Dialectologia 10 *(2013), 59-86.*
ISSN: 2013-2247

Received 15 Octubre 2011.
Accepted 29 January 2012.

ERGATIVE CASE & AGREEMENT MARKING: SIMILARITIES AND VARIATIONS IN HINDI/URDU, PASHTO AND BALOCHI LANGUAGES[1]

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Abstract

The aim of this article is to provide detailed descriptions of the ergative case marking in three South Asian Languages. The sample from which we will try to make some generalizations includes the Indic language Hindi/Urdu, the Eastern Iranian Pashto and the Western Iranian Balochi languages, which are considered as examples of morphological ergativity within the Indo-Iranian branch. The study presents the range of variation in case and agreement marking in these South Asian members of the Indo-European family. After providing an overview of the ergative marking and agreement in the selected

[1] The present article has benefited from presentations at the Conference "Plurality in Balochistan" (Uppsala 2005), the 2004 Colloquium of Department of Linguistics at University of Konstanz (Germany), and the 2004 Pionier Colloquium, Pionier project Case Cross-linguistically, at Radboud University Nijmegen (The Netherlands); I am grateful to Agnes Korn, Carina Jahani, Miriam Butt, Devyani Sharma, Helen de Hoop, Tim Farrell, Frans Plank, and also the audience at the presentations, for their helpful questions, comments and discussions. Of course, I alone am responsible for any errors and misinterpretations. A table of abbreviations is at the end of this paper.
The inventories of vowel phonemes of Hindi/Urdu, Pashto and Balochi are as follows (Note: Nasal vowels are transcribed via upper case letters throughout the article):

	Hindi/Urdu			Pashto			Balochi	
	front	centre	back	front	centre	back	Front	back
high	*ī*		*ū*	*(ī)*		*(ū)*	*ī*	*ū*
	i		*u*	*i*		*u*	*i*	*u*
mid high	ē		*ō*	ē		*ō*	ē	*ō*
mid low	*ai*	*a*	*au*		*ə*			
low		*ā*		*a*		*ā*	*a*	*ā*

Table 1. Vowel phonemes in studied languages

The reason for presenting Pashto *ī*, *ū*, in brackets is that these phonemes are limited to elegant and formal styles (Penzl 1955: 14), which are not studied here. Owing to the differing systems of the sources, transcription and glossing of the examples is put to a unified system.

languages, an analysis of "Differential Case Marking" (DCM; Aissen 1999, 2003), including "Differential Subject Marking" (DSM), as well as "Differential Object Marking" (DOM), will be presented from a comparative perspective. The study first presents the range of variation in case and intransitive subject (*St*) marking in the sample. Then, the typological splits and the variation in case markings will be presented; and finally, the summary of the data will be addressed with a conclusion.

Keywords
Split Ergativity, Tense/Aspect Split, Animacy Split/Differential Case Marking, Agentive Marking, Agreement Pattern

CASO ERGATIVO Y MARCA DE CONCORDANCIA: SIMILITUDES Y VARIACIONES EN LAS LENGUAS HINDI/URDU, PASHTO Y BALOCHI

Resumen

El objetivo de este artículo es proporcionar una descripción detallada de la marca del caso ergativo en tres lenguas del sur de Asia. La muestra que permitirá hacer algunas generalizaciones incluye las lenguas Hindi/Urdu y el Pashto occidental, que se consideran ejemplos de ergatividad morfológica en la rama indo-iraní. El estudio presenta el rango de variación en la marca de caso y de concordancia que presentan estos idiomas. Después de proporcionar una visión general de la marca del ergativo y de la concordancia en estas lenguas, se desarrolla un análisis comparativo del "marcado de caso diferencial" (DCM; Aissen 1999, 2003), que incluye el "marcado diferencial de sujeto" (DSM) y el "marcado diferencial de objeto" (DOM). El estudio presenta la gama de variación en caso y de marca de sujeto intransitivo en la muestra. A continuación, de describen las escisiones tipológicas y la variación de marcaje en el caso. Finalmente, se resumen los resultados en las conclusiones.

Palabras clave
Ergatividad escindida, tiempo/aspecto escindidos, animacidad escindida/caso marcado diferencial, marcado agentivo, modelo de concordancia

1. Introduction

A language is said to show ergative characteristics if the intransitive subject (*Si*) is treated in the same way as the transitive direct object (*dO*), and differently from the transitive subject (*St*) (Dixon 1994, Trask 1979), which may be summarized as follows (Plank 1979, Deo & Sharma 2006: 370):

-A grammatical pattern or process shows ergative alignment if it identifies *Si* and

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ISSN: 2013-2247

dO as opposed to *St*.

-It shows accusative alignment if it identifies *Si* and *St* as opposed to *dO*.

nominative-accusative		**ergative-absolutive**	
*St*NOM	*dO*ACC	*St*ERG	*dO*ABS
*Si*NOM		*Si*ABS	

Table 2. Case marking patterns

A language is said to be *morphologically* ergative (*surface ergativity*)[2] if *Si* and *dO* appear in the same case while a special case is assigned to *St*. The case which *St* receives in such a system is called *ergative* (ERG), while the case assigned to *dO* and *Si* is traditionally called *absolutive* (ABS).[3] This type of case marking, which in part holds for all three languages in this study, is different from the more familiar accusative system, in which *Si* and *St* both receive nominative case (NOM) and *dO* receives accusative (ACC). The resulting two main types of case-marking patterns are

[2] *Surface ergativity* is opposed to *deep ergativity* (*syntactically ergative* languages). The standard test developed by Dixon (1994) for the identification of these types involves reduced coordination. In the Balochi example (1), two verbs are coordinated, the first being transitive and the second intransitive:

(1) [*ā-Ø* **Si** *šu-Ø*] [**-St** *ē* *darmān-Ø-ē* *gitt-Ø* *ārt-Ā*]
he/she-DIR go.PAST-3SG this medicine-DIR-PRON3SG buy.PAST-Ø bring.PAST-3PL
"He/she went, [he/she] bought these medicines [and] brought [them]." (Farrell 1995: 225, adjusting the misprint in the last word)

The coordination test shows that Balochi groups *St* and *Si* together as they are coreferential. In this respect, the languages discussed in this article behave like accusative languages. Indeed, the pattern is independent from the appearance of the ergative pattern. Hi./Ur., Balochi, and Pashto are all of the morphologically ergative, but syntactically accusative type. A syntactically ergative language, on the other hand, groups *Si* and *dO* together at the deep syntactic level as well. The only example of such a language to date is Dyirbal (cf. Butt 2005:169):

(2a) [*ŋuma* *yabu-ŋ* **St** *buran*] [–**Si** *banaganyu*]
dO
father.ABS mother-ERG see.PAST return.PAST
"Mother saw father, and [father] returned."

(2b) [*bayi* *burrbula* **dO** *baŋgul* *gubi-ŋgu* **St** *bara-n*] [–**Si** *baji-gu*]
NCM.ABS Burrbula.ABS NCM.ERG gubi-ERG punch-NONFUT fall.down-PURP
"The gubi punched Burrbula, and [Burrbula] fell down."

Here the coordination test (see (2), from Manning 1996: 9) shows that *dO* consistently falls together with *Si*. This stands in marked contrast to syntactically accusative languages like Balochi.

[3] In this paper, following Bittner & Hale (1996) and Marantz (1984) among others, both nominative and absolutive are considered equally adequate for the description of the unmarked *direct case*.

nominative-accusative versus ergative-absolutive,[4] which are also the most common ones.

Another important point for the study of ergative case is referred to as *split ergativity*, i.e. variations occurring in the ergative constructions. Various Indo-Iranian languages, including those studied here, are morphological split ergatives; some examples from Hindi/Urdu are (Kachru 1966: 42):

(3a)	*laṛkā*	*jā-tā*	*hai*
	boy.M.NOM	go-IMPERF.M.SG	be.3SG.PRES
	"The boy goes."		
(3b)	*laṛkā*	*ga-yā*	
	boy.M.NOM	go-PERF.M.SG	
	"The boy went."		

(4a)	*laṛkā*	*Kitāb*	*paṛh-tā*	*hai*
	boy.M.NOM	book.F	read-IMPERF.M.SG	be.3SG.PRES
	"The/A boy reads the book."			
(4b)	*laṛkā-nē*	*Kitāb*	*paṛh-ī*	
	boy.M-ERG	book.F	read-PERF.F.SG	
	"The/A boy read the book."			

In the non-perfective aspect (examples (3a) and (4a)), the verb agrees with the subject of either an intransitive or a transitive verb; and these subjects, *Si* and *St*, are also treated identically in case marking (both are nominative), representing accusativity in their morphological behavior. On the other hand, while (3b) shows an intransitive clause, in which the verb agrees with *Si*, (4b) has the verb agreeing with the transitive object (*dO*) to the exclusion of *St* (*laṛkē-nē*), marking the ergative pattern.

The aim of this article is to provide detailed descriptions of the ergative case marking in three South Asian Languages. The sample from which we will try to make some generalizations includes the Indic language Hindi/Urdu (Hi./Ur.),[5] the Eastern Iranian Pashto (Psht.) and the Western Iranian Balochi (Bal.) languages, which are considered as examples of morphological ergativity within the Indo-Iranian branch. The

[4] In the languages studied here, the contrast can be summarized as that of *direct* vs. *oblique* cases; the direct case representing the *unmarked* nominative and absolutive cases, while the oblique case indexes the *marked* ergative and accusative ones.

[5] Hindi and Urdu languages are considered by most linguists to show the same grammatical structure, the difference being that Hindi is written in Devanagari and draws vocabulary from Sanskrit, while Urdu is written in Arabic script and draws vocabulary from Persian and Arabic.

study presents the range of variation in case and agreement marking in these South Asian members of the Indo-European family, with a comparative perspective.

Klaiman (1987) provides a survey of ergative characteristics in South Asian languages, which also includes Hindi, Pashto and Balochi. However, a more detailed study of the three South Asian considered languages is necessary to examine the varying degrees of their overt morphological expression of ergative case marking, as well as the agreement patterns, comparatively; specifically concentrating on the differential subject and object marking systems within the sample. Deo & Sharma (2006) investigate the variation in ergativity in Indo-Aryan languages, which show "a progressive loss of ergative marking" in Hindi, Nepali, Gujrati, Marati, Panjabi, and Bengali (Deo & Sharma 2006: 369). Sharma (2001= demonstrates person hierarchies in Kashmiri, which are remarkably similar to Pashto as discussed in §2.2.2. Roberts (2000) provides a detailed description of clitics and agreement in Pashto. Noteworthy is that although split ergative case marking has been studied in great detail in Hi./Ur. (Mahajan 1990, Mohanan 1994, Butt & King 2004), there is a lack of such of study in literature in Pashto and Balochi, which has been the main reason in selecting these languages for the present study.[6] Agreement, similar to Deo & Sharma (2006), is looked at as a device that indexes grammatical properties of NPs on the verb. The agreement of verbs with nominals exists in all languages of the present survey. However, different agreement patterns are represented throughout the languages which are considered in the paper. After providing an overview of the ergative marking and agreement in the selected languages, demonstrating their common split ergative behavior, an analysis of "Differential Case Marking" (DCM; Aissen 1999, 2003), including "Differential Subject Marking" (DSM), as well as "Differential Object Marking" (DOM), will be presented within the research from the comparative perspective. The study first presents the range of variation in case and *St* marking in the sample. Then, the typological splits

[6] Owing to space considerations, the present work is based on a very limited survey of nominal and verbal characteristics within the investigated languages, omitting various important issues which would illustrate the full range of variation in case and agreement marking. For a detailed discussion of the derivational and inflectional morphology in Hindi/Urdu see e.g. McGregor (1972), Sharma (1958), Bailey (1956) and Kachru (1987); for Pashto see e.g. Penzl (1955), MacKenzie (1987), Tegey & Robson (1996), Babrakzai (1999) and Roberts (2000); for Balochi see e.g. Grierson (1921), Elfenbein (1989), Jahani (2003) and Korn (2005). A comparative presentation of the material within the framework of the Optimality Theory (OT) will be provided in future papers.

and the variation in the case markings will be presented; and finally, the summary of the data will be addressed with a conclusion.

2. Case and subject marking

The one ergative behavior common to all languages of the present study is "agentive marking", which is (Klaiman 1987: 67) "the special marking of nominals in the *St* role" as contrasted with *Si* and *dO* roles.[7] The following sections present the range of variation in case and subject marking in the chosen sample, in which the distinct systems of ergative case and *St* marking will be compared. One noteworthy difference in ergative patterns in the studied languages is that Hi./Ur. shows aspect-conditioned ergativity (*perfect* vs. *non-perfect* aspect), while there is tense based (*past* vs. *present* tense) ergativity in Pashto and Balochi.[8]

2.1. Hindi/Urdu

Among the surveyed languages, Hi./Ur. is characterized by possessing a special agentive marker, i.e. the subject is morphologically marked with the (postpositional) ergative clitic *_nē* in all persons and numbers in the perfective domain. The noun forms of Hi./Ur. show features of gender (masculine and feminine), number (singular and plural), and case. The case features are based on two types of forms: *direct*, also referred to as *nominative*, and *oblique*. For example, the inflectional forms of the masculine noun *laṛkā* "boy" are:

	Sg.	Pl.
Direct	*laṛkā*	*Laṛkē*
Oblique	*laṛkē*	*laṛkŌ*

Table 3**.** Stem form of a m. noun in Hi./Ur.

[7] See also the discussion of DCM in §2.
[8] Note, however, Roberts (2000) represents some evidence for an aspect split in Pashto compound verbs (see §1.2).

The oblique form of the stem is used when a noun is followed by a case clitic (represented in Table 4), e.g. *laṛkē kō* "to the boy", *gharŌ mĒ* "in the houses", *laṛkiyŌ kē sāth* "with the girls", etc.

There are seven cases in Hi./Ur. (Butt & King 2004: 157), among which the present analysis focuses on ergative and accusative ones.

case	**nominative**	**ergative**	**accusative**	**dative**	**instrumental**	**genitive**	**locative**
litic	*Ø*	*Nē*	*Kō*		*Sē*	*kā* (M), *kī*(F), *kē* (OBL)	*mĒ / par / tak / Ø*

Table 4. Case markers in Hi./Ur.

The nominative (direct) is morphologically realized by the lack of a case marker, while the rest are classified as obliques. It is to be noted that if the noun is in the oblique form, then the modifying adjectives, agreeing with head nouns, must also be in the oblique form.

The distribution of the ergative marker *_nē* is exemplified in (5) (from Deo & Sharma 2006: 377), illustrating the "aspect based"[9] split ergative system. Agreement in Hi./Ur. is governed by the following rule: "The verb agrees with the highest arg[ument] associated with the nom[inative] case" (Mohanan 1994: 105), and in the absence of nominative arguments the agreement will be blocked, resulting in the default agreement, i.e. masculine singular (M.3SG). The (finite) main verbs in Hi./Ur. show agreement only for number (singular and plural) and gender (masculine and feminine), but not for person.

(5a)	*sītā*	*rām-kō*	*pīṭ-tī*	*Hai*
	Sita.F.NOM	Ram.M-ACC	hit-IMPERF.F.SG	be.3SG.PRES
	"Sita hits Ram."			
(5b)	*rām-nē*	*bakrī*	*dēkh-ī*	
	Ram.M-ERG	goat.F.NOM	see-PERF.F.SG	
	"Ram saw a sparrow."			
(5c)	*sītā-nē*	*rādhā-kō*	*pīṭ-ā*	
	sita.F-ERG	Radha.F-ACC	hit-PERF.M.3SG	
	"Sita hit Radha." (Deo & Sharma 2006: 377)			

[9] Deo & Sharma (2006) present the aspect-based split ergativity in Indo-Iranian languages as a classic case of the passive to ergative reanalysis (Deo & Sharma 2006: 372).

Deo & Sharma (2006: 377) assert that (5a) shows a non-perfective clause, in which the verb agrees with the nominative subject. In (5b), the verb agrees with the nominative object, because it is the highest nominative argument. The verb may not agree with the ergative marked subject. The verb in (5c), on the other hand, shows default agreement when the object is accusative: verbs cannot show agreement with a marked nominal, and in constructions in which the *dO* is marked, the verb shows default inflection, showing no concord with any nominal at all. Accordingly, verbal agreement patterning in Hi./Ur. is properly labeled nominative, i.e. it lacks ergative verbal concord, agreeing with the nominative argument. The ergative agreement pattern emerges only when the transitive subject is not nominative.

2.2. Pashto

In contrast to Hi./Ur., which has a specific ergative clitic, there is no such marker for the agent in the ergative domain in Pashto and Balochi. Instead, in both languages, *St* is in the oblique case (marked with an ending, not a clitic) in ergative constructions, while it is unmarked in non-ergative structures, which will be illustrated below.

In Pashto, nouns show features of gender (masculine and feminine), number (singular and plural), and case (direct and oblique). The gender of nouns is also shown by the varying forms of the verbs and adjectives that agree with them. There are several inflectional types, among these the one exemplified by *saṛay* "man":

	Sg.	Pl.
direct	*saṛay*	*saṛi / saṛyān*
oblique	*saṛi*	*saṛyānō / saṛyō*

Table 5. Inflectional forms of a m. noun in Pashto

The two above noted cases[10] encode a variety of grammatical functions. Roberts (2000) indicates the correspondence of the direct form to the nominative, while the

[10] In addition to the direct and oblique, MacKenzie (1987: 554) and Penzl (1955) note a vocative and a second oblique case, which is used in conjunction with certain prepositions and is restricted to the singular. However, for the purposes of this paper, the direct-oblique contrast is considered as the main contrast, the two other formations being subdivision of the direct and oblique cases.

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oblique form having the functions for which Hi./Ur. uses the ergative, accusative, genitive, dative, locative and instrumental cases (Roberts 2000: 18).[11] There is ergative pattern in the past tense (simple verbs), similar to the split-ergativity in Hi./Ur. (see §1.1), with the difference of the Hi./Ur. split being conditioned by aspect and the Psht. split by tense (compare (5) with (7) below). The use of case and their grammatical functions insofar as they are relevant to this discussion, are represented in table 6 (adapted from Roberts 2000: 19). As shown in the table, the direct case of nouns serves both for the grammatical subject and (direct) object in the present tense.

	Direct	**Oblique**
present tense	Subject, object	object of adposition
past tense	Object	subject; object of adposition

Table 6. Case and grammatical functions in Pashto

The example below shows the classic Psht. tense conditioned split in sentences with "simple" verbs (cf. Roberts 2000: 27); past tense sentences being inflected on an ergative/absolutive pattern (7b), while present tense sentences are inflected on a nominative/accusative pattern (7a). Noteworthy is that the default agreement of main verbs of ergative constructions is personal concord with *dO*, in which it differs both from Hi./Ur. and Balochi.[12]

[11] Oblique forms are either expressed through bare NPs (simple obliques; as in (6c)) or by accompanying adpositions (the relevant noun and adpositions are in bold face):

(6a)	***də***	***laylā***		*dəlta*	*pinzə*	*kāla*	*tēr*	*šw-əl*
	POSS	Layla.OBL		here	Five	year.DIR	passed	become-PAST.M.3PL
(6b)	***pə***	***laylā***	***bāndē***	*dəlta*	*pinzə*	*kāla*	*tēr*	*šw-əl*
	LOC	Layla.OBL	On	here	Five	year.DIR	passed	become-PAST.M.3PL
(6c)		***laylā***		*dəlta*	*pinzə*	*kāla*	*tēr*	*kṛ-əl*
		Layla.OBL		here	Five	year.DIR	passed	do-PAST.M.3PL

"Layla spent five years here." (Babrakzai 1999: 179-180)

The subject NP in the three examples, all of which have the same meaning, has the same (oblique) case marking, although it is within a PP, as a complement of the preposition *də* in (a) and of the circumposition *pē ... bāndē* in (b) and a bare NP in (c). In Pashto the subject's degree of volition may be indicated by these varying ways of marking the subject (Roberts 2000: 22).

[12] See also the examples in §2.2.2.

(7a)	*saṛ-ay*	*maṇ-a*	*xōr-i*
	man-	apple-	Eat-
	M.DIR.SG	F.DIR.SG	PRES.M.3SG
	"The man is eating the apple."		
(7b)	*saṛ-i*	*maṇ-a*	*xwaṛ-əl-a*
	man-	apple-	Eat-PAST-
	M.OBL.SG	F.DIR.SG	F.3SG
	"The man was eating the apple." (Tegey/Robson 1996: 182)		

Both sentences have the same form of the direct object, which is in the unmarked direct case. While the subject in the present tense (7a) is in the direct case, the subject in the ergative construction (7b) appears in the marked, oblique case. The form of the verb also changes in these sentences, agreeing with the subject in (7a), but with the object in (7b) (Roberts 2000: 28).[13]

2.3. Balochi

[13] Accordingly, Roberts (2000: 28) asserts that in sentences with simple verbs, case and agreement are correlated. However, in his detailed discussion of the matter, Roberts (2000: 39-40) notes that the matter is somehow different for the *compound* verbs of Pashto (see (8a) and (9a)). In this regard both parts of the compound verb agree with the object in past perfective transitive sentences (as in (8a)), just as the verb agrees with the object in the non-perfective aspect of the past tense (as in (8b)), which might be expected given the pattern of ergativity with a simple verb exemplified in (7). At this point, the two parts of the compound verb could be regarded as a single lexical item that agrees with the object.

(8a)	*sangin*	*kərkəy*	*māt-a*	*kṛ-a*
	Sangin.M.OBL	Window.F.DIR.SG	broken-F.SG	do.PERF.PAST-F.3SG
	"Sangin broke the window."			
(8b)	*sangin*	*kərkəy*	*māt-aw-əl-a*	
	Sangin.M.OBL	Window.F.DIR.SG	break.IMPERF-TRANS-PAST-F.3SG	
	"Sangin was breaking the window."			

Roberts (2000: 42) further notes the disassociation of subject and object agreement in a single sentence, as can be seen in the perfective aspect in non-past tense sentences:

(9a)	*tāsē*	*kərkəy*	*māt-a*	*kəy*
	PN.2PL	window.F.DIR.SG	broken-F.SG	do.PRES-PERF.2PL
	"You (PL) break the window."			
(9b)	*tāsē*	*kərkəy*	*māt-ē*	*kəy*
	PN.2PL	window.F.DIR.PL	broken-F.PL	do.PRES-PERF.2PL
	"You (PL) break the windows."			

He continues to show that aspect determines whether the constituents of a compound verb form one unit or two, which results in more similarities between the split-ergative behaviors of Pashto and the better studied Hi./Ur. language. However, It seems questionable whether these examples show an "aspect split": the constructions termed "compound verbs" by Roberts seem to function like a participle + finite verb, the former being a predicate agreeing with the subject ("you make the window broken"), and the latter showing the same tense split as a simple verb (Agnes Korn, p.c.).

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Similar to Pashto, Balochi represents *St* in the oblique case (there is no specific ergative marker) in the ergative domain. The categories found in the Bal. nominal system are case (direct, oblique, object case, genitive and vocative) and number (singular and plural). Note that unlike Hi./Ur. and Pashto, there is no grammatical gender in any Bal. dialect. Farrell (1989: 8) assumes the following case system as underlying Karachi Balochi, "these endings apply[ing] to substantives while pronouns have their own irregularities" (Farrell 1995: 219):[14]

	direct	oblique	dative (object)	genitive	vocative
singular	*-Ø*	*_ā*	*_ārā*	*-ē*	*-Ø*
plural	*-Ø*	*_Ān* (*_ānā, _ānĀ*)	*_ ānā, _ ānĀ*	*_ānī*	*_Ā*

Table 7**.** Case system in Karachi Balochi (Farrell 1989: 8)

Similar to the two other languages, Balochi shows a tense split dividing its system into a non-ergative and an ergative domain (see Farrell 1989), which may be defined as follows: "In all tenses formed from the present stem, the subject is in the direct case (also called nominative) and the object (if any) in the oblique case as one would expect" (Korn 2009: §0), independent of the verb being main or auxiliary. Conversely, "in the tenses formed from the past stem, only the subject of intransitive verbs appears in the direct case, whereas the logical subject (agent) of transitive verbs appears in the oblique case and the logical object in the direct case" (Korn 2009): §0). Korn also notes the oblique case of the logical object in several Bal. dialects;[15] indirect objects are invariably in the oblique or dative case.

The verb agreement pattern is that of the verb being without ending, which is equivalent to the form of the 3SG. However, the verb may agree in number with a 3rd person direct object in that it can take the suffix of the 3PL (Korn 2009: §0); i.e. in

[14] The status and specific form of Bal. ergative constructions differ quite markedly depending on its dialect. This study focuses on the Southern Balochi (SBal.) dialect, which shows a quite consistent use of ergative structures. The material comes from Farrell (1989, 1995) for the (predominantly Southern Balochi) dialect of Karachi and from Korn (2009). (For a general view of Bal. dialects see Korn (2005: 38-42) and the references therein for other major dialect groups, including the Western Bal. dialect of Afghanistan, Eastern Balochi and the Sarawani dialect of Iran)

[15] According to Farrell (1995: 221ff), objects cannot take the oblique, but only the object case. However, Collett (1983: 21) notes that the object is also found in the oblique or object case, see also Korn (2009: fn. 4 and the tables 1.1ff.). See also §2.2.3 below.

contrast to the other languages considered here, Balochi restricts the agreement parameters in the ergative domains to number alone.

verb	cases used	verbal agreement
intransitive	*Si*: direct case	with the subject
transitive	*St*: oblique case object: direct, dative (or oblique)	with the object (optional)

Table 8. Cases and agreement patterns in the past domain (Korn 2009: §0)

The ergative construction in Balochi transitive verbs is exemplified in (10):

(10) *kučik-ā* *ĵinik-Ø* *dīst-Ø*
dog-OBL girl-DIR see.PAST-Ø
"The dog saw the girl." (Farrell 1995: 224)

Split ergativity in (Karachi) Balochi is illustrated by the following examples from Farrell (1989: 17-18): there is subject agreement in the present tense (11) and in intransitive verbs (12)-(13), but object agreement in number with a direct (absolutive) third person object (14), otherwise the verb is unmarked, as if agreeing with a third singular patient (15). As the 3rd singular is zero marked, this means that verbs may only be marked for agreement with a 3rd person plural object.

(11) *man-Ø* *ta-rā* *ĵan-Ā*
PN.1SG-DIR PN.2SG-OBL hit.PRES-1SG
"I will hit you."
(12) *mā-Ø* *šut-Ē*
PN.1PL-DIR go.PAST-1PL
"We went."
(13) *ĵinik-Ø* *šu-Ø*
girl-DIR go.PAST-3SG
"The girl went."
(14) *ĵinik-Ā* *bačik-Ø* *ĵat-Ā*
girl-OBL.PL boy-DIR hit.PAST-3PL
"The girls hit the boys."
(15) *bačik-Ā* *mā-rā* *dīst-Ø*
boy-OBL.PL PN.1SG-OBL see.PAST-Ø
"The boys saw us." (Farrell 1989: 19)

It can be concluded that all the three investigated languages — Hi./Ur., Pashto and Balochi — show morphological or surface ergativity (as opposed to "deep" or "syntactic ergativity"), which is demonstrated through a variety of superficial forms.[16]

3. Typological splits

In what follows, typological splits will be examined from a comparative perspective.[17] Trask (1979: 388) noted that ergative languages generally fall into two types, characterized by different sorts of splits of ergative patterning. Using the Silverstein-type animacy split (see §2.2) and the tense split (see §2.1), as the basis of his classification, he hypothesizes that (cf. Klaiman 1987: 64) languages with Silverstein-type animacy split (which he classifies as type 'A') often have ergative-accusative splits consistent with the NP hierarchy of Silverstein (1976), but rarely show the tense-aspect split. On the other hand, languages with tense split in the ergative domain (type 'B' ergative languages), typically lack NP hierarchy splits. According to Trask (1979: 389) there is a typological universal that the Silverstein-type animacy split and the tense split are mutually exclusive and no language has both in its ergative construction.

However, as we hope to show, the diversity of ergative types within our sample, displaying both types of splits together, are counter-examples,[18] and do not support a simple typology as Trask's NP hierarchy split and tense/aspect split types. This is illustrated in the following paragraphs, through examining the appearance of the splits, specifically concentrating on animacy split, as an indicator of *Differential Case Marking* (DCM), which represent the splits as a complex matter in the language types in the sample.

[16] This conclusion was already made for Balochi by Farrell (1995).
[17] This analysis is parallel to that presented by Deo & Sharma (2006) for typological splits in Indic, which the authors consider as strategies of "markedness reduction".
[18] See Korn (2009: fn. 75) for some more counterexamples.

3.1. Tense/Aspect Split

A significant property of the ergative construction, which fits into typological patterns observed in all three surveyed Indo-Iranian languages, is the tense/aspect split. Trask (1979: 385) suggests a typological universal that if the ergative is restricted to some tense(s) or aspect(s), ergative constructions occur in the past tense or perfective aspect, while there is nominative construction in the remaining tense(s). The above-illustrated data provide support for this universal.[19] In Hi./Ur. the occurrence of the ergative construction is limited to the perfective aspect, illustrating aspect-split ergativity (nominative/accusative and agreement in the imperfective aspect vs. ergative/absolutive in the perfective aspect (cf. §1.1 above, examples (3)-(5)). This corresponds to the situation in the studied Iranian languages: in Pashto the ergative pattern is displayed in (simple verb) past tense constructions (e.g. (7)). A similar tense-split is observed in Balochi, showing the ergative construction in the tenses formed from the past stem (as (10)-(15), cf. §1.3 above).

3.2. DCM: the Animacy Split

Differential case marking (DCM) is typologically a common phenomenon, realized cross-linguistically in different forms. As formulated by Aissen (1999, 2003), the phenomenon defines case marking systems in which some nominals with a given grammatical function are overtly case marked, but others are not. Aissen (1999) defines DCM as occurring with *objects* or with *subjects*. The occurrence with *objects* denotes a case marking system in which some objects, but not all, are overtly case marked. The above noted common typological feature is observed in all languages in the present survey, and, following Bossong (1985) (cf. Aissen 2003), is referred to as *Differential Object Marking*.[20] DCM occurring with *subjects* is termed *Differential Subject Marking* (DSM), which denotes a case marking system in which some subjects, but not all, are overtly case marked (Aissen 1999). The phenomena thus show a tendency in the languages to interpret high-ranked nominals as subjects and low ranking ones as objects (Ibid.).

[19] This fact has already been stated for Balochi by Farrell (1995).
[20] This phenomenon has also been called *Identified Object Marking* (IOM) by Klaiman (1987) (following Masica 1981). See Aissen (2003) for more discussion, examples and references.

According to Aissen (1999: 673), the generalization underlying DCM is related to "the association of semantic role with person/animacy rank", first discussed in Michael Silverstein's "Hierarchy of features and ergativity" (1976). A version of Silverstein's hierarchy, adapted from Aissen (1999), is (16a): 1st and 2nd person — called *local persons* by Aissen — outrank 3rd (noun and pronoun), and within the 3rd person there is a further ranking of various subcategories:

(16a) local person>pronoun 3rd>proper noun 3rd [name]>human 3rd>animate 3rd>inanimate 3rd

(16b) agent > patient

Aissen (1999: 673) notes that the above two hierarchies are to be understood in connection to each other. She continues with Silverstein's claim that "the unmarked situation is for elements on the upper end of (16a) to be agents (*St*) in transitive propositions and for elements on the lower end to be patients (*dO*) (Silverstein 1976: 123)". The noted markedness "underlying split-ergative case marking in languages where the split is based on person and/or animacy (Dixon 1994)" is considered via case marking in the present study, i.e. by overt case marking clitics (as in Hi./Ur.), or by nominal inflection (as in Pashto and Balochi). Regarding this issue, Rumsey (1987: 27) notes: "If a language has nominative-accusative case marking for some particular NP type on Silverstein's scale [16a], it also has it for all other NP types which are higher up on the scale. And if a language has ergative-absolutive case marking for some NP type, it also has ergative-absolutive case marking for all types which are lower on the scale."

Turning to DOM, seen so far in at least 300 languages around the world (Aissen 2003: 437), it follows the animacy scale (16a) in that the higher in prominence a direct object is the more likely it is to be overtly case marked.

A second relevant scale is that of definiteness (adopted from Aissen 2003: 444):

(17) definiteness scale:
personal pronoun>proper noun>definite full NP>indefinite specific NP>non-specific indefinite NP

Aissen (2003: 444) notes that the properties which increase the likelihood of overt case marking for objects are exactly those most frequently associated with subjects,

which results in the existence of languages where high prominence objects are case-marked, but not low ones (DOM), with the issue being reversed for subjects (DSM). Contrary to DOM and on the basis of the person ranking of the subject, she continues (Aissen 1999) that DSM should be found with subjects of low prominence (indefinites, inanimates, 3rd persons, non-pronouns), leaving the high prominence subjects (local persons) unmarked.[21] The hierarchy relevant for DSM is that shown in (16a), and a simplified form of it is as below:

(18) 1st/2nd person > 3rd person

This pattern underlies DSM in languages like Pashto and Balochi where the choice between case patterns is based on person, while in Hi./Ur. the transitive subject is marked in all persons and numbers (including 1st/2nd and 3rd person pronouns), without determining any choice (see the respective sections below).

It is important to note that DOM and DSM may co-occur within one language; the co-occurrence of which is noted by Aissen (1999, 2003), and also Deo & Sharma (2006: 374. Table 9), noted for Dyirbal by Silverstein (cf. Aissen 1999: 675) presents the matter and is also applicable to Balochi (in the past tense) and Pashto (in the present tense), as well.[22] Briefly put, the table displays the person based case markings, as a combination of DOM with DSM. The types of arguments that get overt marking in DSM in the *St* role are: 3rd person pronouns, proper nouns and common nouns. 1st and 2nd person pronouns do not get morphological marking in the *St* role.

	unmarked	marked
local persons	subject	object
3rd person	object	subject (of transitive)
case	nominative/absolutive	accusative/ergative

Table 9. Person-based ergative case marking (Silverstein 1976)

[21] The observation that the relevant scales for subjects and objects are inverses of each other was made first by Silverstein (1976).
[22] For discussion of this difference regarding DCM, see the respective sections §2.2.2 and §2.2.3 below.

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The following paragraphs discuss how the phenomena shown above are realized in the languages studied here and attempt to make generalizations from the comparison of these.[23]

3.2.1. DCM in Hindi/Urdu

Hi./Ur. shows variation in the case marking of transitive objects (DOM).[24] Aissen (2003: 462) notes that Hi./Ur. requires extensive (obligatory) case-marking for human-referring objects as personal pronouns and proper nouns, while it is generally optional with inanimates. Characterizing these systems in Hi./Ur. then requires reference both to degree of animacy and of definiteness (Aissen 2003: 456). That is DOM in Hi./Ur. is restricted to an upper segment of the product of the animacy (16a) and definiteness (17) scales.

Direct objects in Hi./Ur. show: (i) accusative case obligatorily (for definite object NPs referring to humans, marked with *_kō*, e.g. (19)), (ii) nominative or accusative optionally (with human referring non specifics, ending _Ø, e.g. (20)), and (iii) are nominative obligatorily (inanimate referring non-specifics, e.g. (21)). The choice between accusative and nominative is independent of perfectivity, but determined by animacy and definiteness (Aissen 2003: 456).

(19) *us-nē* *wahĀ* *sītā-kō (*sītā)* *dēkh-ā*
PN.3SG-ERG there Sita-ACC (*Sita.NOM) see-PERF.M.3SG
"He/she saw Sita there." (MOHANAN 1994:81)

(20) *mai-nē* *wahĀ* *kōī* *ādmī / ādmī -kō* *dēkh-ā*
PN.1SG-ERG there some men.NOM / men-ACC see-PERF.M.3SG
"I saw some men there." (JUNGHARE 1983:45)

(21) *mai-nē* *āj* *kitāb (*kitāb-kō)* *paṛh-ī (*paṛh-ā)*
PN.1SG-ERG today book.F.NOM (book.F-ACC) read-PERF.F.SG / read-PERF.M.3SG
"I read (past) a/the book today."

However, Hi./Ur. does not show DSM in its system. That is, as illustrated by the above examples, the perfect subject is morphologically marked with the ergative

[23] For a detailed discussion on DCM in Hindi/Urdu, Pashto and Balochi, see Mirdehghan (2005).
[24] On DOM in Hindi, see Mohanan (1993), Singh (1994), and McGregor (1972), among others.

postpositional clitic *_nē* in all persons and numbers (including 1st, 2nd and 3rd person pronouns), without any person split (see also (3) and (5)).

3.2.2. DCM in Pashto

DCM in Pashto is more complicated. Klaiman (1987: 80) classifies this language as lacking DOM (termed IOM by Klaiman) throughout the system. However, this appears to be incorrect: Pashto seems to show DCM in the non-ergative domain, i.e. in the pronominal present tense constructions,[25] which will be illustrated below.

As summarized in Table 6, the direct case of nouns serves both for the grammatical subject and (direct) object in the present tense. However, the Psht. pronouns pattern somewhat differently (see Table 10, adopted from Roberts 2000: 21).[26] Roberts (2000: 21 notes) "while singular pronouns show two cases, plural pronouns have a single form, with a morphological fusion of the oblique and direct (ergative and nominative) case patterns for plural subjects in all persons". The plural pronoun paradigm is also characterized by the absence of gender marking in the 3rd person plural, which is present in the 3rd person singulars. The singular pronouns, which display a person split, will be our main attention here. Bold forms in Table 10 highlight the forms of a direct object in a present tense sentence.[27] Roberts (2000: 19) further comments: "Third-person singular pronouns are like full NPs (which are also, of course, third-person) in receiving direct case when they are the direct object of a present tense sentence. In contrast, first -and second- person pronouns, when they are objects, receive oblique case in present tense."

[25] Somewhat similarly to Pashto, DCM in present tense constructions is also observed in Kashmiri (see Sharma (2001) for a detailed discussion of the Kashmiri person split).

[26] The pronominal paradigm in Pashto includes a (semantic) distinction of 3rd person pronouns, which refers to a 3rd person who is "in sight" of the speaker (VIS), or "out of sight" (INVIS). This opposition does not play a role in the differential marking, though, i.e., the VIS and INVIS forms receive the same marking. This is parallel to the double demonstrative pronouns in other languages (e.g. Balochi *ē(š)* and *ā*) referring to near vs. far (Agnes Korn, p.c.).

[27] Besides the pronouns called "strong pronouns" by Roberts (2000: 19ff.), which will be discussed here, there is a set of "second-position clitics (2P-clitics)"; strong pronouns are used when the referent is emphasized, while discourse-neutral (topic) pronouns take the form of second-position clitics. Many Bal. dialects and many other Iranian languages have the same sets of pronouns (Agnes Korn, p.c.).

				DIR	OBL
1SG				*zə*	***mā***
2SG				*tə*	***tā***
3SG	VIS		M	***day***	*də*
			F	***dā***	*dē*
	INVIS		M	***aġa***	*aġə*
			F	***aġa***	*aġē*
1PL				***mung***	
2PL				***tāsē***	
3PL	VIS			***duy***	
	INVIS			***aġuy***	

Table 10. Pashto pronouns

Example (22) in the present tense shows that 1sg and 2sg pronouns appear in the oblique case when they denote *dO* while they are in the direct case in subject function:

(22a)	*zə*	*tā (*tə)*	*daftar*	*ta*	*lēg-əm*
	PN.1SG.DIR	PN.2SG.OBL (*PN.2SG.DIR)	office.DIR.SG	to	send.PRES-1SG
	"I am sending you to the office."				
(22b)	*tə*	*mā (*zə)*	*daftar*	*ta*	*lēg-ē*
	PN.2SG.DIR	PN.1SG.OBL (*PN.1SG.DIR)	office.DIR.SG	to	send.PRES-2SG
	"You are sending me to the office." (BABRAKZAI 1999:60; cf. Roberts 2000:20)				

The direct case is used for 1st and 2nd person subjects and 3rd person nominal objects in present tense and for objects in past tense. However, like full NPs, pronominal subjects are in the oblique case in the past tense and pronominal and nominal objects in the direct case (as exemplified in (23), cf. Roberts 2000: 20), without any differential marking.

(23a)	*minē*	*zə*	*pə*	*bāġ*	*kē*	*wə*	*līd-am*
	Mina.OBL	PN.1SG.DIR	at	garden	in	PERF	see.PAST-1SG
	"Mina saw me in the garden."						
(23b)	*mā*	*mina*	*pə*	*bāġ*	*kē*	*wə*	*līd-a*
	PN.1SG.OBL	Mina.DIR	at	garden	in	PERF	see.PAST-F.3SG
	"I saw Mina in the garden." (Babrakzai 1999: 60)						

Briefly put, in the *present* tense, Pashto only marks 1st and 2nd person objects and 3rd person pronominal subjects, which represents a combination of DOM with DSM in this domain: the types of arguments that get overt marking in the present tense, in the *St* role are 3rd person pronouns, proper nouns and common nouns. 1st and 2nd person pronouns, which are prototypical subjects, do not get morphological marking in the *St* role (as in (22), see also Table 9 above).[28]

domain	case of *St*	case of *dO*
nominative	3rd PN: OBL 1st, 2nd PN: DIR	3rd PN: DIR 1st, 2nd PN: OBL
ergative	OBL	DIR

Table 11. Use of cases for *St* and *dO* in Pashto pronouns

In *past* tense clauses no corresponding person hierarchy applies, and the ergative pattern is displayed regardless of the person ranking of the subject and object: Pashto shows no person split in past tenses, and all subject pronouns and NPs are in the oblique case, with *dO*s showing the unmarked direct case. So (23b) shows the ergative-nominative pattern in spite of the person ranking of subject (see also the ergative examples in §1.2).

In conclusion, as far as the features DOM and DSM are concerned, the Psht. characteristic in differentiating local person singular pronouns from 3rd person singular pronouns (DSM) in the present tense is in accordance with the person-based case marking system of Balochi in the ergative domain (see §2.2.3), with the exception of the person split in Pashto being limited to the present tense, while the Balochi 1st and 2nd person pronouns are case marked according to the nominative/accusative pattern in the past tense; i.e. when the verb agreement follows the ergative/absolutive pattern. As far as DOM is concerned, it is limited to non-ergative (present) constructions (22) and is lacking from the ergative domain, as illustrated in (23). Absence of DOM in the ergative domain distinguishes Pashto from the other languages investigated here.

[28] Roberts (2000: 19, fn. 14) defines the split between first- and second person nominals vs. third-person nominals as being between discourse participants and non-participants.

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3.2.3. DCM in Balochi

A noteworthy feature of Balochi is the presence of DCM, including both DOM and DSM, throughout its system.[29] As far as DOM is concerned, similar to Hi./Ur., only definite objects are marked in (Karachi) Balochi,[30] while indefinite objects show no ending (i.e. appear in the direct case): "the more definite and the more animate the object the more likely it is to have the [OBL] suffix" (Farrell 1995: 65).[31] The common pattern in Balochi is that all NPs from the top section of the definiteness hierarchy, illustrated in (17) above, are obliquely case marked in the verbal constructions using present stem, while those from the bottom section of the hierarchy are not; i.e. the presence and absence of the oblique, marks the definiteness of the object in this language (Farrell 1989: 9).

(24) *iš-Ā* *bahā* *kan-Ā* *guṛ-Ā* *pas-Ø* *gir-Ā*
this-OBL.PL sell do-1SG then goat-DIR buy.PRES-1SG
"I will sell these and buy goats." (Farrell 1989: 9)

In the above example, *iš-* "(referring to chickens previously mentioned) is definite, as well as being animate, and thus marked accusatively; whereas *pas* "goats" refers to goats in general and thus is left unmarked" (Farrell 1995: 220).

Regarding DSM, person split is found in Balochi in that the oblique case marking of the subject is confined to third person nouns and pronouns in Karachi Balochi (both in SG and PL). DSM implies that if there is ergative case marking for some subject NP, there is also ergative marking for all NPs further down on the scale. In (Karachi) Balochi, as names in ergative constructions show OBL marking, all agents further down on the scale (including 3rd person proper nouns and pronouns) will show this marking as well, leaving the pronouns of the 1st and 2nd persons unmarked (see (27)-(29)). The

[29] The transitive/intransitive split and the tense split are inherited from Middle Iranian, but the person split is not; it can be described as person split from a synchronic point of view, but it is due to the fact that the OBL forms of the pronouns came to be used also in DIR function (see Korn (2009: §2.1 and 3)). The same development is taking place for 3rd person and nouns in Iranian Balochi (see Jahani 2003 and Korn 2009) and has also taken place in Hi./Ur. (Miriam Butt, p.c.).

[30] Korn (2009: fn. 2) notes the application of DOM in all Bal. dialects as well as in other languages of Asia, Jahani (2003: 114) discusses DOM in Balochi and Persian.

[31] Note the difference inherent in the case systems, i.e. Balochi and Pashto do not have a case clitic for DOM, such as the accusative marker *_kō* of Hi./Ur., but the oblique form is used for this purpose.

direct object (patient) is normally in the direct case in this domain, as in (25), "but if it is emphasized it may be in the dative" (Farrell 1989: 14), as in (26).

(25) *ĵinik-ā* *bačik-Ø* *ĵā-Ø*
girl-OBL boy-DIR hit.PAST-Ø
"The girl hit the boy." (Farrell 1989: 13-14)

(26) *kučik-ā* *hamā* *ĵinik-ārā* *dīst-Ø*
dog-OBL that.very girl-DAT see.PAST-Ø
"The dog saw the girl." (Farrell 1989: 14)

The split separating the pronouns of the 1st and 2nd persons from other pronominal and nominal forms fits well into DSM patterns as discussed above (cf. Korn 2009: §2.1). In addition, it is to be noted that first and second person pronouns show direct case (i.e. pattern nominatively) in all tenses in Karachi Balochi (cf. Farrell 1995: 222).

(27) *man-Ø* *ta-rā* *gītt-Ø*
PN.1SG-DIR PN.2SG-OBL catch.PAST-Ø
"I caught you."

(28) *mā-Ø* *šumā-rā* *tāč-ēn-t-Ø*
PN.1PL-DIR PN.2PL-OBL run-CAUS-PAST-Ø
"We chased you off." (Farrell 1989: 15)

(29) *man-Ø* *ta-rā* *gīr-Ā*
PN.1SG-DIR PN.2SG-OBL catch.PRES-1SG
"I will catch you."

Examples (27)-(29) are also representatives of DOM case marking in Balochi, i.e. 1st and 2nd person pronouns appear in the oblique case also in the ergative domain when they are direct objects: "this characteristic of 1st and 2nd person pronoun objects indicates that IOM [= DOM] can be said to occur in the domain of non-ergative case marking, i.e. in the non-perfective and in the perfective with 1st and 2nd person objects" (Farrell 1995: 16).

To sum up, the transitive subject (agent), in Karachi Balochi, is in the oblique case if it is a noun or a pronoun of the 3rd person (see (25)-(26)). However, the personal pronouns of the 1st and 2nd persons appear in the direct case when they are transitive or intransitive subjects and in the oblique when denoting the object (as in (27)-(29)). A 3rd person object in the ergative domain is usually in the direct case (e.g. (25)).

The data presented in this section implies a crucial point regarding the difference of subject marking splits in Pashto and Balochi. As illustrated before, the person split in Pashto is limited to the present tense, while it occurs in the ergative domain in Balochi.

The other notable feature of Pashto, different from Balochi, was its morphological fusion of the oblique and direct (ergative and nominative) case patterns, in the case of plural subjects, in all persons (see Tables 10 and 11), which demonstrates the limitation of subject marking to singular pronouns in Pashto,[32] vs. its occurrence with both singular and plural pronominal forms in Balochi.

4. Conclusion

In this paper, we have discussed the characteristic patterns of variation within the ergative paradigms of Hindi/Urdu, Pashto and Balochi languages. Similar to many other new Indo-Iranian languages, the languages under consideration are presented as examples of morphological ergativity.

The paper demonstrates the common default agreement with the nominative argument in all three systems. However, the languages under consideration show variation in the specific grammatical properties of the NPs that are indexed by the verb. For example, Hi./Ur. shows gender and number agreement with the object in ergative clause. Pashto shows person, gender and number agreement, while Balochi has only number agreement on the verb. In Hi./Ur. and Balochi the main verb agreement pattern is dependent on case marking, with DOM being its illustrating factor.

In conclusion, the examined patterns of ergative marking and agreement morphology in Modern Indo-Iranian languages: Hi./Ur., Pashto and Balochi, represent the typological characteristics of DSM, DOM, tense/aspect split, and the verb agreement in varying degrees, which can be classified as follows: the tense/aspect split, as well as ergative subject marking is observed in all the surveyed languages. The tense/aspect split is supplemented by a nominal hierarchy split indicating DSM in Pashto and Bal, but not in Hi./Ur.; i.e. Pashto restricts subject marking to singular subjects in the present tense, while Balochi, determines it for both singular and plural forms, in the ergative domain. Hi./Ur. lacks DSM in its ergative domain altogether, marking all *St*s in the same way.

[32] However, as there is only one form for DIR and OBL in Pashto, one might say that all pronominal subjects are marked in Pashto.

Concerning verb agreement patterns and their relation to case marking, the surveyed languages can be classified according to DOM:

-Hi./Ur. and Balochi both show DOM in their ergative domain. However, Balochi agrees only for number, while Hi./Ur. shows agreement for gender and number.

-Pashto lacks DOM of nouns in its ergative domain, and the verb agrees for person in addition to number and gender.

The comparative paradigm for the oblique markings, DSM, DOM, and agreement features is summarized in Table 12.

As seen the data illustrates the variation of the phenomena in spite of its similar occurrence in the languages under investigation in the paper.

Language	**OBL marking**	**DSM**	**DOM**	**default agreement of the verb**	**agreement features**
Hindi/Urdu	all persons	–	definiteness and animacy	NOM subjs, NOM objs (3SG)	gender, number
Pashto	3SG	1SG, 2SG	definiteness (only pronouns)	NOM subjs, NOM objs (3PL)	gender, number, person
Balochi	3SG, 3PL	1st, 2nd SG and PL	definiteness	NOM subjs, zero agreement	number

Table 12. Typology of subject marking and agreement

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ANNEX

Abbreviations

1/2/3	First/Second/Third Person	NCM	noun class marker
ABS	Absolutive Case	NEG	Negative
ACC	Accusative Case	NOM	Nominative
AUX	Auxiliary	NONFUT	nonfuture tense
Bal.	Balochi	NP	noun phrase
DAT	Dative Case	OBJ	Object
dO	Direct Object	OBL	Oblique
DCM	Differential Case Marking	PAST	Past tense
DOM	Differential Object Marking	PERF	Perfective aspect
DSM	Differential Subject Marking	PL	Plural
ERG	Ergative Case	PRES	Present tense
F	Feminine Gender	PRES-PERF	present perfective aspect
FUT	Future	PN	Pronoun
GEN	Genitive Case	Poss	Possessive
Hi./Ur.	Hindi/Urdu	PP	adpositional phrase
IMPV	Imperative	Psht.	Pashto
IMPERF	Imperfective aspect	PURP	purposive
INDEF	Indefinite	SG	Singular
INSTR	Instrumental case	Si	Intransitive Subject
INTR	Intransitive	St	Transitive subject
INVIS	Invisible	TNS	Tense
LOC	Locative Case	TRANS	Transitive
M	Masculine Gender	VIS	Visible