Macro Differences in Dialects

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1 Introduction

Literature on variation demarcates local feature based differences from larger structural differences. While micro or nano variation is triggered by variation at the featural level in closely related varieties (Barbiers 2009, Kayne 2000, 2013) among others, macro-level variation is triggered by differential structural parametric settings in unrelated/mutually unintelligible languages, often with cascading effects (Baker 2008, Holmberg and Roberts 2009). This paper claims that case alignment differences, often understood as macro-level differences, may also define dialects and registers. Employing data from a variation study conducted on twenty regional variants/dialects of Braj, a Western Indo-Aryan language, we show that Braj subject case-marking variation (nominative-ergative alterations) indicates structural differences, rather than individual feature-based differences. These structural differences are also, in initial stages, expressed in piecemeal fashion – via featural (person-number) differences in some dialects.

2 Introducing Morphological Ergativity in Braj

Braj, also known as Braj Bhaashaa, is a Western Indo-Aryan language (WIAL) assumed to have originated from Shauraseni Apabhramsha, an Indo-Aryan sub-branch of Northern Medieval India (Snell 1991). It is spoken in the state of Uttar Pradesh in India. Currently, there are approximately eleven districts that are generally assumed to be Braj-speaking areas. These are: Gautam Budh Nagar/Noida, Ghaziabad, Aligarh, Budaun, Bareily, Mathura, Hathras, Etah, Agra, Firozabad and Mainpuri.

Braj is an aspect based ergative language (also see Verbeke 2013, Drocco 2016). The transitive subject in the perfective construction is obligatorily ergative marked with *-ne* and cannot trigger verbal agreement. This is illustrated in (1) from the Paigaon (Mathura) variety.

(1)	me-ne/to-ne/ba-ne	ek	billi	mari
	1sg-erg/2sg-erg/3sg-erg	one	cat	hit.PERF.F.SG
	'I/you/(s)he hit a cat.'			

By contrast, the subject of the Paigaon imperfective transitive clause is case valued nominative and agrees in number, gender and person with the verb-auxiliary complex, as is shown in (2).

(2)	mɛ-Ø/tu-Ø/bo-Ø	ek	billi-ku	matt-o		
	1sg-nom/2sg-nom/3sg-nom	one	cat-ACC	hit.IMPERF.SG-M		
	u/ɛ/ɛ					
	be.PRES.1SG/2SG/3SG					
	'I/you/he hit(s) a cat.' (habitual)					

Data collected from all twenty Braj-speaking localities show morphological ergativity in the transitive domain in the perfective. Unaccusatives in all variants of the language remain unmarked with the subject controlling verbal agreement; see (3) from Paigaon variety.

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(3) bo-Ø nicε gir go
 3SG-NOM down fall go.PERF.3SG
 'He fell down.'

3 Variation in the Unergative Domain

The unergative domain, however, shows vital signs of big, case alignment differences, of the kind that defines meso-level and macro-level variation in the region.¹ Only five Braj varieties (Paigaon, RasoolpurBela, Marehara, Bisauli and Antpuri) extend the ergative assigning v to all unergatives (egs. 'laugh', 'sneeze'), leading to an obligatorily ergative case-marked subject. Some examples from Paigaon are as listed below:

- (4) ba-ne chîko 3SG-ERG sneeze.PERF.3SG 'He sneezed.'
 (5) ba-ne həso 2GG EBG hurch PEPE 2GG
- 3SG-ERG laugh.PERF.3SG 'He laughed.'

In the remaining fifteen Braj dialects, only subjects of 'sneeze' receive an ergative, while subjects of 'laugh' are nominative. For illustration, consider the following examples from the Atour Nagla (Noida) variety, where the subject of the unergative 'sneeze' occurs with an ergative marker, (6), while the subject of 'laugh' occurs without the ergative -ne, (7). What explains the lack of ergativity in the remaining 15 dialects?

(6)	us-ne	chika	ha
	3sg-erg	sneeze.PERF.SG	be.PAST.3SG
	'He sneezed.	,	
(7)	u-Ø	həsa	ha
	3sg-nom	laugh.PERF.SG	be.PAST.3SG
	'He laughed	,	

To address this question, we consider (i) case patterns with a wider spectrum of unergative verbs, (ii) selectional restrictions with light verbs, and (iii) the syntactic properties of unergative objects, where present.

3.1 A Divide in the Unergative Domain

In addition to 'laugh' and 'sneeze', we collected data from four more predicates- 'run', 'jump', 'work' and 'talk'. As seen in examples (8) and (9), verbs 'run' and 'jump' pattern together and occur with a nominative subject, while an ergative subject obtains with 'work' and 'talk'.

(8)	be	kəl	dəro/kudə		
	3sg.nom	yesterday	run.PERF/jump.PERF		
	'He ran/jumped yesterday.'				

(9)	ba-ne	kəl	bat kəri/ba-ne	kəl	kam	kərə
	3sg-erg	yesterday	talk do.PERF.F.SG/3SG-EI	RG yesterday	work	do.PERF.M.SG
	'He talked yesterday/he worked yesterday.'					

What we observe is that in Braj, unergative verbs fall into two categories: (i) those that take ergative subjects ('sneeze', 'work', 'talk'), and (ii) those that do not ('laugh', 'run', 'jump'). This division may suggest that the case alteration is linked to predicate types, and therefore is more likely

¹Eastern Indo-Aryan languages are obligatorily nominative-accusative languages, indicating mesovariation in the Indo-Aryan family of languages.

to ensue from micro-level or even nano-level differences. However, as we show below, case alignment is also partly sensitive to the selected light verbs.

3.2 Light Verb Combination

(In)transitivity of light verbs is a crucial determinant of ergativity in Indo-Aryan languages (Platts 1874, Amritavalli 1979, Mahajan 2012). Verbs such as 'sneeze', 'work'/talk' and 'run/jump' seem to manifest a link between the transitivity of the selected light verb and the ergative marking of their subject. To elucidate, 'sneeze' combines only with transitive light verbs, as shown in (10) from Sanota.

(10) un-ne chhiNk diyo 3SG-ERG sneeze give.PERF 'He sneezed.'

Similarly, 'work' and 'talk' obligatorily occur with a transitive predicate 'do', obtaining, in turn, an obligatory ergative subject, as previously seen in (9). With 'run' and 'jump', instances of light verb complexes are not common. However, we found an instance of 'run' in combination with the light verb *lagana* ('apply') in the Mathura variety, as in (11). We understand *lagai* as the transitive form of *lagi* (Butt and Ramchand's (2005) inceptive type of light verb). 'Run' and 'jump' in combination with this light verb manifest an ergative subject.

(11)	ba-ne	daur	ləgayi
	3sg-erg	run	to apply.PERF
	'He ran.'		

Thus far, it looks like the choice of the light verb is crucial in determining the variation in ergativity with unergative predicates in Braj varieties. 'Laugh', however, presents a challenge to the assumed link between the transitivity of the light verb and the ergative marking of the subject. It combines with both transitive and intransitive light verbs, with no change in the nominative marking on the subject in the 15 varieties under consideration. Consider the example from the Firozabad variety in (12) and Bareilly variety in (13).

(12)	bo-Ø	həs	go
	3SG-NOM	laugh	go.perf.3sg
	'He laughe	d.'	
(13)	wo-Ø	həs	dəo
	3sg-nom	laugh	give.PERF.3SG
	'He laughe	d '	-

The patterns are summarized in Table 1 below.

	sneeze	work/talk	run/jump	laugh
Light verb	transitive	transitive ('do')	transitive	(in)transitive
Subject case	Erg	Erg	Erg	Nom

Table 1: Case-Light Verb connection

3.3 Syntax of the Object

We attempt to locate the cause of ergativity in the syntax of the unergative object, motivated by studies conducted by Deal (2010), Coon and Preminger (2017) among others, which define a transitive v (licensing an ergative subject) based on the syntax of the object-object shift/affectedness/object agreement. This approach is distinct from the family of proposals that

treat ergative case as an inherent case whose assignment is controlled purely by v (Woolford 2006, Legate 2008 among others). To start with 'work'/'talk', we have already observed that the predicates obligatorily occur with the transitive light verb 'do'. The nominal component of the N+V complex behaves like a true object, which can be modified both with a numeral and an adjective, see (14) and (15).

(14)	ba-ne	thəkane		varo/bao	kam	kərə
	3sg-erg	tiring	N	ML^2	work	do.perf
	'He did tirii	1g work.'				
(15)	ba-ne	aj	bəs	do kan	n kər	c
	3sg-erg	today	only	two wor	k do.	PERF
	'He only di	d two tas	ks toda	ay.'		

Agentive unergatives of 'motion', 'run'/'jump' do not usually occur with a cognate object, in which case their subjects remain nominative, as we have already seen. However, it is possible to have a cognate object, yielding an ergative subject. When present, this object can be differentiated by the use of a numeral, and can also be modified by an adjective. Consider (16) and (17).

(16)	ba-ne	thəkan	bai	daur	dauri/lə	gayi
	3sg-erg	tiring	NML	race	run.PER	F/apply.PERF
	'He ran a ti	ring race.	,			
(17)	ba-ne	picchle	məhina	do	daure	dauri
	3sg-erg	last	month	two	race.PL	run.PERF.PL
	'He ran two	races las	st month.	,		

Moving to 'laugh' and 'sneeze', we find that both predicates can optionally occur with a cognate object. With 'sneeze', this overtly realized cognate object can be modified as well as differentiated (by using a numeral), see (18) and (19).

(18)	ba-ne	Daraa	den	bai	chhiNk	chhiNki	
	3sg-erg	scare	giving	NML	sneeze.N	sneeze.PERF.F.SG	
	'He sneezed a scare-giving sneeze.'						
(19)	ba-ne	do chh	iNke	chhiNki	ĺ		
	3sg-erg	two sne	eze.PL	sneeze.I	PERF.F.PL		
	'He sneezed	d two sne	ezes.'				

Contrastingly, numeral modification on the object of 'laugh' presents an interesting scenario. The predicate fails to take an ergative subject with the use of the numeral on the object, (20).

(20) bu ek həsi həsii 3SG.NOM one laughter laugh.PERF 'He laughed a laughter.'

However, the use of the lexical item corresponding to 'instance' or an 'episode' allows an ergative subject, (21).

(21) ba-ne ek bar həsi həsii 3SG-ERG one time laughter laugh.PERF.F.SG 'He laughed a laughter once.'

To summarize, the object selected by all unergatives under discussion except 'laugh' can be differentiated as an (countable) entity distinct from the event. This allows for an ergative subject to occur. However, with 'laugh', the object does not allow for a demarcated reading. Instead, it is only when the reference is to discrete or independent episodes of laughter that the structure assumes a transitive syntax, allowing for an ergative subject.

²Nominalizer.

4 Proposal

To formalize the proposal, we adopt the dependent case account of ergative case, which is assigned to the external argument in the same vP domain as the internal argument (Marantz 1991, Laka 2006, Coon 2010, 2013). Schematically, (22):

(22) [TP [VP1 EA-erg_{dependent} [VP IA-acc_{structural} V-trans]]]

All Braj varieties in their transitive domain manifest an ergative subject in the presence of an object. This underlying syntax of ergativity extends directly to above-mentioned unergatives except 'laugh' in the 15 varying varieties of the language. To elaborate, all unergatives have a differentiated nominal component in the VP domain, which allows for the subject in spec, vP to get a dependent ergative. While for 'work'/'talk' the nominal component of the N+V complex itself acts as an object, a distinct object is selected in the case of 'sneeze', and 'run'/'jump'. Consider the schema in (23).

(23) [TP [vP1 EA-erg_{dependent}[VP IA-acc_{structural} V-unerg]]]

Contrastingly, given the nature of the object for 'laugh', we propose that 'laugh' in these 15 varieties has an intransitive structure. Specifically, we propose that the object of 'laugh' incorporates into the V head (in the sense of Hale & Keyser 1993). In the absence of a distinct internal argument, the subject is unable to receive an ergative, see (24).

Thus, the predicate-specific, micro or nano-level difference in Braj actually follows from the syntax of the unergative object-which when referential and differentiated, amounts to the structure being read as a transitive structure, where the subject gets an ergative.

5 A Person-based Featural Difference

The structurally changed domain of the unergative predicate 'laugh' also houses other featurebased case differences, in the form of person-number based splits in two dialects of Braj. The first feature-based differential case marking is found in the Marehara variety with 1st plural pronouns that resist ergative marking (25), while all other pronouns in the variety remain obligatorily marked.

(25) həm-Ø sare/tum səb-ne/un-ne/mɛ-ne/tɛ-ne/ba-ne 1PL.NOM all/2PL all-ERG/3PL-ERG/1SG-ERG/2SG-ERG/3SG-ERG həse/həso laugh.PERF.1PL/laugh.PERF 'We/you all/ they/I/you/he laughed.'

Something similar is also found in the Nithari variety, where 'laugh' forces nominative on all DPs, but the 2^{nd} person singular subject, which gets *–ne* optionally (26).

(26) tu-(ne)/mε/wo/həm sare/təm sare/we 2SG-(ERG)/1SG.NOM/3SG.NOM/1PL all.NOM/2PL all.NOM/3PL.NOM həso/ həse laugh.PERF.SG/laugh.PERF.PL 'You/I/he/we/you all/they laughed.'

We posit that Marehara and Nithari have initiated N-V incorporation with 'laugh', creating a divide between 1st/2nd and 3rd pronouns/NPs. While in Nithari, the spread has extended to all pronouns except the 2nd person pronoun, in Marehara, it has only begun affecting the 1st plural pronoun. The general prediction is that if the structural condition for 'laugh' continues, these two dialects will follow in the footsteps of the other 13 varieties, and discard the ergative for all perfective subjects.

6 Intra-dialectal Variation

Apart from the structural change in the unergative domain, we observed a different type of variation in two registers of Mainpuri, a Braj variant. Register 1 in the perfective transitive domain occurs with an ergative marked subject, which fails to trigger verbal agreement. The verb instead shows default perfective morphology \mathcal{I} , (27). In the imperfective structure in (28), on the other hand, the subject receives a nominative value and triggers phi agreement on T.

(27)	mõ-ne/tum-ne/us-ne	bil-le	marə	
	1sg-erg/2sg-erg/3sg-erg	Bill-ACC	hit.PERF	
	'I/you/(s)he hit Bill.'			
(28)	mõ-Ø/tu-Ø/wəh-Ø	bil-kə	mare	ũ/ε/ε
	1sg-nom/2sg-nom/3sg-nom	Bill-ACC	hit.IMPERF	be.PRES.1SG/2SG/3SG
	'I/you/(s)he hit(s) Bill.'			

As opposed to the case split in register 1, register 2 is uniformly nominative-accusative across all aspects. This is illustrated in the perfective structure in (29) and the imperfective structure in (30). The subject in both examples is obligatorily valued with a nominative and triggers phi agreement on T.

(29)	mẽ-Ø/tu-Ø/wo-Ø	billi-ko	mare	tha
	1sg-nom/2sg-nom/3sg-nom	cat-ACC	hit	be.PAST.M.SG
	'I/you/he hit a cat.'			
(30)	mẽ-Ø/tu-Ø/wo-Ø	billi-ko mare	hũ/hɛ/hɛ	
	1sg-nom/2sg-nom/3sg-nom	be.PRES.1SG/2SG/3SG		
	'I/you/(s)he hit(s) a cat.'			

We take this pattern to present another instance of macro-difference at the dialectal level. There are two possible analyses: language contact situation, or language internal factors, explained by the optional selection of a phi-complete T. The language contact approach finds support from the absence of ergative patterns in some of the neighboring eastern Indo-Aryan languages. Awadhi, another language with literary heritage dating back to the 16th century (Saksena 1971), has no ergative subjects in the perfective, as illustrated in (31). Similarly, Bhojpuri is a pure nominative accusative system, as illustrated in (32).

(31)	həm-Ø/tu-Ø/u-Ø	ð	ek	billi-ke		mərli/mərla/mərl	e
	1sg-nom/2sg-n	OM/3SG-NOM	one	cat-ACC		hit.perf.1sg.m/f/	2sg.m/3sg.m
	'I/you/he hit a ca	at.' (Aw	vadh	i)			
(32)	həm-Ø/tu-Ø/u-Ø	ð	ego	bilar-ke		mərni	ha/
	1sg-nom/2sg-n	OM/3SG-NOM	one	cat-ACC		hit.perf.1sg.m/f	be.PRES/
	mərlə	ha/mərla			hən		
	hit.PERF.2SG.M be.PRES/ hit.PERF.3SG.		be.PRES.3SG				
	'I/you/he hit a ca	at.' (Bh	ojpu	ri)			

Given that Indian towns and cities see a lot of population movement from rural areas, it is possible that Mainpur town has had an influx of speakers from Awadh and Bhojpur in Uttar Pradesh. Such a situation of language contact may have resulted in the formation of a second, co-existing Mainpuri Braj grammar with an active T, giving rise to an optional nominative subject construction in the perfective. Alternatively, the change may have come from a dialect internal factor. The development could be the result of a change in the featural composition of the T head in register 2. In more precise terms, Mainpuri register 2 optionally adopts a T head that has number and gender

features, as in (29). In contrast, register 1 has a perfective structure without an auxiliary (27), indicating a T-less (or T-defective) representation. With the selection of a phi-active T in register 2, the case licensing conditions change. The external argument, base generated in the specifier of vP, is case valued nominative by the higher T head. Schematically, (33).

$$(33) [TP_{[uNG]} [vP EA-nom [VP IA V]]]$$

To summarize, we have claimed that the T head is optionally active in register 2 of Mainpuri, leading to the absence of ergative case on subjects in the said register.

7 No Cascading Effects: Distinct from the Fully Nom-Acc EIA Systems

The loss of ergative case observed in Braj select (unergative) domains is evident for all predicates, aspects and tenses in eastern Indo-Aryan/EIA languages such as Bengali and Oriya. Both Bengali and Oriya are thought to have had an ergative alignment at an earlier stage (Chatterji 1926). However, synchronically, the subjects are obligatorily nominative. For illustration, see (34) from Bengali.

(34)	ami	sita-ke	dekh-lam
	1sg.nom	sita-ACC	see-PERF.1SG
	'I saw Sita		

The EIA nominative case-alignment manifests correspondingly associated cascading effects including (a) strong honorificity/person effects, (b) absence of gender agreement, and (b) presence of a numeral classifier system, superseding number agreement on verbs, all of which are absent in western Indo-Aryan languages including Braj. Consider (35) to (37) from Bengali.

(35)	tumi/aapni		khaachh	o/khaachhen	
	You.NON.HO	ON/you.HON	eat.2NON	N-HON/2HON	
	'You are ear	ting.'			
(36)	ənu/rəvi	sita	-ke	dekhlo	
	Anu.NOM/R	avi.NOM Sita	-ACC	see.PERF.3SG	
	'Anu/Ravi s	aw Sita.'			
(37)	kəl	εk-*(Ta)/du	*(-To)	chhatro	e∫et∫ʰilo
	yesterday	one-*(CL)/tw	$0^{*}(CL)^{3}$	student	come.PERF.3SG
	'Yesterday a student/two students came.'				

Differently from the EIA systems, which exhibit a cluster of properties accompanying the loss of ergativity, in Braj varieties these structural innovations do not affect other grammatical domains with the result that it continues to elude the meso-level properties. This suggests that the structural incorporation and T-selection seem to have impacted smaller domains - most specifically some of the unergatives. It remains to see if this language and its dialects will eventually converge on a pure nominative- accusative system much like Marwari (Udaar 2016).

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³Here, 'CL' stands for classifier.

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