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Ergativity Seminar  
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## Ergativity in Indo-Aryan Languages

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### 1 A Missing Case?

The Ergative Indo-Aryan languages display aspect-based split ergativity:

- (1) a. perfective tenses: ergative alignment
- b. non-perfective tenses: nominative alignment

Normally, we might expect something like the following:

- (2) a. ergative alignment:  
          DP-Ergative DP-Absolutive V-Perfective
  - b. nominative alignment:  
          DP-Nominative DP-Accusative V-NonPerfective
- given that it is natural to identify the Nominative and the Absolutive, we are left with three cases: the Ergative, the Nominative, and the Accusative.

But across Indo-Aryan, we find at most two distinct cases within this system:

- (3) a. the marked case: ergative
- b. the unmarked case: nominative/accusative/absolutive

- A historical explanation: Old Indo-Aryan nominative and accusative cases became syncretized in Middle Indo-Aryan leaving a single absolutive case for both subject and object marking (Bubenik (1998)).
- Most of New Indo-Aryan has developed a system of DOM, but even so it has not become a generalized object case marker.

- (4) Case Options in NIA:
  - a. DP-Ergative DP- $\phi$ /DP-DOM V-Perfective
  - b. DP-Ergative DP-DOM V-Perfective
  - c. DP- $\phi$  DP- $\phi$  V-NonPerfective
  - d. DP- $\phi$  DP-DOM V-NonPerfective

### 2 Split Ergativity

The ergative systems manifested within all the Indo-Aryan languages display aspect based splits. In some, we also find person based splits.

## 2.1 Aspect-based Splits

The case on the subject of a finite transitive clause in the Western Indo-Aryan languages (Standard Hindi-Urdu, Marathi, Gujarati, Punjabi, Kashmiri, Sindhi but not Bengali, Oṛiya, Bhojpuri etc.) depends upon the aspect.

In perfective tenses, the subject of a transitive clause receives Ergative case. In all other tenses the case on the subject is nominative.

### (5) Hindi-Urdu Perfective Tenses:

#### a. Simple Past: perfective participle by itself:

Lataa-ji-ne kai gaane gaa-ye  
Lataa-Hon-Erg many song.MPl sing-Pfv.MPl

‘Lataa-ji sang several songs.’

#### b. Present/Past Perfect: perfective participle plus tense auxiliary

Lataa-ji-ne kai gaane gaa-ye hĒ/the  
Lataa-Hon-Erg many song.MPl sing-Pfv.MPl be.Prs.Pl/be.Pst.MPl

‘Lataa-ji has/had sung several songs.’

The Hindi-Urdu perfect is based on the perfective participle. This is not the case for all Indo-Aryan languages - for example Kashmiri.

### (6) Kashmiri Simple Past:

#### a. (from Wali and Koul (1997):153)

mohn-an chEl' palav  
mohan-Erg wash.Pst.MPl clothes.MPl

‘Mohan washed the clothes.’

#### b. (from Syeed (1985))

mo:t-an tsEl-Iro:v su gari  
death-Erg flee-caus he.Abs house-Abl

‘Death chased him out of his house.’

### (7) Kashmiri Perfect (from Wali and Koul (1997):232):

#### a. present perfect:

me/tEm' chu batI kh'o:mut  
I.Erg/he.Erg be.3MSg food.MSg eat.Perfect.MSg

‘I have/he has eaten the food.’

#### b. past perfect:

me/tEm' o:s akhba:r por-mut  
I.Erg/he.Erg be.Pst.3MSg newspaper.MSg read-Perfect.MSg

‘I/he had read the newspaper.’

#### c. future perfect:

me/tEm' a:si na:ṭakh vuchImut  
I.Erg/he.Erg be.Fut.3MSg play.MSg see.Perfect.MSg

‘I/he will have seen the play.’

In most Indo-Aryan languages, ergative subjects are limited to the perfective tenses. In other tenses, only nominative subjects are possible.

(8) Hindi-Urdu Non-Perfective Tenses:

a. Habituals: imperfective/habitual participle plus tense auxiliary

Lataa-ji gaane gaa-tii hĒ/thī:  
Lataa.f-Hon song.Pl sing-Hab.f be.Prs.Pl/be.Pst.FPl

'Lataa-ji sings/used to sing songs.'

b. Progressive: formed periphrastically

Lataa-ji gaanaa gaa rahī: hĒ/thī:  
Lataa.f-Hon song.m sing Pro.FPl be.Prs.Pl/be.Pst.FPl

'Lataa-ji is/was singing (a song).'

c. Subjunctive

Shaayad Lataa-ji gaanaa gaa-ē  
Maybe Lataa.f-Hon song.m sing-Sbjv.Pl

'Maybe Lataa-ji will sing (a song).'

d. Future: subjunctive ending plus a participial ending

Lataa-ji gaanaa gaa-ē-gii  
Lataa.f-Hon song.m sing-Fut.FPl

'Lataa-ji will sing a song.'

(9) Kashmiri Non-Perfective Tenses:

a. imperfective (from Wali and Koul (1997):234)

i. present progressive:

Aslam chu kita:b par-a:n  
Aslam.m be.Prs.3Sg book.f read-Impfv

'Aslam is reading a book.'

ii. future progressive:

shi:lI a:si philim vuch-a:n  
Sheila.f be.Fut.3Sg film watch-Impfv

'Sheila will be watching a film.'

b. future (from Wali and Koul (1997):227)

i. tim khe-n batI

they eat.Fut-3Pl food

'They will eat the food.'

ii. bI kar-I yi kE:m

I do-Fut.1Sg this work

'I'll do this work.'

In the case of compound tenses, the lowest/most local aspectual marking seems to be the one relevant for licensing ergative case. This is illustrated by the Future Perfect: the future does not license ergative subjects.

(10) Future Perfect/'Presumptive': Perfective Participle + be-Fut

Lataa-ji-ne yeh gaanaa gaa-yaa ho-gaa  
Lataa-Hon-Erg this song.m sing-Pfv.MSg be-Fut.MSg

'Lataa-ji must have sung this song.'<sup>1</sup>

A similar point is made by past counterfactuals which involve habitual morphology on top of a perfective participle.

- (11) a. Past Counterfactual: Perfective Participle + Habitual: Ergative Subject

agar Lataa-jii-ne yeh gaanaa gaa-yaa ho-taa,  
if Lataa-ji-Erg this song.m sing-Pfv.MPl be-Hab.MSg

'If Lataa-ji had sung this song,...'

- b. Unspecified Counterfactual: Habitual: Nominative Subject

agar Lataa-ji yeh gaanaa gaa-tī:  
if Lataa.f-Hon this song.m sing-Hab.FPl

'If Lataa-ji sang this song,...'

## 2.2 Extensions beyond the Perfective

Wallace (1982):151 reports that Nepali permits ergative subjects outside of the perfective tenses.

- (12) (from Clark (1963):92)

Rām-le kām garlā  
Ram-Erg work do.Fut.3Sg

'Ram will do the work.'

Corinna Anderson (p.c.) notes the following contrast:

- (13) a. perfective tenses: ergative subjects are obligatory  
b. non-perfective tenses: ergative subjects are optional

A similar situation has also been noted for Assamese.

## 2.3 The role of Argument Structure

The standard state of affairs is that ergative case is limited to transitive subjects.

<sup>1</sup>In isolation, a future perfect reading is hard to get. Adding an additional compound verb that indicates completion such as *le* 'take' and suitable adverbs facilitates the future perfect reading.

- i. kal 5-baje Lataa-ji yeh gaanaa gaa li-yaa ho-gaa  
tomorrow 5-o'clock Lataa.g-Hon this song sing TAKE-Pfv.MSg be-Fut.MSg

'Tomorrow at 5 o'clock, Lataa-ji will have sung this song.'

### 2.3.1 Intransitives that allow for Ergative Subjects

(14) Kashmiri Intransitive verbs that take ergative subjects: *asun* 'laugh', *vadun* 'cry', *ladun* 'quarrel', *vo:run* 'shout', *pōḍ tra:vIn* 'sneeze', *tsalun* 'flee' *gindun* 'play', *natsun* 'dance' (from Syeed (1985):10, Wali and Koul (1997):153)

- a. me g'und  
I.Erg play.Pst  
'I played.'
- b. tEm' vod az  
he.Erg cry.Pst today  
'h ecried today.'

The ergative marking on the subject with many intransitives is often optional.

(15) Kashmiri (Wali and Koul (1997):153)

- a. ergative subject:  
me nots  
I.Erg dance.Pst  
'I danced.'
- b. nominative subject:  
bI nots-us  
I dance.Pst-1Sg  
'I danced.'

- when there is optionality, the choice of the ergative over the nominative indicates that the action was deliberate/volitional. At least in Hindi-Urdu, some intransitives like *nahaa* 'bathe' require ergative subjects.

The distinction between intransitive verbs that allow ergative subjects and those that do not seems to fall along the unergative/unaccusative distinction. Unergatives seem to allow for ergative subjects while unaccusatives do not.

(16) Kashmiri Unaccusatives

- a. (Wali and Koul (1997):153)  
shi:shI phuḥ  
glass broke.Pst  
'The glass broke.'
- b. (from Syeed (1985):10)  
bI b'ūṭhus  
I sit.Pst.MSg  
'I sat.'

- a similar pattern, with more or less the same verbs, is reported for Hindi-Urdu (see Mohanan (1995):71).

### 2.3.2 Transitives that do not allow for Ergative Subjects

There is a limited set of transitive verbs that permit nominative subjects.<sup>2</sup>

- (17) a. *laa* 'bring' (does not allow for Ergative subjects):

Madhu phal laa-ii thii  
Madhu.f fruit.m bring-Pfv.F be.Pst.F

'Madhu had brought fruit.'

- b. *bol* 'speak' (marginally allows for Ergative subjects):

Nupur kuchh bol-ii thii  
Npur.f something.m speak-Pfv.F be.Pst.F

'Nupur had said something.'

- c. *samajh* 'understand' (also allows for Ergative subjects):

mE vo baat nahii samjh-aa  
I that thing Neg understand-Pfv.MSg

'I did not understand that thing.' (from Mahajan 1989)

### 2.3.3 The influence of Compound Verbs

Quite productively, transitive verbs that otherwise require ergative subjects in the perfective do not allow for ergative subjects when combined with certain Compound Verbs.

- (18) a. unaccusative compound verb: nominative subject

Mahesh phal khaa ga-yaa/baiṭh-aa  
Mahesh fruit eat GO-Pfv/SIT-Pfv

'Mahesh ate up the fruit.'

- b. transitive compound verb: ergative subject

Mahesh-ne phal khaa ḍaal-aa/li-yaa  
Mahesh-Erg fruit eat PUT-Pfv/TAKE-Pfv

'Mahesh ate up the fruit.'

## 3 Kashmiri

The basic pattern of ergativity found in Hindi-Urdu is also found in Kashmiri. Ergativity is limited largely to transitive clauses in the simple past and the perfects. When the subject has ergative case, the verb displays agreement with the object if there is one.

### 3.1 Objects in Kashmiri

Objects in most Indo-Aryan languages are subject to the process of Differential Object Marking. However, this process is either missing altogether in Kashmiri or is very limited in its application.

- in Hindi-Urdu, for example, the case-marking on an object is completely independent of the case-marking on the subject, and is determined by the formal and interpretive properties of the object.

<sup>2</sup>A similar state of affairs is found in Marathi, and curiously with these very verbs. (pg. 132, Pandharipande (1997))

- in Kashmiri, the case on the subject plays a role in determining the case possibilities of the object.

### 3.2 Pronominal Enclitics in Kashmiri

Unlike most other Indo-Aryan languages, more than one argument can be coded on the finite verb (see also Siraiki and Sindhi).

(19) Pronominal Enclitics in Kashmiri:

general schema: Verb + Agreement + Subject + Object + Oblique

- a. Agreement is with the highest unmarked argument (like Hindi-Urdu)
- b. Subject encodes the Person/Number/Case of the subject:
  - i. one set of endings for Nominative Subjects  
(Class I = Hook and Koul (1984)'s Green Suffixes)
  - ii. one set of endings for Ergative Subjects.  
(Class II = Hook and Koul (1984)'s Gold Suffixes)
- c. Object encodes the Person/Number/Case of unmarked objects:
  - i. one set of endings for unmarked objects of ergative structures  
(Class I = Hook and Koul (1984)'s Green Suffixes)
  - ii. one set of endings for unmarked objects of nominative structures  
(Class II = Hook and Koul (1984)'s Gold Suffixes)
- d. Oblique encodes the Person/Number of:
  - i. Dative objects of nominative structures
  - ii. Benefactives  
(Class III = Hook and Koul (1984)'s White Suffixes)

- Kashmiri uses the same set of endings to code both Ergative Subjects and unmarked objects of nominative structures. But the closely related language Poguli does not.

### 3.3 Ergative Structures

In these structures, the object can only appear in the unmarked case (Absolutive/Nominative = Accusative).

(20) pronominal objects (from Hook and Koul (1984):125)

- a. tami on-u-s bI  
she.Erg bring-Pst.MSg-1Sg I  
'She brought me.'
- b. timav En-i-kh tsI  
they.Erg bring-Pst.F-2Sg you  
'They brought you.'

(21) non-pronominal objects (from Syeed (1985):7)

- a. me por akhbār  
I.Erg read.Pst.MSg newspaper.MSg  
'I read a newspaper.'

- b. me pEr                    čith'  
 I.Erg read.Pst.FSg letter.FSg  
 'I read the letter.'

- most other Indo-Aryan languages would treat pronominal objects and non-pronominal object differentially.

### 3.4 Nominative Structures

When there is a nominative subject, the case of the object depends upon the following hierarchy.

- (22) Person Hierarchy (from Syeed (1985):17, Hook and Kaul (1987))  
 1 > 2 > 3 > Non-Specific-3rd

If the subject is nominative and higher on the person hierarchy than then object, the object appears in the unmarked case. Otherwise, the object appears in the dative.

#### 3.4.1 Pronominal Objects

Subj > Obj

- (23) (from Syeed (1985):16, 17; Wali and Koul (1997):228)

- a. (Subj=1, Obj=3)

bI vuch-a-n                    su  
 I see.Fut-1Sg-3Sg him  
 'I will see him.'

- b. (Subj=1, Obj=2)

bI vuch-a-th                    tsI  
 I see.Fut-1Sg-2Sg you  
 'I will see you.'

- c. (Subj=2, Obj=3)

tsI vuch-lh-an                    su  
 you see.Fut-2Sg-3Sg you  
 'You will see him.'

- note that the unmarked objects are coded on the verb.

- curiously, the forms used to mark them on the verb are not the forms used by nominative subjects/objects i.e. the system treats them differently even though they look like other unmarked objects.

- Hook and Koul (1984) refers to this phenomena as 'case-lifting' and Hook and Kaul (1987) calls it 'transitionality'.

Reflexive pronouns behave as if they are at the bottom of hierarchy.

Subj  $\nrightarrow$  Obj

- (24) a. (Subj=2, Obj=1) (from Syeed (1985):17, Wali and Koul (1997):229)

tsI vuch-akh me/\*bI  
you see.Fut-2Sg me.Dat/I.Nom

'You will see me.'

- b. (Subj=3, Obj=1) (from Bhat (1987):146)

su vani me/\*bI kath  
he tell.Fut.3Sg me.Dat/I.Nom story

'He will tell me a story.'

- c. (Subj=3, Obj=2) (from Syeed (1985):17; slightly different data in Wali and Koul (1997):229)

su vuch-i tse/\*tsI  
he see.Fut.3Sg you.Dat/you.Nom

'He will see you.'

- d. (Subj=3, Obj=3) (from Wali and Koul (1997):229)

su vuch-i tEmis/\*su  
he see-Fut.3Sg he.Dat/he.Nom

'He will see him.'

- in these examples, the dative marked objects are not coded on the verb.

Dative objects can be coded on the verb using endings that are otherwise used for benefactive arguments.

However the presence of the coding on the verb disallows overt objects in the first and third person. Wali and Koul (1997) claim that second person objects **require** coding on the verb and can stay overt in the presence of such coding.

- (25) (from Wali and Koul (1997):229)

- a. (Subj=2, Obj=1)

tsI vuch-lh-am  
you see.Fut-2Sg-1Sg.Dat

'You will see me.'

- b. (Subj=3, Obj=2)

su vuch-i-y (tse)  
he see.Fut-3Sg-2Sg.Dat you.Dat

glt 'He will see you.'

- c. (Subj=3, Obj=3)

su vuch-as  
he see.Fut-3Sg.3Sg.Dat

'He will see him.'

### 3.4.2 Non-Pronominal Objects

- (26) (Subj=Proper Name, Object=Proper Name)

mamI tshandi lasas  
Mama look.for.Fut Lasa.Dat

'Mama will look for Lasa.' (from Syeed (1985):16)

(27) (from Syeed (1985):18)

- a. (Subj=3rd Human, Obj=3rd NonHuman/?Non-Specific)

LasI māri kokur  
Lasa kill.Fut3Sg rooster

‘Lasa will kill a rooster.’

- b. (Subj=3rd NonHuman, Obj=3rd Human)

kokur māri lasas  
rooster kill.Fut.3Sg Lasa.Dat

‘The rooster will kill Lasa.’

(28) a specificity contrast (from Hook and Kaul (1987):134)

- a. object clitic: both specific and non-specific readings

bI ch-u-s-an IEdkI tsha<sup>n</sup>:d-a:n  
I be.Prs-M-1Sg-3Sg boy search-Impfv

‘I am looking for a boy (who is lost)’/‘I am looking for a boy (to fill this job)’.

- b. no object clitic: only non-specific reading

bI ch-u-s IEdkI tsha<sup>n</sup>:d-a:n  
I be.Prs-M-1Sg boy search-Impfv

‘I am searching for a boy (to fill this job).’

### 3.5 ‘Case Lifting’ across Clause Boundaries

Does the ergative/nominative distinction exist in non-finite environments?

In Hindi-Urdu, this is hard to tell because ergative subjects do not surface in non-finite environments and the case marking on objects (which do surface) is not dependent upon the case of the subject.

Kashmiri holds promise for revealing what happens in these environments.

(29) (from Hook and Kaul (1987):54)

bI yatsh-a-n su vuch-un  
I want.Fut-1Sg-3Sg he see-Inf

‘I shall want to see him.’

- note that the embedded object appears in the unmarked case and is coded on the matrix verb.

- a. the embedded object could be unmarked due to the covert embedded subject being ergative.  
b. **or** the embedded object could be unmarked due to the covert embedded subject being nominative and the person hierarchy being satisfied.

→ it turns out that due to that the coding of the embedded object on the matrix object, we can rule out the first possibility. The clitic ending corresponds to that of a ‘lifted’ unmarked object (found with nominative subjects) and not a regular unmarked object (found with ergative subjects)

The actual facts are more complicated.

(30) matrix subject is nominative (Sadaf Munshi p.c., Nov. 11, 2007)

- a. cases where matrix subject > embedded object
  - i. I.Nom want you.Nom/you.Dat kill-inf
  - ii. I.Nom want he.Nom/he.Dat kill-Inf
  - iii. You.Nom want him.Nom/him.Dat kill-Inf
- b. cases matrix subject  $\not>$  embedded object
  - i. You.Nom want me.Dat/\*I.Nom kill-Inf
  - ii. He.Nom want me.Dat/\*I.Nom kill-Inf
  - iii. He.Nom want you.Dat/\*you.Nom kill-Inf
  - iv. He.Nom want him.Dat/\*he.Nom kill-Inf

- case information about matrix subject is available in embedded clause

- person information about matrix subject is optionally available

→ as a result, dative is always an option. nominative is an option if permitted by the hierarchy.

(the modal *gatsh* 'should', which takes nominative subjects, also patterns like this.)

(31) matrix subject is ergative (Sadaf Munshi p.c., Nov. 11, 2007)

DP-Erg wanted DP-Nom/\*DP-Dat kill-Inf

- when the subject is ergative, the embedded object can only be nominative. Dative is not an option.

- this fits with the idea that case information about matrix subject is available in embedded clause.

(the modal *pazi* 'should', which takes dative subjects, also patterns like this)

The facts with adjunct clauses do not fit the above picture.

(32) unexpected nominative objects (from Hook and Kaul (1987):61)

- a. [tsI/tse            nyebar nyith] gatsh-yi su syeThah khwaS  
you.Nom/you.Dat outside taking go-3Sg he very happy  
'He will be very happy [to take you out].'
- b. [bI/me            meer-yith] tsal-yi tyiman akh boD Thor  
I.Nom/me.Dat kill-ing flee-3Sg them-Dat one big obstacle  
'By killing me, they will be rid of one big obstacle.'

- one possibility is that in such environments, the speaker is free to assume either case for the covert subject:

covert subject with ergative case: nominative objects

covert subject with nominative case and default features: dative objects

and to make things even more complicated:

(33) sometimes non-finite adjuncts can have overt nominative subjects:

a. hierarchy satisfied, object can be dative or nominative

[tsI me/\*bI nyebar ny-ith] gatsh-ya-aa swa khwaS  
you me.Dat/\*I.Nom outside take-ing go-3Sg-Q she happy

‘Will she be happy if you take me out?’

b. hierarchy not satisfied, object can only be dative

[bI tse/\*tsI nyebar ny-ith] gatsh-ya-aa su khwaS  
I you.Dat/you.Nom out take-ing go-3Sg-Q he happy

‘Will he be happy if I take you out?’

- ‘case lifting’ is not obligatory in (adjunct) non-finite clauses

- but if it takes place, the hierarchy needs to be satisfied.

## 4 How Ergativity Arose in Indo-Aryan

The Indo-Aryan languages arise from a common Old Indo-Aryan ancestor, Sanskrit (or a related dialect). They inherited morphological ergativity from Middle Indo-Aryan dialectal variants of Sanskrit.<sup>3</sup>

(34) **Chronological Progression of the Indo-Aryan Languages**

Period	Linguistic stage	Term
Until 600 BC	Vedic	
600BC-200AD	Epic and Classical Sanskrit	Old Indo-Aryan (OIA)
200 BC-700AD	Pāli and Prakrit languages	
700-1100AD	Apabhramśa	Middle Indo-Aryan (MIA)
1000AD- present	Nepali, Bengali, Marāṭhi, Hindi	New Indo-Aryan (NIA)

(from Deo and Sharma (2006))

### 4.1 From OIA to NIA

Aspect-based split ergativity in Indo-Aryan (IA) languages has been presented as a classic case of the passive to ergative reanalysis seen cross-linguistically (Hook (1992), Dixon (1994), Peterson (1998)).

- (35) a. The agent, or the logical subject, which is an oblique grammatical function in the passive construction, is reinterpreted as the grammatical subject, while retaining its oblique morphology.
- b. The passive subject, loses its grammatical subjecthood, and is mapped onto the object function.

Aspects of Old Indo-Aryan (OIA)

(36) a. No active, ergative construction in OIA. (but see Butt (2001))

<sup>3</sup>This section draws heavily on Deo and Sharma (2006).

- b. The precursor of the ergative clause was, in OIA, a passive, periphrastic perfect construction, which involved the use of a non-finite form of the verb (a deverbal adjective in the perfect aspect).
- c. This construction was one of the multiple devices in OIA of expressing the perfect aspect and the past tense.
- d. The rich tense-aspect system of OIA, underwent a radical process of simplification in MIA (Pischel 1981). Most inflectional forms such as the aorist and the inflectional perfect, were lost, and by late MIA, even the non-perfect inflectional past disappeared.
- e. This loss of the inflectional system has often been cited as a reason for the increase in the frequency and the scope of this passive construction. (Hock (1986); Bubenik (1998)).

#### Ergativity in Middle Indo-Aryan

- (37) a. The agent, marked in the instrumental case, showed subject properties.
- b. The object of the transitive and the subject of intransitive clauses showed nominative case marking.
- c. The verb, based on the earlier passive participle, showed gender and number agreement with the nominative object.
- d. In intransitive clauses, the verb agreed in number and gender with the sole argument of the clause.

#### A New Indo-Aryan (NIA) feature:

- (38) a. Variable case marking for direct objects in transitive, perfect clauses, allowing both nominative and accusative marked objects.
- b. This pattern of object marking developed in the non-perfect aspects and spread to the ergative construction in the perfect.

Why no Ergative splits that favor non-perfective tenses?

- Anderson (2004) provides a diachronic answer that treats perfective structures as derived from passive structures. Since both ergative and perfective structures have the same source, it makes sense that they cluster together.

## 4.2 Synchronic Variation in NIA

Ways in which the ergative construction is 'marked':

- (39) a. Subject Case: The least 'marked' grammatical function is expressed by a more 'marked' case.
- b. Agreement: Subject agreement is less 'marked' but ergative languages typically have object agreement.
- c. Object Case: It is 'marked' for objects to be 'unmarked'.

Synchronic variation found within NIA can be thought of as responding to these 'markedness' pressures:

- (40) a. Reduction of Subject Case: many NIA languages (the eastern branch: Bhojpuri, Maithili, Bengali) have lost ergative marking; in others it is reduced.

- b. Agreement: some NIA languages have agreement with Ergative Subjects (Nepali).
- c. Object Case: most NIA languages have developed DOM, which leads to many objects being marked.

but other responses are also found, which run counter to the markedness criteria indicated in (39).

- (41) a. Extension of Ergative Alignments to non-perfective tenses: Nepali
- b. Reinforcement of Ergative Case Morphology through a case-clitic: Hindi-Urdu and Nepali

## 5 The Typology of Variation in NIA

- Reduction of the original MIA pattern of perfect subject marking to differing degrees.
- the agreement pattern of each language is related to, but not fully determined, by the subject-marking pattern.

### 5.1 Hindi

(42)

ASPECT	PERSON	NUMBER	
		<i>singular</i>	<i>plural</i>
Non-perf	1	maĩ	ham
Perf	1	<b>mai-ne</b>	<b>ham-ne</b>
Non-perf	2	tu:/tum	tum/āp
Perf	2	<b>tu:-ne/tum-ne</b>	<b>tum-ne/āp-ne</b>
Non-perf	3	vah, yah	ve, ye
Perf	3	<b>is-ne, us-ne</b>	<b>inho-ne, unho-ne</b>

- (43) a. subject agreement:
- sītā                      rām-ko                      pīṭ-tī                      hai  
 Sītā-FEM-NOM Rām- MASC-ACC hit-PRES-FEM-SG aux-3RD-SG  
 ‘Sita hits Ram.’
- b. object agreement:
- rām-ne                      chīḍiyā                      dekh-ī  
 Rām- MASC-ERG bird-FEM-NOM see-PERF-FEM-SG  
 ‘Ram saw a sparrow.’
- c. default agreement:
- sītā-ne                      rādhā-ko                      pīṭ-ā  
 Sītā-FEM-ERG Rādhā- FEM-ACC hit-PERF-MASC-SG  
 ‘Sita hit Radha.’

### 5.2 Nepali

Nepali, like Hindi, has ergative marking on the subject in all three persons.

(44)

ASPECT	PERSON	NUMBER	
		<i>singular</i>	<i>plural</i>
Non-perf	1	ma	hāmī
Perf	1	<b>mai-le</b>	<b>hāmī-le</b>
Non-perf	2	ta	timī
Perf	2	<b>tai-le</b>	<b>timī-le</b>
Non-perf	3	ū	unī
Perf	3	<b>usu-le</b>	<b>un-le</b>

Unlike other IA-languages, in Nepali ergative case-marking on the subject does not block subject agreement.

- (45) a. **ma** bas-**en**  
 I-NOM sit-PST-1-SG  
 'I sat.'
- b. **mai-le** mero lugā dho-**en**  
 I-ERG my clothes-NOM wash-PST-1-SG  
 'I washed my clothes.'

Note, however, that it is not the case that all overtly case-marked subjects in Nepali agree. Dative subjects never agree.<sup>4</sup>

- (46) budhi manche-lai **chara** dekhin-**cha**  
 old woman.F-DAT bird.M appear-PRES.M.SG  
 'The bird appears to me.'

### 5.3 Gujarati

Gujarati also shows subject marking in all three persons, like Hindi and Nepali, but only in the singular.

(47)

ASPECT	PERSON	NUMBER	
		<i>singular</i>	<i>plural</i>
Non-perf	1	hū	ame
Perf	1	<b>meñ</b>	<b>ame</b>
Non-perf	2	tu	tame
Perf	2	<b>teñ</b>	<b>tame</b>
Non-perf	3	te	te-o
Perf	3	<b>teᅇ</b>	<b>temᅇ</b>

The other point at which Gujarati differs from most other IA verb agrees in number and gender with the object, irrespective of whether it is in the nominative or the accusative.

- (48) Overt case-marking on object does not block agreement:

<sup>4</sup>There are other important differences between Dative subjects and Ergative subjects. There seem to be no person-based splits with respect to Dative Marking. In the IA languages with DOM, DAT subjects do not co-occur with DOM. Moreover while there are intransitive predicates with ergative subjects, there seem to be no intransitive predicates with dative subjects.

- a. Seeta-e            **kāgal**                            vāc-**yo**  
 Sītā-FEM-SG-ERG letter-MASC-SG-NOM read-PST-MASC-SG  
 ‘Seeta read the letter.’
- b. Sītā-e            **rāj-ne**                            pajav-**yo**  
 Sītā-FEM-SG-ERG Rāj-MASC-SG-ACC harass-PST-MASC-SG  
 ‘Seeta harassed Rāj.’

(adapted from Mistry (1997))

- In Gujarati, case marking doesn’t block agreement with the object, but it does block agreement with the subject.
- This contrasts with Hindi, which shows default agreement if there is no non-overtly case-marked argument in the clause.
- But case-marking on the object does block person agreement.

(49) Person Generalization: Dissociated Agreement (i.e. agreement dissociated from case-assignment) does not involve Person.

- a. Present tense auxiliary agrees with second person subject:

**tEhme aw-yā**            **cho**  
 you.Pl come-Pfv.MPl be.Prs.2Pl

‘You have come.’

- b. Present tense auxiliary does not agree with second person object: (from Magier (1983:324))

māi **tam-ne**            **mār-yā**            che  
 I you.Pl-Acc strike-Pfv.MPl be.Prs.3

‘I have struck you.’

(similar facts obtain in a number of languages spoken in Rajasthan and Gujarat.)

## 5.4 Marāṭhi

The facts for Punjabi are identical to Marāṭhi.

Ergative and nominative are distinguished only in the third person.

(50)

ASPECT	PERSON	NUMBER	
		<i>singular</i>	<i>plural</i>
Non-perf	1	mī	āmhī
Perf	1	mī	āmhī
Non-perf	2	tū	tumhī
Perf	2	tū	tumhī
Non-perf	3	to/tī/te	te
Perf	3	<b>tyā-ne, ti-ne</b>	<b>tyā-nī</b>

However, in spite of overt morphological syncretism with the nominative case, first and second person perfect subjects in Marāṭhi/Punjabi do not agree with the verb.

- (51) a. **mī**            sītā-lā            bagha-**to**  
 I-MASC-NOM Sītā-FEM-ACC see-PRES-MASC-SG  
 ‘I see Sita.’

- b. *mī*            *ek* ***chimṇī***            *baghit-lī*  
 I-MASC-ERG one sparrow-FEM-NOM see-PRES-FEM-SG  
 'I saw a sparrow.'
- c. *mī*            *sītā-lā*            ***baghit-la***  
 I-MASC-ERG Sītā-FEM-ACC see-PERF-NEUT-SG  
 'I saw Sita.'

## 5.5 Bengali

Old Bengali had an ergative construction in the perfect aspect (Chatterji (1970):947-8), which showed properties similar to the MIA ergative clause.

Modern Bengali, however, has lost this pattern, and shows the same kind of subject case-marking for its non-perfect and perfect subjects.

(52)

ASPECT	PERSON	NUMBER	
		<i>singular</i>	<i>plural</i>
Non-perf	1	<i>āmi</i>	<i>āmrā</i>
Perf	1	<i>āmi</i>	<i>āmrā</i>
Non-perf	2	<i>tui, tumī</i>	<i>torā</i>
Perf	2	<i>tui, tumī</i>	<i>torā</i>
Non-perf	3	<i>o</i>	<i>orā</i>
Perf	3	<i>o</i>	<i>orā</i>

Nominative-accusative pattern of case and agreement marking in all tenses and aspects:

- (53) a. ***āmī*** *sītā-ke* *dekh-chī*  
 I-NOM Sītā-ACC see-1-SG-PRES  
 'I see Sita.'
- b. ***āmī*** *sītā-ke* *dekh-lām*  
 I-NOM Sītā-ACC see-1-SG-PAST  
 'I saw Sita.'
- c. ***anu***            *sītā-ke* *dekh-lo*  
 Anu-FEM-NOM Sītā-ACC see-3-SG-PAST  
 'Anu saw Sita.'

Complete loss of ergative marking is correlated with subject agreement in Bengali. Historically though, loss of ergative marking preceded development of the subject agreement system. Non-standard varieties of Bengali exist that lack subject agreement.

## 6 Cross-Classification of the Indo-Aryan Languages

### 6.1 Subject Marking

(54) Overt subject marking in perfect constructions:

SUBJECT	HINDI	NEPALI	GUJARATI	MARATHI/PUNJABI	BENGALI
1st SG	✓	✓	✓	∅	∅
1st PL	✓	✓	∅	∅	∅
2nd SG	✓	✓	✓	∅	∅
2nd PL	✓	✓	∅	∅	∅
3rd SG	✓	✓	✓	✓	∅
3rd PL	✓	✓	✓	✓	∅

### 6.2 Agreement marking typology

The agreement patterns cannot always be described as agreement with the most prominent non-overtly case-marked argument.

(55) Agreement in perfect constructions:

AGREEMENT	HINDI	MARATHI/PUNJABI	GUJARATI	NEPALI	BENGALI
SAgr (nom)	∅	∅	∅	∅	✓
SAgr (non-nom)	∅	∅	∅	✓	∅
OAgr (non-nom)	∅	∅	✓	∅	∅
OAgr (nom)	✓	✓	✓	∅	∅

• Different case-marking patterns but similar agreement:

Hindi and Marathi/Punjabi

Nepali and Bengali

• Similar case-marking patterns, similar subject (non-)agreement, but different object agreement:

Hindi and Gujarati

### 6.3 Distinction between Morphological and Abstract Case

• Ergative subjects that do not bear case in the Gujarati and Marathi systems do not trigger subject agreement in the way that Bengali null-marked subjects do.

• Nominative subjects and non-overtly marked ergative subjects behave differently with respect to the case of their modifiers.

(56) Obliqueness Marking

a. **mī ek āmbā khā-llā**  
 I-ERG one mango-NOM eat-PERF-3.SG  
 'I ate a mango.'

b. **vedyā ashā mī ek āmbā khā-llā**  
 foolish-OBL like-OBL I-ERG one mango-NOM eat-PERF-3.SG  
 'Foolish me ate a mango.'

c. **vedī ashī mī ek āmbā khā-te**  
 foolish-NOM like-NOM I-NOM one mango-NOM eat-PRES-1.SG  
 'Foolish me eats a mango.'

(Marathi)

- the case of the Marathi dialect of Gowari

Gowari has a nominal inflectional paradigm that is identical to the Pune dialect (Standard Marathi) i.e. ergativity is distinctly marked only in the 3rd person.

(57)

ASPECT	PERSON	NUMBER	
		<i>singular</i>	<i>plural</i>
Non-perf	1	mī	āmiī
Perf	1	mī	īmī
Non-perf	2	tū	tumī
Perf	2	tū	tumī
Non-perf	3	to	te
Perf	3	<b>tyā-n</b>	<b>tyā-nnī</b>

However unlike Standard Marathi, unmarked subjects of perfect clauses (i.e. 1st and 2nd person pronouns) trigger agreement.

- (58) a. **mī** devā-javaḷ tudjyaa-sāmne pāp **ke-lo**.  
I-NOM-SG God-near you-in-front-of sin-NEU-SG do-MAS-1-SG-PAST  
'I committed a sin near God and in front of you.'
- b. mag tyā-n baapā-lā **uttar** **di-lan**.  
then he-ERG-SG father-DAT-SG answer-NEU-NOM-SG give-NEU-3-SG-PAST  
'Then he gave an answer to his father.'

Third person subjects of perfect clauses are overtly case-marked and do not trigger agreement.

## 6.4 Some Unattested Cases

- Agreement with Ergative subjects but only as a last resort:

- (59) a. Imaginary Language 1: agreement with all objects (DOM or unmarked), but agreement with ergative subjects of intransitives.
- b. Imaginary Language 2: agreement with unmarked objects, but agreement ergative subjects when there is no unmarked object (clauses with marked objects and intransitive clauses).

- Ergative-style Agreement (i.e. object agreement) without **any** ergative case morphology:

- (60) a. Imaginary Language 3: no ergative case morphology on subjects, but object agreement in all cases (Marathi agreement but Bengali case-marking).
- b. Imaginary Language 4: no ergative case morphology, but in some cases objects agree and in others subjects (Gowari agreement but Bengali case-marking).

## 7 Architectural Questions

The licensing of overt arguments and case

Argument Structure and the ability to license Case

Two Case Studies:

- Variable Case Marking of Subjects: a process similar to the more familiar phenomenon of Differential Object Marking (DOM) - different kinds of objects are treated/marked differently by the grammatical system.

- Like DOM, the variable case marking on the subject correlates with interpretation.

- Unlike DOM, variable case marking seems to only be available with a subclass of predicates, namely the unaccusatives.

- Burzio's Generalization violating Passives

**Analysis:**

- Unaccusative *v* or V can assign case.

- the unmarked case licensed in DOM/variable case marking is licensed by unaccusative *v* and is associated with a non-specific reading. This reading is related to Diesing-style limitations on what can be interpreted VP-internally and at least in some cases to pseudo-incorporation as analyzed in Dayal (2003).

## 8 Differential Object Marking

Hindi-Urdu has been documented extensively as displaying the phenomenon of Differential Object Marking (cf. Butt (1993), Masica (1982), Mohanan (1995), Singh (1994) i.a.).

(61) Differential Object Marking:

a. 1st and 2nd pronominal objects, animate proper name object: *-ko* is **required**.

Mina **tum-\*(ko)/Tina-\*(ko)** dekh rahii thii  
Mina.f you-KO/Tina-KO see Prog.F be.Pst.FSg  
'Mona was looking at you/Tina.'

b. 3rd person pronominal objects: *ko* is **optional**, optionality correlates with animacy

Mina **us-ko/vo** uthaa rahii thii  
Mina.f 3P-KO/3P lift Prog.F be.Pst.FSg

'Mona is lifting it/him/her (with *ko*); lifting it/\*him/\*her (without *ko*).'

- c. ordinary animate NPs: *ko* is **optional**, optionality correlates with interpretation.

Mina **ek bacca/e(-ko)** uṭḥaa rahii hai  
Mina.f a/one child-KO lift Prog.F be.Prs.3Sg

'Mina is picking up a child/a particular child.'

- d. ordinary inanimate NPs: *ko* is **optional**, optionality correlates with interpretation.

Mina **haar(-ko)** uṭḥaa rahii thii  
Mina.f necklace-KO lift Prog.F be.Pst.FSg

'Mina was picking up a/the necklace.'

- e. non referential NP: *ko* is **ruled out**, \* under idiomatic interpretation

Mina **ungalii-tak-(\*ko)** nahī: uṭḥaa-egii  
Mina.f finger.f-even-KO Neg lift-Fut.3FSg

'Mina won't even lift a finger.'

- f. non referential NP (part of NP+V predicate): *ko* is **ruled out**

Yunus [**kaṛii mehnat**]-(\*ko) kar rahaa hai.  
Yunus.m hard.f work.f-KO do Prog.MSG be.Prs.3Sg

'Yunus is working hard.'

- the presence of *-ko* correlates with animacy and specificity.

Open Question: does the presence/absence of *-ko* have a structural consequence? i.e. are *ko*-marked direct objects and non-*ko*-marked direct objects licensed in the same configuration?

(62) Assumptions about Case-licensing:

a. Finite  $T^0$  licenses nominative case, whose realization is  $\phi$ .

b.  $v_{AG}$  can license *-ko* or another case, whose realization is  $\phi$ .

(I am deliberately not assigning a label (ACC, DAT) to *-ko*. It is used to mark dative arguments and others but as we have seen above it can also appear on other objects.)

## 9 Variable Case Marking of Subjects

The cases discussed here involve subjects of infinitival clauses but the phenomenon is more general and is also found with subjects of other non-finite clauses such as those involving the *V-te hii* 'as soon as V' morphology and the *V-ke baad* 'after V' morphology.

## 9.1 Subjects of Gerunds

Ordinarily the subject of a gerund gets genitive case:

- (63) [mariiz-\*(kaa) yeh davaai pii-naa] zaruurii hai  
patient-Gen this medicine drink-Inf necessary be.Prs  
'The patient's drinking this medicine is necessary.'

but in certain environments, we find variable case marking

- (64) Variable Case Marking: choice between genitive *-kaa* and  $\phi$
- a. animate proper name subject: genitive *-kaa* is obligatory  
[Nira-\*(kaa) kal aa-naa] zaruurii hai  
Nira-Gen tomorrow come-Inf necessary be.Prs  
'Nira's coming tomorrow is necessary.'
- b. inanimate subject: genitive *-kaa* is optional  
[per-kaa/per kal kaṭ-naa] zaruurii hai  
tree-Gen/tree tomorrow cut<sub>unacc</sub>-Inf necessary be.Prs  
'The tree's being cut tomorrow is necessary.'
- c. non-referential subject: genitive *-kaa* is not allowed  
[is saal baarish/\*baarish-kaa ho-naa] zaruurii hai  
this year rain/rain-Gen be-Inf necessary be.Prs  
'It is necessary that it rain this year.'

(initial observation is due to Hook (1979):132-133)

## 9.2 Infinitival Complements of the Permissive

- related discussion in Butt (1995)

Ordinarily the subject of the infinitival complement of the permissive gets *ko*-marking:

- (65) doctor-ne [mariiz-\*(ko) zahar pii-ne] di-yaa  
doctor-Erg patient-KO poison drink-Inf let-Pfv  
'The doctor let the patient drink poison.'

but variable case marking shows up in certain contexts:

- (66) Variable Case Marking: choice between genitive *-ko* and  $\phi$
- a. animate proper name subject: *-ko* is obligatory  
Nira-ne [Mohan-\*(ko) aa-ne] di-yaa  
Nira-Erg Mohan-KO come-Inf let-Pfv  
'Nira let Mohan come.'

- b. inanimate subject: *-ko* is optional

Mina-ne [peṛ-ko/peṛ kaṭ-ne] di-yaa  
 Mina-Erg tree-KO/tree cut<sub>unacc</sub>-Inf let-Pfv  
 'Mina let the tree (be) cut.'

- c. non-referential subject: *-ko* is not allowed

parmeshwar-ne [zalzalaa/\*zalzale-ko ho-ne] di-yaa  
 God-Erg earthquake/earthquake-KO be-Inf let-Pfv  
 'God let there be an earthquake.'

### 9.3 Infinitival Complements of Modals

- initial observations in Masica (1990)

Ordinarily the subject of an infinitival complement of a modal gets *ko*-marking:

- (67) [mariiz-\*(ko) yeh davaai pii-nii] caahiye thii  
 patient-KO this medicine.f drink-Inf.f necessary be.Pst.f  
 'The patient should have drunk this medicine.'

but once again, we find variable case marking:

- (68) Variable Case Marking: choice between genitive *-ko* and  $\phi$

- a. animate proper name subject: *-ko* is obligatory

[Nira-\*(ko) kal aa-naa] caahiye thaa  
 Nira-KO yesterday come-Inf should be.Pst  
 'Nira should have come yesterday.'

- b. inanimate subject: *-ko* is optional

[peṛ-ko/peṛ kal kaṭ-naa] caahiye thaa  
 tree-KO/tree tomorrow cut<sub>unacc</sub>-Inf should be.Pst  
 'The tree should have been cut yesterday.'

- c. non-referential subject: *-ko* is not allowed

[is saal baarish/\*baarish-ko ho-nii/\*ho-naa] caahiye thii/\*thaa  
 this year rain.f/rain.f-KO be-Inf.f/Inf should be.Pst.f/\*be.Pst  
 'It should have rained this year.'

## 10 Passivization and Promotion

### 10.1 Testing for Promotion

Determining whether promotion has taken place in a Hindi-Urdu passive is tricky.

Case morphology is unhelpful -  $T^0$  and  $v_{AG}$  can both license a case realized by  $\phi$ .

And agreement doesn't help either because of the existence of object agreement:

- (69) a. Perfective transitive, Ergative Subject, Object Agreement:

Ram-ne **yeh** **tehnii** kal **kaat-ii** **thii**.  
Ram-Erg this branch.f yesterday cut-Pfv.f be.Pst.f  
'Ram had cut this branch yesterday.'

- b. Non-Perfective transitive, Nominative Subject, Subject Agreement:

**Ram** yeh **tehnii** kal **kaat-egaa**  
Ram.M this branch.f tomorrow cut-Fut.3MSg  
'Ram will cut this branch tomorrow.'

Thus we do not know whether *yeh tehni* 'this branch' in (70) is a subject (case-licensed by  $T^0$ ) or an object (case-licensed by the passive  $v_{AG}$ ).

- (70) Passive:

**yeh** **tehnii** kal **kaat-ii** **gayii** **thii**.  
this branch.f yesterday cut-Pfv.f Pass.Pfv.f be.Pst.f  
'This branch was cut yesterday.'

We could go with Burzio's generalization and assume that promotion must be taking place despite the paucity of clear indicators. But...

- The subject of a passive can be *-ko*-marked.

- (71) a. DOM allows for *-ko* on Direct Object (compare with 69a):

Ram-ne **is** **tehnii-ko** kal **kaat-aa** **thaa**.  
Ram-Erg this branch.f-KO yesterday cut-Pfv.MSG be.Pst.MSG  
'Ram had cut this branch yesterday.'

- b. Passive with *-ko* retention:

**is** **tehnii-ko** kal **kaat-aa** **gayaa** **thaa**  
this.Obl branch-Acc yesterday cut-Pfv.Default Pass.Pfv.Default be.Pst.Default  
'The branch was cut yesterday.'

$T^0$  does not license *-ko*  $\rightarrow$  **no promotion**

- There are also cases where using DOM (Differential Object Marking), we can show that there are cases where promotion does take place. We know that Proper Name/1st and 2nd person pronominal direct objects are obligatorily *-ko*-marked.

- (72) a. Ram-ne **mujhe**/\***mĒ** baazaar-mĕ dekh-aa thaa  
 Ram-Erg I.Dat/I market-in see-Pfv.Default be.Pst.Default  
 'Ram had seen me in the market.'
- b. Ram-ne **Rina-ko**/\***Rina** baazaar-mĕ dekh-aa thaa  
 Ram-Erg Rina.f-Dat/Rina.f market-in see-Pfv.Default be.Pst.Default  
 'Ram had seen Rina in the market.'

As seen before, passives allow for *-ko* retention:

- (73) with *-ko*:
- a. **mujh-ko** baazaar-mĕ dekh-aa gayaa thaa  
 I.Obl-Acc market-in see-Pfv.Default Pass.Pfv.Default be.Pst.Default  
 'I had been seen in the market.'
- b. **Rina-ko** baazaar-mĕ dekh-aa gayaa thaa  
 Rina-Acc market-in see-Pfv.Default Pass.Pfv.Default be.Pst.Default  
 'Rina had seen in the market.'
- T<sup>0</sup> does not license *-ko* → **no promotion**

But *-ko* does not have to be retained:

- (74) without *-ko*:
- a. (assume speaker is a woman)  
**mĒ** baazaar-mĕ dekh-ii gayii thii  
 I.f market-in see-Pfv.F Pass.Pfv.F be.Pst.F  
 'I had been seen in the market.'
- b. **Rina** baazaar-mĕ dekh-ii gayii thii  
 Rina.f market-in see-Pfv.F Pass.Pfv.F be.Pst.F  
 'Rina had been seen in the market.'
- cannot be an object or else it would be *-ko*-marked → **promotion**

So here's what we know:

- (75) a. *-ko*-marked passive subject  
 → no promotion, not licensed by T<sup>0</sup>
- b.  $\phi$ -marked Proper Name/1st/2nd pronominal passive subject  
 → promotion, licensed by T<sup>0</sup>
- c. Other  $\phi$ -marked passive subjects  
 → **we don't know**, could be either.

Predictions:

- (76) In an infinitival clause - where there is no finite  $T^0$  -
- a. *-ko*-marked passive subject  
→ should be fine, not licensed by  $T^0$
  
  - b.  $\phi$ -marked Proper Name/1st/2nd pronominal passive subject  
→ should not be possible, licensed by  $T^0$
  
  - c. Other  $\phi$ -marked passive subjects  
  
if ok → promotion is not obligatory  
if not ok → promotion is obligatory

## 10.2 Subject Case in Passive Infinitives

In the earlier discussion of infinitives, we have seen that their subjects in Hindi-Urdu can be:

- (77) a. PRO  
b. marked with *-kaa* 'GEN' or *-ko*  
c.  $\phi$  marked for subjects of unaccusatives

With passives, we find the following.

- (78) *-ko*-marked passive subjects are generally possible in infinitives:
- a. [**per**-*ko* is        tarah-se kaaṭ-aa jaa-naa] sharam-kii baat hai  
tree-KO this.Obl way-in cut-Pfv Pass-Inf shame-Gen.f thing.f is  
'For the tree to be cut down like this is a matter of shame.'
  
  - b. [**Rina**-*ko* bazaar-me dekh-aa jaa-naa] sharam-kii baat hai  
Rina-KO market-in see-Pfv Pass-Inf shame-Gen.f thing.f is  
'For Rina to be seen in the market is a matter of shame.'
- (79)  $\phi$ -marked subjects of passive infinitives are only possible:
- a. with DPs that don't need *-ko* as regular direct objects:  
[**per** is        tarah-se kaaṭ-aa jaa-naa] sharam-kii baat hai  
tree this.Obl way-in cut-Pfv Pass-Inf shame-Gen.f thing.f is  
'For the tree to be cut down like this is a matter of shame.'

- b. but not with DPs that need *-ko* as regular direct objects:  
 [\***Rina** baazaar-mē dekh-aa jaa-naa] sharam-kii baat hai  
 Rina.f market-in see-Pfv Pass-Inf shame-Gen.f thing.f is  
 ‘For Rina to be seen in the market is a matter of shame.’

(79a) shows that promotion is not forced.

(79b) is out because for DOM reasons, promotion is forced but there is no  $T^0$  to license case.

To complete this paradigm, we note that object that cannot be *-ko*-marked in the first place cannot be *-ko*-marked in the passive either, finite or infinitival

- (80) a. Yunus **mehnat**/\***mehnat-ko** kar rahaa hai  
 Yunus.m hardwork.f/hardwork.f-KO do Prog.MSg be.Prs.3Sg  
 ‘Yunus is working hard.’

- b. Finite Passive:

**mehnat**/\***mehnat-ko** kii jaa rahii hai  
 hardwork.f/hardwork.f-KO do.Pfv.f Pass Prog.f be.Prs.3Sg  
 ‘Hardwork is being done.’

- c. Infinitival Passive:

[**mehnat**/\***mehnat-ko** naa kiyaa jaa-naa] sharam-kii baat hai  
 hardwork.f/hardwork.f-KO Neg do-Pfv Pass-Inf shame-Gen.f thing.f be.Prs.3Sg

Finally, we note that genitive marking on the subject of a passive is a possibility in all and only those cases where *-ko*-marking was an option.

- (81) a. Proper Name/Pronominal Passive Subject: genitive *-kaa* ok

[**Rina-kaa** bazaar-me dekh-aa jaa-naa] sharam-kii baat hai  
 Rina-GEN market-in see-Pfv Pass-Inf shame-Gen.f thing.f is  
 ‘For Rina to be seen in the market is a matter of shame.’

- b. Referential Non Proper Name/Pronominal Passive Subject: genitive *-kaa* ok

[**per-kaa** is tarah-se kaat-aa jaa-naa] sharam-kii baat hai  
 tree-GEN this.Obl way-in cut-Pfv Pass-Inf shame-Gen.f thing.f is  
 ‘For the tree to be cut down like this is a matter of shame.’

- c. Non-Referential Passive Subject: **genitive *-kaa* not ok**

[\***mehnat-kaa** naa kiyaa jaa-naa] sharam-kii baat hai  
 hardwork.f-GEN Neg do-Pfv Pass-Inf shame-Gen.f thing.f be.Prs.3Sg  
 ‘For hardwork to not be done is a shameful thing.’

## 11 Variable Case Assignment

What are the sources of the two possible cases that we can appear on the subject in variable case environments?

### 11.1 The Overt Case

- (82) a. *-kaa* in the gerund:  
the high nominal layer in the gerund
- b. *-ko* in the complement of a permissive/modal:  
(a head associated with) the permissive/modal

- under this conception, the *-ko* case is an instance of ECM.

- the predicates involved do not license *-ko* on their subjects.

Suggestive evidence: variants of the permissive verb *de* 'let' and the modal *caahiye* 'should' license *-ko*.

- (83) a. permissive *de* 'let' is homophonous with *de* 'give':  
Nina-ne Mina-ko kitaab di-i  
Nina-Erg Mona-KO book.f give-Pfv.f  
'Nina gave a book to Mona.'
- b. *caahiye* 'should' is homophonous with *caahiye* 'want/need':  
Ram-ko yeh kitaab caahiye  
Ram-KO this book want/need  
'Ram wants/needs this book.'

The Overt Case is licensed by heads outside the core infinitival clause. Henceforth I will also refer to it as the External Case.

### 11.2 The Covert Case

This is the tricky one.

#### 11.2.1 Case and Licensing of Overt Subjects

Ordinarily, for the subject of the infinitival to be overt, it needs to be overtly case-marked.

- (84) [mariiz-\*(kaa) yeh davaai pii-naa] zaruurii hai  
 patient-Gen this medicine drink-Inf necessary be.Prs  
 'The patient's drinking this medicine is necessary.'

In the absence of an overt case-marker, the subject has to be null.

- (85) a. no case-marker, overt subject: \*  
 \*[Ram apnaa kaam acchii tarah-se kar-naa] acchii baat hai.  
 Ram self.Gen work good.f way.f-Instr do-Inf good.f thing.f be.Prs.Sg  
 \*(For) Ram to do his work well is a good thing.'
- b. no case-marker, covert subject: ok  
 [PRO apnaa kaam acchii tarah-se kar-naa] acchii baat hai.  
 self.Gen work good.f way.f-Instr do-Inf good.f thing.f be.Prs.Sg  
 'To do one's work well is a good thing.'
- c. overt case-marker, overt subject: ok  
 [Ram-kaa apnaa kaam acchii tarah-se kar-naa] acchii baat hai.  
 Ram-Gen self.Gen work good.f way.f-Instr do-Inf good.f thing.f be.Prs.Sg  
 'Ram's doing his work well is a good thing.'

The facts in English are similar:

- (86) a. \*[John to do his work well] is a good thing.  
 b. [For John to do his work well] is a good thing.  
 c. [PRO<sub>i</sub> to do one's<sub>i</sub> work well] is a good thing.

The general explanation given to these facts is as follows:

- (87) For an argument DP to be overt, it must have (structural) case.

### 11.2.2 Non-Overtly Case-Marked Infinitival Subjects

Given the above line of reasoning, the overt infinitival subject without a case-marker must have case.

But what could be licensing this case? And why is it only available in (88a) and not in (88b)?<sup>5</sup>

- (88) a. *kaṭ* 'cut<sub>unacc</sub>' is an unaccusative:  
           [**peṛ** kal        kaṭ-naa]    caahiye thaa  
           tree tomorrow cut<sub>unacc</sub>-Inf should be.Pst  
           'The tree should have been cut tomorrow.'
- b. *pii* 'drink' is a transitive:  
           \***[mariiz** yeh kaarḥaa pii-naa]    caahiye thaa  
           patient-KO this potion.m drink-Inf.m necessary be.Pst.MSg  
           'The patient should have drunk this potion.'

#### Proposal:

- The source for the case on the infinitival subject in (88a) is unaccusative *v/V*. Since the subject is merged VP-internally, it can be case-licensed by unaccusative *v/V*.

- (89) [..... *v<sub>unacc</sub>* [ $\sqrt{\text{DP}}_{\text{subj}}$ ]] .....

- The subject in (88b) is merged in the specifier of transitive *v*. In this configuration, it is not c-commanded by transitive *v* and therefore cannot be case-licensed by it. To survive, it needs a higher case-licenser.

<sup>5</sup>The relevance of argument structure shows that an analysis along the lines of Danon (to appear)'s proposal for Hebrew cannot be extended to the Hindi-Urdu facts. Danon argues that Hebrew indefinites do not need to be case-licensed. In Hindi-Urdu, indefiniteness is a necessary condition to get the 'unaccusative' case but it is not sufficient. Consider the following contrast:

- i. a. unaccusative:  
           [caṭṭaan gir-naa] ajiib    baat hai  
           rock    fall-Inf    strange thing be.Prs.Sg  
           'A/the rock's falling is a strange thing.'
- b. transitive:  
           [caṭṭaan\*(-kaa) gaarīi kucal-naa] ajiib    baat hai  
           rock-Gen    car    crush-Inf    strange thing be.Prs.Sg  
           'A/the rock's crushing the car is a strange thing.'

(i.a) and (i.b) have the same subject, but the  $\phi$ -case option is only possible with the unaccusative. Thanks to Elena Bashir for pointing out the need for such a minimal pair and for providing me with a suitable example.

(90) [... [DP<sub>subj</sub> [*v*<sub>AG</sub> .... [√ DP<sub>obj</sub>]]]] .....

- Handling Direct Objects: *v*<sub>AG</sub> optionally licenses *-ko* and another head - lets call it *v*<sub>unacc</sub> - licenses *φ*.

(91) a. Transitive: [... [DP<sub>subj</sub> [*v*<sub>AG</sub> [*v*<sub>unacc</sub> [√ DP<sub>obj</sub>]]]]]

Options for DP<sub>obj</sub>: licensing by *v*<sub>AG</sub> (*-ko*) or *v*<sub>unacc</sub> (*φ*)

b. Passive: [... [*v*<sub>AG</sub> [*v*<sub>unacc</sub> [√ DP<sub>obj</sub>]]]]

Options for DP<sub>obj</sub>: licensing by *v*<sub>AG</sub> (*-ko*), *v*<sub>unacc</sub> (*φ*), or a higher licenser (T<sup>0</sup>, D<sup>0</sup>, ECM)

(the exact possibilities will depend upon the properties of the DP<sub>obj</sub>/its structural position at the point the case algorithm applies.)

- note *v*<sub>AG</sub> cannot license case on an externally merged specifier. Hence no DOM *-ko*-marked external arguments.

## 12 Licensing of Case by Unaccusative *v*

It is a widely-shared assumption that unaccusative *v* cannot license case. This assumption underlies Burzio's Generalization.

My attempt will be to show that the desirable effects that follow from this assumption follow from other aspects of the grammar. Therefore we do not need a primitive assumption to this effect, leaving the door open in principle to an analysis like mine which allows case-licensing by unaccusative *v*.

Why is (92b), the English counterpart of (92a), ungrammatical?

(92) a. [akhbaar waqt-par aa-naa] zaruurii hai  
 newspaper time-on come-Inf necessary be.Prs  
 '\*The newspaper to come on time is necessary.'

b. \*[The newspaper to come on time] is necessary.

In the context of my analysis, this question reduces to the following:

(93) Why can  $v_{unacc}/V$  license case in Hindi-Urdu but not in English?

This could just be an instance of parametric variation but a deeper explanation seems possible. The notion of dependent case (Marantz (1991)).

(94) a. English: case licensed by  $v$  ( $v_{unacc}$  or  $v_{ag}$ ) is dependent.  
 b. Hindi-Urdu: case licensed by  $v$  ( $v_{unacc}$  or  $v_{ag}$ ) is not dependent.

(95) Possible Connection with surface form:

a. English: surface form of case licensed by  $v \neq$  surface form of case licensed by  $T^0$   
 b. Hindi-Urdu: surface form of case licensed by  $v =$  surface form of case licensed by  $T^0$

Speculation: connection between surface distinctness of case-licensed by  $v$  and case-licensed by  $T^0$  and dependency of case licensed by  $v$ .

Possibly the motivation behind 'dependency' is that the extra encoding typically involved in the accusative is unnecessary when only one argument is around. But when the accusative does not have extra encoding (across the board) the motivation disappears.

- Icelandic vs. Faroese?

- congruence with the idea that Burzio's generalization is in fact independent of the thematic properties of verbs and is actually connected to the idea that the unmarked/higher case (i.e. nominative) is preferred over the marked/lower/dependent case (i.e. accusative) (see Marantz (1991), Woolford (2003), Bobaljik (2005)).

## 13 Connections with Interpretation

We have already seen that:

(96) a. The properties of the subject DP (pronoun/name vs. non-pronoun/name; referential vs. non-pronoun) influence the choice between case licensed by  $v_{unacc}$  and case-licensed higher (*-ko* and genitive *-kaa*).  
 b. To a first approximation when a choice exists, the presence of the case-licensed higher (genitive *-kaa* and *-ko*) correlates with a specific interpretation.

i. *-kaa* present on subject  $\rightarrow$  only specific interpretation:

[yahā: **paisō-kaa** mil-naa] mushkil hai  
 here money-Gen find<sub>unacc</sub>-Inf difficult be.Prs

'Finding **the** money here is difficult.'

ii. *-kaa* absent → non-specific interpretation available:

[yahā: **paise** mil-naa] mushkil hai  
here money find<sub>unacc</sub>-Inf difficult be.Prs

‘Finding/Getting **money** here is difficult.’

(Peter Hook, p.c.)

### An initial proposal:

There are considerable parallels between the interpretive effects of Variable Case Marking on subjects and DOM. I propose an analysis that covers both cases:

- (97) a. Pronouns and Proper Names must leave the VP for reasons of interpretation (in the spirit of Diesing (1992)). At the point at which case-assignment takes place, they are not in the c-command domain of *v<sub>unacc</sub>*. Hence only the case-licensed higher is an option.

(This means that case-assignment does not take place very early.)

- b. Specific interpretations also involve movement out of the VP. This is behind the correlation between the case-licensed higher and specific interpretations.
- c. DPs that are non-specific/non-referential must be VP-internal at the level at which case is assigned. Thus they can receive case from *v<sub>unacc</sub>*. Presumably locality considerations block them from receiving the higher case while remaining VP-internal (see Dayal (2003)).

- of course, to the extent that the interpretive effects of variable case marking on subjects and DOM diverge and there is some evidence pertaining to number neutralization that suggests that they do, the above proposal needs modification.

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