

# Optionality and Referentiality\*

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**Abstract:** This study deals with the notion of optionality vis-à-vis the phenomenon of ergative assignment in Indo-Aryan languages through the concepts of discourse-information and adjunction. Optional ergative case-marking can be defined as the “situation in which the ergative marker may be present or absent from the Agent NP without affecting the grammaticality or interpretation of the clause in terms of who is doing what to who.” (McGregor, 2009: 493). Optionality in ergativity inside syntax can come from two sources: discourse/ information structure or edge and adjunction or pair merge. Following this line, there can be two types of optional ergativity in Indo-Aryan languages, such as in Sylheti, Nepali and Dakkhini synchronically and in Old Bangla and Old Brajbhasha diachronically. However, optional ergativity in the synchronic varieties of Dakkhini and Old Dakkhini in the past tense presents an interesting case of semantically vacuous optionality. Another phenomenon which is closely related to the optional ergative case in Indo-Aryan is person agreement. Person phi-features play a role in how the language treats optional ergativity. This paper additionally talks about the relation between the two and how the fate of optionality is decided via the agreement.

**Keywords:** optional ergativity, Indo-Aryan languages, discourse-information, adjunction

## 1 Introduction

Optionality in syntax has always been a point of discussion. Richards and Biberauer (2006) talk about system-internal optionality explicitly in relation to fulfilling the EPP feature. It can be done in two ways: via head raising and spec raising. True optionality vis-à-vis ergative case presents an interesting empirical phenomenon in relation to optionality studies. First, ergativity is itself a multifunctional concept (Deal, 2015 a.o.). Optionality can be described as one of its functions. Optional ergativity is not a novel empirical occurrence. Its close relation with information structure (discourse) is seen in many languages such as Tibeto-Burman (Lapolla, 1995 a.o.), Australian and Papuan languages (McGregor 2009, 2010 a.o.), Beria (Wolfe and Adam, 2018) and many others. However, in some Indo-Aryan languages/IA, we see optionality which is not connected to discourse-information. Rather the optional counterparts are adjuncts and they come when the valency is absorbed or reduced. To rephrase, optional ergativity is either a part of the edge (inner or outer) or it is pair merged to the structure. Edge is related to discourse function and pair merge is related to adjunction. Further, languages do not prefer adjunction-based optionality as it is not cost-effective (see Richards and Biberauer, 2006 about discussions on cost-effectiveness). Either they lose this optionality altogether, or they will regularise it via making it discourse-based or thematic (inherent) case. This course of change is influenced by the person phi-features in IA. Taking these arguments as departure points, the primary research question of this paper is: How

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can optional ergativity be defined in syntax in relation to presence and absence of person agreement. The empirical coverage of this paper is IA language family which is primarily spoken in the Indian subcontinent. Section 2 discusses the problems relating to optionality and optional ergativity. Section 3 explains data from IA where optional ergativity is seen. Section 4 describes optional ergative constructions as a part of discourse-information, pragmatics and adjunction. Section 5 summarizes and concludes my study.

## **2 Optionality and optional ergative**

This section talks about the crux of the problem of the paper: optionality. It also presents that how optional ergativity is treated in the literature and how it needs a relook.

### **2.1 Optionality**

Optionality means many possible variants in the grammatical context *prima facie*. It is a type of variation which is seen in the grammar of a single language. In this paper, I talk about a complete grammar—internally defined optionality. Optionality must be differentiated against variation. Optionality is seen within a single grammar, unlike variation. Chomsky (1981) talks about parameters for all kinds of variation in language. However, optionality inside syntax cannot be defined by parameter. During the setting a parameter, young learners of a language choose the value of that parameter. Lightfoot (1991, 1999 a.o.) has some interesting insights into language change via language acquisition and learnability through parameter setting. In relation to this, he introduces Degree 0 Learnability (Lightfoot, 1991). In degree 0 Learnability, he describes how a parameter is set in children. The children during language acquisition do not take in negative evidence and only use simple and unembedded structures (structures of degree 0 complexity) to set the parameters.

As for instance, a child may opt for an OV pattern of the Head-Complement Parameter, and thereby set the language as a head-final one. The child uses simple declarative sentences of the OV or VO type available in his primary linguistic data/ PLD and sets his parameter value accordingly. The parameter value is a choice that a language learner makes while learning the particular language. Change and variation, for Lightfoot, essentially come through the resetting of parameters, with values that are different from the original values given to these parameters by members of the preceding generations. Consider the following sentences for illustration.

(1) Sam eats rice

- (2) Sam        bhath        khaye<sup>1</sup>  
 sam.NOM rice.ACC    eat.HABPR  
 ‘Sam eats rice’

Bangla

The word order parameter – a structural parameter (in the sense of Chomsky 1981/GB) gives languages the option to either have the head to the right or to the left of the complement. English chooses the head on the left, generating a SVO order (as seen in (1)) while Bangla chooses its head on the right, thereby yielding a SOV order (as seen in (2)). Optionality poses a huge problem for such analysis.

With the advent of minimalism (Chomsky 1995, 1998, 2005 a.o.), parameters are now understood as features. The locus of variation is shifted to the lexicon. Known as the ‘Borer-Chomsky Conjecture’ (as coined by Baker, 2008) the idea is that all parametric variation comes from variation in the features of individual lexical or functional items. While the computational system is uniform in that there is no parameterization of operations and constraints (no-tampering condition, Chomsky, 2008), differential head selection by different languages can lead to differential syntactic representations. As Chomsky (1995: 155) puts it, “variation is limited to nonsubstantive parts of the lexicon and general properties of lexical items. If so, there is only one computational system and one lexicon, apart from this limited kind of variety”.

The variation is also expressed post spell-out, through the morpho-phonological component. This version of variation claims that the narrow syntax is invariant, and all the variations seen in the different languages are products of different mechanisms chosen in the morpho-phonological component. According to this line of theory, optionality or variation inside syntax is not possible. This is because optionality does not choose ‘yes’ or ‘no’ as an option.

Kroch (1989, 2001 a.o.) talks about multiple grammars within a speaker where he claims that a single speaker may have multiple I-languages. However, this proposal has both empirical and theoretical problems. See Biberauer (2017) for a discussion. In minimalist frame, Biberauer and Richards (2006) proposes semantically vacuous optionality with equal cost. For example in (3–4), the alternations of verb ‘*het*’ has been shown:

- (3) ek weet    dat        sy    dikwels Chopin gespeel het.  
 i    know    that    she often    Chopin played has

- (4) ek weet    dat sy het dikwels Chopin gespeel.  
 i    know    that she has often    Chopin played  
 ‘I know that she has often played Chopin’<sup>2</sup>

Afrikaans

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<sup>1</sup> Abbreviations used in this paper are: 1 First Person, 2 Second Person, 3 Third Person, ABL Ablative case, ACC Accusative case, ABS Absolute case, AUX Auxiliary verb, COMPL completive, DAT Dative case, DIR Direct case, EGO Egophoric, ERG Ergative case, F Feminine gender, HABPR Present Habitual, INS Instrumental case, IPFV Imperfective, LOC Locative case, M Masculine gender, NEG Negative, NMLZ Nominalizer, NOM Nominative case, NPST Non-past, PART Participle, PERF Perfective, PRES Present, PST Past, SG Singular

<sup>2</sup> Gloss and emphasis of the original text has been retained in (3) and (4).

Richards and Biberauer (2006) claim that with no new “interpretation”, natural language allow optionality in the narrow syntax.<sup>3</sup> The main motivation is satisfaction of the EPP, the grammar “does not mind” how the system does it. This a movement-based explanation. However, in the subsequent sections we see that the movement-based explanation for optionality does not work every time, especially relation to the evidence of optional ergative case seen in Indo-Aryan languages.

The next section specifically talks about optional ergativity.

## 2.2 Optional ergativity

This section talks about the various analyses of ergativity and ergative alignment in generative grammar. Ergativity is a multifunctional concept (Deal, 2015). Different patterning and agreement structures are seen in ergative languages which make it difficult for scholars to bring it under one umbrella.<sup>4</sup>

Marantz (1981) connects the theta role assignment to ergative assignment in the GB framework. He claims that the theta roles are reversed in ergative languages. In non-ergative languages, the canonical ways of assigning agent and theme are at the positions [Spec, VP] and complement of the verb respectively. In ergative languages, it is reversed. Murasugi (1992) introduces an extra functional item lower than T, called the Tr/ transitive head which is the head of the TrP. In this single system, accusative case is assigned to the internal argument at the [Spec, TrP] and the nominative case is assigned to the external argument at the [Spec, TP]. Still, the structural ergative case is assigned to the internal argument at the [Spec, TrP]. Bobaljik (1993), in contrast to Murasugi (1992), claims functional heads Agr1 and Agr2 are responsible for both agreement and case assignment. In his system, both the ergative and nominative is checked by [Spec, Agr1P] and both the accusative and absolutive are checked by the [Spec, Agr2P], He also introduces the obligatory case parameter where he claims that the ‘obligatory case’ in a nominative-accusative language is Nominative and that of an ergative-absolutive language is Absolutive. For this reason, while agreeing, the Agr2 head is inactive in a nominative-accusative language, and the Agr1 head is inactive in an ergative-absolutive language. Therefore, the obligatory case marked DPs participate in the agreement.

Bittner and Hale (1996 a,b) a.o. highlight that all DPs are headed by a functional case projection or KP. KP follows the empty category principle. KP is accusative if the KP is bound (case-bound<sup>5</sup>) by V, or else if the antecedent is T, KP is ergative. On the other side of the spectrum, Mahajan (2012) claims that ergativity in Hindi-Urdu comes from the light verb. By light verb, he means the transitive nature of light verbs like *li* and *gaya* which give the inherent ergative case to DPs in Hindi-Urdu. Therefore, there are primarily two approaches, one pushes ergativity to the C–T

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<sup>3</sup> However, Adger (2006), Adger and Smith (2005) push variation in lexicon but they were not talking about optionality, but variation.

<sup>4</sup> Some attempts are made via Sheehan’s ergative parameter hierarchy (2014), Coon and Preminger (2012).

<sup>5</sup> Case binding (Bittner & Hale, 1996: 568):

Let  $\alpha$  be a head that delimits a small clause and let  $\beta$  be an argument. Then  $\alpha$  Case-binds  $\beta$ , and  $\beta$ ’s head, iff

- a.  $\alpha$  locally c-commands  $\beta$ ;
- b.  $\alpha$  governs a Case competitor for  $\beta$ .

phase, another pushes it to the v–V phase. Legate (2012 a.o.) proposes ergative is an inherent case, i.e., it is dependent on v.

In generative literature, ergative can also be a dependent case along with accusative. Marantz (1991) proposes the alternative Dependent Case Theory. He contends that case is a post-syntactic phenomenon, assigned to nominals in a fixed hierarchy at PF. Case realization obeys the Disjunctive Hierarchy as depicted below.

(5) Case Realization Disjunctive Hierarchy

- i. Lexically governed case
- ii. ‘Dependent’ case (accusative and ergative)
- iii. Unmarked case (environment-sensitive)
- iv. Default case

As per (5), at PF, case assignment occurs in a bottom-up fashion. DPs are first assigned lexical/thematic cases. This is followed by dependent case given by the v-T complex. If v-T assigns case upward first, the higher NP gets an ergative case, and the lower NP gets an unmarked case. If it assigns downward first, then it assigns the accusative case to the lower DP, and the higher DP receives an unmarked case. Therefore, the case assignment on one DP is dependent on the case of the other DP. The unmarked cases are sensitive to syntactic environments, as for instance, the genitive case.<sup>6</sup> The default cases are nominative and absolutive, which are assigned to the NPs that still do not have any case.

None of these theories or models can explain the phenomenon of optional ergativity. These models do not have an explanation that why the ergative marker acts in an ‘unstable’ manner in some languages. Optional ergativity is seen in many languages in the world. Look at the examples (6–7) below in Nepali, an IA language:

- (6) raam-le            bihaan-dek<sup>hi</sup>    paani    ubhaa-i            raha-eko            c<sup>h</sup>a  
 ram.M-ERG        morning-ABL    water    fetch-COMPL    remain-NMLZ    AUX.NPST.M  
 ‘Ram has been fetching water since morning (and he fetched some).’
- (7) raam            bihaan-dek<sup>hi</sup>    paani    ubhaa-i            raha-eko            c<sup>h</sup>a  
 ram.M            morning-ABL    water    fetch-COMPL    remain-NMLZ    AUX.NPST.M  
 ‘Ram has been fetching water since morning (but he has not been able to fetch).’  
 Nepali (Poudel, 2007)

Poudel explains such optionality within a single grammar through whether the action is completed or not. Another set of examples are shown in (8–10) from Central Tibetan:

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<sup>6</sup> In this context, Marantz (1991: 247) comments that “in a language GEN may be the unmarked case for NPs inside NPs (or DPs) while NOM may be the unmarked case inside IPs”. So, the environment of DP and IP becomes crucial in this case.

- (8) khong khala' so-kiyo:re'  
 he food make -IPFV  
 'He prepares the meals.'
- (9) khong-ki' khala' so-kiyo:re'  
 he-ERG food make-IPFV  
 'He prepares the meals.'
- (10) khala' khong-ki' so-kiyo:re'  
 food he-ERG make-IPFV  
 'He is the one who prepares the meals.' Central (Lhasa) Tibetan (McGregor, 2009)

McGregor (ibid) mostly talks about pragmatic effects on ergativity seen in (8–10) which makes optional ergativity predictable rather than random. I discuss more about this in the later sections where it is shown that such pragmatic ergativity is not the only type of optional ergativity which can be present. But before that I introduce data from IA in section 3.

### 3 Indo-Aryan languages and optional ergativity

IA is a South-Asian language family spoken primarily in India, Pakistan, Bangladesh, Nepal, Sri-Lanka, etc. with more than 400 million speakers of the Western Indo-Aryan language/WIA Hindi-Urdu alone. IA is a daughter language of Indo-European language family (along with Indo-Iranian language family). Various daughter languages have borne out of IA. Some of them are Dardic languages (e.g., Kashmiri), WIA (e.g., Hindi-Urdu, Punjabi), Pahari languages (e.g., Nepali) and Eastern Indo-Aryan languages/ EIA (e.g., Bangla, Assamiya). Each group has its distinct properties with overarching similarities. Most of WIA synchronically have split-ergative system, however, diachronically they displayed nominative-accusative patterns. This means most of the declarative active sentences in Indo-European languages had subjects marked with nominative case and the DP with nominative case agreed with the verb. But due to various reasons, WIA gave rise to innovations in its alignment system and became a split ergative system in perfective aspect. On the other hand, EIA continued to be a nominative-accusative system with an intermediate rise and elimination of ergativity in its course.

I now show two types of optional ergativities seen in IA: the first one with subject agreement and another one with object agreement.

Some EIA languages, such as Sylheti, show evidence of optional use (or lack) of ergative marker(s) synchronically. Sylheti exhibits person agreement with the subject DP. For example:

- (11) faruk -e samos-e bat kha-e  
 faruk-ERG spoon-INS rice eat.3PRES  
 'Faruk eats rice with spoon.'
- (12) a. ke samos-e bat kha-e?  
 who spoon-INS rice eat.3PRES  
 'Who eats rice with a spoon?'

b. faruk / faruk-e samos-e bat kha-e  
 faruk-NOM/ faruk-ERG spoon-INS rice eat.3PRES  
 ‘Faruk eats rice with spoon.’

Sylheti

(11–12) show evidence of optional use of the ergative marker synchronically in similar constructions. In (11–12b), subject agreement in person in Sylheti is seen.

The examples (11) and (12b) are essentially the same sentences semantically. (12b) is grammatical whether the subject NP *faruk* is morphologically unmarked or marked with *-e*, unlike (11). In case of (11), with no pragmatic context such as the question given in (12a), the subject NP *faruk* should always be marked with an ergative marker *-e*. Now I will introduce IA languages showing object agreement and optional ergativity. For example, Early Brajbhasha (17–19<sup>th</sup> century) and Old Bangla (9–12<sup>th</sup> century) are split ergative languages with nominative-accusative in present tense (as seen in (13–14)) and ergative alignment in the past/perfect (as seen in (15–18)). Early Brajbhasha is an old diachronic stage of the synchronic split ergative WIA language western Hindi. Old Bangla is a diachronic stage of the purely nominative-accusative EIA language Bangla. Western Hindi is a split ergative language and New Bangla is a nominative-accusative language synchronically.

(13) haũ raja bibekə paĩ jatə haũ  
 1.SG.NOM king bibeka LOC go.PART.PRES.M.SG be.PRES.1.SG  
 ‘I go to Raja Bibeka.’ Early Brajbhasha (Prabodh Naatak: 82)<sup>7</sup>

(14) kanh-e podhi padhai  
 king-NOM book read.PRES  
 ‘Kanha reads a book’. Old Bangla (Chatterji, 1926: 742)

(15) bastubicara-ne kama-kaum maryau  
 bastubicara.M-ERG kama.M-DAT/ACC kill.PERF.M.SG  
 Bastubicara killed Kama’

<sup>7</sup> This is one of the literatures for Early Brajbhasha of 17<sup>th</sup> century

(16) Raja bibeka-Ø dvarapala-kaum ajna kari  
king.M bibeka door-keeper-DAT order.F do.PERF.F.SG  
‘Raja Bibeka gave order to a door-keeper [...]’ Early Brajbhasha (Drocco, 2016: 211)

(17) aji bhushuk-Ø bangali bhaili  
today bhushuk inferior-being.F.SG become.PST.F.SG.  
‘Today bhushuk became bengali/ inferior’ Old Bangla (Carya)<sup>8</sup>

(18) kanh-ẽ pothi padhili  
kanhe-ERG book.F read.PST.F  
‘Kanha read a book’. Old Bangla (Chatterji, 1926:742)

Both Brajbhasha and Old Bangla exhibit object agreement. Interestingly, the object agrees for gender and number phi-features, not person. In both languages, optional ergativity is seen, as shown in (15–16) in case of Early Brajbhasha and (17–18) in case of Old Bangla. Sentences have an optional ergative marker with obligatory object agreement. Interestingly, none of these languages show optionality in their synchronic varieties: present western Hindi or New Bangla.

Western Hindi shows no optionality except some cases with forced optionality related to volitionality (see Narasimhan et al 2005 for more discussions on optional ergative in otherwise robustly ergative language Hindi-Urdu, where the only exception being the domain of bodily emission verbs such as *cillaya* (shout/ scream), where the ergative becomes optional. According to Narasimhan et al. (2005), this optionality comes from volitionality and animacy).

Present Bangla is a purely nominative-accusative language. Sylheti, on the other hand, is another daughter language of Old Bangla which has lost its object agreement but marks its subjects optionally with the ergative marker as shown in (11–12).

In Dakkhini, a WIA language, optional ergativity is seen. Dakkhini presents a non-canonical case of optional ergativity as it has no phi-feature agreement (including person agreement) in the past tense or perfective aspect in both synchronic Dakkhini<sup>9</sup> and diachronic Old Dakkhini. For example:

<sup>8</sup> Caryapada is the lone 11<sup>th</sup> century textual source for Old Bangla.

<sup>9</sup> In present habitual of synchronic Dakkhini, person agreement is seen which works like Sylheti.



(19) potta(-ne) khaana khaya  
boy -ERG rice eat.PST.SG  
'Boys ate the rice'

Present Dakkhini

(20) usa-ne khela yum kheliya  
3SG-ERG game 3SG.DIR play.PERF.M.SG  
'He played this game'

(21) badasaha saraba piya  
emperor.M wine.F drink.PERF.M.SG  
'The Emperor drank wine'

Old Dakkhini (Drocco 2016)

(19) shows that the sentence is grammatical with or without the presence of *-ne* ergative marker (optional ergativity). Similarly, in (20–21), we see ergative case in (20), but no ergative case in Old Dakkhini data.

(22) potta(-ne) khana khaya  
boy.M-ERG food.M eat.PST  
'Boy ate rice'

(23) potta(-ne) cai piya  
boy.M-ERG tea.F drink.PST  
'Boy drank tea'

(24) tu(-ne) khana khaya  
2SG-ERG food.M eat.PST  
'You ate rice'

(25) me(-ne) khana khaya  
1SG-ERG food.M eat.PST  
'I ate rice'

Present Dakkhini

(22–23) show absence of any kind of phi-feature or subject–object agreement in Dakkhini in the past. (22–25) show evidence of optional ergativity in all three persons in Dakkhini. It is noticeable that neither present Dakkhini nor Old Dakkhini allows phi feature agreement including person agreement with the subject or object DP in the past or perfective.

To summarise, the optional ergativity typology in IA languages is shown Table 1.

Languages	Presence of object agreement	Presence of person agreement	Optional ergativity
Early Brajhasha, Old Bangla	Yes, with ergative in Past or Perfect with gender and number agreement	Yes, in present tense with nominative	<b>Yes</b>
Sylheti	No	Yes	<b>Yes</b>
Early Dakkhini, New Dakkhini	No	No in past tense	<b>Yes</b>

**Table 1:** Optionality and agreement

We see three types of optional ergativity in IA typologically as seen in Table 1. This raises the question how does a single system allow such free variation? To answer this question, I discuss two types of optional ergativity seen in IA: one is related to discourse-information or the edge of vP, and other type of ergative which is pair merged or in other words, an adjunct to the structure. In other words, one is related to thematic semantics and the other to pragmatics. The choice depends upon the presence of person agreement. Dakkhini presents an interesting case as it continues with its optional marking in synchronic variants. Additionally, it has no person agreement in both nominative and ergative marked structures in the past tense which marks a semantically vacuous optionality which is a relic of the ergative marker. The next subsection elaborates on this.

#### 4 Optionality as semantics

The different types of optional ergative seen in IA can have a variety of causes. First, I talk about optional ergativity as pragmatic ergativity (Hyslop 2010, Dubois 2017 a.o.), where the presence or absence of ergative markers depends on the pragmatic context of the construction. Dubois (2017) also talks about ‘universal discourse-pragmatic pressure’ and similar alignment between discourse and ergativity which throws light towards patterns in ergative constructions. He talks about this pragmatic function while choosing a particular type of construction in a language. It relates ergative-accusative case to the CP layer. Therefore, the discourse information plays a major role in case-assignment. Such instances of pragmatic ergativity are also seen in Tibeto-Burman languages which has been contact with IA languages for centuries. For example:

(26) net            tiru    yanga    yanga    bi-shang  
 1.PL.ABS    money   five    five    give-PERF.EGO  
 ‘We gave five bucks (’ngultram) each’

(27) nei            tiru    yanga    yanga    bi-shang  
 1.PL.ERG    money   five    five    give-PERF.EGO  
 ‘We gave five bucks (’ngultram) each.’

Kurtop (Hyslop, 2010: 17)

(26–27) are examples of optional ergativity seen in Kurtop language from Tibeto-Burman (East Bodish) family. In (27), we see the ergative marking on the subject unlike (26) which is unmarked. Hyslop states that the ergative is used in (27) to show contrastive focus on the subject ‘we’ meaning “in contrast to other parties”.

The same is seen in case of Sylheti. Sylheti uses ergative marking for pragmatic reasons which are determined contextually. The context of (12a) is very important. In its absence, the ergative marker obligatorily marks the agent of the action. However, in presence of context where the agent has already been clarified, the marker is optional. Therefore, the DP moves to edge of the vP phase to indicate the pragmatic context via the *-e* marker and then agrees with the phi rich C-T. We see the importance of background and new information. Ergative is optional when it is a part of the prior discourse.

**Figure 2:** Optional ergativity via movement to edge 1



In Figure 2, edge 2 is the speaker-hearer context<sup>10</sup> and edge 1 is the discourse context where the DP moves to for the ergative marker to procure the extra pragmatics (see Biberauer, 2017). Chomsky (2005:13) also describes the edge having properties of ‘tucking in’ which carries all the extra semantics which is absent from the first merge or argument structure. Such movements or internal merges to edge express “semantic properties” (Chomsky, 2005: 7, 14) which is directly accessible to conceptual-intentional/CI interface. The movement to edge is followed by person agreement. Further evidence that proves the optional ergative is not related to transitivity is that the optionality is also seen in unaccusative verbs. For example:

(28) Ram(-e) porse  
 ram-ERG fall.PST.3  
 ‘Ram fell’

Sylheti

The marker also comes with unaccusative verbs, such as ‘fall’ to indicate extra semantics of focus, as seen in (28).

However, this is not seen in languages like Old Bangla or Early Brajbhasha. Alexiadou (2001) establishes a close relation between transitive structures and adjuncts or prepositional phrase/PPs with data from Greek. Mahajan (1997) also analyses Hindi-Urdu ergatives as PPs. Stepanov (2004) takes note of the object agreement in such languages and claims that the ergative structure is merged

<sup>10</sup> Optionality due to the edge 2 or hearer-speaker context can be another way of explaining optionality, however I have not found any evidence of this in Sylheti, Old Bangla, Dakkhini etc.

“late in the derivation”. The ergative marker *-ne* is an offshoot of Old Indo-Aryan/OIA instrumental *-ena*, which is an adposition. For example:

- (29) devadatt-ena    kaṭa-ḥ                    kr-ta-ḥ  
       devadatta -INS mat -NOM.SG    make-PERF.PART-NOM.SG  
       ‘The mat is made by Devadatta.’ OIA (Verbeke 2013:76)

The *-ena* marked subject in the perfective, as seen in (29) in OIA, is said to be the source of *-ne* marker which blocks the otherwise common subject agreement. I claim that here the ergative in Old Bangla and Early Brajbhasha is an adposition being pair-merged to the main structure. Pair merge is different than set merge because the items in pair merge form ordered pair. (30) shows an unordered set with items a and b. (31) shows an ordered set.

- (30) Set-Merge (a, b) = {a, b}

- (31) Pair-Merge (a, b) = <a, b> Chomsky (2004, 2013, 2015)

However, optionality of the ergative marker in both the languages has been lost over time. Brajbhasha lost optionality by making ergativity rigid. In other words, Hindi-Urdu ergativity is now inherent case (theme-based). Old Bangla has lost ergative alignment and marker by replacing it with the nominative case. Therefore, both have lost pair merged ergativity.

Dakkhini presents a curious case where it has neither lost the optionality, nor regularised it. My contention is that this has happened because it is the only language in IA which allows semantically vacuous ergative marker (in its past tense). Dakkhini is in heavy contact with Dravidian languages which have minimal agreement and null subject marking. Because of this, Dakkhini is neither losing or re-innovating the traditional ergative marker, especially in the past tense. Sylheti, a daughter language of Old Bangla, started allowing person agreement on verbs from 15th century in its past constructions. However, Dakkhini neither allows person marking in verbs, nor marks the transitive verbs in the lexicon to mark transitive subjects differently in the past tense or perfective aspect (as seen in Hindi-Urdu). Presently, as seen in (19), optional ergative marking as the relic of the old ergative continues. The use of relic ergatives in nominative environments is not rare as Kolkata Bangla also uses the *-e* in relic forms as seen in (32):

- (32) chhagol-e    ki        na        khaye  
       goat-ERG what    NEG    eat.PRES.3  
       lit: ‘What a goat does not eat!’ New Kolkata Bangla

To summarise, there are three types of optional ergatives seen in IA. First is the optionality which is provided by discourse information or edge 1 of the phase which encodes the extra pragmatics which is seen in Sylheti. Person agreement with the subject pushes for such edge related movement. The second type of optionality comes about by adjunction. Adjunction or pair merge brings in optionality where it is not part of the core argument structure. Absence of person features, and the presence of object agreement pushes for such a character of ergativity. A language often tends to lose such optionality either by regularising the optionality (as seen in western Hindi) or eliminating the ergative altogether (as seen in most EIA including Bangla and Bihari languages). In cases of the first kind, the ergative is incorporated into thematic semantics which are expressed

via first (set-) merge. Such an ergative is inherent case. Such elimination of optional ergativity related to adjunction proves that the system does not pair merge. The third type of ergative optionality is the semantically vacuous one which is seen in the Dakkhini past constructions. This acts as a relic and grammar does not mind such optionality.

## 5 Conclusion

This study explores how grammar accommodates different types of optional ergativity. The discourse-based pragmatic ergative is found in many languages where the presence of the ergative marker correlates with pragmatic factors. However, I also give evidence of ergative being used as an adposition to explain some examples of optional ergativity seen in IA. They have a diachronic evolutionary source of passive and instrumental which strengthens the theory of optional ergative as adjunction. Dakkhini presents an interesting case where the optional ergativity has been preserved for centuries. Dakkhini has no phi-feature agreement in the past tense and perfective aspect. I conclude that the optional ergative in the Dakkhini past constructions is semantically null and a relic of the original ergativity. No person agreement either with subject or object and prolonged contact with null subject marked Dravidian languages hinder the reanalysis of the ergative marker. *v* plays an important role to describe the variation seen in the typology of optional ergativity seen in IA. Additionally, the edges and pair merge is also relevant for the explaining the phenomenon of optional ergative assignment.

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