

Subject and Ergativity in Middle Indo-Aryan

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1. Introduction

In literature, a significant attention has been devoted to the problem of subject in Indo-Aryan (henceforth IA) languages (Anderson 1976, Verma 1976, Hock 1986, Peterson 1998, Stroński 2011, Bickel & Yādava 2000). However, despite the numerous studies, Middle Indo-Aryan (henceforth MIA) languages, which represent the crucial stage in the rise of ergativity, have not yet been analyzed in all their complexity.

In my paper I will present the data from a MIA language, Jain Māhārāṣṭrī (henceforth JM). JM is a Middle Indo-Aryan language and the main language of the non-canonical literature of the Śvetāmbara group of Jainism. The data presented here are based on nine tales written by Devendra in the 11th century AD as a commentary of the Uttarajjhāyā, which is one of the canonical books of Jain literature. The original manuscript is in the British Library and was edited and published by Jacobi in 1886.

Table 1: Chronological progression of Indo-Aryan (IA) languages

Old Indo-Aryan (OIA)	Vedic (until 600BC) Classical Sanskrit (600BC-200 AD)
Middle Indo-Aryan (MIA):	Pāli and Prakrits (200 BC – 1000AD)
New Indo-Aryan (NIA):	Hindi, Bengali, Marathi, Gujarati... (1000 AD – present)

Since Dixon (1979), the symbols A, S and O have been used to indicate the subject of a transitive clause (A), the subject of an intransitive clause (S), and the object of

a transitive clause (O). This convention will be followed throughout this presentation.

In JM the past construction expressed by the inherited past passive participle becomes the only available means of expressing past actions and thus it becomes functionally active, as there no longer exists a contrasting voice. However, the syntactic status of the subject in this past participle construction has yet to be proven. It has been proposed (Comrie 1978, Marantz 1984, Estival and Myhill 1988) that the emergence of ergativity have involved a “transfer of subject properties” from the grammatical subject of the former passive construction to A, that became the subject of the new ergative construction. This change is generally considered to have took place in the MIA languages and topicalization of A has been considered the starting point of the reanalysis.

In my paper I will argue against this proposal and I will focus on phenomena connected with the grammatical relations that are not yet completely accounted for MIA, taking a closer look at the subject properties. Traditionally, the term ‘grammatical relation’ (GR) refers to the morphosyntactic properties that relate an argument to a clause, as, for example, its subject or its object. What is crucial about the traditional notion of GRs is that they are identified by syntactic properties and that they relate an argument to the clause (Bickel 2011). This differentiates GRs from semantic roles (SRs) that are semantic, not syntactic relations, and they hold between arguments and predicates rather than between arguments and clauses.

The properties that were traditionally considered the key identifiers of GRs are the property of triggering verb agreement and the property of being assigned a specific case. However, these properties often do not converge on a single set of GRs in a language. Ergative systems, for example, jeopardized this traditional concept and research over the past three decades has expanded the range of syntactic properties that identify GRs in the languages. A new problem arose: are the syntactic properties of arguments beyond agreement and case, the behavior properties (behavior in relative clauses, raising constructions, the constraints on coreferential arguments in complementation, coordination and subordination) more diagnostic for identifying the GRs? In my paper I will discuss if the traditional syntactic properties define the GRs in JM and if the subject properties converge on A.

2. Ergativity

Western Indo-Aryan languages have a split morphologically ergative alignment determined by the tense of the verb: the system is ergative only in the past tenses. By contrast, in the eastern Indo-Aryan languages the system is entirely accusative. This consideration has led to reflection on whether the ergative system is an innovation of some modern Indian languages or whether it has been inherited from the previous diachronic stages.

The term ‘ergativity’ is generally used to describe a “grammatical pattern in which the subject of an intransitive clause (S) is treated in the same way as the object of a transitive clause (O), and differently from a transitive subject (A)” (Dixon, 1994: 1). Thus ergativity is considered complementary to the familiar

pattern of accusativity, where S is treated as A. According to the above definition, ergativity can be found in a particular domain of the grammar if S and O are ‘treated the same way’. But it is somehow problematic to understand the meaning of ‘treated the same way’. The definition of ergativity is deliberately extensive because it must comprehend two basically different behaviors. Firstly, S may share similarities in its nominal morphology with O, giving rise to morphological ergativity. Secondly, S may share with O, and to the exclusion of A, the ability to control the syntactic processes, giving rise to syntactic ergativity. Morphological ergativity manifests itself primarily in coding properties:

- (a) identity of case marking between S and O, and
- (b) verbal agreement: the fact that both S and O determine agreement on the verb.

Establishing the presence of syntactic ergativity, on the other hand, is considerably more difficult. Simply put, syntactic ergativity is present if S and O share identical properties with regard to a number of different syntactic processes, that is, if they show evidence of an S/O pivot.

2. 1. Ergativity in IA

Hindi has long been considered a prototypical example of a split ergative language, with a split alignment based on tense (cf. Comrie 1978; Mohanan 1994; Dixon 1994):¹

- (1) *maiṃ-ne kal kitāb paṛhī*
 1SG-ERG yesterday book:SG.F read:PST.SG.F
 ‘I read a book yesterday.’ (Verbeke & Willems 2012)

The subject in (1), *maiṃ*, receives the ergative mark *-ne*, and the transitive verb does not agree with the pronominal subject of the sentence, but agrees with the direct object *kitāb* in gender and number. This type of construction occurs only with transitive verbs in the perfect past tense in Hindi. In all the other tenses Hindi shows the traditional Indo-European pattern: the verb agrees with the unmarked subject:

- (2) *maiṃ kitāb paṛhtā huṃ*
 1SG book:SG.F read:PRS.SG.M be:PRS.SG.M
 ‘I am reading a book.’ / ‘I read a book.’ (Verbeke & Willems 2012)

¹ In interlinear glosses, we use the following abbreviations: 1 ‘first person’, 2 ‘second person’, 3 ‘third person’, ABL ‘ablative (case)’, ACC ‘accusative (case)’, CR ‘correlative (pronoun)’, DEM ‘demonstrative (pronoun)’, EMP ‘emphatic’, ERG ‘ergative (case)’, F ‘feminine’, GEN ‘genitive’, GRD ‘gerundive’, INS ‘instrumental (case)’, LOC ‘locative (case)’, M ‘masculine’, N ‘neuter’, NOM ‘nominative (case)’, PL ‘plural’, PP ‘past participle’, PPP ‘past passive participle’, PRS ‘present’, PST ‘past’, REFL ‘reflexive’, SG ‘singular’.

- (3) *laṛkī soyī*
 girl:SG.F sleep:PST.SG.F
 ‘The girl slept.’ (Verbeke & Willems 2012)

In (3) S is unmarked and cross-referenced on the intransitive past verb for gender and number. So, A is treated like S in the present system and with intransitive verbs, while O is treated like S in the past clauses.

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 passive participial form in *-ta* and agent in the instrumental. The most common theory presumes that the ergative construction in the IA languages has a passive ancestor in OIA. The traditional view on the origin of ergativity in the IA languages is based on the hypothesis of the shift from passive to ergative of the construction with this past passive participle (PPP) in *-ta*. Example of the Sanskrit PPP are given in (4) (5):

- (4) *ayaṃ ca-atra mayā dṛṣṭaḥ*
 this:SG.M.NOM and-here 1SG.M.INS see:PPP.SG.M.NOM
paradāraparigrahaḥ
 other·wife·group:SG.M.NOM
 ‘And here the group of the other wives was seen by me.’ (Rāmāyana 5.11.38c)

- (5) *virādhaś ca hataḥ saṃkhye*
 Viradha:SG.M.NOM and kill:PPP.SG.M.NOM war:LOC
vane rāmeṇa
 forest:LOC Rama:SG.M.STR
 ‘Viradha was killed by Rama in the forest during the war.’ (Rāmāyana 5.14.8)

In (4) and (5) A is marked by the instrumental case and the verb agrees in number and gender with the derived subject, which is the semantic patient. However, in Sanskrit the PPP is not the only way to express an action in the past, there are other finite past verb tenses: the aorist, the perfect and the imperfect. Thus the past participle has voice oppositions forms and can be considered an actual passive.

It is a matter of fact that with the gradual loss of finite past tense verb forms in the first and middle stages MIA period, the past construction expressed by the past participle in *-ta* became the only available means of expressing past transitive clauses. The loss of the inflectional system (Table 2) has often been cited as a reason for the increase in the frequency and the scope of the inherited passive *-ta* construction, which in turn led to the unmarking of the marked passive voice of this clause, and resulted in an active, ergative clause (Hock 1986; Bubenik 1998).

Table 2: Erosion in the verbal system from Vedic to JM Prakrit (adapted from Kulikov 2011)

	PRIMARY ENDINGS + AUGMENT	SECONDARY ENDINGS + AUGMENT	SECONDARY ENDINGS	IMPERATIVE	SUBJUNCTIVE	OPTATIVE	PERFECT ENDINGS
PRESENT	Present	Imperfect	Present Injunctive	Pr. Imperative	Pr. Subjunctive	Pr. Optative	Stative
AORIST		Aorist	Aorist Injunctive	Aor. Imperative	Aor. Subjunctive	Aor. Optative	
PERFECT		Pluperfect	Perfect injunctive	Perfect Imperative	Perf. Subjunctive	Perf. Optative	Perfect
FUTURE	Future	Conditional		Future Imperative			



Vedic



Classical Sanskrit



JM

In this the stage of MIA the specific case for A with the past participle is still the instrumental case. Example from JM (6) and (7) illustrate the construction:

- (6) *devīhiṃ savvāṇi valayāṇi*
 queen:PL.F.INS all:PL.N.NOM bracelet:PL.N.NOM
avanīyāṇi
 remove:PP.PL.N.NOM
 ‘The queens took off all the bracelets.’

- (7) *diṭṭho ajjāe Nami·rāyā*
 see:PP.SG.M.NOM nun:SG.F.STR Nami·king:SG.M.NOM
 ‘The nun saw king Nami’.

In (6) and (7) A is marked by the instrumental case, while O (the bracelets) and (king Nami) is marked by the nominative case. The verb, based on the erstwhile PPP in *-ta*, which became *-ya* in JM, agrees in case, gender and number with the nominative O.

MIA languages occupy an intermediate position between Old and New Indo-Aryan (NIA) and may represent the real break with the inherited syntactic alignment in showing the evolution from passive to ergative *statu nascendi*. The

question is: is this a passive, as in Sanskrit, or already an active ergative construction, as in Hindi?

It is difficult to answer and to determine whether the passive to ergative reanalysis has taken place in the absence of a clear morphological actualization: one must deal with significant doubt if has to rely only on morphological evidence. In Sanskrit, JM and Hindi, A is always marked and the verb agrees with the nominative O. But is the marked A always the subject of the past constructions of the three languages?

3. Transfer of subject properties proposals

The syntactic status of the instrumental A in MIA has yet to be proven. In literature the 'transfer of subject properties' proposals indicate topicalization of A as the starting point of the ergative reanalysis in IA languages.

Comrie (1978: 370) argues that in most languages with ergativity, the majority of subjects properties identify the A of transitive verb as its subjects, whereas in the passive construction the majority of subjects properties identify the O as the subjects of the sentence. He thus postulates a subject properties dynamic shift where subject properties shifted from O to A, but he does not explain which properties.

Estival and Myhill (1988) developed a theory for the emergence and loss of ergativity, essentially drawing on the notion of transfer of subject properties proposed by Marantz (1984). According to them the shift is triggered by the properties of animacy and high topicality of A: after the verbalization of a verbal adjective, A, via some form of topicalization, begins to acquire syntactic subject properties and concomitantly O loses them (control of reflexives, coreferential deletion, etc.). According to their model, when A has full syntactic subject properties, it may acquire even the morphological properties (verbal agreement and the loss of oblique marking), while O may acquire the accusative case marking, making the construction fully accusative again.

4. Grammatical Relations, Subject and Pivot

In functional approaches subject has often been regarded as a prototypical category defined by a cluster of properties which are not obligatorily shared by all of the member of the category and the criteria for identifying it are often based on distributional analyses. Keenan (1976) proposes a universal definition of subject in terms of a number of diagnostic properties, such that the notion would be applicable universally but in varying degrees.

In the traditional linguistics of Standard European languages, the two core arguments of a transitive verb (A and O) have been labeled 'subject' and 'object' on the basis of their morpho-syntactic behavior. The ergative pattern compromises this traditional labeling because the ergative coding properties of the core arguments do not allow to identify the subject in a transitive clause with the subject of an intransitive clause. Give that it is impossible to identify the subject and object

cross-linguistically on the basis of identical formal coding properties in different alignment patterns, difficulties arise because the categories of subject and object are no longer efficient for comparing argument structures across different languages.

The subject of a construction in one language has coding properties that differ from the subject of a construction in another language. Furthermore, even in a single language, subject can become a problematic category. Thus, recent research has adduced growing evidence that subject is neither universal across languages nor homogenous across constructions within individual languages (Dryer 1996, Croft 2001, Bickel 2011).

A viable solution to this problem is to assume that subject, as well as other GRs is language-specific, and the notion of GR cannot be cross-linguistically valid either in the sense that all languages have the same grammatical relations, or in the sense that GRs found in different languages should be expected to be instances of the same GR (Cristofaro 2009). In this approach subject is only a descriptive label and according to Dryer (1997: 123) the similarities displayed by linguistic categories across different languages are ultimately due to functional and cognitive principles that are valid cross-linguistically.

The terminology for the GRs is also heterogeneous and it sometimes helps to avoid ambiguous terms like ‘subject’ or ‘object’ and use instead names that directly refer to the defining properties of the GR, e.g. ‘the {S,A}-relation’, or ‘the {S,O}-relation’ where ‘subject’ indicates {S,A}-relations in accusative languages and {S,O }-relations in ergative languages (following Dixon 1994).

An additional term that is frequently used for some GRs is the term ‘pivot’, popularized by Dixon (1979a) and Foley & Van Valin (1984). This term is limited to the special case of a GR in a biclausal construction (S/A pivot, S/O pivot).

Dixon (1994) introduces the category or level of ‘syntactic pivot’ for biclausal constructions such as coordinate, purpose and relative clauses. But there are also different patterns in different biclausal constructions in the same language. Van Valin (2004) allows for a language to have multiple ‘privileged syntactic arguments’, if different constructions in a language define different categories. The result is that a fruitful way to analyze the notion of subject is to abandon the idea of a universal generalization and accept that each construction defines its own category. The conclusion and the approach adopted in this work is that the category of subject must be defined one construction at a time.

5. Analysis

5.1 Reflexivization

I consider clauses in which the reflexive pronouns *appa/atta-* and *sayam* are used in my corpus.

Sayam is controlled only by S and A in both the present and the past system, but it has an intensifier rather than a reflexive meaning.

(8) *tāhe Mūladevo sayam nīla-padam*

then Muladeva:SG.M.NOM REFL dark-coloured·clothes:SG.M.ACC
pāuṇiūṇa rattim niggaṭo
 put:GRD night:ACC go.out:PP.SG.M.NOM
 ‘Then Mūladeva himself went out during the night, having put on dark-
 coloured clothes.’

Sayaṃ in (8) is best considered as an intensifier. The term intensifier is here used for expressions like English *himself/herself/itself* when they are used in an adjunct position (e.g., the president himself), for Latin *ipse/ipsa/ipsum*, Italian *stesso/stessa*, Russian *sam/samá/samó*, German *selbst*, etc., and their counterparts in other languages (König and Gast 2006).

Atta behaves differently from *sayaṃ*: both A and O can controls this reflexive pronoun:

(9) *ārovio mangala-tūra-saddena appaṇo*
 put:PP.SG.M.NOM celebration·drum·sound:SG.INS REFL:GEN
uttimange maḍḍo
 head:LOC diadem:SG.M.NOM
 ‘Among the sound of festive drums (the king) put the diadem on his own head.’

In (9) the reflexive pronoun *appaṇo* is controlled by a recoverable A: *rānnā* ‘king’ is implied, in instrumental case since the verb is a transitive PP in agreement with O *maḍḍo* ‘diadem’. In (10) *appā* is used combined with *sayaṃ*:

(10) *so āgacchamāṇo na mae paḍivālio,*
 3SG.M.NOM return:PTCP.PRES.SG.M.NOM not 1SG.F.INS wait:PP.SG.M.NOM
sayaṃ eva appā vivāhāvio-tti
 REFL so REFL:SG.NOM marry:PP.CAUS.SG.M.NOM
 ‘I did not wait for him to return, so I myself made (you) marry myself’.

In (10) both A and O are represented by the reflexive pronouns. Here *sayaṃ* refers to A, the causer of the causative verb, and *appā* to O, which are actually the same person. The verb agrees with O *appā* that is in nominative case. *Sayaṃ* is referred to the personal pronoun *mae* in the instrumental case. The causee (you) is implicit and recoverable only from the context.

Since both A and O, as well as S, can control reflexivization, this is not a diagnostic property and it is not sensitive to GRs.

5.2 Relativization

Relative clauses in Indo-Aryan languages, from OIA to NIA, present the correlative constructions. Correlative constructions are of the type ‘*which girl we saw, she came from the village*’, as in the Sanskrit example (11):

(11) *yā kanyā asmābhir dṛṣṭā*

CR:3SG.F.NOM girl 1PL:INS see:PP.3SG.F.NOM
sā grāmād āgatā
 DEM:3SG.F.NOM village:ABL come:PP.3SG.F.NOM
 ‘The girl that (we) saw came from the village.’

The main problem of a syntactic analysis of the correlative clauses is that in contrast to relative construction, correlatives are not actual subordinates. However as stated by Keenan (1985: 163) correlatives are the equivalent of relative clauses in language in which they occur.

In JM we find that any NP, according to the Accessibility Hierarchy (Keenan & Comrie 1977): ‘Subject > Direct Object > Indirect Object > Oblique > Genitive’, can be relativized, as in (12) (13):

A/S

(12) *eso jeṇa rohiyaṃ nagaraṃ*
 3SG:NOM CR:3SG.INS surround:PP.SG.N.NOM city:SG.N.NOM
 ‘(It is) he who surrounded the city.’

O/S

(13) *khayarêšara, avitahaṃ eyaṃ,*
 Prince.of.fairy.man:VOC wrong:SG.N.NOM 3SG.N.NOM
jaṃ tumae bhaṇiyaṃ
 CR:SG.N.NOM 2SG.INS say:PP.SG.N.NOM
 ‘Prince of the fairy men, it is wrong what you said.’

As for control of reflexivization, relativization in JM cannot be considered a diagnostic property since it is not restricted to one argument and it is insensitive to GRs.

5.3 Coreferential deletion

When the core arguments of the linked clauses (either A/S, or O/S) are coreferential, one of them is deleted. This kind of requirement can be called ‘pivot constraints’ (Dixon 1994: 152.). This section will be divided into three main groups: (a) Main clause combining, where two or more independent clause are combined, (b) Combination of a main clause with a clause with an absolutive (or gerund), (c) Clause chaining,

Only 6 of the 11 pivot combinations defined by Dixon (1994) are possible in simple clause combining. Both clauses intransitive (a) $S_1 = S_2$; first clause intransitive, second transitive (b) $S_1 = O_2$ and (c) $S_1 = A_2$; first clause transitive, second intransitive (d) $O_1 = S_2$; both clauses transitive, one common NP (f) $O_1 = O_2$ and (g) $A_1 = A_2$; both clauses transitive, two common NPs (j) $O_1 = O_2$ and $A_1 = A_2$.

According to Peterson (1998) in MIA there are no cases of an S/O pivot in coreferential deletion: even if he finds evidence for pragmatic pivot controlling coreferential deletion, this is actually restricted to an A/S syntactic pivot.

On the contrary, in JM coreference is quite free in terms of syntactic constraints. In conjunction reduction constructions, when the first clause is intransitive and the second is transitive both S/A and S/O pivot are acceptable. Since there is no active/passive opposition, constituent order appears to be the mechanism used for disambiguation: when the shared argument is O, A is placed in focus post-verbal position at the end of the second clause, as in (14). When the pivot is S/A, as in (15), O is in final focus position. When the first clause is transitive and the second is intransitive, only O/S pivot is admitted, as in (16).

The reason why we do not find S deleted by a coreferential A is that coordination between intransitive and transitive clauses with S/A is strictly restricted to the gerund construction, as in (17). Therefore, only in the gerund construction there is a strictly syntactic S/A pivot.

S/O

- (14) *so ya puvva·bhava·vereṇa keṇa·i vasanta·māse*
 3SG:M.NOM and old-existence·hostility:INS some:INS spring·month:LOC
ujjāṇaṃ gao
 park:ACC go:PP.SG.M.NOM
āhao asiṇā khandharāe niya·bhāuṇā Maṇirahaṇa
 strike:PP.SG.M.NOM sword:INS neck:LOC own·brother Maniraha:INS
 ‘And he by some hostilities dating from a previous existence, he went to the park in the month of spring and his own brother Maniraha struck (him) in the neck with a sword.’

S/A

- (15) *paviṭṭho taṃmi, diṭṭhā nava·jovvaṇa·rūva·lāyaṇṇā*
 enter:PP.SG.M.NOM this:LOC see:PP.SG.F.NOM fresh·youth·shape·beauty
juvaī
 girl:SG.F.NOM
 ‘He entered there and saw a girl, endowed with the fresh bloom of youth, beauty, and grace.’

O/S

- (16) *so Maṇiraho tīe ceva rayaṇīe phaṇiṇā daṭṭho*
 3SG.M.NOM M:SG.M.NOM that ENF night snake:INS bite:PP.SG.NOM
kālagao cauthī·puḍhavīe neraio uvavanno tti
 die:PP.SG.M.NOM fourth·hell.land dweller be.reborn:PP.SG.M.NOM
 ‘That night a snake bit Maniraha, (he) died and was reborned as a dweller of the fourth hell land.’

Gerund A/S

- (17) *pakkhāliūṇa ambarāiṃ avaiṇṇā majjaṇa’tthaṃ.*
 wash:GRD clothes:PL.N.ACC go.down:PP.SG.F.NOM bathing in.order.to
 ‘She washed her clothes and stepped down in order to bathe.’

Inside clause chaining there can be two or more sentences. The link among these sentences is the topic and there are no syntactic constraints. In JM S, A and O can be topicalized and thus deletion along S/A and S/O but also A/O and O/A core arguments is possible if the NPs are maintained in topic function, as S/O in (18):

Clause chaining

- (18) (a) *tao pahuvium āḍhatto Jugabāhū.*
 then start.out:INF begin:PP.SG.M.NOM Jugabahu:SG.M.NOM
 (b) *etth' antare aviyāriūṇa kajjā'kajjam,*
 meanwhile not.consider:GRD allowed not.allowed:ACC
 (c) *agaṇiūṇa jaṇā'vavāyam,*
 disregard:GRD people censure:ACC
 (d) *ujjhiūṇam ca paraloya'bhayam vīsatta'hiyao*
 abandon:GRD and next.world.fear:ACC confident.heart
 (e) *āhao dadham nisiya'khaggeṇa kandharāe*
 hit:PP.SG.M.NOM violently sharp.sword:INS neck:LOC
Maṇirahaṇa,
 Maniraha:SG.M.INS
 (f) *guru pahāra viyaṇo nimīliya'ccho nivaḍio dharani'vaṭṭhe.*
 heavy.wound.pain closed eyes fall:PP.SG.M.NOM ground:LOC
 'Then Jugabahu prepared to start out.

In the meanwhile Maniraha, without considering what is allowed to be done and what is not allowed to be done, disregarding the censure of the people, abandoning fear of world beyond, with a confident heart, hit (him) violently in the neck with his sharp sword; with agony for the deep wound with his eyes closed, (Jugabahu) fell to the ground.'

Coreferential deletion among the PPs is controlled by the topic of the paragraph. *Jugabahu* in the first sentence is in final position because it is the new topic, and it is persistent in the entire chain of clauses. *Mayanareha* is the A of the PP in the (e) clause and it governs the coreferential deletion of the subject of the three gerunds (b, c, d). Coreferential deletion in (18) can be schematically represented as:

(a) V-PP	S	
(b) V-grd	O-acc	(A)
		↓
(c) V-grd	O-acc	(A)
		↓
(d) V-grd	O-acc	(A)
		↓
(e) V-PP	(O)	A
(f) (S)	V-PP	

S of the first clause (a) is coreferential with O of (e) and S of (f):

(a)	S
	↓

- (e) (O)
 ↓
 (f) (S)

6. Results and conclusion

In the table you can see the results of my analysis:

Table 3: Results

SYNTACTIC PROPERTIES	O	S	A
Reflexivization	-/+	+	+
Relativization	+	+	+
Coreferential deletion	+	+	+
Conjunction reduction	-	+	+
Topic	+	+	+

The reflexive and correlative constructions in JM are problematic. I have shown that the intensifier function can overlap the reflexive one and that the correlative clauses are not standard relative constructions. The analysis shows that the two constructions can not be considered diagnostic properties because they do not identify only one set of arguments treated in the same way: both {S,A} and {S,O}-relations are found. Overall, they show that there is not a uniform category of subject.

The existence of a co-occurrence of a S/A and S/O pivot can be explained as a transitional phase of the syntactic development of MIA towards NIA. It has, in fact, been almost generally accepted that there is no uniform category of subject in contemporary NIA and that the arguments marked by cases other than nominative show different degrees of subjecthood (cf. Montaut 2001, Bickel & Yādava 2000). Moreover Stroński (2014) shows that in early NIA dialects there are occurrences of an S/O pivot:

- (19) Early Awadhi
avasaru jāni saptariśi āe
 Occasion know:GRD seven.Seers come.PP.PL.M
turatahī bidhi giribhavana paṭhāe
 immediately Brahma palac.of.Himavan send.PP.PL.M'
 'Knowing the opportune moment the Seven Seers came, immediately
 Brahma sent (them) to the palace of Himavan.'

Coreferential deletion in JM identifies a rigid constraint demanding coreference between S/A only with the gerund construction, where the deletion is sensitive to GRs. This is a pure conjunction reduction construction that overrules

pragmatic background and identifies a syntactic pivot. So, it can be considered the only diagnostic property that restricts a {S,A}-relation. On the contrary the co-occurrence of a S/A and S/O pivot in main biclausal coordination, can best be described as a zero-anaphora construction, insensitive to GRs.

Data from JM show that both A and O can be topicalized, so it is inaccurate to indicate topicalization of A as the starting point of the ergative reanalysis. Moreover more studies should be done in Sanskrit to understand if O had ever been in topic function in the PPP construction, since the studies on topicalized O in the specular Old Iranian past participle construction are controversial (Bynon 1980, Haig 2008), and data on Sanskrit are lacking. More generally, investigations on GRs in behavioral constructions in OIA are much needed in order to understand the original status of GRs in the inherited past passive participle construction.

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