

Below I provide a translation of G.M. Anciferova's article 'O nekotoryx formax atematičeskogo kornevogo prezensa (v svjazi s tak nazyvaemym "proterodinamičeskim" prezansom)' which appeared in *Acta Antiqua Academiae Scientiarum Hungaricae* 31 (1985-88), 267-308. It is an important contribution to the debate on the so-called Narten presents of Proto-Indo-European, which have been postulated since Johanna Narten published her article 'Zum „proterodynamischen“ Wurzelpräsenz' in 1968 (see the bibliography). Anciferova's article did not go completely unnoticed: part of the German summary was cited in the Indo-European bibliography, 'Indogermanische Chronik' in *Die Sprache* 36, page A-123, in 1995. Still, the lack of further references to her work suggests that the journal where it appeared and the Russian language of the text had the effect of marginalizing her article.

In the text below, the original page numbers are given in square brackets. The original footnote numbers have been changed after footnote 8. Anciferova inserts a footnote 8a, which is numbered as 9 below. Her footnote 9 has become 10 in the present translation, etc. The one-page summary in German which accompanies Anciferova's original article is left out here, as it is a literal translation of the summary of the Russian conclusions (p. 304-305), here given in English. I am indebted to Leonid Kulikov for small corrections of my translation.

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Leiden, August 2012

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**On some forms of the athematic root present**  
 (in connection with the so-called “proterodynamic present”)

In 1968 Johanna Narten published her article “On the “proterodynamic” root present” (Narten 1968), in which she postulates for the Indo-European protolanguage a new morphological type of athematic present. The characteristics of this present are formulated on page 18 (on the analysis of the athematic present of *stu*).<sup>1</sup> “The data from Vedic and Avestan allow the conclusion that the root present of *stu* originally inflected “proterodynamically”, that is, it had in the active singular the lengthened ablaut grade and in all other forms of the active and middle – the full grade with a stressed root syllable and a zero-grade ending.” On page 13 the full accented grade of the root and the zero grade of the suffix are also assumed for the active present participle of a proterodynamic verb.

This article of small size aroused a large response among linguists. Works appeared which were based on Narten’s theory (Beekes 1973; 1974) or which applied some claims of her theory to the analysis of other evidence (Tichy 1976, Klingenschmitt 1978, Cvetko 1978), but also some critical reviews. Among the latter ones that of Insler 1972 is on the whole positive (though modifying the original ablaut of the type proposed by Narten), whereas Lindeman 1972 criticizes her. In the work of Watkins, the verbs which were the object of Narten’s investigation receive a fundamentally different interpretation (Watkins 1969: 29-30, 116).

There is no doubt that Narten’s theory, which draws the attention of linguists to a new morphological type of present in ancient Indo-European languages, deserves the utmost interest. But to the author of the present paper it appears that the linguistic evidence investigated by Narten allows for a different interpretation, one which differs both from Narten’s conception and from the results of the analysis in the critical works mentioned above.

The goals of the present work which is carried out on the material of the Rigveda in comparison with the data from the Avesta and Ancient Greek, are: [268]

1. An investigation of the types of paradigm and of the ablaut peculiarities of the verbs discussed by Narten.
2. A reconstruction of the rise of the athematic and thematic paradigms of the present-aorist system of the roots *takṣ* ‘to produce’, *dās* ‘to worship’, *śās* ‘to teach’ and *stu* ‘to praise’.<sup>2</sup>
3. An attempt to explain the morphological peculiarities of the athematic formations in question, which set them apart from the normal athematic verbs.

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<sup>1</sup> The present paper uses the denomination of roots as traditional among sanskritists, cf. Whitney 1963.

<sup>2</sup> *Media tantum* verbs will not be discussed in the present article (for their explanation see further below). From the verbs with a root ending in *-u* only the verb forms of *stu-* are studied: we agree with Narten’s conclusion that the remaining forms of the proterodynamic type from roots with this structure came under the influence of *stu* (Narten 1968: 16).

It is clear that proof for the existence of a certain morphological type can only be provided by really attested verbs, which possess distinct characteristics. In the case at hand these must be verbs which have an unreduplicated root present with lengthened grade in the singular and full grade in the plural and an athematic middle of the same root with full grade. Hence we must provide evidence that neither the active nor the middle represent with respect to each other novel formations of a later period. Let us discuss under this viewpoint the verbs in Narten's article.

1. 1) The article collects athematic middle verbs with a full grade – Skt. *śáye/śéte* (Gr. *keĩtai*) 'to lie', *áste* (Gr. *hēstai*) 'to sit', *váste* (Gr. *heĩtai*, cf. *hēsto*) 'to wear', *óhate* (3pl.) 'to praise' (in Greek thematic *eũkheto* but athematic *eũkto* Thebais fr. 3, 4 (Kinkel, 12)) – these verbs do not correspond with an athematic active from the same root.

The verb *cáṣṭe* (3pl. *cákṣate*) 'to look' has two athematic active forms: the injunctive *cákṣur* (3pl.) and a form of the 2sg. *cakṣi* VII(I), IX(I).<sup>3</sup>

The first of these forms is the only usage in the late tenth book of the Rigveda (X 92.15) and may be interpreted as a novel formation, which cannot influence the interpretation of the layer of original forms.

The form *cakṣi*, as shown by Cardona, belongs to the sigmatic aorist system<sup>4</sup> (Cardona 1965). It follows from this that the verb *cáṣṭe* also belongs to the group of media tantum with a full grade of the root.<sup>5</sup>

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2) Athematic verbs from the roots *takṣ*<sup>6</sup> and *dāś*<sup>7</sup> are activa tantum in the Rigveda.

3) And only two athematic presents – from the roots *śās* and *stu* – have, according to Narten, active and middle forms in the Rigveda which possess the hallmarks of "proterodynamic" formations. Below we will try to show that a different interpretation of the morphological peculiarities of these verbs is possible.

In the course of the following analysis we intend to base ourselves on a chronological restriction of the material, by distinguishing forms found in the old parts of the Rigveda

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<sup>3</sup> After the Roman numbers which indicate the number of the RV maṇḍala, between brackets I provide the amount of forms occurring in the given book. The sign X after a number (e.g. 8X) indicates the amount of word forms in all the RV books.

<sup>4</sup> Compare Cardona 1965: 18 on *cakṣi* in VI 14,4 – an infinitive which is homonymous with imperatives in *-si*. On the latter forms see Szemerényi 1966.

<sup>5</sup> Narten (1968: 13, fn. 28) includes *cáṣṭe* etc. in the group with only middle forms (cf. p. 13 "Die bisher besprochene Gruppe von Medialbildungen..."). Cardona regards the form *cakṣur* as insufficient for a conclusion on the presence of a present with an active inflexion (Cardona 1965: 4). The problem of the forms in *-ur* ("*-ur* hinter Wurzeln in Praeterita") was investigated by Leumann, who judges that in *cakṣur* the ending *-ur* is added to the basis of the old perfect (Leumann 1952: 36). Later, it can be interpreted as an imperfect to the corresponding athematic present (p. 37).

<sup>6</sup> Narten regards *takṣata* III 38.2 as a 3pl. injunctive middle form of an athematic verb (Narten 1964: 124, fn. 335). Karl Hoffmann does not object against this view (Hoffmann 1967: 225, fn. 219). But it is interesting to note that in Narten's 1968 article under analysis this interpretation is absent. We regard the said form as a 2pl. active form of a thematic conjugation, based on the explanations in the grammar of Macdonell (Macdonell 1910) and Grassmann's dictionary (Grassmann 1873).

<sup>7</sup> On the Greek middle forms from *\*dek* see the second part of this paper.

from forms in the later parts (compare table 1, where the data pertaining to the roots *takṣ*, *dāś*, *śās* are laid out according to their attestation in the chronologically different parts of the Rigveda).<sup>8</sup>

a) When we put the data from the root *śās* in their chronological order, we see that in the oldest books of the Rigveda (II-VII) not a single finite form of the indicative or injunctive<sup>9</sup> of the athematic present of this root occurs: in these books, only the 2sg. active imperative *śādhi* II(1) and the active present participle *śāsata-* III(1) (which also occurs in I(5) and VIII(1)) are found. The finite forms of the athematic indicative which occur in the ninth maṇḍala are middle forms: 3pl. *śāsate* (also in I(1)) and 3pl. imperfect *āśāsata*. A finite active present indicative form – viz. the 2sg. *śāssi* – is first found in I.31.14, and the 1sg. active imperfect *áśāsam* in book X(1). These two [270] are the only finite forms of the active indicative from the athematic present stem *śās*.

From the preceding it follows that in the oldest parts of the Rigveda there were no finite forms of the athematic indicative at all. In book IX only a middle form appeared, while finite forms of the active are found first in books I(1) and X(1).

b) The athematic indicative/injunctive from *stu* has in the Rigveda active singular forms with lengthened grade and plural forms with zero ablaut (cf. table 2). Yet in spite of Narten's claim, *stu* does not have an athematic middle with a full grade. Narten (1968: 13) reckons that the 3sg. middle form *stáve* (6x) belongs to the athematic paradigm on the basis of the presence of the middle participle *stávāna-* (18x). Let us have a look at both forms.

a) With a few exceptions (e.g. Renou 1952: 253), linguists assume that the 3sg. middle form with the ending *-e* can be used both in the athematic and in the thematic paradigm (Kuryłowicz 1964: 58; Watkins 1969: 88; Cardona 1961: 338 fn. 2, and others).<sup>10</sup> The ending *-e* goes back to *\*-o-i*, which can be dissected in two ways: as a suffix *o* plus a zero ending plus a particle *-i* (in the thematic conjugation) or as a zero suffix plus the ending *o* plus a particle *-i* (athematic conjugation) (Watkins 1969: 107, 112). Which one of these possible dissections is correct depends on the type of paradigm to which the form in *-e* belongs (Watkins 1969: 115-116, Bader 1971: 306). As is clear from table IIa, the form *stáve*, together with the later form *stavate*, belongs to the thematic middle present of

<sup>8</sup> As is well-known, the oldest part of the Rigveda are the so-called “family” maṇḍala's (II-VII). Maṇḍala X and hymns 51 to 191 of the first maṇḍala are known as late. As regards maṇḍala's VIII and IX the opinions diverge. In accordance with this, we distinguish in Table I the categories Maṇḍala II-VII, VIII-IX, and I-X. Many scholars note the similarity between hymns 1-50 in maṇḍala 1 and hymns 1-66 in maṇḍala 8. But since the eighth maṇḍala, according to the peculiarities of its metre, has a rather late character, we do not divide the material of maṇḍala 1 in different categories. Details in Elizarenkova 1960: 23–25; 1972: 27–28; 1982: 4.

<sup>9</sup>[8a] In the present paper, the indicative and injunctive are regarded as a single category from a formal point of view, which is in opposition to the modal (non-indicative) forms of the subjunctive, optative and imperative (cf. Elizarenkova 1982: 277, 281).

<sup>10</sup> It is to be noted that Narten does not sketch the possibility of the use of *-e* in an athematic paradigm. Thus, she adduces the 3sg. middle form *śóbhe* which belongs to the thematic present *śobhate* (1968: 16 fn. 49). Yet Narten's assumption that *stave*, being in the first place athematic, was secondarily reinterpreted as a thematic form and caused the formation of a thematic middle paradigm, the full grade of which in the end points to an old middle with full grade (Narten 1968: 16), is refuted by the analysis of the comparative chronology of the formations from *stu* (see the third part of this study).

*stu*.<sup>11</sup> The inclusion of *stáve* in the thematic middle of *stu* implies that there are no finite indicative forms of the athematic middle present from this root in the Rigveda.

b) Does the existence of the middle participle *stávāna-* strengthen the appurtenance of *stáve* to an athematic paradigm? It appears doubtful whether a non-finite verb form can shed light on the peculiarities of finite verb forms or be used as support for their existence. It is well known that the participles were integrated into the verbal system at a comparatively late date. Thus, [271] Burrow is of the opinion that “the use of a participle in the middle voice is due to adaptation, which ultimately stems from the rather late appearance of the middle voice in finite verb forms.” Renou (1952: 249) writes about traces “of the famous autonomy of the participle, in particular the type in *-āna-*“. One can only agree with the remarks of Vekerdi (1961: 277), who thinks that the presence of a participle with a different derivational suffix does not allow any conclusion as to the existence of a present doublet. In other words, in such cases one may speak about a confusion of suffixes; it is possible to imagine cases in which the participles of thematic verbs are formed with the suffix of an athematic conjugation (e.g. athematic *stabhāná-* next to thematic *stobhati* etc.). Such an interpretation is in agreement with Wackernagel’s opinion (II.2: 273) as cited by Narten (1968: 13, fn. 27): “*-āna-* next to *-māna-*”.

It is known that participles, which in the first place derive directly from the root (cf. Meillet 1904: 112), on their inclusion in the verbal paradigm adapted themselves to the ablaut of the finite forms. Thus, Renou (1952: 259) argues that *stávāna-* received its ablaut under the influence of *stavate*. If this is accepted, then the fact that the thematic present invited the analogy underscores once more that there was no athematic middle with a full grade from *stu*.

It appears that, besides the two possible interpretations of *stávāna-* adduced above, which differ from Narten’s interpretation (as forms which replaced an athematic suffix by a thematic one; as originally athematic forms which replaced their ablaut grade under the influence of finite forms of the thematic middle), there is a third one: the presence of an athematic form *stuvāná-* VII(1) and a thematic form *stávamāna-*, which are formed according to the rules of the corresponding categories, enables us to propose that *stávāna-*, which is widely used in almost all Rigveda books, is an isolated formation. It would go back directly to the root and it would not belong, at least not initially, to the verbal system of *stu* (see on such forms Macdonell 1910: 326).

In this way, through the proposed analysis of the forms of *stu*, we arrive at the conclusion that the form *stáve* belongs to a thematic paradigm, while the participle *stávāna-* is an isolated, independent formation. It cannot be used as support for the presence of a paradigm with finite middle forms of the athematic indicative. In other words, as far as finite athematic indicative forms are concerned, the verb *stu* has only active forms.

4) The results of the analysis of the verbal paradigms adduced by Narten may be summarized as follows: the appurtenance of *stáve* to a thematic paradigm, and the absence in the oldest parts of the Rigveda of finite athematic indicative forms of *śās* allow the observation [272] that, among the active and middle forms of the Rigveda verbs

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<sup>11</sup> We must draw the attention to the interpretation of *stave* by Leumann, who argues that *stáve* and similar forms, for all their archaic looks, are probably late artificial creations. Against this view, however, the use of *stáve* with a passive meaning may testify (see on this Renou 1932: 21; more in the third part of this study).

investigated by Narten, there was no connecting member in the shape of an athematic finite middle indicative form with full-grade vocalism, to which an athematic active form from the same root exists with lengthened or full grade ablaut.

5) A similar picture can be observed for the reflexes of the corresponding verbal roots in the Gathas, with this difference that the athematic finite indicative form of *sāh* belongs to the oldest layer of the language, contrary to such forms of *śās*. Athematic finite forms of the indicative of *dāś* are absent from the Gathas.

## 2. Remarks on the ablaut.

Tables I and II make clear that active verbs have either a lengthened grade in the singular (see *stu*) which, however, corresponds with a zero grade in the plural; or only plural forms with a full grade, which in the Rigveda do not correspond with singular forms with a lengthened grade (see *takṣ*),<sup>12</sup> or forms of the singular with a lengthened grade, which do not have forms of the plural (see *dāś*); or forms with one and the same ablaut grade in the whole paradigm (see *śās*).

Special mention must be made of the plural forms of *takṣ*: it is known that in roots of the structure TET(T)<sup>13</sup> in the zero grade a full grade is restored to avoid a consonant cluster. For this reason we cannot be sure whether the full grade in the plural of *takṣ* is by rule restored for phonetic reasons, or whether its full vowel is original due to its appurtenance to the postulated “proterodynamic” formation.

The zero grade in the plural of the athematic present of *stu* is regarded by Narten as unoriginal, replacing a full grade (the original forms would have been *\*stómasi*, *\*stávati*, Narten 1968: 16). Yet there is no support for this claim: the form *stáve* belongs to the thematic paradigm and cannot be compared with the athematic middle with a full grade; besides, among the middles with a full grade there is in the oldest parts of the Rigveda no active of a corresponding root with a lengthened/full grade. The only active verb out of the group to be researched which has a full grade in the plural (from the root *takṣ*) does not provide support for the hypothesis of the originality of forms of the type *\*stómasi* for reasons which will be explained further below.

[273] The root *śās* (in late parts of the Rigveda the verb has forms of the singular active and singular and plural middle with the same ablaut grade) goes back to PIE *\*keHs-*, and thus the suspicion of the presence of a lengthened grade in its singular is merely hypothetical (for more, as well as for the Avestan material, see the second part).

From what has been argued so far, it follows that the ablaut of active athematic forms attested in the Rigveda does not allow the reconstruction of a type of active ablaut of the “proterodynamic” paradigm, as proposed by Narten. The middle forms of the verbs under investigation have the full grade of the root, but, as remarked above, they are not connected with an active from the same root (see further below on *śās*).

**3.** The analysis of the verb forms and the ablaut of the attestations examined by Narten has shown that they do not display the type of active-middle paradigm which she proposes.

However, although not belonging to the morphological type with certain features of the active/middle paradigm, as postulated by her, they are a linguistic fact of the Rigveda.

<sup>12</sup> On Avestan *tašt*, which Narten uses to support her interpretation of the lengthened grade in the singular in Sanskrit (*tāṣṭi*, in the Brahmana’s), see the second part of this investigation.

<sup>13</sup> “T” symbolizes a stop.

### *Athematic root presents*

It follows that the data analyzed by Narten falls into several independent subgroups, which need an explanation and an analysis, just like their elements have traits which do not fit the norms of forming an athematic present in the Indo-European languages.

Below the following questions will be discussed:<sup>14</sup>

1) Establishing the possibility that finite active athematic forms of the indicative/injunctive of *takṣ*, *dāś*, *stu* belong to the “proterodynamic” active as relic forms of an original athematic formation.

2) Establishing the possibility of the rise of an original athematic present of the root *śās*.

3) If it becomes clear that it is impossible to treat athematic forms of these roots as relics of a special morphological type: investigating the genesis of the phonomorphological features of the finite present athematic forms of the roots adduced above.

We will depart from the view that an adequate analysis of the morphological features of any element must be based on the reconstruction of the origin of the paradigm to which the given elements belong. In its turn this implies the investigation of a number of pieces from the derivational field of the corresponding root.

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## II

1. a) The root *takṣ* (avest. *taš*, PIE *\*tekp-*, Pokorny 1959: 1053-1059, cf. Ivanov 1981: 13; PIE *\*teks-*. On the fate of this root in Indo-Iranian see Mayrhofer 1964) is attested in athematic and thematic forms in the Rigveda. Athematic forms, which are traditionally regarded as presents, are in the majority: they include augmented forms of the active 1pl. *ataṣṣma* VIII(1), 2pl. *ataṣṣta* III(1), IV(1), I(1); the participle fem. *tákṣati-* I(1), the imperative *tādhi* X(1). The only athematic form with a primary ending – 3pl. *takṣati* – is attested in the first maṇḍala. It is the only one which unambiguously can be classified as an athematic present form: the other finite athematic forms of the indicative only have secondary endings and can belong either to an athematic present, or to an athematic aorist. The appurtenance to the aorist is also not excluded for the imperative and the participle.

Induced by the presence of *tákṣati* with a primary ending, Narten thinks that all the athematic forms adduced above belong to the present system (Narten 1964: 126, cf. 1968: 13-14). But *tákṣati*, which is a hapax legomenon in the late first maṇḍala, is not indicative enough for the linguistic analysis. Thus, in their judgment of the athematic forms of *takṣ* in the Rigveda scholars are faced with the following choice:

a) to regard the athematic forms with a secondary ending as imperfects to the present *tákṣati*, which in that case must be an absolutely regular present form which happened to be established late;

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<sup>14</sup> In this paper the problem of the media tantum with full grade will not be broached, as its solution requires a specific research method. It appears that postulating original oxytone and barytone stems which then gave middles with a zero grade and a full grade (Watkins 1969: 103, 114) would be too easy a way to solve the question, cf. Lindeman 1972.

- b) or to regard the athematic forms with a secondary ending as aorists, and *tákṣati* as a sporadic athematic present form which was derived from the aorist stem,<sup>15</sup> and is thus irrelevant to the whole reconstruction in view of its origin.

2) It appears that, in order to determine the status of the athematic forms of *takṣ*, we must first choose the thematic forms of this root.

It was Louis Renou who proposed a single origin for the thematic indicative and the short-vowel subjunctive (Renou 1932, cf. Renou 1966: 3).<sup>16</sup> In accordance with this hypothesis, both these formations belong to the so-called eventualis – a thematic category with an undissectable poly-indicative, [275] poly-modal meaning (Renou 1932: 5, 15). The eventual developed differently depending on whether the given verb preserved forms of the athematic present or of the aorist. If such forms existed, then the subjunctive prevailed, the meaning of which was supported by that of the indicative; if the thematic form remained isolated and independent, then the indicative prevailed (Renou 28-29). Based on these premises, we assume:

If athematic root forms of *takṣ* are original athematic formations of the indicative of the given root, then the existence of suffixless thematic forms of the same root is possible in the following cases:

- a) either the thematic forms are subjunctives;
- b) or the thematic forms are the product of thematization of athematic forms.

The interpretation of the thematic forms of *takṣ* as subjunctives is prohibited (aside from the indicative meaning in most of the cases) by the presence of augmented forms (*atakṣam* and others, see table I).<sup>17</sup>

To check the possibility of thematization we will turn to the evidence of cognate languages, first of all Avestan.

Like the Rigveda, the Avesta has athematic and thematic forms of PIE *\*tekḥp-*. To the athematic forms belong the injunctive *tāšt* (OAv.) and the present *tāšti* (YAv.).

The form *tāšt* is variously interpreted. Narten and Insler assume that it belongs to the athematic present of the proterodynamic type, of which it is supposed to show the length of the root morpheme (Narten 1964: 126, 1968: 14; Insler 1972: 66). Bartholomae counts *tāšt* as an athematic aorist, where the length is unexplained (Bartholomae 1883: 147-149), Reichelt (1909: 121) and Cowgill (1968: 266) regard it as a sigmatic aorist, where the length would be regular.

The injunctives *tašō*, *tāšat*, *tašat* are ascribed to the thematic formations with secondary endings. Are they the product of thematization of *tāšt*? Clearly, the short

<sup>15</sup> See on these forms Renou 1932: 9, fn. 1; cf. the opinion of Elizarenkova on the possibility of using aorist stems with primary endings (Elizarenkova 1960: 32-33, 1982: 324).

<sup>16</sup> Similar positions were adopted by Watkins 1969: 64, 65, 104, Meid 1979: 171-173, Kuryłowicz 1956: 28, 1977: 94, and others. Compare the remark by Cowgill, who points to the absence in Hittite of the subjunctive while at the same time a suffixless thematic present belonging to the *mi*-conjugation is also absent from that language (Cowgill 1979: 33, fn. 21). Vekerdi's use of Renou's hypothesis in his analysis of polymorphous present stems in the Rigveda (Vekerdi 1961: 255, 262-263, 265 and further) also deserves attention. The critical remarks by Tedesco (1944: 215, fn. 1) in connection with Renou's hypothesis, and the analysis of Skt. *gāmati* by Hoffmann (1955: 89-92, compare the analysis of these forms by Renou 1932: 19-20) deserve a special investigation. Compare also Narten 1968a: 125-127.

<sup>17</sup> The classification of *tákṣāma* in V.73.10 causes difficulties: this form allows for an analysis as an injunctive or as a subjunctive (Hoffmann 1967: 254).



### *Athematic root presents*

vowel in *tašō*, *tašat* means that they cannot be thematizations of long-vowel *tāšt*. It must be noted that the corresponding Vedic formations (*takṣat* etc.) also do not have a long root morpheme.

A number of Avestan facts show that among the forms of *taš* analogical spread of length took place: the Gathic participle *tašta-* (= Ved. *taṣṭá-*) with the normal ablaut of this participle (a full vowel, [276] restored in the zero position in roots of the structure TET(T)-) was replaced in YAv. by *tāšta-* under the influence of YAv. *tāšti* (Watkins 1969: 27).<sup>18</sup>

In this way, the thematic forms of *taš* with short vocalism can be explained as older than the forms with a long vowel, which arose secondarily. It follows that *tāšt* cannot be regarded as the basic form for the Iranian thematic formations of *taš-*. This shows that at least in the Avesta there were thematic formations from PIE *\*teḱb-* which were independent of the athematic ones.

The independence of the origin of the thematic formations from *\*teḱb-* means that athematic root formations were absent until the thematic ones arose – otherwise, the thematic forms would have developed in the direction of the subjunctive.

It appears that a similar interpretation can be applied to the data from the Rigveda; if, as Narten claims, the Rigveda had a present with proterodynamic ablaut, from which thematic forms were derived, then the length of this present would, in the case of its thematization, be reflected in the resulting thematic forms.

In this way, the athematic finite formations from *takṣ* in the Rigveda can be regarded as sporadic formae athematicae, which arose after the appearance of thematic forms of the same root and on the basis of them.

3) Narten (1964: 124) notes that the RV prefers thematic forms of *takṣ* with secondary endings. After a detailed formal and functional analysis of these formations she comes to the conclusion that thematic forms with secondary endings of *takṣ* represent forms of the thematic aorist (1964: 124, 126). She regards the only form with a primary ending – *tákṣatha* IV(1), X(1) – as the formal replacement of the injunctive in order to avoid its merger with the imperative. In this explanation she follows Hoffmann (cf. his later monograph on the injunctive, Hoffmann 1967: 167). Yet it is important to note that Hoffmann himself, in agreement with the evaluation of the thematic formations of *takṣ* as aorists and the interpretation of *takṣatha* by Narten, did not exclude the possibility of a different interpretation: comparing *tákṣatha* with *kṛtha* he deemed it possible that in these forms, the primary ending went together with the aorist stem (Hoffmann 1967: 167, fn. 117; cf. fn. 14 of the present study).

We share Narten's opinion with regard to the aoristic character of the thematic forms of *takṣ* with secondary endings. A similar interpretation [277] of the thematic forms can be applied to the data of Avestan: the forms *tašō*, *tāšat* can be viewed as belonging to the thematic aorist (Narten 1968: 14, fn. 36, where *tašat* is put on a par with *á-takṣat* in the Rigveda).

Following Hoffmann we regard the form *takṣatha* as belonging to the group of sporadic present forms derived from aorist stems.

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<sup>18</sup> Narten acknowledges that among the derivatives of *taš* in Avesta analogical spread of length took place (Narten 1964: 126, fn. 339). But she explains the length in *tāšat* Yt. 5.120 from influence of the athematic 1sg. *\*tāšam* (Narten 1968: 14, fn. 35).

4) What, then, are athematic forms of *\*tekḥp-*?

a) First of all let us pay attention to the parallism in the development of not only the thematic but also the athematic forms of this root in the RV and the Avesta: athematic forms with a secondary ending belong to the older layers of the language: in the Avesta these are GAv. *tāšt* (the present *tāšti* is a YAv. form), in the RV this is *ataṣṭa* (in the 3<sup>rd</sup> and 4<sup>th</sup> maṇḍala; *ataṣma* in later parts), while the present *tákṣati* is a hapax legomenon in the late first maṇḍala. It appears that these facts are not coincidental: just like thematic forms with secondary endings in both languages are aorists from which incidental present forms could be derived, in the same way athematic forms with secondary endings, which chronologically precede forms with primary endings, have an aoristic character. In the RV these forms undoubtedly represent forms of the athematic aorist, in the Avesta the identity of the form *tāšt* is unclear. Thus, both in the thematic and in the athematic forms the direction of development was the same – from forms with a secondary ending to forms with a primary one.

b) But if the single athematic form with primary endings arose as a sporadic present form on the basis of an aorist, this means that for the given root the problem of a “proterodynamic” present with its special kind of ablaut disappears: the newly made form retains the ablaut of its derivational base. The ablaut of the latter form is also not original, since the athematic forms arose on the basis of thematic formations.

The form *tāṣṭi*, first attested in the language of the Brahmanas, was supported in its rise by the plural form *tákṣati* with a primary ending. Also not excluded is its rise under the influence of the athematic imperative *tādhi*.<sup>19</sup> In this case the interpretation of Pisani, dismissed by Narten (1964: 126), would be fully acceptable, viz. that the length of *tāṣṭi* was due to the influence of this imperative. The long vowel in the imperative itself is the result of compensatory lengthening (Renou 1952: 53; Narten 1968: 14, fn. 34; Insler 1972: 55; Burrow 1976: 91).

Let us summarize what we have argued above:

a) The development of the verb forms of the present-aorist system of *\*tekḥp-* in the Indo-Iranian languages started with the forms of the thematic eventual. [278] The predominant use in these forms of secondary endings led to their reinterpretation as thematic aorist forms.<sup>20</sup>

The origin from the eventual is also testified to by a number of uses of *takṣat* in the meaning of the subjunctive (Insler 1972: 63 fn. 12; subjunctive I.121.3; VII.64.4): “a large part of the verbs adduced here (that is, as thematic aorist – G.A.) is represented by individual augmentless forms, part of them having a modal meaning”. See *ibidem*, page 93.

b) Athematic forms of *takṣ* with secondary endings are aorist forms in the Rigveda. Gav. *tāšt* rather belongs to the sigmatic aorist, which once more confirms that the athematic forms of *takṣ* in the RV are novel formations of Vedic Sanskrit. Typically, after the RV the language does not create new plural forms of *takṣ* (Insler 1972: 60). It must also be observed that in the Indo-European languages that have reflexes of the root *\*tekḥp-*,

<sup>19</sup> On the role of the imperative in the formation of presents, see Tedesco 1968, 9.

<sup>20</sup> A similar path of development was described by Renou for *asanat*, *ásvaran* (Renou 1932: 24; there also about *átakṣat* and its aoristic meaning).

the verb formations are thematic even in those languages which retain athematic relic forms (cf. Vekardi 1961: 284).

c) The form *tákṣati* has come out of an athematic aorist form (just like the form *tákṣatha* has come from a thematic one). Accordingly, it cannot be used as evidence for the existence of a “proterodynamic” present from the root *takṣ* in the Rigveda. The YAv. form *tāṣti* may have been extended (in agreement with the tendency to spread length in the derivatives of this root in Avestan) on the model of the form *tāṣt*, whatever the origin of the latter one.<sup>21</sup>

2. As Narten herself notes, the only finite indicative form of *dāś* – 3sg. *dāṣti* – is found in the late first maṇḍala of the RV (I.127.4), while in the Avesta finite indicative forms are absent. These facts force us to doubt the originality of the form *dāṣti*. Nonetheless Narten thinks it is possible to postulate the existence in the Indo-Iranian languages of a “proterodynamic” present of *dāś*, based on the presence of the active participle *dāśat*- VII 14.3, VII 17.7 (Narten 1968: 14, fn. 33).

Let us dissect the formations of the root present of *dāś* in the Rigveda.

1) Beside the objection, already expressed above, regarding the preponderance of non-finite verb forms for the explanation of the peculiarity of the finite paradigm, the morphological structure of *dāśat*- speaks against the rules proposed by Narten for the formation of active participles of the “proterodynamic” [279] presents: according to her theory (Narten 1968: 13), the active participles of these verbs have a stressed full grade of the root and a zero grade suffix. Inasmuch as Skt. *dāś* represents the lengthened grade of PIE *\*dek-* (a root of the structure TET-), the active participle, if formed according to the models of the “proterodynamic” present, should have a full grade, not a lengthened grade. Analogical influence from the form *dāṣti* is excluded in view of its late appearance. Ergo the participle *dāśat*- cannot be used to support the presence of a “proterodynamic” present of *dāś*.

2) For the next clue to the existence of a proterodynamic present of *dāś* Narten looks beyond the Indo-Iranian languages, viz. in Homeric Greek. The forms *dékhatai* and *dégmenos*, which she regards as belonging to a present (3pl. and participle), are treated as present middle formations with a full grade of the root, thus forming the middle part of the “proterodynamic” present paradigm – next to *dāṣti* which represents its active paradigm (that is *\*dék̑ti* act.sg. – *\*dék̑ntoi* active plural, Narten 1968: 15, fn. 43).

This analysis is supported by Tichy, who analyzes the thematic present Ion. *déketai* (Att. *dékhetai*) as an original subjunctive of the athematic present *\*dégmai* (Tichy 1976: 79). According to her interpretation, this athematic present was retained in the relic forms *dégmenos*, *dékhatai* and others (o.c. 80-82), but was reinterpreted in Greek (apart from *dékhatai*) as an aorist (o.c. 82).

The problem of the athematic root formations from *\*dek-* has repeatedly attracted the attention of scholars (cf. Debrunner 1956: 77-81, and the references in Tichy’s paper).

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<sup>21</sup> The opinion of Reichelt is interesting in this respect. As noted above, he interprets *tāṣt* as a form of the sigmatic aorist (Reichelt 1909: 121). He includes the form *tāṣti* in the class of present stems in *-s-* with lengthened grade (*\*tēxb-s-*) (o.c. 106-107), stressing that, as regards their origin, the sigmatic aorists were isolated early on from the presents in *-s-* (o.c. 121).

It goes beyond the scope of the present paper to establish the status and the formational stages of the verbal paradigm of \**dek-* in Ancient Greek. We will restrict ourselves to the following remarks:

a) As Debrunner wrote (o.c. 77), the root *dek-* (*dekh-*) had a perfective meaning and could, therefore, not form a present stem (in the sense of an athematic root present).

b) No single interpretation of the existence of a middle with a full grade from roots of the structure TET can shed light on the formational characteristics of the root morpheme. As noted above, in the zero grade of such roots the full grade ablaut was introduced. Thus we cannot prove whether the original form had from the start the morpheme \**dek-*, which would characterize it as belonging to a special type of paradigm, or whether it received the full grade due to the impossibility of a form \**dk* plus a consonant (in the latter case, this would apply to the usual middle with original zero grade, which was replaced for phonetic reasons).

c) Thus, for Ancient Greek the problem remains of the mutual relationship of athematic and thematic middle forms from the root [280] \**dek-*. The ambiguity of the zero grade form of roots of the structure TET robs the Greek athematic middle forms of any probative strength with regard to the ablaut character of the alleged “proterodynamic” present.<sup>22</sup>

3) Other proof of the absence of an original athematic present of the “proterodynamic” type of *dās* is furnished by the analysis of thematic verb forms of this root. As with the analysis of the formations of *takṣ*, it is assumed that, if a root athematic present presents the original formation of a given root, then the existence of thematic forms parallel to the athematic ones from the same root is possible in the following cases:

a) the thematic forms are the subjunctive;

b) or the thematic forms are the product of thematization of athematic forms.

Ad a: The thematic forms of *dās* are treated variously. Narten (1968: 14, fn. 33) regards them as a thematic present, without analyzing their origin and their relationship with the athematic present; Fossman (1978: 14) regards them as thematizations of an original athematic present of *dās* (“... Erweiterung *dās-a-*...”), Renou (1932: 12 fn. 1) writes about *dāsat* as about a subjunctive, but does not mention *dāsāt*.

Now then, are forms like *dāsat(i)* etc. subjunctives? Narten does not discuss explicitly the problem of the ablaut of modal forms of the “proterodynamic” present which she postulates.<sup>23</sup> But her remarks (Narten 1968: 14, 16 (fn. 45), 17) allow the conclusion that

<sup>22</sup> It must also be observed that the formation of the middle paradigm falls in the period of the general Indo-European community (Kuryłowicz 1968-9: 7 “...les formes du mediopassif ... ne datent que de l’époque dialectale”) and hence the middle forms of one language can hardly shed light on the features of the active paradigm of the same root in a different language.

<sup>23</sup> The subjunctive in this morphological type is discussed by Tichy (1976), whose point of view will be adduced below, and Klingenschmitt (1978: 8, fn. 17). The latter argues that the modal forms of the “proterodynamic” present deviate from the formational norm of such forms of the hysterodynamic present, in particular, the subjunctive in this type has the weak stem (“der schwache Stamm”). It must be noted that this “weak stem” has the full grade (*stava-*, *takṣa-*) and is contrasted by Klingenschmitt with the lengthened grade of the indicative (*staut*, *tāṣṭi*). Insler (1972: 57) thinks that the subjunctive is formed in the same way both in the “proterodynamic” and in the usual athematic type, viz. with a full grade. He regards the form *dāsat* as a subjunctive in RV IV 2.9, VII 100.1 and so on (Insler 1972: 63, fn. 13) but in this respect we must keep in mind that he interprets the root *dās* as having on the descriptive level a full grade, not a lengthened grade (o.c. 55: “Of these roots, *dās* and *śās* built the descriptively full-grade, root accented

in the “proterodynamic” present the optative and the imperative must have the full grade (cf. Insler 1972: 55) and that, for instance, the optative *stuvītá*, *stuvīmahi* introduced the zero grade instead of the original full grade (cf. Hoffmann 1968 on the full grade of a number of root aorist forms).

[281] Matters are not so easy with the subjunctive: in the system of the mobile athematic present and aorist, the Indo-European short-vowel subjunctive has the full grade of the root (Renou 1932: 13-14). Besides, the subjunctive was originally formed immediately from the root (Kuryłowicz 1977: 94), and this formational procedure is preserved by a number of forms in the Rigveda (Renou 1932: 5; cf. Elizarenkova 1960: 133, fn. 12). From this point of view the subjunctive *stavat* of the alleged “proterodynamic” present of *stu* corresponds with the formational norms of this category in the usual athematic present. Narten accepts its age (1968: 17, fn. 55: “... der alte kurzvokalische Konjunktiv *stavat* etc., erhalten ist...”) and therefore she displays a well-known inconsistency: if the modal forms of the “proterodynamic” present must be formed with the full grade of the root in such cases where in the usual athematic present the zero grade appears, i.e. showing a shift in the ablaut, then why must the subjunctive be excluded: for according to the logic of the formation of the paradigm, the forms of the “proterodynamic” present should have the lengthened grade of the root there where in the usual athematic present we find the full grade.

Tichy accepts Narten’s theory on the “proterodynamic” present, but she nonetheless explicitly acknowledges that the Indo-European “proterodynamic” (she uses the term “acrodynamic”) subjunctive probably had the simple full grade of the root (Tichy 1976: 79 and fn. 20). But this does not bring her from regarding *dāśat(i)* as a subjunctive, which then in a number of contexts was reinterpreted as an indicative (p. 78).

Thus, Narten’s theory does not provide an answer to the question of what the ablaut grade of the “proterodynamic” subjunctive should be. Those forms which by a number of researchers are regarded as subjunctives (see fn. 22 of this paper) have either a full grade (*takṣat*) or a lengthened grade (*dāśat*) in the absence of an unambiguous answer to the question, which ablaut grade is to be expected in this morphological type. If we accept that the “proterodynamic” subjunctive had the full grade, then *dāśat(i)* etc. are not subjunctives. If we assume that *dāśat(i)* is a subjunctive, derived immediately from the present stem rather than from the root, then this interpretation is impeded by the following considerations:

α) the late and singular character of the fixation of the athematic indicative *dāṣṭi*, while at the same time the thematic forms *dāśat(i)* etc. are widely and evenly represented in the early parts of the Rigveda.

β) The existence of the imperfect *ádāśat*, *ádāśan* (see table 1) and its own modal forms (Vekkerdi 1961: 262), that is, of a longvocalic thematic subjunctive *dāśāt* and a thematic optative *dāśema* (although the thematic optative can be built immediately from the root, see Hoffmann 1955: 91).

All these facts together with the predominant indicational meaning of the thematic forms (see below) allow us not to regard the forms *dāśat(i)* etc. as subjunctives.

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forms *dāṣṭi*, part. *dāśat*...”). This interpretation contradicts the root structure (\**dek-*), and in this way the question as to the ablaut of the subjunctive of *dāś* remains unsolved.

Ad b: The explanation of *dāśat(i)* etc. as the product of thematization (which would explain its ablaut and the existence of augmented and non-indicative forms) is in conflict with the following features of athematic present root forms from *dāś*:

α) As already mentioned above, the late and sporadic character of the fixation of the finite form of the athematic indicative. The fixation of *dāṣṭi* precisely in the first maṇḍala of the Rigveda contradicts the explanation of *dāṣṭi* as the remnant of an archaic formation: as Vekerdi wrote (Vekerdi 1961, cf. Renou 1952: 395), the first [283] and tenth maṇḍalas of the Rigveda are characterized by “the tendency to build artificial archaisms and in the process they sometimes produce forms which never existed in previous stages of the language”;

*Athematic root presents*

II-VII			VIII-IX			I, X		
Active			Active		Middle	Active		Middle
	finite	non-finite, non-indic.	finite	non-finite, non-indic.	finite	finite	non-finite, non-indic.	finite
athem.	<i>ataṣṭa</i> III(1), IV(1)	-	<i>ataṣṭa</i> VIII(1)	-	-	<i>tákṣati</i> I(1) [ <i>ataṣṭa</i> I(1)]	<i>tákṣatī</i> I(1) <i>tādhi</i> X(1)	-
them.	<i>tákṣatha</i> IV(1) <i>takṣam</i> VI(1) <i>tákṣat</i> VI(1), VII(1) <i>tákṣāma</i> V(1) <i>tákṣan</i> V(1) <i>átakṣam</i> V(2) <i>átakṣata</i> III(1) <i>átakṣan</i> II(1), VII(1)	<i>takṣatam</i> VII(1) <i>takṣata</i> III(2), IV(3) <i>takṣantu</i> IV(1)	[ <i>tákṣat</i> IX(1)]	-	-	[ <i>tákṣatha</i> X(1)] [ <i>takṣat</i> I(5), X(1)] <i>ataṣṭam</i> I(1) <i>átakṣāma</i> X(1) [ <i>átakṣata</i> I(3)] [ <i>takṣan</i> I(2)] [ <i>átakṣan</i> X(1)] <i>ataṣṭat</i> I(1), X(1)	[ <i>takṣata</i> I(2), X(1)]	-
athem.	-	<i>dāśat-</i> VII(2)	-	-	-	<i>dāṣṭi</i>	-	-
them.	<i>dāśati</i> VI(2), VII(1) <i>dāśat</i> II(1), IV(1), VI(1), VII(1) <i>ádāśat</i> IV(1) <i>ádāśan</i> VII(1)	<i>dāśat-</i> II(1) <i>dāśema</i> IV(2), V(1), VI(1), VII(4)	<i>dāśasi</i> VIII(1) [ <i>dāśati</i> VIII(1)] [ <i>dāśat</i> VIII(2)]	[ <i>dāśema</i> VIII(1)]	-	[ <i>dāśati</i> I(2)] [ <i>dāśat</i> I(2), X(5)]	[ <i>dāśāt</i> I(3)] [ <i>dāśema</i> I(1)]	-
athem.	-	<i>śādhi</i> II(1) <i>śāsat-</i> III(1)	-	[ <i>śāsat-</i> VIII(1)]	<i>śāsate</i> IX(1) <i>ásāsata</i> IX(1)	<i>śāssi</i> I(1) <i>ásāsam</i> X(1)	<i>śāstāna</i> X(1) [ <i>śāsāt-</i> I(5)]	<i>śāste</i> I(2) <i>śāmahe</i> I(1) [ <i>śāsate</i> I(1)]
them.	<i>śiṣat</i> IV(1) <i>śāṣati</i> VI(2)	-	-	-	<i>śiṣamahi</i> VIII(1)	<i>śāśas</i> I(1) <i>śāśan</i> X(1)	<i>śiṣánt-</i> X(1)	-

Table 1: athematic and thematic forms of the present-aorist system of *takṣ*, *dāś* and *śās* according to their distribution across the maṇḍalas of the Rigveda\*

\* The indicative and injunctive are subsumed under one heading. Under ‘non-finite, non-indicative’, forms belonging to the participles, optative, imperative are separated from one another by a dotted line [here replaced by an unbroken line - MdV]. Thematic forms, which in a number of contexts have a modal meaning and which a number of scholars interpret as short-vowel subjunctives, are placed in the row of thematic forms. If forms which occur in the second to seventh maṇḍalas are also found in the remaining parts of the Rigveda, they are given in the corresponding columns between square brackets. In the same way forms are cited which first appear in the eighth to ninth maṇḍalas, if they occur in the first and tenth maṇḍalas.

β) The presence of the athematic participle *dāśat-*, the ablaut of which does not correspond with the rules claimed by Narten for the formation of the participles of the “proterodynamic” present.

These features of the athematic present root formations from *dāś* leave no basis for regarding the thematic root formations as the product of the thematization of athematic ones.

c) The existence in a number of usages of *dāśat(i)* of modal meanings (cf. Tichy 1976: 78; Insler 1972: 63, fn. 13) and its complete independence of the athematic indicative invite us to see in the thematic suffixless present forms from *dāś-* the category of the old eventual (more on this below). The predominant use of thematic forms with indicatival [284] meaning<sup>24</sup> strengthens our suspicion on the late and artificial character of the form *dāṣṭi*. It must be emphasized in particular that these forms do not provide a basis to assume the existence of other finite forms of the athematic indicative, which by pure chance would not have found their way into the Rigveda: the fact that *dāśat(i)* etc. did not develop into the subjunctive shows that until the appearance and development of thematic forms, athematic forms of the root indicative of *dāś* were absent in the language.

4) The long vowel in the derivatives of *dāś* requires an explanation. Narten (1968: 15, fn. 43) reckons that in the Indo-Iranian derivatives of *dāś* lies the basis of the active singular of the “proterodynamic” present *\*dēk-ti*, which was generalized to the status of an independent verbal root.<sup>25</sup> It seems that such a conclusion is based on a *circulus vitiosus*: *dāṣṭi*, attested in the late parts of the Rigveda, whose age and appurtenance to a special morphological type needs justification – and, as we have tried to show, it cannot be justified – is adduced to explain the lengthened grade in the Indo-Iranian languages. The absence of an original athematic present of *dāś* is also supported by the Avestan material: as noted above, finite verb forms of *dāś* are not attested, but the facts of the Rigveda do not allow to suppose that this is a coincidence. The ablaut of the participle *dāšta-* (according to the rules this should have the full grade, cf. *taṣṭá-*) shows, in the absence of finite forms which could show their influence, that in the Ir. languages we are dealing with original length in this root.<sup>26</sup>

A short summary of what has been argued above:

<sup>24</sup> Vekerdi, who views the imperfect and longvocalic subjunctive as support for the indicatival character of *dāśat(i)* etc., nonetheless emphasizes that the subjunctive *dāśāt* is used mainly in the first maṇḍala, when the original modal meaning of the eventualis was not present anymore (Vekerdi 1961: 262-263, fn. 24). To this one may object that *dāśāt* already appears in the second maṇḍala, and the imperfect forms *ádāśat* and *ádāśan* in the fourth and seventh, respectively. This shows that *dāśat(i)* etc. were understood on the whole as thematic presents.

<sup>25</sup> Compare the opinion of Kuiper (1937: 114) on Greek *deikanóōnto*: he assumes that the Greek form can go back directly to the athematic present *\*dēk-mi* (: Ved. *dāṣṭi*).

<sup>26</sup> Cvetko (1978: 83) adopts Narten’s theory and thinks that *dāṣṭi* probably belongs to the “proterodynamic” present. Nonetheless, she argues that in the derivatives of *dāś* in Sanskrit, just as in Hom. *dēknúmenos*, there is no question of a generalized present stem, but of a root with long vocalism which acquired independent status (“... eine verselbständigte Wurzel mit Langvokalismus”). As regards the Greek forms of this type, however, compare the view of Beekes (1969: 114), who thinks that “in Greek there is nothing which points to a root form *dēk-*”. It is interesting to note that not all Skt. derivatives of *\*dēk* have a lengthened grade: the full grade is represented in the noun *\*daśas* = *decus*, reflected in the verb *daśasyati* (Hamp 1971: 23, cf. the data in the dictionary by Pokorny 1959: 189-190). On the meaning and the stem forms of PIE *\*dēk* see Benveniste 1955: 186-187, Redard 1954).



### *Athematic root presents*

a) The development of suffixless present formations of *dās* began with the forms of the thematic eventualis.

b) The only finite form of the athematic present has a late and artificial character. The athematic participle *dāsat-* has come from the root [285] in the lengthened grade; its ablaut does not correspond to the ablaut of the morphological type proposed by Narten.

c) The lengthened grade of the derivatives investigated in Sanskrit and Avestan goes back to a petrified lengthened grade of the PIE root *\*dek-*. The facts of Indo-Iranian and Greek do not allow the hypothesis that this ablaut owes its rise to the generalization of the vocalism of the singular of the “proterodynamic” present.

All of this strengthens our claim that from the root *\*dek* in Indo-Iranian and Ancient Greek did not form a “proterodynamic” present.

3. Analyzing the ablaut of the athematic present forms of *sās/siṣ* (Av. *sāh/siš*, PIE *\*kās-/\*kās-*, Pokorny 1959: 533), and noting the unique formation of the present stem in the singular, plural and middle, Narten assumed that in the singular a long vowel was present in a hidden way (*śāsti* < *\*kéās-ti*) while the plural *śāsati* (ŚB) had the corresponding full grade (*\*kéās-nti*). The zero grade *siṣ* regularly appears in the thematic aorist *śiṣat* etc. (Narten 1968: 14-15). This merely hypothetical interpretation allowed her to regard the athematic present of *sās* as belonging to the “proterodynamic” type.

1) The ablaut of the athematic present of *sās* has repeatedly been the object of investigation.<sup>27</sup> Thus, Renou wrote about the vocalism of *sās* as preserving the *full* (our emphasis – G.A.) grade ablaut in the whole paradigm; in the imperative *sādhi* we may be dealing with the generalization of this full grade (Renou 1952: 258). In a later article (Renou 1964: 167), he remarked that between *sās* and *siṣ* there holds no “normal morphological situation of alternating inflexion”. Kuryłowicz, refuting the possibility of a secondary spread of the full grade (Kuryłowicz 1968: 433) put forward his explanation, the core of which lies in the existence of two kinds of zero grade formations to *sās* (namely: *sās* before endings starting in a consonant,<sup>28</sup> *siṣ* before endings starting in a vowel, which was preserved in the thematic aorist) and in the spread of the preconsonantal stem form *sās* to the present stem before the vowel of the ending (o.c. 434). Insler counted *sās* among the presents with original absence of ablaut and immobile accent on the root (Insler 1975, 1, fn. 1; cf. already Insler 1972: 56-57). [I assume that *k rasprostranenie* is a double typo for *i rasprostraninii* - MdV]

[286] It must be emphasized that a) all viewpoints discussed hitherto on the athematic root present of *sās* departed from the implicitly acknowledged original character of this present (an exception being the conception of Burrow, see fn. 26 above); b) all scholars (except Narten) have assumed that the forms of the athematic present of *sās* contain the full grade in the active singular, not the lengthened grade.

<sup>27</sup> We leave out the analysis of Burrow, who bases himself on his concept of shwa, see Burrow 1949 (50) (page 40 on *sās*), 1979 (p. 74-79 on *sās* and Av. *sāh*). We will only note that his conclusion that originally roots with an extension (*śā-s*) did not belong to the root class, which explains “the deviation in accent and ablaut” (Burrow 1976: 299), deserves attention. On the root *śā* without enlargement see Burrow 1979: 75-76, Mayrhofer 1956-80 III: 331.

<sup>28</sup> Yet the ancient Indian grammarians (see in Whitney 1969: 241, Zaliznjak 1975: 73) prescribed exactly the opposite stem forms: *siṣ* before a consonant, *sās* before a vowel. Zaliznjak notes that “to this rule correspond *śiṣyāt* (starting in the Upaniṣads) and *sāsati*, but it is contradicted by 2pl. *sāstana* in the Rigveda.”

Since the only basis for treating the athematic forms of *śās* as belonging to the “proterodynamic” type in Narten’s analysis is formed by the hypothetical lengthened grade of the active singular, we will try to get to the analysis of the athematic formations of *śās* from a different position, namely, by looking at the formational features of the paradigms of the thematic and athematic root formations of *śās*. As shown by table 1, finite forms of the root athematic active present of *śās* appear in the first and tenth maṇḍalas, the middle in the ninth. Can these forms be argued to belong to the paradigm of the “proterodynamic” present?

2) As with the analysis of the athematic forms of *takṣ*, let us start with reviewing the thematic formations.

From the thematic forms adduced in table 1 it is clear that there were two types of them with *śās*: the thematic aorist with the zero grade of the root *śiṣat*, *śiṣāmahi*, aor. ptc. *śiṣánt-*, and the forms with the full grade *śāsati*, *śāsan*, *śāsas*.

A comparison with the Avestan material shows that:

- a) thematic forms with a full grade are absent in Avestan;
- b) thematic formations with the zero grade are represented by the GAv. imperative *sīšā* and the GAv. optative *sīšōit*.<sup>29</sup> Based on the absence of thematic forms with a full grade vowel in Avestan and on the remark by Kuryłowicz, that PIE \*-ə- (> Indo-Iranian *i*) was phonetically obligatory in an open syllable and was thence carried over into closed ones (Kuryłowicz 1968: 437), we think that among the thematic derivatives of *śās/sāh* in Indo-Iranian, those forms with a zero grade were primary, and were ascribed to the thematic aorist.

Elizarenkova (1960: 141-142) held the view that the thematic aorist could arise in two ways: either originating from the thematic injunctive (the eventualis, see above), or arising by way of thematization of the athematic aorist. The absence of any traces of the athematic aorist of *śās* leaves for the thematization only the first way. This is also in agreement with the modal meaning which is preserved in the form *śiṣāmahi* (Elizarenkova 1960: 92).<sup>30</sup>

[287] How then did the athematic forms of *śās* arise? The late attestation of the finite forms does not exclude that the appearance of the athematic forms happened under the influence of those athematic formations which had a number of traits in their root structure in common with *śās*. Such forms could be athematic presents of the root structure TĀ, which did not have ablaut alternations (but did have a mobile accent, Insler 1975: 1; cf. 1972: 56).

It would be logical to assume that the development of the athematic present of *śās* started especially in those forms which are represented in the oldest maṇḍalas of the Rgveda, and in particular with the imperative and the participle, followed by the completion of the paradigm with the finite forms of the indicative, see also fn. 32.

The evidence of the Avesta does not contradict this proposal: the Gathas contain the imperative *sāstū* and the optative *sāhīṭ*, *saxīiāt*<sup>31</sup> against the only finite indicative form *sāstī*. In other words, for the athematic root present of *śās/sāh* in Indo-Iranian we may

<sup>29</sup> On the length of the *-ī-* see Insler 1971: 573 (“...orthographically”... Cf. Reichelt 1909: 32; Bartholomae 1961: 1575, fn. 1).

<sup>30</sup> Hoffmann thinks that this form is one of a few which can plausibly be regarded as injunctives (Hoffmann 1967: 254, cf. 255). Compare Tedesco 1944: 213, fn. 5.

<sup>31</sup> *Saxīiāt* (Yasna 44.1, 9) < \**sāhyāt*, see Insler 1972: 62, fn. 4.

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assume an origin in the non-finite and non-indicative forms, to which finite indicative forms were then added.<sup>32</sup>

Let us summarize our analysis of the present-aorist root formations of *\*kās-/\*kās-*.

1) The development of root forms of the present-aorist system of *śās* started with the thematic aorist which goes back to the thematic eventualis. The existence in the Gathas of thematic forms of *sāh* with only modal meaning (imperative and optative) allows to draw a similar conclusion for Iranian only in the form of an hypothesis.

2) The athematic present of *śās* was not an original formation of [288] this root in the Rigveda. The development of an athematic present of *śās* began with the non-finite and non-indicative forms, which probably arose under the influence of analogical forms from roots of the structure TĀ. In this case there is no basis to assume that in the active singular there was a lengthened grade vowel (the long vowel is the result of the root structure, which contained a laryngeal, see below). No finite forms of the athematic indicative/injunctive are attested in the old parts of the Rigveda.

The data from Iranian do not contradict the conclusions on such a path of development of the athematic indicative of *\*kās-/\*kās-*.

3) The influence of roots of the structure TĀ(T) can also be suspected in the appearance (also predominantly in the late parts of the Rigveda) of thematic forms with a full grade.

These data allow to conclude that there was no present of the “proterodynamic” type of the root *\*kās-/\*kās-*.

**4.** The analysis presented above of the present-aorist formations of the roots under scrutiny allows to draw the following conclusions regarding the general traits of their development:

1) Finite forms of the athematic indicative/injunctive are extremely rare: in the oldest parts of the Rigveda (maṇḍalas II-VII) we find only *ataṣṭa*.

The largest part of these forms is found in the late maṇḍala’s of the RV, which by itself forces us to assume their later origin.

2) In the old parts of the RV in all three roots thematic verb forms predominate. With *takṣ* and *śās* they are thematic aorists (in the zero grade), which go back to the eventualis, with *dās* they are the thematic present, which goes back to the eventualis.

3) Our analysis allows us to conclude that the development of the present-aorist paradigms of these roots started with the thematic forms.

4) Athematic finite forms of the indicative with all three formations are unoriginal, sporadic forms, which have arisen in the following ways: a) the only form of *takṣ* with a primary ending – on the basis of the athematic aorist, which in its turn has arisen secondarily on the basis of the thematic aorist; b) with *dās* and *śās* on the basis of athematic non-finite forms. For the forms of the root *śās* the influence of analogical forms of the root structure TĀ is quite likely. For *dās* one may assume influence of *śās*.<sup>33</sup>

<sup>32</sup> It is clear for this reason that attempts to find regularity in the further development of the present of *śās*, in particular as regards the distribution of the ablaut, are doomed to fail: in the present, which was unoriginal, the most manifold deviations are possible (cf. the remarks by Zaliznjak 1975: 73, fn. 34 and the opinion of Narten on the novel formations from this root (Narten 1968: 14, fn. 41).

<sup>33</sup> Determining the grammatical meaning of thematic forms with a full grade turns out to be difficult. Thus, Vekerdi 1961: 57, argues that *śāsati* (VI.54.1-2) can be a subjunctive, *śāsan* (X.32.4) and imperfect or injunctive. Narten (o.c. 14, fn. 32) and Insler 1972: 57, think that *śāsati* is a subjunctive, whereas

5) The athematic non-finite and non-indicative forms (the participles *dāśat-*, *śāśat-*, *tākṣatī*; the imperatives *śādhi*, *tādhi*, etc.) do not have identical shapes in roots of the same structure (*dāś* and *takṣ* go back to roots of the structure TET(T)). The ablaut of derivatives of *śās* only allows a judgement on the absence of the zero grade (cf., however, the analysis of Kuryłowicz 1968 and Insler 1972: 59).

[289] 6) The full-grade vocalism in forms which morphologically have the zero grade can be explained phonetically in roots of the structure TET(T) (from the avoidance of a consonant cluster).

7) The lengthened vocalism in *dāṣṭi*, *dāśat-* is the result of preservation of ablaut of forms with a petrified lengthened grade of the root *\*dek-* in Sanskrit.

The length of the vowel in *śās* is the result of the root structure (*\*kās-* = *\*keas-*). Morphologically it corresponds to a full, not a lengthened grade.

The Avestan data for the roots *taš* and *sāh* do not contradict the results reached above. There are no finite forms of the indicative of *dāś* in the Gathas.

Thus, as we have surmised above, the material investigated does not provide a basis for distinguishing a special morphological type of “proterodynamic” present. The deviations from the usual athematic present in the stem formation can be explained in all cases from the causes mentioned above, and certainly not from the appurtenance to a special present type. All these athematica are sporadic innovations.

### III

It is clear from table II, which displays the distribution of all athematic forms of the present system of *stu* per ablaut grade, that only one form with lengthened grade is found in the early parts of the Rigveda, namely the injunctive *staut* VII(I). The imperfect *astaut* (3x) first appears in the tenth maṇḍala.

Bartholomae was the first to draw attention to the late appearance of forms with the lengthened grade from roots ending in *-u* (Bartholomae 1886: 83). Watkins repeated this view in his *Indo-European Grammar* (1969: 28), adducing forms with a lengthened grade which appear in texts later than the Rigveda, as proof for the non-Indo-European character of the lengthened grade.

The late appearance and the subsequent quantitative increase of forms with the lengthened grade justifies the question about the genesis of the lengthened grade in the athematic root present of *stu* (as we have written above, we share Narten’s opinion that other forms with a lengthened grade from roots ending in *-u* arose under the influence of *stu*).

Since it is evident that the process of forming lengthened grades happened when historically attested texts were fixated, the reasons for building such forms must be sought in facts which are contained in the synchronic layer of the language of the Rigveda.

1. From the root *stu* two groups of present forms are derived in the Rigveda:

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Macdonell and Grassmann regard it as a thematic present of the first class; Macdonell assumes it to be the product of thematization (Macdonell 1910: 320). Grassmann thinks that *śāsan* is also a present of the first class, but Macdonell sees a subjunctive here. The form *śāsas* is classified as a subjunctive to the athematic aorist by Macdonell (o.c. 368), although there are no finite forms of the athematic aorist indicative of *śās* in the Rigveda, whereas Grassmann includes it into the athematic present (subjunctive).

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a) the athematic present *stumási*, *stuvanti*, *astaut* (injunctive *staut*) [290] with active and middle participles, imperative, optative and subjunctive (see table II);

b) the thematic middle forms *stavate* etc. (injunctive *stavanta*) with middle participle, optative and subjunctive (see table IIa).

1) As with the investigation of the verbs from *takṣ* etc., we start from the assumption that the cooccurrence of athematic and thematic root formations from the same root, the athematic ones being original, is possible in the following cases:

a) when the thematic formations are the product of thematization of athematic ones;

b) or when the thematic formations are the subjunctive.

Ad a: The possibility of being a product of thematization is excluded for *stavate* etc. on the basis of its ablaut: the attested athematic indicative forms in the RV have either the zero grade (*stumási* and so on, on the original character of this ablaut see the first part of the present study), or a lengthened one (*(a)staut*).

Ad b: Were the forms *stavate* etc. subjunctives? How do they relate chronologically to the finite forms of the athematic indicative/injunctive of *stu*? Above we have based our argumentation on the category of the eventualis introduced by Renou. From this category, preserved in the shape of single relic forms in Vedic Sanskrit (Renou 1932: 15), the oldest layers of the thematic indicative and the short-vowel subjunctive developed. According to Renou (1932: 22), the forms *stavase* etc. emerged from this thematic eventualis and were independent of the forms of the athematic present *(a)staut* with its subjunctive *stavat*.

The indicational character of the meanings of *stavate* etc. is supported by:

a) The existence of thematic non-finite and modal forms, above all the subjunctive itself, which would not be possible if *stavate* would be the subjunctive to athematic indicational forms;

b) The preponderance of primary endings (as noted by Renou 1932: 29); the orientation of the thematic forms in the direction of the subjunctive is accompanied by the preponderance among them of secondary endings (on *stavanta* see Renou 1932: 6-7).

Thus, the fact that *stavate* in the majority of its usages functions as a normal indicative (“... *stavate*, par ailleurs présent stable...” – Renou 1932: 22), as well as the impossibility to explain it from thematization of the athematic indicative, show that, when *stavate* appeared in the language, there was no athematic indicative/injunctive of *stu* yet (in the opposite case the forms *stavate* etc. would have developed into subjunctives).<sup>34</sup> In other words,

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<sup>34</sup> While formulating his conclusion on the different possibilities of development of the eventualis, Renou uses the term “is preserved” with regard to forms of the athematic present or aorist of the same root as basic factors which influenced the fate of the eventualis (Renou 1932: 29). If in our case the existence of athematic indicational forms does not make *stavate* etc. a subjunctive, this means that we are dealing here not with preserved relics of an old formation, but with neologisms.

Table II. Athematic forms of the root present of *stu*

zero grade			full grade				lengthened	
active			middle		active		middle	active
finite indic.	non-finite	imperative	non-finite	optative	imperative	subj.	non-finite	ind., inj.
<i>stumási</i> VI(1), X(1) <i>stuvanti</i> VIII(2)	<i>stuvánt-</i> I(6), II(2), <i>stuvanti</i> IV(5), V(2), VI(4), VII(5), VIII(12) , X(1) <i>Vāl</i> (1)	<i>stuhí</i> I(5), II(2), III(2), V(6), VI(2), VIII(10) ) <i>stutam</i> VIII(1)	<i>stuvāná</i> - VII(1)	<i>stuvī́tá</i> IV(1) <i>stuvīmahi</i> VIII(1)	<i>stotā</i> VIII(2)	<i>stavā</i> II(1), X(1) <i>stávat</i> VI(2), VIII(1) <i>stávāma</i> I(1), II(1), IV(2), VIII(7) <i>stavatha</i> IV(1)	<i>stávāna-</i> I(6), II(1), III(1), IV(2), V(1), VI(2), VII(2), VIII(2), IX(1) <i>stavāná-</i> VI(1)	<i>staut</i> VII(1) <i>astaut</i> X(3)

Table IIa. Thematic middle present of *stu*

finite ind., inj.	non-finite forms	optative	subjunctive
<i>stávase</i> I(1), V(1), X(1) <i>stávate</i> I(2), II(1), VIII(1) <i>stáve</i> I(1), V(1), VII(1), X(2) <i>stávamahe</i> VIII(1) <i>stávante</i> VI(2), X(1) <i>stávanta</i> IV(1), VII(1)	<i>stávamāna-</i> I(3), VII(1), VIII(1)	<i>staveta</i> V(1)	<i>stávai</i> III(1), IX(1), X(1)

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the forms of the thematic indicative/injunctive *stavate* etc. predate the forms of the athematic indicative/injunctive of *stu*, which therefore cannot be regarded as an old present formation of the root in question. Below we will adduce other evidence for the late character of the athematic finite forms of the indicative of *stu*.

2) As we argued above, the uniqueness of a morphological feature of a verb form can only be established after an analysis of the genesis of the paradigm to which it belongs. In the case at hands it appears especially important to establish the chronological relations, not only between athematic and thematic indicative/subjunctive, but also between:

a) finite forms of the athematic ind./inj. and modal and non-finite forms of the athematic present;

b) finite forms of the thematic ind./inj. and non-finite and modal forms of the athematic present.

Let us look at the morphological features of the finite athematic ind./inj. forms of *stu*.

a) Forms with a lengthened grade (*(a)staut*), which by their phonetic appearance fall out of the system of the athematic present, cannot be archaisms. Not only because of their late attestation, but also for the following three reasons:

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α) Archaisms with deviations of phonomorphological character must possess a high frequency, in order not to be drawn into the circle of regularly derived forms, whereas *staut*, the only form found in the early maṇḍalas of the Rigveda, is a hapax legomenon.

β) The number of forms with a lengthened grade from roots in *-u* grows in the course of time (according to Watkins 1969: 63 this testifies to the late origin of the formation). The texts of the Rigveda may be regarded as the point of origin of the development.

γ) There is also a purely phonetic problem which puts the age of the presents with a long diphthong in doubt: as Hirt (1928: 81) has observed, in long diphthongs  $\bar{e}u > \bar{o}u$  the element *u* would probably have been lost.

b) Two other finite forms of the athematic indicative of *stu* (*stumási* and *stuvantī*) correspond from a morphological point of view to the derivational norms of the athematic present. Yet their relatively late attestation (only *stumási* VI(1) is found in the old parts of the Rigveda) and their low frequency of use (four times, of which two in maṇḍala VIII and one in maṇḍala X) draw the attention.

c) Let us compare the way the finite forms of the athematic indicative/injunctive are used with its non-finite and modal forms. First of all the following features of the latter forms are conspicuous:

α) They comply with the derivational norms of this formation in the usual athematic present system (on *stávāna*- see below).

[293] β) The number of modal forms is significantly higher than the number of indicative forms;

γ) The modal and non-finite forms are evenly distributed across the RV maṇḍalas, whereas the finite forms are found only in four maṇḍalas, only two of them being old books (VI(1), VII(1));

δ) The modal forms have a high frequency of use, whereas the finite forms of the indicative/injunctive represented in the old parts of the RV are hapax legomena.

Elizarenkova (1982: 283, but cf. Renou 1952: 249) has made the observation that the number of forms with a modal meaning in the RV exceeds that of forms with indicatival semantics – a fact which she explains from the Rigvedic style. For the indicative of *stu*, however, the explanation of the athematic indicative, poor in forms and rarely used, from the stylistic and semantic peculiarities of the Rigveda as a text of a special genre must be dismissed. From table IIa it appears that the root *stu* possessed in the Rigveda a thematic present with a diversified system of finite indicative forms, a comparatively high frequency of use and a comparatively even distribution across the old maṇḍalas of the Rigveda. These features of the thematic indicative of *stu* show the need of the RV language for forms of this root with an indicatival meaning. Therefore, if the athematic indicative of *stu* would be original, it would have to possess a developed system of finite forms.

All features discussed above of the modal and non-finite forms of the athematic present of *stu* lead to the conclusion that these forms represented a developed system at the time when the indicatival forms of the athematic present only started to be created. With regard to the latter one may rather speak about sporadic forms than about a paradigm as such. This means that the development of the athematic present of *stu* started with the non-finite and non-indicative (modal) forms.

3) What is the chronological relationship of these forms with those of the thematic indicative/injunctive?

a) As table IIa shows, there are few modal and non-finite forms of the thematic present of *stu*, their frequency in the old maṇḍalas of the Rigvedic is low.

Nonetheless, the need for forms from the root *stu* with a modal meaning was big, as is clear from the number of corresponding forms belonging to the athematic present system, and the number of their occurrences. Contrary to the indicative/injunctive forms of the athematic present and the modal and non-finite forms of the thematic one, they are found in practically all maṇḍalas of the Rigveda. Therefore, if the thematic indicative/injunctive *stavate* etc. had preceded these modal and non-finite forms, then it would undoubtedly have developed modal and non-finite forms in larger numbers [294] than is actually the case (see table IIa). We may conclude from this that the modal and non-finite forms which refer to the athematic present system cannot be more recent than the thematic indicative. Whether they were created together with it or whether they preceded it – this remains unclear at the present stage.

b) From among the modal forms of the athematic present system, a comparison is needed especially of the subjunctive *stavat* with forms of the thematic indicative/injunctive *stavate* etc., since the existence of two types of thematic forms with different modal meanings from one and the same root begs the question of the originality of one of them.

α) It was already recalled above that the thematic indicative/injunctive of *stu* possesses the marks of the independent eventualis. In the work by Renou cited above, a number of additional characteristics of this category are collected: the oldest layers of the eventualis were mainly used in the middle (Renou 1932: 21; Watkins 1969: 65) – *stavate* does not have a single active form; the use of relic forms of the eventualis is restricted to the oldest period of Sanskrit (Renou p. 29) – after the Rigveda forms such as *stavate* etc. are not encountered anymore; the fact that the series of forms *stavate* etc. has a passive meaning also speaks for the high age of these forms – the use of the middle with passive meaning precedes the appearance of the middle in *-ya-* (cf. Jasanoff 1973: 857, fn. 8). A number of usages of *stavate* with modal meaning (RV II.24.1; X.148.5; I.154.2, Renou 1932: 22; cf. Vekerdi 1961: 268) once more confirm their origin from the eventualis – an independent category with an indivisible meaning.

Based on these features, we can formulate the following rule: if there are two groups of thematic suffixless forms from the same root, one of which has a indivisible, complex modal-indicative meaning and has the features enumerated above, while the second group has an exclusively modal meaning, then the first one will be the original thematic derivative of the given root.

However, as recalled above, if the indicative/injunctive *stavate* etc. was extant before the appearance of the modal forms of the athematic present, it would have developed its own modal forms in a higher number than is actually the case. This invites the assumption that, regardless of the fact that *stavate* etc. is the only thematic formation from *stu* which shows the signs of being original, the subjunctive *stavat* etc. arose either contemporaneously with it, or preceded it. In the latter case, its existence was one of the reasons for the consolidation and strengthening of the indicative meaning in the eventualis.

The presence of the subjunctive beside the existence of the original thematic formation (the eventualis) and the secondary, sporadic character of the athematic indicative/injunctive suggests that the subjunctive forms were created artificially. Their



rise may have been encouraged by a category [295] with fully developed morphological and semantic features which was already established in the language. A similar explanation also seems to be possible for the other modal and non-finite forms of the athematic present of *stu*. In that case it is legitimate to pose the question about the semantic and morphological models which were used for building these forms.

4) Since the non-finite and modal forms of the athematic present of *stu* (except for *stāvāna-*, on which see above) follow the derivational rules of the corresponding categories in the system of the athematic root class, we could speak about the influence of morphological class in the widest sense of the word. More effective, however, will be the influence of the categories belonging to the athematic formations, derived from roots of the same or a similar structure, while one can speak about the influence of the latter ones only if it starts from forms which arose under a local neutralization of the difference in root structure. The forms under the influence of which the non-finite and non-indicative forms of *stu* could arise can be divided in two groups:

a) non-finite and non-indicative forms of the athematic root aorist of roots in *-u*, for instance, *śru* 'to hear': as is well-known, the athematic root aorist makes forms of the imperative, subjunctive, optative and participle which are morphologically identical to the corresponding forms of the athematic present. The athematic imperative and short-vowel subjunctive of *stu* (see table II, III) can be explained as having arisen under the influence of the athematic aorist of *śru*.

b) The second group of forms is represented by roots ending in *-ū* (< Indo-European *\*-uə-*, Lindeman 1970: 55), e.g. *brū* 'to speak'. We think that it is legitimate to use for our analysis forms from roots of this structure only if we show in advance that the forms of *stu* which are to be analyzed are the product of a late and non-original origin. After all, the structure of roots in *-ū* shows that the presents which derive from roots with the extension *-ə-* could not originally belong to the athematic root class (Burrow 1976: 299-300). The influence of a typologically later morphological type is fully justifiable when we are dealing with late and non-original formations.

It is known that forms from disyllabic roots lose the laryngeal before a suffix starting in a vowel (Lindeman 1970: 44, 46; Szemerényi 1980: 105). As a result, a neutralization of the formal difference between roots ending in *-u-* and *-ū* takes place in the position before a vowel. This in turn can lead to the creation of analogical forms. In this way the following forms of *stu* could come into being under the influence of forms of *brū*: the participle *stuvánt-* (to *bruvánt-*), *stuvāná-* (to *bruvāná-*), the optative *stuvītá*, *stuvīmahi* (to *bruvīta*, *bruvīmahi*), see tables II, IV<sup>35</sup> (cf. also the subjunctive forms from *brū* and *stu*).

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<sup>35</sup> It must especially be emphasized that we are talking about the possibilities to create new forms from *stu* in which the influence of *brū*, if it existed, is restricted to forms in which the stem occurs before a vocalic suffix. We are not referring to the replacement of alleged forms with a full grade by forms with a zero grade – under the influence of derivatives of the type *bruvánt-* the existence of *stuhí*, not *\*stūhí* (cf. *brūhí*) would be inexplicable.

Table III: the active athematic aorist of *śru*

zero grade		full grade		
imperative	optative (precative)	finite forms indicative	imperative	subjunctive
<i>śrudhī</i> I(13), II(2), V(1), VI(7), VII(3), VIII(8), X(5) <i>śrutām</i> I(4), II(1), V(3), VI(1), VII(3), VIII(2), X(1), <i>Vāl.</i> (1) <i>śrutā</i> I(1), X(1) <i>śruvantu</i> VI(1), X(1)	<i>śrūyās</i> II(1)	<i>áśravam</i> I(1), X(1) <i>áśrot</i> I(1), VII(1)	<i>śrótu</i> I(1), V(1) <i>śrótā</i> I(1), V(2), VII(1)	<i>śrávat</i> I(2), IV(1), VI(2), VII(2), VIII(4) <i>śravathas</i> V(1) <i>śrávatas</i> VIII(1)

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We must note, though, that influence from *brū* is not inevitable and decisive for the creation of the participles and optative of *stu* (the aorist of *śru* did not possess such forms in the Rigveda, as is clear from table III): based on the imperative and subjunctive, created under the influence of *śru*, the language could derive the optative and participles using the derivational rules of the corresponding categories in the aorist-present system of the athematic class.

2. The second stage of the development of the athematic present of *stu* in the Rigveda was the formation of finite forms of the athematic indicative/injunctive. The push toward their appearance may have been provided by the existence of the athematic imperative, which had a high frequency of use (see table II). As Tedesco wrote (1968: 44), thanks to this high frequency “the new imperative can immediately call into being the new indicative.”<sup>36</sup>

From the athematic imperative forms in the old books of the Rigveda, *stuhī* and *stutam* are represented with the zero grade that is canonical in these persons (on the form with full grade *stota* VIII, see Watkins 1969: 32-35). The existence of these morphologically correct forms (supported by the canonically formed participle *stuvánt-* (with a high frequency of use) and *stuvāná-*) also led to the appearance of the form *stumási* VI(1), X(1), which also has the zero grade. The subsequent creation of the form *stuvanti* VIII(2) is easy to explain: it is built according to the morphological rules of the athematic present, supported by the morphologically regular form *stumási*.

Above (part one, II) we have already mentioned that Narten’s hypothesis on the non-originality of the zero grade in the active present plural of *stu* does not find support in the data from a contrastive analysis of the paradigms of the verbs she investigates. The

<sup>36</sup> Note that in the works of Tedesco (1968) and Hoffmann (1952/1957: 128-131, cf. Renou 1932: 13, fn. 1) the possibility of deriving present forms from the aorist is discussed. It appears that the imperative *stuhī*, which had, as we have seen above, arisen under the influence of the aorist imperative *śrudhī*, could also bring about new present formations. Bartholomae typically remarks that the only old form of the athematic present of *stu* with secondary endings – the injunctive *staut* – has a clearly expressed aoristic meaning (Bartholomae 1886: 83).

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analysis conducted above of the present thematic and athematic derivatives of *stu* showed that the athematic modal and non-finite forms, which arose under the influence of the athematic aorist of *śru*, were the starting point for the formation of the athematic present. With their formal [298]

Table IV: The athematic root present of *brū*

zero grade					
active			middle		active/middle
finite indic.	non-finite	imperative	finite	non-finite forms	optative
<i>bruvánti</i> VII(1), X(1) <i>abruvan</i> I(1), IX(1), X(1)	<i>bruvánt-</i> V(1), VIII(1), IX(1)	<i>brūhí</i> I(3), X(1) <i>brūta</i> X(1) <i>bruvantu</i> I(2), X(2)	<i>bruvé</i> I(4), II(1), III(2), IV(1), V(1), VII(2), VIII(6), X(3) <i>brūše</i> X(1) <i>brūté</i> I(1), VI(1) <i>bruve</i> 3sg. V(1) <i>bruvāte</i> III(1) <i>bruvāte</i> I(3), V(1), VIII(2)	<i>bruvāná-</i> I(1), II(1), III(1), V(2), VI(1), VII(1), IX(1), X(3)	<i>brūyāt</i> X(1) <i>bruvīta</i> V(1) <i>bruvīmahi</i> VIII(2)

full grade			
active			middle
finite indicative	imperative	subjunctive	subjunctive
<i>brāvīmi</i> I(1), III(1), IX(1), X(3) <i>brāvīsi</i> IV(1) <i>brāvīti</i> X(2) <i>ābravam</i> I(1), VI(1), VIII(2) <i>ābravīt</i> I(7), IV(1), VIII(4), X(1) <i>ābravīta</i> IV(1) <i>ābravītana</i> I(3)	<i>bravītu</i> I(2), V(1), VI(1) <i>bravītana</i> I(1), VIII(1)	<i>bravā</i> X(1) <i>brāvāni</i> VI(1), X(1) <i>bravasi</i> I(1) <i>brāvas</i> IV(4), VII(1), X(1) <i>brāvat</i> I(2), VI(2), VII(1), X(1) <i>brāvāma</i> II(1), IV(3), V(5), VI(2), X(1) <i>brāvan</i> IX(1)	<i>bravāvahai</i> I(1) <i>brāvāite</i> VI(1) <i>bravāmahai</i> V(1), X(1)

[299]

characteristics they corresponded to the derivational norms for these forms in the athematic present. The indicative forms which arose on the basis of them preserved their ablaut, e.g. *stuhí* > *stumási*, *stuvanti*. In this way, pace Narten, the zero grade in these forms is original: they were created under the influence of the morphologically regular form *stuhí*. They were not remodelled under the influence of the usual plural forms of the athematic present (see fn. 35 of this paper).

3. There were several ways to create the singular of what became the indicative/injunctive of the athematic present of *stu*:

1) Deriving the singular on the model of verbs in *-ū*, with which the derivatives of *stu* had several forms of identical structure.

2) Deriving forms with a full grade root on the model of the usual athematic verbs.

3) Deriving forms with a lengthened grade.<sup>37</sup>

Let us discuss these possibilities.

1) Only two roots in *-ū* (*brū* and *tū*) have athematic active indicative forms in the Rigveda. Both verbs contain an element *-ī-* in the singular active<sup>38</sup>: *tavīti*, *bravīmi* etc. (see table IV).

As was noted above, the non-finite and non-indicative forms of *stu* and *brū* only coincided in the position before a vocalic suffix or ending. Among the finite indicative forms the merger is observed only in the 3pl. *stuvanti* (cf. *bruvanti*). In the position before a consonant, the stem forms strongly differed in the zero grade because of the vowel length. It is to be emphasized that already in the form *stu-masi* there is no analogy with the present of *brū* (the corresponding form from *brū* is absent in the Rigveda, but a form such as *brū-té* is sufficiently clear). Probably, the difference in stem type appeared particularly effective also because the imperative (*stuhí* etc.), which gave the impetus for the athematic indicative of *stu*, had a short vowel, as opposed to *brūhi*.

This difference in stem form before consonants (with *brū* the existence of *-avī* in the full grade and *-ū-* in the zero grade; with *stu* the existence of *-o-* in the full grade, e.g. in the imperative *stota*, subjunctive of the sigmatic aorist *stoṣat*, and *-u-* in the zero grade) was, apparently, felt too strongly for the nascent present of *stu* to ignore.<sup>39</sup>

It is curious that exactly the forms *bravīti* – *brūté* are interpreted by a number of [300] scholars as belonging in the singular and plural to different morphological types (Thumb-Hauschild 1959: 224).

Thus, the diverging form of the preconsonantal stem variant of *brū* removes it as a source of analogical influence in the creation of the finite forms of the athematic indicative/injunctive singular of *stu*.

2) The second way which the present of *stu* could follow to create forms of the singular was the use of the full grade of the alternation, as in the normal athematic verbs. In the process, depending on the character of the ending, the following forms – absolutely regular from a phonetic point of view – were possible: a) before endings starting in a consonant: *\*stomi* *\*stosi*, *\*stoti*; *\*(a)stos*, *\*(a)stot*; b) before endings starting in a vowel: *\*(a)stavam*.

We will discuss both possibilities.

a) Except for Narten, who postulates a lengthened grade in the singular active as origin for the present of *stu*, other scholars – as far as we know – assumed the existence in this verb of the full grade which is normal for the athematic present (see Lindeman 1972: 72, Thumb-Hauschild 1959: 257 and others), in which then under the influence of

<sup>37</sup> The possibility of generalizing the zero grade in the forming the singular apparently was unacceptable for the athematic present.

<sup>38</sup> The length of the *-ī-* has up to date not received an convincing explanation: according to the ablaut rules of disyllabic roots, the full grade should show a short *-i-*, as, for instance, in *vamiti*.

<sup>39</sup> Compare the remark of Lindeman on the different formation of the present paradigms of *stu* and *brū*. We will note, however, that the form *stavīti* etc. appeared in later periods (Thumb-Hauschild 1959: 257) and, if we were to speak about analogy, it was the initial merger of the forms *stuvanti* and *bruvanti* which could have caused it.

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several derivatives with a lengthened grade (the sigmatic aorist, the passive root aorist etc., see Narten 1968: 12, fn. 25) the vowel was lengthened.

However, as we have shown above, the athematic indicative of *stu* was only created in the historically attested period of the development of the language. Thereby the formation of the present paradigms went from the non-finite and non-indicative forms (formed under the influence of forms with a similar root structure and using the rules for building corresponding formations) to the plural forms, which were also formed according to the rules of the athematic present. It follows that neither from the particular morphological point of view nor from the phonetics there was any obstacle to the creation of singular forms with full grade ablaut.

There was an obstacle, though, in the fact that in the roots in *-u-* under investigation there were forms with a full grade root but with the specific meaning of an imperative. These were the imperatives in *-si*, already mentioned above. Their last element did not differ formally from the ending of the 2sg. active present, although in reality they belonged to the sigmatic aorist (Cardona 1965: 18).

In view of the fact that the forms from *stu* were ultimately created on the basis of athematic aorist forms of *śru*, we cannot avoid arriving at the conclusion that the presence of *śróṣi* VI(1), which the speakers of the language did not associate with the present (the present of this root was the infixed present *śṛṇómi*) exerted a blocking influence on the creation of a type *\*stoṣi* with [301] indicative meaning.<sup>40</sup> A similar role was probably also played by the existence of the form *hoṣi* with imperative meaning from a root in *-u-* (*hu*) from the reduplicating present *juhómi*.

An objection regarding the blocking role of forms in *-si* in the creation of the singular of the athematic present of *stu* with a full grade could be raised from the fact that in a number of verbs (e.g. *kṣi*, *vī*) they coexist with the normal type of athematic present. To this one can reply that in these cases we are dealing with original presents, where the existence of an extensive paradigm allows to clearly distinguish between homonyms: the 2sg. athematic indicative and the imperative in the aorist system.<sup>41</sup> In the case of *stu* we are talking about the formation of the paradigm, about establishing it, when the forms which are arising strive to avoid confusion as much as possible.

b) As is well known, the only singular form with secondary endings attested in the old parts of the Rigveda does not have the full grade. What blocked the creation of forms of the type *\*(a)stot*? It appears that, having arisen under the influence of aorist forms from roots in *-u-*, the present of *stu* strove to escape the formal similarity with it in all possible ways: the forms with secondary endings did not adopt the shape *\*(a)stot* and *\*(a)stavam* because otherwise they would have fallen together in their structure with the indicative-

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<sup>40</sup> This is supported by the fact that the form *stoṣi* arose in the late tenth maṇḍala. This form is unusually difficult to interpret. Cardona (1965) writes about the difficulties of its interpretation, although on p. 15 he tends toward the opinion that *stoṣi* can be counted among the imperatives in *-si*. Whatever the case, the appearance of *stoṣi* in the late parts of the Rigveda beside the presence of lengthened grade forms in the seventh maṇḍala show clearly enough that there were no present athematic forms from *stu* with a full grade which had indicative meaning.

<sup>41</sup> Compare Cardona 1965: 13 on the possibility in a number of cases to reanalyze the indicative as an imperative and vice versa.

injunctive forms of the athematic aorist from roots in *-u-* (cf. *ásrot* I(1), VII(1), *ásravam* I(1), X(1)).<sup>42</sup>

Thus, the creation of athematic singular forms with a full grade from *stu* was impeded:

α) for forms with primary endings – by the presence of *si*-imperatives from roots of the same structure;

β) for forms with secondary endings – by the possibility of confusing them in this case with athematic aorist forms of the same structure. It appears that particularly the latter cause was decisive – the development of finite singular forms started from forms with a secondary ending – for the injunctive *staut*. Here, then, the only remaining possibility of forming the singular was used – the lengthened grade.

Thus the Rigvedic evidence allows to reconstruct the development of the athematic present of *stu* on the basis of its creation under the influence of the athematic aorist of *śru*, starting with non-finite and non-indicative forms, subsequently [302] plural forms with the regular zero grade, and then singular forms with a lengthened grade in order to avoid the structural merger with the finite singular forms of the aorist (on forms with primary endings, see above).

The original present formation of *stu* in Sanskrit was the thematic present *stavate* etc., which goes back to the eventualis.

It is logical to assume that until the appearance of athematic indicative forms, thematic *stavate* and the non-finite and non-indicative forms of the athematic present complemented each other functionally. As we have shown, the development of the athematic indicative/injunctive follows the appearance of modal and non-finite athematic forms, and can be appreciated as a comparatively late attempt to complete the paradigm with morphologically uniform forms (i.e. belonging to the same morphological class).<sup>43</sup> This can also be ascribed to the development of thematic non-finite and modal forms belonging to the thematic indicative.

3) There are only few athematic forms from *stu* in the Avesta: in the Gathas there is only the 1sg. present *staomī* in Yasna 43.8 and the active participle *stauuat-*. Both forms have the root in the full grade. That is, the finite form which, according to Narten's concept, should have the lengthened grade, has the full grade. The YAv. forms (e.g. *staoiti*, *staoť*, Bartholomae 1961: 1593-1595) also do not have the lengthened grade.<sup>44</sup> Narten explains the full grade instead of a lengthened grade as a replacement of the latter due to the former (Narten 1968: 17). If that were so, then the Avestan path of development does not coincide with that of Sanskrit, where the number of forms from roots in *-u-* with a lengthened grade increases as time progresses. It appears, however,

<sup>42</sup> The existence of *ábravam* beside *ábravīt* etc. reduced the danger of homonymy to a minimum, since for the root *stu*, *\*astavam* would presuppose *\*astos* and *\*astot*.

<sup>43</sup> Cf. Oettinger 1976: 120: the active *stáuti* is regarded as an early new creation to the stative *stáve* (a discussion of Oettinger's concept of the Indo-European stative exceeds the framework of the present study; it appears, however, that *stáve*, which belongs to the paradigm of the thematic eventualis, could in its turn call into being forms of the athematic indicative.)

<sup>44</sup> It appears doubtful whether the spelling *stāumī* in Yasna 43.8 is sufficient to posit the existence of a present with lengthened grade (more in detail Narten 1968: 17). It is typical that in the final reconstruction of the paradigm, she provides *stāumī* with a question mark (p. 18). See, however, Insler's conclusions on *stu* on the basis of an interpretation of its derivatives in Sanskrit and Avestan (Insler 1972: 62, fn. 5). Differently Burrow 1976: 190.

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that the appearance of the full grade in the Avestan athematic present formations of *stu* has a different reason.

In the analysis of the establishment of the athematic indicative/injunctive paradigm of *stu* in the Rigveda we have come to the conclusion that the choice of the lengthened grade for the active singular can be explained by:

a) the impossibility to follow the athematic present of roots in  $-ū$  due to the big difference in stem forms in the position before a consonant;

[303] b) the impossibility to use the full grade ablaut due to the tendency, typical of the newly formed formations, to avoid structural homonymy with already existing formations having a different categorial meaning.

Let us look at the Avestan material from this point of view.

a) As is known, the laryngeals developed differently in Sanskrit and in Iranian in certain positions. As Kuryłowicz writes, “the preservation or disappearance (before consonants) of  $-ə-$  in non-initial syllable forms another important difference between Indo-Aryan and Iranian” (Kuryłowicz 1956: 249, cf. Insler 1971: 573).

Following the loss of laryngeals, the presence in the Gathas of forms of the type *mraoš*, *mraoṭ* (2 and 3 sg. active injunctive), which looked like a usual athematic present from roots in  $-u$ , suggested to the present-in-being of *stu* a most acceptable path of development.

The further development of the indicative-injunctive derivatives of *stu* was realized in YAv. mainly on the basis of the original forms with a full grade, which could also be extended to the middle. That is how forms of the type *staota* (2pl. imperative and 3sg. middle), *staomaiḍe* (1pl. middle) came into being. This line of development agrees with the tendencies in the athematic present observed here, to refuse alternations (cf. the interpretation of similar forms by Renou 1952: 258). The spread of the full grade to forms in which the zero grade was regular also characterizes *mrū* (for instance, *mraota* 2pl. active, cf. the forms of Rigvedic *brū*, in table IV). It is typical that, beside these forms, forms with a zero grade which are completely regular for the usual athematic present are derived from *stu* in YAv. – the middle *stuiiē*, the imperative *stūiḍi* (on the length see Reichelt 1909: 32).

b) The nearly complete absence in Avestan of active singular aorist indicative forms with full grade of the root<sup>45</sup> from roots in  $-u$  reduces the problem of the confusion of finite forms of the present indicative singular and the active athematic aorist of such roots.

In this way, as opposed to Sanskrit, the present which in Avestan was formed from *stu* was formed under the influence of the present of *mrū*.

The analogical influence of this root became possible as a result of the neutralization of their differences in root structure after the loss of the laryngeals in the word-internal syllables before a consonant in Iranian. In their turn, these circumstances confirm the lateness of the appearance of active athematic indicative forms of *stu* in the Indo-European languages: the different fate of the laryngeals in the position mentioned above belongs to the dialectal periods of development of the Indo-European [304] languages.

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<sup>45</sup> In reality, from the finite forms with a full grade in the Gathas the only relevant form is *sraotā* (2pl.), which a majority of scholars interprets as an imperative (Strunk 1967: 86; Watkins 1969: 33; cf. *sraotū*), which agrees with the data from other Indo-European languages (Skt. *śrōtā* (4x), later *śrutā* X(1); Greek *klūte*).

And the peculiarities of the rise of forms from *stu* in Avestan confirm that each language formed the present of this root independently.

On the basis of the above, we come to the following conclusions:

1) Our analysis of the verb paradigms analyzed by Narten has shown that, in the oldest stages of the Indo-Iranian languages, the athematic active-middle paradigms which she postulates, in which from one and the same root active presents were formed with a lengthened grade in the singular and a full grade in the plural, as well as middles with a full grade, are absent.

The entities in question are either *activa tantum*, or *media tantum*, and the root *śās* does not have finite athematic indicative/injunctive forms in the oldest parts of the Rigveda.

2) In the roots *takṣ*, *dāś*, *śās*, *stu*, from which we have finite forms of root formations of the present-aorist system, the development of indicative-injunctive paradigms in the Rigveda started with finite forms of the thematic eventualis. In the Gathas, an analogical path of development is followed by forms from *taš*. The presence of only modal forms from thematic ones of *stu* (YAv.) and *sāh* (OAv.) allows to judge in the same way the development of derivatives of these roots in Iranian only in the form of an hypothesis. In the Gathas there are no finite forms of *dāš* neither from the thematic indicative, nor from the athematic one.

3) In the Rigveda, none of the roots under investigation had an active athematic indicative/injunctive which was the original present formation of the corresponding root. The athematic present of *śās* in the Rigveda (act/middle) is also not original. For the roots *dāś*, *śās*, *stu*, the original forms were the non-finite and non-indicative ones, for the root *takṣ* it was the athematic aorist, which had arisen on the basis of the thematic aorist of the same root. In the derivatives of *stu* the athematic forms were created in the following order: non-finite, non-indicative – plural forms with zero grade – singular forms with lengthened grade in order to avoid the formal merger with forms of another categorial meaning.

In the Gathas, the present of *stu* was formed under the influence of the present of *mrū* following the neutralization of the differences in root structure after the loss of laryngeals; for *sāstī* the possibility of its origin on the basis of non-indicative forms is not excluded; *tāšt* is in the first place a sigmatic aorist form. YAv. *tāšti* could have arisen under the influence of *tāšt*, whatever its origin.

The number of athematic finite forms of the indicative/injunctive of these verbs is exceedingly small; in the Rigveda they are mainly concentrated in the later maṇḍalas and represent sporadic neologisms.

It follows that the material under investigation does not allow to set up a special morphological type of “proterodynamic” present, neither to its full extent (active/middle), nor for a proterodynamic active. There is a middle [305] with the full grade in the Indo-European languages, but it does not correspond with an active paradigm of the same root with the features described by Narten.

The peculiarities of the ablaut of the finite forms of the roots in question can be explained by phonetic and morphological causes which are different for each root, not by the appurtenance to a special morphological type. More detailed results of our reconstruction of the stages leading up to the thematic and athematic present-aorist



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paradigms of the roots in question are presented in the final sections of parts I to III of this study.

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