

THE NEUTER PLURAL AND THE VOCALIZATION OF THE
LARYNGEALS IN AVESTAN

1. In Avestan neuter nouns in the nom.-acc. plural normally take lengthened vowel of the suffix without ending, type **-ān*. There are very few forms of the type **-āni* (G. *afšmānī*, L. *cinmāni*; *s*-stem G. *varəcāhī*) and **-ani* (G. *sāx^vānī*, YH *nāmānī*, L. *baēvani*). Pashto *-ān* might continue **-ani* (see Kuiper 1978, 83).

The relation of these forms to one another and to Sanskrit *-āni*, which is the only type found there, was recently discussed by Kuiper 1978. His conclusions are:

(1) Av. **-ān* and Skt. *-āni* derive from **-ānH*. A form **-ānH*, necessary to explain Skt *āni*, may also account for Av. **-ān*, because PIE. **-ōn* became *-ō* in the nom. sing.

(2) Av. **-ani*, **-āni* < **-anH*, **-ānH* are loans from an Old East Iranian dialect.

(3) The long vowel originated in the *n*-stems, which have a parallel form in Goth. *-ona* < **-ōn* + *eh₂*; even GAv. *ayārē*, *sax^vārē* might be analogical (cf. LAv. *ayān*, G. *sāx^vānī*).

2. The first two points are closely related, the third is a problem apart.

The argument that a pre-form **-ānH* may explain the presence of final *-n* is not decisive, for the loc. sg. (type) G. *cašmān*, L. *ayān* also has *-n*, and here the ending cannot have been protected. The *-n* must have been restored analogically here, and may have been so in the (ntr.) plural. (In the loc. sg. restoration is even less evident: note *-ā* from **-āi* in the *i*-stems.)

The theory of dialectal forms is always an *ultima ratio*. It is here based on the theory that word final laryngeal was not vocalized in Avestan. However, as far as I can see all other evidence points the other way. This seems to be the opinion of Mayrhofer (in Brandenstein-Mayrhofer 1964, 28 and 60 § 68, 2) and Emmerick (1966, 23), but as they did not discuss it in full but just formulated “*H* > ϕ in medial syllable” and “the development of **ə* to *i* in final syllable” resp., it seems necessary once more to present the evidence.

3. (a) The 1 pl. middle ending in Avestan is */-madi/*. It is not conceivable that this form was a loan from another dialect, but it must be the phonetic development of **-medhh₂*. This is confirmed by 1 du. */-vadi/* in G. *dvaidī* (Y 29.5b).

(b) The 1 sg. middle ending was *-i*, G. *aojī*, *mānghī*, *cəvišī*. On this form see Kortlandt 1981, where it is shown that the thematic secondary ending *-e* represents the thematic vowel (*-a*) + this *-i*, and that this ending is identical to the (thematic

and athematic) primary ending *-e*. There can hardly be any doubt that this was a common PIIr. development, which shows that *-H > -i* was PIIr. The two forms (a. and b.) have hardly been considered in the discussion of the vocalization of the laryngeal, perhaps because they are too familiar to attract attention.

(c) L. *asti* 'bones', plural of *as(-ca)*; Kuiper 1976, 245.

(d) On the Late Avestan forms in *-paiθi* see Kuiper 1976, 245, but also Kellens 1974, 50.

(e) Here the forms *sāx^vānī* etc. must be adduced, for most probably they provide evidence for *-H > -i* in Avestan. It is a priori less probable that they are dialect loans. When the total evidence is regarded, there is no reason to regard them as loans. If Pashto *-ān* continues **-ani*, it is more probable to conclude that vocalization of the final laryngeal was common Iranian, than to assume that two closely related dialects behaved differently in this respect and that the one borrowed from the other.

It seems that the forms with *i < H* in final syllables, though not in absolute auslaut, also belong here.

(f) The *i*-stem *jani-* 'woman' is explained from the nominative **g^uen_h₂ (-s)*. The *i*-stem resulted from the specifically IIr. development *H > i*. The *i*-stem is found in Sanskrit, in Gathic (*jānayo* Y 53.6a) as well as in late Avestan (Kuiper 1976, 248). As it is found in Indian and in Iranian, it is probable that the *i* developed in PIIr.

(g) The neuter *s*-stems from disyllabic roots have *-iš* in Avestan (G. *taviš*, *snaiθiš*, L. *stairiš*, *hadiš*). Analogically *-iš* was introduced in medial syllables (instr. *snaiθišā*, derivatives G. *tavišī*, L. *xrvīšyant-*).

Kuiper (1976, 249) thought that this vocalization had to be of PIIr. date, because *-iš* is found in both Sanskrit and Avestan in forms where it must have been introduced analogically because they have no disyllabic roots (*barhiš-*, *barəziš-*). As it is not probable that the two language groups made this innovation independently, the introduction of *-iš* must have been of PIIr. date. (The argument is perhaps not entirely compelling, as PIIr. might have spread the suffix in the form *-Hs*.)

That *taviš* had *i < H* in final syllable, and that *tavišī* should have been formed in PIIr. after **tauHs > *taviš* was proposed by Emmerick 1966, 23. Kuiper, however, pointed out that **tavišīH* is of PIIr. date and explained, therefore, *-i-* in this word from a vocalic laryngeal *H̄*.

(h) The words in *-in-* (G. *fraxšnīn-*, L. *parənin-*) have *-in* in the nominative (G. *fraxšnī*). It is possible that *-Hn-* was vocalized in this position, and that from there *-in-* was introduced into the oblique cases (*parəninō*). However, this suffix derives in part from PIE *ion/in*, and it is almost impossible to decide whether Avestan *-in-* derives from PIE *-Hn-* or *-in-*. We can identify *Hon/Hn* in Avestan forms as *māθrā* because it has disyllabic *-ā*, or in LAv. gen. pl. *hazaŋha < *seǵhes-Hōn*. The former has no form with *in* in Avestan, the latter can be identified as deriving from *Hn*

exactly because it does not have *in*. Therefore these forms cannot, to my mind, be used as argument in this discussion.

4. As far as I can see, then, *all* the evidence shows that the laryngeal appears vocalized in Avestan, not only when absolutely final, but in all final syllables. Also the evidence available shows that this was a common PIEr. development, and there is no evidence to the contrary. I give a survey, adding the Old Persian material.

(a)	1 pl /- <i>madi</i> /	OP -	Skt. - <i>mahi</i>	
	1 du /- <i>vadi</i> /	OP -	Skt. - <i>vahi</i>	
(b)	1 sg - <i>i</i> , (- <i>e</i>)	OP - <i>iy</i> , (- <i>aiy</i>)	Skt. - <i>i</i> , (- <i>e</i>)	
{	(c)	LAv. ntr. pl. <i>asti</i>	OP -	Skt. (<i>adānti</i>)
	(d)	L. - <i>paiθi</i> ?	OP -	Skt. -
	(e)	- <i>ənī</i> , - <i>ani</i> (Pashto - <i>ən</i> ?)	OP -	Skt. -
	- <i>āni</i>	OP -	Skt. - <i>āni</i>	
	- <i>āhi</i>	OP -	Skt. - <i>āmsi</i>	
(f)	<i>jani</i> -	OP -	Skt. <i>jani</i> -	
(g)	<i>təviš</i> , <i>hadīš</i>	OP <i>hadīš</i>	Skt. - <i>iš</i>	

(Of course, (c), (d) and (e) are special instances of one ending. Uncertain is (h), see above.)

5. Kuiper has always drawn attention to the Avestan forms with *i* < *H* not occurring in the first syllable. As to the final syllable his only counter evidence (1976, 244f) is the neuter plural. He objected to a law that in final syllable *H* was vocalized because "it was arbitrary as it remains unclear what phonetical difference there was between the position in medial and in final syllable" (ib. 250). See also below, §15. But the evidence has priority and the explanation may be found later. It would be important to know whether in Germanic, where *H* is vocalized in initial syllable but not in medial syllable, the laryngeal in final syllable was vocalized. Kortlandt 1981 § 20 adduces strong arguments for -*H* > -*a* in Germanic.

One factor could be that *H* in final syllable (better: *H* which, when vocalized, forms the final syllable) can never occur before the accent. See below, § 13 and 15.

It should be noted that Kuiper in his evidence for final position did not include the final syllable (*jani*-, -*iš*; 244f). Thus it happens that the evidence for *i* < *H* in both medial and final syllable was so meagre that he denied that the development was really Avestan. When we take the evidence for the final syllable together, we can no longer, I think, deny that it is really Avestan (and even PIEr., as we have seen).

Kuiper explained the *i*-forms he found partly as loans partly from PIE vocalic laryngeal as opposed to a consonantal (interconsonantal) laryngeal. The latter

theory puts the problem on the PIE level, where it remains unexplained (especially an ablaut H/H_0). The author, of course, is well aware of this difficulty (1976, 242, 251). The explanation as dialect loans, always an *ultima ratio*, leaves the difficulty that a closely related (East Iranian) dialect should have vocalized a laryngeal where Avestan did not. It is not probable that the (East) Iranian dialects behaved differently in this respect, and a later vocalization in Iranian is not probable. (I owe this observation to Kortlandt.)

6. Av. $*\bar{a}n$, then, must represent PIE $*\bar{o}n$. We saw that the phonetic argument against this development is not decisive (§ 2).

Another argument against $*\bar{o}n > *\bar{a}n$ is that "the posited older forms in $*\bar{a}n$ should only have been preserved intact in Iranian, whereas in Indo-Aryan the suffixed $-i$ should appear in *all* forms without exception" (Kuiper 1978, 87 sub 2, against J. Schmidt). It is true that this different development is remarkable, but it does not seem impossible. The development must have been:

PIE	$*\bar{o}n$	$*\bar{e}nh_2$
PIIr	$*\bar{a}n$ (growing)	$*\bar{a}ni$ (decreasing)
	$*\bar{a}ni$ (already formed?)	
Av.	$\bar{a}n$	$\bar{a}ni$ (relic)
	$\bar{a}ni$ (rudimentary)	
Skt.	$\bar{a}ni$	

In itself none of these developments is difficult.

It is clear that I assume that it was $-i$ that was spread, not $-H$.

That Avestan presents no forms in $*\bar{a}n$ is due to chance in Kuiper's view (1978, 91), for he might expect them (from $*\bar{a}nH$), whereas I would not, because in my opinion $*\bar{a}nH$ resulted in $\bar{a}ni$ (and simple PIE $*\bar{o}n$ did not occur in this function).

7. It may be useful to compare the Hittite material. I find the following neuter plurals in the handbooks (Friedrich 1960, Kammenhuber 1969, Kronasser 1956; the a -stems are irrelevant):

ending:				
stems		\emptyset	$-a$	$-i$
in:				
$-r$	$\bar{a}r$	$\bar{a}r$	$\bar{a}ra$ Kr	$\bar{a}ri$
	$\bar{u}r$	$(\bar{a}ri)$		$\bar{u}ri$
$-r/n$	$\bar{a}r(HI.A)$	$\bar{a}r$	$\bar{a}ra$ Kr	$\bar{a}ri$
			$\bar{u}ra$ Kr	
$-n$			$\bar{m}na^1$	
			$\bar{a}na$ Kr	

<i>-l</i>			<i>-ala</i> ? ²
	<i>-ul</i>	<i>-ula</i> Kr	<i>-uli</i>
<i>-t</i>		<i>-ta</i>	
<i>-nt</i>		<i>-nta</i>	<i>-nti</i>
<i>-u</i> , nouns		<i>-ua</i>	
<i>-u</i> , adj.	<i>-u</i>	<i>-aua</i>	
<i>-i</i> , nouns	<i>-i</i>		
<i>-i</i> , adj.	<i>-i</i>	<i>-aia</i>	

1. *tatariamna* Kamm. 287. 2. *suppala*.

The number of plural forms is remarkably low. In StBoT 8, 12, 17, 18 (Old Hittite texts) from *x* neuter words (adjectives presenting neuter forms included) I found *y* (nom.-acc.) plural forms: *x-y* = 27-4, 19-2, 9-0, 13-2. In the Laws it is even 41-4.

Neuters from *a*-stems have not been included. It should be noted that Friedrich gives no plural of neuter *a*-stem nouns. The *a*-stem adjectives have a nom. pl. in *-a*.

Secondly it is remarkable that many plurals are identical to the singular. For the *i*- and *u*-stems they may be, or have been, different: they may have pl. *-ī* opposed to sg. *-i*, and they may have had pl. *-iH*: sg. *-i*.

Plurals of *n*-stems are especially hard to find. Friedrich gives none, in the StBoT texts mentioned I found none (just one *n*-stem neuter at all).

The history of the forms is not quite certain to my mind. I wondered whether final *-H* was perhaps not vocalized at all in Hittite. However, the 1 pl. middle ending *-uasta* < **-uosdhh*₂ points to vocalization of the final laryngeal, and so does the 1 sg. middle, where *-a* < **-h*₂ must be assumed to account for the ending *-hahari* (Kortlandt 1981 § 23). Next, one should consider the possibility that *-a* (< **-H*) was lost, perhaps after resonant only. This may account for the forms without ending and for the introduction of *-i*, which would surprise if there had been an ending *-a* from the beginning.¹

The ending *-a* < *-H* might have been lost or never have existed. Forms in *-a* from *r*-, *r/n*-, *n*- and *l*-stems seem to be rare (they are only given by Kronasser).

It is remarkable that the forms in *-a* occur predominantly in the adjectives (*nt*-, *i*-, *u*-stems), which might be connected with the fact that the *a*-stems have this ending in the adjectives (and not or rarely in the nouns). Perhaps *-a* spread from the *a*-stem adjectives to the other adjectives.

It is clear that a thorough philological examination is necessary. Nevertheless a few conclusions may be drawn for PIE, that is for the starting point for PIr. Neuter plurals were rare. There were in fact no plurals at all, only collectives. These became neuter plurals when the adjectives received special neuter plural endings. In the *r*-, *r/n*-, *n*- and *l*-stems the collectives with lengthened vowel may have been more

frequent than those with *-H. A system like the Hittite one can very well have been the starting point for the Indo-Iranian development.

8. Kuiper (1978, 88f) points out that GAv. *ayārē*, *sax^vārē*, two hapax forms only found in the Gathas, might be innovations, LAv. *ayān* (cf. Ved. *āhāni*) being the older form. The arguments are: (a) there is no reason why *ayān*, *āhāni* should be innovations; (b) that in IIr. -H was the plural marker, which is not found in Hitt. *uddār*, *uidār*, Gr. ὕδαρ; (c) Gathic shows more morphological innovations; e.g. GAv. gen sg. *aodərəš* is probably an innovation, compared with the *n*-stem Ved. *ūdhani* (though here LAv. has instr. sg. *aodra*).

At present the second argument has disappeared. c. (whatever the exact history of the word for 'cold') gives certainly reason to consider the question, but does not, of course, decide it ("it is hard to make a decision").

For *ayārē* the problem is more complicated, if Goth. *air*, OIc. *ár* 'early' continue the loc. sg. of this word, **h₂e₁eri*, which has also been supposed in ἄριστον. I must say that I doubt a reconstruction **h₂e₁eri-h₁d-to-*. (For ἦρι now **h₂eusri* is posited, and "soll man ἦρι 'früh' von ἄριστον 'Frühstück' trennen?" Frisk 1960 -72, III 102.) Also 'day' and 'early' need not be cognate.

The essential argument seems to me that Hittite shows that the long vowel plural of *r/n*-stems had -*r*: *uatar uetas*: *uidār*, as is confirmed by ὕδαρ ὕδατος. This is quite understandable when these forms were collectives with a singular inflection (**uédōr *udnés*; see Schindler 1975). When they had been incorporated into a paradigm as plurals, it is easy to understand that an *n*-plural (type *ayān*) was formed. Therefore I think the *r*-forms are the more archaic ones. The comparison with ὕδαρ and *uidār*, which is now without problem, confirms this. Also it is after all more probable that Gathic has the older form. GAv. *ayārē*, *sax^vārē*, then, are unique archaisms in Indo-Iranian, on a level with Hitt. *uidār*, though Gr. ὕδαρ, which remained a singular, is typologically even more archaic.

In individual instances, however, both secondary extension of *r*-inflection and secondary *r/n*-inflection should be considered.

That a type in **-ōn* existed already in PIE may be demonstrated by the Germanic type, Goth. -o. (That this has the long vowel suffix in the singular confirms the picture (cf. ὕδαρ): they were singulars which could be integrated as plurals. In Gothic they got a secondary plural in -ona.)

We have, then:

<i>r</i> -stems	Hitt. <i>uidār</i>	ὕδαρ	GAv. <i>ayārē</i> , <i>sax^vārē</i>	
<i>n</i> -stems			Av. -ān	Goth. -o(na)

9. Whereas the laryngeal in final syllable was vocalized in PIIr., this did not happen in medial syllable (as Avestan has zero there). Kuiper has always drawn

attention to the exceptions that would point to *-i-* in medial syllable, which would have to be loans from another (East Iranian) dialect.

For medial syllable Kuiper (1976, 245f) retains two cases, *airime* and the suffix *-in-*. On the latter see above. As *airime* (-) stands beside *armaē-*, it lies at hand to think of epenthesis (Meillet 1908, 66; Narten 1967, 247). It was argued that *rm* would permit this, evidence being *zairimya-*, Ved. *harmyá-*. Kuiper objects that *rmiy* does not prove anything for *rmai*, but the epenthesis originated after *-ai* had become *-e* (and *i* or *e* makes no difference). I would consider the possibility of a vowel *a* between *r-m* (cf. *garāma-*), with *a* > *i* (*yezivī*, *mazibīš*, *vižibyō*), and epenthesis by this *-i-* (the last being an artificiality of the text). Also the basic form **HrHmo-* would require *rH* > *arH* > *ari*, but nowhere else does *RH* develop into *VRV*. Also an adverb 'quietly' is not a probable loan.

It seems, then, that there is no certain evidence for *i* < *H* in medial syllable in Avestan and Iranian (but see §14 and 15).

10. After the long discussion about the exact form of the rules of vocalization (cf. Kuiper 1976, 250), it has turned out, as so often, that no formulation was entirely adequate. The embarrassing problems to which Kuiper has always drawn attention have now been mostly solved. It may now be regarded as certain that in final syllable all laryngeals were vocalized in PIIr. In medial syllable there is no positive evidence for *i* < *H* in Avestan (the laryngeals were retained, at least to a large extent, as they were mostly vocalized in Indo-Aryan). However, the most difficult problems remain. We shall now turn to the first syllable, to return later to the medial syllable. In the first syllable Avestan has clear cases with zero and clear cases with *-i-*. The evidence is very small:

with <i>-i-</i>	zero
G. <i>sīša-</i>	G. <i>dyqm</i> , <i>dyāt</i> ; <i>dvaidd</i>
<i>pitar</i> , <i>piðre</i> etc.	<i>ptā</i> , <i>fəðrōi</i> etc.

11. The word for 'father' must have had forms with *-i-* and others without. The forms we have are as follows:

GAv. <i>ptā</i> , <i>patā</i> , <i>tā</i> 4 ¹	LAv. <i>pita</i> 5 ⁵ , <i>pata</i> 6, <i>ptā</i> 7
<i>patarəm</i> 2 ²	<i>pitarəm</i> 8
<i>piðrē</i> 3, <i>fəðrōi</i> 4	<i>piðre</i> 9
	pl. <i>patarō</i> 10
	<i>fəðrō</i> 11
	<i>ptərəbyō</i> 12
	du. <i>pitarə</i> 13

- | | | |
|-----------------------------|---|---------------|
| 1) 44.3b, 45.11e, 47.2d, 3a | 5) Y 9.5 Yt 17.16–V 12.3–Y 11.4 V 12.11 | 9) Yt 14.46 |
| 2) 31.8b, 45.4c | 6) Yt 13.83 | 10) V 7.72 |
| 3) 44.7c | 7) Y 58.4 | 11) V 19.43 |
| 4) 53.4a | 8) V 12.1 | 12) V 15.12 |
| | | 13) Yt 10.117 |

Kuiper 1942, 21 ff thinks that Gathic generalized the zero grade, but that the original distribution can be inferred from Late Avestan. The forms *ptā*, *patarō* would be loans from Gathic, so that oldest paradigm had *-i-* in the strong cases, zero elsewhere. But the paradigm thus reconstructed is not certain, to my mind, while there is also no explanation for the vocalization in the strong forms. (Kuiper posits vocalic laryngeals in these forms, a consonantal one elsewhere, but stresses that this itself needs explanation.) Hoffmann (1958, 15 = 1975, 72) accepts Kuiper's view, adding “(**patér-*) das bei Verlagerung des Akzentes ausserhalb des Stammes zu *ptr-* geworden war”. I do not think that, in spite of the morpheme boundary, there is any difference in the effect of the accent in **pHtēr* and **pHtréi*. More essential is, however, that the reconstructed paradigm is, I think, not correct. Late Avestan seems to me a less reliable basis as it might contain loans from Gathic. In any case we must also explain the Gathic forms. When we look at */ptā/*, */ptaram/*, */piθrai/* – */fθrai/*, it is natural to assume that the strong cases had zero and the weak cases *-i-*. */fθrai/* is easily explained as an extension of the zero form. As it happens, it is found in Y 53, which is considered to be slightly later than the other Gāthā's. Insler too (1971, 573 n 2) stresses that Y 53 is younger and that *fəδrōi* may be analogical. It is much less probable to regard */piθrai/* as a loan from another dialect. It should also be considered that Late Avestan also has *piθre*. It would be rather complicated to consider this as a loan from Gathic, where it would be a loan from a third dialect. Also, if the starting point had **pitā*, **pitaram*, **pitaras*, it would be surprising if Gathic would have generalized the zero forms, given the importance of the nominative and accusative (sg.), and the fact that a stem *pitr-* would probably have been preferred above *ptr-*. It is true that Gathic has innovated on some points, but this would be an improbable innovation. Also, Gathic is after all the older of the two. As Kortlandt suggests to me the rule was simply that in a group of four consecutive consonants vocalization is to be expected. Kuryłowicz (1968, 225 n 2) too assumed that *ptar-piθrē* was the original system, not because of the forms actually found in Gathic, but because *i/∅* could be best explained in this way: “Auf den ersten Blick empfiehlt sich die Annahme von *pt-* vor silbischen, *pit-* vor nichtsilbischen Lauten, also *ptā: piθrē*.” His explanation, then, is the same. Insler's suggestion (1971, 573 n 2) that **ə* “was maintained if the (resultant) form were to become monosyllabic after its loss” cannot be a phonetic law. It is understandable only as analogical (re)introduction of a vowel/syllable.

The paradigm would have become as follows.

PAv. <i>ptā</i>	<i>ptārah</i>
<i>ptāram</i>	<i>piθrāh?</i> / <i>ptraḥ</i> for <i>ptārah</i> ? ²
<i>piθrāh</i>	<i>piθraHām</i>
<i>piθrāi</i>	<i>ptḥbyah</i>
<i>piθrā</i>	<i>ptḥbiš</i>
<i>ptār(i)</i>	<i>ptḥšu</i>
<i>ptar</i>	

From this paradigm both the Late and Gatha Avestan forms can be easily explained. (In Late Avestan some forms may of course be loans from Gathic.)

It is difficult to say whether this development was PIIr. or PAV. I think there is no objection to the first assumption. (I assume that the laryngeal was retained when it was not vocalized, to disappear later, or to be vocalized in Sanskrit.)

The development is confirmed by L. *tūrya*- ‘father’s brother’ < **ptarviya*- < **ph₂tru-iHó*- (Skt. *pitryā*-, OHG *fatureo*; Kuiper 1942, 57).

The compound *hufəδri*- may have the development of the medial syllables or be derived from the Gathic generalized zero stem.⁴

12. The aorist *sīša*- (opt. *sīšoit*-, imp. *sīšā*) has an exact parallel in Skt. *śiṣa*-. It is probable, therefore, that the form was **śiṣa*- in PIIr. The noun *asiṣti*-, supposed in Y 44.9d, is doubtful, the interpretation of the text being uncertain. Insler (1975 ad loc.; 1971, 573–5) thinks that Avestan would have had **sāsti*- (cf. ptc. *maz-dō.frasāsta*-) as the zero grade of long vowel roots is replaced with full grade. A form **kHsti*-, as well as the verbal adjective **kHstó*-, would have *-i*- according to the rule given for *piθrē*-. In the thematic aorist such forms could not occur. There the *-i*- must be analogical (note that **kHso*- would have given **ša*-).

13. *Dyaṃ*, *dyāt* < **d(h)H-yā*- and *dvaiddī* < **dhH-vadi* agree with *ptā*-. (Insler’s **dīvaiddī*, 1975, 151, is improbable, as it would give a line of 7–10 syllables.) In Sanskrit forms of this structure have no *-i*- either, like *syāti* ‘bind’. If it is true that the accent was a factor, it might be that laryngeal before the accent was not vocalized (whereas it was vocalized after the accent, as when the laryngeal came to form the last syllable).

14. For the word for ‘daughter’ Kuiper (1942, 21ff; 1976, 243) assumed a PIIr. paradigm with *i* and zero, because Skt. *duhitar*- presents both *i* and aspiration. This reconstruction must be correct. Only I would now suppose that *i* belonged to the oblique cases which had *-gHtr*-.³

In the cases that had *-gHt-V*- the laryngeal must have caused aspiration already

in PIIr., because both languages had aspiration and because Bartholomae's Law operated in PIIr.

More difficult is the question when *H* became *i*. As Sanskrit knew a secondary vocalization, and as no Iranian form has *i* in the word for 'daughter' (see Schmidt 1973, 38f), it looks as if Iranian never had *i* and Sanskrit vocalized the laryngeal later. However, this is impossible, because we would have to assume in that case that the laryngeal which remained consonantal caused aspiration in some forms but remained unaltered in others, where it was vocalized later in Sanskrit. This would require two distinct developments of the consonantal laryngeal, which is improbable. Therefore we must assume that in the non-aspirated forms the laryngeal was vocalized already in PIIr. This is also suggested by Prasun, a Kafir language, which has *lüšt* < **duž* (*i*)*t* < **dhu* (*h*)*itā*. It is possible that the Kafir languages had a later vocalization, as had Sanskrit, but it is more probable that it shows that the vocalization dates back to PIIr. Early vocalization also makes the palatalization of the *g* (*h*) less difficult. This was one of the reasons why Kuiper concluded to PIIr. vocalization. (The words *okivān* and *tigitā-*, however, are not decisive evidence that *i* < *H* did not palatalize; see Debrunner 1957, 77 ad 142, 6–15. It should also be noted that it is difficult to find out whether in these two words the laryngeal was vocalized in Indo-Aryan or in PIIr.)

This means that Avestan inherited forms with *i*, but generalized those with zero. This treatment differs from that of *ptar*, *piθr-*. Here Late Avestan spread *i*, whereas Gathic is beginning to generalize the zero form. I think that Late Avestan preferred the *i*-forms of 'father' because of the short form the root has with zero (*ptā*, *ptar-*), and because of the LAv. loss of *p-* before *t* (GAv. *tā*, which is the LAv. pronunciation of GAv. *ptā*; LAv. *tūiryā-*) which gave a paradigm LAv. **tā*, **tarəm*, *piθre*. In *dugdar-* there is no such reason. Generalization of one of the divergent forms *dugdar-*: **dujiθr-* is only natural.

It should be noted that we have only a few forms of the word in Avestan:

sg. nom. Gav. <i>dugdā</i> Y 45.4	LAv. <i>duγda</i> 5x
acc.	<i>duγdarəm</i> Yt 17.2
pl. gen. <i>dugdrəm</i> Y 53.3	<i>duγdrəm</i> Vd 2

Note that the Gathic gen. pl. is found in the younger Y 53, which also has *fəδrōi* with the generalized zero form. Also the gen. pl. ending is monosyllabic here. It is not impossible, therefore, that Zarathustra said **dujiθraHam*.

On the importance of the forms with *i* which we must postulate for Iranian see the next section.

15. It may be useful to present the results:

	initial		medial		final syllable
PIE	<i>H</i>		<i>H</i>		<i>H</i>
PIIr.	<i>i</i>	<i>H</i>	<i>i</i>	<i>H</i>	<i>i</i>
Ir.	<i>i</i>	∅	* <i>i</i>	∅	<i>i</i>
Ind.	<i>i</i>	<i>i</i> , ∅	<i>i</i>	<i>i</i> , ∅	<i>i</i>

It is generally accepted that some laryngeals which had remained consonantal in PIIr. were vocalized in Indo-Aryan. There is certainly no reason to assume that there was such a vocalization in Iranian. Iranian, therefore, continues the PIIr. situation, except for analogical developments, of course (such as the introduction of *i* in *pitar-*).

In final syllables as far as we know every laryngeal was vocalized, probably in PIIr. This date must be accepted also because it is improbable that there was a vocalization in Iranian.

In initial syllables some forms were vocalized in PIIr., some later in Indo-Aryan. On the conditions see below.

It now appears that also in medial syllables the laryngeal was vocalized in some cases in PIIr., for we must assume that the word for 'daughter' was **dugdā* < **dughtā*, gen. **dujitrah* in PIIr. Avestan inherited this paradigm, but removed the *i*-forms. Kortlandt pointed out to me that it would be improbable if vocalization occurred only in initial and final syllable. (See above §5.) We may therefore expect forms with medial *i* in Avestan. However, up to now no reliable evidence has been found. *Airime* probably is no evidence. Only *-in-* could be considered. In some of the other forms too, where Avestan has zero but Sanskrit *i*, the zero might be due to analogy, as in the case of *dugdar-*. It is perhaps not impossible that there was no secondary vocalization at all in Indo-Aryan, and that all differences between Avestan and Sanskrit are due to analogical levelling in different directions, Sanskrit favouring *i*, Avestan zero.

The problem is that the rules for vocalization in PIIr. have not yet been established. This is very difficult because Avestan has no positive evidence for *i* in medial syllable, and only two forms with *i* and two with zero in initial syllable. This evidence is really too small to find the rules. They should rather be established on the Sanskrit evidence, but this is beyond the scope of this paper.

It seems now less probable that occurrence in initial, medial or final syllable was in itself the conditioning factor. From Sanskrit forms one gets the impression that the accent was one factor, *H* not being vocalized when preceding the accent. Then there is the "four consonant rule": from *pitar-* it appears that a laryngeal in the sequence *CHCC* was vocalized. Thirdly, there is the explanation given by Kortlandt for *vásudhiti-* (1978, 118), to the effect that the vocalization also depended on the nature of the surrounding consonants (voiced stops having initial

glottalization — which is unvoicing —; aspirates having following aspiration — which is voicing.)

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NOTES

¹ I am also not certain that *-i* was taken from the *i*-stems (Brosman 1962). It is true that the *i*-stems are the second largest group of neuters in Hittite, but the ending is not well marked (singular and plural being identical; or did the plural have *-iH* when it was taken over?) and plurals of *i*-stems seem to be extremely rare. Brosman thinks *-a* < *-aia* beside *-i* was the starting point for the introduction of the *-i*, but the former ending is typical of the adjectives, the latter (*-i*) of the nouns, so the endings did not exist side by side in one category. I think the idea that it is the old dual ending should not be given up too soon (Milewski 1936, 32–3, Pedersen 1938, 29).

² Hock 1974 has shown that the accusative plural has often full grade of the suffix. However, his examples are all from nouns in *-ēn*, that is from hysterodynamic paradigms. I assume that his reconstruction is not valid for all inflectional types. **ph₂tēr* was hysterodynamic, so we may assume **ph₂térns*, later replaced by **ptráh* > *fədrō*. The difference with the acc. pl. of 'mother' is now automatically explained. **méh₂tēr* was protostatic (= akrostatic) (gen. sg. **méh₂trs*), giving **méh₂tr-ns* > *mātərqš*.

³ G. Schmidt 1973, 44 reconstructs a paradigm *dugdar*, *duxθr-* for Iranian. I am not convinced that this is correct, especially because I think that it was possible that *-tar* (or *-tr-* > *-θr-*) was reintroduced. — Schmidt's assumption of two vocalic laryngeals, *eH* in initial and perhaps final syllable, *He* in medial syllable, is quite unconvincing. Firstly it explains nothing, and secondly it is impossible that a vocalic laryngeal disappeared in Avestan.

⁴ It may well show loss of laryngeal in compounds.

BIBLIOGRAPHY

- Brandenstein, W. and Mayrhofer, M., 1964, *Handb. d. Altpers.* Wiesbaden.
 Brosman, P. W., 1962, 'Neuter Plural in *-i* among Hittite Consonant Stems', *JAOS* 82, 63–5.
 Debrunner, A., 1957, *Nachträge zu Bd. I von J. Wackernagel, Altind. Gramm.* Göttingen.
 Emmerick, R. E., 1966, 'Some Reinterpretations in the Avesta', *TPS* 1966, 7–23.
 Friedrich, J. 1960, *Hethit. Elementarbuch.* Heidelberg.
 Frisk, H., 1960–72, *Griech. etym. Wörterbuch I–III.* Heidelberg.
 Hock, H. H., 1974, 'On the Iir. acc. pl. of consonant stems', *JAOS* 94, 73–95.
 Hoffmann, K., 1958, 'Altiranisch', in *Handb. d. Orient., Iranistik, Linguistik.* Leiden.
 —, 1975, *Aufsätze zur Indoiranistik.* 1. Wiesbaden.
 Insler, S., 1971, 'Some Problems of IE *ə in Avestan', *Lg.* 47, 573–85.
 —, 1975, *The Gathas of Zarathustra.* Leiden.
 Kammenhuber, A., 1969, 'Hethitisch', in *Handb. d. Orient., Altkleinasiat. Sprachen.* Leiden.
 Kellens, J., 1974, *Les noms-racines de l'Avesta.* Wiesbaden.
 Kortlandt, F. H. H., 1978, 'PIE Obstruents', *KZ* 83, 107–18.
 —, 1981, 'Ist sg. middle **-H₂*', *IF.*
 Kuiper, F. B. J., 1942, 'Notes on Vedic Noun-Inflexion', *Med. Kon. Ned. Akad. v. Wet.* 5, 4.
 —, 1976, 'Old East Iranian Dialects', *IJ* 18, 241–53.
 —, 1978, 'Old East Iranian **nāmani* 'names' etc.', *IJ* 20, 83–94.
 Kurylowicz, J., 1968, *Indogermanische Grammatik II Akzent.* Ablaut. Heidelberg.
 Meillet, A., 1908, *Les dialectes indo-européens.* Paris.

- Milewski, T., 1936, *L'indo-hittihe et l'indo-européen*. Cracow.
- Narten, J., 1967, 'Ved. *iláyati* und seine Sippe', *IJ* 10, 239–50.
- Pedersen, H., 1938, *Hittitisch und die anderen indoeur. Sprachen*. Copenhagen.
- Schindler, J., 1975, 'L'apophonie des thèmes i.-e. en *-r/n'*', *BSL* 70, 1–10.
- Schmidt, G., 1973, 'Die iranischen Wörter für "Tochter" und "Vater" und die Reflexe des interkonsonantischen *H* (*ə*) in den idg. Sprachen', *KZ* 87, 36–83.