

APPROACHES TO ERGATIVITY IN INDO-ARYAN*

KRZYSZTOF STROŃSKI

ABSTRACT. Krzysztof Stroński. *Approaches to Ergativity in Indo-Aryan*. *Lingua Posnaniensis*, vol. LI/2009. The Poznań Society for the Advancement of the Arts and Sciences. PL ISSN 0079-4740, ISBN 978-83-7654-080-1, pp. 77–118

The present paper aims at giving an overview of the basic theories pertaining to the emergence and development of ergativity in Indo-Aryan. It has usually been argued that ergativity could have been derived either from the passive or the originally PIE ergative construction. In addition to these two basic approaches to ergativity in IA, other perspectives are also taken into consideration here, namely the theory which is based on the pragmatic properties of OIA, and the hypothesis of the possible borrowing from the substratum languages. The existing models of the historical scenarios of the emergence of ergativity in IA, including their later mutations, are confronted with the hypothesis of the possible active typology of PIE. The active residues in OIA and its continuants might prove that ergativity arose due to the transition from the PIE active to the nominative stage attested in the daughter languages.

Krzysztof Stroński, Institute of Linguistics, Adam Mickiewicz University, al. Niepodległości 4, PL – 61-874 Poznań

INTRODUCTION

The diachronic study of the problem of the formation of ergativity in South Asia has received considerable attention. Contemporary ergative patterns existing in the North-Western IA languages have a clear correspondence to the OIA construction with the verb in the past perfect participial form in *-ta* and agent either in the instrumental or genitive. The most common theory presumes that the ergative construction in the IA languages has a passive ancestor in OIA. This diachronically proved path of development of ergativity has met with substantial criticism. The proposed “nominative to ergative” shift is still defended by a few scholars but it has also been demonstrated that the predominance of the passive (thus marked) construction in OIA is pragmatically and structurally untenable.

The main difficulty with the interpretation of the development of ergativity from a passive construction concerns the status of the *-ta* participle and agent marking. Historical reconstruction leaves us only with the passive origin of ergativity but diachronic typology and areal typology shed new light on the problem.

* This paper is a part of a research project which has been supported by the Ministry of Science and Higher Education grant N N104 2158 33.

The achievements of diachronic typology (e.g. the correspondences with Caucasian developments) show clearly that the only possible way for ergativity to emerge is from an active typology and that such development is unidirectional. Thus split-ergative system existing in OIA could arise from active typology as a secondary development. There are several features of OIA verbal and nominal systems which can be considered an active residue. Some of these features have been preserved in NIA as well.

Areal typology can reinforce the arguments for active>ergative>nominative shift. The possible language substrata had different impacts on OIA. Languages of ergative typology such as Burushaski and Tibetan are said to have limited influence on Aryan stock, while languages with perceptible active features, i.e. Munda or nominative languages, i.e. Dravidian ones, could trigger the gradual nominativization of split-ergative patterns leading to the complete loss of ergativity in East IA. The models of historical scenario of the development of ergativity in IA are exemplified by the data from Western and vernacular grammars, from concordances, texts and author's own field notes.

1. FROM PASSIVE TO ERGATIVE – A TRADITIONAL VIEW

The traditional view on the origin of ergativity in the IA languages is based on the hypothesis of the shift from passive to ergative.¹ According to the adherents of this hypothesis the Indo-Iranian periphrastic perfect construction is said to be derived from the passive. The verbal form of this construction is the *-ta* participle (also understood as a verbal adjective) which can be interpreted actively when derived from an intransitive verb and passively when derived from a transitive one, e.g. Ved. *yātá* 'gone', *hatá* 'killed' (cf DELBRÜCK 1888: 382).² If the *-ta* participle serves as a two place predicate, the main arguments are marked according the following rules: agents by the genitive (OPers.) ex. (1) and by the instrumental or by the genitive (in OIA) ex. (2) and (3); patients by the nominative. The participle agrees with the unmarked NP so the construction morphologically resembles the passive one. If the *-ta* participle is in the function of a one place predicate, then the only argument can be marked by the nominative agreeing with the *-ta* participle ex. (4) or by the instrumental, but then the participle is in the neuter and there is no agreement ex. (5) (this construction is however not attested in early OIA).

- (1) *ima tya manā kṛtam*
 this.neut. what.neut I.Gen do.PPP.Nom.sg.neut
 This is what was done by me.
 or I have done this. (OPers.)

- (2) *hatá índreṇa paṇayaḥ śavadhve*
 kill. PPP.Nom.pl.masc. Indra. Instr. Pani.Nom.pl.masc. lie down.2.pl.pres.med.
 You Panis lie down smashed by Indra. (RV 10.108.4; cf ANDERSEN 1986b: 10)

¹ To what extent has this view been influenced by early works of caucasiologists would be perhaps an interesting topic for a historian of linguistics but it will not concern us here.

² There are however examples of transitive verbs whose the *-ta* participle have are attested with active meaning *pīta* 'having drunk' (cf SPEJER 1998 [1886]: 280–281).

- (3) *hatá* *índrasya* *śátravaḥ*
 kill. PPP.Nom.pl.masc. Indra. Gen. enemy.Nom.pl.masc.
 Rivals smashed by Indra.
 or Indra's smashed rivals. (RV 10.155.4; cf ANDERSEN 1986b: 10)
- (4) *kvá* *ṛtam* *pūrvyám* *gatám*
 where pious action.Nom.sg.neut. former.Nom.sg.neut. go.PPP.sg.neut.
 Where is my former pious action gone?
 Geldner's translation: Wohin ist mein fruheres rechtes Werk gekommen?
 (RV 1.105.4c)
- (5) *mṛtam* *anena*
 die.PPP.Nom.sg.neut. 3sg.Instr.
 He died. (Skt.; SPEIJER 1998 [1886]: 281)

The examples (1)–(3) show grammatical agreement between the patient and the *-ta* participle. According to the adherents of the 'passive to ergative' shift, the patient has been promoted to the subject position and agent demoted to the object position; thus the above sentences are instances of passives and they should be analyzed as such (cf BURROW 2001 [1955]: 354, 370–371; MILTNER 1977; PIREJKO 1968).

Indeed there are several factors which speak in favor of the passive status of the *-ta* participle in OPers. (but it seems that they apply to OIA as well):

1. It is in concord with the logical object (grammatical subject)
2. It is in a possessive relation with the logical subject (grammatical object)
3. It occurs in a construction with the logical object (grammatical subject) in central position where the logical subject (grammatical object) is optional³
4. It has a primary adjectival and secondary predicative function
5. It can occur in the object function (PIREJKO 1968: 11–18).

The *-ta* participle has been attested in other ancient IE languages (and thus a general consent on its antiquity), where it has been ascribed adjectival value as well cf Gr. *κλυτός*, Lat. *in-clutus* 'famous' (cf SZEMERÉNYI 1970: 297; BEEKES 1995: 280–281).

Early grammars of NIA languages consistently treated the ergative construction as originating from the passive one. On the basis of its morphology (agent and patient marking) and verbal agreement it used to be termed the 'passive construction' (e.g. KELLOG 1972 [1875]: 471; CHATTERJI 1970 [1926]: 968–969) although semantically analyzed as active.⁴ It was generally believed as well that a parallel construction in OPers was also of passive character (KENT 1953). This view was later challenged by Benveniste, who proposed a possessive interpretation of the construction '*manā kṛtam*' (1) as being parallel to (30) and opposite to the passive construction (7) in which agents are marked by the ablative.

- (6) *āha* *avahyā* *kabūjīyahyā* *brātā*
 be.3.sg.imperf.act. that.Gen.sg. Cambyses.Gen. Brother.Nom.sg.masc
 That Cambyses had a brother. (DB I 29)

³ Such terms as the logical subject or object are not precise, and they are actually quasi-syntactic notions which are to cover semantic terms i.e. agent and patient.

⁴ It has to be however emphasized here that the author of the first standard grammar of Hindi clearly stated that structural resemblance of the ergative construction to the passive one coexists with its active meaning. (KĀMTĀPRASĀD 2003 [1920]: 219).

- (7) *tya- śām hačā- ma aθahya*
 what they.encl.Gen from. I.encl.Abl. command.3.sg.imperf.pass.
 What was commanded them by me. (B.I.23–24) (BENVENISTE 1974 [1966]: 194)

According to Benveniste the possessive construction was reanalyzed as active perfect cf (6) with Lat. ‘*mihi filius est*’ > ‘*habeo filium*’ and (1) with Lat. ‘*mihi factum est*’ > ‘*habeo factum*’ (BENVENISTE 1974 [1966]: 194–196).

This proposal gained considerable popularity and the connection between transitivity and possession was further elaborated in the typological perspective (cf ALLEN 1964). Later on it was met with strong objection from CARDONA (1970), who rejected the possessive interpretation of the OPers construction having demonstrated that in addition to the ablative the agent in the passive can also occur in the genitive.

- (8) *utā- śām auramazdā nayi ayadiya*
 And they.encl.Gen Ahuramazda.Nom.sg. not rever.3.sg.imperf.pass.
 And Ahuramazda was not revered by them. (DB.V.311–312) (CARDONA 1970: 2)

What is more, he has suggested that the genitive agent in OPers is an innovation which replaced an earlier instrumental. Thus the Indic construction with the instrumental was a passive one and its alternant with the genitive could be explained as a result of “the interplay of nominal and verbal patterns” (CARDONA 1970: 8–9). Although the transition from passive to ergative was postulated by scholars rather early, the theoretical model of such a shift appeared considerably later. One of the first attempts has been made by Kuryłowicz in his paper arguing the stadial theory developed by Russian scholars. According to him there are two possible paths of development: either the ergative system arises from the nominative one or the process is the reverse. In nominative-accusative languages there exists an opposition of active vs. passive. If one of the members of the opposition disappears, it can result in a systemic change (Figure 1).

NOMINATIVE-ACCUSATIVE SYSTEM	1. → DECAY OF ACTIVE	→ PASSIVE	→ ERGATIVE
ACTIVE-PASSIVE OPPOSITION		PATIENT IN THE SUBJECT POSITION; AGENT NONOBLIGATORY	PATIENT IN THE SUBJECT POSITION
	2. → DECAY OF PASSIVE	→ ACTIVE	
		AGENT IN THE SUBJECT POSITION	
ERGATIVE-ABSOLUTE SYSTEM	1. → DECAY THE ERGATIVE	→ ANTIPASSIVE	→ ACTIVE
ERGATIVE-ANTIPASSIVE ⁵ OPPOSITION		AGENT IN THE SUBJECT POSITION; PATIENT NONOBLIGATORY	AGENT IN THE SUBJECT POSITION
	2. → DECAY OF ANTIPASSIVE	→ ERGATIVE	
		PATIENT IN THE SUBJECT POSITION	

Fig. 1. Reconstruction of the Kuryłowicz’s model

⁵ In Kuryłowicz’s terminology absolute or subjective; the term antipassive was coined more than 20 years later (cf DIXON 1979: 119).

In this system the ergative can develop from the passive and the active from the antipassive. The transitions passive → ergative or ergative → passive are conditioned by a choice of stylistic variant in a given language since passive and antipassive are merely stylistic variants of active and ergative respectively. The first path of development was postulated for IA languages (KURYŁOWICZ 1946: 390–393).

Although, as has been mentioned before, the general proposals regarding the ‘passive to ergative’ transition were many, while the ones pertaining particularly to NIA developments appeared later and were actually only a few in number. MILTNER’S (1965) theoretical investigation regarding this matter has not gained much popularity, but it is in my opinion interesting enough and will be adduced here. In his very condensed paper he has tried to provide examples of all possible types of ergative construction in NIA languages on the basis of a theoretical structural model. There are eight structurally plausible ergative constructions in NIA (Table 1).

Table 1. Ergative constructions in NIA according to MILTNER (1965: 144)

Ia A O(Nom.) V gender agreement	Ib A O(Obl.) V gender agreement
IIa A O(Nom.) V gender agreement	IIa A O(Obl.) V gender agreement
IIIa A O(Nom.)V no agreement	IIIb A O(Obl.)V no agreement
Person agreement IVa A O(Nom.) V gender agreement	person agreement IVb A O(Obl.) V gender agreement

The possible path of development from the OIA passive to NIA ergative can be observed in the Figure 2:

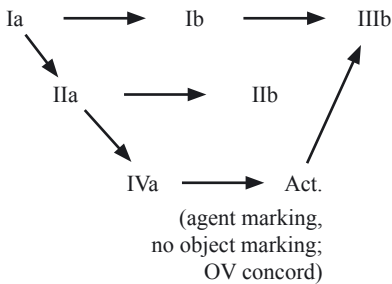


Fig. 2. From the OIA passive to NIA ergative (MILTNER 1965: 145)

The Ia construction is in its form passive and it can further develop into Ib which has O marking, Ib can then result in IIIb with O marking and no agreement or in IIb with O marking and AV agreement (IIb finally results in IIIb). Ia can also shift into IIa with AV agreement and no O marking; IIa develops further either into IIb (AV agreement and O marking) or into IVa with AV person agreement and OV gender agreement and no O marking.

Such a sequence of shifts can be seen as an extension vs. loss of verbal agreement and object marking (Figure 3):

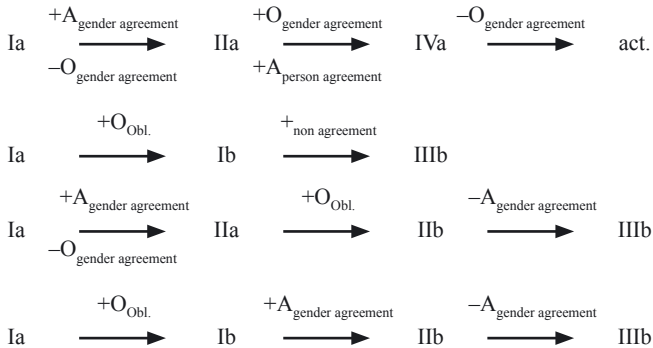


Fig. 3. Verbal agreement and object marking in the formation of ergative patterns in NIA (MILTNER 1965: 144–145)

(MILTNER 1965: 144–145)

This proposal, despite its great theoretical value, has certain deficiencies, e.g. it eliminates constructions IIIa and IVb while IVb has been actually attested in Marwari

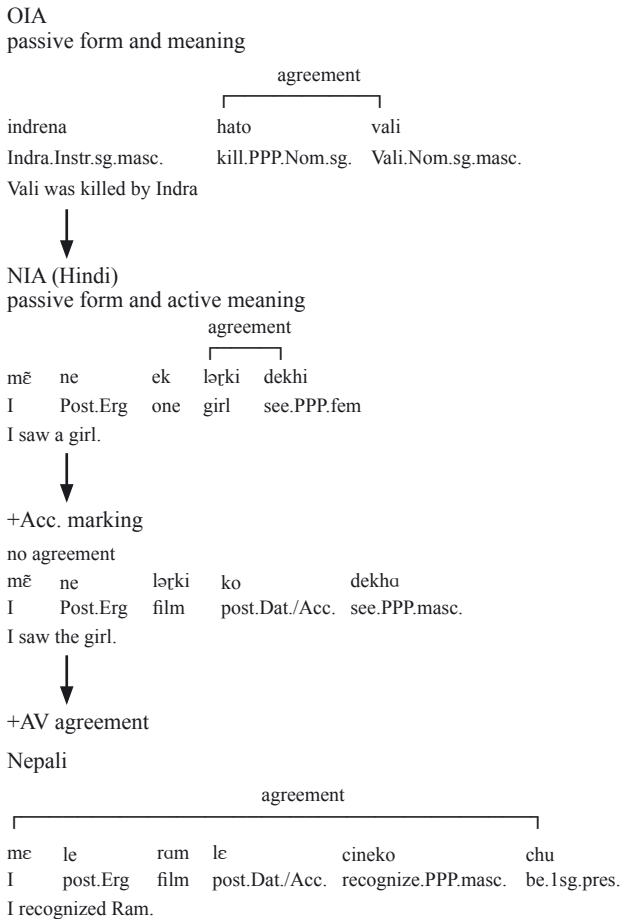
- (9) mhẽ sita ne dekhi hũ
 I Sita.sg.fem post.Dat./Acc. see.PPP.sg.fem Be.1sg.pres.
 I have seen Sita. (MAGIER 1983: 322; cf also KHOKHLOVA 2002: 3)

The main objection which can be raised against this analysis is, however, the direction of the proposed changes. Construction IVa (and IVb as well) is marginal, while Ia is prevalent. One could assume also the reverse development, but the structural model presented by Miltner deals basically with the form and not the meaning of the ergative construction. In his later paper (MILTNER 1977) he has tried to remodel his earlier theory, but again he failed to notice the existence of the type represented by example (9) from Marwari. The point of departure in the proposed structural theory of transition is the same, i.e. the OIA passive as an antecedent of the NIA active, the main difference being the inclusion of the set of quasi-ergative and nominative sentences which were to prove the erosion of ergativity in NIA. Again however, at the end of the chain of structural changes from the OIA passive to the NIA active one finds rare constructions while those which occupy central position in NIA systems are perceived as close descendants of the OIA passive. Due to lack of space, further objections which could be raised against such form-oriented model will be not discussed here.

A similar reanalysis of the OIA passive as the NIA active has been postulated by Anderson on the basis, however, of a more general model. As far as morphology is concerned the ‘activation’ of the OIA passive consists in introducing accusative marking of the object (syntactic subject), e.g. in Hindi, and later expansion of AV agreement, e.g. in Nepali. It is highly convergent with Miltner’s transition Ia > Ib > Iib. Nevertheless Anderson has shown how the morphological evidence can be misleading (since historically morphology lags behind syntax) in interpreting NIA structures and he suggested the application of standard syntactic tests (reflexivization, equi-NP deletion, raising and conjunction reduction) which have the strength to verify the active character of the NIA ergative construction (ANDERSON 1977:

330–336). On the other hand, the passive character of the OIA construction with instrumental agent have been accepted here a priori and no such tests have been postulated to check its status, which in turn could have falsified Anderson’s hypothesis (cf HOCK 1986). What is more, having overlooked the validity of such tests for OIA, Anderson has maintained the ‘passive to active’ path of development in Indo-Iranian as typologically motivated – passive being close to perfect could fill the gap resulting from the loss of the inflected perfect (ANDERSON 1977: 336). A second branch of Indo-Iranian, namely the Iranian languages has reanalyzed the possessive construction as the active perfect (cf BENVENISTE 1974 [1966]: 195–196). As long as a passive-perfect correlation has been postulated for IA, for Iranian it has been a possessive-perfect correlation. The former subject (possessum) became an object, while the oblique (possessor) was reinterpreted as a logical subject. Morphological marking of A (Gen.) and O (Nom.), reflecting an earlier possessive relation, became the marker of perfect when inflected forms disappeared. Later on the primary possessive construction incorporated accusative marking of O (an earlier possessum) moving towards full nominativity (ANDERSON 1977: 338–339).

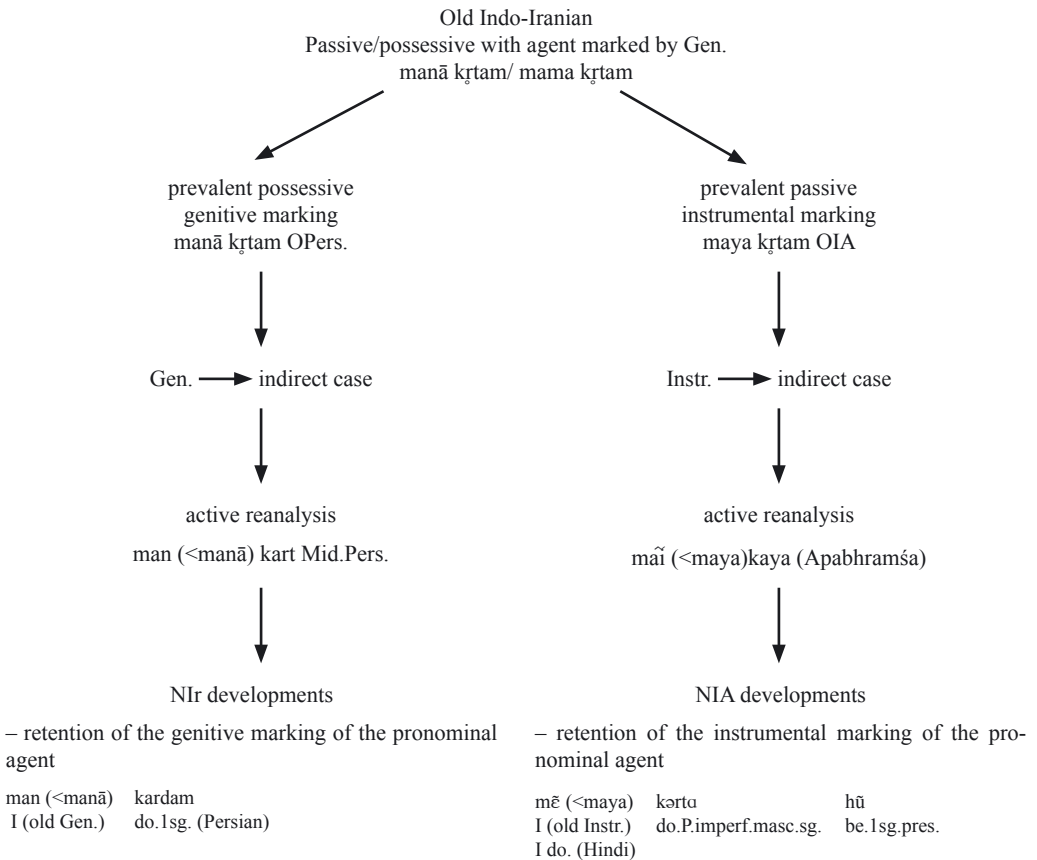
Thus the reconstruction of the complex path of development of ergativity in Indo-Iranian as seen by Anderson can be seen below (Figure 4).



The problem of the correlation between possessive and passive meanings of the participial construction with *-ta* has again been visited, but in a different spirit, by PIREJKO (1979). According to her opinion, possessive and passive meanings are complementary and their coexistence is actually proved by the genitive marking of agents both in Indic and Iranian (OIA and OPer.). Two constructions are thus parallel: possessive OPer. *manā puça astiy* vs. OIA *mama putra asti* ‘of me son is’ and passive OPer. *manā kṛtam* vs. OIA *mama kṛtam* ‘of me done’. This possessive-passive correlation is based on the very strong conviction that construction with *-ta* was of passive character, otherwise at least for OIA this hypothesis would prove invalid.

In addition to that, as was mentioned before (see ex. (7)), in the OPer. inflectional passive agents could also be marked by the genitive (as well as the ablative) while in OIA it was marked basically by the instrumental (cf JAMISON 1979a: 200) Pirejko was however wrong in, saying that very early in OIA the instrumental took over the genitive when in fact we have a preponderance of the genitive agents over the instrumental ones in the Brahmanas (cf OERTEL 1939) and we still find genitive marking in Aśoka’s inscriptions and in Classical Sanskrit (cf PIREJKO 1979: 486).

Sumarizing, her model of the development if the ergative construction in Indo-Iranian can be shown below (Figure 5).



– retention of the genitive marking of the nominal agent

zan-ān ketābi kharidand
woman.pl. book.undef. buy.past.3pl.
Women bought a book. (Persian)

-ān < -ānām (OPers. Gen.)

– decay of ergativity

i) objective conjugation

person agreement

	┌───────────┐		
	ez	dīt-im	
ewi			
he.Obl	1.Dir.	see.PPP.-1sg.	

He saw me. (Kurdish)

ii) pronominal clitics without objective conjugation

agreement

┌───────────┐			
mā	əmrū	boz-əm	vinde
I.Obl	today	falcon.1sg	see.past

Today I saw a falcon. (Talysh)

iii) both i) and ii)

wēta-š-im
see.past.-3sg.cl.pron.-1sg.encl.
He saw me. (Yagnobi)

wēta-m-x
see.past.-1sg.cl.pron.-3sg.encl.
I saw him. (Yagnobi)

– retention of the instrumental marking⁶ of the nominal agent

rameše traṅ cəpḍi kharidi
Ram.Instr. three book.fem.sg. buy.PP.fem.sg.
I bought three books. (Gujarati) (CARDONA & SUTHAR 2007: 670)

– introduction of agentive postpositional marking; e.g. Hindi, Panjabi ne, Nepali le

– drift towards nominativity

i) introduction of the accusative object marking

mē	ne	ram	ko	dekha
I.	post.Erg.	Ram	post.Dat//Acc.	See.PPP.masc.sg

I saw Ram. (Hindi)

ii) introduction of the person markers on the verb (person agreement with agent)

person agreement

┌───────────┐			
un-le	hāt-mā	phul	liin
they.Erg.	hand.sg.-loc.	flower.Nom.sg	take.3pl.

She took the flower in the hand. (Nepali)
(KOROLEV 1965: 133)

iii) introduction of the clitic pronouns

kītabə andā-ī-ū
book.pl.masc. bring.PPP.masc.pl.-3sg.ag.-1.pl.Obl.
He brought books for us. (KHUBCHANDANI 2007: 653)
(PIREJKO 1968: 51–60)

Fig. 5. Reconstruction of the PIREJKO'S (1968: 36–46; 1979) model of the development of ergativity in Indo-Iranian (cf also SKALMOWSKI 1986: 163–210)

(PIREJKO 1968: 36–46; 1979: 486; SKALMOWSKI 1986: 163–210)

The main point in Pirejko's analysis seems to be a stadial decay of ergativity in both Indic and Iranian. Although her investigation basically focuses on the Iranian branch, the remarks concerning ergativity in NIA are also of considerable value. Despite the differences in developments in Indic and Iranian, she has not failed to notice certain convergences (e.g. development of the clitic pronouns) which had been so far neglected. She has not discussed in detail the arguments against the archaic character of instrumental agents, but she has explicitly opted for the antiquity of genitive agents (PIREJKO 1979: 488 f.2).

There is, however, an unexpected conclusion to Pirejko's investigation, namely, that the modern analytical agent markers in NIA imitate the semantics of the old inflected instrumental. This can only be explained by the fact that the presented model as well as Miltner's was mainly based on the morphological evidence (PIREJKO 1979: 487–488).

As we will see in the next section, the controversy over the possible 'passive or ergative' shift arose when the first critics of the passive character of the *-ta* construction appeared.

⁶ Either in the form of the common oblique case being a direct phonological descendant of the OIA instrumental (e.g. Rajasthani, Kashmiri) or in the form of an agglutinized marker being a direct, and the most common OIA phonological descendant extended to all genders and numbers (e.g. Gujarati, Assamese) (MASICA 1993: 344).

Now however, I would like to return to the traditional view which has been revived in linguistic literature in a more theoretical framework of functional grammar (Figure 6).

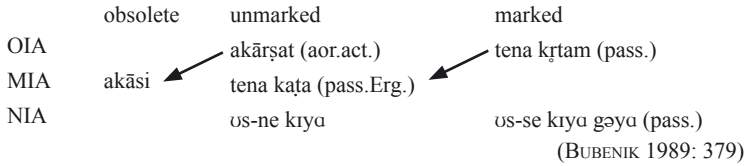


Fig. 6. The passive to ergative shift according to BUBENIK (1989: 379)

In OIA there existed an opposition of unmarked aorist active and marked non-finite passive participial expressions of past perfective events. In MIA this marked expression became unmarked (as the sole means to express past perfective events) while the old unmarked active aorist went out of use. Later on in NIA (e.g. Hindi) a new passive emerged and the ergative construction became the member of the active-passive opposition retaining only morphological ergativity. Such a model has been evaluated by Bubenik, who also pointed out several individual IA developments (BUBENIK 1989b; 1998: 133–160). His view on the character of the *-ta* participle has been based on the very traditional opinion stating that *-ta* has stative force with intransitive verbs and passive-like quality with transitive ones. On the other hand he has agreed that the *-ta* participle is inherited from PIE, where it was ergative (BUBENIK 1989b: 382). This would implicitly assume the shift from the PIE ergative-absolutive to the OIA nominative-accusative system and then again as postulated later (this time explicitly) shift from the OIA nominative-accusative to the MIA ergative-absolutive system.⁷

According to Bubenik the IA languages abandoned possessive construction with the genitive in favour of the instrumental, although other IE languages retained genitive marking (cf JAMISON 1979b for an directly opposite opinion), only the north-western IA languages (e.g. Sindhi, Lahnda) utilized possessive suffixes which are cliticized to the past participle (BUBENIK 1989b: 387). One of his main theses is that the ergative construction developed in MIA as a result of restructuring the case system inherited from OIA. When the distinction nominative vs. accusative was lost, there emerged the absolutive which could mark both O and S. As a consequence, the contrast between ergative and passive constructions disappeared and to fill the existing systemic gap the new analytic passive was introduced (either with auxiliary *jana* or with copula). For both constructions i.e. passive and ergative the *-ta* participle was used in a predicative function and it has been assumed that its usage with auxiliary *jana* (ex. (11)) or with copula (ex. (13)) in the passive construction reveals its original passive character (BUBENIK 1989b: 389–390). For the sake of clarity the active ones are added to the corresponding passive sentences ((12) and (14), (14a)) below.

- (11) us se kṛtab pəṛhi gai
 he.Obl. post.Instr. book read. PPP.fem.sg go.aux.PPP.fem.sg. (<jana)
 A book was read by him. (Hindi)

⁷ As we will see in the later section such a proposal is in contradiction with the unidirectional path of development of ergativity as being derived from active systems and resulting in nominative-accusative systems postulated in the theory of contensive typology (cf KLIMOV 1973; SCHMIDT 1979).

- (12) us ne kṛtab pəṭhi hē
 he.Obl. post.Erg. book read. PPP.fem.sg be.3sg.pres.
 He has read a book
- (13) mʌi de:kha hʌū
 I PPP.Nom.masc.sg. be.1.sg.pres
 I have been seen. (Awadhi) (SAXENA 1971 [1937]: 248)
- (14) mʌi de:khe: hʌū
 I PPP. be.1.sg.pres
 I have seen. (Awadhi) (SAXENA 1971 [1937]: 248)
- (14a) mʌi de:kh-eū
 I PPP.-be.1.sg.pres
 I have seen. (Awadhi) (SAXENA 1971 [1937]: 249)

This view would correspond to the one expressed by Anderson, who has seen passive transformation as the possible source of the perfective aspect marker (and thus the source of ergativity) (ANDERSON 1977: 336) I find, however, the interpretation of the passive character of the *-ta* participle not convincing – it seems to be a *petitio principii* when its character is explained by the passive character of the construction in which it occurs and then, conversely, the passive character of the construction is justified by the passive character of the *-ta* participle. Passive can be systematically opposed to active and once ergative is confronted with passive (as a plausible substitute of active-passive opposition) the whole concept of ergativity becomes opaque. There are, nevertheless, certain valuable findings which received proper attention in Bubenik’s model, namely the cliticization of the pronominal suffixes and of the copula to the *-ta* participle. The IA languages choose different cliticization strategies: i) the copula can be cliticized to intransitive verbs, and pronominal suffixes to transitive verbs (e.g. Sindhi, Lahnda); ii) the copula is cliticized to intransitive verbs (and transitive ones in the imperfective aspect) and in the perfective aspect transitive verbs receive only the bare *-ta* participle (western IA); iii) the copula is cliticized to intransitive and transitive verbs (eastern IA) (BUBENIK 1989b: 391–393; 1998: 145–147). The examples for all three techniques can be found in the following sentences i) (15) and (16) from Sindhi; ii) (17), (18) and (19) from Gujarati; iii) (20) and (21) from Bengali:

- (15) a-y-UṣI
 come-PPP.-1sg.masc
 I (masc.) came. (KHUBCHANDANI 2007: 644)
- (16) əmbU ḍIno-mā
 mango give.PPP.-1.sg.(agent)+2sg.(object)
 I gave you a mango. (KHUBCHANDANI 2007: 653)
- (17) kəṇ av-y-ū
 who come.-pfctv.-neutr.sg.
 Who has come. (CARDONA & SUTHAR 2007: 680)
- (18) hū pəs-a ap-ū
 I money-masc.pl. give.1sg.
 I will pay. (CARDONA & SUTHAR 2007: 680)

- (19) a lekh e lekhək-e ləkh-y-o
 this article that writer.Ag. write.pfctv.masc.sg.
 This writer wrote this article. (CARDONA & SUTHAR 2007: 675)
- (20) paṛil-ām I fell
- (21) dekhil-ām I saw

The developments seen above demand additional commentary. While it is true, that western IA languages use the bare *-ta* stem in the perfect aspect, it seems that the same applies to intransitive verbs at least in some IA languages (e.g. Hindi *mē gəya* ‘I went’). The uniform cliticization of copula as in iii should lead to full nominativity. It is thus obscure to me how the existence of the certain cliticized forms from Old Awadhi could be explained. The verbal forms based on the *-ta* participle with cliticized copula⁸ both intransitive and transitive (showing OV agreement) which fulfil the structural condition for ergativity (cf (22), (23)) are attested in the literary works of Tulsīdās and Jāyasī:

- (22) sō suni samujhi sahiū saba sūlā
 that hear.absl. understand.absl. bear.PPP.fem. all torture
 I (Bharata) heard and understood all that and put up with the torture (Tulsīdās)
- (23) āeū ehi hātā
 come.PPP.masc.1sg. this market
 I (Brahmana) came to this market. (Jāyasī) (SAXENA 1971 [1937]: 243)

Developing object marking has been seen by Bubenik as a step towards nominativization (cf views of Pirejko and Miltner). The construction with the unmarked object resembles structurally former passive but still has ‘ergative (=object) agreement’, while the construction with the marked object *-ko* is more verbal (lack of agreement) (BUBENIK 1989b: 395). But in his later work the author calls the former construction semi-ergative while the latter ergative (BUBENIK 1996: 177–178) which is entirely in contradiction with the earlier proposed semantics of this development.

2. FROM OIA ERGATIVE TO NIA ERGATIVE

As we have seen above, not only traditional Sanskrit grammars (e.g. Delbrück, Macdonell) favored the view that the *-ta* participle was a passive participle, but also many contemporary linguists accepted this view and even elaborated on this basis the theory of a ‘passive to ergative’ shift in the IA languages. Early however, the concept was called into question. In his reanalysis of the construction with the *-ta* participle in Iranian Benveniste offered a new interpretation in which he considered this participial form to be a proper active periphrastic perfect, parallel in its structure to the possessive construction (such structural parallelism being attested in other IE languages) (cf BENVENISTE 1974: 195–196). It has been noticed by DEBRUNNER (1954: 576–587) that the *-ta* participle displays Janus-like nature being of passive and active character, having past and present tense reference, having participial and adjectival

⁸ Saxena gives two possible sources of the personal ending. i.e. the pronoun ‘*haū*’ or auxiliary ‘*haū*’. The latter however seems to be more convincing (SAXENA 1971 [1937]: 253).

(also nominal) status. As I have mentioned above, the proponents of the passive character of the *-ta* participle used to interpret it actively in case of intransitive, and passively in case of transitive verbs (see fn 2). Those who subscribe to the opposite view state that the construction with *-ta* was originally ergative and it was the source of the contemporary ergative construction in the NIA languages. Thus on the basis of the structural equation derived from the Dixonian theory of ergativity (DIXON 1979) it has been suggested by KLAIMAN (1978: 206) that the *-ta* participle is ergative since it treats (or indexes) intransitive subjects and transitive patients (sic!) the same way. Klaiman has confused syntactic with semantic categories and, what is more, she has maintained her view, being at the same time aware of the existence of the impersonal construction with the *-ta* participle derived from intransitive verbs that certainly could weaken the advocated equation S=O. In Classical Sanskrit the *-ta* participle could occur in predicative function in the following constructions:

- (24) mayā brahmano dṛṣṭaḥ
 I.Instr. brahin.Nom.sg.masc. see.PPP.nom.sg.masc.
 I saw Bramin.
- (25) brahmano āgataḥ
 brahin.Nom.sg.masc. come.PPP.nom.sg.masc.
 Bramin came.
- (26) mayā praviṣṭaḥ
 I.Instr. enter.Nom.sg.masc.
 I entered.

According to Klaiman, examples (24) and (25) serve as a basis for the S=O equation while (26) is of little relevance to her arguments most probably due to its assumed rarity (cf KLAIMAN 1978: 213 fn 2). Thus the ergative construction differs from the passive in *-ya* which O and not A nor S (or A and S have the same marking)⁹ as in (27) and (28).

- (27) tena śayate
 he.Instr. sit.3.sg.pres.med.
 He sits.
- (28) tena vedāḥ paṭhyante
 I.Instr. Vedas.Nom.pl.masc. read.3.pl.pres.med.
 Vedas are read by him.

There is however a set of verbs of the class IVth whose passive differs from the present only in accentuation – passives have a suffix while middle presents have root accentuation. The rule which holds for Vedic is that a verbal root attested in *-ya* present can have either suffix accented passives or root accented non-passive presents. Only about 20 verbs have fluctuating accentuation which is not connected in any way with semantic feature correlation (cf MACDONELL 1968 [1910]: 331; KULIKOV 1998a: 342–343; 1998b: 145).¹⁰ In some cases

⁹ Pace Klaiman, who uses the terms transitive patients and agents and intransitive subjects, I will utilize the 3 Dixonian primitives, namely A (transitive subject), O (transitive object) and S (intransitive subject) for the sake of consistency.

¹⁰ The exception often quoted pākṭiḥ pacyāte ‘A dish is cooked.’ (RV 6.29.4) yávaḥ pacyāte ‘Barley ripens.’ (RV 1.135.8) (DELBRÜCK 1874: 168).

both root and suffix accented forms e.g. *jīyate* (RV) *jīyáte* (AV) ‘suffers loss’¹¹, *pramīyate* (TS) *pramīyáte* (MS) ‘dies’ can be interpreted actively with subjects in the nominative in other cases both forms receive passive interpretation *ucchīyate* (TB) *ucchīyáte* (ŚB) ‘is left’ (KULIKOV 1998b: 144–146). Thus we can postulate that S and O might have the same case marking.

There is one more problem arising from Klaiman’s analysis, namely the use of the middle (atmanepadam). The basic voice opposition in OIA was definitely active-medium and not active-passive and this can be proved by comparison with other IE languages. Confronting active with passive at this stage of IA is, according to me, systematically wrong. Let us consider the following examples *sácate*, *ἔπομαι*, *seqetur* which are *media tantum* and are solely subject oriented. Furthermore, we find *yájati/yájate* *θύει/θύεται* ‘he offers a sacrifice for somebody/for himself’ which are active – mediopassive also subject oriented whose passive counterparts appeared considerably later (SZEMERÉNYI 1970: 234, 238). It is the bipartite opposition which was later on replaced by the tripartite one but both OIA and Greek show that early IE languages were still in process of this transformation.

Klaiman might be right in claiming that the construction with *-ta* was already in OIA ergative, OIA being a split-ergative language. The split, however, appeared according to KLAIMAN (1978: 206) on a tense basis (*-ta* participle being named ‘past participle’ without any aspectual characteristics) while in NIA there exists an aspect-based split. Why should NIA thus continue the OIA ergative construction but abandon the tense split? It has been convincingly demonstrated that NIA has retained the MIA aspectual split, having retained certain continuity (BUBENIK 1996a: 161–166; 1998: 104–117).

There are two more points of Klaiman’s theory which are worth mentioning here. She is certainly correct in stating that there were no two different *-ta* participles for intransitive and transitive verbs respectively, and she is also right in saying, that the passive developed later than the *-ta* based ergative construction, but the view that the passive emerged due to prior existence of the ergative construction must be considered at least dubious (KLAIMAN 1978: 207, 210).

The second point has been criticized by Hock, who has considered the passive to be a category inherited from PIE. The fact, that middle voice forms served as passives in OIA, cannot be a proof of the antiquity of the passive and, what is more, the *-ya* formation (which is limited to the present and imperfect) and the 3sg. aorist in *-i* are innovations on the ground of IA (cf GONDA 1951: 82; KULIKOV 2006).¹² Since Hock based his investigation only on the oldest texts, his conclusions are different from Klaiman’s, although the starting point is the same – the construction with the *-ta* participle was originally ergative. According to Hock, in early Vedic, passives in *-ya* from intransitive verbs with instrumental S (demotional passive) are not attested, while constructions with the *-ta* participle and gerundives from intransitives with nominative A (non-demotional construction) do appear e.g. *áditir jātám áditir jánitvam* ‘Aditi is the born, Aditi is that which is [yet] to be born’ (RV 1.89.10) (HOCK 1986: 19). Since in both *-ta* and gerundive constructions A occurs in Instr. or in Gen.

¹¹ Although DELBRÜCK interprets this form passively ‘er wird unterdrückt’ (1874: 168).

¹² Besides *-ya* presents and 3rd sg. aorist in *-i* there are other forms employed in passive usages, namely 3rd pl. aor in *-ran* and statives (a combination of present stem and perfect ending e.g. RV *hinvé* ‘is/has been impelled’) (KULIKOV 2006: 64).

(and for gerundives from an early stage also in Dat.) both constructions are interpreted as ergative ones. Hock considers even the gerundive more ergative than the *-ta* participle, but this assumption is based on the obligatory S demotion. One must not however forget about the optional demotional construction allowed in classical Sanskrit of the type *maya suptam* ‘I (Instr.) slept (PPP)’ which has been briefly discussed by Klaiman (see above) and surprisingly totally neglected by Hock.¹³

In the theory according to which the NIA construction can be traced back to the OIA ergative one, several changes can be explained by the convergent behavior of the three constructions, namely the *-ta* participle, gerundive and passive. During the transition from OIA to MIA

- genitive marking of A in the *-ta* construction was lost in favour of the instrumental
- the shift from subject prominent to agent prominent took place (cf also LEHMANN 1976).

The former shift can be explained in terms of the convergent (with gerundive and passive) case marking of A, while the latter can be observed by the investigation of the parallel constituent order – the OAV order (as in gerundive and passive) is being replaced in the latter language by the AOV order. The transition from so called ‘P-oriented’ to ‘A-oriented’ type is attested, among the aforementioned factors, by the control of absolutes. The data gathered by Hock, though rather limited, allows us to assume that early Vedic shows the control of absolutes by the surface subject (O) of the higher clause, while in the later language it is always A which controls absolutes. There are together 6 occurrences of O control and 38 of A control (including only one attestation with the *-ta* participle, the rest being gerundives – 32 and passives – 6) (HOCK 1986: 21–22).

Due to scarcity of absolutes controlled by ‘P-oriented’ constructions the hypothesis must be formulated with great caution.

Hock’s conclusion is an intermediate solution between the traditional view and Klaiman’s theory. According to him, contemporary ergative constructions in NIA have their source both OIA ergative and OIA passive (e.g. the case of Marathi and Konkani). As far as certain forms which are referred to as ergative, namely the one with *pāhijet* in Marathi and optative in Konkani, Hock seems to be misled by morphological factors (HOCK 1986: 25). The construction with *pāhhijet* and optative in Konkani are not ergatives. *pāhhijet* reflects OIA passive in *-ya-* but it also refers to imperative in Hindi e.g. *kijiye* or to the construction with *chahiye* (cf MONTAUT 2004a: 114). While in Marathi in such modal forms the agent can be expressed by Instr. or Dat., in Hindi it is always in Dat.

(29) tyā-ne gānī mhaṭlī pāhhijet
 I.Instr. song.pl.neut. sing.PPP.pl.neut. should.pl
 He should sing songs. (Marathi) (HOCK 1986: 25)

(30) ma-lā mumbai-lā zāylā pāhhije
 I.Dat. Bombay.Dat. go.PPP.masc.sg. should
 I should go to Bombay. (Marathi) (MASICA 1993: 381)

¹³ As ‘agent-demoting passives and gerundives from intransitives are innovations of Vedic prose’ (HOCK 1986: 19) so the agent demoting *-ta* construction from intransitives might be an innovation.

- (31) *us-ko gane gane chahiye*
 I.Instr. song.pl.masc. sing.inf.pl.masc. should
 He should sing songs. (Hindi)

A dative/ergative syncretism has emerged recently in Hindi, probably under the influence of Punjabi, where agents in modal sentences expressing obligation receive an ergative postposition. The alternation dative/ergative ((32) and (33)) does not show the same semantic distinction as the residual alternation nominative/ergative ((34), (35)), which is based on the semantic opposition ‘conscious/uncosscious’, although it has been noticed, that *ko* is more restricted to situations where there is a strong compulsion and *ne* remains more neutral and its range continues to expand (BASHIR 1999: 30).

- (32) *mujh ko jana tha*
 I.Obl Dat. go.inf. be.pres.
 I had to go. (BASHIR 1999:14)
- (33) *mē ne jana tha*
 I post.Erg go.inf. be.past.
 I had to go.
- (34) *larka khāsa*
 Boy cough.PPP.masc.sg.
 A boy coughed
- (35) *lärke ne khāsa*
 boy post.Erg. cough.PPP.masc.sg.
 A boy coughed.

It has to be added as well that such syncretism is attested in Rajasthani dialects, in which the *-ne* postposition serves as the dative/accusative and an ergative marker, being thus used as the agentive marker in perfective aspect and in obligatory construction. In Pahari dialects the instrumental/ergative syncretism of the *-le* postposition has the same functional value. What is more, the construction with *pāhhije* does not fulfil the formal criterion of ergativity while both A and S can be marked by the dative or the instrumental. If we have a closer look at the optative in Marathi¹⁴ it becomes clear that it should not be considered ergative either. Both A and S are marked by the instrumental and this would bring the construction closer to gerundive than ergative.

- (36) *ti-ne ātā gharī dzāwe*
 She.Instr. now home.Loc. go.opt.3sg.neut.
 She would go home now.
- (37) *tyā-ne kame karāwīt*
 He.Instr. job.pl.neut. do.opt.3pl.neut.
 He should do the jobs.

(PANDHARIPANDE 2007: 709; cf also BĀSUTKAR 1985: 172–175 and HOCK 2007)

Despite the main claim of Hock’s that OIA has shifted from a ‘P-oriented’ to ‘A-oriented’ language, it has been proved by PETERSON (1998) in his very insightful work that we cannot trace in the history of OIA and MIA the shift of any subject properties – the argu-

¹⁴ And the same pertains to the optative in Konkani.

ment so often adduced by the proponents of the ‘passive to ergative’ transition (cf COMRIE 1978: 368–379). Peterson has demonstrated, though on a relatively small corpus, that OIA and MIA must have operated on an A/S pivot, thus excluding the plausibility of the ‘passive to ergative’ development. Nevertheless his hypothesis differs significantly from Klaiman’s and Hock’s.

First of all the *-ta* participle has been reinterpreted as a resultative construction which is ‘passive-like’ when derived from transitive verbs and ‘active-like’ when derived from intransitive verbs. Thus such a resultative form refers to the state of O or S respectively (PETERSON 1998: 190). Peterson’s notion of ‘the resultative construction’ is identical with ‘the stative construction’ which has been considered a source of ergativity in tense/aspect-split-ergative languages (cf TRASK 1979: 397). The stative character of the *-ta* participle is reflected in NIA languages ((38a) and (39a)). It could have been reinterpreted statively ((38b) and (39b)) or actively ((38c) and (39c)). In the case of transitive verbs (58), transition from stative to agentive demanded an agentive marker.

- (38)a. vo lɪkha hɛ
 It write.PPP.masc.sg. be.pres.3sg
 It is written down.
- b. vo lɪkha hʊɑ hɛ
 It write.PPP.masc.sg. be.PPP.masc.sg. be.pres.3sg
 It is written down.
- c. kɪsɪ-ne vo lɪkha hɛ
 somebody.Erg. It write.PPP.masc.sg. be.pres.3sg
 Somebody has written it down.
- (39)a. vo beʃha hɛ
 he sit.PPP.masc.sg. be.pres.3sg
 He is seated.
- b. vo beʃha hʊɑ hɛ
 he sit.PPP.masc.sg. be.PPP.masc.sg. be.pres.3sg
 He is seated.
- c. vo beʃh gəyɑ hɛ
 It write.PPP.masc.sg. aux.PPP.masc.sg. be.pres.3sg
 He has sat down. (cf VAN OLPHEN: 1978: 188–189)

Peterson actually has explored a general model proposed by TRASK (1979) who in turn, regarding the status of the *-ta* participle and its development, relied on VAN OLPHEN (1978). The generalizations made by Trask have been a sound support for Peterson’s hypothesis. Since IA languages are considered to be the most representative members of the so called ‘type B’ ergative languages, some of the Trask’s formulations must be viewed at least cautiously, e.g. “If there is verbal agreement, the verb may agree with the direct object in number (and in gender languages, in gender) but not in person” (TRASK 1979: 388). It seems that counterexamples can be found e.g. in Angika where we have direct object-verb and indirect object-verb agreement:

(40) person agreement
┌──────────────────┐
wē hām-ra bolā-l-k-e
he.Erg I.- Dat./Acc. call-past.-3sg-1sg.
He called me.

(41) person agreement
┌──────────────────┐
hamē to-ra ego kitab de-l-i-yo
I.Erg. you.Dat./Acc. one book give-past.-1sg.-2sg.
I gave you a book. (DAS 2006: 234, 238)

Peterson however has referred Trask's theory to Pali for which this generalizations seem to be correct.

According to Peterson, a resultative verbal adjective with attached copula used to express the periphrastic perfect of the intransitive verbs while with the genitive (denoting possession) and instrumental (denoting concomitance) used to express the periphrastic perfect of transitive verbs. This development must have taken place along with gradual change of the status of the verbal adjective, which became a part of the verbal system denoting action (prior to the moment of speaking) and its results (perfect form). Later on this perfect either with possessor or concomitant A developed into evidential and simple past (PETERSON 1998: 186–202).

There is hardly any doubt that perfect could result from the possessive construction and since in OIA there was no verb 'to have' the genitive of possession was employed as an agent marker. As we could see before, this line of development has been suggested for Indo-Iranian and Armenian by Benveniste.

Peterson however has decided to extend the range of possible antecedents of the ergative construction by including concomitant construction with the instrumental. Thus the semantic correlation of possession vs. agency has been completed by another one of concomitance vs. agency (PETERSON 1998: 207–239), which has also been found in the gerundive.

In this context Trask's view, that ergative languages of the 'type B' frequently display ergative and possessive (genitive) syncretism required modification. Peterson, having added the possible correlation of concomitancy vs. agency, has found a justification for the prevalent agent marking in IA, namely the instrumental (TRASK 1979: 399; PETERSON 1998: 217 fn).

Some of the arguments advocated by Peterson in favor of the ergative interpretation of the construction with the *-ta* participle have been also adduced by BYNON (2005) who has tried to focus primarily on the semantics of the verb forming the *-ta* participle. The main theses of the Bynon's insightful paper can be summarized as follows:

- the source of the ergative construction in Indo-Iranian was anticausative
- the anticausative served as evidential
- the agent was the genitive-marked possessor raised out of its nominal phrase and reanalyzed as subject
- the instrumental marker was an innovation.

The possessive character of the construction with the *-ta* participle, as we could see above, has been strongly supported by Peterson. He, however, has tried to explain the in-

strumental marking in terms of concomitance, while Bynon treats the instrumental marking as an innovation serving to eliminate ambiguity arising due to wide range of the genitive functions (maker of the possessor, agent, beneficiary). Regarding the antiquity of genitive marking, Bynon has based her assumptions on Jamison's statistical data from early Vedic (JAMISON 1979a) and Oertel's statistical data, which refers to Vedic prose texts (OERTEL 1939). Oertel's countings have shown a serious preponderance of the genitive marked agents over the instrumental ones with the ratio 4:1, which has been considered by some scholars as 'highly inflated' (HOCK 1986: 20) and 'not indicative of the direction of change' (BYNON 2005: 26). On the other hand, Jamison in her analysis of RV texts has tried to challenge the antiquity of the genitive marking (JAMISON 1979a: 133) showing the prevalence of the instrumental agents.

However Jamison has analyzed the construction with the *-ta* participle as passive and this interpretation has been rejected by Bynon who has argued that in RV there was a construction with the genitive agent which was a part of the evidential system of OIA and which could not be derived from the passive (BYNON 2005: 25).

From the fact that genitive possessors serving as agents in main clauses are not attested in RV (JAMISON gives only one example 1979b: 134) Bynon concludes that it is only as late as Vedic prose texts where we have clearly ergative construction, while RV texts include an earlier stage of the development of it called 'pre-ergative construction' (BYNON 2005: 15–16).

I share Bynon's conclusion that the comparative data speaks for the antiquity of the genitive agent, but I would dare to say that some of her arguments partly contradict her view (e.g. Oertel's data can be considered an indicator of the direction of changes). What is more, the theory of the raised possessor and the evidential perfect based on the *-ta* participle has been based on very ample data from RV. Whether a fully fledged evidentiality system existed in OIA or not is a matter of controversy. Already Whitney noticed that Panini's rule regarding the use of the perfect for events not witnessed by the speaker was not observed at any period (WHITNEY 1990 [1888]: 295–296). According to Speijer, the rule was observed in classical Sanskrit in 'the practice of good authors' (SPEIJER 1998 [1888]: 247–248). Cardona on the other hand gives examples of the employment of the perfect as prescribed by Panini from Vedic texts, maintaining the view that the system in which imperfect, aorist and perfect were employed for three different purposes was not a norm in Vedic (CARDONA 2007: 126–127) but it could have been at an earlier stage of OIA (CARDONA 2007: 138). The similar conclusion was reached by Peterson who has postulated very early development of the perfect into evidential as being plausible from the typological perspective (PETERSON 1998: 203–204). If Cardona's and Peterson's intuitions proved to be correct, the inclusion of the *-ta* participle into evidential system done by Bynon would be justified.

On the other hand the gerundive construction very often analyzed along with the *-ta* participle, well attested and often treated as more ergative than the one with *-ta*, shows evidential usage at a considerably later stage of IA, namely in later Pali and classical Sanskrit (cf BUBENIK 1998: 192). This could cast a shade of doubt on Bynon's analysis.

However the most controversial point in Bynon's theory is the interpretation of the Vedic pre-ergative construction as an intransitive main clause with the raised possessor. The German construction labeled here as 'ergative construction' is given as a possible parallel to the Vedic 'pre-ergative' one i.e.

- (42) Mir sind die Kartoffeln angebrannt.
 I.Dat. are Potatoes burn.PP
 I have (accidentally) burnt my potatoes.

But it has to be emphasized that this type of construction with intransitive (unaccusative or ergative) verbs is also attested in other IA and Slavic languages (this fact having been surprisingly overlooked by Bynon)

- (43) mujh-se khana jəl gəya
 I.Obl.-Instr. food burn aux.PPP.masc.sg.
 I (accidentally) burnt my food. (Hindi)
- (44) Przypaliły mi się ziemniaki.
 burn.past.pl. I.Dat.encl. refl.pron. potatoes
 I have (accidentally) burnt my potatoes. (Polish)

The extra argument in German (and in Polish) marked by the dative and in Hindi by the instrumental is added to the intransitive structure ((45), (46) and (47)) and it denotes the so-called inadvertent actor (cf MONTAUT 2004a; 2004b: 210; cf also BYNON 2005: 46). Also the 'semantic-pragmatic' possessive relationship between the inadvertent actor and the nominal phrase can be verified by ill formed (48) and at least very odd (49) and (50) (possible to utter in a situation when the actor has accidentally burnt the potatoes which belong to the other person or which she or he has been preparing for the other person).

- (45) Meine Kartoffeln sind angebrannt.
 My potatoes are burn.PP
 My potatoes are/have got burnt. (German)
- (46) mera khana jəl gəya
 my food burn aux.PPP.masc.sg.
 My food got burnt. (Hindi)
- (47) Moje ziemniaki się przypaliły.
 My potatoes refl.pron. burn.past.pl
 My potatoes have got burnt. (Polish)
- *(48) mujh-se tera khana jəl gəya
 I.Obl.-Instr. your food burn aux.PPP.masc.sg.
 I (accidentally) burnt your food. (Hindi)
- ?(49) Mir sind deine Kartoffeln angebrannt.
 I.Dat. are your potatoes burn.PP
 I have (accidentally) burnt your potatoes. (German)
- ?(50) Przypaliły mi się twoje ziemniaki.
 burn.past.pl. I.Dat.encl. refl.pron. your potatoes
 I have (accidentally) burnt your potatoes. (Polish)¹⁵

¹⁵ It has to be mentioned here that the distribution of the ergative verbs with inadvertent actors is always language specific. E.g. my Hindi informants were unanimous in rejecting the sentences with the verb [ʈɪnə 'to break (intr.)'] and the nominal phrase denoting some parts of the body while the same sentences in Slavic are perfectly acceptable:

* mujh-se dāt [ʈɪ gəya (I.Obl.-Instr. tooth. break. aux.PPP.sg.) 'I (accidentally) broke (my) tooth.' (Hindi)

Up to this point Bynon's speculations can be verified positively (although she has not done it on the basis of the NIA material except from Sinhala). But as she herself states, in the case of unaccusative and ergative verbs the 'ergative construction' of German type (42) could spread to transitive verbs but it did not happen in German (cf BYNON 2005: 51) nor in NIA languages (e.g. Hindi, Marathi). The construction with the inadvertent actor is an innovation as other modal constructions with the instrumental agent are, e.g. negative modal passives (intransitive and transitive) with a reluctant actor or negative intransitives with an inefficient actor (cf KELLOG 1972 [1875]: 409; MONTAUT 2004b: 208–209).¹⁶

As far as unaccusative and ergative verbs are concerned, Sinhala shows a similar tendency to Hindi – the construction marked by *-atiŋ* (51a) appears with involitive verbs.

Bynon states, that it is an 'evidential' form, which exists in the whole spectrum of lexical verbs in Sinhala (BYNON 2005: 55), which seems to be a far-fetched conclusion, since these constructions first of all denote involuntary and accidental participation of the agent.

Let us consider a few more examples which clearly show the distribution of intransitive verbs (unaccusatives and ergatives) in Hindi and involitive verbs in Sinhala with instrumental agents ((51a) and (52a)) and in agentless constructions ((51b) and (52b)). The construction with the instrumental agent is mainly used in the context of capability and accidental action (cf MASICA 1993: 357). Certain anticausatives of the Hindi type *banna* 'to be built' do not occur with instrumental agents (inadvertent actors) (53a) and if they do so, the use is restricted to patientless constructions denoting capability (53a₁). This however does not apply to Sinhala (54a), where the construction with involitive 'to build' is acceptable. For the sake of clarity the basic constructions with the instrumental agent (a) are contrasted here with the agentless counterparts which are clearly anticausative (b) and also with the transitive counterparts denoting conscious and not accidental action and showing different agent marking (c).

- (51) (Sinhala)
- a. lamaya-atiŋ wiiduruwə biŋduna
 child.Obl.-Instr. glas break.inv.past.
 The child (accidentally) broke the glass.
- b. wiiduraak biŋduna
 glass.indef. break.inv.past.
 The glass broke.
- c. lamaya wiiduruwə binda
 child.Nom glas break.past.
 The child broke the glass. (GAIR 2007: 793; BYNON 2005: 53)

Złamał mi się ząb. break.past.3sg. I.Dat.encl.refl.pron. tooth. I have (accidentally) broken (my) tooth. (Polish). Thus it seems to me that deriving ergativity in IA from the syntax of the so called ergative verbs must be treated at least with caution.

¹⁶ In Punjabi negative passives with agents (in Abl.) have the same status as in Hindi (SIEKLUCKA 1998: 130). In Gujarati passive sentences with overt agents (in Abl.) always denote accidental actions, permissibility or ability, in Marathi intransitive verbs with instrumental agents express non-volitional actions and transitives convey the meanings of capability, in Kashmiri passives from transitive verbs (with agents in Erg.) convey the meaning of the personal passive or capability, while those from intransitives (with agents in the nominative) only capability meanings (SAVEL'EVA 1965: 51; CARDONA, SUTHAR 2007: 686; PANDHARIPANDE 2007: 711–712; KOUL 2007: 918, 947).

(52) (Hindi)

a. bəcche-se gilas tuʃ gəyɑ
 child.Obl.-Instr. glass break Aux.PPP.masc.sg.
 A child (accidentally) broke a glass.

b. gilas tuʃ gəyɑ
 glass break aux.PPP.masc.sg.
 A glass broke.

c. sita-ne gilas ʃoʃ dɾyɑ
 Sita-Erg. glass break aux.PPP.masc.sg.
 Sita broke a glass.

(53) (Hindi)

a. *mʊjh-se ghər bən gəyɑ
 I.Obl.-Instr. house.masc.sg. do.intr. aux.PPP.masc.sg.
 I (accidentally) built a house.

a₁ mʊjh-se kʊch bəna
 I.Obl.-Instr. something make.intr. PPP.masc.sg.
 I could do something.

b. ghər bən gəyɑ
 house.masc.sg. make.intr. aux.PPP.masc.sg.
 The house got built.

c. mē-ne ghər bənaya
 I.Obl.-Instr. house.masc.sg. do.tr.PPP.masc.sg.
 I built a house.

(54) (Sinhala)

a. vaʃuva-atiŋ gee hoŋdətə hæduna
 builder-Instr. house Nicely build.inv.past.
 The house has come up nicely at the hand of the builder.

b. gee ikmənətə hæduna
 house soon build.inv.past.
 The house has got built quickly.

c. mamə geyak hæduva
 I.Obl.-Instr. house.indef. build.vol.
 The house has got built quickly. (BYNON 2005: 54)

In Hindi the instrumental agents used with transitive verbs denote passive agents and in negative contexts they carry additional meaning of reluctance (55), the parallel use with intransitive verbs is focused more on inefficiency (56).

(55) nəkər-se dərvaʒa khola nəhĩ jata
 servant-Instr. door open.PPP.masc.sg. not aux.PPP.masc.sg.
 A servant can not bring himself to open the door. (He is reluctant.)

- (56) h̄am-se up̄er caṛha n̄hī̃ jaega
 we-Instr. up climb.PPP.masc.sg. not go.aux.fut.masc.sg.
 We will not be able to climb up. (We are inefficient.)
 (cf MONTAUT 2004a: 46–49; RANJAN KAR 2006: 136, 142 fn 3).

There are also relatively rare positive patientless constructions with transitive verbs and instrumental agents like (57a) and positive constructions with intransitive verbs (58a) which are said to be derived from (57b) and (58b) respectively.

- (57)a. sudhir-se p̄erha ḡaya
 Sudhir-Instr. read.PPP.masc.sg. Aux.PPP.masc.sg.
 Sudhir could read.
- b. sudhir-ne p̄erha
 Sudhir-Erg. read.PPP.masc.sg.
 Sudhir read.
- (58)a. m̄ujh-se is om̄r-m̄ē bhi d̄oṛ liya jata he
 I-Instr. this.Obl. age.-post.Loc emph. run take.aux.PPP.masc.sg. go.aux.imp.masc.sg Be.3sg
 Even in this age I am able to run (for myself).
- b. m̄ē is om̄r-m̄ē bhi d̄oṛ leta h̄ū
 I-Instr. this.Obl. age.-post.Loc emph. run take.aux.impf.masc.sg. be.3sg.
 Even in this age I run (for myself). (RANJAN KAR 2006: 135–136)

Colloquial Sinhala which lacks passive has a comparable negative construction with involitive verbs.

- (59) mageṇ ewwage w̄æḍ̄e kerenne n̄ææ
 I-Instr. that kind work do.invol.pres. neg
 I don't do that kind of work. (GAIR 2007: 792)

The extension of the modal negative intransitives (anticausatives) to transitives is a relatively late phenomenon (cf MONTAUT 2004b: 208) and it cannot be taken into consideration with any certainty regarding the possible explanation for the development of ergative construction in IA. We can see that the distribution of the intransitive form with the instrumental agent is rather restricted and that the involitive and accidental meaning is more basic than the evidential one. The intransitives (unaccusatives and ergatives) appearing with the instrumental are later developments although some forms were already attested in classical Sanskrit (e.g. aforementioned *mayā suptam* 'I (Instr.) slept (PPP.neutr)').

Intransitives in NIA derived from OIA passives e.g. *ban* 'to be made' (OIA *varṇyate*) > *banā* 'to make' (BLOCH 1965: 242) would point to the passive origin of that construction (hence the instrumental agent marking) and this is not consistent with the main lines of Bynon's theory.

There are however few more aspects of the Bynon's proposal which should be discussed here: First of all her interpretation of the genitive of possession as a raised possessor has rather weak justification. Since in early OIA possessive pronouns are a rarity (cf MACDONNELL 1999 [1916]: 112–113) the only available construction expressing possessor was the one with the genitive. OIA did not know the construction with inadvertent actor

which is attested in NIA and also in German and Slavic. As I see it, the examples given by Bynon actually speak against her theory. Sanskrit sentence (60) can be rendered in Hindi only by means of the genitive equivalent for the possessors (61) not the instrumental agent, which would imply a person's accidental involvement in the action of (62). It seems that unaccusatives were in OIA agentless and they continue to be so in NIA with the exception of in/capability contexts but its marking being exclusively instrumental (the interesting fact is that German and Polish use the dative, the genitive being restricted to possessive meanings).

- (60) yásya grāvā api śīryáte
 I-Gen. pressing stone part. break.3sg.pres.
 The one whose pressing stone breaks. (KS 35.16:62.1–2) (BYNON 2005: 56)
- (61) kis-ka grava tṛt jata he
 who.Obl.-Gen. pressing stone break.intr. go.aux.PPP.masc.sg be.3sg.pres.
 Whose pressing stone breaks.
- (62) kis-se grava tṛt jata he
 who.Obl.-Instr. pressing stone break.intr. go.aux.PPP.masc.sg be.3sg.pres.
 Who (accidentally) breaks his/her pressing stone.

There is a pragmatic difference between the sentences of the type represented by (42), (43), and (44), and of the type represented by (45), (46), (47) and I would argue that only sentences of the latter type were available in OIA since they show a real use of unaccusative/ anticausative verbs while the former type with the inadvertent actor appeared considerably later.

Another problem raised by Bynon, very closely connected with oblique marking of the agent in OIA, is the status of the verb used in the ergative construction. One of the main claims of Bynon is that the source of the ergative construction is an anticausative which served as evidential. The evidential reading of some RV passages is not very soundly justified, but the use of the anticausative is doubtless. I see here many (although not direct) parallels with the early works of Klimov. It is rather undisputable that as early as in OIA the opposition transitive vs. intransitive is an operational one. But the existence of non-agentive intransitives with *-ya* presents (which allow passive and anticausative reading) and the existence of non-agentive intransitives with tense-aspect based split causativity (allowing either transitive-causative or anticausative reading) seems to point directly towards active vs. inactive opposition, so often proposed as prior to the transitive vs. intransitive one (cf e.g. KLIMOV 1973a: 204–258; SCHMIDT 1979). There are groups of intransitive verbs in NIA which take both nominative and ergative S. These series of verbs are very well documented across languages and in Hindi they include e.g. *chīkna* ‘sneeze’, *khāsna* ‘cough’, *mutna* ‘urinate’, *mitlana* ‘vomit’, *dakarna* ‘belch’ (others like *kāpna* ‘tremble’ or *bhōkna* ‘bark’ are used less systematically with the ergative marking) (cf MONTAUT 2004b: 181). Such a group of labile or diffusive verbs is also considered to be one of the properties of languages of active typology (cf KLIMOV 1973a: 234). Intransitive (anticausative) verbs originating from OIA passives in Hindi and their Marathi or Sinhala involitive counterparts might be a secondary development, but they can indicate as well that the opposition inactive vs. active has been to some extent preserved in NIA. This problem I would like however to discuss in the last section of the present paper.

It must be emphasized here that arguments in favour of the active character of the *-ta* participle have been adduced essentially on the basis of internal Indo-Iranian evidence, and have been rarely supported by typological data. There has been, however, an attempt to explain the active (hence not passive) character of the periphrastic construction with *-ta* using other empirical evidence, namely the translation of OPers texts into Elamite and Akkadian. The existing trilingual material shows that periphrastic perfect construction in OPers of the type *manā kr̥tam* (ex. (1)) was translated always actively into both in Elamite and in Akkadian and the passive construction represented by ex. (7) was rendered in both languages passively (SKALMOWSKI 1976). Although the data is not informative about the status of the periphrastic perfect in the OPers verbal system, the active status of the construction with the *-ta* participle has so far not found better confirmation. Therefore the active status of the periphrastic perfect in OPers could further support the view regarding the ergative character of the construction in Indo-Iranian.

3. THE INTERMEDIATE SOLUTION

The main streams in the theory of the origin of ergativity in IA were founded either on the earlier passive or directly ergative character of the construction with the *-ta* participle. The intermediate view has been expressed in the works of ANDERSEN (1985; 1986a; 1986b), who tried to account for the different agent marking in OIA and MIA i.e. the instrumental and the genitive. His main contention has been that at the morpho-syntactic level there is no difference between the passive and the ergative constructions. Both constructions, namely the one with the instrumental and that with the genitive agent (in OIA and MIA) can be analysed passively or ergatively, since they both do satisfy the conditions of ergativity which are generally accepted i.e. that S has the same marking as O and A is marked in a different way.

According to Andersen the genitive and the instrumental agent marking in OIA and MIA are sanctioned by their pragmatic status. In the construction with the *-ta* participle and the genitive agent the genitive represents old information and is usually definite and animate, whereas the patient is new information and less animate. In the construction with the instrumental agent the instrumental conveys new information and the patient is old information. These are typological features of the ergative and passive constructions respectively, which also agree with Silverstein's animacy (or empathy) hierarchy (SILVERSTEIN 1976: 122; ANDERSEN 1985: 48–51; 1986a: 75–80; 1986b: 10).

In OIA the majority of genitive agents (according to Andersen's counting 85%) represent old information; thus they can be considered ergative agents. Andersen however has come to the conclusion that if only constructions with genitive agents are old ergatives and those with instrumental agents are passives, the genitive marking must be regarded as older and it constitutes a residual system in OIA (ANDERSEN 1986b: 13). Andersen has extended his theory to MIA, analyzing the inscriptions of King Aśoka. His proposal has been criticized by Bynon, who actually has not find any serious counterevidence to verify such criticism (BYNON 2005: 32).

There is, however, a problem in inscriptions where the enclitic pronoun *me* 'I' appears

which can be interpreted both as the genitive and the instrumental. Andersen has found that 31 out of 35 examples of the use of *me* confirm that they convey old information, i.e. they are genitives (ANDERSEN 1986a: 84–85).

- (63) *saḍuvīsativasābhisitena me iyaṃ dhammalipi likhāpitā*
 26-year-anoint.PPP.Instr.sg I.encl. this dhamma-inscription.Nom.sg. write.PPP.caus.
 This dhamma-inscription has been was caused to be written by me after I had been
 anointed for 26 years.

This view was challenged later on by Bubenik, who has stated that agreement with the preceding modifier in the instrumental speaks in favour of the instrumental reading of *me*. What is more, pronouns represent speech act participants and they always convey old information (BUBENIK 1989: 386; 1996: 173). Instrumental treatment of *me* would thus lead to the possible passive interpretation of sentences comprising this enclitic.

Another important feature of the genitive and the instrumental agent marking is a presumable difference in control exercised by the agent over the action. Dealing with the problem in both of his papers on MIA and OIA respectively, Andersen expressed two entirely opposite views. In the former paper he favored the view that it is the genitive agent that has more control over the action than the instrumental one (ANDERSEN 1986a: 90–91) and in the latter he opted for the instrumental (1986b: 13). This contradiction actually has undermined the main theses of his theory and the arguments which were supposed to support the view that the genitive agents have more control speak against the explanations given in the paper where the instrumental agents have been favored.¹⁷ E.g. genitive agents confined to certain types of verbs in OIA are rather experiencers and thus have always less control over the actions than the real agents (cf COMRIE 1981: 51–56; and for the opposite opinion cf ANDERSEN 1986a: 90–91).

If the genitive agent is to have more control than the instrumental one it is only because of its status as the old ergative. We would thus expect that if genitive agents in OIA had represented ergative agents, they would have had more control than instrumental ones.

4. INDO-ARYAN ERGATIVITY AS A RESULT OF LANGUAGE CONTACT

It was noticed already by REGAMEY (1954: 365, 378) that certain influences on the formation of the ergative construction in the IA languages could have been owing to the foreign substratum. The theory of the origin of ergativity in IA based on the language contact within the South-Asia linguistic area has been, however, developed by Zakharyin, who has tried to apply the achievements of the contensive typology methods elaborated by KLIMOV (e.g. 1973).

Following Klimov, ZAKHARYIN rejected the possibility of the ‘nominative to ergative’ shift as typologically not plausible (1979: 54), but unlike Klimov (who saw the origin of IA

¹⁷ The relation between control hierarchy and case marking in Hindi has been widely discussed by Montaut, who has analyzed the problem with regard to subject properties. The semantic notion of control is reflected in the morphosyntax and in predicate-argument structure. Oblique main arguments (representing agents, experiencers, possessors) show a different degree of sensitivity to grammatical relations (conjunctive reduction, reflexivization, equi NP deletion) which can be observed along the following lines: Erg. – Instr. – Dat. – Gen. This in turn correlates with the hierarchy of the subject properties (MONTAUT 2003). There are however theories placing the genitive higher in the control hierarchy (cf BUTT 2005b: 11), which I find unmotivated at least in the context of NIA.

ergativity in the influence of the vernacular languages of the Proto-Burushaski type (cf KLIMOV & EDELMAN 1970: 13–15) Zakharyin has proposed that the nominative IA languages were influenced by the active remainders. Thus active residue is e.g. attested in colloquial Sinhala, and Sinhala diglossia could be accounted for by long contact with languages of different typologies (ZAKHARYIN 1979: 61–62). The case of ‘consistent ergativity’ (Zakharyin’s formulation) in Dardic can likely be explained by means of the language contact with Tibetan and not with Burushaski (ZAKHARYIN 1979: 67–68). But as was demonstrated later on, none of the substrata proposed by Russian scholars i.e. Proto-Burushaski and Tibetan could be taken seriously into consideration (TIKKANEN 1988: 315–317), and thus their role in the formation of ergativity in IA must be rejected.

There is no doubt that ergativity in the NIA languages is in the process of transition towards nominativity and that the continuum of diminishing ergativity has been established between Dardic and the western IA languages, but Zakharyin has precluded the existence of ergativity in the eastern IA languages, treating them as originally nominative (ZAKHARYIN 1978: 60). Even if ample examples of passive constructions from Old Bengali (CHATTERJI 1970: 742–743, 808, 946–947) are not convincing, we have a clear evidence from Old Awadhi (SAXENA 1971 [1937]: 241–242) and from Old Maithili (JHA 1958: 578–579) that kind of ergative construction was actually in use. What is more, at least one of the eastern IA languages, namely Angika displays ergative agent marking, although with the consistent AV agreement (cf DAS 2006: 222–224) making it not less ergative than e.g. Nepali.

It must be thus concluded that in its present form Zakharyin’s proposal seems to be untenable. The evidence from the Old Eastern IA dialects speaks against their earlier full nominativity. Being an eager proponent of the Klimov’s theory of ergativity, Zakharyin has overlooked the fact that the condition of ergativity formulated by Klimov (KLIMOV 1973a: 48; ZAKHARYIN 1979: 60), actually identical with the one presented later on by Dixon, is applicable to both NIA and OIA. Zakharyin has applied this condition only to NIA, qualifying OIA as nominative and some NIA as ergative, e.g. Nepali (ZAKHARYIN 1979: 56–57), as did also Klimov in his early work on the theory of ergativity (KLIMOV 1973a: 52). What is interesting here, is that later on, Klimov denied the ergative typology of the NIA languages, classifying them (including Shina which according to Zakharyin is ‘ergative with the developing nominative’ (ZAKHARYIN 1979: 68)) as nominative with ergative morphology (KLIMOV 1983: 191–193).

The theory which presumes that the emergence of ergativity in OIA can be conditioned by external factors, i.e. language contact, has at least a few deficiencies. As has been demonstrated by TIKKANEN (1988) the Proto-Burushaski and Tibetan possible substrata are not serious candidates, since both of them display very general or totally unconvincing syntactic convergences with IA. The parallel of the OIA gerundial conjunctive in *-tvā* and *-tya* with the Burushaski past active conjunctive participle can not serve as a proof of any impact of Burushaski on OIA or vice versa (TIKKANEN 1987: 317–319). Even the formation of the ergative construction in OIA is unlikely to owe anything to Proto-Burushaski – it is actually only Shina which shows ergativity patterns similar to Burushaski (TIKKANEN 1988: 309–316).¹⁸

¹⁸ A similar conclusion has been arrived at by Zakharyin who neglected the role of Burushaski as a language borrowing from IA rather than being a source of loans for IA (ZAKHARYIN 1979: 67; for a different opinion cf KLIMOV & EDELMAN 1970: 13–15).

It was, however, earlier suggested that the ergative marker in Shina was borrowed from Tibetan (ANDERSON 1977: 343–347).

The other language groups which have been considered substrata for OIA are Dravidian and Munda both being purely nominative although Munda ‘with perceptible features of active typology’ (KLIMOV 1976: 132). Although there is an attested layer of Dravidian vocabulary in OIA, there is no doubt that the structural impact of the Dravidian stock on IA is a relatively late phenomenon – in and after MIA (TIKKANEN 1988: 319). The contact of IA with Dravidian could have resulted in a gradual elimination of ergativity. The well attested example of nominativization can be observed in Dakkhini which, unlike Hindi-Urdu, has lost its ergative case marking due to isolation from other IA languages and long lasting influence of Dravidian (cf KACHRU 1986; ŠAMATOV 1974: 233–234; SCHMIDT 2007: 305).

The assumable Munda substratum, both lexical and grammatical, has been found in the RV (cf WITZEL 1999 for an extensive study of the topic) but no syntactic influence has been recognized. There are however certain structural features which are likely to be perceived as a Munda substratum in Tibeto-Burman and IA languages, e.g. the vigesimal system, object and subject pronominal suffixes, overt expression of inalienable possession, dual and exclusive vs. inclusive personal pronouns, some of them being typical attributes of languages of active typology (cf KLIMOV 1972; 1977: 109–111, 148–155; 1983: 91–95; TIKKANEN 1988: 319).

Nevertheless, most of the areal features which could be owed to the proposed influence of a Munda substratum seem to be rather too universal, e.g. on one hand nominativization of the ergative typology can easily be accounted for by intrinsic factors, but on the other hand it might have been accelerated by Munda or later on by Dravidian. One cannot also preclude the possible existence of an early lost substratum (cf MASICA 1979; TIKKANEN 1988: 321; WITZEL 1999: 41–43). Unless we are able to determine ‘the language X’, we are left with the substrata which either have had a limited structural impact on the IA languages (Burushaski, Tibetan) or which have induced nothing more than nominativization of the ergative pattern in the IA languages (Dravidian and Munda).

5. OTHER INTRINSIC FACTORS?

It has been suggested by some scholars that PIE (Pre-Indo-European) was an active/ergative language (cf e.g. KLIMOV 1973a; 1979; SCHMIDT 1979; STEFAŃSKI 1990; BEEKES 1995) although even those who assume the possibility of an active/ergative typology for PIE clearly express the view that Proto-Indo-European as we know from the reconstruction based on the ancient IE languages was a nominative language (although there are instances of different statements cf BEEKES 1995: 193–194, 254). The Indo-Iranian languages, which can be suspected of having an ergative system (more precisely a split-ergative system) are never taken seriously by Indoeuropeanists, and are usually treated as fully nominative (the exceptions being here, as we could see in the above sections, those who treat the *-ta* participle as originally ergative). The ergative stage of PIE is thus mainly reconstructed on the

basis of morphological data. The proposed reconstruction of the active/ergative stages of PIE can be seen along the following lines:

- a) animate vs. inanimate → masculine/feminine vs. neuter
 - b) ergative vs. indefinite → nominative (masc. fem.) vs. {accusative, neuter, vocative, uninflected locative}
 - c) verbs of action vs. stative verbs → transitive vs. intransitive
- (SCHMIDT 1979: 342)

The first two transitions have received (since UHLENBECK'S (1901) seminal paper) considerable attention in the scholarly literature. Masculine and feminine share the same features in contradistinction to neuter, and the oldest stage is said to be attested in Hittite (cf GAMKRELIDZE & IVANOV 1984: 267–273). The ergative vs. indefinite opposition is closely connected with gender differentiation – the assumption that neuters (i.e. inanimates) cannot be agents (cf VAILLANT 1936: 96–89) impose the agentive semantics on *genus commune* (masc. and fem.) which is manifested by the *-s* ending. The implausibility of inanimate agents was later on refuted on the grounds of an animacy hierarchy offered by Silverstein (see the discussion in RUMSEY 1987). The third transition, although it is also widely discussed, is still worth reconsidering, since it actually pertains rather to the presumable active → ergative → nominative shift than to ergative → nominative transition.

The most important question which must be posed here is: do we have any reminders of active typology in those IE languages which usually serve as a basis for reconstruction of the PIE stage (mainly OIA and ancient Greek). A positive answer to this question can be found e.g. in works of GAMKRELIDZE & IVANOV (1984), LEHMANN (1995), and BAUER (2000). The evidence for the active residues in daughter languages is overwhelmingly morphological (cf discussion in LEHMANN 1989), although in recent works there have also been attempts to adduce syntactic data in favour of the active stage of PIE (cf BAUER 2000).

It has been speculated that the injunctive : perfect verbal opposition in PIE has replaced the former opposition, the active : inactive, and the active : medium diathesis in PIE might have reflected an earlier system in which the diathesis being constrained to active verbs, consisted in centrifugal and centripetal verbal opposition (KLIMOV 1973b: 445). Here we come to the very important point, namely the existence of the category of voice in PIE. Most of the models of reconstruction of the category of the diathesis in PIE exclude the presence of the passive, although they assume that transitivity must have been an operational notion i.e. there existed two sets of verbs: transitives and intransitives differentiated not only on te semantic but also on the formal ground (cf e.g. BEEKES 1995: 252–254).¹⁹

It has been mentioned before that the status of the *-ta* participle depended on the transitivity vs. intransitivity of the verb (although we could see strong criticism from KLAIMAN 1978: 207). Below I would like to show that such distinction existing in the scholarly literature is unfounded.

The tense of the construction formed by means of the *-ta* participle is usually considered

¹⁹ Szemerényi has avoided using any terms connected with transitivity, consequently employing the terms active and medium diatheses (cf SZEMERÉNYI 1970: 234–237).

to be the perfect (cf KLAIMAN 1978: 206, 214 fn 4 for a different view). A comparison with Greek shows the main features of the IE perfect:

a) it could have intensive meaning without any time reference or with present reference e.g. Ved. *nānāma* ‘bows’, *jújōsha* ‘delights (intr.), finds pleasure’, hom. *βέβρωχε* ‘roars’ att. *κέκραγε* ‘screams’;

b) it could denote the state resulting from an accomplished action thus being in opposition to both the present and the aorist e.g. Ved. *jagāma* ‘he is gone’, *gáčhati* ‘he is going’, *ágan* ‘he has gone’, Hom. *τέθνηκε* ‘he is dead’, *ἀποθνήσκει* ‘he is dying’, *ἀπέθανε* ‘he has died’ (cf BURROW 2001 [1955]: 297–298; DELBRÜCK 1876: 101–113; 1888: 296–301; SCHMIDT 1964: 5).²⁰

Originally the perfect had only active endings and though already in the literary works of Homer and in the RV, medial perfects are attested; they have to be considered new developments and this can be verified by the fact that some of medial presents have only active perfect counterparts e.g. *γίγνομαι* : *γέγονα* ‘to be born’, *bhāyate* : *bibhāya* ‘to fear’ (BEEKES 1995: 239; NEU 1985: 281–282; SCHMIDT 1964: 6–7; SZEMERÉNYI 1970: 270). The semantic proximity of the medium and the perfect is additionally strengthened by the similarity of endings (cf KURYŁOWICZ 1964b: 58–60; NEU 1985: 280; cf SIHLER 1995: 566–567 for an entirely opposite opinion). The scenario could have been as follows: the presential opposition active : middle was extended to the perfect.²¹ Such extension and the development of the middle perfect might trigger the transition of the stative perfect to the resultative one – and the history of such development has been traced in Greek (resultative perfects are non-existent in Homer) and in Old Iranian. In OIA resultative perfects are already formed (they are attested in the Vedas) and they can (although as we have seen before, it is not certain) constitute a part of the evidential system (cf SCHMIDT 1964: 8–9; BYNON 2005: 29–30). One of the possible ways in which the development of the diathesis in the perfect took place could have been the employment of the verbal adjective (SCHMIDT 1964: 10–11). It is however not clear in this context whether the *-ta* participle represented mediopassive or purely passive diathesis. But it is more likely that in Vedic the *-ta* participle was primarily a basis for perfect evidential active and then medial. The dubious passive status of the *-ta* participle is further proved by the predominantly intransitive usage of the perfect. E.g. the verb *tan-* has in the present 7 intransitive and 40 transitive usages, while in the perfect 25 intransitive and 15 transitive usages respectively (KULIKOV 1999: 26–29) and a similar tendency has been confirmed in other verbs as well.²²

²⁰ Stative verbs like Ved. *śéte*, Hom. *κεῖμαι* ‘is lying’, Ved. *áste*, Hom. *ἥσται* ‘is sitting’ are sometimes called perfect presents (cf SCHWYZER 1950: 263) showing up already in Vedic perfect endings (SCHMIDT 1964: 4).

²¹ E.g. “Das sog. Passive Perfekt als finite Verbalform eine hybride Nachbildung zum eigentlichen Perfekt in Analogie an das Verhältnis Aktiv : Medio-passiv in Präsens darstellt” (SCHMIDT 1963: 9).

²² The solution to the problem of labile intransitivity : transitivity of the present and perfect verbs could be sought in the system where the perfect is treated as one of the diatheses existing next to the active – such system has been proposed for PIE by NEU (1985), according to whom PIE possessed two sets of verbs active verbs – representing actions → the active and stative verbs representing states → the perfect. Both sets of verbs were primarily tense indifferent (NEU 1985: 278, 283). Some of the assumptions made for such a system might be tempting (especially the parallels to the languages of active typology) but the notion of the perfect as a diathetic category does not seem to be tenable (cf KULIKOV 1999: 31).

The suggested interdependencies between the present/the perfect and intransitivity/transitivity is realized in the NIA languages on the basis of the following correlation:

present : absolutive

perfect : ergative

and in OIA

present : transitive/causative

perfect : intransitive

(KULIKOV 1999: 32)

It can be thus postulated that Vedic presents were primarily transitive and secondarily intransitive while perfects were primarily intransitive and secondarily transitive. It is likely that contemporary split ergativity was preceded by a split-causative tendency (KULIKOV 1999: 32–35). The tendency however did not become a syntactic rule.²³ The abovementioned correlations are not too adequate for the NIA languages while the present is a more complex verbal category being diversified according to the category of aspect (perfect, habitual, progressive). What is more, it can be concluded for these correlations that ergativity stands closer in the historical development to intransitivity – and this could lead us to the to the concept of the intransitive nature of the PIE verb (cf STEFAŃSKI 1990: 45–47), which would in turn eliminate the notion of transitivity as inadequate, and impose the possible active-typology ancestry.

Another point which deserves our attention here pertains to the status of the passive on OIA. In Vedic only the present system had formally developed the passive in *-ya* with middle endings. There existed also the passive aorist in *-i* which is however attested only in the 3rd person singular. In the perfect, according to the traditional view, the passive function was expressed by participial forms and the same took place in the future tense. It has been noticed also that in the older language the middle forms of the other present systems were in a considerable number of cases employed with passive meaning (WHITNEY 1990 [1888]: 361–362). A similar deployment of medial forms has been attested in Greek as well, but the preliminary countings of passives in the *Iliad* have shown their low frequency (SCHWYZER, DEBRUNNER 1950: 237–239).

Of special importance are the aforementioned verbs of the so-called class IVth (section II) – where middles are supposed to differ from the passive only in accentuation e.g. *náhyate* : *nahyáte* ‘binds : is bound’ (MACDONELL 1999 [1916]: 178). We have seen also that the RV was in this point very consistent and that roots for which *-ya* presents are attested had either only root (i.e. middle) or suffix accented (i.e. passive) forms. For the group of 20 verbs with fluctuating accent only one shows a correlation of semantic features (see fn 10). The possible answer to the problem is that originally *-ya* presents were anticausative (i.e. non-passive) class IVth *-ya* presents with root accentuation (this type prevails in early Vedic) and historically they could have given birth to the passive (KULIKOV 1998a: 349; 1998b: 146–149). Another possibility would be the plausible transition of anticausative into ergative postulated, as we have seen, by BYNON (2005).

From the facts that the perfect had primarily only an active character and that the passive

²³ E.g. perfects which functionally served as presents would serve as direct counterevidence for the proposed split-causativity system (cf DELBRÜCK 1876: 105–107; 1888: 297–298).

had a minor status in the OIA verbal system (and in Greek as well) it follows, that the notion of transitivity was not fully operational or, in other words, it was of labile character.

It has been generally accepted that the notion of transitivity lies at the foundation of ergative and nominative systems (cf DIXON 1994: 6–13). In this context the ergative construction is employed only with transitive verbs. It has been nevertheless noticed that many split-ergative languages have a group of so-called labile vs. diffusive verbs which constitute an active residue (KLIMOV 1973a: 144–148, 234) and which could occur in both i.e. absolutive and ergative constructions and such a group of labile verbs do exist in the NIA languages (cf ex. (34) and (35)). From the diachronic point of view the group of diffusive verbs corresponds to a certain group of IE middles. The correlation between the middle and the nominative vs. ergative case marking needs further investigation, but it does not seem to be random, since the contemporary group of labile verbs belong to the same semantic class as the middles attested in OIA and ancient Greek e.g. Hindi: *chīkna* ‘sneeze’, *khāsna* ‘cough’, *mutna* ‘urinate’, *mitlana* ‘vomit’, *dakarna* ‘belch’, *kāpna* ‘tremble’ or *bhāskna* ‘bark’ and OIA *pardate* ‘to break wind’ (cf Gr. πέρδομαι), *kampate* ‘to tremble’, *kāsate* ‘to cough’, *kṛpate* ‘to lament’ *jṛmbhate* ‘to yawn’ and Greek πτόρνυμαι ‘to sneeze’, ἐρεύγομαι ‘to belch out’. Initially the group was more numerous, comprising so-called eventives i.e. verbs denoting something happening to or taking place in a person (or object), i.e. affecting a person (or object) (GONDA 1951: 82–100; 1960: 49–55).

The inapplicability of the terms ‘transitive’ vs. ‘intransitive’ verbs with reference to ergative languages has been raised in the later works of KLIMOV (e.g. 1983: 95–102). Instead, he has proposed the terms ‘agentive’ and ‘factitive’. Typological evidence strengthens further the thesis of a dubious status of transitivity at least with regard to some split-ergative languages, e.g. in Avar:

(64) vaca-s istakan b-ekana
brother-Erg. glass.Abs. obj.class.-break.past.
The brother broke the glass.

(65) istakan b-ekana
Glass.Abs. obj.class.-break.past.
The glass broke. (KLIMOV 1983: 100)

The parallel character displays the OIA middle, e.g.

(66) (the objectless middle)
úḍ agne tiṣṭha práty á tanuṣva
up Agni.Voc. stand.imp.2sg.act. against prev. stretch.2sg.imp.pres.med.
Stand up, o Agni, extend (yourself) towards... (RV 4.4.4) (KULIKOV 1999: 27)

(67) (the middle with object)
rátrī vāsas tanute
night.Nom.sg. clothes. Acc.sg. spread.3sg.pres.med.
The night spreads her clothes. (RV 1.115.4) (KULIKOV 1999: 27)

Medial forms primarily were used in their original i.e. objectless (intransitive) function (66) (cf BEEKES 1995: 241), but they could take an object when it was in the sphere of the

subject (67). Of course active verbs (transitives) originally took objects (marked by the accusative of relation):

- (68) (the active)
 áham rudráya dhánur á tanomi
 I.Nom Rudra.Dat. bow.Acc. prev. stretch.1sg.pres.act.
 I stretch the bow for Rudra. (RV 10.125.6) (KULIKOV 1999: 27)

These facts are supported by Greek, which also had the active (89), the objectless middle (90) and the middle with object (91).

- (69) τῶ σε πόδας víψω
 therefore you.encl.Acc. feet.Acc.pl wash.fut.act.1sg
 Therefore I will wash your feet. (τ 376)
- (70) víψασθαι inf.aor.med. to wash oneself (δ 54)
- (71) víψατο δῆ ἀπότος χεῖρας
 Wash.3sg.aor.med. ptcl. He hands.Acc.pl
 He washed his hands. (Π 230) (SCHWYZER 1950: 230)²⁴

It is thus plausible to reconstruct a stadial development of transitivity in the following manner: active → middle → middle + object (cf GONDA 1960: 45–46, 55–57; KURYŁOWICZ 1964b: 74–75; SCHMIDT 1973: 120–121).²⁵

It seems that a similar path of development is tenable for the perfect; here however, as the data confirms, initially it was exclusively active (intransitive) since denoting state.

- (72) (active)
 dūrāt sūryo ná śocíśá tatāna
 from afar sun.Nom.sg. like flame.Instr.sg. stretch.3sg.perf.act.
 From afar [Agni] has extended, like the Sun with [his] flame. (RV 6.12.1)
- (73) (middle)
 áhāni viśvā tatánta kṛṣṭáyah
 days.Acc. all stretch.3sg.subj.perf.med tribes.Nom
 The tribes will expand for all the days. (RV 1.52.11)
- (74) (middle + object)
 saptá tantún ví tatnire kaváya ótavá ú
 Seven threads.Acc prev. stretch.3pl.perf.med. seers.Nom. weave.inf. ptcl.
 The seers have stretched seven threads, in order to weave. (RV 1.164.5)
 (KULIKOV 1999: 27, 34)

Preliminary counting of the transitive perfects has shown that they are rarer than the intransitive ones and that it is inversely proportional to the present forms (KULIKOV 1999). It is, as we have seen, confirmed by the data from Greek and by the abovementioned middle: perfect correlation. The anticausative character of *-ya* presents of the IVth class also points

²⁴ The middle forms with active counterparts which are attested in Greek basically pertain to different activities referring to the human body (SCHWYZER & DEBRUNNER 1950: 230).

²⁵ The reverse development i.e. middle → active has also been witnessed e.g. Hom. γεύομαι (Ved. jušate) ‘enjoy’ and Hdt. γεύω

towards the intransitive character of the so-called passive in the RV and it also indirectly undermines the assumable passive character of the *-ta* perfects.

On the systemic grounds the ergative construction in OIA, which is based on the *-ta* participle, stands in the opposition to the absolutive one (here I will repeat the examples (3) and (4))

- (75) (ergative)
 hatā índrasya śátravaḥ
 kill. PPP.Nom.pl.masc. Indra. Gen. enemy.Nom.pl.masc.
 Rivals smashed by Indra.
- (76) (absolutive)
 kvá ṛtam pūrvyám gatám
 where pious action.Nom.sg.neut. former.Nom.sg.neut. go.PPP.sg.neut.
 Where is my former pious action gone? (RV 1.105.4c)

But constructions of the type *mayá* (I.Instr) *suptam* (sleep.PPP.sg.neutr.) ‘I slept’ are likely to be interpreted as an extension of the type *mayá* (I.Instr) *gamyate* (go.1sg.pres.med.) ‘I go’ or as the possible reminder of active typology (cf further evidence from other IE languages in BAUER 2000: 197–260). It seems that the intransitive vs. transitive usage of the middle and the ergative vs. absolutive usage of intransitives have direct correlates in labile (or diffusible) verbs in the ergative languages of Caucasus, which display visible relics of the former active typology (KLIMOV 1973: 144–148; KLIMOV & ALEKSEEV 1980: 51–52).²⁶

It is likely that primary distinction between active and middle was of the same character as the version e.g. in Georgian. Contemporary Georgian has three basic versions i.e. subjective (77), objective (78) and locative (neutral) (79) occurring in active constructions (transitive and medio-active intransitive verb classes).

- (77) v-i-shen-eb
 1subj.-Ver.-build-them.suf.
 I build (for myself).
- (78) shen m-i-cek’v-eb (me)
 You 1sg.obj.-Ver.-dance-them.suf. I
 I build (for myself).
- (79) da-a-c’era
 Prev.-Ver.-write.3sg.aor.
 He wrote (this) on something. (KLIMOV & ALEKSEEV 1980: 154;
 ANDERSON & GUREVICH 2005: 3–5)

The reconstructed version vowels for Proto-Kartvelian ie. **-i-* and **-a-* for the subjective and neutral versions respectively show proximity to the centrifugal and non-centrifugal versions in active languages (KLIMOV & ALEKSEEV 1980: 152–154; KLIMOV 1983: 179–180). As it is attested clearly in early records of the Georgian language, the employment of the version vowel *-i-* for different purposes, e.g. its extension to intransitive medio-passives, is

²⁶ According to Klimov the diathesis is operational a) in nominative languages – only in transitive verbs → active vs. passive; b) in ergative languages – only in labile verbs → antiactive vs. antipassive; c) in active languages – only in active verbs → centrifugal vs. noncentrifugal (KLIMOV 1983: 115–116).

secondary (KLIMOV & ALEKSEEV 1980: 154). Contemporary Georgian shows the usage of the version vowel *-i-* for passives (denoting absence of an affected participant)

- (80) i-c'ereba
 Ver.-write.intr.pres.
 It is being written. (KLIMOV & ALEKSEEV 1980: 97; ANDERSON & GUREVICH 2005: 5)

In OIA atmanepadam endings were also employed for the *-ya* present passives. Thus if version → voice transition is typologically justified (cf KLIMOV 1983: 159; GAMKRELIDZE & IVANOV 1984: 333–339; also KURYŁOWICZ 1964a: 29) we can assume that the former version system atmanepadam/parasmaipadam developed into the active/medio-passive one. What is more, typological evidence reinforces the thesis of the possible correlation between the active vs. middle opposition in nominative languages, objective/neutral vs. subjective version in ergative languages, and centripetal vs. centrifugal version in active languages.

The last question which will be dealt with here, and which refers to the status of the *-ta* participle and hence the status of the ergative construction, pertains to the case of the agent. Traditional scholarship, which treats the *-ta* construction as the passive, used to be divided into two groups, namely those who opted for the ancient status of the genitive and those who consider the instrumental marking as an older one (for the discussion see JAMISON 1979b). There is no doubt that genitive agents are extremely rare in early Vedic, e.g. RV 15–20, AV less than 10. Among them only a few appear with the *-ta* participle – from 25 genitive agents quoted by ANDERSEN (1986: 11–12) only 11 constitute genitive agents in participial constructions, which he, as we have seen in the section III, calls ergative agents on the basis of the pragmatic analysis. Instrumental agents were used more frequently (JAMISON (1979a: 200) has counted more than 200 in the RV). It has been pointed out that genitive agents became prevalent in the Vedic prose texts, e.g. OERTEL has counted 429 occurrences of genitive agents and only 111 in the instrumental (1938: 9), later on (in classical Sanskrit) instrumental agents completely ousted the genitive ones. It has also been suggested by comparison with OPers and other IE languages (cf SCHMALSTIEG 1989) that genitive marking is likely to be older, but the preponderance of instrumental agents having their equivalents in Greek dative agents has also been adduced as a proof of the antiquity of the instrumental marking (cf JAMISON 1979a; 1979b).

The general observation is that agents in passive constructions were relatively rare e.g. among 191 *-ya-* presents in the RV only 15–25 are attested with agents (cf SCHMIDT 1963: 4; JAMISON 1979a: 200) but this feature has been found a constant one in languages with the operational opposition active/passive (cf KURYŁOWICZ 1964b: 72–73).²⁷

In the RV in comparison with rare occurrence of agents with the *-ya-* presents and the aorist (10–15 agents attested), the agents with the *-ta* participle display higher frequency (see Table 2).

Table 2. Agent occurrences in RV

Agents	Total	<i>-ya-</i> Passives	Aorist	Middles employed as passives	<i>-ta</i> Participle
	200	25	10–15	20	140–145

²⁷ Also in Greek in the first 5000 verses of the *Iliad* passives with agents appear only 5 times, in Plautus' comedies there are only 2 passives with agents (SCHMIDT 1963: 4).

In the light of the aforementioned arguments there arises the question of why the frequency of instrumental agents is the highest with *-ta* participles. If perfects had been predominantly intransitive, why would they have employed agents on such a large scale? And what is more, how can we explain on systemic grounds the existence of intransitive *-ta* participles which take the arguments in the nominative (and later on possibly also in the instrumental, e.g. the type *mayā suptam*)? The only answer available at the moment is to assume that constructions based on the *-ta* participle must have been ergative (with the instrumental or genitive) or absolutive (with the nominative). The original status of the *-ta* participle was likely of an anticausative character, an oblique agent appeared at the moment when the notion of transitivity became fully operational, i.e. the *-ta* participle as basically intransitive (or voice indifferent) became voice sensitive. What is more, the active residues existing in OIA (and preserved partially in NIA) might point towards a possible active → nominative shift which in the IA languages could result in split ergativity.

LIST OF ABBREVIATIONS:

A – agent; Abs. – absolutive (case); absl. – absolutive (verb); Acc. – acusative; act. – active; aor. – aorist; aux. – auxiliary; cl. – clitic; Dat. – dative; encl. – enclitic; Erg. – ergative; fem. – feminine; Gen. – genitive; imp. – imperative; inf. – infinitive; Instr. – instrumental; intr. – intransitive; Invol. – involitive; Loc. – locative; masc. – masculine; mid. – middle; neut. – neuter; Nom. – nominative; O – patient; O/M/NIA – Old/Middle/New Indo-Aryan; Obl. – oblique; OPers. – Old Persian; opt. – optative; pass. – passive; past. – past tense; Pers. – person; pfctv. – perfective; pl. – plural; Post. – postposition; PPP – passive perfect participle; pron. – pronoun; ptcl. – particle; refl. – reflexive; S – single actant of the intransitive verb; sg. – singular; suf. – suffix; tr. – transitive; V – verb; Ver. – version

BIBLIOGRAPHY

- ABRAHAM Werner, KULIKOV Leonid (eds.). 1999. *Tense-Aspect, Transitivity and Causativity: Essays in Honor of Vladimir Nedjalkov*. Amsterdam: John Benjamins, 21–42.
- ABRAHAM Werner, LEISÖ Larisa (eds.). 2006. *Passivization and Typology. Form and Function*. Amsterdam–Philadelphia: John Benjamins.
- ALLEN W. Sidney. 1964. “Transitivity and Possession.” *Language* 40, 337–343.
- ANDERSEN Paul Kent. 1985. “Die grammatische Kategorie Passiv im Altindischen: Ihre Funktion.” In: SCHLERATH 1985: 47–57.
- ANDERSEN Paul Kent. 1986a. “Die ta-Partizipialkonstruktion bei Aśoka: Passiv oder Ergativ?” *Zeitschrift für Vergleichende Sprachforschung* 99, 75–96.
- ANDERSEN Paul Kent. 1986b. “The Genitive Agent in Rigvedic Passive Constructions.” In: *Collectanea linguistica in honorem Adami Heinz*. Prace Komisji Językoznawstwa 53. Wrocław–Warszawa–Kraków–Gdańsk–Łódź: Wydawnictw Polskiej Akademii Nauk, 9–13.
- ANDERSON Stephen R. 1977. “On the Mechanisms by which Languages Become Ergative.” In: LI 1977: 217–264.
- ANDERSON Gregory, GUREVICH Olga. 2005. “Towards a Typology of Version: Formal and Functional Perspectives.” *Chicago Linguistic Society* 41. <<http://www.livingtongues.org/papers.html>>.
- BASHIR Elena. 1999. “The Urdu and Hindi Ergative Postposition *ne*: its Changing Role in the Grammar.” *The Yearbook of South Asian Languages and Linguistics* 1999: 11–36.
- BASUTKAR M. Mā. 1985. *Hindī-marāthī kriyā padband*. Āgrā: Kendrīy Hindi Samsthān.
- BAUER Brigitte. 2000. *Archaic Syntax in Indo-European*. Berlin–New York: Mouton de Gruyter.
- BEDNARCZUK Leszek (ed.). 1986. *Języki indoeuropejskie*. Warszawa: Państwowe Wydawnictwo Naukowe.
- BEEKES Robert S.P. 1995. *Comparative Indo-European Linguistics*. Amsterdam–Philadelphia: John Benjamins.

- BENVENISTE Emil. 1952. "La construction passive du parfait transitif." *Bulletin de la Société de Linguistique de Paris* 48(1) [= 1974: 192–202].
- BENVENISTE Emil. [1974] 1966. *Obščaja lingvistika*. Moskva: Izdatel'stvo Progress. (Russian translation of *Problèmes de linguistique générale*. Paris: Editions Gallimard).
- BHASKARARAO Peri, KARUMURI Venkata Subbarao (eds.). 2004. *Non-nominal Subjects*. Vol. 1, 2. Typological Studies in Language 61. ILCAA, Tokyo University of Foreign Studies/University of Delhi.
- BLOCH Jules. 1965. *Indo-Aryan from the Vedas to Modern Times*. Paris: Adrien Maisonneuve.
- BUBENIK Vit. 1989a. "An Interpretation of Split Ergativity in Indo-Iranian Languages." *Diachronica* 6(2), 181–212.
- BUBENIK Vit. 1989b. "On the Origins and Elimination of Ergativity in Indo-Aryan Languages." *Canadian Journal of Linguistics* 34(4), 377–398.
- BUBENIK Vit. 1993. "Morphological and Syntactic Change in Late Middle Indo-Aryan." *The Journal of Indo-European Studies* 21(3–4), 259–281.
- BUBENIK Vit. 1996a. *The Structure and Development of Middle Indo-Aryan Dialects*. Delhi: Motilal Banarsidass.
- BUBENIK Vit. 1996b. "Toward a Theory of Syntactic Change." *Diachronica* 13(1), 155–170.
- BUBENIK Vit. 1998. *A Historical Syntax of Late Middle Indo-Aryan (Apabhramśa)*. Amsterdam–Philadelphia: John Benjamins.
- BUBENIK Vit. 2001. "On the Evolution of Diathesis and Aspect During the Middle Indo-Aryan Period." *General Linguistics* 41, 93–112.
- BURROW Thomas. 2001 [1955]. *The Sanskrit Language*. Delhi: Motilal Banarsidass.
- BUTT Miriam. 2005. *The Dative-Ergative Connection*. <<http://ling.uni-konstanz.de/pages/home/butt/cssp05.pdf>>, 1–31.
- BYNON Theodora. 2005. "Evidential, Raised Possessor and the Historical Source of the Ergative Construction in Indo-Iranian." *Transactions of the Philological Society* 103(1), 1–72.
- CARDONA George. 1970. "The Indo-Iranian Construction Mana (Mama) Kriam." *Language* 46, 1–12.
- CARDONA George. 2007. "Sanskrit." In: CARDONA, JAIN 2007: 104–160.
- CARDONA George, JAIN Dhanesh (eds.). 2007. *The Indo-Aryan Languages*. London–New York: Routledge.
- CARDONA George, SUTHAR Babu. 2007. "Gujarati." In: CARDONA, JAIN 2007: 659–697.
- CHATTERJI Suniti Kumar. 1970 [1926]. *The Origin and Development of the Bengali Language*. Delhi: Motilal Banarsidass.
- CHATTERJI Suniti Kumar. 1960. *Indo-Aryan and Hindi*. Calcutta: K.L. Mukhopadhyay.
- COMRIE Bernard. 1973. "The Ergative: Variations on a Theme." *Lingua* 32, 239–253.
- COMRIE Bernard. 1976. Review of KLIMOV 1973a. *Lingua* 39, 252–260.
- COMRIE Bernard. 1978. "Ergativity." In: LEHMANN 1978: 323–393.
- COMRIE Bernard. 1981. *Language Universals and Linguistic Typology*. Oxford: Basil Blackwell.
- DAS Pradeep Kumar. 2006. *Grammatical Agreement in Hindi-Urdu and its Varieties*. München: Lincom Europa.
- DEBRUNNER Albert. 1954. *Altindische Grammatik*. Band II, 2: *Die Nominalsuffixe*. Göttingen: Vandenhoeck & Ruprecht.
- DELBRÜCK Berthold. 1874. *Das altindische Verbum aus den Hymnen des Rigveda*. Halle: Verlag der Buchhandlung des Waisenhauses.
- DELBRÜCK Berthold. 1876. *Altindische Tempuslehre*. Halle: Verlag der Buchhandlung des Waisenhauses.
- DELBRÜCK Berthold. 1888. *Altindische Syntax*. Halle: Verlag der Buchhandlung des Waisenhauses.
- DESHPANDE Madhav M., HOOK Peter Edwin (eds.). 1979. *Aryan and Non-Aryan in India*. Ann Arbor: University of Michigan Center for South Asian and Southeast Asian Studies.
- DIXON Robert M.W. 1972. *The Dyrbal Language of North Queensland*. Cambridge: Cambridge University Press.
- DIXON Robert M.W. (ed.). 1976. *Grammatical Categories in Australian Languages*. Canberra: Australian Institute of Aboriginal Studies.
- DIXON Robert M.W. 1979. "Ergativity." *Language* 55, 59–138.
- DIXON Robert M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- EDELMAN Džoj I. 1990. *Sravnitel'naja grammatika vostočnoiranskix jazykov: Morfologija. Elementy sintaksisa*. Moskva: Izdatel'stvo "Nauka."
- ELIZARENKOVA Tatiana Jakovlevna. 1967. "Ergativnaja konstrukcija v novoindijskix jazykax." In: ŽIRMUNSKIJ 1967: 116–125.
- GAIR James W. 1970. *Colloquial Sinhalese Clause Structures*. The Hague: Mouton.
- GAIR James W. 1976. "Is Sinhala a Subject Language." In: VERMA 1976, 39–64.

- GAIR James W. 2007. "Sinhala." In: CARDONA, JAIN 2007: 766–817.
- GAMKRELIDZE Thomas V., IVANOV Vyatsheslav V. 1984. *Indoevropskij jazyk i indoevropejcy*. Tiflis: Publishing House of the Tbilisi State University.
- GONDA Jan. 1951. *Remarks on the Sanskrit Passive*. Leiden: E.J. Brill.
- GONDA Jan. 1960a. "Reflections on the Indo-European Medium I." *Lingua* 9, 30–67.
- GONDA Jan. 1960b. "Reflections on the Indo-European Medium II." *Lingua* 9, 175–193.
- HOCK Hans Heinrich. 1986a. "P-oriented Construction in Sanskrit." In: KRISHNAMURTI et al. 1986: 15–26.
- HOCK Hans Heinrich. 1986b. "The Origin of Modern Indo-Aryan Ergative Constructions Revisited." *Abstract of the paper presented at International Conference on Historical Linguistics 2007 in Quebec*. <http://www.ichl2007.uqam.ca/pdf/booklet_abstracts.pdf>.
- JAMISON Stephanie W. 1979a. "Remarks on the Expression of Agency with the Passive in Vedic and Indo-European." *Zeitschrift für Vergleichende Sprachforschung* 93, 196–219.
- JAMISON Stephanie W. 1979b. "The Case of Agent in Indo-European." *Die Sprache* 25, 129–143.
- JAMISON Stephanie W. 1990. "The Tense of the Predicated Past Participle in Vedic and Beyond." *Indo-Iranian Journal* 33, 1–19.
- JHA Subhadra. 1958. *The Formation of the Maithili Language*. London: Luzac.
- KACHRU Yamuna. 1986. "The Syntax of Dakkhini: A Study in Language Variation and Language Change." In: KRISHNAMURTI et al. 1986, 165–173.
- KACHRU Yamuna. 1987. "Ergativity, Subjecthood and Topicality in Hindi-Urdu." *Lingua* 71, 223–238.
- KĀMTĀPRASĀD Guru. 2003 [1920]. *Hindī vyākāraṇ*, Vārāṇasī: Nāgarīpracārīṇī sabhā.
- KELLOG Samuel Henry. 1972 [1875]. *A Grammar of the Hindi Language*. New Delhi: Munshiram Manoharlal.
- KENT Roland G. 1953. *Old Persian: Grammar, Texts, Lexicon* (2nd ed.). New Haven: American Oriental Society.
- KHOKHLOVA Ludmila V. 2002. "Syntactic Peculiarities of Rajasthani." *Paper read at the 17th European Conference on Modern South Asian Studies, Heidelberg, September 9–14*. <http://www.iaas.msu.ru/pub_on/khokhlova>.
- KHUBCHANDANI Lachman. M. 2007. "Sindhi." In: CARDONA, JAIN 2007: 622–658.
- KLAIMAN Miriam H. 1978. "Arguments Against a Passive Origin of the IA Ergative." *Chicago Linguistic Society: Papers from the 14th Regional Meeting*, 204–216.
- KLAIMAN Miriam H. 1987. "Mechanisms of Ergativity in South Asia." *Lingua* 71, 61–102.
- KLIMOV Georgij Andreevič. 1972. "K karakteristike jazykov aktivnogo stroja." *Voprosy Jazykoznanija* 4, 3–13.
- KLIMOV Georgij Andreevič. 1973a. *Očerki obščej teorii ěrgativnosti*. Moskva: Izdatel'stvo "Nauka."
- KLIMOV Georgij Andreevič. 1973b. "Tipologija jazykov aktivnogo stroja i rekonstrukcija protoindoevropskogo." *Izvestija Akademii Nauk SSSR, Serija literatury i jazyka* 32, 442–447.
- KLIMOV Georgij Andreevič. 1976. "Voprosy kontensivno-tipologičeskogo opisanija jazykov." In: SEREBRENNIKOV, JARCEVA 1976: 122–146.
- KLIMOV Georgij Andreevič. 1977. *Tipologija jazykov aktivnogo stroja*. Moskva: Izdatel'stvo "Nauka."
- KLIMOV Georgij Andreevič. 1979. "On the Position of the Ergative Type in Typological Classification." In: PLANK 1979: 327–332.
- KLIMOV Georgij Andreevič, ALEKSEEV Mixail E. 1980. *Tipologija kavkaskich jazykov*. Moskva: Izdatel'stvo "Nauka."
- KLIMOV Georgij Andreevič. 1983. *Principy kontensivnoj tipologii*. Moskva: Izdatel'stvo "Nauka."
- KLIMOV Georgij Andreevič, EDEL'MAN Džoj I. 1970. *Jazyk burushaski*. Moskva: Izdatel'stvo "Nauka", Glavnaja Redakcija Vostočnoj literatury.
- KOROLEV I.I. 1965. *Jazyk nepali*. Moskva: Izdatel'stvo "Nauka."
- KOUL Omkar N. 2007. "Kashmiri." In: CARDONA, JAIN 2007: 895–952.
- KRISHNAMURTI BH., MASICA Collin P., SINHA Anjani K. (eds.). 1986. *South Asian Languages. Structure, Covergence Diglossia*. Delhi: Motilal Banarsidass.
- KULIKOV Leonid 1998a. "Vedic -ya-presents: Semantic and the Place of Stress." In: MEID 1998: 341–349.
- KULIKOV Leonid. 1998b "Passive, Anticausative and Classification of Verbs: the Case of Vedic." In: KULIKOV, VATER 1998: 139–153.
- KULIKOV Leonid. 1999. "Split Causativity: Remarks on Correlations Between Transitivity, Aspect, and Tense." In: ABRAHAM, KULIKOV 1999: 21–42.
- KULIKOV Leonid. 2001. "Between Passive and Reflexive. The Vedic Presents with the Suffix -ya-." *Groninger Arbeiten zur germanistischen Linguistik* 44, 13–20.

- KULIKOV Leonid. 2006. "Passive and Middle in Indo-European. Reconstructing the Early Vedic Passive Paradigm." In: ABRAHAM, LEISÖ 2006: 62–81.
- KULIKOV Leonid, VATER Heinz (eds.). 1998. *Typology of Verbal Categories. Papers presented to Vladimir Nedjalkov on the occasion of his 70th birthday*. Linguistische Arbeiten 382. Tübingen: Niemeyer.
- KURYLOWICZ Jerzy. 1946. "Ergativnost' i stadial'nost' v jazyke." *Izvestija Akademii Nauk SSSR, Serija literatury i jazyka* 5, 387–393.
- KURYLOWICZ Jerzy. 1964a. "On the Methods of Internal Reconstruction." *Proceedings of the Ninth International Congress of Linguists, Cambridge, Massachusetts*. London: Mouton, 9–36.
- KURYLOWICZ Jerzy. 1964b. *Inflectional Categories in Indo-European*. Heidelberg: Carl Winter.
- KURYLOWICZ Jerzy. 1987. *Studia językoznawcze*. Warszawa: PWN.
- LEHMANN Winfred P. 1976. "From Topic to Subject in Indo-European." In: Li 1976, 447–456.
- LEHMANN Winfred P. (ed.). 1978. *Syntactic Typology: Studies in the Phenomenology of Language*. Texas: University of Texas Press.
- LEHMANN Winfred P. 1989. "Problems in Proto-Indo-European Grammar: Residues from Pre-Indo-European Active Structure." *General Linguistics* 29(4), 228–246.
- LEHMANN Winfred P. 1995. *Residues of Pre-Indo-European Active Structure and Their Implications for the Relationship among the Dialects*. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft, Vorträge und Kleinere Schriften 61.
- LI Charles N. (ed.). 1976. *Subject and Topic*. New York: Academic Press.
- LI Charles N. (ed.). 1977. *Mechanisms of Syntactic Change*. Austin–London: University of Texas Press.
- MACDONELL Arthur A. 1968 [1910]. *Vedic Grammar*. Delhi: Indological Book House.
- MACDONELL Arthur A. 1999 [1916]. *A Vedic Grammar for Students*. New Delhi: D.K. Printworld.
- MAGIER David. 1983. *Topics in the Grammar of Marwari*. Berkeley, University of California PhD thesis.
- MANNING Christopher D. 1996. *Ergativity. Argument Structure and Grammatical Relations*. Stanford: CSLI Publications.
- MASICA Colin P. 1979. "Aryan and Non-Aryan Elements in North Indian Agriculture." In: DESHPANDE, HOOK 1979: 55–151.
- MASICA Colin P. 1993. *The Indo-Aryan Languages*. Cambridge: Cambridge University Press.
- MEID Wolfgang (ed.). 1998. *Sprache und Kultur der Indogermanen*. Akten der X. Fachtagung der Indogermanischen Gesellschaft, 22.–28. September 1996.
- MILTNER Vladimir 1965. "From OIA Passive to NIA Active." *Asian and African Studies* 1, 143–146.
- MILTNER Vladimir. 1977. "Ergative Constructions in Hindi and Other NIA Languages." *Archiv Orientalni* 45, 237–244.
- MONTAUT Annie. 2004a. "Oblique Main Arguments in Hindi/Urdu as Localizing Predications." In: BHASKARARAO, KARUMURI 2004, Vol. 2: 33–56.
- MONTAUT Annie. 2004b. *A Grammar of Hindi*. München: Lincom Europa.
- NEU Erich. 1985. "Das frühindogermanische Diathesensystem. Funktion und Geschichte." In: SCHLERATH 1985: 275–295.
- OBERLIES Thomas. 2005. *A Historical Grammar of Hindi*. Grazer Vergleichende Arbeiten, Band 19. Graz: Leykam.
- OERTEL Hanns. 1937. "Zu den Kasusvariationen in der vedischen Prosa." *Sitzungsberichte der Bayerischen Akademie der Wissenschaften*, Philos.-Hist. Abteilung, 1937.8. Bd. 1.
- OERTEL Hanns. 1938. "Zu den Kasusvariationen in der vedischen Prosa." *Sitzungsberichte der Bayerischen Akademie der Wissenschaften*, Philos.-Hist. Abteilung, 1938.6, Bd. 2.
- OERTEL Hanns. 1939. "Zu den Kasusvariationen in der vedischen Prosa." *Sitzungsberichte der Bayerischen Akademie der Wissenschaften*, Philos.-Hist. Abteilung, 1939.6, Bd. 3.
- OLPHEN van Herman H. 1978. "Ergative and Causative in Hindi." *Orbis* 24, 184–204.
- PANDHARIPANDE Rajeshwari. 2007. "Marathi." In: CARDONA, JAIN 2007: 698–728.
- PANDHARIPANDE Rajeshwari, KACHRU Yamuna. 1977. "Relational Grammar, Ergativity and Hindi-Urdu." *Lingua* 41, 217–238.
- PAYNE John R. 1980. "The Decay of Ergativity in Pamir Languages." *Lingua* 51, 147–186.
- PETERSON John. 1998. *Grammatical Relations in Ali and the Emergence of Ergativity in Indo-Aryan*. München: Lincom Europa.
- PIREJKO Lija A. 1967. "K voprosu ob ergativnoj konstrukcii v iranskix jazykax." In: ŽIRMUNSKIJ 1967: 135–141.

- PIREJKO Lija A. 1968. *Osnovnyje voprosy ergativnosti na materiale indoiranskich jazykov*. Moskva: Izdatel'stvo "Nauka."
- PIREJKO Lija A. 1979. "On the Genesis of the Ergative Construction in Indo-Iranian." In: PLANK 1979: 481–488.
- PLANK Frans (ed.). 1979. *Ergativity. Towards a Theory of Grammatical Relations*. London: Academic Press.
- PRAY Bruce 1976. "From Passive to Ergative in NIA." In: VERMA 1976: 195–211.
- RANJAN Kar Chitt. 2006. *Hindī parasarg*. Delhi: B R Publishing Corporation.
- REDARD George (ed.). 1954. *Sprachgeschichte und Wortbedeutung, Festschrift Albrecht Debrunner, gewidmet von Schülern, Freunden und Kollegen*. Bern: Francke.
- REDARD George (ed.). 1973. *Indogermanische und Allgemeine Sprachwissenschaft. Fachtagung der Indogermanischen Gesellschaft*. Wiesbaden: Reichert.
- REGAMEY Constantin. 1954. "A propos de la 'construction ergative' en indo-aryen moderne." In: REDARD 1954: 363–381.
- REGAMEY Constantin. 1970. "Le problème de l'ergatif." *Bulletin du Cercle Linguistique de Copenhague*, 1941–1965, 8–31, 111–112.
- RENOU Louis. 1952. *Grammaire de la langue védique*. Paris: IAC.
- RUMSEY Alan. 1987. "The Chimera of Prot-Indo-European Ergativity." *Lingua* 71, 297–318.
- SAVČENKO A.N. 1967. "Ergativnaja konstrukcija predloženiya v praindoevropejskom jazyke." In: ŽIRMUNSKIJ 1967, 74–90.
- SAVEL'EVA L.V. 1965. *Jazyk Gudžarati*. Moskva: Izdatel'stvo "Nauka."
- SAXENA Baburam. 1971 [1937]. *Evolution of Awadhi*. Delhi: Motilal Banarsidass.
- SCHLERATH Benfried (ed.). 1985. *Grammatische Kategorien. Funktion und Geschichte*. Wiesbaden: Dr. Ludwig Reichert Verlag.
- SCHMALSTIEG William R. 1989. "The Genitive Agent vs. the Instrumental of Means an Old Idea Worth Retaining." *General Linguistics* 29(4), 272–275.
- SCHMIDT Karl Horst. 1963. "Zum Agens bei Passiv." *Indogermanische Forschungen* 68, 1–12.
- SCHMIDT Karl Horst. 1964. "Das Perfektum in indogermanischen Sprachen: Wandel einer Verbalkategorie." *Glotta* 42, 1–18.
- SCHMIDT Karl Horst. 1973. "Transitiv und Intransitiv." In: REDARD 1973: 107–124.
- SCHMIDT Karl Horst. 1977. "Probleme der Ergativkonstruktion." *Münchener Studien zur Sprachwissenschaft* 36, 97–116.
- SCHMIDT Karl Horst. 1979. "Reconstructing Active and Ergative Stages of Pre-Indo-European." In: PLANK 1979: 333–345.
- SCHMIDT Ruth Laila. 2007. "Urdu." In: CARDONA, JAIN 2007, 286–350.
- SCHWYZER Eduard, DEBRUNNER Albrecht. 1950. *Griechische Grammatik II*. München: C.H. Beck'sche Verlagsbuchhandlung.
- SEREBRENNIKOV B.A., JARCEVA V.N. (eds.). 1976. *Voprosy opisaniya jazykov mira*. Moskva: Izdatel'stvo "Nauka".
- SIEKLUCKA Anna. 1998. *Język pendżabski*. Warszawa: Wydawnictwo Dialog.
- SILVERSTEIN Michael. 1976. "Hierarchy of Features and Ergativity." In: DIXON 1976: 112–171.
- SIHLER Andrew L. 1995. *New Comparative Grammar of Greek and Latin*. Oxford: Oxford University Press.
- SKALMOWSKI Wojciech. 1974. "Transitive Verb Constructions in the Pamir and Dardic Languages." *Studia Indoeuropejskie. Prace Komisji Językoznawstwa* 37, 205–212 [= 2004: 89–95].
- SKALMOWSKI Wojciech. 1976. "Elamite and Akkadian Translations of the Old Persian Periphrastic Perfect." *Folia Orientalia* 17, 217–229 [= 2004: 17–27].
- SKALMOWSKI Wojciech. 1986. "Języki nowoirañskie." In: BEDNARCZUK 1986: 161–216.
- SKALMOWSKI Wojciech. 2004. *Studies in Iranian Linguistics and Philology*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- SPEIJER Jacob Samuel. 1998 [1886]. *Sanskrit Syntax*. Delhi: Motilal Banarsidass Publishers Private Limited.
- STEFANŃSKI Witold. 1990. *The Diathesis in Indo-European*. Poznań: Wydawnictwo UAM.
- SZEMERÉNYI Oswald. 1970. *Einführung in die vergleichende Sprachwissenschaft*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- ŠAMATOV Azad Nasretidinovič. 1974. *Klassičeskij dakxini*. Moskva: Izdatel'stvo "Nauka."
- TIKKANEN Bertil. 1987. *The Sanskrit Gerund: A Synchronic, Diachronic and Typological Analysis*. *Studia Orientalia* (Helsinki) 62.
- TIKKANEN Bertil. 1988. "On Burushaski and Other Ancient Substrata in Northwest South Asia." *Studia Orientalia* (Helsinki) 64, 303–325.

- TRASK Larry R. 1979. "On the Origin of Ergativity." In: PLANK 1979: 385–404.
- TRONSKIJ Iosif Moiseevič. 1967. "O donominativnom prošlom indoevropskix jazykov." In: ŽIRMUNSKIJ 1967: 91–94.
- UHLENBECK C.C. 1901. "Agens und Patiens im Kasussystem der indogermanischen Sprachen." *Indogermanische Forschungen* 12, 170–172.
- VAILLANT André. 1936. "L'ergatif indo-européen." *Bulletin de la Société de linguistique de Paris* 137, 93–108.
- VERMA Manindra J. (ed.). 1976. *The Notion of Subject in South Asian Languages*. Madison: University of Wisconsin. (South Asian Studies, Publication Series 2).
- VERMA Manindra J., MOHANAN Karavannur Puthanvettil (eds.). 1990. *Experiencer Subjects in South Asian Languages*. Stanford University: Center for the Study of Language and Information.
- WHITNEY William Dwight 1990 [1888]. *Sanskrit Grammar*. Delhi: Bodhi Leaves Corporation.
- WITZEL Michael. 1999. "Substrate Languages in Old Indo-Aryan (Rgvedic, Middle and Late Vedic)." *Electronic Journal of Vedic Studies* EJVS 5(1), 1–67.
- YEGOROVA R.P. 1971. *The Sindhi Language*. Moscow: "Nauka" Publishing House.
- ZAKHARYIN Boris. 1979. "On the Formation of Ergativity in Indo-Aryan and Dardic." *Osmania Papers in Linguistics* 5, 50–71.
- ZWOLANEK Renee. 1987. *Merkmale der Ergativkonstruktion und die Hypothese eines indogermanischen Ergativs*. European University Studies, Series XXI, Linguistics, Vol. 59. Bern: Peter Lang.
- ŽIRMUNSKIJ Viktor Maksimovič (ed.). 1967. *Ergativnaja konstrukcija predloženiya v jazykax različnyx tipov*. Leningrad: Izdatel'stvo "Nauka."

Allatum die 29 mensis Decembris anno 2008