

THE SUBJUNCTIVE ENDINGS OF INDO-IRANIAN

1. The co-existence of primary and secondary endings in the Indo-Iranian subjunctive has never been explained satisfactorily. It may be useful to give the Vedic endings and to compare them with those of the Gathas proper (the number of occurrences is added). The Gathic material is large enough for conclusions, as there is a great number of subjunctives (I counted 153 and a few doubtful cases).¹

	Rigvedic		Gatha-Avestan	
	Active	Middle	Active	Middle
Sg. 1	(-ā 13), -āni	-ai	-ā 10, -ānī 6	-āi 19, -ānē 3
2	-si -s	-se	-hī 1 (-ō, -ā LAV.)	-yhōi 1
3	-ti -t	-te (-tai 1)	-ti 19 -t 54	-tē 8
Ph. 1	- -ma	-mahe, -mahai	- -mā 4	(-maidē 1 YH)
2	-tha -	-dhve (-dhvai 1)	-ḡā 2 -	-duyē 1
3	- -n	-nte 2 -nta 12	-ntī 6 -n 11	-ntē 7
Du. 1	- -va	- -vahi	- -	-
2	-thas -	-ithe	- -	-
3	-tas -	-ite	(-ātō LAV.)-	-

The agreement is highly remarkable; better testimony for the genetic identity of two languages is hardly possible.

For the 2 sg. the single Gathic form does not allow the conclusion that Gathic did not have the secondary ending, which is found in Late Avestan according to Reichelt 1909.

For the 1 pl. Reichelt 1909, 134 gives *ivāmahī* 31.2c, but this is an indicative. Late Avestan too has only *-ma*.²

The 2 pl. is only found in *daduyē* 44.19c [da'advai].³ No instances are known to me from Late Avestan.

Gathic has also *-ntī* in the 3 pl., which Vedic does not have.⁴ This must be an innovation of Gathic, because it is not probable that Sanskrit would have lost *-nti*, if it had inherited this ending. We find a comparable situation in the 3 pl. middle. Sanskrit has *-nta* in the majority of cases (12 against *-nte* twice, both s-aorists),⁵ Gathic has only *-ntē*. Here too Avestan went further than Sanskrit in favouring the primary ending. In the 1 sg. middle too, Gathic (and Late Avestan) innovated by introducing *-ānē*, which is unknown to Sanskrit. (OP *-ānaiy* or *-āniy* is ambiguous.)

2. On the whole, then, while Gathic confirms the picture of Sanskrit, the latter is more archaic and can be supposed to represent the Indo-Iranian system. (The forms *-mahai*, *-vahai* are of course a Sanskrit innovation.)

We may conclude that it is probable that, where the two endings occur, the secondary one is older. This is clear for the 3 pl., as we saw, and it may hold also for the 2 and 3 sg., where the secondary forms are in the majority. More important is the fact that the forms in *-si*, *-ti* are on the increase in the oldest texts, after which they decline (see Renou 1932, 12; Gonda 1956, 110–6). Besides, even though they are increasing, they are a minority. In Greek the primary forms supplanted the secondary ones, of which there are only traces. Italic confirms that the secondary forms are the normal ones, since Latin, Oscan and Umbrian have secondary endings in the subjunctive.

Late Avestan has primary forms in the *nu*-presents and in the *s*-aorists only (Bartholomae 1895, § 370). In Gathic there is no such distribution, and the agreement with Vedic shows that there was none in Indo-Iranian. The Late Avestan state of affairs must be a later development. For the *s*-aorist one might consider the fact that “im Aw. sich die Futurbedeutung insbesondere mit dem Konjunktiv des *s*-Aor. verband”, Reicheit 1909, 315 n. 1. (On this point see below.) Note that Gathic has primary and secondary endings in equal numbers, and that in Sanskrit the secondary forms are a large majority (91 forms against 19) in the *s*-aorist, “où il était protégé par l’absence d’indicatif primaire correspondant” (Renou 1832, 11). This indicates that, again, Late Avestan has the youngest, Sanskrit the oldest state of affairs.

Old Persian has exclusively primary forms, but only a very few of them are attested: sg. 1 *-āniy*, 2 *-hiy*, 3 *-tiy*, middle sg. 1 *-ānaiy?*, 3 *-taiy*. It is clear that this is a much younger stage of development than the one found in Gathic.

It is not only the co-existence of primary and secondary forms that has not been explained sufficiently, but also the *distribution* has not been explained hitherto: 1 sg. prim., 2, 3 sg. prim. and sec., 1 pl. sec., 2 pl. prim., 3 pl. sec. is a very remarkable configuration. No explanation can be considered satisfactory, unless it shows how the distribution originated.

3. There are not many suggestions for an explanation.

Hoffmann 1967, 268 n. 4 writes: “beim voluntativen Konjunktiv liegt Nicht-Tatsächlichkeit, beim prospektiven Konjunktiv aber fiktive Tatsächlichkeit vor. Hierin liegt wohl die letzte Ursache für den Gebrauch von Primär- und Sekundären-dungen beim Konjunktiv”. (Similarly 1970, 38f = 1976, 538.) However, Kuryłowicz 1964, 140, points out that the voluntative meaning is restricted to the 1 sg. with scarcely an exception. Therefore we would expect a secondary ending specially in the 1 sg., which is exactly where it is never found.⁶ Latin corroborates this evidence, since it created a secondary ending *-m* for the subjunctive (in opposition to the *-ō*

of the future, e.g. *erō*). Hoffmann's theory also does not account for the distribution we find.

Others have looked in the same direction (Renou 1932, 20, Gonda 1956, 110–6). There is at best only a tendency towards a functional distribution. As the LAv. *s*-aorist shows (see above § 2), the functional distribution is rather a late development. The theory is not sufficient to explain how the co-existence of the two endings originated.

Kuryłowicz 1964, 139 suggests that there was a semantic difference which can be compared to English *I shall: I should*, but this solution cannot further be substantiated. This idea also presupposes the occurrence of both endings side by side in the whole paradigm, but the Indo-Iranian evidence points to a distribution.

A formal explanation is proposed by Kuryłowicz, who suggests (1964, 140) an 'injunction' with secondary forms. I don't see how this could have worked.

It has often been suggested that secondary endings were used to distinguish the subjunctive from the indicative (Renou 1932, Gonda 1956, Thumb-Hauschild 1959, 216). This is rather the use made of the two sets of endings. It is improbable that secondary endings were *introduced* for this very reason. The fact that the *si*- and *ti*-forms are on the increase contradicts this explanation. Besides, this theory too does not account for the distribution.

Both theories, then, are not convincing. Neither explains the distribution. The functional distinction is not borne out very clearly by the texts and is more probably a later tendency. The theory that the secondary endings served to distinguish the subjunctive from the indicative does not explain the origin of the two endings. It presupposes that the secondary endings were later, but the evidence suggests that they are older.

The evidence points to the following system (younger forms in brackets):

-ā	-ma
-s (-sī)	-tha
-t (-tī)	-n (-ntī?)

and it is this distribution that has to be explained.

4. The subjunctive cannot be derived from an injunctive (e.g. Burrow 1973, 248; Gonda 1956), because the 1 sg. has the primary ending -ō.

It is now almost generally accepted that the subjunctive developed from a thematic indicative (a system with primary endings). A simple explanation is now possible on the basis of the recent studies by F. H. H. Kortlandt. He assumes (1979a, 51–70) the following series of endings for the thematic inflection (p. 67):

prim.	<i>-oh₁</i>	sec.	<i>-om</i>
	<i>-eh₁i</i>		<i>-es</i>
	<i>-e</i>		<i>-et</i>
	<i>-omom</i>		<i>-omo</i>
	<i>-eth₁e</i>		<i>-ete</i>
	<i>-o</i>		<i>-ont</i>

The precise form of all endings is not relevant here. If one would posit **-oh₂* for **-oh₁*⁷, **-ei* for **-eh₁i*, **-ome* for **-omo* or **-eth₂e* for **-eth₁e*,⁸ this would not change the present argument. Essential is the 3 pl. **-o*, for which I find the argumentation inevitable (see also Kortlandt's article on the Old Irish verbal endings, 1979b), and 1 pl. **-omom*.

Essential is further his view that the primary endings were in some languages and under certain conditions reshaped after or replaced with the secondary (thematic) endings in paradigms where the opposition between primary and secondary endings was given up. He demonstrated this development for Old Irish (the conjunct 3 sg. and pl.; 1979b), the Latin indicative (where to my mind some difficulties remain) and OLat. *esed* 'erit'. The basic point is that the secondary endings were taken over because they are the unmarked ones, and because they are the only other thematic set of endings. The opposition primary: secondary had no place in the subjunctive. There were no two opposed sets of subjunctive endings.⁹

From the primary thematic endings the IIr. system of subjunctive endings can be derived very simply. The 3 sg. received an added *-t* and thereby became identical with the secondary ending (cf. Skt. *aduhat* for *-a*). The 2 sg. was then taken over in its entirety from the secondary set, just as in the indicative *bharasi* was introduced. In the 1 pl. Indo-Iranian preserved only one primary ending, that of the athematic system. Therefore **-omom* was replaced, but here not with primary *-mas* but with secondary *-ma*. In the 2 pl. on the other hand the ending **-th₁e* was retained. Thus one of the most peculiar facts in the subjunctive system of endings, viz. the different treatment of the 1 and the 2 pl., finds a simple explanation. In the 3 pl. **-o* was enlarged with *-nt* and thereby became identical with the secondary ending. Thus we have:

PIE	<i>*-oh₁</i>	>	IIr.	<i>-ā</i>
	<i>*-eh₁i</i>			<i>-as</i>
	<i>*-e</i>			<i>-a-t</i>
	<i>*-omom</i>			<i>-āma</i>
	<i>*-eth₁e</i>	>		<i>-atha</i>
	<i>*-o</i>			<i>-a-nt</i>

Later *-asi*, *-ati* arose by the side of *-as*, *-at*. I think that this happened first in the thematic presents, where IIr. had:

ind.	\bar{a}	sub.	\bar{a}
	-(<i>a</i>) <i>si</i>		-(\bar{a}) <i>s</i>
	-(<i>a</i>) <i>ti</i>		-(\bar{a}) <i>t</i>

Here the identical 1 sg. may have led to identical endings in 2 and 3 sg. This also explains why 2 and 3 sg. received *-i* whereas 3 pl. did not (though Avestan introduced it later). The distribution of primary and secondary endings points the same way. I counted the following number of different forms (not occurrences) in Macdonell's *Vedic Grammar* (1910):

them. pres.	<i>si</i> + <i>ti</i>	58	<i>s</i> + <i>t</i>	64
ath. pres.		9		56

The primary endings are much more frequent in the thematic presents than in the athematic ones. [The same ratio is found with other athematic inflections: the perfect, the root- and *s*-aorist, and the intensive. Of the other thematic classes, the causative shows a slight preference for primary forms (14 against 9); the *a*-aorist has too few forms to allow conclusions (one of each), the reduplicated aorist has primary forms exclusively (only 7 forms). These classes agree with the thematic presents, but the desideratives and the denominatives have only secondary forms (5 and 16 resp.), for which I have no explanation.]

Thus the remarkable distribution can be explained without any further assumption than the two basic ones (which were not drawn up to explain this problem), while the co-existence of primary and secondary forms is also explained.

5. The dual endings are not well known. For the 1 du. the system could have been parallel with that of the 1 pl.:

		ath.	them.		ath.	them.
prim.	1 pl.	*- <i>mes</i>	*- <i>mom</i>	1 du.	*- \underline{u} <i>es</i>	*- \underline{u} <i>om</i>
sec.		*- <i>me</i>	*- <i>mo</i>		*- \underline{u} <i>e</i>	*- \underline{u} <i>o</i>

In that case $\underline{u}om$ was not retained in Indo-Iranian and replaced with secondary *-va*.

In the 3 du. Skt. *-tas*, sec. *-tām*, Gr. *-ton*, sec. *-tēn* could be combined into:

	ath.	them.
prim.	*- <i>tes</i>	*- <i>tom</i>
sec.	*- <i>teh₂m</i>	*- <i>teh₂m?</i>

If this is correct, *-tam* would have been replaced, but I don't know why here the primary ending *-tas* is found instead of secondary **-teh₂m*, which we would expect.

The reconstruction, however, is uncertain. Gr. *-ton* might have been influenced by 1 du. *-uom*. Perhaps there was no special thematic ending here, so that PIE already had **-tes* in the thematic paradigm.

For the 2 du. reconstructions are even more difficult. The 2 du. may have followed the 3 du., or the other way round.

6. For the middle paradigm Kortlandt reconstructs a system (1979a, 67):

<i>*-h₂</i>	<i>*-medhh₂</i>
<i>*-th₂o</i>	<i>*-dhue</i>
<i>*-o</i>	<i>*-ro</i>

There was no opposition between primary and secondary middle endings in PIE. Indo-Iranian made *-ai* in the 1 sg. For the origin see now Kortlandt 1981. The 3 sg. and 3 pl. were replaced with **-to* and **-nto*. It is not difficult to assume that (2 and) 3 sg. soon took over the *-i* from the 1 sg., just as in the active the 2 and 3 sg. took *-i* earlier than the 3 pl., because in both instances it depended on the 1 sg., though in a different way. This primary *-i*, or better *-ai*, spread to the 1 and 2 pl. The process went ahead faster than in the active paradigm, because in the middle system the 1 sg. had *-i*, whereas in the active the 1 sg. *-ā* never took *-i* (if we disregard the particle *-ni*). The 2 sg. **-sai* was made on the basis of 3 sg. **-tai*.

If this is correct, it confirms that in a not too remote period the 3 pl. had an ending which did not contain **-nt(o)*. This ending would have become **-ntai*. There must have been another ending which was replaced with secondary *-nta*.

7. Kortlandt based his reconstruction of the thematic endings, specially the 1 pl. **-omom* and the 3 pl. **-o*, on other facts, and his view of the extension of these endings with secondary endings on other material. Now independent evidence confirms his views. The 3 pl. *-n* can now be used as evidence for a 3 pl. thematic ending **-o*.

Leiden University

NOTES

¹ For Vedic I used Macdonell 1910, for LAv. Bartholomae 1895 and Reichelt 1909. Though these handbooks may need corrections, the overall picture will not change. (For Gothic I am preparing a short grammar myself.)

² *Frīnāmahī*, which I gave in the Fs. Kerns (1981) as a subjunctive, must be indicative (a more recent one than YH *fryānmahī*).

³ Bartholomae 1895 § 373 gives *mazdāñhō.dūm* (and Rix 1976, 259 gives the 2 pl. middle as having a secondary ending), but this is an imperative. It is most improbable that the 2 pl.

middle should have a secondary ending. Sanskrit does not have the secondary ending here and Avestan has no secondary ending even in the 3 pl. middle.

⁴ Renou (1932) is prepared to consider some forms in *-anti* as subjunctives. This interpretation does not seem to have been accepted (Gonda, 1956, 110–6 does not mention them), but it would not change the over-all picture.

⁵ But see Renou, 1932, 5f, on these forms.

⁶ M. Witzel points out to me that Hoffmann 1967, 242f; 108 assumed some 1 sg. subjunctives in *-m*. But they may be late, for they are found in RV I, X and VIII. I do not think they change the argumentation.

⁷ I considered **-oh₂* a probable analysis, but Kortlandt argues for **-h₁*. A genetic relationship of the thematic endings with the middle or perfect endings is not evident. (I see no reason to consider another origin for the 1 sg. Rix, 1976, 261, suggests an endingless, lengthened **-o*. It will be clear from this article that the 1 sg. subjunctive is identical with the 1 sg. thematic indicative, which is **-oH* as is shown by the Lithuanian acute.

⁸ Kortlandt suggested that **-th₁e*, in the total analysis he gives of the verbal endings (1979a, 68 sub 5), belonged to the thematic endings only, and not to the *mi*-endings, because of the parallelism with his sets V and VI. — The ending must have contained *h₁* and not *h₂*, as Kortlandt points out to me, because no language has *a*-vocalism. Eichner (1975, 79) assumed *h₂* on the basis of Hitt. *-tani*. Apart from the fact that this would presuppose **-th₂e*, it would also mean that the *-n*- was connected with that of Sanskrit *-tana*. This *-na*, however, is an imperative particle (belonging to the secondary ending; it is rarely found with the primary ending). It is not even found in Old Iranian, and it is not probable that it is of PIE date. The explanation would also require that both *-a*- and *-n*- were taken over from the 2 pl. into the 1 pl., whereas mostly the 1 pl. predominates. Kortlandt's explanation that it is cognate with Slav. **-mom*, Gr. *-men* (for **-mon* after athematic **-mes*) is to be preferred. It explains *-an-* from one source, and assumes influence of 1 pl. on 2 pl.

⁹ For the same reason Greek could introduce 1 sg. *-mi* in the optative paradigm.

BIBLIOGRAPHY

- Bartholomae, C., 1895, *Grundriss der iran. Philologie* I, 1. Strassburg.
 Beekes, R. S. P., 1981, 'Intervocalic Laryngeal in Gatha-Avestan', *Gedenkschrift J. A. Kerns*.
 Burrow, T., 1973², *The Sanskrit Language*. London.
 Eichner, H., 1975, 'Die Vorgeschichte des hethitischen Verbalsystems', in *Flexion und Wortbildung*.
 Gonda, J., 1956, *The Character of the IE Moods*. Wiesbaden.
 Hoffmann, K., 1967, *Der Injunktiv im Veda*. Heidelberg.
 —, 1970, 'Das Kategoriensystem des idg. Verbums', *MSS* 28, 19–41.
 —, 1976, *Aufsätze zur Indoiranistik* 2. Wiesbaden.
 Kortlandt, F. H. H., 1979a, 'Toward a reconstruction of the Balto-Slavic verbal system', *Lingua* 49, 51–70.
 —, 1979b, 'The Old Irish absolute and conjunct endings and questions of relative chronology', *Ériu* 30, 35–53.
 —, 1981, '1st sg. middle *-H'*₂, IF.
 Kuryłowicz, J., 1964, *The inflectional categories of IE*. Heidelberg.
 Macdonell, A. A., 1910, *Vedic Grammar*. Strassburg.
 Reichelt, H., 1909, *Awestisches Elementarbuch*. Heidelberg.
 Renou, L., 1932, 'A propos du subjonctif védique', *BSL* 33, 5–30.
 Rix, H., 1976, *Hist. Gramm. d. Griech.* Darmstadt.
 Thumb-Hauschild, 1959, *Handb. d. Sanskrit I*, 2. Heidelberg.