

# Ergativity, DOM-triggered Agreement and Alignment Shift in Western Indo-Aryan

Pritha Chandra and Roberta D'Alessandro

February 7, 2024

## Abstract

This paper investigates alignment shift, specifically an ongoing shift from ergative alignment to accusative alignment, with an empirical focus on some Western Indo-Aryan (WIA) varieties. Ergativity in WIA is a fragmented phenomenon. In this study, we identify some language areas on the map that exemplify different stages of language change, and consider them for a comprehensive study of ergativity attrition, and possible alignment shift. We show that there is a strong correlation between the emergence of agreement with a differentially-marked (DOM) object and alignment attrition; the DOM-triggered agreement on *v* is identified as the starting point of ergative attrition, culminating in an accusative-alignment. Since DOM interacts syntactically with alignment, it is in fact a syntactic process, belonging to narrow syntax, and not a post-syntactic or lexical marking of some semantic features.

## 1 Introduction

Since its formulation by Comrie (1978), Dixon (1979) a.o., ergativity has been at the center of linguistic debate in generative research. This paper investigates ergative alignment shift, specifically, an ongoing shift from ergative alignment to accusative alignment with an empirical focus on some Western Indo-Aryan (WIA) varieties.<sup>1</sup> We present evidence of a strong correlation between the emergence of agreement of the verb with a differentially-marked object and alignment shift. The shift is, in our view, due to a change in the licensing of the arguments: from *v* licensing

---

<sup>1</sup>We refer to the nominative-accusative alignment as accusative alignment in this paper.

the external argument through an inherent ergative case, to *v* licensing the internal argument through accusative case. Differential Object Marking (DOM)-driven agreement sparks therefore a general shift from inherent to fully structural case assignment. Since DOM interacts syntactically with alignment, we maintain that it is in fact a syntactic process, belonging to narrow syntax, and not a post-syntactic or lexical marking of some semantic features. We also provide further evidence for the syntactic status of DOM.

Methodologically, we build on an assumption that is widely accepted in traditional dialectological studies, i.e., that different dialects in a geographic continuum may embody different stages of evolution of a parent language. In this study, the change in alignment is not traced through the observation of the diachronic path followed by one language in isolation, but through a microcomparative approach, with different varieties of the same language family compared to each other to identify the trigger of alignment shift. It is, in a way, the application of the classical philological "collation" methodology to syntactic structures.

Dialects can change because of external factors, such as contact with other languages, or internal migration, and obviously, not all variants of a language change at the same speed: some varieties are more conservative than others. This means that not all that is found synchronically is necessarily a mirror image of the diachronic development of a phenomenon in the past. There are dialects that embody some changes that never happened in the past, and some that mirror the diachronic evolution of one language. We don't take this approach as a reconstruction of the evolution of a given language through the centuries; rather, we compare different microvariational configurations or "deviations" from the standard path to identify the causes of change of one syntactic phenomenon and draw a microdiachronic path of the evolution of such phenomenon. The methodology of comparing varieties of the same family to gain insights into diachronic change is widely used in comparative/microvariational dialectological research in Romance (see for instance Ledgeway (2012), Kayne (2000), D'Alessandro (2021)), Germanic (Ackema et al. (2012), Barbiers, van Koppen, Bennis, and Corver (2016)), and Indo-Aryan (Deo and Sharma (2006), Deo (2017a); Butt and Deo (2017)).<sup>2</sup> In the spirit of comparative microvariation, the Germanic dialectological tradition uses the motto *Aus dem räumlichen Nebeneinander ein zeitliches Nacheinander* (roughly, "from geographical proximity (you get) a diachronic sequence"). For Indo-Aryan too, it has been argued that dialectal variation reflects a directionality of language change, leading to a slow, progressive loss of marked variants, including the ergative marking on the subject in

---

<sup>2</sup>For alignment changes in Iranian languages, see Haig (2008)

many WIA languages.<sup>3</sup> To quote Kayne (2000: 5):

Comparative work on the syntax of a large number of closely-related languages can be thought of as a new research tool, one that is able of providing results of an unusually fine-grained and particularly solid character. If it were possible to experiment on languages, a syntactician would construct an experiment of the following type: take a language, alter a single one of its observable syntactic properties, examine the result to see what, if any, other property has changed as a consequence. If some property has changed, conclude that it and the property that was altered are linked to one another by some abstract parameter.

WIA languages offer a perfect natural experimental setting for the microcomparative study of ergativity.

The rest of the article is organized as follows. First, section 2 provides an introduction to DOM and agreement, which will be needed for understanding the analysis. Then, after a brief summary of the main features of WIA ergativity, especially with reference to Standard Hindi in section 3, we move on to provide an overview as comprehensive as possible of case, alignment and agreement patterns in a number of WIA languages, putting special emphasis on DOM-triggered agreement. Section 4 includes data from languages where ergativity attrition is already underway due to DOM-triggered agreement, but is unevenly distributed across different domains. Section 5 presents languages from the same area, where DOM is present in the perfective but it does not trigger agreement with the verb, and shows that this configuration does not cause any attrition. This is followed by Section 6, where we examine empirical evidence that languages without DOM also do not present any attrition. Section 7 presents first an overview of the descriptive patterns found in the languages examined, and then their structural counterparts. It is shown how languages with DOM-verb agreement are at different stages of ergativity shift, stemming from modified case configurations. Our full analysis is presented in that section: when DOM fully agrees with *v*, case starts being structurally assigned to the

---

<sup>3</sup>Starting from similar considerations, Aboh and DeGraff (2016), Aboh (2017) argue that diachronic language change, and specifically grammaticalization processes, do not follow a clear and smooth path forward. Rather, a pool of variants is always present in a language at any time, and speakers select one or the other depending on many factors, including extra-linguistic ones. The most frequently-selected variant can finally become the new standard. Such considerations are obviously not new for scholars of language change and change in contact. The spreading of one of the possible variants is a widely-accepted concept in sociolinguistics, starting with Labov (1972), and many others. This paper is precisely the study of variants, identified in minimally-differing grammars.

object. This triggers an alignment shift. Section 8 takes back the analysis of DOM, which we have taken to be syntactic and parasitic on full- $\phi$ -agreement, and presents empirical evidence for DOM being in fact accusative and not inherent dative. Section 9 contains our conclusion.

Unless otherwise stated, the data on selected Gujarati and Rajasthani languages, Harayanvi, Kashmiri and Hindi were collected by one of the authors over several cycles of fieldwork. Data collection happened mainly through questionnaires, and due to restrictions during the Covid-19 pandemic years, was primarily conducted via Skype-interviews and email exchanges.

## 2 DOM, agreement and alignment shift

DOM refers to the marking of a direct object which is characterized by definiteness or animacy, or discourse prominence (Bossong (1985, 1991); Comrie (1989); Diez (1882); Lazard (1984); Meyer-Lübke (1889); Moravcsik (1978) and many others). For illustration, the Standard Spanish sentences are given below: in (1a), the animate object must appear with the prepositional marker *a*, in contrast to (1b), where the inanimate object appears without the morpheme.

(1) Spanish (Ormazabal and Romero 2013: 222)

a. He encontrado <sup>\*(a)</sup> la niña  
 have.1sg found <sup>\*(dom)</sup> def det.f.sg girl.f.sg  
 ‘I have found the girl’

b. Spanish

He encontrado <sup>\*(a)</sup> el libro  
 have.1sg found <sup>\*(dom)</sup> defdet.m.sg book.m.sg  
 ‘I have found the book’

DOM often exhibits special semantic effects, such as the animacy effect observed in the Spanish sentence above. It may also encode specificity readings, as one witnesses in Hindi; see (2), where the *-ko* morpheme marks specificity on both animate and inanimate objects. Hindi pronouns, as expected of definite DPs, are always marked with DOM, with one of the two allomorphs: *-ko* and *-e*; see (3).

(2) Hindi

sita-ne laŋki-ko/kitaḅ-ko dekha  
 Sita-erg girl-dom/book-dom see-def

‘Sita saw the girl/book’

- (3) sita-ne usko/use dekha  
Sita-erg her-dom see-def  
‘Sita saw her’

DOM is not a unified phenomenon; it usually starts out as a prominence-topicality marker linked to specific positions and then it spreads to all objects with the same semantics of animacy/definiteness (Iemmolo (2010, 2011), Montaut (2018), but see La Fauci (1988) and Ledgeway (2012) for a different view). DOM very often appears in the form of a marker which is also used for dative case (cf. Romance *a*, which is used as a marker of dative, locative, and DOM in most Romance languages that feature DOM). It has been noted very frequently that DOM-marked objects often attract agreement (for an overview see Nevins, Peti-Stantic, de Vos, and Willer-Gold (2022); Willer-Gold (2022)), or require clitic doubling (itself a sort of agreement, López (2012)). Structurally, we attribute this to the fact that DOM-objects have an additional definiteness/prominence feature (or person/D, according to Bárány (2015) and Kalin (2018)), which needs licensing. *v* in transitive structures does not always have a full  $\phi$ -set; in fact, it usually only features number and gender. When DOM-marking becomes structural, i.e. when DOM spreads to the whole set of objects with an animacy or definiteness feature, we witness the emergence of a definiteness-person feature on *v* itself, which will license the DOM-marked object. This feature has been called in various ways (K, D, definiteness, Person, etc.) and it has been considered either as the head of an independent functional projection (Irimia and Pineda (2019), López Otero (2022)) or a part of the extended *v* projection (Torrego (1984)). The phenomenon of *v*-enrichment and DOM-*v* agreement has been described also for prominence-induced DOM, and called Prominence Agree (Mursell (2018); Willer-Gold (2022)); also in this case, the fundamental ingredient is the presence of a layer that makes the object visible for  $\phi$ -agreement.<sup>4</sup> At the end of what has been described as a grammaticalization process from prominence to case marker (Iemmolo (2010), and more recently D’Alessandro (2022)), DOM serves the double function of marker of animacy/definiteness and case marker. We will return to the discussion of case marking in WIA DOM in section 8.

One important point to consider at this point is that, despite the fact that DOM triggers *v* enrichment, DOM and  $\phi$ -agreement between a DOM-marked object and *v*

---

<sup>4</sup>According to Kalin (2018), in fact, DOM is a special case of Person feature, so it is not really a case marker. In fact, we do not see a reason to keep the two separate: person-Agree has been often related to case assignment, especially for the EA (Sigurðsson (1996)). We do not really need to ascertain the exact nature of this feature here: what matters is that its presence creates a full  $\phi$  set on *v*, which triggers full- $\phi$  Agree, which in turn triggers structural Case assignment.

do not always co-occur. Many languages, like those exemplified below in 5, exhibit DOM but do not have DOM-v agreement. What we will show in this work is that when they do, when the DOM-marked object starts agreeing in full with the verb, ergative alignment starts shifting.<sup>5</sup>

In short, the presence of DOM may trigger v enrichment. If v is enriched by this additional prominence/definiteness/person feature, it will be  $\phi$ -complete for purposes of case assignment, under the assumption that in order to obtain structural case licensing full and overt  $\phi$ -agreement is necessary (Chomsky, 1995). Case being parasitic on full  $\phi$ -agreement, v will start licensing the IA with which it Agrees, creating attrition in the ergative alignment. The IA will no longer need to be licensed by T as it will be structurally assigned case by v. In turn, T will look for a new goal, which is the external argument. Nominative alignment will result. The details of this shift will be presented in section 7. Before that, we start with a step-by-step exemplification of the WIA facts.

### 3 Ergativity

Ergativity refers to the phenomenon, present in many languages of the world, whereby the external argument/subject (A) of a transitive verb forms a natural class on its own, which is separate from the class including the transitive object (O) and other kinds of subjects (S), including unaccusative subjects, that are usually marked as absolutive. Ergativity differs from another widely-found alignment pattern in the world's languages, the accusative alignment, where both A and S, independently of their nature, are opposed to O.<sup>6</sup> The two alignments are schematized below in Table (1).

Indeed, ergativity is much more complex than this brief introductory note explains, and rarely features in all of the language paradigms. In languages that feature it, ergativity can be further confined to one particular tense or aspect; to one class of

---

<sup>5</sup>Notice that the correlation between the presence of DOM and alignment shift has been observed for another group of languages, namely the Romance group. According to La Fauci (1988) and Ledgeway (2012), late Latin was an active/stative-aligning language, meaning that all internal arguments patterned together syntactically (independently of whether they were subjects of unaccusatives or *bona fide* objects) to the exclusion of external arguments, which also patterned together. Structurally, this can be rephrased by saying that v licensed all IAs, while T licensed all EAs. At some point, those IA objects that could be mistaken for subjects, i.e. animate objects especially, started being singled out and differentially marked. In this way, a division was created in the IA field animate objects and subjects, which in turns started patterning with EA subjects.

<sup>6</sup>A third alignment, the active/stative alignment is also very widespread. We will not consider it here as it is not directly relevant to the phenomena at issue.

a.	Accusative	A/S-nom	O-acc
b.	Ergative	A-erg	S/O-abs

Table 1: Alignments

nouns or pronouns; to the topicality of the arguments or to their prominence based on person and animacy, among others (see Coon, Massam, and Travis (2017) for a comprehensive overview).

There is a considerable amount of research on the question of whether ergative is a structural or an inherent case, where inherent case is associated with an argument-predicate relation and structural case is linked to functional heads. Inherent ergative assignment happens either strictly through s-selection, i.e. ergative is assigned to the Agent/External Argument (EA) of the verb (Woolford (1997, 2006)), or it also involves c-selection between *v* and *V* and their complements (Oyharçabal (1992), Davison (2004), Mahajan (2012)). In short, inherent ergative is assigned at the level of the *vP*/*VP* that encodes argumenthood and theta-relations (also see Mohanan (1994), Anand and Nevins (2006) and Wiltschko (2006) for similar views). The alternative approach, as presented in Levin and Massam (1985), Murasugi (1992), Bobaljik (1993), Laka (1993, 2006), Bittner and Hale (1996a, 1996b), Bobaljik and Branigan (2006), Rezac, Albizu, and Etxepare (2014) among others, presents ergative as a structural case that is assigned by T, checked under the same conditions as other structural cases including the nominative. WIA ergative is generally taken as an inherent case, and that is the assumption we will also make. We will return to this assumption in more detail in the next section.

### 3.1 Western Indo-Aryan Ergativity

Indo-Aryan languages form a subgroup of languages with ancestral links to the Indo-European family. Spoken primarily in India, Pakistan, Bangladesh, Nepal, and Sri Lanka, the Indo-Aryan family is broadly divided into sub-families including Dardic, Western Indo-Aryan, Eastern Indo-Aryan and multiple other sub-divisions, which we avoid delving into at this moment. Here, we will exclusively concentrate on varieties spoken in India. A map of India where the WIA languages are predominantly used is given in Figure (1).

Ergative patterns in WIA languages have generated a lot of interest among researchers across different sub-fields, including typology, historical and theoretical linguistics (Bhatt (2007), Butt (2006); Butt and Ahmed (2011), Davison (2004), Kachru (1987), Khokhlova (1992), Kachru and Pandharipande (1978), Mahajan (1990, 2012),

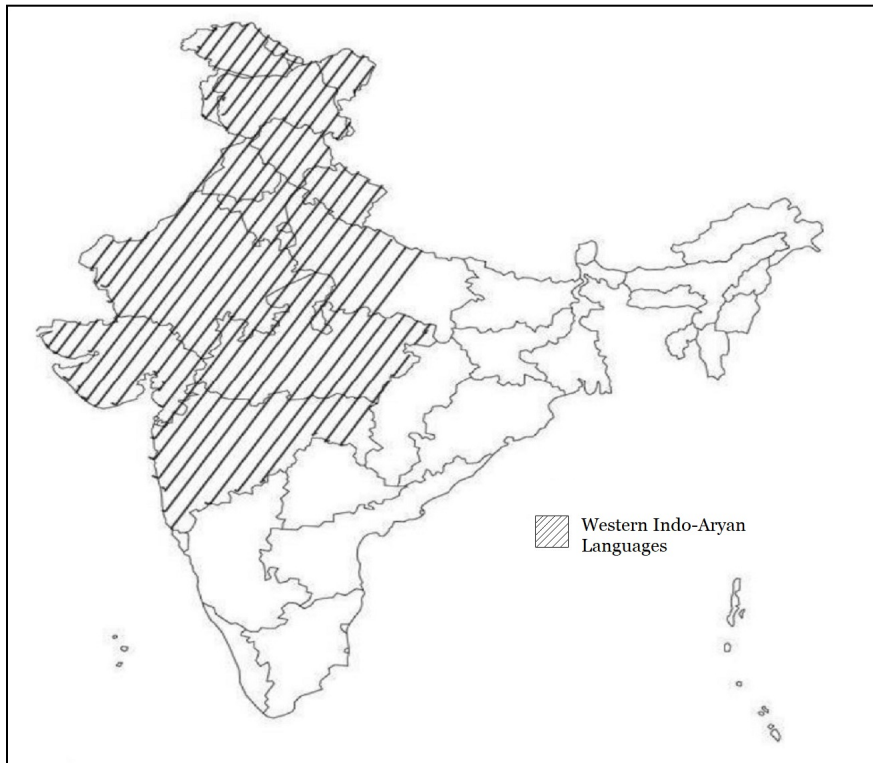


Figure 1: Western Indo-Aryan area in India

Mohanani (1994), Subbārāo (2012), Patel-Grosz (2021) Deo (2017b) among many others). WIA ergativity is sensitive to aspect; as illustrated by the Hindi examples in (4), ergative marking appears on agents of transitives and some unergative verbs in the perfective. With all other aspects, the agents are valued (unmarked) nominative, as shown in (5a-5b). Unaccusative subjects are always default marked (5c).<sup>7</sup>

<sup>7</sup>Punjabi and Marathi have a further person split in the perfective: only 3rd person agents are marked ergative (i). The imperfective remains nominative-accusative. We do not discuss these cases further.

i Punjabi (Kaur (2016): 63)

maĩ/tuu/o=ne                      rotti      khaaddii  
 I.1SG.OBL/2SG.OBL/3SG=ERG bread.F.SG eat.F.SG.PFV

'I/you/(s)he ate bread'



- (4) Hindi
- a. laŋke-ne roṭii khaay-ii  
 boy-erg bread.f eat-f.prf  
 ‘The boy has eaten bread’
- b. laŋke-ne/laŋki-ne chhiik-aa  
 boy-erg/girl-erg sneeze-prf.def  
 ‘The boy/girl sneezed’
- (5) Hindi
- a. laŋkaa roz roṭii khaat-aa he  
 boy everyday bread.f.acc eat-m.sg be.3.sg  
 ‘The boy eats bread everyday’
- b. laŋkaa roz chhiikt-aa he  
 boy everyday sneeze-m.sg be3.sg.ipfv  
 ‘The boy sneezes everyday’
- c. laŋkaa gir gay-aa  
 boy fell go-3.sg.m.pfv  
 ‘The boy had fallen down’

The WIA ergative case is tied closely to agents, which researchers take as evidence that it is an inherent rather than a structural case.<sup>8</sup> More evidence for its inherent nature comes from the obligatory wide scope reading of the ergative subject, which according to Anand and Nevins (2006) is a property unique to nominals that do not agree with T. Since ergative case is licensed by v, and has no case/agreement relations with T, ergative subjects fail to reconstruct back to a vP-internal position, unlike the nominative subjects that agree with T and are able to take both wide and inverse scope. These two properties confirm that the WIA ergative is an inherent case assigned to EA by v/V. Once assigned an inherent ergative case, the EA moves to the specifier of TP for EPP reasons, which enables it to bind subject-oriented anaphors, show anti-pronominal orientation and control into participial adjuncts (cf. Kachru and Pandharipande (1978), Mahajan (1990), Mohanan (1994), Anand and Nevins (2006)).<sup>9</sup>

We represent a basic ergative alignment in the perfective proposed by Anand and Nevins in (6). This scheme is to be read as follows: v assigns inherent ergative case

---

<sup>8</sup>WIA ergativity is closely associated with light verbs, see Butt (1995), Mahajan (2012) for discussion

<sup>9</sup>For sake of brevity, we will not reproduce all the arguments presented in support of these claims, and will instead direct the reader to the vast literature on WIA ergativity

to the subject, which becomes morphologically marked as ergative ( $DP_{erg}$ ), while T assigns absolutive/default case to the object.<sup>10</sup>



Note that object agreement is in number and gender, with the agreement morphology spreading over the verb and other items when present, including the light verb and the past tense auxiliary.

We broadly adopt the structure in (6), where  $v$  and T divide their duties between the subject and the object respectively. As we discuss below, some WIA languages with DOM-triggered agreement display signs of a shift towards the accusative alignment. On the assumption that DOM is a marker of definiteness, the presence of DOM-marking means that an active definiteness or person feature becomes visible on  $v$  (following Barany (2015), and  $v$  eventually develops a full  $\phi$  set. At this point,  $v$  can assign structural (accusative) case to the object, given its  $\phi$  completeness. Since the subject is no longer case-marked due to the reanalysis of the  $v$  head, T probes down and Agrees Chomsky (2001) with it and values it as nominative. It is important to bear in mind that change takes place gradually; at any given point in time, more than one structure is present in the language. In other words, change does not happen in one fell swoop, but usually starts from one "corner" and expands to all parts of grammar. We will indicate the co-existing patterns for every language where relevant, but most of the time optionality will be at work; two or more structures will be used at the same time. Especially with lower standardized languages, this is expected: optionality is part of change (see Kroch (1994) for discussion of equivalent variants that are in unstable competition within a language).

## 4 DOM-triggered agreement & ergativity attrition

Our focus in this section is on languages that exhibit ergativity attrition to different degrees; all of them also have DOM-triggered phi-agreement. These are languages that are spoken in the states of Gujarat and Rajasthan; Figure (2). The varieties we survey in this section are: Surati Gujarati, Ahmedabad/Vadodara Gujarati, Shekhawati, Bagri, Wagdi, Kutchi, Kutchi Gujarati, Udaipur and Jaisalmer

---

<sup>10</sup>We will mark morphological agreement as a subscript next to the DP; case assignment will be indicated on the connectors instead.

Marwari. Since some of them are only minimally different, we only briefly allude to them.

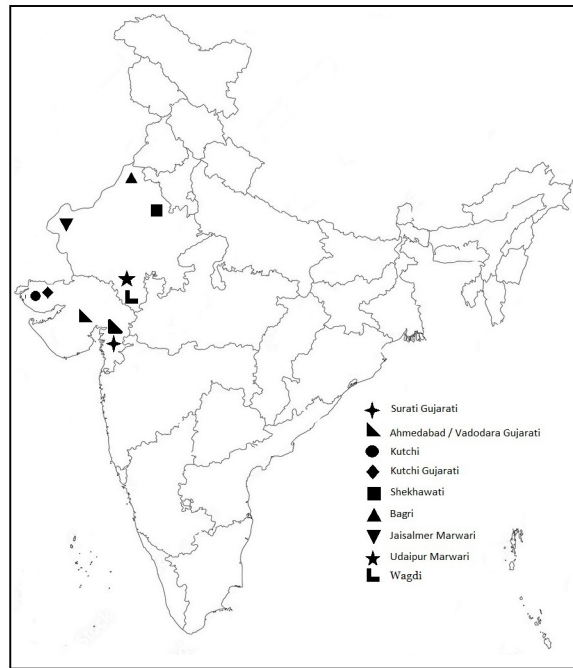


Figure 2: Areas with ergative attrition

We start with Surati Gujarati, where we observe three different patterns in the perfective.

## 4.1 Ergative attrition in negative clauses

### 4.1.1 Surati Gujarati

Spoken in the city of Surat, Surati Gujarati has an ergative marker: *-e*. Ergative case-marked subjects fail to trigger verbal agreement, while unmarked objects trigger agreement on the verb (see Joshi (2021, 2023) for an extensive discussion). The past perfective does not permit overt auxiliaries. Up to this point, the language displays properties that are typical of WIA languages such as Hindi.<sup>11</sup>

<sup>11</sup>Present perfective structures allow the auxiliary to appear overtly, but with no phi-agreement. Agreement with auxiliaries is possible only in imperfective constructions (Joshi 2021:53-54).

(7) Surati Gujarati (Joshi 2021: 50)

mhe chopdi vaach-i  
I-erg book.f.sg read-pfv.f.sg

‘I read (and finished) a book’

(8) Surati Gujarati (Joshi 2023: 18)

ram-e roti khaa-di  
Ram.m.sg-erg bread.f.sg eat-pfv.f.sg

‘Ram ate a bread’

Deviating from the expected WIA ergativity patterns, Surati Gujarati also allows DOM-triggered  $\phi$ -agreement (DOM- $\phi$ , henceforth). In the following example, for instance, a [+animate] object, overtly marked, triggers agreement on the verb.

(9) Surati Gujarati (Joshi 2023: 18)

vaagh-e bakri-ne khaa-dhi  
tiger.m.sg-erg goat.f.sg-dom eat-pfv.f.sg

‘The tiger ate the goat’

While the presence of DOM- $\phi$  is not reported to directly affect ergative alignment in declarative (affirmative) sentences like the ones cited above, there are clear signs of an ongoing ergative attrition in negative constructions in the perfective. Specifically, Surati Gujarati exhibits optional ergative attrition in negative *-nho* constructions, with some interesting changes in agreement patterns that we now turn our attention to.

Consider first (10): where the subject is marked with the ergative case *-e*, while the unmarked object triggers agreement on the negative particle and the verb.

(10) Surati Gujarati (Joshi 2023: 4)

shahrukh-e gaadi nho-ti jo-yi  
Shahrukh.m.sg-erg car.f.sg neg-past.f.sg see-pfv.f.sg

‘Shahrukh had not seen the car’

Co-existing with (10) is another structure (11), where the subject is unmarked and controls gender and number agreement on the verb. The unmarked object, on the other hand, continues to trigger agreement on the negative particle. The same

pattern is also observed with DOM- $\phi$  with the negation particle, as shown with a [+animate] object in (12).<sup>12</sup>

(11) Surati Gujarati (Joshi 2023: 4)

shahrukh                    gaadi    nho-ti                    laav-yo  
 Shahrukh.m.sg.nom car.f.sg neg-past.f.sg bring-pfv.m.sg

‘Shahrukh had not bought the car’

(12) Surati Gujarati (Joshi 2021: 1)

shahrukh                    bakri-ne                    nho-ti/??nho-to                    laav-yo  
 Shahrukh.m.sg.nom goat.f.sg-dom neg-f.sg/neg-m.sg bring-pfv.m.sg

‘Shahrukh did not bring the goat (but something else)’

A third alternative is where the unmarked subject agrees with both the negative particle and the verb (13).

(13) Surati Gujarati (Joshi 2023: 4)

shahrukh                    gaadi    nho-to                    laav-yo  
 Shahrukh.m.sg.nom car.f.sg neg-past.m.sg bring-pfv.m.sg

‘Shahrukh had not bought the car’

From these facts, it is evident that Surati Gujarati has initiated DOM- $\phi$ , and concurrently, optional ergative marking attrition in negative constructions in the perfective has also set in. There are currently three patterns co-existing in the language in the negative domain: the first which retains the ergative pattern, the second with a null subject that has partial control over agreement, and a third one with a null subject with complete control over agreement, i.e., one where subject-triggered agreement completely supersedes object agreement.<sup>13</sup> The three patterns are schematized below:

---

<sup>12</sup>Surati Gujarati also uses *nahi* and *nathi* as negative particles, each with its own distinct grammatical features. Joshi (2023) also presents empirical evidence to show that *nhoti* is not an amalgam of the negative *nho* and the auxiliary.

<sup>13</sup>While Joshi glosses unmarked subjects in the perfective as nominative, they do not pattern exactly like unmarked nominative subjects in the imperfective. In present habitual sentences, the verb and the auxiliary agree in person with the unmarked subject. There is, however, no person agreement with unmarked subjects in the perfective. We take this to imply that in the initial phases where the subjects drop the ergative morpheme, they do not immediately enter into case/agreement relation with T; i.e., they are not yet nominative.

(14) Surati Gujarati Case Patterns with NEG

- Option 1: Subject erg, Object agrees with Neg and V  
Option 2: Subject null, Subject-v agreement, Object-neg agreement  
Option 3: Subject null, Subject-v-neg agreement

## 4.2 Person-dependent ergative attrition

### 4.2.1 A/V Gujarati

Gujarati spoken in the cities of Ahmedabad and Vadodara (A/V Gujarati, also known as Standard variety) has ergative marking on 1st person singular (18) and 3rd person (singular/plural) subjects (16-17). The objects, marked or unmarked trigger verbal agreement.

(15) A/V Gujarati

men sitaa-ne jo-yii  
I.erg Sita-f.sg-dom see-past.f.sg

'I saw Sita'

(16) A/V Gujarati (Mistry 1997; cited in Bhatt 2007: 5)

seeta-e kagal vac-yo  
sita.f.sg-erg letter.m.sg read-pst.m.sg

'Sita read the letter'

(17) A/V Gujarati (Mistry 1997; cited in Bhatt 2007: 5)

seeta-e raj-ne pajav-yo  
sita.f.sg-erg Raj.m.sg-dom harass-pst.m.sg

'Sita harassed Raj'

There are signs of alignment shift in the 1st and 2nd person plural domains, as shown in the following example, where the subject 'we' is marked nominative, and triggers plural agreement (Mistry (1997), Bhatt (2007), Wunderlich (2012)).<sup>14</sup>

(18) A/V Gujarati

---

<sup>14</sup>Note that 1st and 2nd person plural pronouns *ame* and *tame* are syncretic in the perfective and imperfective, whereas the 1st and 2nd person singular pronouns have distinct forms.

ame        sitaa-ne        jo-yu  
 We.nom Sita.f.sg-dom see-past.pl  
 'We saw Sita'

A/V Gujarati is therefore slowly shifting away from the full ergative alignment, much like Surati Gujarati, with the difference that while the latter has the change happening with negative particles, the former has it on certain pronouns. The shift is still incipient since the ergative marker hasn't dropped off all DPs.

#### 4.2.2 Shekhawati

Similar patterns are found in other non-standard languages in the two states, but the extent of change varies. We first consider Shekhawati, spoken in the Rajasthan districts of Churu, Jhunjhunu and Sikar. Shekhawati exhibits DOM-triggered agreement, and has inconsistent ergative marking not just with 1st and 2nd person subjects (19a), but also with 3rd person subjects (19b). The object always triggers agreement, irrespective of whether it is overtly marked or left unmarked (cf. Stroński (2010a, 2010b)).<sup>15</sup>

- (19) a. Shekhawati (Stroński 2010a: 241)  
       me/tu khano        khajo  
       I/you food.m.sg. eat.ppp.m.sg  
       'I/you ate'
- b. Shekhawati (Stroński 2010a: 244)  
       sita mha-ne dekhja  
       Sita we.dom see.ppp.m.pl  
       'Sita saw us'

#### 4.2.3 Bagri

The second language with similar alignment patterns is Bagri, which is spoken towards the northwest of the Shekhawati-speaking area of Rajasthan. Gusain (1999) observes that Bagri 1st and 2nd person subjects are compulsorily unmarked in the perfective, indicating its ergative attrition is more pronounced than in Shekhawati, where the ergative marker on 1st/2nd pronoun is inconsistent, but not permanently

---

<sup>15</sup>As expected, unmarked nominative subjects in the imperfective control agreement on an overt auxiliary.

lost. Consider the following sentence with an unmarked 1st person subject and a marked object that triggers verbal agreement.

(20) Bagri (Gusain 1999: 112)

me chore-ne lakari syu kut-yo  
I boy-DOM stick with beat-pst.m.sg.

‘I beat the boy with a stick’

3rd person subjects, on the other hand, are sometimes marked overtly with an ergative case and sometimes left unmarked (21a-21b).

(21) a. Bagri (Gusain 1999: 122)

ram bi-ne kut-yo  
Ram he-DOM beat-pst.m.sg.

‘Ram beat him’

b. Bagri (Gusain 1999: 92)

ban kitab padd-i  
s/he.erg book.f.sg. read-pst.f.sg.

‘S/he read the book’

#### 4.2.4 Wagdi

Last, the language Wagdi is also reported to be losing ergativity. It presents an interesting case of a language that exhibits considerable variation within its sub-varieties. Spoken at the borders of Gujarat and Rajasthan, and considered "structurally an intermediary stage between Gujarati and Rajasthani" (Zograph (1982): 66), some varieties of Wagdi retain ergativity, others only optionally mark their subjects with the ergative case and some even allow Nepali-type agreement with ergative marked subjects (see Phillips (2012)).

### 4.3 Ergative attrition with some ergative remnants

#### 4.3.1 Kutchi

The next language we consider in this section is Kutchi, which is spoken in the state of Gujarat. Kutchi is also reported to have lost the ergative marker on the subject, having dropped it from all subjects in the perfective. Interestingly, Kutchi retains ‘ergative remnants’ in agreement (Keine, Nisar, and Bhatt (2014)).



To elaborate, both perfective and imperfective subjects are always unmarked. In the intransitive constructions across all aspects, the subjects trigger agreement on the verb in person, number and gender. However, agreement asymmetries show up with transitive perfective subjects, dependent on the person and number values of the subject. When the transitive perfective subject is 1st person singular, it fails to trigger agreement on the verb-auxiliary complex, which instead agrees with the object. For instance, in (22), the verb and the auxiliary carry the masculine and plural values of the object, not the singular value of the unmarked subject. When the subject is 1st person plural, as illustrated in (23a-23b), the verbal morphology is instead, either controlled by the subject or the object.

(22) Kutchi (Keine, Nissar and Bhatt 2014:253-255)

a:ũ hu tʃa:po vā:tʃ-yo a:y / vo  
 I that newspaper.m read-pfv.m.sg be.pres.sg / be.pst.m.sg

‘I (masc/fem) have/had read that newspaper’

(23) a. asĩ /pa:ŋ nibandh /kavita: lakh-ya: va: /  
 we.excl /we.incl essay.m /poem.f write-pfv.pl be.pst.pl /  
 aiyũ  
 be.pres.1pl

‘We have/had written an essay/poem’

b. asĩ / pa:ŋ kavita: lakh-ai vi: /  
 we.excl / we.incl poem.f.sg write-pfv.f.sg be.pst.f.sg /  
 a:y  
 be.pres.sg

‘We have/had written a poem’

The ‘ergative-like agreement’ feature is strongest when the subject is 1st person singular. Ergativity weakens when the subject is plural: object agreement is then optionally replaced by subject agreement, as we would expect with nominative subjects.

Ergativity also disappears when the subject is a 2nd or a 3rd person pronoun. In such cases, a singular subject triggers number agreement and a plural-subject triggers both person and number agreement as shown below. Object agreement is obligatorily ruled out. These patterns are shown below:

(24) (Keine, Nissar and Bhatt 2014:251-252)

a. Ram / Rina ghaṇe tʃopriyũ vā:tʃ-e ve  
 Ram.m / Rina.f many book.f.pl read-pfv.sg be.pst.sg

- ‘Ram/Rina had read many books’
- b. aĩ hu tʂopri: vā:tʂ-ya: ayo / va:  
 you.pl that book read-pfv.pl be.pres.2pl / be.pst.pl  
 ‘You (masc/fem) all read that book’

Thus, Kutchi shows accusative alignment in the intransitive domain, while its transitive domain is still undergoing change. For the ongoing shift, the language has employed person and number values, with variable results. This process in Kutchi is very similar to what we observed in A/V Gujarati, Shekhawati etc., but Kutchi seems to be in a more advanced stage than these languages with regard to the loss of ergative marker on the subject. Another property of Kutchi that puts it in sync with other languages in the area is its DOM-triggered agreement. In the perfective, objects are optionally marked for case and agreement on the verb. Keine et al (2014) do not discuss DOM-triggered phi-agreement in detail but allude to this feature in a footnote in their paper (fn. 7, pp. 14). From the available information we have regarding DOM in Kutchi, it seems that just like other languages in the area, DOM-triggered agreement is another defining property of the perfective in this language too.

The case and agreement patterns for Kutchi perfective transitives are summarized in (25):

- (25) a. 1sg        Subj    Obj    V-Obj<sub>phi</sub>  
 b. 1pl        Subj    Obj    V-Subj<sub>phi</sub> /-Obj<sub>phi</sub>  
 c. 2sg/3sg    Subj    Obj    V-Subj<sub>phi</sub>-sg  
 d. 2pl /3pl    Subj    Obj    V-Subj<sub>phi</sub>-2pl /3pl

## 4.4 Almost completed alignment shift

### 4.4.1 Kutchi Gujarati

The next language we consider is Kutchi Gujarati, which is spoken in the Kutch area of Gujarat and is in contact with other Gujarati varieties (Grosz and Patel-Grosz (2014) for extensive discussion on the agreement patterns in the language). Kutchi Gujarati has already dropped its ergative marking in the perfective but continues to exhibit simultaneous subject and object verbal agreement. A special feature of this language that sets it apart from all the other languages discussed so far is that it has an overt auxiliary that agrees in person with the unmarked subject.

To elaborate, Kutchi Gujarati has no ergative marking on the subject in perfective constructions. Instead, a rather muted ergative alignment can be inferred from the agreement pattern: the subject shows person agreement with the auxiliary and the

marked object shows number and gender agreement with the verb. Consider the future perfective sentence (26a) alongside the future imperfective sentence (26b).<sup>16</sup>

- (26) a. Kutchi Gujarati (Patel-Grosz and Grosz 2014: 222-223)  
 hu chokra-ne jo-y-a ha-is  
 I boys-dom see-pfv-pl aux-fut.1sg  
 ‘I will have seen the boys’
- b. Kutchi Gujarati (Patel-Grosz and Grosz 2014: 222-223)  
 hu chokra-ne jo-th-i ha-is  
 I boys-dom see-ipfv-f.sg aux-fut.1sg  
 ‘I will see the boys.’ (speaker is female)

Kutchi Gujarati has, in short, almost completed the process of ergative attrition.

#### 4.4.2 Udaipur Marwari

Moving north, the Marwari spoken in Udaipur city in Rajasthan has the exact same patterns as Kutchi Gujarati. Consider structures (27a-27b): The perfective subject is unmarked. The object is overtly case-marked, and triggers agreement on the verb. The auxiliary carries the  $\phi$ -values of the subject.

- (27) a. Udaipur Marwari (Magier 1983: 250; present perfect)  
 mhaaaai sita-ne dekhii hu  
 I Sita.f-dom saw.f be.1sg  
 ‘I have seen Sita’
- b. Udaipur Marwari (Magier 1983: 250; present perfect)  
 ap sita-ne dekhi ho  
 you.pl Sita.f-dom saw.f be.2pl  
 ‘You have seen Sita’

Udaipur Marwari resembles Kutchi Gujarati (for a comparative study, see Grosz and Patel-Grosz (2014)) in that both have lost the ergative case on the subject but allow optional case-marking on the objects. Both languages also allow multiple agreement, with the verb agreeing with the DOM-object, and the auxiliary agreeing with the subject. It is evident that Udaipur Marwari is also undergoing a movement towards the nominative alignment in the perfective.

---

<sup>16</sup>In contrast, an unmarked subject in the imperfective sentence triggers agreement on both the verb as well as the auxiliary; there is no scope for object agreement in imperfective constructions.

### 4.4.3 Jaisalmer Marwari

Jaisalmer Marwari too has no ergative marker on its subject and it also allows object-triggered agreement, as can be seen in the sentence in (28). However, the auxiliary is not present in this variety, and therefore subject agreement is also missing. This is an important difference that Jaisalmer Marwari has with Udaipur Marwari, which places no such restriction on the appearance of the auxiliary.

(28) Jaisalmer Marwari

John table/ya table-(ne) dekhi/dekhiyo (\*hu)  
John table/this table-(dom) see-f.sg/def (\*be)

‘John had seen a table/this table’

Collating the facts discussed so far, we conclude that ergativity is disappearing at different rates in different languages of Gujarat and Rajasthan. Some, such as Surati Gujarati reveal an alignment shift currently taking place with negative *nho* constructions where three different patterns co-exist. Other languages including A/V Gujarati, Shekhawati and Bagri also have ongoing ergative attrition, but the changes are currently restricted to certain pronouns. DOM-agreement with *v* is present in all these languages, and *T* is still weak in the perfective. Then, we have languages such as Kutchi that have lost the ergative case marker on all perfective subjects. However, while the shift to the nominative is complete in the intransitive domain, the language still exhibits ergative alignment in some transitive sentences. At a different stage are languages such as Kutchi Gujarati, Udaipur and Jaisalmer Marwari, where the ergative marker has been obligatorily dropped from all DPs, the unmarked subject triggers agreement in person on an overt auxiliary (when present), while the object continues to control agreement on the verb.<sup>17</sup>

## 5 Stable ergativity with no DOM-agreement

While there is ample evidence of an ongoing alignment shift in the states of Gujarat and Rajasthan, the literature also reports languages and dialects from the same area that exhibit stable ergative systems, much like Hindi. Crucially, these languages are also the ones that do not have DOM-triggered agreement. The languages we consider here are: a variety of Marwari, Udaipur Mewari and Dhundari; Map (3).

---

<sup>17</sup>Needless to mention, the list is not exhaustive, and there may be languages at other stages of ergative attrition. See for instance, Śarmā (1991) who reports Harauti (from Hadoti) that shows optional DOM-triggered agreement, and optional ergative marking.

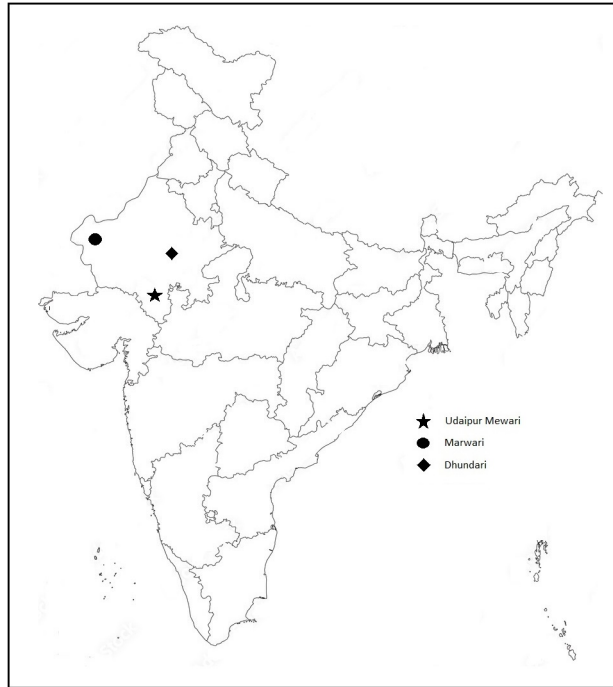


Figure 3: Areas with Stable Ergativity and no DOM-triggered phi agreement

### 5.1 Marwari (Das)

Das (2006) cites one variety of Marwari – illustrated in (29), in which the subject is marked with the ergative *-ne* and the unmarked object triggers number agreement on the verb.<sup>18</sup>

(29) Marwari (Das 2006: 141, 150, cited in Stronski 2010b: 84)

Hari-ne      malik-ne    pasa            pe diya  
 servant-ERG master-DAT money.m.pl find give.m.pl

‘The servant returned money to the master’

Das’ reported Marwari dialect is not an outlier in the region.<sup>19</sup>

<sup>18</sup>Agreement morphology in (29) is carried on the light verb. Light verbs play an important role in WIA ergativity, an issue that we have not been able to address in this paper, but see Butt (2010) and Mahajan (2012) for more on light verbs.

<sup>19</sup>Ahirwati, spoken in Ahirwal, an area at the Rajasthan-Haryana-Delhi border is reported to

## 5.2 Udaipur Mewari

The same patterns are observed for Mewari that is spoken in Udaipur. As reported by Udaar (2016), the subject, as shown in (30), is marked with an ergative case and the animate object is also DOM-marked. The verb, as expected of ergative alignment systems, shows default (m.sg) agreement. This contrasts with the feminine agreement morphology (*hilayi*) triggered when the object is unmarked (e.g., 'Mary').

- (30) Udaipur Mewari (Udaar, 2016: 45)
- j0n-n3    m3ri-n3    hilayo  
John-erg Mary-dom shake.def.perf  
'John shook Mary'

## 5.3 Dhundari

Similarly, Dhundari, spoken in the Dhundhar district of Rajasthan, displays ergativity in the perfective (31a-31c). Perfective transitive subjects are marked with an ergative marker; the object can be unmarked or marked, and the verb obligatorily carries default agreement. Some illustrative examples are given below.

- (31) Dhundari
- a. kæl            meri-næ    ãon-kæ    de    pãi  
yesterday Mary-erg John-dom give hit-def.perf  
'Mary had hit John yesterday'
- b. kæl            bin-næ    ãon-kæ    de    pãi  
yesterday they-erg John-dom give hit-def.perf  
'They had hit John yesterday'
- c. kæl            mænæ    ãon-kæ    de    pãi  
yesterday I-erg John-dom give hit-def.perf  
'I had hit John yesterday'

In a nutshell, some varieties of Marwari, Mewari and Dhundari are going steady on ergativity, with their perfective structures represented as in (32). The subject is marked with ergative case, the object is marked, but fails to triggers verbal agreement.

---

have ergative subject marking just like Das' reported Marwari. Additionally, it has DOM-triggered agreement (Śarmā (1991)), thus presenting a possible counter-example to the main thesis of this paper. The literature does not report any data on whether the ergative marking is optional, especially in the presence of DOM-triggered agreement, which would indicate that ergative attrition is ongoing in this variety. We leave this as a question for future research

(32) Subj-erg Obj- $\emptyset$  /-dom  $V_{default}$

## 6 Stable ergativity with missing/unstable DOM

As we move north in the WIA belt, we find some languages that also resist object marking in the perfective. We discuss two such languages below - Haryanavi and Kashmiri, before ending the note with illustrations from some Pahari dialects that oscillate between object marking and no object marking. These languages are identified in Figure(4).

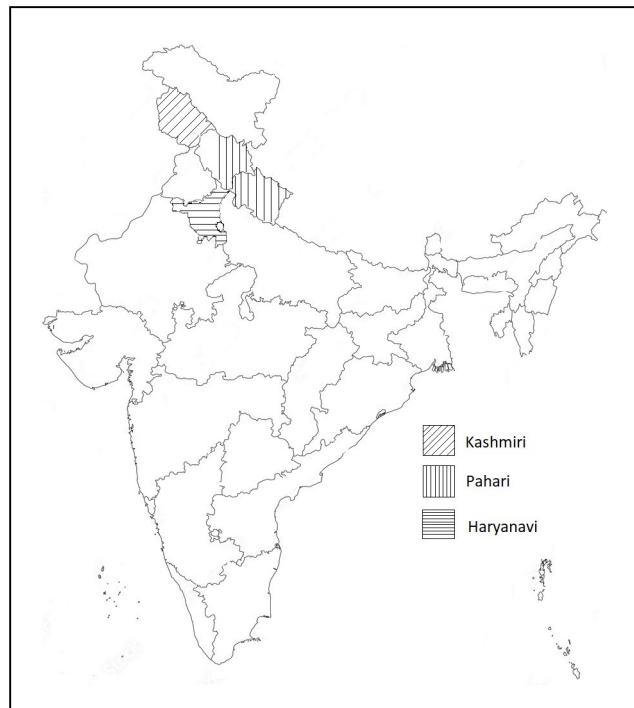


Figure 4: Stable Ergativity with missing/unstable DOM

### 6.1 Haryanavi

Spoken in the state of Haryana that shares its border with both Rajasthan and New Delhi, Haryanavi is mostly associated with a rural population, with Standard

Hindi used for all official purposes including education. This may be one of the primary reasons for Haryanavi retaining a consistent ergative alignment. But there is an important difference between the two languages. Unlike Standard Hindi, where DOM is possible (but not DOM-triggered agreement), Haryanavi disallows object marking/DOM in the perfective. The necessary trigger for alignment shift, namely DOM-triggered agreement is, therefore, absent in this language, with the consequence that the ergativity alignment remains unaffected in the language.<sup>20</sup>

Consider some examples below showing the contrast between perfective (33) and imperfective patterns (34), with the object marked only in the latter.

- (33) Haryanavi  
 John-ne Mary(\*ke/\*ne) dekhii (thii)  
 John-erg Mary-(\*dom) see-f.sg (be.f.sg)  
 ‘John had seen Mary’

- (34) John Mary-ne dekhegaa  
 John Mary-dom see.fut.m.sg  
 ‘John will see Mary’

## 6.2 Kashmiri

Another language that resists both ergative attrition and object marking is Kashmiri (Dardic sub-family), spoken in the union territory of Jammu and Kashmir. One of the many features that Kashmiri shares with other Western Indo-Aryan languages is split-ergativity (Syeed (1984), Wali and Koul (1997)) - this feature is available for both present and past perfect and simple past tense sentences. Relevant illustrations are given below:

- (35) Kashmiri (Wali and Koul 1997: 232)  
 me/tEm’ chu batI kh’o:mut  
 I.erg/he.erg be.3sg.m food.m.sg eat.prf.m.sg  
 ‘I have/he has eaten the food’

- (36) Kashmiri (Wali and Koul 1997: 232)  
 me/tEm’ o:s akhba:r por-mut  
 I.erg/he.erg be.pst.3sg.m newspaper.m.sg read-prf.m.sg

---

<sup>20</sup>Data were collected from 4 districts of Haryana, namely Bahadurgarh, Sampla, Rohtak and Rewari: none of them report any ergativity variation or attrition.



‘I/he had read the newspaper’

- (37) Kashmiri (Wali and Koul 1997: 153)

mohan-an chEl’ palav  
mohan-erg wash.pst.m.pl clothes.m.pl

‘Mohan washed the clothes’

The ergative subjects in all three sentences fail to trigger agreement; verbal agreement is instead controlled by the unmarked object. Importantly, DOM is mandatorily ruled out in the perfective, a pattern similar to Haryanavi. The same prohibition also extends to pronominal objects (38).

- (38) tem chhes bI/\*me vichhmets  
she.erg has I-nom/\*I-dom seen  
‘She has seen me’

Imperfectives do not impose restrictions on DOM, as the following sentences in (39-40) show.

- (39) Kashmiri (adapted from Syeed 1985: 17)

tsI vuc<sup>h</sup>-akh me/\*bI  
you see.fut-2sg I.dom/I.nom

‘You will see me’

- (40) su vuch-i tse/\*tsI  
he see.fut.3sg you.dom/you.nom  
‘He will see you’

### 6.3 Gangoli, Kumaoni and Garhwali

Finally, there are the Eastern Pahari languages, which exhibit dialectal variation with regard to object marking. Some dialects resist DOM completely, others have initiated DOM. In the Gangoli example in (41), the object is unmarked and triggers agreement on the verb, whereas in the Kumaoni example in (42), the object is marked, which results in default agreement on the verb. The same is also true for Garhwali languages spoken in the area (see discussion in Stroński (2010a)). All Pahari variants remain invariably ergative in the perfective.

- (41) Gangoli (Stroński 2010a: 240)

Ram-el    mu dekhju  
Ram-erg. I    see.ppp.1.sg.  
'Ram saw me'

(42) Kumaoni (Stronski 2010a: 240)

Ram-el    mi-ke dekho  
Ram-erg. I-dom see.ppp.m.sg.  
'Ram saw me'

In summary, ergative retention in a WIA language is tied to it either resisting DOM-triggered agreement or to prohibiting DOM completely from the perfective sentences. That way, a case-agreement connection between *v* and the object is not established; *v* instead keeps assigning an inherent ergative case to the EA.

## 7 From *v* to T case-valuation

From section 4, it is evident that there is a lot of variation even among the languages that are on the verge of losing the ergative alignment. While it is impossible to chart out an exact path from the ergative alignment to the accusative alignment, we have been able to note some patterns that currently coexist among WIA languages of Gujarat and Rajasthan and which exemplify the shift just described. In what follows, we provide a summary of all generalizations and patterns, highlighting the structural changes.

### 7.1 Short summary of generalizations and patterns

The patterns we have highlighted are repeated in table 2. As it can be seen, different patterns reflect different possible stages of ergative attrition.

With these descriptive generalizations in mind, we can now turn to examine the stages of alignment attrition, which are embodied by different WIA languages and dialects. One disclaimer is in order: language change is always gradual, and therefore what we observe most is optional structures. However, optionality in syntactic structures in a good proxy to identify language change in progress (see Kroch (1994)). Importantly, while we assume that DOM-objects need licensing and attract agreement, this does not automatically translate into overt morphological agreement on the verb. DOM-marked objects tend to attract agreement cross-linguistically, but

Stage 0	Haryanavi (Kashmiri, Pahari)	no DOM, optional Aux, stable ERG
Stage 1	Hindi, Marwari, Dhundari, Mewari	DOM but no DOM- $\phi$ , Aux, stable ERG
Stage 2/a	Surati Gujarati	DOM- $\phi$ , no Aux, unstable ERG in NEG contexts
Stage 2/b/i	AV Gujarati	DOM- $\phi$ , no Aux, ERG absent in 1/2 pl
Stage 2/b/ii	Shekhawati	DOM- $\phi$ , no Aux, ERG inconsistently used in 1/2/3 p
Stage 2/b/iii	Bagri	DOM- $\phi$ , no Aux, ERG lost in 1/2, inconsistent in 3p
Stage 3	Kutchi	DOM- $\phi$ , Aux, ERG lost but agreement still undecided
Stage 4	Kutchi Gujarati, Marwari, Udaipur Marwari	DOM- $\phi$ , Aux, ERG is lost, Aux agrees with S, V agrees with DOM

Table 2: Summary of structural patterns in WIA

there can be constraints against the overt morphological realization of this agreement. One such constraint is at work in Hindi, where DOM-objects are licensed by T, but where T does not show agreement with the marked argument because of a constraint against agreement with a morphologically marked argument (Bobaljik and Branigan (2006)). In general, we take morphological agreement to be a visible instantiation of a relation between a head and its argument; lack of overt agreement does not automatically translate into lack of this syntactic relation.

## 7.2 Ergativity shift

### 7.2.1 Stage 0

Stage 0: Haryanavi (also, Kashmiri, Pahari); no DOM, optional Aux, stable ERG

Stage 0 of ergativity shift is represented by those languages in which ergativity is stable, and where DOM is absent. One such language is Haryanavi, which never has object marking; other examples are Kashmiri and Pahari.

Stage 0 can be structurally represented as follows<sup>21</sup>

$$(43) \quad [{}_{\text{tp}} \text{DP}_{\text{erg}} [{}_{\text{VP}} \text{DP}_{\text{erg}} [{}_{\text{VP}} \text{DP} \text{ V} ] \text{ v} ] \text{ T} ]$$

### 7.2.2 Stage 1

Stage 1: Hindi, Dhundari, Mewari; DOM but no DOM- $\phi$ , Aux, stable ERG

Stage 1 languages are those in which DOM is present but does not trigger agreement. One such language is Hindi, where any marked argument (and therefore, DOM-marked arguments) cannot agree overtly with the verb; other languages which follow this pattern are some varieties of Marwari, Mewari and Dhundari. Above, we claimed that the presence of DOM marking may trigger the appearance of an additional [person] feature on v. Recall however that prominence Agree is not obligatory, and therefore the emergence of this additional feature and of agreement with a DOM-marked object is also not obligatory. Most languages with DOM do also exhibit agreement of the verb with the object (Nevins et al. (2022)); however, there might be different reasons why a language with DOM does not display this agreement. In the case of Hindi, for instance, a constraint on agreement does not allow

<sup>21</sup>Recall that the label next to the argument represents the morphological marking, while the label on the arrow represents case assignment.

the verb to show overt agreement with a case-marked argument. This constraint, we claim, blocks the emergence of an additional feature on *v*, or maybe it deletes overt agreement between the verb and the DOM-marked object. Be that as it may, if this agreement is not visible no learner will be able to posit a different grammar and therefore an alignment shift for Hindi, the ergativity of which will remain stable.

A Stage 1 language structure is as follows:

$$(44) \quad [{}_{\text{tp}} \text{DP}_{\text{erg}} [{}_{\text{VP}} \text{DP}_{\text{erg}} [{}_{\text{VP}} \text{DP}_{\text{dom}} \text{V}] \text{v}] \text{T}]$$

Languages in this stage are stable, the ergative alignment is not shifting, there is also no weakening of the marking of ergative case.

### 7.2.3 Stage 2

Stage 2/a: Surati Gujarati; DOM- $\phi$ , no Aux, unstable ERG in NEG contexts  
 The languages at Stage 2 show systematic  $\phi$ -agreement between the DOM-marked object and the verb. This is translated, structurally, into an Agree relation holding between the  $\phi$ -features on the DO and the unvalued  $\phi$ -features on *v*. These languages are in a transition stage: *v* is at this stage a hybrid head, in an Agree relation with the DO, but which still does not assign Accusative structural case to it. The ergative marker is still present in the language but not consistently in negative contexts, the DO is still licensed by T in most cases; no auxiliary is present, therefore this T-DO relation is not a clue for the learner; however, the agreement between the *v* and the DO signals to the learner that these two syntactic elements are in a syntactic dependency.

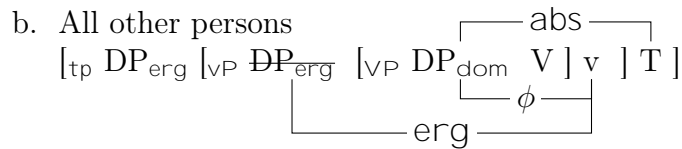
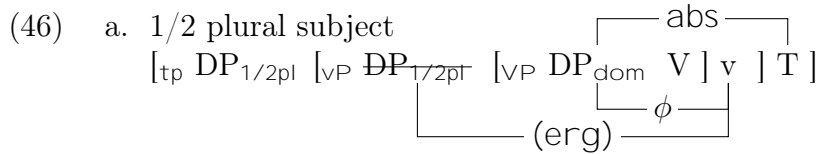
The schematic pattern of Stage 2 language is in (45).

$$(45) \quad [{}_{\text{tp}} \text{DP}_{(\text{erg})} [{}_{\text{VP}} \text{DP}_{(\text{erg})} [{}_{\text{VP}} \text{DP}_{\text{dom}} \text{neg V}] \text{v}] \text{T}]$$

A parallel form of ergative erosion is found in A/V Gujarati, where the ergative marker is absent on the 1st and 2nd person plural pronouns. We refer to that as Stage 2b/i.

Stage 2/b/i: Surati Gujarati; DOM- $\phi$ , no Aux, ERG disappeared from 1/2 person plural pronouns

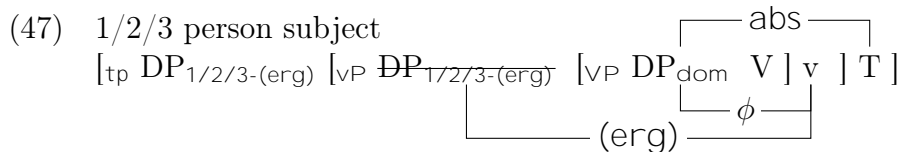
This is as similar pattern as that found in A/V Gujarati, with the difference that ergative erosion interests 1st and 2nd person plural pronouns. This suggests that the *erg* marker is weakening in the language, possibly in co-occurrence with the expansion of *v* agreement with the DOM-marked object. A/V Gujarati exhibits a hybrid behavior of the *v* head, which keeps assigning ergative case inherently to the EA, but at the same time  $\phi$ -agrees with the DOM-marked object. The schematic representation of A/V Gujarati is as follows:



Stage 2/b/ii: Shekhawati; DOM- $\phi$ , no Aux, ERG used inconsistently with 1/2/3 person pronouns

Stage 2/b/ii is represented by Shekhawati, which sees a further impoverishment of the ergativity marker - with 3rd person pronouns, the ergative marker is used inconsistently, while agreement of the verb with the DOM-marked object is rather stable. The auxiliary is not present in the language, therefore agreement with T is not overt.

The schematic representation of Shekhawati 1/2/3 pronouns is as follows. The pattern for all other DP subjects is like that in (46b).



Stage 2/b/iii: Bagri; DOM- $\phi$ , no Aux, ERG disappeared from 1/2 person pronouns; used inconsistently with 3 person pronouns

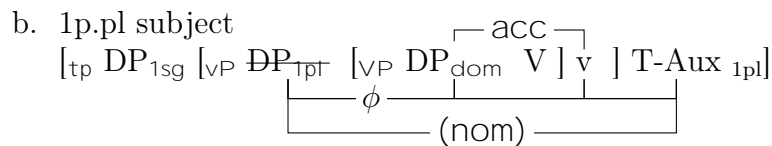
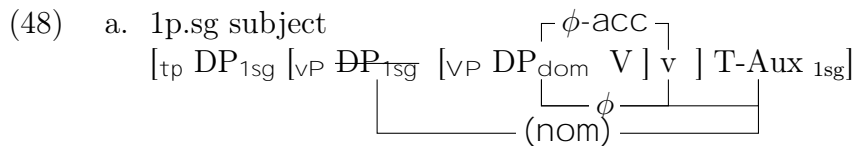
Parallel patterns than those found in Shekhawati are found in Bagri, where the ergative marker has disappeared from 1/2 person pronouns and is unstable in 3rd person plurals. The schematic representation of Bagri is almost completely identical to that of Shekhawati in 47.

The next step in the microdiachronic/microvariational evolution of WIA ergative is represented by Kutchi.

#### 7.2.4 Stage 3

Stage 3: Kutchi; DOM- $\phi$ , Aux, ERG lost but agreement still undecided

Stage 3 is exemplified by Kutchi, a language where DOM-objects consistently agree with the verb, the ergative marker has completely disappeared from the language but the agreement system oscillates between a full nominative-accusative pattern, where the subject agrees with the auxiliary and the verb agrees with the DOM-object, and a more relaxed-ergative system, where the subject agrees with both auxiliary and verb, depending on its featural specification:



The next stage is that in which the reanalysis of the structure is completed; overt agreement is taken to signal that also case assignment has taken place.

### 7.2.5 Stage 4

Stage 4: Kutchi Gujarati, Marwari, Udaipur Marwari; DOM- $\phi$ , Aux, ERG is lost, Aux agrees with S, V agrees with DOM

This is the last step of the reanalysis: full DOM-marked object agreement with  $v$  is reanalyzed as a cue for a strict  $v$ -DO relation, and taken as a cue for case assignment to the internal argument. The external argument is no longer inherently licensed by  $v$ , but it serves as a probe for  $\phi$ -agreement with T. The  $\phi$ -features on T are overtly realized; therefore, agreement between T and the subject is visible. This brings about the reanalysis of case assignment to the EA by T. If the DO is structurally licensed by  $v$  and the subject by T, alignment has finally shifted towards nominative/accusative, even if an overt nominative marker is not present in the language. This pattern is found in Kutchi Gujarati, Marwari, and Udaipur Marwari.

The structure for Stage 4 is in :

$$(49) \quad [{}_{\text{tp}} \text{DP}_{\text{nom}} [{}_{\text{VP}} \text{DP}_{\text{nom}} [{}_{\text{VP}} \text{DP}_{\text{dom}} \text{V}] \overset{\uparrow \phi\text{-acc} \downarrow}{v} ] \text{T-Aux} ]$$

$\underbrace{\hspace{10em}}_{\phi\text{-(nom)}}$

A common factor underlying all four atypical patterns identified here is DOM-triggered agreement. Note that the WIA ergative pattern is typically identified by verbal agreement triggered by an unmarked object; i.e., object agreement is an important signature of WIAL ergative alignment. The observation of the various existing patterns and the impact of DOM suggest the following trajectory in alignment attrition. In fully ergative languages, the IA is structurally licensed by T, while the EA is inherently case-marked by  $v$  (following Anand and Nevins (2006)). Agreement patterns can vary, and they are not crucial in initiating attrition: only DOM-driven agreement is. The overt accusative case/DOM marker, and the associated  $\phi$ -agreement and special semantics serve as strong cues (Lightfoot (2006)) to a community of language learners that an additional structure is present in the language. Once it appears in the grammar of a single or a handful of speakers, its spread and ultimate co-option in the grammar of a community needs solid morphological cues for other language learners to pick it up. We believe that the DOM-triggered  $\phi$  is an important signal, because it differentiates this structure from a typical ergative structure with unmarked-object triggered agreement. Speakers view structures with DOM-triggered agreement differently from ergative structures – these structures can,



thus, be safely assumed to herald alignment change in the perfective domain.<sup>22</sup>

Clause structure modification in WIA perfective is thus a primary factor behind the observed case-alignment shift – in this particular case, from an ergative system to a nominative system, but with multiple intermediate phases.

## 8 DOM is Accusative

Throughout the paper, we have been assuming that DOM is an accusative case marker, not a dative (as recently argued by Bobaljik (2017), but also by a number of other scholars, such as Rodríguez-Mondoñedo (2007) and Manzini and Franco (2016). The same forms are also used for dative experiential subjects and recipients in Hindi, as we discuss below (also see Bossong (1985) for evidence of its cross-linguistic robustness). In (50), for instance, the presence of the *-ko* on the subject assigns it an ‘experiencer’ reading - with the literal meaning: ‘the moon showed itself to the girl’ (and not, ‘the girl (deliberately) looked at the moon’). The experiencer subject in (51) is also marked with *-ko/e*. One common feature of marked DPs in these sentences is that they consistently fail to trigger verbal agreement.

(50) Hindi

larkiko/usko/use                      chaand dikhaa  
girl-DAT/she-DAT/she-DAT moon see-past  
‘The girl/She saw the moon’

(51) Hindi

larkiko/usko/use                      pyaas aayii  
girl-DAT/she-DAT/she-DAT thirst come-past  
‘The girl/She felt thirsty’

As stated above, the dative case and the accusative case for definite/animate objects are homophonous in many languages in this area. The issue is whether DOM is actually marking dative or accusative. One of the possible ways to interpret this dative is to be a sort of case stacked on top of the absolutive. In other words, if

---

<sup>22</sup>Polinsky (2018) shows that heritage language speakers reuse DOM-objects to mark the accusative in DOC. This proves that DOM is a salient feature even for “recessive” grammars, and that the speakers do get this cue very easily. She also notes that heritage speakers master the dative perfectly, while DOM is only partially mastered – this latter also confirms our claim that DOM and dative are really two separate things.

we see a DOM-marked argument, and that is dative, this argument is underlyingly absolutive, and DOM is a special definiteness/animacy marker stacked over the unmarked case, while the subject is underlyingly ergative. From this, it follows that the WIA structures considered so far are not deviations from the expected ergative patterns; most importantly, they do not indicate any change in the case-alignment system of this language family. Proving that DOM is not dative is therefore crucial to argue for ergativity attrition and shift.

There are several reasons to believe that the DOM-as-dative analysis is incorrect (see Butt and King (1999)). As we examine more data from WIALs below, it becomes evident that DOM and the dative have distinct properties, and therefore, they cannot be treated on par with each other. Instead, DOM on the object in the perfective is an accusative case assigned by *v*.

We first consider A/V Gujarati, which also has the said DOM/dative overlap, as illustrated in (52) and (53). The first piece of evidence that they are separate morphemes is that the language also has a separate dative morpheme *-re*. This indicates that the DOM is at least not completely coincident with the dative (54).<sup>23</sup>.

(52) Gujarati (Mistry 1997: 426)

kishor-e raaj-ne pajav-y-o  
 Kishor-erg Raj-acc harass-perf-m.sg  
 ‘Kishor harassed Raj’

(53) Gujarati (Mistry (2000): 339)

raaj-ne potaa-ne kaam gamyun  
 Raj-dat self-dat work liked  
 ‘Raj himself liked the work’

(54) Gujarati (Lambert (1971))

ma-re jAvuu joiee  
 I-dat go needed  
 ‘I want/need to go’

Even in those cases where the homophonous dative *-ne* is used, it has distinct properties from the DOM-marked object. Compare the following sentences:

(55) Gujarati (Mistry, Bhaskararao, and Subbarao (2004): 10-11)

---

<sup>23</sup>See Tessitori (1913) for an analysis of how these forms originated

- a. shilaa-thi            raaj-ne            (naa) jagaaD-aa-y-o  
 Sheela.f.sg-instr Raj.m.sg-dom (neg) wake-abil -pfv-m.sg  
 ‘Sheela could (not) wake Raj’
- b. shilaa-thi            raaj-ne            (naa) maL-aa-y-un  
 Sheela.f.sg-instr Raj.m.sg-dat (neg) meet-abil -pfv-dfl t  
 ‘Sheela could (not) meet Raj’

The DP Raj is marked with *-ne* in what are seemingly very similar sentences in (55a)-(55b), differing only on account of the verbs they take, namely ‘wake’ and ‘meet’. There is, however, a very important difference between the two: in (55a), the verb carries the gender and number values of the *-ne* marked Raj, whereas in (55b), the verb carries default agreement morphology. A possible explanation for the agreement difference is that PPs do not trigger agreement. The object receives accusative case from *v* and agrees with it; the PP does not. Thus, even while they are both marked with the same morpheme *-ne*, they have distinct structural representations, which also show up in their varied capacities to control verbal agreement.

The DO/IO or the ACC/DAT distinction is connected to the valency of the respective verb; while ‘wake’ is a transitive verb which takes Raj as an argument, ‘meet’ is an intransitive verb which takes Raj as an adjunct. The intransitive nature of ‘meet’ is not unique to Gujarati. One finds a resemblance between the Gujarati sentence in (55b) and the English sentence ‘Sheela could (not) meet with Raj’, where the dative DP is essentially the object of the with-PP. With the assumption that the Gujarati ‘meet’ is also an intransitive, which takes an adjunct PP, Raj is marked dative by the P, and not accusative by the *v*. It is also expected that the PP-internal DP will not trigger agreement with the verb, a prediction that is also borne out by facts. By contrast, the accusative marked (DOM) object in (55a) will trigger verbal agreement.

Joshi, Pinon, and Roussarie (2020) presents corroborating evidence from Surati Gujarati, which also uses the same marker *-ne* for dative and DOM. Despite being homophonous, DPs marked with it are different on two counts: obligatory/optional presence of *ne* and presence/absence of verbal agreement. In (56), for example, the *ne* marker on the object is optional; when present, it triggers verbal agreement. In (57), on the other hand, the IO is obligatorily marked with a dative morpheme, and there is, crucially, no verbal agreement with the DP.

(56) Surati Gujarati (Joshi et al 2020: 11)

raj-e      bakri(-ne)            joyi  
 Raj-erg goat.f.sg-(dom) see.pfv.f.sg

‘Raj saw a/the goat’

(57) Surati Gujarati (Joshi et al 2020: 24)

ram-e                raj-ne                bakri        aapi  
Ram.m.sg-erg Raj.m.sg.dat goat.f.sg give.pfv.f.sg

‘Ram gave Raj a goat’

There is also evidence that suggests that *ne*-marked objects are placed preferably higher in the structure. In (58), the DOM-marked object is positioned before the adverb ‘frequently’. It is obligatorily interpreted as specific. Compare (58) with the sentence in (59) where the IO ‘horse’ is preferably placed lower vis-à-vis the same adverbial and interpreted as both specific and non-specific.

(58) Surati Gujarati (Joshi et al. (2020):9)

priyanka-e                ghoda-ne                varamvaar (??ghoda-ne)  
Priyanka.f.sg-erg horse.m.sg-dom frequently horse.m.sg-dom  
vhel-lo        dawdaivo  
early-m.sg run.caus.pfv.m.sg

‘Priyanka frequently made the horse run early’

(59) Surati Gujarati (Joshi et al 2020: 7)

priyanka-e        (??ghoda-ne)        varamvaar ghoda-ne        chana  
Priyanka-erg horse.m.sg-dat frequently horse.m.sg-dat chickpeas.pl  
vhel-a        aapyaa  
early-pl give.pfv.pl

‘Priyanka frequently gave chickpeas to a/the horse early’

Also, as expected, while the object triggers agreement (masculine in (58) the IO fails to control agreement (instead, we see DO-triggered plural agreement in (59)). In sum, Surati Gujarati offers strong evidence for separate *ne*-marked accusative and *ne*-marked dative morphemes; here too, only the former controls agreement and moves to a structurally higher position.

Data from Rajasthani languages confirm the same divide between the DOM-object and the dative. Speakers of Marwari varieties mark their objects optionally, while dative marking is mandatory. We present some data from Marwari spoken in the city of Bikaner, but the same facts hold for other varieties of Marwari with ergative attrition, as well. In (60), the definite object is optionally marked with *-ne*, and triggers agreement with the verb (and the auxiliary, when present). Differently

from that, the dative IO in (61) always carries the *-ne* marker, and never triggers verbal agreement.

(60) Bikaner Marwari

john ek gaai / bi gaai-ne kaal dekhi (hii)  
 John one cow.f / that cow.f.DOM yesterday see.f be.f

‘John saw one cow/that cow yesterday’

(61) Bikaner Marwari

muhn kaal ek gaai/ek kitaab john-\*(ne) di  
 I yesterday one cow.f/one book.f John.\*(-dat) give.f

‘I gave a cow/a book to John yesterday’

The *-ne* marker also shows up on experiential subjects, and here too, agreement is always with the object.

(62) Bikaner Marwari

ma-ne gaano sunno hain  
 I-dat songs listen be-pl

‘I want to listen to songs’

Apart from these tell-tale language-specific signs that accusative and dative cases are underlyingly different, a cursory look at the WIA case morphemes shows the DOM on the object (especially in the perfective) is unevenly spread in the area, even while the dative marker is robustly present across the region. To recollect some instances, Marwari exhibits DOM object in the perfective, but Haryanavi completely prohibits it on the perfective object. Some varieties of Marwari reported by Das (2006) have both subject and object sporting the same marker in the same structure. The dative is, however, consistently marked on experiential subjects and IOs in all these languages. Were the DOM simply the dative case morpheme used on an object DP, we would have incorrectly predicted an equally strong and consistent presence of DOM across all languages in this belt.

Taking these data into consideration, we conclude that the WIA DOM is not a dative case; rather it is an accusative case-marker. The similarity between DOM and dative is only morphological and does not reflect a common structural underpinning. DOM-triggered phi has ramifications for case-alignment in the languages that have it.

## 9 Conclusion

Language change is difficult to identify while it is happening. In this paper, we provided an overview of several WIA systems focusing on their argument alignment. We showed that there is a large heterogeneity in the way arguments, as well as in agreement patterns, are encoded. Comparing these varieties with each other, we identified a change trigger, which led to identify the following: There is an ongoing alignment shift in WIA varieties, that are shifting from an ergative/absolutive alignment towards a nominative/accusative alignment. This can be shown by the fact that these languages move from a system in which *v de facto* licenses the EA, to a clear division of labour between *v*, licensing the IA and agreeing with it, and *T* licensing the EA and agreeing with it.

Ergative alignment has been observed to be more geographically restricted (see Comrie (2013a, 2013b)) and more marked in the parameter hierarchy of case proposed by Sheehan (2014), according to which accusative alignment is the unmarked option. This contribution shows that at least in this group of languages, ergative alignment is moving towards the more unmarked nominative/accusative alignment. These data also seem to corroborate the considerations put forward by Zwart and Lindenbergh (2021), according to whom ergativity is not a primitive feature of language, but the convergence of several factors. While the emergence of ergativity is very much linked to semantic factors, like agentivity or prominence in discourse, the accusative alignment is purely structural, and therefore subject to more stability cross-linguistically. Something very similar to what happened in Romance is also happening now in WIA varieties: like for Romance, the trigger seems to be agreement with the DO, which mainly takes place when the DO is DOM-marked. This attrition results in a full shift in some varieties and is not invested in the whole system at once in others. It spreads from some forms and expands stepwise to the entire system, or it doesn't, and stops only at some intermediate stage.

## References

- Aboh, E. (2017). Population factors, multilingualism and the emergence of grammar. *Language contact in Africa and the African diaspora in the Americas: In honor of John V. Singler*, 23–48.
- Aboh, E., & DeGraff, M. (2016). A null theory of creole formation based on universal grammar. Oxford University Press.
- Ackema, P., Alcorn, R., Heycock, C., Jaspers, D., van Craenenbroeck, J., & Vanden Wyngaerd, G. (Eds.). (2012). *Comparative germanic syntax. the state of the art*. John Benjamins.
- Anand, P., & Nevins, A. (2006). The locus of ergative case assignment: Evidence from scope. In *Ergativity* (pp. 3–25). Springer.
- Bárány, A. (2015). Differential object marking in hungarian and the morphosyntax of case and agreement. *PhD diss., University of Cambridge*.
- Barbiers, S., van Koppen, M., Bennis, H., & Corver, N. (2016). Microcomparative morphosyntactic research (mimore): Mapping partial grammars of flemish, brabantish and dutch. *Lingua*, 178, 5-31. (Linguistic Research in the CLARIN Infrastructure) doi: <https://doi.org/10.1016/j.lingua.2015.10.018>
- Bhatt, R. (2007). Ergativity in indo-aryan languages. In *Talk given at the mit ergativity seminar*.
- Bittner, M., & Hale, K. (1996a). Ergativity: Toward a theory of a heterogeneous class. *Linguistic Inquiry*, 531–604.
- Bittner, M., & Hale, K. (1996b). The structural determination of case and agreement. *Linguistic inquiry*, 1–68.
- Bobaljik, J. (1993). On ergativity and ergative unergatives. *MIT Working papers in Linguistics*, 19(4588), 334–385.
- Bobaljik, J. (2017). *In defense of a universal: A brief note on case, agreement and differential object marking*.
- Bobaljik, J., & Branigan, P. (2006). Eccentric agreement and multiple case checking. In *Ergativity* (pp. 47–77). Springer.
- Bossong, G. (1985). *Empirische Universalienforschung: Differentialielle Objektmarkierung in den neuiranischen Sprachen*. Tübingen: Narr. Retrieved from <https://doi.org/10.5281/zenodo.4697660> doi: 10.5281/zenodo.4697660
- Bossong, G. (1991). Differential object marking in Romance and beyond. In D. A. Kibbee & D. Wanner (Eds.), *New analyses in Romance linguistics* (p. 143-170). Amsterdam: John Benjamins.
- Butt, M. (1995). *The structure of complex predicates in urdu*. Center for the Study of Language (CSLI).

- Butt, M. (2006). *Theories of case*. Cambridge University Press.
- Butt, M. (2010). The light verb jungle: Still hacking away. *Complex predicates in cross-linguistic perspective*, 48–78.
- Butt, M., & Ahmed, T. (2011). The redevelopment of indo-aryan case systems from a lexical semantic perspective. *Morphology*, 21, 545–572.
- Butt, M., & Deo, A. (2017). Developments into and out of ergativity: Indo-aryan diachrony.
- Butt, M., & King, T. H. (1999). Focus, adjacency, and nonspecificity. Thesus: The Hague.
- Bárány, A. (2015). *Differential object marking in hungarian and the morphosyntax of case and agreement* (Unpublished doctoral dissertation). University of Cambridge.
- Chomsky, N. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, N. (2001). Beyond explanatory adequacy. *MIT Occasional Papers in Linguistics* 20.
- Comrie, B. (1978). Ergativity. In W. P. Lehmann (Ed.), *Syntactic typology: Studies in the phenomenology of language* (p. 329-394). Austin: University of Texas Press.
- Comrie, B. (1989). *Language universals and linguistic typology*. Chicago: University of Chicago Press.
- Comrie, B. (2013a). Alignment of case marking of full noun phrases (v2020.3) [Data set]. In M. S. Dryer & M. Haspelmath (Eds.), *The world atlas of language structures online*. Zenodo. Retrieved from <https://doi.org/10.5281/zenodo.7385533> doi: 10.5281/zenodo.7385533
- Comrie, B. (2013b). Alignment of case marking of pronouns (v2020.3) [Data set]. In M. S. Dryer & M. Haspelmath (Eds.), *The world atlas of language structures online*. Zenodo. Retrieved from <https://doi.org/10.5281/zenodo.7385533> doi: 10.5281/zenodo.7385533
- Coon, J., Massam, D., & Travis, L. D. (2017). *The Oxford Handbook of Ergativity*. Oxford University Press. Retrieved from <https://doi.org/10.1093/oxfordhb/9780198739371.001.0001> doi: 10.1093/oxfordhb/9780198739371.001.0001
- D'Alessandro, R. (2021). Syntactic change in contact: Romance. *Annual Review of Linguistics*, 7, 309–328.
- D'Alessandro, R. (2022). *Case, alignment, agreement and information structure. the role of dom in language change*. Paper presented at the 31st Colloquium on Generative Grammar, University of the Balearic Islands.
- Das, P. (2006). *Grammatical agreement in hindi-urdu and its major vari-*



- eties*. Lincom Europa. Retrieved from <https://books.google.nl/books?id=g8hjAAAAMAAJ>
- Davison, A. (2004). Structural case, lexical case and the verbal projection. In *Clause structure in south asian languages* (pp. 199–225). Springer.
- Deo, A. (2017a). Dialects in the indo-aryan landscape. *The Handbook of Dialectology*, 535–546.
- Deo, A. (2017b). On mechanisms by which languages become [nominative-] accusative. *On looking into words (and beyond)*, 347.
- Deo, A., & Sharma, D. (2006). Typological variation in the ergative morphology of indo-aryan languages. *Linguistic Typology* 10(3). 369–418.
- Diez, F. (1882). *Grammatik der romanischen sprachen*. E. Weber.
- Dixon, R. M. W. (1979). Ergativity. *Language*, 55, 59-138.
- Grosz, P., & Patel-Grosz, P. (2014). Agreement and verb types in kutchi gujarati. *The lexicon-syntax interface: Perspectives from South Asian languages*, 217–243.
- Gusain, L. (1999). *A descriptive grammar of bagri* (Unpublished doctoral dissertation).
- Haig, G. L. (2008). *Alignment change in iranian languages: A construction grammar approach*. Mouton de Gruyter.
- Iemmolo, G. (2010). Topicality and differential object marking: Evidence from romance and beyond. *Studies in Language. International Journal sponsored by the Foundation "Foundations of Language"*, 34(2), 239–272.
- Iemmolo, G. (2011). *Towards a typological study of differential object marking and differential object indexation* (Unpublished doctoral dissertation). University of Pavia.
- Irimia, M. A., & Pineda, A. (2019). Differential object marking and scales: Insights from diachrony. *Proceedings of the Linguistic Society of America*, 4(1), 57–1.
- Joshi, K. (2021). *A uniform account for the agreement and information structure relationship: a case study of surati gujarati* (Unpublished doctoral dissertation).
- Joshi, K. (2023). *Agreement and structural position of negation in surati gujarati*. (unpublished)
- Joshi, K., Pinon, C., & Roussarie, L. (2020). Agreement and information structure in surati gujarati. *Empirical issues in syntax and semantics 13 (EISS 13)*, 1–24.
- Kachru, Y. (1987). Ergativity, subjecthood and topicality in hindu-urdu. *Lingua*, 71(1-4), 223–238.
- Kachru, Y., & Pandharipande, R. (1978). On ergativity in selected south asian languages. *Studies in the Linguistic Sciences*, 8(1), 111–127.

- Kalin, L. (2018). Licensing and differential object marking: The view from neo-aramaic. *Syntax*, 21(2), 112–159.
- Kaur, G. (2016). *Person in punjabi: investigating argument and clitic licensing* (Unpublished doctoral dissertation).
- Kayne, R. S. (2000). *Parameters and universals*. Oxford University Press, USA.
- Keine, S., Nisar, T., & Bhatt, R. (2014). Complete and defective agreement in kutchi. *Linguistic Variation*, 14(2), 243–288.
- Khokhlova, L. V. (1992). Trends in the development of ergativity in new indo-aryan. *Osmania Papers in Linguistics*, 18, 71–98.
- Kroch, A. (1994). Morphosyntactic variation. In *Papers from the 30th regional meeting of the chicago linguistics society: Parasession on variation and linguistic theory* (Vol. 2, pp. 180–201).
- La Fauci, N. (1988). *Oggetti e soggetti nella formazione della morfosintassi romanza*. Pisa: Giardini.
- Labov, W. (1972). *Sociolinguistic patterns*. The University of Pennsylvania Press.
- Laka, I. (1993). Unergatives that assign ergative, unaccusatives that assign accusative. *MIT working papers in linguistics*, 18, 149–172.
- Laka, I. (2006). Deriving split ergativity in the progressive. *Ergativity: emerging issues*, 173–196.
- Lambert, H. M. (1971). *Gujarati language course*. Cambridge University Press.
- Lazard, G. (1984). Actance variations and categories of the object. In F. Plank (Ed.), *Objects. Towards a theory of grammatical relations* (p. 269-292). Academic Press.
- Ledgeway, A. (2012). *From latin to romance: Morphosyntactic typology and change* (Vol. 1). Oxford University Press.
- Levin, J., & Massam, D. (1985). Surface ergativity: Case/theta relations reexamined. In *North east linguistics society* (Vol. 15, p. 20).
- Lightfoot, D. (2006). *How new languages emerge*. Cambridge University Press.
- López Otero, J. C. (2022). Bidirectional cross-linguistic influence on dom in romanian-spanish bilinguals. *International Journal of Bilingualism*, 26(6), 710–731.
- López, L. (2012). *Indefinite objects: Scrambling, choice functions and differential marking*. Cambridge, MA: MIT Press.
- Mahajan, A. (1990). *The a/a-bar distinction and movement theory* (Unpublished doctoral dissertation). Massachusetts Institute of Technology.
- Mahajan, A. (2012). Ergatives, antipassives and the overt light v in hindi. *Lingua*, 122(3), 204–214.
- Manzini, M. R., & Franco, L. (2016). Goal and dom datives. *Natural Language &*

- Linguistic Theory*, 34, 197–240.
- Meyer-Lübke, W. (1889). *Grammatik der romanischen sprachen. dritter band: Syntax*. Reiland.
- Mistry, P. (1997). Objecthood and specificity in gujarati. *TRENDS IN LINGUISTICS STUDIES AND MONOGRAPHS*, 108, 425–442.
- Mistry, P. (2000). Lexical anaphors and pronouns in gujarati. *Lexical anaphors and pronouns in selected South Asian languages: A principled typology*, 397–470.
- Mistry, P., Bhaskararao, P., & Subbarao, K. V. (2004). Subjecthood of non-nominatives in gujarati. *Typological studies in language*, 61, 1–32.
- Mohanan, T. (1994). *Argument structure in hindi*. Center for the Study of Language (CSLI).
- Montaut, A. (2018). The rise of differential object marking in hindi and related languages. *Studies in Diversity Linguistics*(19).
- Moravcsik, E. (1978). On the case marking of objects. In J. Greenberg (Ed.), *Universals of human language* (p. 249-289). Stanford: Stanford University Press.
- Murasugi, K. (1992). *Crossing and nested paths–np movement in accusative and ergative languages* (Unpublished doctoral dissertation). Massachussets Inst. of Technology Cambridge.
- Mursell, J. (2018). Object marking in swahili is topic agreement. *Jezikoslovlje*, 19(3), 427–455.
- Nevins, A., Peti-Stantic, A., de Vos, M., & Willer-Gold, J. (2022). *Angles of Object Agreement*. Oxford University Press. Retrieved from <https://doi.org/10.1093/oso/9780192897749.001.0001> doi: 10.1093/oso/9780192897749.001.0001
- Oyharçabal, B. (1992). Structural case and inherent case marking: Ergaccusativity in basque. *Anuario del Seminario de Filología Vasca" Julio de Urquijo"*, 309–342.
- Patel-Grosz, P. (2021). Ergativity in indo-aryan. In *Oxford research encyclopedia of linguistics*.
- Phillips, M. P. (2012). *Dialect continuum in the bhil tribal belt: Grammatical aspects* (Unpublished doctoral dissertation). SOAS, University of London.
- Polinsky, M. (2018). Bilingual children and adult heritage speakers: The range of comparison. *International Journal of Bilingualism*, 22(5), 547–563.
- Rezac, M., Albizu, P., & Etxepare, R. (2014). The structural ergative of basque and the theory of case. *Natural Language & Linguistic Theory*, 32, 1273–1330.
- Rodríguez-Mondoñedo, M. (2007). *The syntax of objects: Agree and differential object marking*. University of Connecticut.

- Śarmā, K. (1991). Pūrvī rājasthānī: Udbhav aur vikās [eastern rajasthani: Origin and development]. *Jaypur: The Students Book Company*.
- Sheehan, M. (2014). Towards a parameter hierarchy for alignment. In *Proceedings of wccfl* (Vol. 31, pp. 399–408).
- Sigurðsson, H. A. (1996). *Icelandic finite verb agreement* (Tech. Rep. No. 57). Department of Scandinavian Languages, Lund University.
- Stroński, K. (2010a). 1variation of ergativity patterns in indo-aryan. *Pozna Studies in Contemporary Linguistics*, 46(2), 237–253.
- Stroński, K. (2010b). 2non-nominative subjects in rajasthani and central pahari. the status of the ergative and obligatory constructions. *Lingua Posnaniensis*, 52(1), 81–97.
- Subbārāo, K. V. (2012). *South asian languages: A syntactic typology*. Cambridge University Press.
- Syeed, S. M. (1984). *Morphological causatives and the problems of the transformational approach (kashmiri, south asia, india-pakistan)*. Indiana University.
- Tessitori, L. P. (1913). Xviii on the origin of the dative and genitive postpositions in gujarati and marwari. *Journal of the Royal Asiatic society*, 45(3), 553–567.
- Torrego, E. (1984). On inversion in spanish and some of its effects. *Linguistic inquiry*, 15(1), 103–129.
- Udaar, U. (2016). *Ergativity in western indo-aryan languages* (Unpublished doctoral dissertation).
- Wali, K., & Koul, O. N. (1997). *Kashmiri*. Routledge.
- Willer-Gold, J. (2022, 11). 1Introduction: Objects, agreement, and their intersecting angles. In *Angles of Object Agreement*. Oxford University Press. Retrieved from <https://doi.org/10.1093/oso/9780192897749.003.0001> doi: 10.1093/oso/9780192897749.003.0001
- Wiltschko, M. (2006). On 'ergativity' in halkomelem salish. In *Ergativity* (pp. 197–227). Springer.
- Woolford, E. (1997). Four-way case systems: Ergative, nominative, objective and accusative. *Natural Language & Linguistic Theory*, 15(1), 181–227.
- Woolford, E. (2006). Lexical case, inherent case, and argument structure. *Linguistic inquiry*, 37(1), 111–130.
- Wunderlich, D. (2012). Operations on argument structure. Mouton de Gruyter.
- Zograph, G. (1982). *The languages of south asia. languages of asia and africa series*. London: Routledge.
- Zwart, J.-W., & Lindenbergh, C. (2021). Rethinking alignment typology. *Syntactic architecture and its consequences III*, 23.