.6c *evó šv àsmán muñcatā vy áṃhaḥ* ‘thus release the trouble from us’ and 6.74.3cd *áva syatam muñcátam yán no ásti, tanúšu baddhám kṛtám éno asmát* ‘untie, release from us the committed sin which we have, bound to our bodies’.

The aorist *muca* only occurs with the preverb *ví* with a single accusative object, e.g. 1.177.4cd *sīrṇám barhír ā tú śakra prá yāhi, pībā niṣádya ví mucā hārī ihā* ‘drive forth to the strewn altar grass, O Mighty One, drink, sitting down, unyoke the two bays here’.

The thematicised perfect forms, presumably derived from the subjunctive **mumócati*²²⁰ is only attested in Book 8, and, whether or not by chance, is the only impv. form of this verb attested there. It occurs five times in a single, rather difficult formula: 8.86.1-5d *mā no ví yauṣtaṃ sakhyā mumócatam* ‘do not reject our friendship, free [us] (?)’. However, given the frequency of the combination *ví muc* + acc. it is possible that Geldner (*ad loc.*) is correct that the preverb *ví* actually belongs with *mumócatam* (or maybe more likely to both verbs), despite the difficulty posed by the word order. For the thematicised perfect stems see p. 34.

There are only two attestations of middle-voice forms, one of which is reflexive: 10.38.5c *prá muñcasva pári kútsād ihā gahi* ‘free yourself from Kutsa, come here’, while the other is affective-possessive: 1.171.1d *ní héḷo dhattá ví mucadhvam áśvān* ‘lay down your anger, unyoke your (own) horses’.

For the possibility that the form *’mumuktaṃ* at 6.50.10c is an impv. see p. 118.

mud ‘rejoice’

pres. med. 2nd pl. *modadhvam* (10.97.3a)

muṣ ‘steal’

pres. act. 2nd sing. *muṣāyá* (1.175.4a)

muh ‘be dazed’

pres. act. 3rd pl. *múhyantu* (10.81.6c)

²²⁰ For the shift in accent in the attested perf. subj. *múmocati* see Kümmel (*op. cit.*: 383).

mṛj ‘clean’

sa-aor. 2nd dual *mṛkṣatam* (2)

caus. med. pres. 2nd pl. *marjayadhvam* (7.2.4d)

mṛd ‘have mercy’

pres. act. 2nd sing. *mṛlá* (19), 3rd sing. *mṛlatu* (1.179.5c), 2nd dual. *mṛlatam* (6.74.4b), 3rd dual *mṛlatām* (10.93.7a), 2nd pl. *mṛláta* (11), 3rd pl. *mṛlantu* (2)

caus. act. 2nd sing. *mṛláya* (18), 2nd pl. *mṛláyata* (2.29.2d), 3rd pl. *mṛlayantu* (4)

Jamison (1983: 102f.) rightly claims that there appears to be no difference in meaning between the simple present and the causative, both taking dative complements. As she also points out, both the simple present and causative can also take an accusative. However there is no need for Jamison’s assertion that the accusative of *ágas* ‘sin’ is ellipsed on every occasion where the accusative is absent; the accusative could just as well be considered to be external to the main verbal syntagma rather than as a direct object, and translated e.g. ‘regarding our sin,’: thus 7.93.7c *yát sīm ágas cakṛmá tát sú mṛla* ‘the sin which we have committed, regarding this matter please have mercy’.

mṛś ‘touch’

pres. act. 2nd sing. *mṛśa* (3)

pres. med. 2nd sing. *mṛśasva* (8.70.9b)

mṝ₁ ‘crush’

pres. act. 2nd sing. *mṝnīhi* (4.4.5d), *mṝṇa* (5)

Thieme (1939) suggests that this is the descendant of two separate roots: **melh*₁ ‘to grind’ and **merh*₂ ‘to catch’. There is no simple way to tell them apart, unlike in the case of the similarly conjugated verbs *pṝ₁* ‘fill’ and *pṝ₂* ‘give’, all of whose thematic forms mean ‘fill’. For one thing, the meanings of the two roots are too similar, and furthermore, from a formal point of view, they are not distinguished either by preverbs – *prá* may be combined with either root, or by form, as both may be thematic or athematic. It is clear that 7.104.22d *dṝśádeva prá mṝṇa rákṣa indra* ‘Crush harm as with a mill-stone’ means ‘crush’, because of the analogy of the mill-stone. Thieme claims that at 6.44.17 *prá mṝṇa* means ‘catch’: *párāca indra prá mṝṇā jahí ca* ‘As they (the enemy) turn away, catch them and smite them.’. Klein (1985: 1-85), however, translates the same passage ‘grind up and smash’.

For the morphology of the imperative forms of this verb see page 28f.

mṝ₂ ‘hinder’

int. 3rd sing. *marmartu* (2.23.6d)

This root only has one imperative form: 2.23.6cd *bṛhaspate yó no abhí hváro dadhé, svá tám marmartu duchúnā hárasvatī*. Insler (1972¹: 92) suggests differentiating this intensive from the previous *mṝ* ‘to crush’, with the meaning ‘hinder’, translating the passage ‘Bṛhaspati, he who poses an obstacle for us, let that own angering²²¹ mischief of his hinder him’. Mayrhofer (1986 s. *MAR*³) appears to agree, while Schaefer (1994: 166f.) rejects this, preferring to classify this form under *mṝ* ‘to crush’. One can certainly make a case for Insler’s distinction, both semantically – the idea of the mischievous individual being hindered by his own obstacle does make sense – and historically, by connecting this verb to nouns such as *āmúr*, ‘hindrance’ (Insler [*op. cit.*]). However, once again, since the phonological evidence is valid for either case, there is no way to be sure that the alternative translation ‘may his own mischief crush him’ is not correct.

med ‘be fat’

pres. act. 3rd pl. *médyantū* (2.37.3a)

Some scholars, such as Geldner (*ad loc.*), and Joachim (1978: 132) consider the form *medátām*, which occurs at 10.93.11d, to be a 3rd sing. med. impv. form. The text is: 10.93.11cd *sádā pāhy abhīṣṭaye, medátām vedátā vaso* which has been translated either as ‘(Die Rede) soll an Weisheit fett werden, du Guter’ (Geldner) or ‘Beschütze unser Genossentumswerden (unser fettes Gedeihen?) entsprechend unserem Weisheitwesen, du Guter’ (Oldenberg [1909: *ad. loc.*]), in which case the form *medátām* is seen as an accusative verbal noun.

myakṣ ‘be attached’

pres. act. 2nd sing. *myakṣa* (2.28.6a)

sec. pres. act. 2nd sing. *mimikṣa* (9.107.6d), 2nd dual *mimikṣatam* (4), 3rd dual *mimikṣatām* (2)

perf. med. 2nd sing. *mimikṣva* (1.48.16b)

²²¹ I.e. ‘which angers us’.

The impv. form *myakṣa* is the only extant form of this present stem. It occurs with the preverb *ápa*, which has the effect of giving it the opposite meaning to that of the simplex, i.e. ‘unattach’, as opposed to ‘attach’: 2.28.6a *ápo sú myakṣa varuṇa bhiyásam mát* ‘O Varuṇa, detach fear from me’.

The other reduplicated present forms are considered by Joachim (1978: 132f.) to be secondary derivatives from the perfect. This is rejected by Kümmel (2000: 387f.), who prefers to see them as a thematicised, factitive reduplicated present. It almost always appears in a formulaic expression, as in 9.107.6d *mádhvā yajñám mimikṣa naḥ* ‘provide our sacrifice with sweetness’, with acc. and instr.

The middle-voice form can either be a relic of an athematic reduplicated present or a perfect (Kümmel, *loc. cit.*). It occurs once at 1.48.16ab *sám no rāyá bṛhatá viśvápeśasā, mimikṣvā sám ilābhir á* with a similar meaning to the above reduplicated forms ‘equip us with high property, with every decoration, with refreshment.’

mrad ‘make soft’

pres. act. 2nd sing. *mrada* (6.53.3c)

yaj ‘sacrifice’

pres. act. 2nd sing. *yája* (18), 3rd sing. *yajatu* (3), 2nd pl. *yajata* (4.1.1d), 3rd pl. *yajantu* (10.128.4a)

pres. med. 2nd sing. *yájasva* (18), 3rd sing. *yajatām* (6.15.13d), 2nd dual. *yajethām* (10.70.7d), 2nd pl. *yájadhva* (8.2.37.a), *yajadhvam* (6), 3rd pl. *yajantām* (10.128.3a)

aor. -si impv. 2nd sing. *yákṣi* (33)

-s- aor. 3rd dual *yakṣatām* (3)

-s- aor. med. 2nd sing. *yákṣva* (3)

The active and middle voice forms are usually considered to be differentiated in that the former means ‘worship, offer (as a priest on behalf of someone else), while the middle means ‘sacrifice (on one’s own behalf)’. A close analysis of the data shows that this is basically true in the Rigveda. This is particularly strongly illustrated by the fact that the dative denoting the party on behalf of whom the sacrifice or worship is carried out only occurs with the active. Despite this one rule, however, the situation on the whole is not very consistent and there are many exceptions²²².

²²² For a full discussion of the valency of the verb *yaj* see Baum (2006, forthc.).

The agent of the active voice forms is almost always Agni, who is himself often addressed as *'hotar'*. This, and the fact that the abovementioned dative very often does occur with the active, illustrates the meaning 'worship on behalf of others'.

The middle forms are often reflexive, or possessive-affective. This can be very explicit, there being a reflexive pronoun as direct object, as in the formulaic *svayám yajasva tanvām* 'offer your own body', which occurs several times. However, the middle voice with the preverb *á* has a special meaning and valency – 'bring something to someone as a result of their worship', as in 3.1.22cd *prá yaṃsi hotar bṛhatír iṣo nó, 'gne máhi dráviṇam á yajasva* 'Extend to us high refreshment, bring us great wealth, O Agni'.

The *-si* impv. *yákṣi* occurs many times in formulaic *yákṣi devān*, 'offer to the gods', mostly at the end of 11-syllable lines, although it does occur elsewhere too, either with accusative object of the god to which of the offering is made, or else without objects, simply meaning 'make an offering', as in 1.14.1c *devébhír yāhi yákṣi ca* 'come here with the gods and make an offering'. Remarkably, it is once affective-possessive: 1.75.5c *ágne yákṣi svám dāmam* 'O Agni, sacrifice your own house'.

Finally, the 2nd pers. dual form *yakṣatām*, which is obviously created on the basis of the aor. subj. *yákṣat*, occurs three times in the same repeated line: 1.13.8c *yajñām no yakṣatām imām* 'let these two offer this offering for us', all of them in Book 1. See also Narten (1964: 47f., 202f.).

yat 'install, take position'

pres. act. 2nd dual *yátatam* (8.35.12a)

pres. med. 2nd sing. *yatasva* (1.69.6b), 3rd pl. *yatantām* (5.59.8b)

yam 'extend'

pres. act. 2nd sing. *yácha* (21), *yachatāt* (1.48.15c), 3rd sing. *yachatu* (13), 2nd dual *yáchatam* (17), 3rd dual *yachatām* (2.41.20c), 2nd pl. *yáchata* (14), 3rd pl. *yáchantu* (4)

pres. med. 2nd pl. *yachadhvam* (7.43.2b)

root. aor. 2nd sing. *yandhí* (8), 2nd dual *yantám* (6), 2nd pl. *yánta* (5), *yantana* (3)

-si impv. *yáṃsi* (4)

caus. act. 2nd sing. *yāmaya* (8.3.2d)

The imperative forms of this verb are entirely active and transitive, with one exception. This verb has two characteristic meanings, in one case occurring with the

noun *śárman* ‘shelter’, or its synonyms, as its direct object and a dative indirect object, and in the other mainly in expressions concerning the granting of gifts, etc. The difference is not inherent in the verbal stem, but rather in the choice of preverb, the expression *śárma yam* occurring with none, while ‘to grant {gifts}’ is expressed by *prá yam*. In this latter case the aorist is more common than the present, but is by no means exclusively employed in this meaning. Thus *prá + yácha-* means ‘grant’ in 6.59.9cd *á na ihá prá yachataṃ, rayiṃ viśváyupoṣasam* ‘grant us here property that makes our whole life prosper.’ One exception to this is the semi-formulaic *prá* [dat.] *yacha-* *avrkám prthú chardíḥ* ‘extend to (smbd.) your safe, broad shelter’ (1.48.15c, 8.9.1c), although it is worth noting that at 1.48.15d the text continues *prá devi gómatīr íṣaḥ* ‘O Goddess, (grant us) cow (milk?)-rich refreshment’.

As already mentioned, the aorist forms *yandhí* and *yámsi* occur mostly with the preverb *prá*, with the meaning ‘grant’, as in 4.2.20d *mahó rāyáḥ puruvāra prá yandhi* ‘grant us great wealth, O rich one.’ However, on one occasion when there is no preverb, the meaning is once again, ‘extend your shelter’: 7.88.6d *yandhí śmā vípra stuvaté várūtham* ‘being wise, extend your shelter to your praiser.’

For an explanation of the form *yandhí* see page 25.

yas ‘boil’

pres. act. 3rd sing. *yayastu*

yā ‘travel (in a vehicle)’

pres. act. 2nd sing. *yāhí* (142), 3rd sing. *yātu* (18), 3rd dual *yātám* (120), 2nd pl. *yātá* (17), *yātána* (3), 3rd pl. *yāntu* (1.167.2a)

-siṣ- aor 2nd dual *yāsiṣtám* (5)

The aorist form *yāsiṣtám* occurs only in the formulaic expression *yāsiṣtám vartíḥ* ‘drive (around) your circuit’, always addressed to the Ásvins. The present can appear in the same formula, as e.g. at 1.34.4a, however usually no such object occurs.

The form *yāsiṣta*, which occurs once at 1.165.15c. is classified as an impv. by older scholars such as Whitney (1924: §914c), Macdonell (1916: §534) and Grassmann. It is shown by Narten (1964: 209ff.) to be the 3rd sing. med. precativum of the verb *yā*, ‘to ask for’.

yāc ‘ask for’

pres. act. 2nd sing. *yācatāt* (9.86.41d), 2nd pl. *yācata* (10.48.5c)

yu₁ ‘bind’

pres. act. 2nd sing. *yuva* (9.108.9c)

pres. med. 2nd sing. *yuvásva* (6)

The active forms of this verb (impv. and others) are only attested twice, both times in late books.²²³ The single occurrence of the active impv. is transitive, and occurs with the preverb *ví*, which modifies its meaning to ‘untie, open’ 9.108.9c *ví kósam madhyamám yuva* ‘open (or ‘empty’?, cf. Geldner *ad. loc.*) the middle receptacle’.

The middle-voice form *yuvásva* is another whose meaning is ‘give’, presumably literally ‘attach to ...’, as in, e.g. 7.5.9ab *tám no agne maghávadbhyaḥ puruḥṣúm, rayím ní vājāṃ śrútyam yuvasva* ‘Give this cow-rich property, as fame-worthy booty to our liberal (patrons)’.

yu₂ ‘keep away’

red. pres. act. 2nd sing. *yuyodhí* (7), 3rd sing. *yuyotu* (3), 2nd dual *yuyotam* (2), *yuyutám* (3), 2nd pl. *yuyóta* (10), *yuyótana* (2)

sk-pres. act. 3rd pl. *yuchantu* (8.39.2e)

caus. pres. 3rd sing. *yaváya* (4), 3rd pl. *yavayantu* (8.48.5d)

2nd caus. act. 2nd sing. *yāváyā* (4), 3rd pl. *yāvayantu* (7.44.3d)

2nd caus. med. 2nd sing. *yāvayasva* (5.42.9d)

The reduplicated present shows the construction ‘keep something (acc.) away from someone (abl.)’, as in 2.6.4c *yuyodhy àsmád dvēṣāṃsi* ‘keep hostilities away from us’. It can also have the enclitic personal pronoun *naḥ* in place of the proclitic *asmád* in the above example, which in this case would unusually have to be considered an ablative too, as in 6.48.10c *agne hélāṃsi daívyā yuyodhi náḥ* ‘O Agni, keep the heavenly angers away from us’.

The stem *yúcha*, on the other hand, is intransitive, meaning ‘to stay away from someone (abl.)’, 8.39.2e *itó yuchantv āmúraḥ-* ‘may the hinderances stay away from here’.

²²³ The other attestation is one occurrence of the present active 3rd pers. sing. *yuváti* at 10.42.5d.

The transitive/causative stem *yaváya-* occurs only in Books 1, 8 and 10, and this is clearly a late form. *yāváyā-* occurs in Books 3,5,6,7 and 10, making an almost non-overlapping distribution. Both are apparently undifferentiated in meaning from the reduplicated stem *yuyu-*, showing also a similar valency, although with a tendency to drop the ablative.

The single occurrence of the middle-voice caus. is not differentiated in meaning or valency from the active: 5.42.9d *brahmadviṣaḥ sūryād yāvayasva* ‘keep the enemy of the priest out of the sun’.²²⁴

Jamison (*op. cit.*) considers the reduplicated stem *yuyo-* to be a perfect. Gotō (1987: 315f.) disputes Jamison’s accentual grounds for this theory, but Kümmel (2000 401f.), does consider it a possibility. As the forms in question are all modal (except one example of *yuyoti* at 1.92.11), Kümmel considers it typical that the categorial classification of these forms is uncertain, as even in early Vedic they were no longer living forms, the only living perfect forms being the indicative and the participle.

yuj ‘yoke’

pres. act. 2nd pl. *yunákta* (2)

pres. med. 2nd dual. *yuñjāthām* (7), 2nd pl. *yuiḡdhvám* (3)

root aor. med. 2nd sing. *yukṣvá* (12)

-ya- pass. 2nd pl. *yuḡyadhvam* (10.175.1c)

The active forms are transitive, e.g. 10.101.10d *ubhé dhúrau práti váhniṃ yunakta* ‘harness both poles to the beast’, while the middle-voice of all stems is possessive-affective, as in 8.85.7a *yuñjāthām rásabhaṃ ráthe* ‘yoke your donkey to your (own) wagon [O Aśvins]’

yudh ‘fight’

pres. act. 2nd sing. *yudhya* (2), 2nd pl. *yúdhya* (8.96.14d)

aor. 2nd sing. *yódhi* (5.3.9a)

-si impv. *yótsi* (1.132.4e)

is-aor. 2nd dual *yodhiṣtam* (6.60.2a)

caus. 2nd sing. *yodháya* (3.46.2d)

[**aor. inj.** *yodhīḥ* (10.120.3d)]

²²⁴ See also Jamison (1983: 174).

All of the impv. forms of this verb are active, but middle-voice forms are attested elsewhere in the system. The active forms are always transitive, characteristically – both present and aorist – occurring with the preverb *abhí* either with the meaning ‘fight against’, as in 6.31.3ab *tvám kútsenābhí śúṣṇam indra-, -aśúṣam yudhya kúyavam gáviṣṭau* ‘you Indra, fight Śúṣṇa with Kutsa . . .’ or, ‘to fight for something (acc.)’, as in 6.60.2a *tā yodhiṣṭam abhí gā indra nūnám* ‘You two, Indra (and Agni) fight now for the cows’. Other than that, it is used absolutely, with no object, sometimes with an adverbial locative denoting the place where the fighting is to take place. For the form *yódhi*, which is attested only at 5.3.9a *áva sprdhi pitáram yódhi* ... ‘Protect the father, fight (for him)’, see page 26f.

rakṣ ‘protect’

pres. act. 2nd sing. *rákṣa* (25), *rákṣatāt* (4.50.2d), 3rd sing. *rakṣatu* (2), 2nd dual *rákṣatam* (9), 3rd dual *rakṣatām* (2), 2nd pl. *rákṣata* (2), 3rd pl. *rakṣantu* (8.48.5c)

pres. med. 2nd sing. *rakṣasva* (10.69.4d)

Both the active and middle forms of this verb are always transitive. The middle is in addition possessive-affective. Of the nine occurrences of *rákṣatam* seven occur at 1.185, in the repeated pāda 1.185.2-8d *dyāvā rákṣatam pṛthivī no ábhvāt* ‘Heaven and Earth, protect us from Nothingness’²²⁵.

rad ‘dig up, scrape’

pres. act. 2nd sing. *ráda* (4), 3rd pl. *radantu* (7.62.3a)

-si impv. *rátsi* (5.10.1d)

ran ‘enjoy’

pres. act. I 2nd sing. *raṇa* (5)

pres. X act. 2nd sing. *raṇaya* (8.34.1b), 3rd pl. *raṇáyantu* (6.28.1b)

-iṣ- aor. 2nd pl. *rāṇiṣṭana* (2.36.3b)

perf. *rārandhí* (3)

Narten (1964: 217) classes the form *rāṇiṣṭana* with other *-iṣ-* aorists which developed from original root-aorists. She claims an ingressive meaning for the aorist, as opposed to the present *raṇa*, which she asserts is durative. This appears to

²²⁵ See also Gotō (1987: 257).

me to be a very far-reaching conclusion to base on just one attested example: 2.36.3ab ...*ā hí gántana, ní barhíṣi sadatanā ráṇiṣṭana* ‘come here, sit on the altar-grass and enjoy yourselves’, especially as the present only occurs in a practically identical context; 5.51.8cd *ā yāhy agne atrivát suté raṇa*²²⁶ ‘drive here, Agni, and take pleasure in the pressed (Soma), like Atri.’

All other imperative forms of this verb are likewise intransitive, unless 10.59.5c *rārandhí naḥ sūryasya samdṛśi* is to be understood transitively, as does Geldner ‘Laß uns des Anblicks der Sonne froh werden’.

According to Jamison (1983: 75 and 143), *raṇaya* is a denominative from the noun *rāṇa* ‘pleasure’.

For the form *rārandhí* see p. 25.

randh ‘cast down’²²⁷

pres.act. 2nd sing. *randhi* (4.22.9c)

perf. act. 2nd sing. *rārandhí* (6.25.9b)

caus. act. 2nd sing. *randhaya* (9)

caus. med. 2nd sing. *randháyasva* (3.30.16d)

Inslar (1972²) suggests that the form *randhi* is not the original reading of the text, for which he posits **randha*, explaining it as a metrically-motivated abbreviation of *randhaya*, on the basis of a similar phrase at 7.30.2d. The advantage in suggesting the replacement of one nonce-form by an unattested nonce-form is unclear to me.²²⁸ For my suggestion that *randhi* was created by analogy to the form *jóṣi* in the same way as *yódhi* see p. 27. The only other present-forms attested from this root are from the *-áya-* stem *randhaya-*. This last is transitive, as is the affective middle-voice form *randháyasva*. The single perfect example is undifferentiated in meaning from the present,²²⁹

²²⁶ The expression *suté raṇa* is repeated 5 times throughout the RV.

²²⁷ The 2nd pl. red. caus. aor. form *rīradhatā*, classified by Lubotsky as in imperative, is in fact an injunctive.

²²⁸ See also Narten (1964: 218) and Kümmel (2000: 416).

²²⁹ See also Kümmel (2000: 415f.).

rabh ‘seize’

pres. med. 2nd sing. *rabhasva* (3), 2nd pl. *rabhadhvam* (2)

ram ‘stop’

pres. med. 2nd sing. *ramasva* (10.34.13b), 2nd pl. *ramadhvam* (3.33.5a)

caus. act. 2nd sing. *ramáya* (5.52.13d)

caus II act. *rāmaya* (10.42.1d)

The two causative forms, which both mean ‘to bring to a halt’ are explained by Jamison (1983: 103, 131f.). Cf. also Gotō (1987: 262ff.).

rā₁ ‘give, bestow’

pres. act. 2nd sing. *rirīhi* (7)

pres. med. 2nd dual *raráthām* (1.117.23d), 2nd pl. *rarádhvam* (5.83.6a)

-si impv. *rási* (11)

aor. med. 2nd sing. *rásva* (21), 2nd dual *rāsáthām* (1.46.6c), 3rd sing. *rāsātām* (10.36.14d), 3rd pl. *rāsantām* (4)

All forms of this verb are middle-voice, except the impv. *rirīhi*, and a number of forms which are either derived from, or implied by the active s-aor. subj. stem *rása-*, such as the *-si* impv. *rási*. The forms *rāsātām* and *rāsantām* are also built on the subjunctive stem, and are the first signs of the development of the thematic stem *rāsa-*, which is more widely attested in later texts. There appears to be no difference whatsoever in meaning between the active and middle-voice forms, both occurring with the same valency (acc. + dat.) and the same type of direct and indirect objects. See also Narten (1964: 219ff.).

rā₂ ‘bellow’

pres. act. 2nd sing. *rāya* (7.55.3a)

rikh ‘scratch’

pres. act. 2nd sing. *rikha* (2)

ruc ‘shine’

pres. med. 3rd sing. *rocatām* (10.43.9c)

caus. act. 2nd sing. *rocaya* (2)

The middle-voice forms are intransitive, meaning ‘to shine’, only occurring once in the impv. at 10.43.9c *ví rocatām aruṣó bhānúnā súciḥ* ‘The bright red one will shine with light’. The causative is factitive-transitive ‘make shine’, as in 9.36.3ab *sá no jyótiṃṣi pūrvya, pávamāna ví rocaya* ‘Make the lights shine for us, O First Pavamāna’.

For the history of the forms see Hoffmann (19682), Jamison (1983: 132), and Gotō (1987: 274-5).

ruj ‘smash’

pres. act. 2nd sing. *rujá* (9)

ruh ‘grow’

pres. act. 2nd sing. *roha* (4), 3rd sing. *rohatu* (2), 2nd pl. *rohata* (10.18.6a), 3rd pl. *rohantu* (2)

a-aor. 2nd dual. *ruhátam* (8.22.9a)

caus. act. 2nd sing. *rohaya* (8.91.5a)

Gotō (1987: 277ff.) splits this verb into two original roots, one meaning ‘grow’, from an original **h₁leyd^h*, and one meaning ‘ascend’, from an original **reyǵ^h/leuǵ^h*. For our purposes, Gotō classes the aorist impv. *ruhátam* and the causative *rohaya* ‘makes ascend’, as well any present forms that occur with an accusative of goal as belonging to *ruh-* ‘ascend’. Thus, while at 10.85.20c *ā roha sūrye amṛtasya lokám* ‘Ascend to the world of immortality, O Suryā’ has the second meaning, 3.8.11ab *vānaspate śatāvalśo ví roha, sahásravalśā ví vayám ruhema* ‘Grow with a hundred branches O Tree, with a thousand branches may we grow’, belongs to the first. This example also shows that the aorist forms can in fact also mean ‘grow’ despite what Gotō appears to say (*op cit.* fn 641). The aor. impv. *ruhátam* is unusual in meaning ‘ascend’ but being construed with a locative at 8.22.9ab *ā hí ruhátam aśvinā, ráthe...* ‘O Aśvins, get into the chariot.’²³⁰

rū ‘bellow’

pres. act. 2nd sing. *ruva* (1.10.4b)

²³⁰ See also Joachim (1978: 147f.).

lī ‘cling, hide’

pres. med. 3rd pl. *layantām*

Occurs once at 10.84.7cd: *bhīyaṃ dádhānā hṛdayeṣu śátravaḥ, párájītāso ápa ní layantām*, ‘the enemies, having fear in their hearts, defeated, shall hide away’. See also Gotō (1987: 279), Mayrhofer (1986, s. *LAY*).

vac ‘speak’

red. aor. 2nd sing. *voca* (1.32.1e), *vocatāt* (5.61.18a), 3rd sing. *vocatu* (3.54.19b), 2nd dual *vocatam* (7.83.2d), 2nd pl. *vocata* (15)

[**aor. inj.** *vocaḥ* (9)]

vocatāt is the only example of the ending *-tāt* on an aorist stem. The form occurs once at 5.61.18ab: *utá me vocatād íti, sutásome ráthavītau*, ‘And speak for me thus when Rathavīti has pressed the Soma’. *vac* has a suppletive relationship with *brū* (q.v.) the latter supplying the missing present stem.

vañc ‘move crookedly, gallop’

pres. med. 2nd sing. *vacyasva* (3), 3rd pl. *vacyántām* (3.6.2d)

vat ‘acquire (spiritually)’

pres. act. 2nd sing. *vātaya* (2)

vad ‘say’

pres. act. 2nd sing. *vada* (10), 2nd pl. *vadata* (3), 3rd pl. *vadantu* (10.94.1a)

pres. med. 2nd sing. *vadasva* (1.170.5c), 2nd pl. *vadadhvam* (10.191.2a)

The middle-voice forms of this verb are mostly attested in Books 1 and 10, although there is one occurrence of *sám vade* at 7.86.2a. Gotō (1987: 282) says that the middle voice has a reciprocal meaning, strengthened by use of the preverb *sám*, and this is well demonstrated by both of the impv. examples: 1.170.5c *índra tvám marúdbhiḥ sám vadasva*- ‘Indra, you talk together with the Maruts’, and 10.191.2ab *sám gachadhvaṃ sám vadadhvaṃ, sám vo mánāṃsi jānatām* ‘come together, converse, may your minds be one’.

The active forms can take a direct object denoting what is said; e.g. 2.43.2de *sarváto naḥ śakune bhadráṃ á vada, viśváto naḥ śakune pún̄yam á vada* ‘From all sides

announce the blessing to us, O Bird, from every side announce the good (fortune?) to us, O Bird’.

vadh ‘strike, kill’

is-aor. 2nd dual *vadhiṣṭam* (4.41.4b)

Used once with the preverb *ní*, at 4.41.4ab *asminn, ...ní vadhiṣṭam vájram ...* ‘strike your Vajra down on him’. This root has a suppletive relationship with *han*.

van₁ ‘win’

pres VIII act. 3rd pl. *vanvántu* (2)

pres. med. 2nd sing. *vanuṣva* (1.169.1d)

s-aor. med. 2nd sing. *vám̐sva* (6)

desid. 2nd sing. *vivāsa* (5), 2nd pl. *vivāsata* (2)

The sparsely attested active impv. is transitive, meaning ‘defeat’: 7.21.9cd *vanvántu smā té* ‘*vasā samīkè*, ‘*bhītim aryó vanúṣāṃ śávāṃsi* ‘May they with your help defeat in battle the attack of the foreigners, the power of the enemy.’

The single example of the middle-voice form *vanuṣva* means ‘win’, but is transitive rather than affective 1.169.1cd *sá no vedho marútāṃ cikivān, sumnā vanuṣva táva hí préṣṭhā* ‘O Master, knowing the Maruts, win for us their goodwill, for they are dearest to you.’²³¹ The aorist form *vám̐sva* means the same, as in 8.23.27ab *vám̐svā no vāryā purú, vām̐sva rāyāḥ puruṣp̐haḥ* ‘Win for us many choice things, win property desirable to many.’ This meaning, ‘win (for us)’, underlies even examples in which the indirect object is not explicitly mentioned: 7.17.5 *vám̐sva víśvā vāryāṇi pracetaḥ, satyā bhavantv āśiṣo no adyā* ‘win all the choice things, O perceptive one, may all our wishes come true today’. The second half of this verse makes it obvious that Agni is being asked to win the choice things for the worshippers, and not for himself.²³²

²³¹ Geldner’s translation “Du, Meister der Marut” is impossible, owing to the fact that *marútāṃ* is accented.

²³² For the differentiation of the two roots *van* and *vanⁱ* see Gotō (1987: 283ff.) For the form *vám̐si*, which isn’t an imperative, see p. 54. For *vivāsa* and other desiderative imperatives, see p. 34.

van₂ (vanⁱ) ‘love, wish’**-sk- pres.** 3rd pl. *vañchantu* (10.173.1c)**pres./a-aor.** 2nd dual *vánatam* (3), 2nd pl. *vanata* (8.7.9c)**pres./ a-aor med.** 3rd sing. *vanatām* (1.162.22d)**perf.** *vāvandhi*

The attestation of the form *vañchantu* at 10.173.1cd is the only time this stem occurs in the RV: *viśas tvā sárvā vāñchantu, má tvád rāṣṭrám ádhi bhraśat* ‘May all the tribes want you, may your realm not fall away from you.’

The form *vánatam*, which could either be a thematic present or aorist, always occurs in the formula ‘*X* (voc.) *vánataṃ gírah*’, ‘want (i.e. gladly accept) our songs’, while the plural *vanata* occurs in a similar expression, but whose direct object is *hávam* ‘call’ (8.7.9c).

The single attestation of the form *vāvandhi*, which appears to mean exactly the same as the others forms, occurs at 5.31.13cd *vāvandhí yájyũṃr utá téṣu dhehy, ójo jáneṣu yéṣu te syáma* ‘Accept those willing to worship, and place strength in them, in those people among whom we wish to be’. For the classification of this form under the root *vanⁱ* see Kümmel (2000: 447ff.), and for the full grade in the root see p. 25.

vand ‘pray, praise’**pres. med.** 2nd sing. *vándasva* (6)**vap** ‘strew’**pres. act.** 2nd sing. *vapa* (8.96.9d), 2nd pl. *vapata* (10.101.3b), 3rd pl. *vapantu* (2.33.11d)**varivasy-** ‘make wide space’**pres. act.** 2nd sing. *varivasyá* (2), *varivasyantu* (4)**vaś** ‘wish’**pres. act.** 3rd sing. *vaṣtu* (1.3.10c)**vas₁** ‘shine, illuminate’**-sk- pres. act.** 2nd sing. *uchá* (14), 3rd sing. *uchatu* (3), 2nd pl. *uchata* (10.35.5c), 3rd pl. *uchantu* (3)

caus. act. 2nd sing. *vāsaya* (2)

The present is usually addressed to Uṣas, whose name, of course, is derived from the same root. It is usually intransitive, meaning ‘shine’, often, as here, with the preverb *ví*, which emphasises the scattered nature of sunrays: 1.113.12d *ihādyaśaḥ śreṣṭhatamā vy ūcha* ‘shine here today, being the most beautiful Uṣas’. The verb may occasionally take an accusative of goal, as in 7.77.4a *ántivāmā dūrē amíttram ucha-* ‘You who are noble from nearby, illuminate the enemy, (when he is) far away’ i.e. prevent him from hiding. Structurally, *amíttram* in this example is syntactically identical to *ihá* in the previous one.

More intriguing, perhaps, are examples where *uchá* occurs with *revát* ‘containing riches’, as in 1.92.14c *revád asmé vy ūcha sūṅtāvati*. While this could be adverbial, as suggested e.g. by Grassmann, (*ad loc.*), I believe it is far more likely that it means ‘riches’ in exactly the same way that *gómant* and *áśvavant* (both of which adjectives are attributed to Uṣas in 1.92.14ab) mean cow- and horse-prosperity respectively at e.g. 9.105.4a *góman na indo áśvavat ... dhanva* ‘O drop, flow to cow and horse prosperity’. Thus 1.92.14c means ‘shine on riches for us . . .’

The causative occurs twice, both times at 1.134.3fg: *prá cakṣaya ródasī vāsayośasaḥ, śrávase vāsayośasaḥ* ‘Reveal the two worlds, let the dawns shine, so you may have glory; let the worlds shine’. See also under *cakṣ*.

vas₂ ‘wear, clothe’**is-aor.** 2nd sing. *vásiṣva* (2)**caus. act.** 2nd sing. *vāsaya* (2)

Narten (1964: 238f.) raises the possibility that the form *vásiṣva* may be an innovation based on the root present *vaste*. However, she decides against this and classifies this form as an *iṣ*-aorist, both on formal and semantic grounds.

vah ‘drive, carry’

pres. act. 2nd sing. *váha* (71), *vahatāt* (10.24.5d), 3rd sing. *vahatu* (2), 2nd dual *váhatam* (15), 3rd dual *váhatām* (4), 2nd pl. *vahata* (4), 3rd pl. *váhantu* (39)

pres. med. 2nd sing. *váhasva* (2), 2nd dual *vahethām* (7.71.3d)

root aor. 2nd dual *volhám* (5), 3rd dual *volhám* (2)

-si impv. *vakṣi* (24)

All of the active forms are transitive, and seemingly undifferentiated from each other in meaning. The basic meaning is ‘to convey’, most commonly in expressions meaning ‘bring the gods here’, usually addressed to Agni, as in 1.12.3a *ágne devāñ ihā vaha* ‘Agni, convey the gods here’. Another common usage with basically the same meaning is that of horses conveying a god, or pulling a chariot, as in 5.62.4a *ā vām āśvāsaḥ suyújo vahantu* ‘Let the well-harnessed horse bring you (two)’. It may also mean ‘to bring’, as yet another synonym for ‘bring property to us’, as in 1.34.5a *trír no rayīm vahatam áśvinā yuvām* ‘Three times convey property to us, O Áśvins.’ The rare middle voice forms are also transitive, and additionally has affective-possessive force. The form *vahasva* only occurs at 8.26.23: *vāyo yāhí śivā²³³ divó, váhasvā sú svásvyam / váhasva mahāḥ pṛthupákṣasā ráthe* ‘Come, O Accommodating Vāyu, from heaven. Bring with you the good horse-riches, drive from the great (heaven) your broad-flanked (or winged?) pair (of horses) on the chariot.’ See also Gotō (1987: 295ff.).

The forms *volhām* and *volhām* are tentatively consigned by LIV² to the root-present, apparently on the grounds that since this root was originally intransitive²³⁴, then it can’t have had an original root aorist. In any case, these forms are synchronically undifferentiated in meaning from the thematic present, e.g.: 2.41.9a *tá na ā volham áśvinā, rayīm piśāṅgasamḍṛśam* ‘Bring us property of a reddish (gold) appearance, O Áśvins’.

vā₁ ‘blow’

pres. act. 2nd sing. *vāhi* (2), 3rd sing. *vātu* (7)

The two occurrences of the form *vāhi* both occur at 10.137.3ab: *ā vāta vāhi bheṣajām, ví vāta vāhi yád rápaḥ* ‘O wind, blow medicine here, blow away (that which is) sickness’.

vā₂ ‘extinguish’

caus. act. *vāpayā* (10.16.13b)

Lubotsky (19971: *ad loc.*) classifies this form as a possible 1st sing. subj., as opposed to Jamison (1983: 145) and Geldner who translate it as an imperative:

²³³ = *śiva ā*.

²³⁴ LIV²: s. **ueg^h*, fn. 1.

10.16.13ab *yám tvám agne samádahas, tám u nír vāpayā púnaḥ* ‘O Agni, the one whom you burnt, extinguish him again’.

vājay- ‘incite’

pres. act. 2nd sing. *vājāya* (10.68.2d)

vid₁ ‘find’

pres. act. 2nd sing. *vinda* (2)

a-aor 2nd sing. *vidā* (10.113.10d)

[**aor. inj.** *vidaḥ* (4)]

For the question as to whether the injunctive *vidas* can also have modal value, see page 41, and also Hoffmann (1967: 263).

The form *vidā* is attested at 10.113.10d *vidó śú na urviyá gādhám adyá* ‘Find us a ford today’. The form *vidó* in this example is without doubt **vidá u*, and must be distinguished from examples of *vidas* which become *vidó* by sandhi, e.g. 5.30.4d *vidó gávām ūrvám usríyānām* ‘you found the pit of the reddish cows’.

vid₂ ‘know’

perf. act. 2nd sing. *viddhí* (8), *vittāt* (5.60.6d), 2nd dual *vittám* (2)

Kümmel (2000: 495ff.) assigns no special perfect meaning to the modal forms, but rather considers them undifferentiated from a present stem meaning ‘to know’.

viś ‘enter, settle (down)’

pres. act. 2nd sing. *viśa* (18), 3rd pl. *viśantu* (7)

pres. med. 2nd sing. *viśasva* (10.56.1b), 3rd pl. *viśatām* (10.34.14c)

pres. caus 2nd sing. *veśaya* (1.176.2a)

A verb of motion, the well-attested present occurs with either an acc. or a loc., meaning ‘to enter’. The usual addressee is Soma, and thus the singular occurs 14 times out of 18 in Book 9. Thus, e.g. 9.25.2c *dhármaṇā vāyúm á viśa* ‘go, according to your nature, into Vāyu’, and 9.97.36c *índram á viśa bṛhatá ráveṇa* ‘go into Indra with a great roar.’

The middle-voice forms, both impv. and non-impv., are uniformly late, the earliest occurrence being in Book 8. The impv. only occurs twice, and its meaning differs according to the preverb used: 10.56.1b *ṛṣṭíyena jyótiṣā sám viśasva* ‘unite with the

third light’, and 10.34.14c *ní vo nú manyúr viśatām árātir* ‘may your wrath abate, (and) your disfavour’.

vīṣ ‘be active’

pres. act. 2nd sing. *vividḍhi* (2)

See Narten (1964: 244ff.), Joachim (1978: 156), Mayrhofer (1986 s. *VEṢ*) for the differentiation of this root from another *viṣ* meaning “flow”.

vī ‘seek, pursue’

pres. act. 2nd sing. *vīhí* (11), *vihí* (3), *vītāt* (10.11.8d), 3rd sing. *vētu* (7), 2nd dual *vītām* (6), 2nd pl. *vitá* (7.59.6a), 3rd pl. *vyántu* (7)

-si impv *véṣi* (5)

For the possible existence of a form *vitá*, see p. 93. The length variation in the root, seen in *vīhí* and *vihí* could be due to analogy with the doublets *dīdihí/didīhí* and *pīpihí/pipīhí*. Thus the form *vitá*, if in fact Narten identified it correctly, is formed by analogy to the form *vihí*. The *-si impv. véṣi* is actually the 2nd pers. sing. pres. form of this verb. However it undoubtedly is used as an impv. See p. 55.

vīḍ ‘strengthen, become firm’

med. pres. 2nd sing. *vīlāyasva* (2.37.3b)

vīray- ‘act like a hero’

pres. med. 2nd pl. *vīrayadhvam* (2)

vṛI ‘cover’

pres. act. 2nd sing. *ūrṇu* (9.96.11c), *ūrṇuhí* (4), 2nd pl. *ūrṇuta* (2.14.3d)

pres. med. 2nd sing. *ūrṇuṣva* (10.16.7b)

aor. act. 2nd sing. *vṛdhi* (8), 2nd dual *vartam* (6.62.11d)

The active is transitive, mostly occurring with the preverb *ápa*, meaning ‘open’. From the single occurrence of the middle voice, it is clear that it is reflexive: 10.16.7b *sám prórṇuṣva pīvasā médasā ca* ‘cover yourself with fat and melted butter’.

According to LIV, this verb is a conglomerate of (at least) three PIE verbs: **uel* ‘einschließen, verhüllen’, **uer* ‘aufhalten, abwehren’ and **Huer*, ‘stecken’, the latter to explain such forms as the aor. *āvar*, and compounds such as *pārī-vṛta* (*op.*

cit.: fn.2). The long \bar{u} in the pres. stem does not, according to LIV, indicate an original laryngeal ($**\bar{u}lH-n\acute{e}u$, as suggested by Rasmussen [1983: 22]) but rather a variant $*uln\acute{e}u$ with different syllabification. (*op. cit.*: fn.4.). Lubotsky (2000¹) dispenses with the multiple roots, making do with a single *aniṭ*, laryngeal-initial root $*H\bar{u}ar$, and explains the stem $\bar{u}r\eta u-$ as having been formed by laryngeal metathesis. For extensive further bibliography see Mayrhofer (1986: s. VAR²).

vṛ₂ ‘wish, choose’

pres. med. 2nd sing. *vṛṇīṣvá* (2), *vṛṇīdhvám* (5.28.6c)

This is a *seṭ* root with some *aniṭ* forms apparently by analogy to the root *vṛ* ‘to cover’. See Hoffmann (1968), Lubotsky (2000¹).

vṛj ‘twist’

pres. act. 2nd sing. *vṛñdhi* (2), 3rd sing. *vṛṇaktu* (4), 2nd pl. *vṛñkta* (1.172.3b)

vṛt ‘turn’

pres. med. 2nd sing. *vartasva* (10.95.17d), 3rd sing. *vartatām* (4), 2nd pl. *vartadhvam* (10.19.1a), 3rd pl. *vartantām* (2)

root aor. 2nd pl. *vartta* (1.165.14c)

perf. act. 2nd pl. *vavṛttana* (5.61.16c)

perf. med. 2nd sing. *vavṛtsva* (9), 2nd pl. *vavṛdhvam* (8.20.18d)

caus. act. 2nd sing. *vartáya* (11), 2nd dual. *vartáyatam* (2), 2nd pl. *vartáyata* (2.34.9c), 3rd pl. *vartayantu* (2)

While the present stem of this verb is always middle-voice, and intransitive, meaning ‘turn round’, or ‘return’, the aorist and perfect stems may also be active. The active forms are also intransitive, hardly differing in meaning from the middle-voice presents: 1.165.14c *ó śú vartta maruto vípram ácha* ‘please turn to the seer, O Maruts’. An exception is the active perfect with the preverb \acute{a} , which is transitive, as in 5.61.16 *té no vásūni kām̐yā, ... / á yajñiyāso vavṛttana*, ‘Turn desirable goods to us (in our direction), O sacrifice-worthy ones’.²³⁵

The causative forms, obviously, are always transitive, as in 2.23.7c *bṛhaspate ápa tām̐ vartayā patháh* ‘Bṛhaspati, turn (divert) him (the wolf) from the path’.

²³⁵ See also Kümmel (2000: 465).

The stem *vavṛt-* has been variously described in the past as a perfect, a reduplicated present (e.g. by Whitney [1924: §643c and 1885: 164]), and an aorist (Hoffmann [1976¹]). In any case the modal forms of this stem must be perfects. This is confirmed by the optative form *vavṛtyāt*. The ending *-yāt* in the RV is attested only on present and perfect stems, while the aorists have the ending *-yās*.²³⁶ The main obstacle to classifying all of the forms as perfects is the presence of the medio-passive aorist forms *ávavarti* and *ávavṛtran*. These must, however, be artificial forms, since the medio-passive is formed from the root and not from the aorist stem.²³⁷

vṛdh ‘grow’

pres. act. 2nd sing. *várdha* (10), 3rd sing. *várdhatu* (2), 2nd dual *várdhatam* (4.50.11a), 2nd pl. *vardhata* (2.2.1a), 3rd pl. *várdhantu* (13)

pres. med. 2nd sing. *várdhasva* (10), 3rd sing. *várdhatām* (4), 2nd dual *várdhethām* (3.53.1d), 3rd pl. *várdhantām* (2)

them. perf. 2nd sing. *vāvṛdhásva* (4)

caus. act. 2nd sing. *vardháya* (13), 2nd dual *vardháyatam* (2), 3rd pl. *vardhayantu* (2.11.11c)

caus. med. 2nd sing. *vardhayasva* (10.59.5d)

The caus. and pres. act. are both transitive, meaning ‘increase’ or ‘magnify’, and are apparently undifferentiated in meaning, sometimes occurring in identical contexts, as in 9.61.23c *punāno vardha no gírah* ‘as you are purified, enhance our songs’, and 3.29.10d *-áthā no vardhayā gírah* ‘then magnify our songs’.

The middle-voice forms are either intransitive, meaning ‘grow’, as in 8.13.25ab *várdhasvā sú puruṣtuta, řṣiṣtutābhir ūtibhiḥ* ‘grow, O much-praised one, with aid praised by seers’, or transitive-affective, as 7.8.5d *svayám vardhasva tanvám sujāta* ‘enhance your own body, O well-born’. The single example of the middle-voice causative falls into this latter category: 10.59.5d *ghṛténa tvám tanvám vardhayasva* ‘enhance your (own) body with fat’.²³⁸

²³⁶ See also footnote 15.

²³⁷ For a very comprehensive study of all of these forms see Kümmel (2000: 462ff.). For the medio-passive forms, see also Kümmel (1996: 107f.).

²³⁸ Cf. Jamison (1983: 157f.).

The thematic perfect form, in which the voiced, aspirated final consonant of the root is preserved, is explained by Kümmel (2000: 471) as being used because the regular athematic form would have been **vāvṛtsva*, which could have been confused with forms from the verb *vṛt*.

vṛśc ‘cut up’

pres. act. 2nd sing. *vṛścá* (9)

perf (?). **act.** 2nd dual *vavṛktam* (6.62.10d)

Classification of the form *vavṛktam* under this verb following Kümmel (2000: 509).

vṛṣ₁ ‘take courage’

a-aor. med. 2nd sing. *vṛṣasva* (10), 2nd dual *vṛṣethām* (2)

them. perf. 2nd sing. *vāvṛṣasva* (8.61.7c)

Gotō (1987: 292) classifies *vṛṣasva* under *vṛṣ₂* ‘to rain’. My classification follows Kümmel (2000: 474f.), who in turn follows Neisser (1893).

vṛṣ₂ ‘rain’

pres. caus. 2nd sing. *vṛṣāya* (10.98.1d), 2nd dual *varṣayatam* (5.63.6d)

vṛh ‘tear out’

pres. act. 2nd sing. *vṛhá* (5), *vṛhatāt* (1.174.5c), 2nd dual *vṛhatam* (6.74.2a), 2nd pl. *vṛhata* (8.67.21c)

vyath ‘waver’

caus. act. 2nd sing. *vyathaya* (6.25.2b)

vyadh ‘pierce’

pres. act. 2nd sing. *vidhya* (9), 2nd dual *vidhyatam* (2), 3rd dual *vidhyatām* (6.75.4c), 2nd pl. *vidhyata* (1.86.9c)

vyā ‘enfold, swathe’

pres. med. 2nd sing. *vyayasva* (2)

śams ‘proclaim, recite’

pres. act. 2nd sing. *śámsa* (6), 2nd pl. *śámsata* (5)

pres. caus. *śámsaya* (7)

The causative occurs only in the repeated pāda *á tú na indra śámsaya góṣv áśveṣu* ‘O Indra, give us hope for cows and horses’, which occurs seven times at 1.29.1-7c²³⁹.

śak ‘be powerful, be able’

aor. act. 2nd sing. *śagdhi* (15), 2nd dual *śaktam* (4)

desid. act. 2nd sing. *śíkṣa* (26), 3rd sing. *śíkṣatu* (1.81.6c), 2nd dual *śíkṣatam* (6)

For an example of the form *śagdhi* see under *pṛ*₂, page 138.

For an account of the desiderative forms, see page 34.

śardh ‘challenge, defy’

pres. act. 2nd sing. *śárdha* (5.28.3a)

śas ‘kill, slaughter’

pres. act. 2nd pl. *śasta* (2)

śā ‘sharpen’

pres. act. 2nd sing. *śíśīhí* (12), *śíśādhi* (4), 3rd sing. *śíśātu* (1.111.5a), 2nd dual *śíśītām* (1.122.3a), 3rd dual *śíśītām* (10.12.4d), 2nd pl. *śíśīta* (2)

The form *śíśādhi* has anomalous full-grade in the root. This form occurs four times, at 6.15.19d, 7.104.19b, 8.42.3b, and 10.84.4b. It always occurs in the syntagma *śáṇ śíśādhi* at the end of the second pāda of a triṣṭubh line, an environment in which the form *śíśīhí* does not occur. This suggests a formulaic or phraseological reason for the preservation/coining of this form; conceivably could have been modeled on the form (*út*) *śásādhi* (from *śās*, q.v.), which is morphologically regular, metrically identical, occurs only in the same position in triṣṭubh lines, and also isn’t too far away in meaning. For the structure of the root see Rasmussen (1989: 53), and LIV s. **keh*₃(i).

²³⁹ For the meaning see Jamison (1983: 134).

śās ‘command’

pres. act. 2nd sing. *śādhi* (2.28.9d), 2nd pl. *śāstāna* (10.52.1a)

perf. 2nd sing. *śaśādhi* (2)

śuc ‘burn, shine’

pres. act. 2nd sing. *śóca* (6), 3rd sing. *śocatu* (6.52.2d)

pres. med. 2nd sing. *śócasva* (2)

perf. act. 2nd sing. *śuśugdhí* (1.97.1b)

caus. act. 2nd sing. *śocaya* (6.22.8d)

The valency of this verb is extremely similar to that of *vas₁* (q.v.). The active forms are intransitive, but may sometimes take an accusative of goal, meaning “shine on something”. It even occurs once with *revát* (10.69.3c) in the same way as *vas₁* does, again leaving open the question whether *revát* is adverbial or nominal.

The causative only occurs once in the RV, at 6.22.8d: *brahmadvíṣe śocaya kṣām apás ca* ‘for the hater of Brahma make the earth and waters burn’.

The form *śuśugdhí* appears once in the RV, at 1.97.1, together with two attestations of the part. of the int., and is undoubtedly used to achieve a poetical effect rather than for any perfect meaning: *ápa naḥ śóśucad aghám, ágne śuśugdhy á rayím / ápa naḥ śóśucad aghám*.

śudh ‘cleanse’

caus. act. 3rd pl. *śundhayantu* (10.17.10a)

śubh ‘be beautiful, shine’

pres. act. 2nd sing. *śumbha* (8.70.2a), *śumbhata* (1.21.2b)

śuṣ ‘dry out’

pres. act. 3rd sing. *śuṣyatu* (7.104.11c)

śṛ ‘smash’

pres. act. *śṛñhí* (8), *śṛñītam* (7.104.1c), *śṛñantu* (10.87.15a)

śnath ‘push, pierce’

root aor. 2nd sing. *śnathihi* (2)

is-aor. 2nd pl. *śnathiṣṭana* (9.101.1c)

For the mechanism which led to the formation of productive *-iṣ-* aor. forms from old *seṭ* root aorists see Narten (1964: 53).

śrath ‘become loose’

pres. act. 2nd sing. *śrathāya* (2)

red. aor. 3rd pl. *śiśrathantu* (7.93.7d)

śri ‘lean, incline, turn’

pres. med 2nd sing. *śrayasva* (2), 3rd dual. *śrayetām* (7.2.6d)²⁴⁰, 2nd pl. *śrayadhvam* (2), 3rd pl. *śráyantām* (6)

śrī ‘perfect, make shine’

pres. act. 2nd sing. *śrīñīhi* (8.2.11b), 2nd pl. *śrīñīta* (9.46.4c), *śrīñītana* (9.11.6c)

For the meaning see Narten (1987).

śru ‘hear’

pres. act. 2nd sing. *śṛṇu* (4), *śṛṇuhí* (7), *śṛṇudhí* (5), 3rd sing. *śṛṇótu* (25), 2nd dual *śṛṇutám* (22), 2nd pl. *śṛṇutá* (5), *śṛṇota* (1), *śṛṇotana* (2), 3rd pl. *śṛṇvántu* (12) **pres. med.** 2nd sing. *śṛṇuṣvá* (1.131.7e)

aor. 2nd sing. *śrudhí* (39), 3rd sing. *śrótu* (2), 2nd dual *śrutám* (40), 2nd pl. *śruta* (3), *śróta* (4), 3rd pl. *śrúvantu* (2)

-si impv. *śrósi* (6.4.7b)

caus. act. 2nd sing. *śrāvāya* (3), 2nd dual *śravayatam* (7.62.5c)

An extremely common verb which has been extensively discussed elsewhere. For the aor. form *śrudhí*, the formula *śrudhí hávam* and the form *śṛṇudhí* see p. 23 and p.82. For the full- and zero-grade variants *śṛṇutá*, *śṛṇota* and *śṛṇotana* see p.31. For the *-si* impv. form *śrósi* see p. 56.

²⁴⁰ The form *śrayethe* is wrongly classified by Lubotsky (1997¹) as an imperative.

śruṣ ‘obey’**pres. act.** 3rd sing. *śroṣantu* (1.86.5a)

This is a secondary root from *śru*. See p. 56, LIV s. *kleyu* and further bibliography in Mayrhofer (1986: s. *ŚROṢ*).

śvañc ‘bow’**pres. med.** 2nd sing. *śvañcasva* (2)

The uniformly late present stem only appears with the preverb *ud*, meaning ‘rear up’.²⁴¹

śvas ‘snort, rumble’**caus. act.** 2nd sing. *śvāsaya* (6.47.29a)**sac** ‘follow’**pres. act.** 2nd sing. *sacata* (10.75.5b)**pres. med.** 2nd sing. *sācasva* (3), 3rd sing. *sacatām* (1.183.2c), 3rd dual *sacetām* (1.185.9b), 3rd pl. *sacantām* (7)**pres. III. act.** 3rd sing. *siṣaktu* (6), 2nd pl. *siṣakta* (10.19.1b)

The hapax legomenon *sacata* (10.75.5) is the only attested active form of this stem. Gotō (1987: 319) calls it “ganz abnorm”, and Lubotsky (1997¹: *ad loc.*) classifies it as a nonce form. Despite the reduplicated stem often being active, while the thematic stem *saca-* is always middle-voice (apart from the single example above), Gotō (1987: 319f.) correctly finds no difference in meaning between them, while suggesting that the reduplicated stem may originally have been iterative.²⁴²

sad ‘sit’**pres. act.** 2nd sing. *sīda* (16), 3rd sing. *sīdatu* (2), 2nd dual *sīdatam* (5), 3rd dual *sīdatām* (2), 2nd pl. *sīdata* (11), 3rd pl. *sīdantu* (1)**pres. med.** 2nd sing. *sīdasva* (1.36.9a)

²⁴¹ For the semantics of this verb see Hoffmann (1960). See also under *nam*, p. 128.

²⁴² See also Joachim (1978: 163f.). For the form *sākṣva* (1.42.1c), which could belong here, see under *sah*.

a-aor. 2nd sing. *sáda* (5), 3rd sing. *sadatu* (7.97.4a), 2nd dual *sádatam* (4), 3rd dual *sadatām* (4), 2nd pl. *sádata* (3), *sadatana* (2.36.3b), 3rd pl. *sadantu* (7)

-si impv. *sátsi* (12)

caus. act. 2nd sing. *sādāya* (6), 2nd pl. *sādāyata* (10.30.14b)

caus. med. 2nd pl. *sādayadhvam* (5.43.12b)

[**aor. inj.** *sadaḥ* (6)]

An intransitive verb, most of whose forms are active. It behaves, when used with the preverb *á*, rather like a verb of motion, in that the seat (etc.) that is to be sat on is in the accusative: 3.53.3c *édám barhír yájamānasya sīda-* ‘sit on this altar-grass of the sacrificer’. The other most common preverb with which this verb is used is *ní*, in which case it means ‘sit down’: 7.11.1d *ny àgne hótā prathamāḥ sadehá* ‘O Agni, sit down here as the first *hótṛ*’. The middle voice impv. only occurs once, and, once again like verbs of motion, is reciprocal, meaning ‘sit together’, and is strengthened by the preverb *sám* (cf. *sám gachasva* etc.): 1.36.9ab *sám sīdasva mahāṁ asi, sócasva devavítamaḥ* ‘Sit together (with us), you are great, burn brightly . . .’.²⁴³ For the causative forms see Jamison (1983: 169f).

The lack of retroflexion in the present stem *sīda-* (> **si-sde-*) is explained by Klingenschmitt (1982: 129) as being due to dissimilation of the internal *-s-* of the root from the *-s-* of the reduplicating syllable. This is the opposite phenomenon to the assimilation of the root-initial *s-* with the *-d-*, as seen in e.g. the word *nīdā-* < **ni-sdó-*. The long *-ī-* is the result of compensatory lengthening, as in other cases of consonant loss by dissimilation. For further literature on this problem see Mayrhofer (1986: s. *SAD*).

san ‘attain’

pres. act. 2nd sing. *sanuhi* (8.81.8c), 3rd sing. *sanotu* (6.54.5c), 3rd pl. *sanvantu* (2)

a-aor. 2nd sing. *sána* (5.75.2b)

saparya- ‘worship’

pres. act. 2nd sing. *saparya* (10.98.4d), 2nd pl. *saparyata* (7)

²⁴³ Cf. Joachim (1978: 164).

sas ‘sleep’

pres. act. 3rd sing. *sástu* (5), 3rd dual *sastám* (1.29.3b), 3rd pl. *sasántu* (4)

All five occurrences of the form *sástu* occur at 7.55.5, as does one instance of *sasántu*: *sástu mātá sástu pitá, sástu śvā sástu viśpátiḥ / sasántu sárve jñātáyaḥ, sástv ayám abhíto jánaḥ* ‘Let mother sleep. let father sleep, let the dog sleep, let the chieftain sleep, let all the relatives sleep, the these people hereabout sleep’.

sah ‘conquer’

pres. med. 2nd sing. *sáhasva* (4), 2nd pl. *sahadhvam* (10.103.2c)

-si impv. *sakṣi* (5.33.2d)

s-aor. med. *sákṣva* (1.42.1c), *sākṣva* (3.37.7c)

The form *sákṣva* only occurs at RV 1.42.1c: *sákṣvā deva prá ṇas puráḥ*. This form has been assigned both to *sah* and *sac*. The latter option is to be found in Grassmann, Geldner (“Geh uns als Geleitsmann voran, o Gott!”) and Macdonell (1916: 426). The former viewpoint is represented by Narten (1964: 265), who also quotes Böhtlingk-Roth (1855-1875), Whitney (1885), and Ludwig (1876-1888), where it is translated as (in his spelling) “sige, gott, vor uns einher”.

Morphologically, both possibilities seem impeccable, as both verbs have identical sigmatic aorist forms *sákṣat*. The root *sah* also has a form *sākṣva*, with the same lengthening seen in some of its other sigmatic aorist forms, such as *ásākṣi*, etc. This form, however, could also be classified as a perfect (< **se-sǵh-*), and the other lengthened sigmatic aorist forms, which are all late, derived from it by analogy.²⁴⁴

In favour of the *sah* derivation is that there is no other attestation of *sac* with the preverb *prá*. However, the semantics could be more compatible with *sac*, as the hymn is addressed to the god Pūṣan, who looks after travellers on the roads, and thus the meaning ‘accompany us (or possibly ‘lead us’) ahead, O god’ works very well.

If we accept the *sah* derivation, then *puráḥ* would have to be understood as a postposition, and the line would mean ‘conquer forth, O God, in front of us’.

²⁴⁴ See also p. 30.

sā ‘bind’

pres. act. 2nd sing. *sya* (5), 3rd sing. *syatu* (2), 2nd dual *syatam* (2), 3rd dual *syatām* (2.40.4d)

pres. med. 2nd sing. *syasva* (3), 2nd pl. *syadhvam* (10.30.11c)

root aor. 2nd sing. *sāhi* (4.11.2a), 2nd dual *sitam* (8.5.9c)

The present stem is thematic: **sh₂-jé-*. All impv. forms of this verb appear either with the preverb *áva* or *ví*, both combinations having the meaning ‘untie’, ‘release’, as seen clearly in 6.40.1b *-áva sya hárī ví mucā sákhāyā* ‘unhitch the horses, release the two friends’²⁴⁵. The uncommon middle-voice forms appear to have exactly the same meaning: 3.4.9ab *tán nas turípam ádha pošayitnú, déva tvaṣṭar ví rarāṇāḥ syasva* ‘And, O god Tvaṣṭr, giving, release our property-bringing seed’.²⁴⁶

sādh ‘bring to one’s goal, succeed’

pres. act. 2nd sing. *sādha* (8)

pres. med. 3rd pl. *sādhantām* (6.53.4c)

caus. act. 2nd sing. *sādhāya* (4), 2nd dual *sādhāyatam* (7.66.3c)

Of the eight examples of the active form *sādha*, seven occur in the repeated verse *īlām agne purudāmsam sanīm, góḥ śásvattamām hávamānāya sādha*²⁴⁷ ‘Make refreshment, the many-wondered, recurring, attainment of a cow possible for the caller’. The middle voice means ‘to succeed’, as in 6.53.4c *sādhantām ugra no dhíyah* ‘may our thoughts come to fruition’. The causative has a similar meaning to that of the active: 1.94.4c *jīvātave pratarám sādhayā dhíyah* ‘make our thoughts come to fruition, that we live longer’. As can be seen from this example, there is a true causative/intransitive relationship between the active and middle-voice forms.²⁴⁸

²⁴⁵ Unlike Geldner: ‘Halte die Falben an, spanne die beiden Kameraden aus’.

²⁴⁶ Or, as Klein (1985: 2-99): ‘And, giving us that property-giving seed, release us’.

²⁴⁷ 3.1.23ab, 3.5-7.11ab, 3.15.7ab, 3.22-23.5ab.

²⁴⁸ See also Jamison (1983: 159).

śic ‘pour’

pres. act. 2nd sing. *śīcá* (5), 3rd sing. *śīcatu* (2), 2nd dual *śīcatam* (2), 2nd pl. *śīcata* (9), 3rd pl. *śīcantu* (8.53.3b)

pres. med. 2nd sing. *śīcasva* (3.47.1c), 2nd pl. *śīcádhvam* (7.16.11c)

The active is transitive, while the middle-voice is poorly attested, but is probably possessive-affective, as in 3.47.1c *á śīcasva jaṭhāre mádhva ūrmīṃ* ‘Pour the wave of the sweet (drink) into (your own) stomach’.

śidh ‘drive away’

pres. act. 2nd sing. *śédha* (6), 3rd sing. *śedhatu* (10.36.4a), 2nd dual *śédhatam* (5), 2nd pl. *śédhata* (3), 3rd pl. *śedhantu* (10.100.8b)

śīṽ ‘sew’

pres. act. 3rd sing. *śīṽyatu* (2.32.4c)

pres. med. 2nd pl. *śīṽyadhvam* (10.101.8b)

śu ‘press’

pres. act. 2nd sing. *śunú* (1.28.6d), 3rd sing. *śunotu* (8.33.12a), 2nd pl. *śunóta* (4), *śunótana* (5.34.1c), *śunutá* (3)

pres. med. 2nd pl. *śunudhvam* (4.35.4c)

root aor. 3rd sing. *śótu* (10.76.6a), 2nd dual *śutám* (2), 2nd pl. *śóta* (3), *śotana* (8.4.13b)

The single attestation of the middle-voice of this verb is obviously affective: 4.35.4cd *áthā śunudhvaṃ śávanam mádāya, pātá ṛbhavo mádhunaḥ somyásya* ‘Press (for yourselves) the pressing for exhilaration, drink, O Ṛbhus, (of) the sweet Soma.’

śū ‘impel’

pres. act. 2nd sing. *śuva* (9), *śuvatāt* (4.54.3d), 3rd sing. *śuvatu* (3), 3rd pl. *śuvantu* (7.50.3c)

[**aor. inj.** *śāvīḥ* (3)]

sūd ‘prepare’**pres. act.** 2nd sing. *sūdaya* (2), 3rd pl. *sūdayantu* (2)

Mayrhofer (1986: s. *SŪD* and *SVAD*) and Gotō (1987: 342f. and 1988: 310) cast doubt on the traditional derivation of these forms from the root *svad* ‘sweeten’ (as appears e.g. in Jamison [1983:99]) both on semantic and morphological grounds. LIV² (s. **sueh₂d*), however, reunites them, reconstructing *sūdaya-* as **suh₂d-éje* and *s^(u)vada-* as a relic of an old nasal present **suh₂nd*. Further bibliography may be found at all of the above quoted references.

sr̥ ‘run’**them. aor.** 2nd sing. *sára* (9.41.6c)**sr̥j** ‘release’**pres act.** 2nd sing. *sr̥já* (27), 2nd dual *sr̥játam* (3), 2nd pl. *sr̥játa* (4), 3rd pl. *sr̥jantu* (3)**pres. med.** 2nd sing. *sr̥jasva* (2), 2nd, pl. *sr̥jádhvam* (6.48.11c)**sr̥p** ‘creep’**pres. act.** 2nd sing. *sarpa* (10.18.10a), *sarpatu* (8.17.7c), *sarpata* (10.14.9a)

A verb of uniformly late distribution, the earliest example of any form occurring in Book 8.

skambh ‘fasten, strengthen’**pres. act.** 2nd pl. *skabhāyāta* (10.76.4b)

For bibliography covering the forms in *-āya-* see under *gr̥h*.

stan ‘thunder’**pres. act.** 2nd sing. *stanáya* (5.83.7a)**root aor.** *stanihi* (6.47.30b)**[red. aor. inj.]** *tatanaḥ* (1.38.14b)]

For the form of the root aor. from *seṭ* roots see p. 94. For the etymology and meaning of the root, see Narten (1993). For the sole example of the form *stanihi* see p. 139. For the identification of the form *tatanaḥ* as a reduplicated aor. see Hoffmann (1976³). For the sole attestation of this form see p. 148.

stu ‘praise’

pres. act. 2nd sing. *stuhí* (20), 2nd dual *stutam* (8.35.11a), 2nd pl. *stota* (2)

si-impv *stoṣi* (10.22.4d)

stubh ‘rejoice’

pres. act. 2nd pl. *stobhata* (1.80.9b), *stobhantu* (8.92.19b)

stṝ ‘strew’

pres. act. 2nd dual *stṛṇītam* (8.73.3a), *stṛṇītá* (3)

pres. med. 3rd sing. *stṛṇītām* (7.17.1b)

The single example of the middle voice is passive, or ‘fientive’: 7.17.1ab *ágne bháva suṣamídhā sámiddha, utá barhír urviyá ví stṛṇītām* ‘O Agni, may you be lit with good kindling, and may the altar-grass be spread widely’

sthā ‘stand’

pres. act. 2nd sing. *tīṣṭha* (34), 3rd sing. *tīṣṭhatu* (3), 2nd dual *tīṣṭhatam* (1.183.3a), 2nd pl. *tīṣṭhata* (5), 3rd pl. *tīṣṭhantu* (2)

pres. med. 2nd pl. *tīṣṭhadvam* (7.104.18a), 3rd pl. *tīṣṭhantām* (3.18.2d)

[**aor. inj.** *sthāḥ* (6.24.9c)]

The active forms of this verb are intransitive. With the preverb *á* it takes an accusative of goal and means ‘to get into (a chariot)’, as in 3.44.1d *á tīṣṭha háritam rátham* ‘get into the gold-coloured chariot’. The middle voice only occurs with *ví*, and is reflexive and reciprocal, meaning ‘to spread apart’ 3.18.2d *ví te tīṣṭhantām ajárā ayásah* ‘your (flames) will spread apart, ageless and restless’.

spas see *pas*

spr̄ ‘win’

pres. act. 2nd sing. *spr̄nuhi* (10.87.7a)

root aor. 2nd sing. *spr̄dhi* (2), *spr̄tam* (10.39.6d)

It is suggested by Wackernagel (1942: 176) that this is actually two roots with identical morphology, one meaning ‘win’, the other meaning ‘release’. The formal difference, as shown by Joachim (1978: 172f.) is in the valency; the former takes an accusative object, while the latter takes an ablative. Thus to the latter root belongs

e.g. 10.87.7ab *utālabdhaṃ spṛṇuhi jātaveda, ālebhānād ṛṣṭībhīr yātudhānāt* ‘Free the seized one from the magician who has seized him with your spears, O Jātavedas.’, while to the former belongs 5.3.9a *áva spṛdhi pitāraṃ yódhi ...* ‘Protect the father, fight (for him)’.

spṛś ‘touch’

pres. act. 2nd sing. *spṛśa* (5), 2nd pl. *spṛśata* (10.70.5a)

caus. med. 2nd sing. *sparśayasva* (10.112.3b)

The middle voice causative is passive, meaning ‘let (it) be touched’: 10.112.3ab *hárīvatā várcasā sūryasya, śréṣṭhai rūpāis tanvāṃ sparśayasva* ‘Let your body be touched by the gold-coloured shine of the sun, by the most beautiful forms(?)’.

sphṛ ‘kick away’

pres. act. 2nd sing. *sphura* (4.3.14c)

smṛ ‘remember’

pres. med. 2nd dual *smarethām* (7.104.7a)

syand ‘move quickly’

pres. med. 2nd sing. *syandasva* (9.67.28a), 3rd pl. *syándantām* (5.83.8b)

sru ‘flow’

pres. act. 2nd sing. *sraṇa* (34), *sṛavantu* (10.9.4c)

svaj ‘embrace’

pres. act. 2nd pl. *svajadhvam* (10.101.10c)

svad ‘make tasty/be tasty’

pres. act. 2nd sing. *svada* (3.14.7d), 3rd pl. *svádantu* (10.110.10d)

pres. med. 2nd sing. *svádasva* (3)

pres. caus. 2nd sing. *svadaya* (10.110.2b)

svap ‘sleep’

pres. act. 2nd sing. *svapa* (3)

pres. caus. *svāpaya* (1.29.3a)

svaṛ ‘sound’

pres. act. 2nd sing. *svaṛa* (3), 3rd pl. *svaṛantu* (8.13.28a)

han ‘slay’

pres. act. 2nd sing. *jahí* (50), 3rd sing. *hantu* (3), 3rd dual *hatám* (16), 2nd pl. *hatá* (3), 2nd pl. *hantana* (2), 3rd pl. *ghnantu* (7.104.17d)

hā₁ ‘move’

pres. med. 2nd sing. *jihīṣva* (5.78.5a), 3rd sing. *jihītām* (4), 3rd dual *jihātām* (7.34.24a), 3rd pl. *jihatām* (2)

The form *jihītām* only occurs in 10.59.1-4d.

hā₂ ‘leave’

pres. act. 3rd sing. *jahātu* (3.53.21d)

pass. 3rd sing. *hīyatām* (2)

Mayrhofer (1986: *ad loc*), considers this and *hā₁* to ultimately have the same origin. LIV (s. **ǵheH* and **ǵheh₁*), while pointing out that all that differentiates between the two roots is the active and middle voice, is hesitant to consider them one root, on the grounds that “eine Vereinigung beider Wurzeln bedürfte genauerer semantischer Untermauerung.”

hi ‘launch, drive’

pres. act. 2nd sing. *hinu* (2), *hinuhi* (2), *hinutāt* (10.16.1d), 2nd dual *hinotam* (1.184.4b), 2nd pl. *hinóta* (10), *hinotana* (10.30.7d), 3rd pl. *hinvantu* (4)

them. pres. 2nd sing. *hinva* (10.156.2c), 3rd sing. *hinvatu* (1.27.11c)

root aor. 2nd pl. *heta* (10.30.9b)

hu ‘sacrifice, pour’

pres. act. 2nd pl. *juhóta* (7), *juhótana* (6), *juhuta* (2)

-si impv. *hoṣi* (6.44.14c)

hū ‘call’

pres. act. 2nd sing. *hvaya* (5.53.16c)

hr₁ 'take'

pres. act. 2nd sing. *hara* (2)

hr₂ 'like'

pres. act. 2nd sing. *harya* (7), 2nd dual *haryatam* (2), 2nd pl. *haryata* (5.54.15c)

hr̥ṣ 'be excited'

pres. med. 2nd sing. *hár̥ṣasva* (2)

pres. caus. 2nd sing. *har̥ṣaya* (3)

hvā see *hū*

Bibliography

Arnold E.

1905 *Vedic Metre*, reprinted by Motilal Banarsidass, Delhi 1967.

Bammesberger, A.

1983 Zur Entstehung der vedischen Imperative auf *-(s)i*, *Zeitschrift für vergleichende Sprachforschung* 96, 4-8.

Bartholomae, C.

1897 Idg. e + Nasal im Tiefton, *Indogermanische Forschungen* 7, 82-111.

Baum, D.

2006 (forthc.) The valency and Meaning of the Verb *yaj* in the Rigveda, *Indo-iranica*, ed. D. Shulman, Jerusalem.

Beekes, R.S.P.

1981 The Subjunctive Endings in Indo-Iranian, *Indo-Iranian Journal* 23, 21-27.

1999 The imperative Skt. *grhāṇa*, *Münchener Studien zur Sprachwissenschaft* 59, 15-19.

Bloomfield, M.

1916 *Rig-Veda Repetitions*, Cambridge, Mass.

Bloomfield M. and Edgerton F.

1930-34 *Vedic Variants*, Vol. 1, The Verb, Philadelphia.

Böhtlingk O. and Roth R.

1855-1875 *Sanskrit-Wörterbuch*, St. Petersburg.

Cardona G.

1965 The Vedic Imperatives in *-si*, *Language* 41, 1-18.

Cowgill, W.

1963 Review of Jaan Puhvel, 'Laryngeals and the Indo-European Verb', *Language* 39, 248-270.

Damourette, J. and Pichon, E.

1952 *Dès mots à la pensée, Essai de grammaire de la langue française*, Paris.

Delbrück, B.

1874 *Das altindische Verbum aus den Hymnen des Rigveda seinem Baue nach dargestellt*, Halle.

Di Giovine, P.

1996 *Studio sul perfetto indoeuropeo, Parte II: La posizione del perfetto all'interno del sistema verbale indoeuropeo*, Rome.

Dunkel G.

1985 IE hortatory *éy, *éyte: Ved. *éta* ... *stavāma*, Hitt. *eḫu=wa it*, Hom. *εἰ δ' ἄγε*, *Münchener Studien zur Sprachwissenschaft* 45, 47-79.

1992 Two Old Problems in Greek: *πτόλεμος* and *τερψίμβροτος*, *Glotta* 70, 197-225.

1997 Early, Middle, Late Indo-European: Doing it my Way, *Incontri Linguistici* 20, 29-44.

Finnegan, R.

1977 *Oral Poetry: It's Nature, Significance and Social Context*, Cambridge.

Geldner K.

1951 *Der Rig-veda*, Harvard, reprinted 2003.

Gonda, J.

1962 *The Aspectual Function of the Rgvedic Present and Aorist*, The Hague.

1979 *The Medium in the Rgveda*, Leiden.

Gotō, T.

1987 *Die "I. Präsensklasse" im Vedischen*, Vienna.

1988 Review of Jamison 1983, *Indo-Iranian Journal* 31, 303-321.

Grassmann H.

1872 *Wörterbuch zum Rigveda*, Wiesbaden.

Haudry, J.

1977 *L'emploi des cas en védique*, Lyon.

Hesiod

The Homeric Hymns and Homerica, Ed. and trans. H. G. Evelyn-White, The Loeb Classical Library, Harvard 1914 (reprinted 1977).

Hettrich, H.

1988 *Untersuchungen zur Hypotaxe im Vedischen*, Berlin.

Hoffmann K.

1952 Zur vedischen Verbalflexion: 1. Der Aorist von *naś* 'erreichen', 2. Der Typ RV *gathá*, 3. RV *yujmahe*, AV *rudhmaḥ*, 4. RV *cayīṣtam* und

- cāniṣṭhat*, 5. ChāndUp *upasīdathāḥ*. *Münchener Studien zur Sprachwissenschaft* 2, 121-137 = Hoffmann (1975-1992: 358-372).
- 1956 Notizen zu Wackernagel-Debrunner, *Altindische Grammatik* II, 2, *Münchener Studien zur Sprachwissenschaft* 8, 5-24 = Hoffmann (1975-1992: 387-402).
- 1960 Ved. *uccvaṅkā*, *ucchlaṅkhā-*, Pāli, *ussaṅkha-*, *Indo-Iranian Journal* 4, 111-118 = Hoffmann (1975-1992: 138-145).
- 1965 Materialien zum altindischen Verbum, *Zeitschrift für vergleichende Sprachforschung* 79, 171-191 = Hoffmann (1975-1992: 162-182).
- 1966 Vedisch *vichāyati* und *govyachā-*, *Münchener Studien zur Sprachwissenschaft* 19, 61-72 = Hoffmann (1975-1992: 455-464).
- 1967 *Der Injunktiv im Veda*, Heidelberg.
- 1968¹ Zum Optativ des indogermanischen Wurzelaorists, *Pratidānam, Indian, Iranian and Indo-European Studies presented to F.B.J. Kuiper*, ed. J. C. Heesterman, G. H. Schokker and V. I. Subramoniam, 3-8, The Hague = Hoffmann (1975-1992: 245-251).
- 1968² Hettitisch *luk(k)-*, *lukki*, *Zeitschrift für vergleichende Sprachforschung* 82, 214-220 = Hoffmann (1975-1992: 251-257).
- 1975-1992 *Aufsätze zur Indoiranistik*, Vol. 1-2 ed. J. Narten, Wiesbaden 1975-1976, vol. 3 ed. S. Glauch, R. Plath and S. Ziegler, Wiesbaden 1992.
- 1976¹ Die Aoristbildungen von ved. *vṛt*, in Hoffmann 1975-1992, 589-92.
- 1976² Ved. *karóti*, in Hoffmann 1975-1992, 575-588.
- 1976³ Zu ved. *tan* 'donnern', in Hoffmann 1975-1992, 562-569.

Homer

Iliad, Ed. and trans. A.T. Murray, 2nd edition revised by W.F. Wyatt, The Loeb Classical Library, vols. 170-171, Harvard 1999.

Odyssey, Ed. and trans. A.T. Murray, The Loeb Classical Library, Harvard 1919 (reprinted 1966).

Insler S.

1969 Vedic *dambháyati*, *Indogermanische Forschungen* 74, 11-31.

1972¹ Rigvedic *Āmur*, *Āmarītr*, *Marmartu* etc., *Indo-Iranian Journal* 13, 81-94.

1972² Some Irregular Vedic Imperatives, *Language* 48, 551-565.

1972³ Vedic *mamatsi*, *ámamadur* and *íyate*, *Zeitschrift für vergleichende Sprachforschung* 86, 93-103

Jamison, S.

1983 *Function and Form in the -áya-Formations of the Rig Veda and Atharva Veda*, Göttingen.

1988 The Quantity of the Outcome of Vocalized Laryngeals in Indic, *Die Laryngaltheorie*, ed. A. Bammesberger, 213-226, Heidelberg.

1992 Vedic “*sá-figé*”: An Inherited Sentence Connective?, *Historische Sprachforschung* 105, 213-239.

1997 Syntactic Constraints on Morphological Change: The Vedic Imperatives *bodhí*, *dhehí* and *dehí*, *Syntaxe des langues indo-iraniennes anciennes*, *Colloque international de 4-5 mai 1993*, ed. E. Pirart, 63-80, Barcelona.

Jasanoff, J

1986 Old Irish *Tair*, ‘Come!’, *Transactions of the Philological Society*, 132-141.

1987 Some Irregular Imperatives in Tocharian, *Studies in Memory of Warren Cowgill, Papers from the Fourth East Coast Indo-European Conference*, ed. C. Watkins, 92-112.

2002 The Vedic imperatives *yódhi* ‘fight’ and *bodhi* ‘heed’, *JAOS* 122.2, 290-295.

Joachim, U.

1978 *Mehrfachpräsentien im Ṛgveda*, Frankfurt am Main.

Kazzazi, K.

2001 *“Mann” und “Frau” im Ṛgveda*, Innsbruck.

Kellens, J.

1984 *Le verbe avestique*, Wiesbaden.

1995 *Liste du verbe avestique*, Wiesbaden.

Klein J.

1978 *The Particle u in the Rigveda*, Göttingen.

1982 Rigvedic *tú* and *sú*, *Die Sprache* 28, 1-26.

1985 *Towards a Discourse Grammar of the Rigveda*, Heidelberg, 1985.

1994 Remarks on the position of the verb in the Rigveda, *Indo-Iranian Journal* 37, 97-119.

1996 “*Sá-figé*” and Indo-European deixis, *Historische Sprachforschung* 109, 21-39.

Klingenschmitt, G.

1982 *Das altarmenische Verbum*, Wiesbaden

Korn, A.

1998 *Metrik und metrische Techniken im Ṛgveda*, Graz.

Kuiper F.B.J.

1938 *Indoiranica, Acta Orientalia* 16, 203-220, 295-326.

Kulikov L.

2001 *The Vedic -ya- Presents*, PhD dissertation, Leiden.

Kümmel M.

1996 *Stativ und Passivaorist im Indoiranischen*, Göttingen.

2000 *Das Perfekt im Indoiranischen*, Wiesbaden.

Leumann, M.

1952 *Morphologische Neuerungen im altindischen Verbalsystem*, Amsterdam.

Lubotsky A.

1988 *The System of Nominal Accentuation in Sanskrit and Proto-Indo-European*, Leiden.

1989 The Vedic -áya Formations, *Indo-Iranian Journal* 32, 89-113.

1995¹ Sanskrit $h < *dh, bh$, *Sthāpakaśrāddham, Professor G.A. Zograph Commemorative Volume*, Ed. N.V. Gurov and Ya. V. Vasil'kov, St. Petersburg, 124-144.

1995² Reflexes of Intervocalic Laryngeals in Sanskrit, *Analecta Indoeuropea Cracoviensia, vol. II: Kuryłowicz Memorial Volume, Part One*, Ed. W. Smoczyński, Cracow, 213-33.

- 1997¹ *A Ṛgvedic Word Concordance*, New Haven, Connecticut.
- 1997² The Indo-Iranian reflexes of PIE *CRHUV, *Sound Law and Analogy, Papers in honor of Robert S.P. Beekes on the occasion of his 60th birthday*, ed. Alexander Lubotsky, Amsterdam - Atlanta, 139-154.
- 1998 *Avestan xʷarənah-: the etymology and concept, Sprache und Kultur. Akten der X. Fachtagung der Indogermanischen Gesellschaft Innsbruck, 22.-28. September 1996*, ed. W. Meid, 479-488, Innsbruck.
- 2000¹ The Vedic root vr- 'to cover', *Indoarisch, Iranisch und die Indogermanistik, Arbeitstagung der Indogermanischen Gesellschaft vom 2. bis 5. Oktober 1997 in Erlangen*, ed. B. Forssman and R. Plath, 315-325, Wiesbaden.
- 2000² Indo-Aryan 'six', *125 Jahre Indogermanistik in Graz. Arbeiten aus der Abteilung "Vergleichende Sprachwissenschaft"*, ed. M. Ofitsch and Chr. Zinko, 255-261, Graz.
- 2001 Reflexes of Proto-Indo-European *sk in Indo-Iranian, *Incontri Linguistici* 24, 27-57.
2004. Review of A. Korn, 'Metrik und metrische Techniken im Ṛgveda', *Kratylos*.

Ludwig A.

1876-1888 *Der Rigveda oder die heiligen Hymnen der Brāhmaṇa*, Prague.

Lyons, J.

1977 *Semantics*, Cambridge.

Macdonell, A.

1916 *A Vedic Grammar for Students*, Oxford.

Matasović, R.

- 1996 *A Theory of Textual Reconstruction in Indo-European Linguistics*, Frankfurt am Main.

Mayrhofer M.

- 1986- *Etymologisches Wörterbuch des Altindiarischen*, Heidelberg.
1986² *Indogermanische Grammatik* vol. 1, part 2, Heidelberg.

Meier-Brügger, M.

Konjunktiv und Optativ im Rigveda, Eine morphologische Studie, unpublished dissertation.

Meillet, A.

- 1933 Sur le type latin *egi, egisti*, *Bulletin de la Société de Linguistique de Paris* 34, 127-130.

Nagy, G.

- 1974 *Comparative Studies in Greek and Indic Meter*, Harvard.

Narten, J.

- 1964 *Die sigmatischen Aoriste im Vedischen*, Wiesbaden.
- 1968 Das altindische Verb in der Sprachwissenschaft, *Sprache* 14, 113-134 = Narten (1995:75-96).
- 1969 Zum "proterodynamischen" Wurzelpräsens, *Pratidānam, FS. F. B. J. Kuiper*, ed. J. Heesterman, G. H. Schokker, and V. I. Subramoniam, The Hague, 9-19 = Narten (1995: 97-107).
- 1987 Ved. *śrīṇāti*, gr. *κρείων, κρέων*, *Zeitschrift für vergleichende Sprachforschung* 100, 270-296 = Narten (1995:340-366).
- 1987² Vedisch *dīdāya* 'leuchtet' und Zugehöriges, *Studien zur Indologie und Iranistik* 13/14 (= FS. Rau), 149-161. = Narten (1995:367-379).

1993 Ved. *stanáyati*, gr. *στένω*, etc.: idg. ‘donnern’ und ‘stöhnen’, *Indogermanica et Italica: Fs. H. Rix zum 65. Geburtstag*, ed. G. Meiser with J. Bendahman, J. Axel Harðarson and C. Schaefer, 314-339, Innsbruck, = Narten (1995:396-421).

1995 *Kleine Schriften*, vol. 1, ed. M. Albino and M. Fritz, Wiesbaden.

Neisser, W.

1893 Veda, *Beiträge zur Kunde der indogermanischen Sprachen* 19, 120-150, 248-253, 284-292.

Nowicki, H.

1983 Lateinisch *mūstēla* “Wiesel”, *Zeitschrift für vergleichende Sprachforschung* 96, 271-276.

Oettinger N.

1976 Der indogermanische Stativ, *Münchener Studien zur Sprachwissenschaft* 34, 109-149.

Oldenberg H.

1888 Prolegomena zu einer kritischen Rigveda-Ausgabe, reprinted 1982, Wiesbaden.

1909-1912 *Ṛgveda. Textkritische und exegetische Noten*, Berlin.

Osthoff H.

1884 *Zur Geschichte des Perfects im Indogermanischen: mit besonderer Rücksicht auf Griechisch und Lateinisch*, Strassburg.

Parry, M.

1928 *The Traditional Epithet in Homer*, in Parry 1971.

1932 *Studies in the Technique of Oral Verse-Making. II The Homeric Language as the Language of Oral Poetry*, in Parry 1971.

- 1971 *The Making of Homeric Verse, The Collected Papers of Milman Parry*, Ed. Adam Parry.

Rasmussen J. E.

- 1983 *Studien zur Morphophonemik der indogermanischen Grundsprache*, Innsbruck.
- 1997 *Processes of Grammaticalization in Indo-European Verbal Derivation, Sound Law and Analogy, Papers in honor of Robert S.P. Beekes on the occasion of his 60th birthday*, ed. Alexander Lubotsky, 249-262, Amsterdam - Atlanta

Reichelt, H.

- 1978 *Awestisches Elementarbuch*, Heidelberg.

Renou, L.

- 1925 *La valeur du parfait dans les hymnes védiques*, Paris.
- 1952 *Grammaire de la langue védique*, Lyon.

Rix H. (et al)

- 1998 *Lexikon der indogermanischen Verben (LIV)*, Wiesbaden.
- 2001 *Lexikon der Indogermanischen Verben (LIV²)*, second edition, Wiesbaden.

Scarlata S.

- 1999 *Die Wurzelkomposita im Ṛg-veda*, Wiesbaden.

Schaefer, C.

- 1994 *Das Intensivum im Vedischen*, Göttingen.

Schmitt, R.

- 1967 *Dichtung und Dichtersprache in indogermanischer Zeit*, Wiesbaden.

Skinner, B.F.

1957 *Verbal Behavior*, New York.

Strunk, K.

1967 *Nasalpräsentien und Aoriste*, Heidelberg.

Szemerényi, O

1966 The Origin of the Vedic 'Imperatives' in *-si*, *Language* 42, 1-6.

Thieme, P.

1939 Drei altindische Wurzeln mit Tiefstufe *m̄*, *Zeitschrift für vergleichende Sprachforschung* 66, 232-237.

1949 *Untersuchungen zur Wortkunde und Auslegung des Rigveda*, Halle.

1958 Sanskrit *edhate*, *Turner Jubilee Volume I, Poona: IL* 19, 149-158. = Kl. S. 1, 160-169.

Wackernagel, J.

1896 *Altindische Grammatik, vol. 1 Lautlehre*, Göttingen.

1907 Indisches und Italisches, *Zeitschrift für vergleichende Sprachforschung* 41, 305-319.

1942 *Indoiranica*, *Zeitschrift für vergleichende Sprachforschung* 67, 154-182. Published posthumously by A. Debrunner.

Watkins, C.

1963 Indo-European metrics and the Archaic Irish verse, *Celtica* 6, 194-249, = Watkins (1994: 2, 349-405).

1968 *Indogermanische Grammatik, vol.III/1*, Heidelberg.

1970 Language of Gods and Language of Men: Remarks on Some Indo-European Metalinguistic Traditions, *Myth and Law Among the Indo-Europeans*, ed J. Puhvel, 1-19, Berkeley. = Watkins (1994: 2, 456-472).

1994 *Calvert Watkins, Selected Writings*, Innsbruck.

Werba, C.H.

1997 *Verba Indoarica, Die primären und sekundären Wurzeln der Sanskrit-Sprache, Pars 1: Radices Primariae*, Vienna.

Whitney, D. W.

1885 *The Roots, Verb-forms and Primary Derivatives of the Sanskrit Verb*, Leipzig.

1924 *Sanskrit Grammar*, 5th ed., Leipzig.

Winter W.

1993 Überlegungen zum Fehlen der Reduplikation in aind. *véda*, gr. *οἶδα*, usw. *Indogermanica et Italica, FS. Rix*, ed. G. Meiser, 479-483, Innsbruck.

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1.133.6a	122	2.28.6a	152
1.134.3fg	164	2.29.2cd	102
1.134.3def	107	2.29.6cd	119
1.140.11ab	18	2.33.2cd	108
1.147.2a	141	2.33.14cd	115
1.157.1a	141	2.35.11c	92
1.157.4c,	118	2.36.3ab	158
1.158.2c	106	2.36.4	55
1.163.4c	46	2.40.2ab	105
1.164.27c	35	2.41.9a	165
1.165.14c	168	2.43.2a	105
1.169.1cd	162	2.43.2de	161
1.169.4a	38	2.43.3b	109
1.170.2cd	101	3.1.23ab	177
1.170.5c	161	3.1.23cd	18
1.171.1d	149	3.4.9ab	177
1.172.1a	18	3.4.11c	94
1.174.9cd	59	3.5-7.11ab	177
1.176.3cd	132	3.6.6a	125
1.177.4cd	149	3.8.6cd	125
1.182.3c	114	3.8.11ab	160
1.184.4a	18	3.14.2cd	57
1.185.2-8d	157	3.14.7c	141
1.185.11ab	18	3.15.3c	50
1.186.10ab	100	3.15.7ab	177
1.191.7d	111	3.18.2d	180
2.1.10c	49	3.18.2abc	116

3.22-23.5ab	177	4.41.4ab	162
3.23.2cd	37	4.44.6ab	148
3.24.5	39	4.46.2c	117
3.30.15a	123	4.50.11d	111
3.30.18bc	59	4.57.2b	122
3.33.9c	128	4.57.7c	35
3.35.3a	130	5.2.7c	148
3.40.5ab	125	5.3.9a	157,181
3.44.1d	180	5.4.2d	147
3.45.4cd	126	5.5.5c	138
3.47.1c	178	5.10.1cd	54
3.50.1c	138	5.24.1-2	39
3.52.2ab	106	5.24.2b	49
3.52.6ab	145	5.31.13cd	163
3.53.3c	175	5.33.2cd	58
3.53.10cd	133	5.33.6cd	38
3.53.11ab	109	5.42.3ab	97
3.53.17c	119	5.42.9d	156
3.54.22b	147	5.45.5a	95
4.2.20d	154	5.51.8cd	158
4.4.4	49	5.60.6cd	35
4.4.5c	115	5.61.16	168
4.4.5b	100	5.61.18ab	161
4.4.8a	46	5.70.1	45
4.4.11c	109	5.78.1-3c	131
4.9.7a	113	5.83.8c	97
4.12.6c	149	6.4.4cd	56
4.15.7	140	6.4.7ab	57
4.16.17cd	36	6.4.8a-c	56
4.18.11d	102	6.5.6d	46
4.22.10b	52	6.6.6cd	114
4.32.21a,c	143	6.9.4a	132
4.34.2c	98	6.10.7a	95
4.35.7cd	133	6.15.18a	110
4.35.9d	133	6.18.10ab	49
4.37.7ab	108	6.19.3b	147

6.19.6	39	7.17.5	162
6.22.8d	172	7.21.1d	141
6.24.9bc	40	7.21.9cd	162
6.26.1cd	37	7.22.1a	146
6.26.5ab	59	7.26.5c	148
6.28.8ab	137	7.29.2c	146
6.31.3ab	157	7.41.2	51
6.33.1a	38	7.55.5	176
6.40.1b	177	7.59.6	93
6.44.14c	59	7.62.2a	40
6.44.17	150	7.62.5b	97
6.44.18b	12,41,73	7.65.4d	138
6.47.15ab	17	7.67.10c	113
6.47.20cd	34	7.69.8c	113
6.47.30	139	7.77.4a	164
6.48.10c	155	7.88.6d	154
6.48.13	122	7.97.9d	111
6.50.10cd	118	7.104.22d	150
6.53.4ab	108	7.104.25ab	107
6.53.4c	177	8.1.17ab	126
6.59.9cd	154	8.2.38	104
6.60.2a	157	8.4.11ab	123
6.67.8d	108	8.7.13	98
6.68.6-7	18	8.9.1c	154
6.69.2cd	16	8.9.10	109
6.74.3cd	149	8.13.14ab	146
6.74.4c	148	8.13.25ab	169
6.75.4b	144	8.17.11	123
6.75.16ab	131	8.19.1ab	105
7.2.11c	94	8.19.26cd	19
7.3.6cd	46,107	8.22.9ab	160
7.5.9ab	155	8.23.27ab	162
7.8.5d	169	8.24.4	48
7.11.1d	175	8.24.19a	95
7.16.5d	56	8.26.23	165
7.17.1ab	180	8.33.19a	132

8.37.1g	133	10.9.2ab	143
8.39.2e	155	10.10.10cd	142
8.43.27c	141	10.10.12c	101
8.45.9ab	15	10.14.8	103
8.54.8cd	116	10.16.1cd	36
8.75.5bc	128	10.16.2ab	36
8.75.6c	109	10.16.2cd	36
8.75.12c	111	10.16.4ab	116
8.75.15a	118	10.16.11a	59
8.80.4c	15	10.16.13ab	166
8.80.7a	123	10.18.5cd	101
8.85.7a	156	10.18.8a	98
8.86.1-5d	149	10.19.2b	100
8.89.4d	111	10.22.4d	58
8.99.5	118	10.24.5d	35
9.4.1ab	47	10.30.5d	36
9.7.9c	112	10.34.14a	15
9.20.4a	92	10.34.14c	167
9.25.2c	166	10.35.1c	109
9.36.3ab	160	10.38.2d	36
9.41.5a	137	10.38.5c	149
9.52.3	96	10.42.11cd	15
9.59.3b	118	10.43.9c	160
9.61.23c	169	10.56.1b	166
9.63.12	93	10.59.5c	158
9.85.4c	15	10.63.3d	146
9.90.5	146	10.69.3cd	40
9.93.5a	148	10.71.11b	105
9.97.33ab	46	10.84.7cd	161
9.97.33a	107	10.85.20c	160
9.97.36c	166	10.85.27a	99
9.97.36d	111	10.87.2d	125
9.97.51ab	93	10.87.7ab	181
9.105.4a	164	10.87.18a	111
9.107.6d	152	10.97.13d	129
9.108.9c	155	10.101.8d	123

10.101.10d	156
10.101.12a	103
10.104.2b	138
10.106.3b	104
10.106.4d	104
10.106.9d	143
10.112.3ab	181
10.113.10d	166
10.120.4c	115
10.130.1d	97
10.132.6cd	129
10.134.5ab	131
10.137.3ab	165
10.142.6c	128
10.145.2cd	124
10.145.2d	100
10.151.5	125
10.158.2ab	113
10.164.1ab	102
10.164.5de	99
10.173.1cd	163
10.175.2	15
10.183.1cd	110
10.191.2ab	114,161