



Universiteit
Leiden
The Netherlands

Valency-changing categories in Indo-Aryan and Indo-European: A diachronic typological portrait of Vedic Sanskrit

Kulikov, L.I.; Saxena A., Viberg A.

Citation

Kulikov, L. I. (2008). Valency-changing categories in Indo-Aryan and Indo-European: A diachronic typological portrait of Vedic Sanskrit. *Multilingualism. Proceedings Of The 23Rd Scandinavian Conference Of Linguistics, Uppsala University, 1-3 October 2008*, 8, 75-92. Retrieved from <https://hdl.handle.net/1887/14694>

Version: Not Applicable (or Unknown)
License: [Leiden University Non-exclusive license](#)
Downloaded from: <https://hdl.handle.net/1887/14694>

Note: To cite this publication please use the final published version (if applicable).

Multilingualism

Proceedings of the 23rd Scandinavian Conference
of Linguistics

Uppsala University
1 – 3 October 2008

Edited by Anju Saxena & Åke Viberg



UPPSALA
UNIVERSITET

ACTA UNIVERSITATIS UPSALIENSIS
UPPSALA 2009

© The authors 2009

Grafisk bearbetning: Textgruppen i Uppsala AB
Tryck: Edita Västra Aros, Västerås 2009

ISBN 978-91-554-7594-9
ISSN 1652-1366

Electronical version available at:
<http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-110287>

Contents

General

Dorothee Beermann and Pavel Mihaylov

TypeCraft – Glossing and databasing for linguists 11

Karl Erland Gadelii

Fusional verb morphology 22

Elena Gorishneva

ONE: Between numeral, indefinite marker and intensifier 37

Lutz Gunkel & Susan Schlotthauer

Attribution in Basque, Finnish, Hungarian and Turkish: Morphology vs. Syntax .. 51

Shinji Ido

An analysis of the formation of the Tajik vowel system 65

Leonid Kulikov

Valency-changing categories in Indo-Aryan and Indo-European: A diachronic
typological portrait of Vedic Sanskrit 75

Anju Saxena, Beáta Megyesi, Éva Csató Johanson & Bengt Dahlqvist

Using parallel corpora in teaching & research: The Swedish-Hindi-English &
Swedish-Turkish-English parallel corpora 93

Luying Wang

On the Grammaticalization of Mandarin aspect markers 102

Torbjörn Westerlund

The basic case marking of Ngarla, a language of Western Australia 115

Toshiko Yamaguchi

The causative/ inchoative alternation in Icelandic 127

Multilingualism

Elena Buja

Sociolinguistic aspects of bilingualism among the Moldovan students studying
in Romania 143

Angela Falk

Narrative patterns in monolingual and bilingual life-history conversations 159

Makiko Fukuda

Castilian or Catalan? Linguistic survival strategies of Japanese residents in
Catalonia, Spain 170

Christine Johansson and Christer Geisler

The Uppsala Learner English Corpus: A new corpus of Swedish high school
students' writing 181

<i>Indira Y. Junghare</i>	
Syntactic convergence: Marathi and Dravidian	191
<i>Katri Karjalainen</i>	
Using communication strategies to gain fluency, accuracy and complexity in L2	200
<i>Sanita Lazdiņa & Heiko F. Marten</i>	
The “Linguistic Landscape” method as a tool in research and education of multilingualism: Experiences from a Project in the Baltic States	212
<i>Harry Lönnroth</i>	
The multilingual history of an industrial society. The case of Tampere, Finland . . .	226
<i>Magomedkhan Magomedkhanov</i>	
Linguistic assimilation and the weakening of ethnic identities in Dagestan	239
<i>Theodore Markopoulos</i>	
Medieval Mediterranean as a multilingual area: the Greek perspective	245
<i>Elena Nikishina</i>	
Language use in Moscow schools with an ethno-cultural component (based on schools with the Armenian and the Azeri ethno-cultural component)	258
<i>Stefano Rastelli</i>	
Lexical Aspect too is learned: data from Italian Learner Corpora	272
<i>Paula Rossi</i>	
Language changes and language contacts in a 19 th century Maritime College and Commercial College	283
<i>Misuzu Shimotori</i>	
Conceptual contrast of dimensional adjectives in Japanese and Swedish: Exploring the mental lexicon by word-association test	296
<i>Bettina Zeisler</i>	
Mainstream linguistics for minor(ity) languages? Or: What is it like to speak Ladakhi?	305
Workshop on Readability and Multilingualism	
<i>Sofie Johansson Kokkinakis</i>	
Workshop on Readability and Multilingualism	323

Valency-changing categories in Indo-Aryan and Indo-European: A diachronic typological portrait of Vedic Sanskrit

Leonid Kulikov
Leiden University

1. Preliminaries: An approach to the diachronic typological study of a linguistic category

This paper concentrates on the diachronic aspects of the typology of transitivity oppositions and valency-changing categories, focusing on evidence available from one branch of Indo-European, Indo-Aryan. It also aims to draw attention to the regrettable imbalance of the synchronic and diachronic typological studies.

On the one hand, we dispose of rich catalogues and a detailed **synchronic** analysis of the systems of valency-changing derivations attested in the languages of the world. On the other hand, a systematic treatment of these categories in a **diachronic** perspective is lacking. The rise, development and decline of these categories mostly remain on the periphery of the typological interests.

It seems advisable to start a diachronic typological research with collecting evidence from languages (language groups) with a history well-documented in texts for a sufficiently long period of time (around 1000 years or more). When approaching the history of a particular valency-changing category, such as passive or causative, it might be useful to outline some kind of diachronic typological **portrait** of the relevant category in the given language **group** or **family**, tracing it from the earliest attested texts in an ancient language (L_0) onwards up to its reflexes in the daughter languages (L_1 , L_2 etc.). Of particular interest would also be – if available – evidence from the sister languages of L_0 , which can serve as a basis for a tentative reconstruction of the hypothetical history and possible sources of the category under study in the proto-language.

2. An example of a ‘family portrait’: the case of Indo-Aryan

One of the best objects for such a diachronic typological study would be, for instance, the Indo-Aryan group of the Indo-European language family. We dispose of an uninterrupted documented history of Indo-Aryan for a period of more than 3.000 years, starting with the Old Indo-Aryan (OIA), which can be roughly identified with (Vedic) Sanskrit,¹ and continued in Middle Indo-Aryan (Pāli and Prakrits) and New Indo-Aryan (Hindi-Urdu, Bengali, Marathi, Sinhalese, etc.).

Thus, in the case of Indo-Aryan, we dispose of rich material for a diachronic analysis of the valency-changing categories. On the one hand, the rich evidence collected by the Indo-European comparative linguistics creates a good basis for hypotheses about the origin and possible sources of the morphological and syntactic categories attested in OIA and thus provides important material for a **retrospective** diachronic typological study. On the other hand, evidence from late Vedic and Middle Indo-Aryan texts, as well as from New Indo-Aryan languages, allows for a **prospective** diachronic study (how the OIA categories develop into their reflexes in Middle and New Indo-Aryan). In what follows, I will offer an overview of several features of the Indo-Aryan, and, particularly, of OIA system of voices and valency-changing categories, which are relevant in a diachronic typological perspective. The main tendencies which determine the evolution of the Vedic (OIA) system of transitivity oppositions include: (i) decline of the middle diathesis, which, as I will argue, amounts to its degrammaticalization; (ii) the rapid growth of new valency-changing categories, passives and causatives; and (iii) decline of the labile patterning.

3. Degrammaticalization of the middle

The diathesis, or the active/middle opposition, is a grammatical category of the Ancient Indo-European verb that surfaces in the type of the verbal personal inflexion. Cf. the present tense Vedic active endings 2sg. *-si*, 3sg. *-ti* etc. as opposed to middle endings 2sg. *-se*, 3sg. *-te*, etc.

The middle diathesis (also called ‘middle voice’) is usually said to function as a syncretic marker of several intransitive derivations: passive, anticausative (decausative), reflexive, reciprocal; see examples below. This might indeed be the case in Proto-Indo-European. However, one of the oldest documented Indo-European languages, Vedic Sanskrit, seems to attest the decay of the original system. Already in the language of the earliest texts, Ṛgveda (RV) and Atharvaveda (AV), we observe the loss of several grammatical functions of the ancient Indo-European middle; many of them are taken over by special markers. The only

¹ The most ancient Vedic text, the Ṛgveda, dates to the 2nd half of the second millennium B.C. For the chronology of Vedic texts, see Witzel 1995: 96ff. (with bibl.).

function of the middle which is still quite productive in Vedic is the expression of the self-beneficent (or autobenefactive) meaning. Instead, Indo-Aryan attests the rapid growth of new valency-changing categories, foremost in the present tense system: passives with the suffix *-yá-* and causatives with the suffix *-áya-*.

Let us take a closer look at the main alleged functions of the middle.

3.1. Passive

Within the three main tense systems, present, aorist, and perfect, passive is expressed by characterized formations, rather than by non-characterized (bare) middle forms: (i) in the system of **present**: by present passives with the accented suffix *-yá-*² (e.g. *yuj* ‘yoke, join’: 3sg. *yujyáte* ‘is (being) yoked, joined’, 3pl. *yujyánte* ‘are (being) yoked, joined’, participle *yujyámāna-*, etc.); (ii) in the system of **aorist**: by medio-passive aorists in *-i* and *-ran* (*-ram*) (3sg. in *-i*, 3pl. in *-ran/-ram*; e.g. *yuj* ‘yoke, join’: 3sg. *áyoji*, 3pl. *ayujran*); and (iii) by statives in *-e* and *-re*, which supply passives in the system of **perfect** (3sg. in *-e*, 3pl. in *-re*: e.g. *hi* ‘impel’: 3sg. *hinvé* ‘(it) is / has been impelled’, 3pl. *hinviré* ‘(they) are / have been impelled’); for details, see Kümmel 1996; Gotō 1997. Both medio-passive *i*-aorists and statives have a defective paradigm.

The system of passive formations attested in early Vedic, first of all in the language of the RV, is schematically represented in Table 1. According to the *communis opinio*, alongside with characterized passive formations (YA-presents, I-aorists and statives), there is a plethora of non-characterized middle forms in all the three tense systems that allegedly function as passives (the shadowed column in the midst of the table).

Table 1. *Passive in Old Indo-Aryan: traditional view*

	<i>P A S S I V E</i>			
Present	Active	Middle		<i>-yá</i> -presents
Aorist	Active	Middle		aorists in <i>-i/-ran</i>
Perfect	Active	Middle	(?)	statives in <i>-e/-re</i>

Below I will argue that non-characterized (bare) middle forms are extremely rare in passive usages. There are indeed two large groups of non-characterized middle formations (which I will call ‘bare middles’) employed in passive usages, middle perfects and middle athematic participles with the suffix *-āna-*. In fact,

² Finite verbal forms are normally unaccented except when appearing in a subordinate clause and/or at the beginning of a sentence or metrical unit (*pāda*), i.e. a verse which forms the minimal constituent of a stanza.

however, these forms have special paradigmatic status, being morphologically (grammatically) ambiguous and therefore should be discarded as evidence for the passive function of the middle voice.

Athematic middle **participles with the suffix *-āna-*** exhibit unusual syntactic properties in early Vedic, particularly in the language of the Ṛgveda. While the corresponding finite forms are employed only transitively, the *-āna-*participles are attested both in transitive and intransitive (passive) constructions (see already Delbrück 1888: 264).

For instance, the participle ***hinvānā-*** (root *hi* ‘impel’), taken by all grammars as the middle participle of the nasal present with the suffix *-nó-/nu-* (class V in the Indian tradition), occurs 18 times in intransitive (passive) constructions (as in (1a)), and 10 times in transitive constructions (as in (1b)) in the Ṛgveda):

- (1) a. (RV 9.12.8)
sómo ***hi-nv-ānó*** *arṣati*
 Soma:NOM.SG impel-PRES-PART.MED:NOM.SG.M flow:PRES:3SG.ACT
 ‘Soma, **being impelled**, flows.’
- b. (RV 9.97.32)
 ... *indrāya* *pavase* ... ***hi-nv-ānó***
 Indra:DAT purify:PRES:2SG.MED impel-PRES-PART.MED:NOM.SG.M
vācam *matibhiḥ* *kavīnām*
 speech:ACC.SG thought:INS.PL poet:GEN.PL
 ‘You (sc. Soma) purify yourself for Indra, **impelling** (your) speech with the (religious) thoughts of the poets.’

By contrast, the finite middle forms made from the same stem (3pl.med. *hinváte* etc.), with which *hinvānā-* is supposed to belong together can only be employed transitively, meaning ‘to impel’, as in (2):

- (2) (RV 9.65.11)
hi-nv-é *vāṇeṣu* *vājīnam*
 impel-PRES-1SG.MED price:LOC.PL runner:ACC.SG
 ‘I **spur** on this runner [in the race] for prices.’

Likewise, the participle ***yujānā-*** (root *yuj* ‘yoke’) occurs 8 times in intransitive (passive) constructions (as in (3a)) and 14 times in transitive constructions (as in (3b)) in the Ṛgveda:

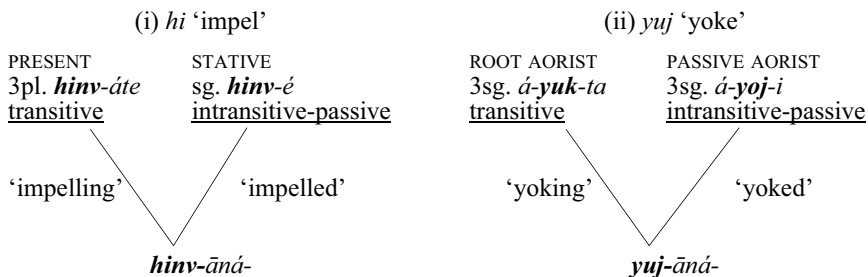
- (3) a. (RV 6.34.2c)
rātho *ná* *mahé* *śávase* ***yuj-ānāḥ***
 chariot:NOM.SG like great:DAT power:DAT yoke:AOR-PART.MED:NOM.SG.M
 ‘... like a chariot **yoked** for the great power.’
- b. (RV 6.47.19a)
yuj-ānó³ *harítā* *ráthe*
 yoke:AOR-PART.MED:NOM.SG.M fallow:ACC.DU chariot:LOC.SG
 ‘... (Tvaṣṭar,) **yoking** two fallow [horses] to the chariot.’

³ *-ó* is the same ending as in *yujān-āḥ* in (3a), resulting from the sandhi before a voiced consonant (*-āḥ h-* → *-ó h-*).

Vedic grammars treat *yujāná-* as a middle participle of the root aorist (see, for instance, Whitney 1885: 132; Macdonell 1910: 370). However, again, as in the case of *hinváná-*, the corresponding finite forms (3sg. *áyukta* etc.) can only be employed in transitive usages, as in (4):

- (4) (RV 7.60.3)
á-yuk-ta *saptá harítaḥ*
 AUG-yoke:AOR-3SG.MED seven fallow:ACC.PL
 ‘He **yoked** (now) his seven fallow (horses).’

Elsewhere I have demonstrated (Kulikov 2006) that the grammatical characteristics of such passive *-āna*-participles should be reconsidered. In my view, these participles are homonymous, or morphologically (grammatically) ambiguous. Thus, the participle *hinváná-* in its transitive usages, meaning ‘impelling’, belongs to the paradigm of the transitive nasal present (*hinváte* etc.). But it is a member of the paradigm of the stative = a stative participle (3sg. *hinvé*, 3pl. *hinviré*) when employed intransitively (passively), meaning ‘impelled’. Likewise, *yujāná-* is a member of the paradigm of the (transitive) root aorist (*áyukta* etc.) when employed transitively (‘yoking’), but it is a member of the paradigm of the passive aorist (3sg. *áyoji*, 3pl. *ayujran*), that is, a passive aorist participle when employed in passive constructions (‘yoked’):



Although, traditionally, Vedic grammars do not include participles into the paradigms of statives and medio-passive aorists, the assumption that passive *-āna*-participles should be added to these paradigms seems quite attractive, since it easily explains their abnormal syntax.

Another large group of non-characterized middle forms employed in passive constructions consists of **middle perfects**. Most remarkably, only 3sg. and 3pl. middle perfects forms (with the endings *-e* and *-re*, respectively) are attested in passive usages.⁴ In my view, all such forms should be taken as statives built on perfect stems, rather than as middle perfects proper.

For instance, the form *dadhé* (root *dhā* ‘put’) should be taken as a 3sg. form of the middle perfect when meaning ‘has put’, as in (5a), and as 3sg. of the stative when meaning ‘is put / has been put’, as in (5b):

⁴ For a detailed study of Vedic perfects, see Kümmel 2000.

(5) a. (RV 9.18.4)

yó víśvāni vāryā vāsūni hástayor dadh-é
 who all desirable:ACC goods:ACC hand:LOC.DU put:PF-3SG.MED
 ‘The one who **holds** / **has put** all desirable goods in his hands ...’

b. (RV 1.168.3)

hāsteṣu khādīś ca kṛtiś ca sām dadh-é
 hand:LOC.PL brooch:NOM.SG and sward:NOM.SG and together put:STAT-3SG.MED
 ‘Brooch and sward **is put** in [your] hands.’

Likewise, the 3pl. form *yuyujré* is middle perfect of *yuj* ‘yoke’ when employed transitively, as in (6a), but stative when employed passively, as in (6b):

(6) a. (RV 5.58.7)

vātān hy áśvān dhury à-yuyuj-ré
 wind:ACC.PL since horse:ACC.PL shaft:LOC.SG PREV-yoke:PF-3PL.MED
 ‘Since [the Maruts] **have yoked** the winds as their horses into the shaft ...’

b. (RV 1.168.3)

dhiyā yuyuj-ra⁵ indavaḥ
 thought:INS.SG yoke:STAT-3PL.MED drop:NOM.PL
 ‘The [Soma]-drops **have been yoked** with a religious thought.’

The same holds true, *mutatis mutandis*, for middle participles made from perfect stems and employed in passive usages. Such forms should be taken as belonging with statives rather than with middle perfects, as in the compound *yuyujānā-sapti-* ‘with yoked horses’:

(7) (RV 6.62.4)

yuyuj-ānā-saptī
 yoke:STAT-PART.MED-horses:NOM.DU
 ‘[these two Áśvins] which have yoked horses’

To conclude this short discussion of the passive paradigm, let it be mentioned that the sub-paradigm of present is in fact defective, too. We mostly find 3sg. and 3pl. forms of the present tense, as well as participles. Next to present tense forms proper, there are rare imperatives (some 10 forms in the RV and AV). Only exceptional attestations of other tense-moods are found, which makes the sub-paradigm of present much more similar to those of the aorist and perfect.

The early Vedic passive paradigm (as attested for *yuj* ‘yoke’ and *su* ‘press (out)’) is summarized in Table 2. Different types of shadowing show the status of the corresponding forms: dark grey = lacking and morphologically impossible; middle grey = morphologically possible but unattested or only exceptionally attested (underdeveloped part of the paradigm); light grey = morphologically possible but rare.

⁵ -ra is the same ending as in *yuyuj-ré* in (6a), with *a* resulting from the sandhi before a vowel (-e i- → -a i-).

Table 2: Passive paradigm in early Vedic

		PRESENT		AORIST		PERFECT/STATIVE	
		INDICATIVE	IMPERATIVE	INDICATIVE	INJ.	INDICATIVE	IMPER.
SG	1	...	...				
	2	... , <i>yuyáse</i>	[<i>dhīyasva</i>]			[<i>śṛṇviṣé</i>]	
	3	<i>sūyáte, yuyjáte</i>	[<i>dhīyātām</i>]	<i>ásāvi, áyoji</i>	... , <i>yoji</i>	<i>sunvé, yuyujé</i>	[<i>duháṁ</i>]
DU	1	...	...				
	2	...	...				
	3	[<i>ucyete</i>]	...				
PL	1	[<i>-panyāmahe (?)</i>]	...				
	2	...	<i>yuyjadhvam</i>				
	3	... , <i>yuyjante</i>	[<i>badhyantām</i>]	... , <i>áyujran</i>	...	<i>sunvire, yuyujré</i>	
PART.		<i>sūyámāna-, yuyjámāna-</i>		<i>s^uvāná-, yujāná-</i>		<i>sunvāná-, yuyujāná-</i>	

Most importantly, the system almost exclusively consists of characterized forms. There are only exceptional and isolated non-characterized (bare) middle forms.⁶ Thus, the middle diathesis cannot be said to serve as the marker of the passive voice.

3.2. Reflexive

The reflexive is another valency-decreasing (intransitivizing) derivation traditionally associated with the middle diathesis. There are indeed some doubtless instances of the reflexive usage of the middle forms (see Gonda 1979: 50), as in (8–9):

- (8) (RV 2.33.9)
pipiś-e *hīraṇyaih*
 adorn:PERF-3SG.MED golden.decoration:INS.PL
 ‘[Rudra] has adorned himself with golden decorations.’
- (9) (RV 1.36.16)
yó *mártyaḥ* *śíṣṭ-te* *áty aktúbhir*
 who:NOM.SG.M mortal:NOM.SG sharpen:PRES-3SG.MED by night
 ‘The mortal who sharpens himself by night ...’ (≈ who is too nimble ...)

Such examples are relatively few, however. In many cases the term ‘reflexive’ is misleading. In fact, most occurrences of middle forms that are traditionally called ‘reflexives’, should rather be qualified as anticausatives, cf. *pūryate* ‘becomes full’ (not ‘fills oneself’), *pávate* ‘becomes clean’ (not ‘purifies oneself’!), etc.

⁶ These include, for instance, class IX pres. *grñité* ‘is praised’ or class I pres. *stávate* ‘is praised’. *stávate* and *grñité* are likely to be based on the stems of the statives *stáve* (see Narten 1969) and *grñe* ‘is praised’, instantiating a sort of back derivation (Rückbildungen). A few sigmatic aorists (mostly 3pl. forms): *ayukṣata* ‘(they) were yoked’, *adrkṣata* ‘(they) were seen, visible, (they) appeared’, *asrkṣata* ‘(they) were set free’ must be replacements of the medio-passive 3pl.aorists in *-ran*, which disappear after the RV.

Furthermore, several non-passive intransitives which may go back to true reflexives, exhibit idiomatic semantic changes, cf. *śap* ‘curse’: *śápate* ‘swears’ (← *‘curses oneself’); *śā* ‘sharpen’: *śíśīte* ‘is too nimble’ (← *‘sharpens himself’).

The productive markers of reflexive are two pronouns of substantive origin: *tanū-*, originally meaning ‘body’ (cf. (10)) – in early Vedic; and *ātmán-* (‘breath, soul’) – in later texts (cf. (11)) (see Kulikov 2007a for details):

(10) (RV 1.147.2)

vandārus *te* *tanuvām* *vande* *agne*
praiser:NOM.SG your self:ACC.SG praise:PRES:1SG.MED Agni:VOC.SG
‘As your praiser, I praise myself, o Agni.’

(11) (MS 1.6.4:93.3)

hīraṇyam *dadāty* *ātmānam evā* *téna* *punīte*
gold:ACC.SG give:PRES:3SG.ACT self:ACC.SG thereby purify:PRES:3SG.MED
‘He gives gold; thereby he purifies himself.’

3.3. Reciprocal

Again, as in the case of passive or reflexive, the regular markers of reciprocity include several morphemes which typically (but not always) co-occur with the middle type of inflexion (see Kulikov 2007b for details): preverbs *sám* ‘together’ and *vi* ‘asunder’ as well as the adverb *mithás* ‘mutually’ and reciprocal pronoun *anyó-(a)nyám* (lit. ‘another-another’). Cf. (12), where two of these markers are attested:

(12) (AV 3.30.4)

yéna *devā* *ná* *vi-y-ánti* *ná* ⁷ *u ca* *vi-dviṣ-áte*
which:INS.SG god:NOM.PL not vi-go:PRES-3PL.ACT not and vi-hate:PRES-3PL.MED
mitháh *tát* *kṛṇ-mo* *bráhma* *vo* *grhé*
mutually that make:PRES-1PL.ACT incantation:ACC.SG your house:LOC.SG
‘We perform in your house that incantation by virtue of which the gods do not go apart, do not hate one another (mutually).’

The reciprocal adverb *mithás* ‘mutually’ is particularly common as marker of reciprocity in the language of the RV, cf. *pū* ‘purify’ – *punāné mitháh* (RV 4.56.6) ‘purifying each other [earth and heaven]’; *hi* ‘urge, impel’ – *mithó hinvāná* (RV 10.65.2) ‘impelling each other’; *tī* (*tūr*) ‘surpass’ – *mithas-túr-* (e.g. RV 6.49.3 *mithas-tūrā* ‘(day and night), surpassing each other’). Periphrastic constructions with *anyó (a)nyám* (lit. ‘another-another’) become productive in the middle Vedic period.

3.4. Anticausative

The causative/anticausative distinction is the only valency-changing derivation which, unlike passive, reflexive and reciprocal, is quite regularly expressed by the active/middle opposition, at least in early Vedic, as in med. *várdhate* ‘grows’

⁷ The symbol $\cup$ shows that the sandhi has been undone.

~ act. *várdhati* ‘makes grow, increases’ or med. *réjate* ‘trembles’ ~ act. *réjati* ‘makes tremble’.

However, in most cases, the middle type of inflexion is not the only marker of anticausative, being supported by the stem opposition – which, eventually, weakens the functional value of the middle as a marker of anticausative. For instance, transitive-causative presents with nasal affixes with the active inflexion are mostly opposed to middle thematic root presents (= class I presents in the traditional notation) or class IV presents with the suffix *-ya-*, cf. *pávate* ‘becomes clean’- *punā́ti* ‘makes clean’; *ríyate* ‘flows, bubbles’- *riṇā́ti* ‘makes flow, makes bubble’.

Moreover, already in early Vedic the binary oppositions of the type med. *várdhate* ~ act. *várdhati*, med. *códate* ‘rushes, hastens (intr.)’ ~ act. *códati* ‘urges, impels (tr.)’ are often complicated by a third member, the more characterized causative with the suffix *-áya-*: *vardháyati*, *códáyati*, as shown in the following scheme:



In later texts, the causative meaning is still more regularly rendered by the suffix *-áya-*, which decreases the functional weight of the active/middle opposition even further. In other words, Indo-Aryan becomes a causative-marking language.

3.5. The only functional domain which the middle diathesis does not share with other markers, is the group of functions which can be called **self-beneficent**, or **auto-benefactive**. The self-benefactive meaning was one of the main functions of the Vedic (and, in general, ancient Indo-European) middle type of inflexion, as illustrated in (13):

(13) Vedic Sanskrit

- a. *brāhmaṇo (rājñe) prayājam yaja-ti*
priest:NOM (king:DAT) sacrifice:ACC worship:PRES-3SG.ACT
‘The priest performs the sacrifice (for the king).’
- b. *brāhmaṇaḥ prayājam yaja-te*
priest:NOM sacrifice:ACC worship:PRES-3SG.MED
‘The priest performs the sacrifice (for his own sake).’

4. Development of the new valency-changing categories

The decay of the middle is compensated by and goes essentially parallel with the development of the new valency-changing categories, foremost within the system of present.

4.1. Causatives

Causatives with the suffix *-āya-* dramatically increase their productivity already within OIA. In early Vedic (and probably in Proto-Indo-European) they can only be derived from intransitives and intransitive/transitives (I/T) verbs of perception and consumption (*drś* ‘see’, *vid* ‘know’, *pā* ‘drink’). In middle Vedic (in the language of Vedic prose, or Brāhmaṇas) we find first occurrences of causatives of transitives, such as *kṛ* ‘make’ – *kārāyati* (Br.+) ‘cause to make’, *vac* ‘speak’ – *vācāyati* (YV^{P+}) ‘make speak’, *hṛ* ‘take, carry’ – *hārāyati* (YV^{P+}) ‘make take, make carry’. Finally, in late Vedic and post-Vedic (Sūtras, Epic Skt.) earliest attestations of causatives with double characterization in *-āpaya-* appear: *aś* ‘eat’ – *aśāpayati* (MānGS) (~ simple caus. *āśayati* (Br.+)), *kṣal* ‘wash’ – opt. *kṣālāpayīta* (Sū.) (~ simple caus. *kṣālayati* (Br.+)). These formations correspond to Middle and New Indo-Aryan double causatives.

4.2. Passives

Passives with the suffix *-yá-* likewise increase their productivity. In early Vedic, these formations are attested from some 40 roots, which only include non-derived transitives. In middle Vedic (young mantras, Yajurveda, Brāhmaṇas) we find first examples of *-yá-*passives derived from secondary stems (desideratives and causatives of intransitive verbs). Finally, in late Vedic and post-Vedic (from the Śrauta-Sūtras onwards), passives of causatives derived from transitives first appear (caus. *dhāpáyati* ‘makes put’ – *ni-dhāpyamāna-* VaitS, caus. *pāyáyati* ‘makes drink’ – *pāyyamāna-* ĀpŚS).

To sum up, we observe two parallel tendencies in the history of Indo-Aryan. The loss of many original functions of the middle and the lexicalization of many middle forms suggests that the diathesis opposition, albeit physically preserved in the paradigm, loses a large part of its functional content. Thus, the middle, supposedly a syncretic marker of several intransitive derivations in Proto-Indo-European, loses one by one its intransitivizing functions. In other words, the category of middle can be said to **degrammaticalize** in Indo-Aryan. This process runs parallel with, and is supported by, the grammaticalization of several new categories, such as *-yá-*passives and *-āya-*causatives, reflexives with *ātmán-* and reciprocal constructions with *anyo’nya*.

5. Decay of labile syntax

The third important tendency which determines the development of the Old Indo-Aryan verbal syntax is the decline of lability. The term ‘labile’ refers to verbs or verbal forms which can show a valence alternation with no formal change in the verb, cf. Eng. *The door **opened** ~ John **opened** the door*; Vedic *rudrā ṛtasya sádaneṣu **vāvṛdhuḥ*** ‘Rudras **have grown** [intransitive] in the residences of the truth’ ~ *īndram ukthāni **vāvṛdhuḥ*** ‘The hymns **have increased**

[transitive] Indra'. The ancient Indo-European languages, such as early Vedic and (Homeric) Greek, are usually considered as characterized by a high degree of lability. According to the *communis opinio*, they had a considerable number of labile verbs and verbal forms. Being one of the most intriguing aspects of the (ancient) Indo-European verb, this phenomenon has even caused quite desperate claims expressed by some Indo-Europeanists, such as:

Que signifiait donc [la forme proto-indo-européenne] **e-liq-ê-s*? Était-ce 'tu lais-sas' ou 'tu restas'? Si l'un des deux, comment est-il devenu l'autre? Si tous les deux, il faut convenir que nos ancêtres manquaient de clarté (Henry 1893: 121)

Almost a half-century later, H. Hirt in his seminal *Indogermanische Grammatik* (VII/II: *Syntax*) has formulated his views less emotionally, but hardly more optimistically:

Bei den Sätzen mit Verben muß man <...> unterscheiden, ob das Verb allein steht oder noch eine Ergänzung, ein Objekt, fordert, ob es nach der gewöhnlichen Ausdrucksweise intransitiv oder transitiv ist. <...> Nun ist aber die Unterscheidung nicht so wesentlich, da intransitive Verben transitiv und transitive intransitiv werden können. Wäre sie von großer Bedeutung, so würden wir wohl eine Verschiedenheit der Form zwischen den beiden Kategorien antreffen (Hirt 1937: 28)

In my view, the productivity of the labile patterning in such ancient Indo-European languages as Vedic is strongly exaggerated. Thus far we have no full treatment of the phenomenon of lability in ancient Indo-European languages in general or in Vedic, in particular. I will of course make no attempt to present the full inventory of the labile forms attested in Vedic. Rather, I will confine myself to mentioning several forms of the verbal paradigm where labile patterning was most common, arguing for the secondary character of lability in most such cases (for details, see Kulikov 2003).

5.1. Lability of middle present forms

First, in a number of middle forms of the system of present, labile patterning results from the polyfunctionality of the middle diathesis. The middle inflexion can express either the self-beneficent (auto-benefactive) meaning with no valence change (cf. the textbook example act. *yájati* 'sacrifices' ~ med. *yájate* 'sacrifices for oneself', as in (13)), or an intransitivizing derivation, most often, anticausative (decausative). Correspondingly, in the cases where the middle diathesis can have both functions, its middle forms can be employed either transitively with the self-beneficent meaning, or intransitively, so that we are confronted with labile patterning, as in the case of verbs *svádate* 'makes sweet / is sweet'; *códate* 'impels / rushes, hastens', *námate* 'bends', *bhárate* 'brings (for oneself) / brings oneself', *vahate* 'carries / drives, goes', *śráyate* 'lays, fixes on, fastens / leans on'. Cf. (14–15):

- (14) a. (RV 9.74.9)
sváda-sva *indrāya* *pavamāna* *pīāye*
 be/make.sweet:PRES-2SG.IMPV.MED Indra:DAT.SG Pavamāna:VOC.SG drink:INF
 'Be sweet for Indra, O Pavamāna (= Soma sap), for drinking.'

b. (RV 3.54.22)

sváda-sva *havyā*
be/make.sweet:PRES-2SG.IMPV.MED oblation:ACC.PL
'Make the oblations sweet [for yourself].'

(15) a. (RV 1.104.7)

vīṣā *coda-sva* *mahatē* *dhānāya*
bull:NOM.SG rush:PRES-2SG.IMPV.MED big:DAT.SG contest:DAT.SG
'Rush [like] a bull for a big contest!'

b. (RV 8.75.6)

vīṣṇe *coda-sva* *su-ṣṭutīm*
bull:DAT.SG impel:PRES-2SG.IMPV.MED good-praise:ACC.SG
'Send forth your beautiful praise for the bull.'

Labile syntax is also attested for presents with nasal affixes (i.e. with the suffixes *-nó/-nu-*, *-nā/-nī-* and with the infix *-ná/-n-* = classes V, IX and VII in the traditional notation), particularly for their thematicized variants (see Kulikov 2000). Cf. the labile thematic middle present *pṛṇáte* 'fills; fills oneself':

(16) a. (RV 3.33.12)

ā *vakṣānāḥ* *pṛṇá-dhvam*
PREV udder:ACC.PL fill:PRES-2PL.IMPV.MED
'Fill your udders, (o rivers).'

b. (RV 7.37.1)

sāvaneṣu *sómair ...* *pṛṇa-dhvam*
pressing:LOC.PL Soma:INS.PL fill:PRES-2PL.IMPV.MED
'At the [Soma-]pressings fill yourself with the Soma[-sap].'

5.2. Verbs constructed with content accusatives: type *púṣyati* 'prosper' / 'make prosper'

Another type of the Vedic and Indo-European lability is represented by the verbs of the type *púṣyati*, employed both in the intransitive usage 'prosper, thrive' and the transitive-causative usage, meaning 'make prosper, make thrive', as in (17a–b):

(17) a. (RV 7.32.9)

tarāṇir *īj* *jayati kṣéti* *púṣya-ti*
fast:NOM.SG only wins dwells prosper:PRES-3SG.ACT
'Only the one who is fast is victorious, dwells (in peace), **prosper**s.'

b. (RV 8.39.7)

sá mudā *kāvya* *purú*
he joy:INS.SG poetic.inspiration:ACC.PL many
viśvam *bhūma* *iva* *púṣya-ti*
everything:ACC earth:NOM.SG like prosper:PRES-3SG.ACT
'By [his] joy, he (sc. Agni) [makes thrive] many poetic inspirations, as the earth **makes thrive** everything.'

Elsewhere (Kulikov 1999) I have argued that only intransitive constructions, as in (17a), represent the original, authentic usage for this verb. The overwhelming majority of the occurrences with the accusative are, in fact, either (i) constructions with the 'etymological' accusative (*pūṣtí-* 'prosperity', *póṣa-* 'prosperous

thing’), or (ii) constructions with the content accusative (Inhaltsakkusativ), referring to some aspect(s), parameter(s) or scope of prosperity; cf. (18–20):

- (18) (RV 6.2.1)
tvām ... śrávo váso puṣṭīm ná puṣya-si
 you:NOM glory:ACC.SG Vasu:VOC.SG prosperity:ACC.SG as prosper:PRES-2SG.ACT
 ‘You, o Vasu, **prosper** in **glory** [= you are glorious], as [one prospers] in **prosperity** [= as one is prosperous].’
- (19) (RV 7.56.5)
sá víṭ su-víṛā marúdbhir as-tu ...
 this tribe:NOM.SG good-man:NOM.PL Marut:INS.PL be:PRES-3SG.IMPV.ACT
púṣya-ntī nṛmṇám
 prosper:PRES-PART.ACT-NOM.SG.F manliness:ACC.SG
 ‘Let this tribe be full of valiant sons with [the help of] Maruts, ... **prospering in manliness**.’
- (20) (RV 1.81.9)
eté ta indra jantávo
 these your Indra:VOC people:NOM.PL
viśvam puṣya-nti vāryam
 all:ACC prosper:PRES-3PL.ACT desirable,good:ACC.SG
 ‘These men of you, O Indra, **prosper in all desirable goods**.’⁸

The rare transitive-causative usages, as the one illustrated in (17b), are likely to result from the reanalysis of constructions with content accusative, in accordance with the following semantic scenario: *bhūma viśvam puṣyati* ‘the earth thrives in everything [what exists on it]’ → ‘the earth makes thrive everything [what exists on it]’.

5.3. Middle athematic participles and middle perfects

Labile patterning is also very common for middle athematic participles with the suffix *-āna-*. However, as I argued at the beginning of my paper, the labile syntax of forms such as *hinvāná-* ‘impelling; impelled’ and *yujāná-* ‘yoking; yoked’ is a direct corollary of their morphological (grammatical) ambiguity. The transitive occurrences of *hinvāná-* belong with the present paradigm, while its intransitive-passive attestations belong to the paradigm of the perfect/stative. Likewise, *yujāná-* is a middle root aorist participle in transitive usages and a medio-passive aorist participle in intransitive-passive usages.

The same holds for the allegedly labile 3rd sg. and pl. middle perfects as well as for the corresponding middle perfect participles. Transitive forms such as *dadhé* (*dhā* ‘put’) (‘has put’) or *yuyujré* (‘have yoked’) should be taken as a 3sg. or 3pl. forms of the middle perfect, as in (5a), while passive occurrences (‘is put / has been put’; ‘are yoked / have been yoked’) belong with the stative paradigm.

⁸ Such constructions with content accusative are erroneously translated by some scholars as transitive-causative, for instance, by Geldner – in example (20): ‘Diese Leute hier **bringen** für dich, Indra, allen begehrenswerten (Besitz) **zur Blüte**.’ (Geldner 1951: I, 105).

5.4. Active perfects

Of more authentic character is the labile patterning of the active perfects. Typical examples are perfects of the verb *vṛdh* ‘grow, increase’.⁹ Both active and middle forms of this verb can be employed either intransitively or transitively. For instance, the 3rd person plural active form *vāvṛdhūh* occurs in the Ṛgveda 6 times in intransitive usages (as in (21a)) and 14 times in transitive-causative usages (as in (21b)) (see Kümmel 2000: 469ff. for details):

(21) a. (RV 2.34.13)

<i>rudrá</i>	<i>ṛtásya</i>	<i>sádaneṣu</i>	<i>vāvṛdh-uḥ</i>
Rudra:NOM.PL	law:GEN.SG	residence:LOC.PL	grow:PF-3PL.ACT

‘Rudras **have grown** in the residences of the truth.’

b. (RV 8.6.35)

<i>īndram</i>	<i>ukthāni</i>	<i>vāvṛdh-uḥ</i>
Indra:ACC.SG	hymn:NOM.PL	grow:PF-3PL.ACT

‘The hymns **have increased** Indra.’

After the Ṛgveda, we observe the decay of the labile type. Already in the second-most ancient Vedic text, the Atharvaveda, we find very few labile forms. Most of the active perfects which show labile syntax in the Ṛgveda are either attested in intransitive usages only (e.g., (*ā*) *vāvárta* ‘has turned / has made turn’, both intransitive and transitive in the RV, as opposed to AV *-vāvarta* ‘has turned’ (intr.); see Kümmel 2000: 462ff.), or in transitive usages only (RV *mamáda* ‘has rejoiced, has been exhilarated / has exhilarated’ (tr.), as opposed to AV 7.14.4 3sg.subj.act. *mamádat* ‘he should exhilarate’ (transitive); see Kümmel 2000: 356ff.), or do not occur at all (as is the case with RVic *vāvṛdhūh* ‘have grown / have increased’, *rurucūh* ‘have shone / have made shine’).

6. Concluding remarks: Indo-Aryan within the Indo-European typological context

To sum up, we observe three main tendencies in the evolution of the Indo-Aryan syntax, which are partly related to, but not entirely dependent from, each other. The decay of the labile patterning essentially runs parallel with two processes: the rise and development of new valency-changing categories, causatives with the suffix *-áya-* (see Jamison 1983) and passives with the suffix *-yá-* (see Kulikov 2001), which brings the language to a more overt morphological marking of the transitivity oppositions; and (ii) degrammaticalization of the middle diathesis, which amounts to transferring most functions of the (Proto-)Indo-European middle to specialized markers.

⁹ The labile syntax of the early Vedic perfect (especially common in the Ṛgveda) may originate in the predominant intransitivity of the Proto-Indo-European perfect, of which some traces can still be found in early Vedic and Homeric Greek; for details, see Kulikov 2003; 2006.

Importantly, these tendencies are not shared with most other branches of Indo-European. It will now be in order to consider the situation in Indo-European in a diachronic typological perspective. On the one hand, several groups of Indo-European, including most Germanic, Romance and Slavic languages, replace the old syncretic marker of the valency-reducing categories, the middle diathesis, with a new one, mostly going back to the Proto-Indo-European reflexive pronoun **s(u)e-* (for this issue, see, for instance, Cennamo 1993). On the other hand, a number of Romance and Germanic languages attest the emergence and expansion of the labile patterning (which becomes particularly common and productive in English); the expansion of labile verbs is also well attested in Greek. Furthermore, the Proto-Indo-European causative morpheme **-eie-*, still well-attested in Gothic (*jan*-verbs) and Old Church Slavonic (*i*-causatives), has left only few traces in modern Germanic and Slavonic languages. This type of evolution, well-attested in the **Western** part of the Indo-European area, might be called ‘**syncretic**’.

By contrast, several other daughter languages, mostly those which belong to some **Eastern** branches of Indo-European, radically abandon the syncretic strategy and develop special markers for several intransitive derivations. These include, in particular, Indo-Aryan and Armenian markers of morphological passive going back to Proto-Indo-European suffix **-ie/o-*; Indo-Iranian reflexive pronouns *tanū-* (originally meaning ‘body’) and Indo-Aryan *ātmán-* (‘breath’); Indo-Iranian reciprocal pronouns. Furthermore, morphological causatives become quite productive in some Eastern branches, in particular, in Armenian (causative marker *-uc ‘anem* based on the nasal present derived from a sigmatic aorist) and Indo-Iranian (productive morphological causative suffixes *-áya-*, *-aia-* going back to Proto-Indo-European **-eie/o-*). An interesting feature (isogloss) shared by several **Eastern** Indo-European languages of the non-syncretic type, such as Indo-Aryan, Iranian, and Armenian, is the parallel development of the new non-syncretic passive and productive morphological causative. The Proto-Indo-European middle diathesis is degrammaticalized and eventually disappears. The labile syntax, even if attested in some ancient languages of the Eastern branches, tends to disappear in the course of their history. One might call this type ‘**antisyncretic**’.

Thus, we observe two basic types of evolution, or two evolutionary types, attested in the history of the system of transitivity oppositions and valency-changing categories in Indo-European: syncretic type found in many Western branches and anti-syncretic type attested at least in some Eastern branches, in particular, in Indo-Aryan.

Typologically, the Eastern type, as attested in Indo-Aryan, shares more features with some non-Indo-European families, such as Turkic or Altaic in general, rather than with the Western Indo-European type, as attested in Germanic or Greek. Like Indo-Aryan, Turkic has productive morphological valency-changing categories, such as causative or reciprocal, and there is some evidence for the decline of labile patterning (still present in Old Turkic), as well as the under-developed middle voice, as shown in Table 3.

Table 3. Diachronic typological features of some language families

	middle voice	morphological valency-changing categories	labiality
East Caucasian	0	+(+)	+(+)
Kartvelian	+	+	0
Egyptian/Coptic	+	+(+)	0
Germanic	++ (new)	–	++
Romance	++ (new)	–	+(+)
Slavic	++ (new)	–	0
Greek	+	0/+	++
Indo-Aryan	–	++	–
Turkic	0/–	+(+)	0/–

0 lacking

+

present

++ increasing (in productivity, frequency etc.)

– decreasing/disappearing

The Western type has no such clear non-Indo-European parallels as the Eastern type, although we probably can observe some affinities with such families, as, for instance, Kartvelian or Egyptian.

The origins of these features and the anti-syncretic evolutionary type, in general, instantiated by Indo-Aryan is a difficult problem on its own. It may be (partly) due to the influence of the substrate languages of the Altaic or Dravidian type. These languages could be responsible for some other features of Indo-Aryan as well, in particular, for the dramatic restructuring of the case system, loss of many Proto-Indo-European cases and the emergence of the new, agglutinative, case systems.

7. References

- Cennamo, Michela. 1993. *The reanalysis of reflexives: a diachronic perspective*. Napoli: Liguori.
- Delbrück, Berthold. 1888. *Altindische Syntax*. Halle a. S.: Verlag der Buchhandlung des Waisenhauses.
- Geldner, Karl Friedrich. 1951. *Der Rig-veda aus dem Sanskrit ins Deutsche übersetzt...* Bd. 1–3. Cambridge, MA: Harvard University Press.
- Gonda, Jan. 1979. *The medium in the R̥gveda*. Leiden: Brill.
- Gotō, Toshifumi. 1987. *Die "I. Präsensklasse" im Vedischen: Untersuchung der vollstufigen thematischen Wurzelpresentia*. Wien: Verlag der Österreichischen Akademie der Wissenschaften. (2., überarbeitete und ergänzte Aufl. 1996).

- 1997. Überlegungen zum urindogermanischen «Stativ». In: E. Crespo & J.L. García Ramón (eds.), *Berthold Delbrück y la sintaxis indoeuropea hoy. Actas del Coloquio de la Indogermanische Gesellschaft*. Madrid: UAM; Wiesbaden: Reichert, 165–192.
- Henry, Victor. 1893. Rev. of: K. Brugmann. *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen* II, II, 2. (Strassburg, 1892). *Revue critique d'histoire et de littérature* 35 (7). 120–123.
- Hirt, Hermann. 1937. *Indogermanische Grammatik*. Teil VII. *Syntax* II. *Die Lehre vom einfachen und zusammengesetzten Satz*. Heidelberg: Winter.
- Jamison, Stephanie W. 1983. *Function and form in the -āya-formations of the Rig Veda and Atharva Veda*. Göttingen: Vandenhoeck und Ruprecht.
- Kulikov, Leonid. 1999. May he prosper in offspring and wealth: A few jubilee remarks on the typology of labile verbs and Sanskrit *pūsyati* ‘prosper; makes prosper’. In: Ekaterina V. Rakhilina & Yakov G. Testeleits, eds. *Tipologija i teorija jazyka: Ot opisanija k ob"jasneniju. K 60-letiju A.E. Kibrika*. [Typology and linguistic theory: From description to explanation. For the 60th birthday of Aleksandr E. Kibrik]. Moskva: Jazyki russkoj kul'tury, 224–244.
- 2000. Vedic causative nasal presents and their thematicization: a functional approach. In: J.Ch. Smith & D. Bentley (eds), *Historical linguistics 1995. Selected papers from the 12th International Conference on Historical Linguistics*. Vol. 1: *General issues and non-Germanic Languages*. Amsterdam: Benjamins, 191–209.
- 2001. *The Vedic -ya-presents*. PhD diss. Leiden University.
- 2003. The labile syntactic type in a diachronic perspective: The case of Vedic. *SKY Journal of Linguistics* 16. 93–112.
- 2006. Passive and middle in Indo-European: Reconstructing the early Vedic passive paradigm. In: W. Abraham & L. Leisiö, eds. *Passivization and typology: form and function*. Amsterdam: Benjamins, 62–81.
- 2007a. The reflexive pronouns in Vedic: A diachronic and typological perspective. *Lingua* 117 (8). 1412–1433.
- 2007b. Reciprocal constructions in Vedic. In: V. P. Nedjalkov et al., eds. *Reciprocal constructions*. Vol. 2. Amsterdam: Benjamins, 709–738.
- Kümmel, Martin. 1996. *Stativ und Passivaorist im Indoiranischen*. Göttingen: Vandenhoeck & Ruprecht. (HS; Ergänzungsheft 39).
- 2000. *Das Perfekt im Indoiranischen*. Wiesbaden: Reichert.
- Macdonell, Arthur Anthony. 1910. *Vedic grammar*. Strassburg: Trübner.
- Narten, Johanna. 1969. Zum “proterodynamischen” Wurzelpräsens. In: J.C. Heesterman et al. (eds.), *Pratidānam: Indian, Iranian, and Indo-European studies presented to F.B.J. Kuiper on his sixtieth birthday*. The Hague: Mouton, 9–19. [= J. Narten. *Kleine Schriften*, I: 97–107. Wiesbaden: Reichert, 1995]
- Whitney, William Dwight. 1885. *The roots, verb-forms, and primary derivatives of the Sanskrit language*. Leipzig: Breitkopf and Härtel.
- Witzel, Michael. 1995. Early Indian history: linguistic and textual parameters. In: G. Erdosy (ed.) *Language, material culture and ethnicity. The Indo-Aryans of ancient South Asia*. Berlin – New York: de Gruyter, 85–125.

8. Acknowledgements

I am grateful to A. Lubotsky and I. Serzants for their comments on earlier drafts of this paper. I also would like to take this opportunity to express my thanks to the audiences of the 23rd Scandinavian Conference of Linguistics (University of

Uppsala, 1–3 October 2008) and Friday Afternoon Lecture organized by Leiden University Centre for Linguistics (LUCL) – in particular to Chr. Schaefer, A. Siewierska, F. Kortlandt, M. Kossmann, A. Lubotsky, M. Mouse, and T. Schadeberg – for suggestions and critical remarks. I acknowledge the Netherlands Organization for Scientific Research (NWO) for financial support, grant 275-70-009 (VENI- project).

9. Contact information

Leonid Kulikov

Leiden University Centre for Linguistics (LUCL) / Dept. of Comparative Indo-European Linguistics (VIET)

Leiden University, Faculty of Humanities,

PO Box 9515

2300 RA Leiden

The Netherlands

L.Kulikov@hum.leidenuniv.nl