Optional ergative case marking in Hindi

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Abstract

The Indo-Aryan language Hindi displays a case-patterning split along the lines of aspect: ergative case is assigned to the subject of highly transitive verbs only in perfective aspect. In addition, some intransitive verbs allow for ergative case marking on their subject as well. When the subject of an intransitive verb is marked with ergative case, this indicates that the action was performed deliberately (Mohanan, 1994; Butt, 2001; Bhatt, 2005).

The ergative construction in Hindi is the result of a development at an earlier stage of the Indo-Aryan languages. Due to the loss of the inflectional perfect, a periphrastic passive construction was used to refer to completed events, and it was reanalysed as an active, perfective, ergative-patterning construction (Anderson, 1977; Butt, 2001).

This paper aims to provide a possible explanation for the optional ergative case marking on certain intransitive subjects in Hindi. Since some, but not all intransitive verbs can be passivized (Davison, 1982; Bhatt, 2003; Richa, 2008), it is possible that the reanalysis that underlies the ergative clause in Hindi never took place for these verbs, which may be why some intransitive verbs allow for ergative case marking on their subject, and others do not.

Contents

1 Introduction

Dixon's (1994:6) premise is that all languages work in terms of three primitive relations: S (for the subject of an intransitive verb), A (for the subject of a transitive verb) and O (for the object of a transitive verb). Depending on the way a language groups these core arguments, it is classified as either *accusative* or *ergative*. Plank (1979:4) summarizes the difference between these types as follows:

(1)   a. A grammatical pattern or process shows ergative alignment if it identifies S and O as opposed to A.

        b. It shows accusative alignment if it identifies S and A as opposed to O.

A language is *syntactically* ergative if it differentiates between S and O as opposed to A on the basis of syntactic rules or generalisations, and *morphologically* ergative if ergative alignment is manifested in a language's head or dependent marking system (i.e., in case marking or agreement). An example of morphological ergativity in terms of case marking is given in (2), where the intransitive subject *Raam* in (2a) and the transitive object *šišaa* in (2b) are unmarked for case, whereas the transitive subject in (2b) bears ergative case marking:

  Hindi (Mohanan, 1994:71-72)

(2)   a. Raam giraa
          Ram   fall-PFV

          'Ram fell hard.'

        b. Raam-**ne** šišaa   toḍaa
          Ram-ERG mirror break-PFV

          'Ram broke the mirror.'

About a quarter of the world's languages is said to be ergative in one way or another (Dixon, 1994), but almost no language is entirely consistent in its ergative patterning. The term *split ergativity* is generally used to refer to languages in which a 'split' is found within the morphology, which means that ergative patterning is shown in one part of the grammar, while other parts show non-ergative patterning (Coon, 2013). A common type of split ergativity is TAM split ergativity, which means that the split in alignment is conditioned by the tense, aspect, and/or mood of the verb (Dixon, 1994). This type is found in Hindi, where the case on the subject of a finite, transitive clause depends upon the aspect:

Bhatt, 2007:2-3

(3) a. Lataa-ji-**ne**   kai   gaane   gaa-ye
         Lataa.F-HON-ERG many song.M.PL sing-PFV.M.PL
         'Lataa-ji sang several songs.'

     b. Lataa-ji   gaane   gaa-tii   hẼ   / thĩ
         Lataa.F-HON song.M.PL sing-HAB.F be.PRS.PL / be.PST.F.PL
         'Lataa-ji sings/used to sing songs.'

In (3a), the verb *gaaye* is marked for perfective aspect (*-ye*), and the subject *Lataaji* bears the ergative case marker *-ne*. When the lexical verb is not marked for perfective aspect, as in (3b)—*gaatii* is a habitual form of the verb *gaanaa* ('sing')—the subject *Lataaji* does not receive ergative case. Tense has no effect on the case for the subject in Hindi (cf. (3b)): both in non-perfective present (auxiliary *hẼ*) and past (*thĩ*) tense, the subject *Lataaji* remains unmarked for case.

What is interesting about ergativity in Hindi is that some verbs allow for optional ergative case marking on their subject—i.e., both nominative and ergative subjects are grammatical. This holds for transitive as well as intransitive verbs (cf. (4)).

Mohanan (1994:71-72)

(4) a. Raam / Raam-ne jorse   cillaa-yaa
         Ram   / Ram-ERG loudly shout-PFV
         'Ram shouted loudly.'

     b. Raam / Raam-ne samjʰaa   ki   gʰar   meraa hai
         Ram   / Ram-ERG think-PFV that house I-GEN be.PRS
         'Ram thought that the house was mine.'

Mohanan (1994) proposes the *conscious choice hypothesis*, stating that 'when a nominative subject cooccurs with a verb that has an option between a nominative and an ergative subject, the action must be nondeliberate' (Mohanan, 1994:73). According to Mohanan, the transitive verb *jaan* ('know') can only take an ergative subject to convey the meaning of 'deliberately acquiring knowledge', as in (5b):

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Mohanan (1994:74)

(5) a. Raam jaantaa   tʰaa   ki Siitaa bahut bimaar hai
       Ram   know-IMPF be-PFV that Sita   very ill   be-PRS
       'Ram knew that Sita was very ill.'

    b. Raam-ne jaantaa   tʰaa   ki Siitaa bahut bimaar hai
       Ram-ERG know-IMPF be-PFV that Sita   very ill   be-PRS
       'Ram found out that Sita was very ill.'

Further confirmation for this theory comes from complex predicates involving light verbs. A *complex predicate*—a very common phenomenon in Hindi—is a construction composed of two or more predicational elements (e.g., nouns, verbs and adjectives) that predicate as a single unit, indicated by square brackets in (6). A *light verb* is a verb that does not retain its full semantic predicational content, but that is also semantically not completely empty (Butt, 2010:49). In a complex predicate containing a light verb, the case marking on the subject is determined by the light verb:

Mohanan (1994:74)

(6) a. **Ravii** / *Ravii-ne davaaii [pii   **gayaa**]
       Ravi   / Ravi-ERG medicine [drink go-PFV]
       Ravi (impulsively) drank up the medicine.

    b. *Ravii / **Ravii-ne** davaaii [pii   **ḍaalii**   ]
       Ravi   / Ravi-ERG medicine [drink pour-PFV]
       Ravi (deliberately) drank up the medicine.

The main verb *pii* ('drink') is the same in both examples; the only difference between (6a) and (6b) is the light verb. *Pii* normally takes an ergative subject, but combined with the light verb *jaa* (glossed as 'go', which is its main verb 'counterpart'), the subject *Ravii* cannot receive ergative case marking. Mohanan (1994:74) argues that this is because *jaa* adds the meaning of 'impulsively' or 'without thinking' to the action of drinking the medicine, whereas *ḍaal* (of which the main verb counterpart is 'pour') expresses emphasis on the 'deliberateness' of the action.

The same difference in meaning arises when the case marking on the subject of an intransitive verb is changed (cf. (7)); if the subject is marked with ergative case, this indicates that the action was deliberate or volitional (Bhatt, 2007:5).

Hindi (Butt, 2001:122)

(7) a. Ram kʰãs-a
         Ram cough-PFV
         'Ram coughed.'

     b. Ram-ne   kʰãs-a
         Ram-ERG cough-PFV
         'Ram coughed (purposefully).'

Mohanan's (1994) conscious choice hypothesis provides a nice explanation for the case alternation on subjects of some (both transitive and intransitive) verbs, but it does not explain why some verbs allow for this case alternation and others do not. Furthermore, it does not account for the fact that ergative patterning in Hindi only occurs in perfective tenses.

The purpose of this paper is to shed some light on the use of the ergative case in Hindi. I will do this by combining different theories to answer two questions: *(i)* why is ergative case marking in Hindi limited to perfective aspect, and *(ii)* why do some verbs deviate from the expected (ergative) pattern? This paper will be organized as follows. I will first discuss some previous theories on aspect-based split ergativity in general in chapter 2, including some problems they run into when applied to Hindi. In chapter 3, I will address the question why ergative patterning in Hindi is limited to perfective tenses, and discuss which specific types of verbs there are that are 'exceptional' with respect to case marking for their subject.

2 Previous analyses

When a split in case marking patterns is conditioned by the tense or aspect of the verb, the ergative marking is always found either in past tense or perfective aspect, and never in present tense or imperfective aspect (Dixon, 1994:99). Coon (2013:176-177) assumes that although tense and aspect are often intertwined, and perfective aspect frequently overlaps with past tense, aspect is the only 'true' trigger for this type of ergativity splits. In this chapter I will discuss three general theories regarding aspect-based split ergativity, focussing on their respective applicability to Hindi.

2.1 Viewpoint and attention flow

DeLancey (1981) uses the notions of *viewpoint* and *attention flow* (AF) to account for aspect-based split ergativity. According to DeLancey (1981:632), events have an inherent natural attention flow, which recreates the flow of attention involved in actually witnessing the event. In addition to natural AF, there is also *linguistic* AF, which is the order in which the speaker expects the hearer to attend to the NP constituents in a sentence. By definition, leftmost position is a property of the starting point of linguistic AF (DeLancey, 1981:639). The linguistic AF in a sentence is marked if it does not recapitulate natural AF; that is, if the starting point of linguistic AF is not the starting point of natural AF. The unmarked linguistic AF in a transitive sentence is from agent to patient (DeLancey, 1981:633).

Consider the event of John hitting Mary, which starts with John (the agent) doing the hitting, and ends with Mary (the patient) being hit:

(8) a. John hits Mary
     b. Mary was hit by John

Viewpoint is defined as 'the perspective from which the speaker describes the event' (DeLancey, 1981:626). In the active sentence (8a), the viewpoint is with John, but in the passive (8b), the viewpoint is with Mary. The natural starting point of AF in the event of John hitting Mary is John, but both the viewpoint and starting point of linguistic AF in (8b) are with Mary. If the natural starting point is not the viewpoint, it must be marked as starting point (DeLancey, 1981:647), as is indicated by the preposition *by* in (8b).

DeLancey (1981) assumes that the temporal structure of a given event is mapped onto the syntactic structure. Depending on whether or not the event is completed at the time of utterance, the viewpoint is with either one of the event participants. Perfective aspect represents a given event as a completed, single whole, while imperfective aspect represents it as 'gearing toward completion'

(Gvozdanović, 2012). If we say *John hits Mary*, the viewpoint is with John, who is performing the action of hitting, and if we say *John has hit Mary*, the viewpoint is—like in the passive (8b)—with Mary, who is affected by the action of hitting. Imperfectives are therefore said to be A-centred; as the actions they denote are ongoing, the viewpoint is with the agent and the patient is less affected by the action. Perfectives, however, do register a change of state in the object (in the case of Mary being hit by John, she is likely in pain), which is why they are said to be P-centred (i.e., the viewpoint is with the patient). In both cases, however, the *natural* starting point is with the agent, and since the viewpoint is with the patient, the agent needs to be marked as starting point—which, in (split-)ergative systems, can be done by means of ergative case marking. The assignment of linguistic viewpoint to the terminal point is indicated morphologically by marking the natural starting point (the agent) for case (DeLancey, 1981:649).

2.1.1 Deliberateness and reversed attention flow

According to DeLancey (1981:634), ergative case by itself does not indicate agentivity in the strict sense of the term, but it indicates the starting point of the natural attention flow; it refers to activity in the initial phase of the event rather than agentivity. DeLancey (1981:649) discusses a construction in Sinhala, of which the patterning in case marking is analogous to split-ergative patterning. The most common interpretation of this particular construction is that the agent did not intentionally perform the action:

Sinhala (DeLancey, 1981:649)

(9) a. mam pingaan binda
    I.NOM plate broke
    'I broke the plate (on purpose).'

   b. man-atin pingaan binduna
    I.OBL-by plate broke
    'I broke the plate (accidentally).'

The difference between an accidental and a purposeful act lies in whether the actor is aware of all phases, or only of the act's termination. In case of a deliberate act (cf. (9a)), all phases—from inception to completion—are known to the agent, but in the case of inadvertent events (cf. (9b)), only the termination is present to the consciousness of the agent (DeLancey, 1981:649-650). According to DeLancey (1981:649-650), the interpretation of a sentence as 'reporting an inadvertent event' results from a constraint on reversed AF: the terminal phase of the event can be

taken as the viewpoint only if earlier phases of the event took place outside of the actor's awareness. However, in Hindi, marking the agent when there is optionality indicates that the action was, in fact, deliberate:

Hindi (Butt, 2001:122)

(10) a. Ram kʰ$\tilde{\text{a}}$s-a
          Ram cough-PFV
          'Ram coughed.'

      b. Ram-ne   kʰ$\tilde{\text{a}}$s-a
          Ram-ERG cough-PFV
          'Ram coughed (purposefully).'

An explanation in terms of viewpoint and attention flow is in line with the fact that marking the agent with ergative case is in Hindi only possible in perfective environments. However, the prediction it makes with respect to deliberateness is exactly the opposite of what we find in Hindi.

2.2 Grounding

Lestrade and de Hoop (to appear) argue that morphological case can be omitted for economical reasons. If a hearer is able to determine the agent function of an event participant on the basis of information from the here and now, marking the agent with ergative case is not necessary (Lestrade & de Hoop, to appear:2). Ongoing events (i.e., events in imperfective aspect) have an identifiable agent; the agent can in principle be *seen* performing the action. Because events or activities in perfective aspect have already been completed, the agent is not instantly identifiable as such any more. Marking the subject with ergative case in perfective aspect is then a speaker's way of letting the hearer know which one of the arguments is the agent.

Lestrade and de Hoop (to appear) do point out some problems that arise with this analysis. For example, this would predict that the agent of events with habitual aspect be marked with case as well, since the hearer cannot possibly 'check' whether or not someone *generally* sings songs. This is not the case in Hindi:

Bhatt (2007:3)

(11) Lataa-ji   gaane   gaa-tii   h$\tilde{\text{E}}$ / th$\tilde{\text{i}}$
      Lataa-HON song.M.PL sing-HAB.F be.PRS.PL / be.PST.F.PL
      'Lataa-ji sings/used to sing songs.'

In addition, the agent of an event expressed in future tense cannot be identified on the basis of information from the here and now either, evidently because that event has not yet taken place at the time of utterance. In Hindi, however, the subject in a sentence marked for future tense does not receive ergative case marking:

Bhatt (2007:3)

(12) Lataa-ji   gaanaa gaa-ẽ-gii
     Lataa-HON song.M sing-FUT.F.PL
     'Lataa-ji will sing a song.'

Obviously, marking the subject of an intransitive verb with ergative case is not necessary to distinguish between subject and object, since there is only one argument. The assignment of ergative case to the subject of an intransitive verb in Hindi indicates that the action was deliberate. This could be explained in terms of economy; only when it is, for conversational purposes, 'necessary' that the hearer knows that the action was deliberate, the subject is marked with ergative case. However, this analysis cannot account for the fact that it is 'only' perfective aspect wherein ergative patterning in Hindi is displayed.

2.3 Biclausality

Coon (2013) observes that in languages with aspect-based split ergativity, there are a number of differences between the imperfective and the perfective domain. She schematizes the difference between ergative patterning and split-patterning constructions as follows (Coon, 2013:179-180):

(13) Ergative patterning (perfective)
   a. transitive
      $\mathbf{A}_{\text{ERG}}$ $\mathbf{O}_{\text{ABS}}i$ $\mathbf{V}i$

   b. intransitive
      $\mathbf{S}_{\text{ABS}}i$ $\mathbf{V}i$

(14) Split-patterning (non-perfective)
   a. transitive
      $\mathbf{A}_{\text{ABS}}i$ $[\mathbf{O}_{\text{ABS}}$ $\mathbf{V}]$ $\mathbf{AUX}i$

   b. intransitive
      $\mathbf{S}_{\text{ABS}}i$ $\mathbf{V}i$

Firstly, of course, the A argument in non-perfective tenses does not receive ergative case, but is in the unmarked (nominative or absolutive) form. Secondly, non-perfective sentences often contain more complex *verb + auxiliary* constructions, and finally, the agreement pattern changes: in the ergative pattern, the verb agrees with the object, but in the split-pattern, the object no longer triggers any agreement (Coon, 2013:179).

2.3.1   Verb + auxiliary constructions

The starting point of Coons (2013) analysis of aspect-based split ergativity is the observation that non-perfective tenses often contain more complex verb + auxiliary constructions. Habituals, for example (cf. (15a), are formed by the imperfective/habitual participle plus a tense auxiliary, and the progressive is formed periphrastically (cf. (15b), Bhatt, 2007:3).

Bhatt (2007:2-3)

(15)   a.   Lataa-ji   gaane   gaa-tii   hẼ   / thĩ
            Lataa.F-HON song.M.PL sing-HAB.F be.PRS.PL / be.PST.F.PL

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

       b.   Lataa-ji   gaanaa gaa rahĩ: hẼ   / thĩ
            Lataa.F-HON song.M sing PROG.F.PL be.PRS.PL / be.PST.F.PL

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

       c.   Lataa-ji-ne   kai   gaane   gaa-ye
            Lataa.F-HON-ERG many song.M.PL sing-PFV.M.PL

            'Lataa-ji sang several songs.'

According to Coon (2013:180), the case marking on the subject depends on the transitivity of the *final* verbal element in the clause, whether this is the lexical verb or an auxiliary. She proposes that the A argument does not receive ergative case marking because it is not a transitive subject; instead, it is the subject of an intransitive auxiliary, which takes the lexical verb and the O argument together as an embedded complement (cf. (14a), (15a,b)).

The perfect in Hindi is based on the perfective participle. When it is used by itself, this participle expresses simple past tense (cf. (15c)), and it combines with a tense auxiliary to form the present or past perfect (cf. (16)).

Bhatt (2007:2-3)

(16) Lataa-ji-ne   kai   gaane   gaa-ye   hẼ   / the
      Lataa.F-HON-ERG many song.M.PL sing-PFV.M.PL be.PRS.PL / be.PST.PL
      'Lataa-ji has/had sung several songs.'

Both (15a) and (16) contain a verb + auxiliary construction; the only immediately
visible difference between the two sentences is the aspect marking on the main verb:
habitual aspect in (15a), and perfective aspect in (16). However, the subject in
(15a) is unmarked for case, whereas the subject in (16) is marked with ergative
case. Why would the same auxiliary, *honaa* ('be'), take an embedded complement
in a non-perfective tense (15a), but not in a perfective tense (16)? Furthermore,
just as there are perfective tenses with this verb + auxiliary construction, there
are non-perfective tenses in Hindi that are formed without the use of an auxiliary.
Future tense, for example, is expressed by means of inflection on the main verb:

Bhatt (2007:3)

(17) Lataa-ji   gaanaa gaa-ẽ-gii
      Lataa.F-HON song.M sing-FUT.F.PL
      'Lataa-ji will sing a song.'

2.3.2   Agreement pattern

Coon (2013) points out that in perfective tenses, the verb agrees with the object,
but in imperfective tenses, it agrees with the subject:

Bhatt (2007:3)

(18)   a. Lataa-ji-ne   **kai   gaane   gaa-ye**
          Lataa.F-HON-ERG many song.M.PL sing-PFV.M.PL
          'Lataa-ji sang several songs.'

       b. **Lataa-ji**   gaane   **gaa-tii   hẼ**   / **thĩ**
          Lataa.F-HON song.M.PL sing-HAB.F be.PRS.PL / be.PST.F.PL
          'Lataa-ji sings/used to sing songs.'

In (18a), the verb *gaaye* ('sing') agrees with the object *gaane* ('songs'), but in
(18b), both the main verb *gaatii* and the auxiliaries *hẼ* (present tense) and *thĩ*
(past tense) agree with the subject *Lataaji*. According to Coon (2013), this change

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in agreement is consistent with a biclausal or subordinate clause analysis, as the object does not trigger agreement in (18b) 'because it is in a lower clause'.

Verbs in Hindi always agree with the 'highest' nominative argument. That is, the verb agrees with the 'structurally most prominent argument that is not case-marked overtly' (Bhatt, 2005:759). In situations where both the subject and the object are nominative, both the main verb (in participial form) and (if one is present) the tense auxiliary agree in gender and number with the subject (cf. (19a)). If the subject is overtly marked for case, but the object is not, the main verb and auxiliary agree with the object (cf. (19b)), and if no nominative argument is available (i.e., both the subject and object are overtly marked with case), the verb will display 'default' agreement, which corresponds to the features [3MSG] (cf. (19c); Bhatt, 2005:760).

Bhatt (2005:768)

(19)   a. subject agreement:
       Mona amruud **khaa-tii** **thii**
       Mona.F guava.F eat-HAB.F be.PST.F.SG

       'Mona used to eat guavas.'

     b. object agreement:
       Ram-ne   **imlii**   **khaa-yii thii**
       Ram.M-ERG tamarind.F eat-PFV.F be.PST.F.SG

       'Ram had eaten tamarind.'

     c. default agreement:
       Mona-ne   is   kitaab-ko paṛh-aa   thaa
       Mona.F-ERG this.OBL book.F-ACC read-PFV.M.SG be.PST.M.SG

       'Mona had read this book.'

Note that the object in (19c) is marked with accusative case. An object in Hindi is only marked with accusative *-ko* if it is definite and/or animate; cf. *is kitaab-ko* ('this book') in (19c) and *ek bakre-ko* ('the goat') in (20):

Malchukov & de Hoop (2011:37)

(20)   a. Wo   ek bakre-ko bec-taa   hae
       He.NOM one goat-ACC sell-IMPF.M.SG be.PRES.3SG
       'He sells the goat.'

b. Us-ne   ek   bakre-ko bec-aa
   He-ERG one goat-ACC sell-PERF.M.SG
   'He sold the goat.'

Malchukov and de Hoop (2011:38) point out that 'for languages like Hindi, one can hardly argue that the construction in the imperfective domain is intransitive, as the same rules of object marking apply indiscriminately to both the perfective and imperfective domain'.

2.3.3   Conclusion

If the absence of ergative patterning in non-perfective tenses is due to the fact that these sentences are built on complex constructions in which the subject is actually an intransitive subject of an auxiliary, we are left with a few problems. Not only do the Hindi present/past perfect and future tense remain unaccounted for; to argue that the reason for non-perfective subjects not being able to receive ergative case marking is the fact that they are actually intransitive subjects, is not very convincing if it is taken into account that some intransitive verbs in Hindi *do* allow for an ergative subject. Moreover, the case alternation that is present on the subject of some verbs as well as the different interpretations that arise with this alternation remain unaccounted for.

3 The rise and distribution of the ergative case in Hindi

In the previous chapter I discussed three general theories on aspect-based ergativity, and showed for each of them that there are certain features of the ergative marking in Hindi they cannot account for. In order to fully capture the use and meaning of the ergative case in Hindi, it is useful to first consider how ergative patterning came into the language, and with which verbs it is employed.

Hindi and its sister languages all ultimately descended from (versions of) Sanskrit, which is a syntactically and morphologically accusative language. Most modern Western Indo-Aryan languages, however, show aspect-based split ergativity: ergative patterning in perfective tenses is found in Hindi, Urdu, Marathi, Gujarati, Punjabi, Kashmiri and Sindhi (Bhatt, 2007:2). The most commonly accepted theory on the rise of ergativity in the Indo-Aryan languages is Anderson's (1977) *passive-to-ergative hypothesis.* Chronologically, the Indo-Aryan languages can be divided into three linguistic stages: Old Indo-Aryan (e.g., Vedic, Epic and Classical Sanskrit), Middle Indo-Aryan (e.g., Pali and Prakrit languages, Apabrhraṃśa), and New Indo-Aryan (e.g., Hindi, Marathi, Gujarati; Deo & Sharma, 2006:372). The rich tense-aspect system that was present in Old Indo-Aryan underwent a radical process of simplification in Middle Indo-Aryan. This resulted in the loss of most inflectional forms, among which the aorist, the inflectional perfect and the non-perfect inflectional past (Deo & Sharma, 2006:372). Because of this simplification, the scope of several periphrastic constructions widened to take over the former roles of lost inflectional forms. Passive constructions are semantically close to perfects in that they generally present a state resulting from a completed action, so when the inflectional perfect was lost, it was replaced by a periphrastic passive construction based on a passive participle (Anderson, 1977:336; Dixon, 1994:190). This, in turn, led to the unmarking of the passive voice of this construction in late Middle Indo-Aryan, which eventually resulted in an active, ergative clause in New Indo-Aryan (Deo & Sharma, 2006).

3.1 From passive to ergative

When an active sentence is passivized, the patient changes from being the grammatical object (cf. (21a)) to being the grammatical subject (cf. (21b)), because the agent gets demoted and possibly left out. If we still want to express the agent, in English, we can do so by means of a preposition phrase (cf. (21c)).

(21)   a.   John$_{\text{SUBJ}}$ hits Mary$_{\text{OBJ}}$
        b.   Mary$_{\text{SUBJ}}$ was hit

c. Mary$_\text{SUBJ}$ was hit [by John]

Sanskrit, ancestor of the modern Indo-Aryan languages, has eight cases, among which an instrumental case. The agent in a passive sentence is thus not necessarily preceded by a preposition—like in English, as in (21c)—but would most likely receive instrumental case marking (-*ina* and allomorphs; Butt, 2001:111). In addition, passive voice in Sanskrit can be expressed by means of conjugation: addition of -*ta* (or -*ná*, but -*ta* is the more common) directly to the verb root forms a deverbal adjectival participle that agrees with a noun (cf. (22)) (MacDonell, 1927:134; Butt, 2001:111).

Sanskrit (Verbeke & De Cuypere, 2009:3)

(22) Devadatt-ena kaṭa-h kr̥-taḥ
Devadatta-INS mat-NOM make-NOM.P.P.PART

'The mat is made by Devadatta.'

The passive-to-ergative hypothesis states that an active ergative construction can arise from a former passive construction via a reanalysis of the type shown in (23) (adapted from Butt, 2001:110).

(23) NP$_\text{INSTR}$ NP$_\text{NOM}$ V$_\text{PARTICIPLE}$ > NP$_\text{ERG}$ NP$_\text{NOM}$ V$_\text{ACTIVE}$

The suffix that marks the demoted A with instrumental case in the passive sentence is reinterpreted as a suffix that marks the A with ergative case in the active clause (Dixon, 1994:190).

3.2 Verb types and case

Transitive verbs in ergative systems normally pair with an ergative subject and intransitives normally take an absolutive subject, but the situation in Hindi is somewhat more complicated: as Davison (1999) points out, a verb in Hindi may be perfective, transitive, and finite, and still not (always) receive ergative case. According to Mohanan (1994:71), Hindi verbs can be divided into three classes. Given the required aspectual conditions, there are verbs that take:

(i)   only nominative subjects
(ii)   only ergative subjects
(iii)   either nominative or ergative subjects.

Mohanan (1994) points out that while most transitive verbs belong to class (ii), and most intransitives to (i), every one of the three verb classes mentioned above

contains transitive as well as intransitive verbs. Examples (24a-c) show intransitives that belong to class (i), (ii) and (iii), respectively, and examples (24d-f) show transitives that belong to class (i), (ii) and (iii), respectively.

Mohanan (1994:71-72)

(24) a. Raam / *Raam-ne giraa
         Ram / Ram-ERG fall-PFV
         'Ram fell hard.'

      b. *Raam / Raam-ne nahaayaa
         Ram   / Ram-ERG bathe-PFV
         'Ram bathed.'

      c. Raam / Raam-ne jor-se cillaayaa
         Ram / Ram-ERG loudly shout-PFV
         'Ram shouted loudly.'

      d. Raam / *Raam-ne šišaa   laayaa
         Ram / Ram-ERG mirror bring-PFV
         'Ram brought the mirror.'

      e. *Raam / Raam-ne šišaa   toḍaa
         Ram   / Ram-ERG mirror break-PFV
         'Ram broke the mirror.'

      f. Raam / Raam-ne samjʰaa   ki   gʰar   meraa hai
         Ram / Ram-ERG think-PFV that house I-GEN be.PRS
         'Ram thought that the house was mine.'

When arguing that there are intransitive verbs that require their subject to be ergative, Mohanan (1994:71) only uses two verbs as examples: *nahaanaa* ('bathe', (24b)) and *cʰĩĩknaa* ('sneeze'). In giving an overview of verbs and case previously cited in the literature on Hindi—which Butt (2006:147) calls 'the most comprehensive study of the distribution of the ergative'—Davison (1999) identifies *nahaanaa* and *cʰĩĩknaa* as optionally rather than always taking an ergative subject. In addition, Davison (1999) never mentions the existence of intransitive verbs that reject a nominative subject altogether, which raises questions about the accuracy of Mohanan's three-way distinction. What Mohanan and Davison do agree on, is that

there are transitives which *may not* have ergative subjects, and transitives as well as intransitives whereby an ergative subject is possible, but not required (Mohanan, 1994:71; Davison, 1999:185). According to Davison (1999:185-186), there are three types of 'exceptions' in Hindi:

(i)   optionally [ERG] intransitives
(ii)   normally [NOM] transitives, optionally [ERG]
(iii) [NOM] transitives, rejecting [ERG]

3.2.1 High transitivity and ergative case marking

Davison (1999) notes that there is a general tendency in languages with ergative marking for transitive agentive verbs to mark their subjects as ergative, but 'there is some inherent instability in that agency and transitive valency are not coterminous' (Davison, 1999:189). Hopper and Thompson (1980) argue that transitivity is gradable, which means that some verbs are considered to be more or less transitive than others.

Ergative case in Hindi can be assigned to the subject of a 'highly transitive' verb (Malchukov & de Hoop, 2011:36). 'High transitivity' is depending on properties of both the event itself and its participants (Malchukov, 2005:73). According to Givón (1985:90), the following properties contribute to semantic (high) transitivity:

(i)   Agent-related: The prototypical transitive clause has a visible, salient, volitional, controlling agent-cause which initiates the event;
(ii)   Patient-related: The prototypical transitive clause has a visible, salient, non-volitional, non-controlling patient-effect which registers the bulk of change associated with the event;
(iii) Verb-related: The prototypical transitive clause has a compact, perfective, realis verb or verbal tense-aspect-modality.

Tsunoda (1981) proposed the following verb-type hierarchy, that predicts the distribution of intransitive and transitive patterns in individual languages:

(25)   Effective action > Perception > Pursuit > Knowledge > Feeling > Relation

The prediction is that if a verb lower in the hierarchy allows for a transitive case frame (for ergative languages, an ergative-absolutive pattern), so will the verbs higher in the hierarchy. Some of these verb types are further divided into subclasses; verbs of effective action (where the patient is affected) can be divided into a resultative subtype ('kill', 'break') and a non-resultative subtype including verbs of contact, like 'hit' and 'touch' (Malchukov, 2005:74-75). Tsunoda's (1981) hierarchy is semantically grounded: verbs of feeling (e.g. 'like' or 'fear'), are lower on

the hierarchy because an object of liking is less affected by the 'action' than an object of, for instance, breaking or killing. Malchukov (2005) argues that Tsunoda's verb-type hierarchy actually conflates two different dimensions: on the part of the O-argument, there is a sub-hierarchy reflecting decreased patienthood (i.e., when moving down the hierarchy, the patient is less and less affected by the action) which is represented in (26a), and on the part of the A-participant, there is a sub-hierarchy reflecting decreased agenthood (i.e., when moving down the hierarchy, the agent is less and less of a visible, salient, volitional, controlling agent) which is represented in (26b) (adapted from Malchukov, 2005:81).

(26)   a.   Effective action > Contact > Pursuit > Motion
          b.   Effective action > Perception and cognition > Emotion > Sensation

Although a verb-type hierarchy cannot predict with certainty for every given verb which case-frame it selects, it can predict that if there are some verbs from a type lower in the hierarchy that take a transitive pattern, some verbs that do the same should also be found in higher in the hierarchy (Malchukov, 2005:82).

Some transitive verbs in Hindi take a nominative subject as a default, but do also optionally allow for an ergative subject. Davison (1999:185-186) gives the following overview, where the meaning of the verb when the subject is nominative is on the left, and—if different—the meaning of the verb when the subject is ergative is on the right:

(27)   Transitive verbs normally [NOM], but [ERG] is possible.

samajh-	'understand', 'suppose'	[NOM]	'take for', 'consider'	[ERG]
jiit-	'win (the match)'	[NOM]	'conquer'	[ERG]
bhuul-	'forget'	[NOM/ERG]		
jan-	'give birth (to)'	[NOM/ERG]		
phaNd-	'leap over'	[NOM/ERG]		
bak-	'to say nonsense'	[NOM/ERG]		
haar-	'lose', 'be defeated'	[NOM]	'lose (on purpose)'	[ERG]
(Inf.) *paa-*	'manage', 'succeed'	[NOM/ERG]		
qaraar paa-	'obtain rest'	[NOM/ERG]		
V-pf. *kar-*	'V repeatedly'	[NOM/ERG]		
pahcaan-	'recognize'	[NOM/ERG]		

Hindi also has some transitive verbs that are said to always take a nominative subject. Davison (1999:185) gives the following overview:

(28)   Transitive verbs which may not have [ERG] subjects. Some close semantic
        counterparts which have [ERG] subjects are included.

bool-	'speak', 'say'	[NOM]	*kah-*	'say'	[ERG]
laa-	'bring'	[NOM]	*lee-*	'take'	[ERG]
lag-	'strike'	[NOM]	*maar-*	'beat'	[ERG]
(Inf.) *lag-*	'begin'	[NOM]	*Suruu kar*	'begin'	[ERG]
V- *cuk-*	'finish'	[NOM]	*xatam kar*	'finish'	[ERG]
dikhaaii dee-	'be seen'	[NOM]			
sunaaii dee-	'be heard'	[NOM]			
Dar- (-se(e))	'fear (from)'	[NOM]			
laR- (-se(e))	'fight (with)'	[NOM]			
mil- (-se(e))	'meet (with)'	[NOM]			
jhagaR- (-par)	'quarrel (on)'	[NOM]			

Let us take a closer look at the verbs in (28). Davison (1999) rejects the view that
ergativity in Hindi is to be associated with agentivity, because some verbs that
disallow for an ergative subject, have a close semantic counterpart that always
takes an ergative subject. However, there is no need for a case alternation on one
verb to express alternation in agentivity if there are separate verbs to express each
meaning.

In *Dar*, *laR*, *mil* and *jhagaR*, *-par* and *-se(e)* are postpositions (*-par* meaning
'on') for marking the object. According to Mohanan (1994:67), *-se(e)* can be
used in a number of ways: it can be an instrumental case marker, marking the
instrument used to accomplish an action (or the agent in a passive construction),
but it also has a 'comitative' sense, as in *Anu-ne Ilaa-se baat kii* ('Anu spoke *with*
Ila'). However, according to Mohanan (1994:66) the case for a transitive object in
Hindi is either accusative (*-ko*, for animate and definite objects) or nominative (∅,
for inanimate and/or indefinite objects). One could thus argue that these verbs
are not typical transitive verbs and thus they would not necessarily be expected
to take an ergative subject. *Dikhaaii dee* ('be seen') and *sunaaii dee* ('be heard')
are verbs carrying a meaning practically identical to that of a passive; they are
presented by Davison (1999) as active transitives, but they view the eventuality
from the *patient's* perspective. Taking into account that the verbs *dikhnaa* and
sunnaa mean 'see' and 'hear', respectively, it is quite evident that the subject of
neither of these constructions is an agent—which means that these verbs are not
considered to be 'highly transitive'.

3.2.2 Unergative verbs and optional ergative case marking

Davison (1999:186-187) lists the following intransitive verbs that optionally allow for an ergative subject:

(29)   Optionally [ERG] intransitives.

bhauNk-naa	'bark', 'shout absurdly', 'howl'
jhaaNk-naa	'peep', 'look into/through'
khaaNs-naa	'cough'
chiiNk-naa	'sneeze'
muskaraa-	'smile' (with or without cognate object)
thuuk-naa	'spit'
muut-naa	'urinate'
hag-naa	'defecate'
nahaa-	'bathe (oneself)'
roo-	'cry'
haNs'	'laugh'
gaa-	'sing'
soo-	'sleep'

Within the class of intransitive verbs, Perlmutter (1978) identifies two subclasses. On the one hand, the subclass of *unergative* verbs entails 'willed or volitional acts', and on the other hand, the subclass of *unaccusative* verbs denotes 'unwilled or non-volitional acts'. The idea behind this is that while both unaccusatives and unergatives only take a single argument, this argument can be one of two 'versions': it can be an agent (and therefore more 'active'), or it can be objective (and therefore less 'active'; Butt, 2006:159). This means that the subject of some intransitive verbs shares features with the subject of a transitive verb (A), while the subject of other intransitives is semantically more like a transitive object (O). These two types of constructions are shown in (28) (Butt, 2006:39):

(30)   V$_{\text{UNERGATIVE}}$ + A   (intransitive, active subject)
        V$_{\text{UNACCUSATIVE}}$ + O   (intransitive, inactive subject)

Hindi distinguishes between the subjects of these verb types in the sense that some unergatives allow for their subject to be optionally marked with ergative case, but unaccusatives such as 'go' can never combine with an ergative subject (cf. (29a)). The appearance of the ergative on subjects of unergative intransitive verbs is correlated with volitionality (cf. (29b) and (29c); Butt, 2001:122; 2006:40).

Butt (2001:122)

(31)   a. Ram / *Ram-ne   gɛ-ya
            Ram / *Ram-ERG go–PFV
            'Ram went.'

       b. Ram kʰãs-a
            Ram cough-PFV
            'Ram coughed.'

       c. Ram-ne   kʰãs-a
            Ram-ERG cough-PFV
            'Ram coughed (purposefully).'

3.3   Passivization

Variation without apparent synchronic motivation sometimes preserves distinctions found in an earlier stage of the language (Davison, 1999:188). Recall that the ergative construction in Hindi is derived from a Sanskrit passive construction. If the active, ergative clause emerged from a former passive construction, it would make sense to assume that this is only applicable to active constructions that allow for passivization, and that a construction that cannot be passivized will also disallow an ergative subject.

Passivization involves demotion of the agent and, in the case of a transitive verb, promotion of the patient from being the grammatical object to being the grammatical subject. The passive in English is formed by an auxiliary ('be' or 'get') plus the past participle form of the main verb ('stolen' in *the car got stolen*). Forming a passive construction of an intransitive verb is not possible in English, neither for unaccusatives (cf. (32b)) nor for unergatives (cf. (32d)).

(32)   a. An earthquake happened.
       b. *An earthquake was/got happened.
       c. John sneezed.
       d. *John was/got sneezed.

The distinctive characteristics of Hindi passive sentences are demotion of the agent NP (to an instrumental NP marked with *-se(e)*), the presence of the perfective marker *-(y)aa* on the main verb and the presence of the auxiliary *jaanaa* ('go') following the main verb. Stylistic variations include *banaa* ('be made') as the

auxiliary, and *-kee dwaraa* ('by means of') and *-kee haath* ('at the hands of') as markers for the demoted agent (Davison, 1982:155-156, 175).

In Hindi, both transitive and intransitive verbs may occur in passive sentences 'if they describe volitional acts' (Davison, 1982:150). The subject of an unaccusative verb shares more properties with the object of a highly transitive verb than with the agentive subject of a highly transitive verb, in the sense that it does not deliberately perform the 'action' described in the predicate, but rather experiences it in some way. Since the logical subject argument (A) is deleted in the process of passivization, and given that the class of unaccusative verbs is defined as lacking a logical subject argument, unaccusatives are expected to be insensitive to passivization (Richa, 2008:61). This is indeed the case: according to Bhatt (2003), one of the 'unaccusative diagnostics' in Hindi is the fact that unergatives can appear in passive constructions (cf. (33a)) but unaccusatives cannot be passivized (cf. (33c)) (Bhatt, 2003; Richa, 2008):

Richa (2008:61)

(33)   a.   passive unergative:

       kəl   dɔrɑ   gəjɑ   tʰɑ
       yesterday run-PFV PASS-PFV be-PST

       'Yesterday (it) was run.'

   b.   active unaccusative:

       ʃi:ʃɑ kəl   ʈu:ʈɑ   tʰɑ
       glass yesterday break-PFV be-PST

       'The glass broke yesterday.'

   c.   *passive unaccusative:

       *kəl   ʈu:ʈɑ   gəjɑ   tʰɑ
       yesterday break-PFV PASS-PFV be-PST

       *'Yesterday (it) was broken.'

Some passive constructions in Hindi have the additional modal sense of 'someone (or something) lacking certain ability'. This type of passive is called an *inabilitative passive* (Richa, 2008).[1] According to Bhatt (2003), unaccusative verbs cannot appear in this type of passive construction either (cf. (34b)), whereas unergatives can (cf. (34d)).

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[1]Different names also used for this construction include *capabilitative passive*, *passive of incapacity*, *inability passive* and *capacity passive* (Richa, 2008:61).

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Richa (2008:61)

(34) a. basic unaccusative:

ci:ni: pɑni mɛ̃ gʰulti hɛ
sugar water in dissolve-HAB.F be-PRS

'Sugar dissolves in water.'

b. *unabilitative passive:

*ci:ni:-se pɑni mɛ̃ gʰulɑ nəhĩ: gəjɑ
sugar-INS water in dissolve-PFV NEG PASS-PFV

*'Sugar was not able to dissolve (itself).'

c. basic unergative:

ɟoʃuɑ cəl rəhɑ hɛ
Joshua walk PROG be.PRS

'Joshua is walking.'

d. unabilitative passive:

ɟoʃuɑ-se cəlɑ nəhĩ: gəjɑ
Joshua-INS walk-PFV NEG PASS-PFV

'Joshua was not able to walk.'

According to Richa (2008:35), the Hindi vocabulary contains mostly *tatsam* (borrowed from Sanskrit and preserved intact) and *tadbhav* (derived from Sanskrit and modified) words. The verbs in examples (33) and (34), *dɔɽna* ('run'), *ʈu:ʈna* ('break'), *gʰulna* ('dissolve') and *cəlna* ('walk'), all have preserved Sanskrit roots (Richa, 2008). The Sanskrit passive participle that is considered to be the origin of the ergative construction in Hindi must generally be translated as a passive, but in the case of most intransitive verbs, the participle may have an active sense: *sa tatra gataḥ* means 'he went there' (Hart, 1984:132).

It is possible that the reanalysis of a passive construction as an active ergative construction never took place for most intransitive verbs and because of this, intransitive verbs do generally not allow for ergative case marking on their subject. The minority of intransitive verbs that—in combination with the passive participle—did allow for a passive reading in Sanskrit, may well have been the (preserved or modified) intransitive Hindi verbs that allow for an ergative subject.

4 Conclusion

The purpose of this paper was to answer the questions why ergative case marking in Hindi is limited to perfective aspect, and why some verbs deviate from the expected (ergative) pattern. In perfective sentences, ergative case is assigned to the subject of 'highly transitive' verbs, but in addition, it is optional to mark the subject of some transitive and unergative intransitive verbs with ergative case. I have tried to combine some different views to provide a possible explanation for the fact that some verbs in Hindi allow for optional ergative case marking on their subject.

As discussed in chapter 2, the agent is marked with ergative case to indicate the starting point of the event in perfective tenses (DeLancey, 1981), but morphological case may be omitted for economical reasons (Lestrade & de Hoop, to appear). Since verbs in Hindi always agree with the structurally most prominent argument that is not overtly marked for case, it is clear which one of the two arguments of a transitive verb is the subject—even if both are in their unmarked form. Moreover, since the subject is the sole argument of an unergative verb, it is evident that ergative case marking is not employed to distinguish between arguments. Instead, it has an identifying function: when there is optionality, marking the subject with ergative case indicates that the action was performed deliberately (Mohanan, 1994; Butt, 2001; Bhatt, 2007). Economy helps explain this optionality in the case for the subject: only if it is (for conversational purposes) important that the hearer knows the action was performed deliberately, the subject receives ergative case marking.

In chapter 3, I discussed that the active, ergative construction found in perfective aspect in Hindi is considered to be the result of a reanalysis of a former passive construction. Because the inflectional perfect was lost in Old Indo-Aryan, the scope of a Sanskrit passive construction widened to take over the role of the inflectional perfect. This eventually lead to the unmarking of the passive voice of this construction. For most intransitive verbs, however, this construction already had an 'active sense'; a reanalysis of the construction would thus not be necessary. This may be reflected in the case marking of Hindi subjects: unaccusative verbs do not allow for an ergative subject and cannot be passivized, but some unergative verbs do.

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