Split-Ergative Morphology in Hindi/Urdu, Pashto & Balochi Languages

Mahinnaz Mirdehghan, Nader Jahangiri

Abstract

This research is designed to produce detailed descriptions of the morphological ergativity in three South Asian languages. The chosen sample includes Hindi/Urdu, Pashto and Balochi, as morphologically enough to achieve the goals and generalizations of the research. The study presents the range of variation in case and agreement marking in these South Asian descendants of the common Indo-Iranian language, in which the distinct systems of ergative case marking and agreement is to be compared, both within the nominal and verbal domain. While these individual languages are common examples of morphological ergativity, the range of variation among these languages has not been examined comparatively. The goals of this research are twofold. After a comprehensive overview, we present a detailed typology of ergative marking and agreement in the predetermined languages, demonstrating their common split ergative behavior. This process is manifested in two distinct strategies of markedness: Differential Case Marking (DCM) [including Differential Subject Marking (DSM), as well as Differential Object Marking (DOM); Aissen 1999] in the nominal domain, and marked agreement in the verbal domain; which is considered within a comparative account.

It will be seen that the ergative marking and agreement patterns are not uniform across these languages. The overt morphological expression of case marking occurs of varying degrees in their nominal paradigms, while in the verbal paradigm the ways in which agreement morphology cross references arguments illustrates the common default agreement with the nominative argument in all three systems.

The study proceeds as follows. First the range of variation in case and subject (S) marking in

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1. The present article is a revised and abridged version of author's doctoral dissertation at Ferdowsi University of Mashad, which is conducted under the supervision of Dr. Nader Jahangiri, to whom I owe thanks for his invaluable comments and judgements.
2. Shahid Beheshti University (m_mirdehghan@sbu.ac.ir)
3. Ferdowsi University of Mashad (jahangiri389@yahoo.com)
the sample will be presented, together with an overview of morphological ergativity. Following this, the typological splits, indicating the strategies of markedness and the variation in case marking splits (DCM), including both differential subject marking (DSM) and differential object marking (DOM), will be examined through the study. The effect of differential object marking (DOM) on verb agreement is considered next; and finally, a summary of the typology of variation in the domain of the study will be presented. Noteworthy is that the achieved comparative patterns can be considered as representatives of languages in the Indo-Iranian family.

Key words: Indo-Iranian languages, Morphological Split Ergativity, Patterns of Variation, Typological Splits, Differential Subject Marking, Differential Object Marking, Agreement Marking.

Introduction

A language is said to show ergative characteristics if intransitive subject (Si) is treated in the same manner as transitive object (dO), and differently from transitive subject (St) (Dixon 1994: 6; Trask 1979: 385), which has been conceived as follows:

- A grammatical pattern or process shows ergative alignment if it identifies intransitive subjects (Si) and transitive direct objects (dO) as opposed to transitive subjects (St).
- It shows accusative alignment if it identifies Si and St, as opposed to dO (Plank 1979: 4).

Relatively few languages behave ergatively at the level of syntax; those that do, also, exhibit ergative behavior at the level of morphology (Trask 1979:385), which bases the distinction between morphological ergativity and syntactic ergativity.

The language is said to be morphologically ergative if Si and dO appear in the same case while a special case is assigned to St. The marked 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) (It should be noted that throughout this research, following Bittner and Hale (1996a,b) and Marantz (1984) among others, the term nominative has been preferred for absolutive, arguing that both nominative and absolutive are unmarked in a given system). This type of case marking, which in part holds for all three languages under investigation, is different from the more familiar accusative system, in which Si and St both receive nominative case (NOM) and dO receives accusative (ACC).

The above-mentioned phenomena result in two main types of case-marking patterns across languages, i.e. nominative-accusative versus ergative-absolutive. These are not the only two groupings that appear in languages, but are the most common ones. The contrast between them is schematized below:

<table>
<thead>
<tr>
<th>Nominative-Accusative</th>
<th>Ergative-Absolutive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Si NOM</td>
<td>dO ACC</td>
</tr>
<tr>
<td>dO ERG</td>
<td>Si NOM</td>
</tr>
<tr>
<td></td>
<td>dO ABS</td>
</tr>
</tbody>
</table>
The aim of this article is to produce detailed descriptions of the morphological ergativity in three South Asian descendants of the Indo-Iranian language family. The chosen sample includes the Indic Hindi/Urdu, the Eastern Iranian Pashto and the Western Iranian Balochi languages, considered as common examples of morphological ergativity within the Indo-Iranian branch (belonging to the Indo-European super family). While there exist individual descriptions of the ergative construction in these languages, there is no treatment yet taking the material into a comparative account, presenting the range of their variation in case and agreement marking\textsuperscript{1,2}

Pertinent to the study is the view of Trask (1979:388). Trask observes that ergative languages generally fall into two types, characterized by different sorts of splits of ergative pattern. 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 (what he classifies as type 'A') often have ergative-accusative splits consistent with the NP hierarchy of Silverstein (1976), but rarely show splits dividing the tense-aspect system into an accusative and an ergative domain. On the other hand, languages with tense split in the ergative domain (type 'B' ergative languages), typically lack NP hierarchy splits, and often exhibit tense-aspect splits. According to Trask (1979:389) there is a typological universal that, the splits being mutually exclusive and without any overlap, as no language may have both: a Silverstein-type animacy split and a tense split, at the same time, in its ergative construction.

However, as will be clear later, the diversity of ergative types within our sample does not allow formulating a simple typology, like Trask's 'NP hierarchy split' and 'tense/aspect split' types. That is although HU can be considered as of type 'tense/aspect split' (see (2) below), but Pashto and specifically Balochi, displaying both types of split (see §2.2), are counter examples to this assumption (The point is illustrated, through the study of Pashto and Balochi's nominal morphology below, indicating the combination of both tense/aspect split and Silverstein NP split). The morphological ergative and accusative split system is manifested in

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\textsuperscript{1} Owing to space considerations, the present work is based on a very limited survey of the nominal and verbal characteristics within the investigated languages, leaving various important matters outside its scope. For example, it does not deal the comprehensive overview of the nominal and verbal systems of the individual languages under consideration, although it is integral to understanding the range of variation in case and agreement marking in them [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); in Pashto see, e.g. Penzl (1955), MacKenzie (1987), Tegey and Robson (1996), Babrakzai (1999) and Roberts (2000); and in Balochi see, e.g. Elfenbein (1989), Grierson (1921) and Korn 2003 among others]. Also lack in taking into account the comparative presented material within a formal theory, which is reserved to be presented in the future papers.

\textsuperscript{2} Klaiman (1987) has provided a survey of ergative characteristics in South Asian languages, which also includes Hindi, Pashto and Balochi languages. However, a more detailed study of the these languages is necessary to examine the varying degrees of their overt morphological expression of ergative case marking in the nominal and agreement patterns in the verbal domain comparatively; specifically concentrating on the differential subject and object marking systems within the sample. Noteworthy is that although split ergative case marking has been studied in great detail in Hindi/Urdu (Mahajan 1990, Mohanan 1994, Butt and King 2001), there is a lack of such of study in Pashto and Balochi languages, which has been the main reason for selecting the sample.
examples (2) and (3) from Hindi/Urdu for instance, and the others will be seen as we proceed further.

(2)

a. laRkaa ja-taa hai
aux-3-SG-PRES go-IMPERF-M-SG aux-3-SG-PRES 'The boy goes.'

b. laRkaa ga-yaa
boy-M-NOM went-PERF-M-SG 'The boy went.'

(3)

a. laRkaa kitaab paRh-taa hai

In the present tense (non-perfective aspect) examples (2a) and (3a), the verb agrees with the subject of either an intransitive or transitive verb; and these subjects, $S_i$ and $S_o$, are also treated identically in case marking (both are nominative), representing accusativity in their morphological behavior. However, while 2b shows the perfective clause, in which the verb agrees with the nominative subject ($S_i$), 3b indicates the verb concord with the dO or transitive object to the exclusion of $S_i$ or transitive subject (laRke in (3b)), marking the ergative pattern.

It is to be noted that the ergative marking and agreement patterns are not uniform across the investigated modern Indo-Iranian languages here. The overt morphological expression of ergative case marking occurs to varying degrees in their nominal paradigms. This study first presents the range of variation in case and subject ($S_i$) marking in the sample in §1. Following this, the typological splits, indicating the strategies of markedness and the variation in case marking splits (DCM), including both differential subject marking (DSM) and differential object marking (DOM), will be presented §2, in the domain of the present study; §3 illustrates the effect of differential object marking (DOM) on verb agreement; the analysis of the typology of variation is then summarized in §4; and finally, §5 the conclusions to be drawn.
1- Case and Subject marking

The one ergative behavior virtually common to all languages of the present study is agentive ($S_t$) marking, which is, as specified by Klaiman (1987:67), the special marking of nominals in the $S_t$ role, as contrasted with $S_i$ and $dO$ roles (also see the discussion of differential case marking (DCM), §2, below). 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 $S_t$ marking is to be compared, within the nominal domain (The comparative study within the verbal domain is presented in §3).

1-1 Hindi/Urdu

Hindi/Urdu\(^1\), belonging to the Indic branch of Indo-Iranian family, is characterized as possessing a special agentive marker, i.e. the perfect subject is morphologically marked with the ergative clitic -ne in all persons and numbers. Noun forms of HU (Hindi/Urdu) bear features of gender (masculine and feminine), number (singular and plural), and case. The case features are indicated through two types of morphological forms: (1) direct, also referred to as nominative, and (2) oblique. The direct form is phonologically null, and the stem forms of nominative, or direct arguments, are never inflected. The HU stem forms will be inflected when they are used as adjuncts or non-nominative arguments (Butt 1995:10). Their declension appears differently according to the gender class and the phonological property of the final segment in the word. For example the possible inflections of the stem form of a representative masculine noun $lāRkāa$ 'boy' is presented below.

(4)

<table>
<thead>
<tr>
<th>Morphological Form</th>
<th>SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>$lāRkāa$</td>
<td>$lāRkē$</td>
</tr>
<tr>
<td>Oblique</td>
<td>$lāRkē$</td>
<td>$lāRkō$</td>
</tr>
</tbody>
</table>

The Oblique form of the stem is used when a noun is followed by a case clitic, e.g. $lāRkē$ ko 'to the boy', $għarō$ mē 'in the houses', $lāRkīyō$ ke saath 'with the girls', etc. The direct form is phonologically null.\(^2\) Accordingly, except nominative, the rest of the HU cases are classified as oblique, being a prerequisite for the cases including oblique morpheme. It is to be noted that if the noun is in the oblique form, the modifying adjectives, agreeing with head nouns, must also be in the oblique form.

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1. Hindi and Urdu languages are considered by most linguists as the same, the difference being that Hindi is written in Devanagari and draws vocabulary from Sanskrit, while Urdu is written in Arabic and draws on Persian and Arabic.

2. HU case clitics are divided into seven groups, including: $Ø$, ne, ko, se, kaa/kit/ke, mē/par/tak, which result in the nominative, ergative, accusative, dative, instrumental, genitive and locative cases (accusative and dative cases having the same appearance in HU). Within these cases the nominative (direct) is morphologically realized by the lack of a case marker, while the accusative and dative share the marker -ko; the locative employs one of three (mē/par/tak) markers or a null marker depending on the meaning. The instrumental -se spans a range of functions, the discussion of which will be out of the scope of present study. The only case marker that inflects in HU is the genitive $k$-, which according to being masculine, feminine or oblique appears as $kāa$, $kī$ or $kē$, respectively (cf. Butt & King 2002:5). All of the case markers mark the core grammatical functions subject, object, or indirect object (Mohanann 1994:64-66). It's to be noted that the focus within this research will be on nominative and accusative cases.
The distribution of the ergative marker -ne is exemplified in (5), illustrating its aspect based split ergative system (cf. Deo & Sharma 2002:8). However, agreement in HU is governed by the following rule, from Mohanan (1994:105): "The verb agrees with the highest argument associated with the nominative case" (also see §3.1 for a discussion of verbal agreement patterns in HU).

(5)
(a) siitaa raam-ko piiT-tii hai
   Sita-F-NOM Ram-M-ACC hit-IMPERF-F-SG aux-3-SG-PRES
   ‘Sita hits Ram.’
(b) raam-ne čiDiyaa dekh-ii
   Ram-M-ERG bird-F-NOM see-PERF-F-SG
   ‘Ram saw a sparrow.’
(c) siitaa-ne raadhaa-ko piiT-aa
   Sita-F-ERG Radha-F-ACC hit-PERF-M-SG
   ‘Sita hit Radha.’ (Deo & Sharma 2003:8)

Above sentences exemplify the agreement and ergative facts in HU. 5a shows the non-perfect 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 masculine singular agreement when the object is accusative. Agreement is blocked because both arguments are case-marked.

Similar ergative patterns are found in Pashto and Balochi languages, the difference being that of HU illustrating aspect-conditioned ergativity, while Pashto and Balochi’s ergativity being tense based.¹

Unlike what noted for ergative clitic -ne marking ergativity in HU, there is no such marker in notifying the ergative domain in Pashto and Balochi. Instead, in both Pashto and Balochi, Si appears in its oblique form (not being marked with an ergative clitic as HU).

1-2 Pashto

In Pashto, which belongs to the Southeastern group within the Iranian branch of Indo-Iranian, Si and dO are basically unmarked, while Si is unmarked in nonergative constructions, but occurring in its marked oblique shape in ergative constructions (Klaiman 1987:72). That is, in Pashto, Si is not marked with an ergative clitic, but appears in its oblique form. Its nouns bear features of gender (masculine and feminine), number (singular and plural), and case (direct and oblique). Noteworthy is that while direct form in Pashto corresponds to nominative (absolutive); its oblique form corresponds to ergative, accusative, genitive, dative, locative and instrumental functions.² Although, as noted above, Pashto lacks an ergative clitic marker, as of HU -ne, the other case relationships, e.g. locative, genitive, possessive and ablative, (as

¹ However, through a research on second position clitics in Pashto, Roberts (2000) reveals that Pashto’s tense relevant ergativity holds for simple verbs, while its compound verbs illustrating asymmetries that are crucially driven by aspect, making it more alike its better studied Indo-Iranian sister Hindi/Urdu.

² It is to be noted that, in addition to the direct-oblique contrast in Pashto’s nominal case system, MacKenzie (1987:554) and Penzl (1955) also indicate a vocative and a second oblique case used in conjunction with certain prepositions that is restricted to the singular. However, in analyzing the case patterns throughout this research the direct-oblique contrast is considered as the main contrast, the two other contrasts being as their subdivision.
similar to HU) are expressed through adpositions, indicating the oblique case (the nominals preceding the postpositions and following prepositions are in oblique case).1

The varying forms of the verbs and adjectives that agree with them also reflect the gender, number and case features of Pashto. A noun such as pætlnun 'pants' may therefore take a variety of forms, depending on its number and grammatical role (Tegey and Robson 1996: 50):

(6)

<table>
<thead>
<tr>
<th>Morphological Form</th>
<th>SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIR</td>
<td>pætlnun</td>
<td>pætlnûnæ</td>
</tr>
<tr>
<td>OBL</td>
<td>pætlaana</td>
<td>pætlnûno</td>
</tr>
</tbody>
</table>

The two cases encode a variety of grammatical functions and display an ergative pattern in past tense, similar to split-ergativity in HU (seen in (5) above), which is traditionally considered with the exception of HU split being conditioned by aspect and Pashto split by tense.

Pashto's case and grammatical functions are represented in Table 1, adapted from Roberts (2000:19).2 As shown in the Table, the direct case of nouns serves both for the grammatical subject and (direct) object in the present tense.

Table 1 Case & Grammatical Functions in Pashto

<table>
<thead>
<tr>
<th></th>
<th>DIR</th>
<th>OBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRES</td>
<td>subject; object</td>
<td>object of adposition</td>
</tr>
<tr>
<td>PAST</td>
<td>object</td>
<td>subject; object of adposition</td>
</tr>
</tbody>
</table>

Following Pashto example (from Roberts 2000:39-40) indicates its tense conditioned split dividing the system into ergative and accusative domains. This shows the classic ergative 'split' in sentences with simple verbs, indicating that past tense sentences are inflected on an ergative/absolutive pattern (7b), while present tense sentences on a nominative/accusative pattern (7a).3

(7)

a. sæR-ay mæN-æ xwr-i
   man-M-DIR-SG apple-F-DIR-SG eat-PRES-3SG
   'The man is eating the apple.'

b. sæR-i mæN-æ xwr-áI-æ
   man-M-OBL-SG apple-F-DIR-SG eat-PAST-F-3-SG
   'The man was eating the apple' (Tegey and Robson 1996: 182)

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1. The term adposition refers to the group of prepositions (e.g. pa 'in' (LOC); de/da 'of' (GEN or POSS); la 'from' (ABL)), postpositions (e.g. te 'to' (DAT)), and ambipositions (also called circumpositions; e.g. pa ... ke 'in, at') (The examples are cited from MacKenzie (1987:556) and Tegey & Robson (1996:153-155)).

2. Noteworthy is that, the term 'subject' in the table is meant to refer to subjects of transitive and unergative verbs only, since subjects of unaccusative verbs behave as objects (in that they receive direct case in both present and past tense) (for a brief introduction to unergative and unaccusative verbs within the sample, see Mirdehghan 2005, ch. 2).

3. The matter is somehow different in Pashto's compound verbs (see §3.3). Roberts (2000:39-40) notes that both parts of the compound verb agree with the object in past perfective transitive sentences, as might be expected given the pattern of ergativity with a simple verb. At this point, the two parts of the compound verb could be regarded as a single lexical item that agrees with the object. He (42) further indicates the disassociation of subject and object agreement in a single sentence, the evidence for which comes from perfective aspect in non-past tense sentences.
Both sentences have the same form of the direct object, in the unmarked direct case. Noting that while the subject in present tense in 7a is in direct case, the ergative subject in 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. In sentences with simple verbs, case and agreement are therefore correlated.

1-3 Balochi

Balochi, a Northwestern Iranian language, similar to Pashto, does not include a special agentive marker, as the ergative clitic -ne of HU, rather, represents $S_t$ in its oblique form. The categories found in the Balochi nominal system are case (direct, oblique, and genitive) and number (singular and plural). Unlike HU and Pashto, there is no grammatical gender in any Balochi dialect.

The basic system of endings of Balochi (including main dialectal endings), to which the Southern dialects (under consideration) add further forms, are as follows.

<table>
<thead>
<tr>
<th></th>
<th>SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIR</td>
<td>Ø</td>
<td>Ø</td>
</tr>
<tr>
<td>OBL</td>
<td>-aa</td>
<td>-aan; AA</td>
</tr>
<tr>
<td>GEN</td>
<td>WBal. -æi; SEBal. -e</td>
<td>-aanii</td>
</tr>
</tbody>
</table>

(Abbreviations: SEBal.= Southern and Eastern Balochi; WBal.= Western Balochi; EBal= Eastern Balochi)

A like the two other surveyed languages, Balochi shows tense-aspect split dividing its system into a nonergative domain and an ergative domain (see Farrell 1989), which may be defined, adapting Korn's (2003b: 2) word, 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. However, 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 also notes the oblique case of the logical object in several Balochi dialects); indirect objects are invariably in the oblique or dative case (cf. from Farrell). The verb itself is without ending, which is equivalent to the form of the 3SG. It may agree in number with a 3rd person object in that it can take the suffix of the 3PL:
There is no agreement yet about the number and the terminology of Balochi cases. However, Farrell (1989:8) assumes the following case system as underlying Karachi Balochi dialects (the indicated endings applying to nouns, while pronouns having their own irregularities):

### Table 4 Case system in Karachi Balochi [Farrell 1989:8]

<table>
<thead>
<tr>
<th>Direct</th>
<th>Oblique</th>
<th>Dative (Object)</th>
<th>Genitive</th>
<th>Vocative</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
<td>Ø</td>
<td>-aa</td>
<td>-aaraa</td>
<td>-e</td>
</tr>
<tr>
<td>PL</td>
<td>Ø</td>
<td>-AA</td>
<td>-aanAA/-aanAA</td>
<td>-aanii</td>
</tr>
<tr>
<td></td>
<td>(-aanAA , -aanAA)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The ergative construction in Balochi's transitive verbs has been exemplified in (8):

(8)  
kučik-aa jinik-Ø diist-Ø  
dog-OBL girl-DIR saw-3SG  
'The dog saw the girl.' (Farrell 1995:224)

Split-ergativity in (Karachi) Balochi is illustrated through the following examples, cited from Farrell (1989:17-18). As seen, in the verbal constructions using present stem (of the final verb, whether main or auxiliary) (9) and in intransitive clauses (10), the verb agrees with the subject in person and number. However, in those using the past stem, and in transitive clauses, the verb agrees in number with a direct (absolutive) third person object (11), but otherwise is unmarked, as if agreeing with a third singular patient (12). That is, the verbs using the past stem are only marked for agreement with a 3rd person plural object, since 3rd singular is zero marked. So Karachi Balochi includes:

(9)  
mæn-Ø tæ-raa jæn-AA  
I-DIR you-SG-OBL hit-SG  
'I will hit you.'

(10)  
maa-Ø šut-E  
we-Dir went-PL  
'We went.'

(11)  
jinik-AA bæčik-Ø jæt-AA  
girl-OBL boys-DIR hit-PL  
'The girl hit the boys.'
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(12)

bæčik-AA          maa-raa          diist-Ø
boys-OBL           us-OBL           saw-Ø

'The boys saw us.' (Farrell 1989:19)

Thus all the three languages- HU, Pashto and Balochi- show morphological or surface ergativity (as opposed to "deep or syntactic ergativity"), which is demonstrated through a variety of superficial forms.

2- Typological Splits: the Strategies of markedness

While cross-linguistically, morphological ergativity is a commonly attested phenomenon; this construction may be considered marked in terms of morphological structure, which applies to overt case and agreement marking:

First, assuming a prominence scale of subject > object > non-core function (Aissen 1999), the ergative construction is marked in that the least marked function (subject) is expressed by a morphologically more marked case (ergative), while the more marked function (object) is expressed in the un-marked (nominative) case.

Second, agreement generally indexes the least marked grammatical function, and subject agreement is the most commonly attested pattern; however, in the ergative construction, agreement is with the object.

Keeping in mind the above noted strategies of markedness, the typological splits will be examined in the study. It will be seen that the interpretation of these splits is a complex matter, with various implications for the definition of the ergative language type in the sample. This section examines the appearance of these typological splits, specifically concentrating on animacy split, as an indicator of 'Differential Case Marking' (DCM), within the domain of the study.

2-1 Tense/Aspect Split

A significant property of the ergative construction, which fits into typological patterns observed in all three Indo-Iranian languages, is the tense/aspect split. As noted above, 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) (cf. Korn 2003b: 13). The above-illustrated data provide support for this universal. In Indic Hindi/Urdu the occurrence of the ergative construction is limited to perfective aspect, illustrating aspect-conditioned ergativity (nominative/ accusative case and agreement in imperfective aspect, and ergative/absolutive in perfective aspect, as in (2), (3) & (5)) (cf. 1.1 above), which is parallel to the situation found in Iranian studied languages.

In Eastern Iranian Pashto the ergative pattern is displayed in (simple verb) past tense constructions (as (7)), which is traditionally considered different from its Indo-Iranian sister Hindi/Urdu became HU split being conditioned by aspect and Pashto split by tense (cf. 1.2 above).

Similar situation, parallel to other Iranian and Indic surveyed languages, is also observed in Balochi dialects, specifically Karachi Balochi, showing the ergative construction limited to tenses,
formed from the past stem (as (8)-(12))(cf. 1.3 above); not surprising considering their common origin.

2-2 DCM: the Animacy Split
Differential case marking (DCM) is typologically a common phenomenon, realized cross linguistically in different forms. It defines case marking systems in which some nominals with a given grammatical function are overtly case marked, but others are not. DCM may either occur with objects or with subjects. Its occurrence with objects results in 'Differential Object Marking' (DOM), denoting a case marking system in which some objects, but not all, are overtly case marked. While DCM occurring with subjects, denotes 'Differential Subject Marking' (DSM), a case marking system in which some subjects, but not all, are overtly case marked.

The generalization underlying DCM is related to the association of semantic role with person/animacy rank, first discussed in Michael Silverstein's 1976 paper 'Hierarchy of features and ergativity'. A version of Silverstein's hierarchy, adapted from Aissen 1999, is given in 13a (the format is different than Silverstein's original): 1st and 2nd person -- called the 'local' persons by Aissen -- outrank 3rd, and within the 3rd person there is a further ranking of various subcategories:

(13)
(a) Local person > Proper Noun 3rd > Human 3rd > Animate 3rd > Inanimate 3rd
(b) Agent > Patient

The hierarchy in 13a must be understood in connection with the semantic role hierarchy in 13b. Silverstein's claim is that the unmarked situation is for elements on the upper end of 13a to be agents (S) in transitive propositions and for elements on the lower end to be patients (dO) (Silverstein 1976:123). Evidence for this is that in many languages, expression of more marked configurations is morphologically more complex than that of less marked ones. Interestingly, the markedness expressed here is realized in a number of different ways: through case marking, through the category of direction (direct versus inverse), and through the category of voice (active versus passive) (cf. Aissen 1999); however, the markedness considered in the domain of the present study is through case marking, i.e. by overt case marking clitics (as in HU), or through the nominal inflection (as in Pashto and Balochi). The generalization expressed is an important result in universal grammar, and appropriately occupies a prominent place in the typological and functional literature. Silverstein proposed that the represented markedness underlies split-ergative case marking in languages where the split is based on person and/or animacy (Dixon 1994).

DOM is in fact, a highly principled phenomenon regarding which Bossong (1985, VIII) indicates that the structural uniformity of this phenomenon in at least 300 (presently known) languages around the earth is so obvious that one wonders why linguistics has up to now dealt so little with this topic (cf. Aissen 2000:2). This phenomenon is to be
understood as related to prominence, which is assessed on two scales (cf. Aissen 2000):¹

(14)

Animacy Scale:
Human > Animate > Inanimate

(15)

Definiteness Scale:
personal pronoun > proper noun > definite full NP > indefinite specific NP > non-specific indefinite NP

The higher in prominence a direct object is, the more likely it is to be overtly case marked (Silverstein 1976: 254; Comrie 1979: 62; Comrie 1980: 64; Comrie 1986: 65; Comrie 1989: 66; Lazard 1982: 621; Lazard 1984: 620; Bossong 1985: 651; Bossong 1991: 650), with the functional motivation of DOM being it’s facilitating the distinguishing of subject and object. That is the properties, which increase the likelihood of overt case marking for objects, are exactly those most frequently associated with subjects. The intuition behind this analysis is that high rank on these scales is unmarked (frequent) for subjects, but marked (infrequent) for objects. There is thus a bias to interpret high-ranked nominals as subjects. If they are in fact objects, DOM counteracts this bias (Aissen 2000).

If this is right, then Differential Subject Marking (DSM) should be found with subjects of low prominence (indefinites, inanimates, 3rd persons, non-pronouns), leaving the high prominence subjects (local persons) unmarked. For the low prominence subjects maintain the properties most frequently associated with objects. Thus, it can be predicted that every Object-oriented sub hierarchy is paired with a Subject-oriented one running in the opposite direction, and also the existence of languages in which low prominence subjects are case-marked, but not high ones (DSM).

The aim of this section is to examine the structural uniformity of DCM within the domain of the present study.

It is a common typological feature of all languages in the present survey- Hindi/Urdu, Pashto and Balochi- that some but not all objects are case marked, which following Bossong (1985), is referred to as 'differential object marking' (DOM).² Noteworthy is that this phenomenon is also been called as 'Identified Object Marking' (IOM) by Klaiman (1987) [following Masica (1981)]. The general understanding of DOM which has emerged from the functional/typological literature, especially from Comrie (1979; 1980; 1986; 1989), Croft (1988), Lazard (1982; 1984), Bossong (1985), and Silverstein (1976; 1981), can be characterized as (cf. Aissen 2000:2): The higher in prominence a direct object, the more likely it is to be overtly case-marked, with the matter being inverse for subjects, i.e. the lower in prominence a subject, the more

¹. Person is also a relevant dimension. The distinction between the local persons (1st and 2nd) and the 3rd can be articulated at the top end of the definiteness scale in (19). Person-driven case is extensively discussed in Silverstein (1976), Blake (1977), DeLancey (1981), Comrie (1989), and Dixon (1994). An analysis of such cases in terms of those adapted in this paper is given in Aissen (1999).

². See Aissen (2000) for a more elaborate discussion, examples and references.
likely it is to be overtly case-marked.

As implied above, object marking is not a random linguistic matter. Rather, case marking only applies to a morphologically or semantically well-defined class of NPs. In Balochi, for instance, definite objects are case marked, but not indefinite ones. The common pattern is that, in Balochi, all NPs from the top section of the definiteness hierarchy, illustrated in (15) above, are case marked, in the verbal constructions using present stem, while those from the bottom section of the hierarchy are not. However, Balochi possesses no marker for DOM, such as the accusative marker -ko of HU, thus the oblique form is used to indicate DOM in it (Table 4), i.e. the presence and absence of the oblique, marks the definiteness of the object in this language (Farrell 1989:9).

(16)
iś-AA bæhaa kæn-AA guRaa pæs-Ø , , gir-AA these-OBL sell do-1-SG then goat-DIR buy-1-SG
'I will sell these and buy goats.' (Farrell 1989:9)

Note that iś-AA (referring to chickens previously mentioned) is definite, as well as being animate and thus marked accusatively, whereas pæs 'goats' refers to goats in general and thus is left unmarked.

As noted, differential case marking also frequently occurs with subjects, with this contradistinction to DOM, referred to as DSM. Specifically based on the person ranking of the subject, DSM illustrates that only instances of some lower segment of the definiteness/animacy hierarchy will be case marked (the observation that the relevant scales for subjects and objects are inverses of each other is due to Silverstein 1976).

Important to present survey is that DOM and DSM may co-occur within one language. The co-occurrence of the two case marking systems is observed in Balochi (in all tenses) and Pashto (in present tense), considered in detail in the following subsections.

The person specification of NPs, basing DSM in the survey, induces that the local persons (1st and 2nd) outrank 3rd person (as represented in (13a)). Simplifying the matter somewhat, it can be illustrated as:

(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. Table 5 (cf. Aissen 1999) illustrates the case marking systems of Balochi and Pashto.¹

<table>
<thead>
<tr>
<th></th>
<th>Unmarked</th>
<th>Marked</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local persons</strong></td>
<td>Subject</td>
<td>Object</td>
</tr>
<tr>
<td><strong>3rd person</strong></td>
<td>Object</td>
<td>Subject (of transitive)</td>
</tr>
<tr>
<td><strong>Case</strong></td>
<td>Nominative/ Absolutive</td>
<td>Accusative/Ergative</td>
</tr>
</tbody>
</table>

¹. The basic case-marking pattern for Dyirbal is demonstrated by this table by Silverstein 1976, which equally applies to Balochi and Pashto.
Briefly put, Pashto and Balochi only mark local objects and 3rd person subjects, representing a combination of DOM with DSM (note that the DCM application domain is different in the two languages; see §2.2.1 & §2.2.2). In both languages the types of arguments that get overt marking in DSM in the $S_r$ role (transitive subjects) are: 3rd person pronouns, proper names and common nouns. 1st and 2nd person pronouns that are prototypical subjects (human, volitional, and hence "stronger" relative to 3rd person pronouns, proper names and common nouns) do not get any morphological marking in the $S_r$ role. The following sections consider DCM in the investigated languages.\(^1\)

2-2-1 DCM in Balochi

A typological feature of Balochi is its maintenance of DCM, including both types of DOM and DSM, throughout its system. Keeping in mind the different inflectional patterns of local and third person pronouns in Balochi, the discussion will be continued with examining its case markings patterns.

So far as DOM, similar to Hindi/Urdu, only definite objects are marked obliquely in (Karachi) Balochi, 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 1990:65). Considering DSM, person split is illustrated in the language, i.e. the ergative case marking of the subject in the verbal constructions formed from the past tense is confined to third person nouns and pronouns (including both SG and PL numbers), representing the structural uniformity of the phenomenon.

These phenomena in accordance with the above-presented typological hierarchies, specifically Silverstein's NP hierarchy, show the syntactic markedness in association with semantic role and person/animacy rank. A version of Silverstein's hierarchy was illustrated in 13a, repeated in 19 for convenience.

(19) $1st$ and $2nd$ person $>$ Proper Noun $3rd$ $>$ Human $3rd$ $>$ Animate $3rd$ $>$ Inanimate $3rd$

Regarding the matter, Rumsey (1987:27) asserts: "If a language has nominative-accusative case marking for some particular NP type on this scale, 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."

DCM predicts 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 the case of (Karachi) Balochi, one might thus say that, in the ergative domain, everything from proper names downwards on the hierarchy will be marked ergatively, while the pronouns of the 1st and 2nd persons will remain unmarked. So 3rd person nouns and pronouns maintain oblique case marking in ergative constructions:

---

1. Due to space considerations, developing the findings of the study within the formal Optimality Theory has been reserved for future papers.
(20)

\[ \text{jink-Ø} \quad \text{šu-Ø} \]
\[ \text{girl-DIR} \quad \text{went-3-SG} \]

'The girl went.'

(21)

\[ \text{jink-aa} \quad \text{bæčik-Ø} \quad \text{jaa-Ø} \]
\[ \text{girl-OBL} \quad \text{boy-DIR} \quad \text{hit-3-SG} \]

'The girl hit the boy.' (Farrell 1989:13-14)

Noteworthy is that the direct object (patient) is normally in the direct case in this domain, as in 21, but if it is emphasized it may be in the Dative (Farrell 1989:14):

(22)

\[ \text{kučik-aa} \quad \text{hæm-aa} \quad \text{jink-aaraa} \quad \text{diist-Ø} \]
\[ \text{dog-OBL} \quad \text{EMPH-that} \quad \text{girl-DAT} \quad \text{saw-Ø} \]

'The dog saw that girl.'

As has been seen above, pronouns are not always treated in the same way as nouns are as far as their use in the ergative or nominative construction is concerned: the pronouns of the 1st and 2nd persons differ from other pronouns and from all nouns (including personal names) in that they appear in the direct case and not in the oblique when functioning as an agent.

The split separating the pronouns of the 1st and 2nd persons from other pronominal and nominal forms fits well into DSM characteristic represented above. In addition, it is to be noted that the direct (Nominative/Accusative) case marking of first and second person pronouns is seen in all tenses in (Karachi) Balochi:

(23)

\[ \text{mæn-Ø} \quad \text{tæ-raa} \quad \text{gir-AA} \]
\[ \text{I-DIR} \quad \text{you-SG-OBL} \quad \text{catch-1-SG} \]

'I will catch you.'

(24)

\[ \text{mæn-Ø} \quad \text{tæ-raa} \quad \text{gitt-Ø} \]
\[ \text{I-DIR} \quad \text{you-SG-OBL} \quad \text{caught-Ø} \]

'I caught you.'

(25)

\[ \text{maa-Ø} \quad \text{šumaa-raa} \quad \text{taač-en-t-Ø} \]
\[ \text{we-DIR} \quad \text{you-PL-OBL} \quad \text{run-CAUS-PAST-Ø} \]

'We chased you off.' (Farrell 1989:15)

Examples (23)-(25) are also representatives of DOM case marking in Balochi, i.e. 1st and 2nd person pronouns appear in the Oblique case when they are direct objects. As interpreted by Farrell (1995):" this characteristic of 1st and 2nd person pronoun objects indicates that DOM ('IOM' in his words) 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."

In sum, the transitive subject (agent), in Karachi Balochi, is in the oblique case if it is a noun or a pronoun of the 3rd person (as in (21)-(22)). The personal pronouns of the 1st and 2nd persons, however, appear in the direct case when they are transitive or intransitive subjects (as in (23)-(25)). The 3rd person object is usually in the direct case (as in (20)),

\[ 1 \]

while pronouns of the 1st and 2nd persons are always in the oblique when denoting the object

---

1. Collett 1983:21 notes that the object is also found in the oblique or object case. However, according to Farrell 1995: 221ff, objects cannot take the oblique, but only the object case, which happens in case of a special focus.
Thus the 3rd person object marking of Balochi in the ergative domain can be illustrated as in Table 6, adapted from Farrell (1989:18).

**Table 6** 3rd person object marking in the ergative and non-ergative domain

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indef. object</td>
<td>DIR</td>
</tr>
<tr>
<td>Definite object</td>
<td>DIR</td>
</tr>
<tr>
<td>Def. Emph. object</td>
<td>DAT</td>
</tr>
</tbody>
</table>

2-2-2 DCM in Pashto

The matter of DCM patterning in Pashto is more complicating. Klaiman (1987:80) classifies Pashto as lacking DOM ('IOM') throughout the system. However, the present study shows that her claim appears to be wrong in pronominal present tense constructions of Pashto, i.e. the language seems to include DCM in the non-ergative domain (present tense).¹

The case and grammatical functions of Pashto were presented in Table 1, according to which the direct case of nouns serves both for the grammatical subject and (direct) object in the present tense. However, with Pashto pronouns things are somewhat different, and the direct case of *dO* in the present tense is limited to 3rd person strong pronouns. To clarify the point, regarding DOM in Pashto, Pashto pronouns will be considered, in brief, adopting Roberts' (2000) view.²

Considering pronouns, Roberts (2000:19) indicates that appearing in the same positions as full NPs, the set of singular pronouns initially appear to show the case distinctions as illustrated in Table 7 (cf. Roberts 2000:21). Bold forms in the table indicate the forms of a direct object in a present tense sentence.

**Table 7** Strong pronouns (singular)

<table>
<thead>
<tr>
<th></th>
<th>DIR</th>
<th>OBL(obj. of P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SG</td>
<td>za</td>
<td>maa</td>
</tr>
<tr>
<td>2 SG</td>
<td>ta</td>
<td>taa</td>
</tr>
<tr>
<td>3 SG</td>
<td>dæy</td>
<td>da</td>
</tr>
<tr>
<td>3 SG</td>
<td>dāa</td>
<td>de</td>
</tr>
<tr>
<td>INVIS</td>
<td>æghæ</td>
<td>ægha</td>
</tr>
<tr>
<td>F</td>
<td>æghæ</td>
<td>æghe</td>
</tr>
</tbody>
</table>

Further, Roberts (2000:19) suggests: "Third-person 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.⁴

---

¹ Somehow similar situation to Pashto is also observed in Kashmiri (see Sharma 2001 for a detailed discussion of Kashmiri person split).
² It's to be noted that Roberts (2000:19ff.) distinguishes two types of pronouns in Pashto: Strong pronouns and 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. However, what is referred to as pronouns in our research, is equivalent to Robert's strong pronouns.
³ Note that the pronominal paradigm in Pashto, also, includes an additional (semantic) distinction of visible (VIS) vs. invisible (INVIS) 3rd person pronouns, which refers to a 3rd person who is 'in-sight' of the speaker, or 'out-of—sight': a further classification not seen in the other two investigated languages. However, this classification does not play a role in the differential marking analyses of the language, and both the VIS and INVIS forms receive the same marking in the system.
⁴ He (fn.14) defines the split between first- and second-person nominals vs. third-person nominals as being between discourse participants and non-participants.
On the basis of the present study and the maintenance of DOM and DSM in Pashto, it can be seen that Pashto's characteristic in differentiating local person pronouns from 3rd person pronouns in the present tense falls in accord with the person-based case marking system of Balochi, with the exception of Balochi's case marking showing the person split in all tenses, while Pashto's person split being limited to present tense.

As an instance, consider (26) in present tense below in which the oblique occurrence of 1sg and 2sg pronouns is restricted to direct object position, while the same 1sg and 2sg pronouns receive the direct case in subject position:

(26)

a. za taa/*ta dæftær tæ leg-am
   PN-1-SG-DIR PN-2-SG-OBL/PN-2-SG-DIR office to send-1-SG
   'I am sending you to the office'.

b. ta maa dæftær tæ leg-e
   PN-2-SG-DIR PN-1-SG-OBL office to send-2-SG
   'you are sending me to the office'. (Babrakzai 1999:60; cf. Roberts 2000:20)

Thus the direct case of nouns is used for 1st and 2nd person subjects and 3rd person objects in present tense and for objects in past tense (compare with Table 1). However, like full NPs, pronominal subjects appear in oblique (ergative) case in past tense:

(27)

a. mine za pa baagh ke wa lid-æm
   Mina-OBL PN-1-SG-DIR at garden in PERF saw-1-SG
   'Mina saw me in the garden'

b. maa minæ pa baagh ke wa lid-æ
   PN-1-SG-OBL Mina-DIR at garden in PERF saw-F-3-SG
   'I saw Mina in the garden'  (Babrakzai 1999:61)

Briefly in the present tense, Pashto only marks local objects and 3rd person pronominal subjects. It thus represents a combination of DOM with DSM in this domain. Thus the types of arguments that get overt marking in DSM, in present tense, in the S role (transitive subjects) are 3rd person pronouns, proper names and common nouns. 1st and 2nd person pronouns, which are prototypical subjects, do not get any morphological marking in the S role, in present tense (as in (26)) (also see Table 5 above).

However, in the past tense clauses the person hierarchy distinction summarized above no longer
holds true and the ergative-nominative (absolutive) pattern is maintained regardless of the person ranking of the subject and object relative to one another. Thus we find that Pashto shows no person split in past tenses and all subject pronouns and NPs receive the oblique ergative case within it, with dO showing the unmarked direct case. So (27b) maintains the ergative-nominative pattern in spite of the person ranking of subject (also see (7) above for Pashto's ergative patterning).

The arrays of data presented in this section also imply another crucial point regarding Pashto and Balochi's difference in subject marking split. It was illustrated before that the person split in Balochi is maintained in all tenses, while being limited in Pashto to the present tense. Another notable feature of Pashto, different from Balochi, is its morphological syncretism of the oblique and direct (ergative and nominative) case patterns, in the case of plural subjects, in all persons. That is, although Balochi's subject marking is seen in both singular and plural pronominal forms, it is just limited to singular pronouns of Pashto. In other words, whereas singular pronouns bear two cases (presented in Table 7), plural pronouns have a single form, regardless of their function in a sentence:

<table>
<thead>
<tr>
<th>Table 8 Plural Pronouns [Roberts (2000:21)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Functions</td>
</tr>
<tr>
<td>1 PL</td>
</tr>
<tr>
<td>mung</td>
</tr>
<tr>
<td>2 PL</td>
</tr>
<tr>
<td>tásáe</td>
</tr>
<tr>
<td>3 PL</td>
</tr>
<tr>
<td>VIS</td>
</tr>
<tr>
<td>duy</td>
</tr>
<tr>
<td>INVIS</td>
</tr>
<tr>
<td>ághuy</td>
</tr>
</tbody>
</table>

The plural pronoun paradigm also indicates the loss of gender marking in 3rd person plural, which was present in the 3rd person singulars (see Table 7).

Keeping in mind the tense difference illustrated above, this can show the loss of subject marking occurring in subparts of the person (first and second) in both Pashto and Balochi languages. Whatever, with the loss of subject marking in the plural pronouns altogether, Pashto has taken the reduction of subject marking slightly further than Balochi; while Balochi overtaking in its person split maintenance in all tenses.

2-2-3 **DCM in Hindi/Urdu**

As noted, Hindi/Urdu is a language with an aspectually based split ergative case system such that ergative case is restricted to the agentive subject in a perfective clause, otherwise being nominative.

HU maintains variation in the case marking of transitive objects (DOM), although lacking the person ranking of the subject (DSM) in its case system altogether. In this language, both animate and inanimate objects can be case-marked (accusatively),

---

with the postposition -ko, but case marking of inanimates is possible only for definites, while case marking of humans (and some animates) is possible for indefinites as well. However, it requires extensive case-marking for human-referring objects, i.e. case-marking being obligatory with human-referring personal pronouns and proper names (see, for example Junghare 1983; Butt 1993), while it’s generally being optional with inanimates. Characterizing these systems in HU then requires reference both to degree of animacy and degree of definiteness (Aissen 2000:21). That is DOM in HU can be considered as being restricted to an upper segment of the product of the two scales ((14) and (15)).

To clarify the point, direct objects in HU either bear accusative case, marked with -ko, or are nominative, which has no phonological realization. The choice between accusative and nominative is independent of perfectivity and instead determined by both animacy and definiteness. According to the literature on object case in Hindi, Hindi distinguishes three categories of direct objects: (i) those that must be accusative, (ii) those that are either nominative or accusative, and (iii) those that can only be nominative but not accusative. Obligatorily accusative objects are those object NPs referring to humans (as (31)). The categories of objects that can be either nominative or accusative are human referring non specifics (as (30)) and animate definites (as (29)). However, inanimate referring non-specifics can only be nominative (as (28)).

(28)
mai-ne aaj kitaab / *kitaab-ko paRh-ii / paRh-aa
'I read a/the book today.'

(29)
tum-ne murgii / murgii-ko dekh-ii / dekh-aa
you-ERG chicken-F-NOM / chicken-F-ACC saw-F-SG / saw-3rd-M-SG
'Did you see a chicken?'

(30)
mai-ne wahAA koi koii aaddmii / aadmii ko dekh-aa
I-ERG there some men-NOM / men-ACC saw-3rd-M-SG
'I saw some men there.'

(31)
mai-ne wahAA siitaa-ko/*siitaa dekh-aa
I-ERG there Sita-ACC/*Sita-NOM see-PAST
'I saw Sita there.' (Junghare 1983:45)
Altogether HU lacks DSM in its system. That is, the perfect subject is morphologically marked with the ergative postpositional clitic -ne in all persons and numbers, illustrating the fact that it maintains the pattern of perfect subject marking in all persons (local and 3rd person pronouns) and numbers (SG and PL), without exhibiting any person split, DSM, in its system.

3- Agreement Marking: Cross-Referencing on the Verb

This section briefly considers the range of variation in agreement marking within the domain of the study, representing the effect of DOM on verbs. The agreement is looked at as a device that indexes any grammatical properties of NPs on the verb. The languages represented here show variation in the specific grammatical properties of the NPs that are indexed by the verb. For example, HU 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 the present study, all the surveyed languages have compound tenses formed with auxiliary verbs (in contrast to fully inflectional tenses). However, only when the main verb agrees ergatively, does the auxiliary agreement illustrate the ergative patterning. With the exception of Pashto here, auxiliaries usually differ in agreement parameters from main verbs, since main verbs do not inflect for person in ergative construction, in HU and Balochi (see §3.1 and §3.2 below). However, auxiliary verbs frequently do inflect for person, at least in certain tenses, and are restricted from showing agreement with dO (except in Pashto).

The agreement of main and auxiliary verbs with nominals exist in all languages of the present survey. However, different agreement patterns are represented throughout the languages which are considered below.

Here in HU, the finite main verbs show agreement only for number (singular and plural) and gender (masculine and feminine), and not for person. However, Pashto also shows additional systematic personal agreement of main verbs in the ergative constructions, while Balochi reducing the agreement parameters in the ergative domains just to number. In HU and Balochi the main verb agreement pattern is dependent on case marking, which is considered in the following sections. The illustrating factor in these systems is differential object marking (DOM) (discussed in §2.2 above).

3-1 Hindi/Urdu

In HU, for instance, verbs (main and auxiliary) cannot show agreement with a marked nominal; hence alongside ergative constructions in which the verb agrees with dO, there occur constructions in which the dO is marked accusatively or datively. In this case, the verb reverts to the unmarked (masculine singular) default inflection, showing
concord with no nominal at all. That is, the agreement-governing rule in HU is that the verb agrees with the highest argument associated with the nominative case (Mohanan 1994: 105). Accordingly, the verbal agreement patterning in HU is properly labeled nominative, i.e. it lacks ergative verbal concord. The ergative agreement pattern emerges only when the transitive subject is not nominative. In intransitive constructions, the subject agrees only if it is nominative, as seen in 32a. If the subject is dative, as in 32b, or ergative, the agreement morpheme is the default form (3rd sg, masc) (Comrie 1984, Mahajan 1990).

(32)

a. siitaa aa-yii
   Sita-F arrived-F
   'Sita arrived' (Mahajan 1990:74)
b. tum-ko aanaa hi hogaa
   you-DAT come emph be-FUT-M-SG
   'You will have to come.' (Abbi 1990:259)

In transitive constructions, the subject again agrees only if it is nominative (as in 33c). If the subject is not nominative, but the object is nominative, then the object agrees (33a). Otherwise there is default agreement (33b).

(33)

a. raam-ne roTii khaa-yii thii
   Ram-ERG bread-F-NOM eat-F-PERF be-F-PAST
   'Ram had eaten bread.' (Mahajan 1990:73)
b. siitaa-ne laRkii-ko dekhaa
   Sita-F-ERG girl-ACC see-M-3SG-PERF
   'Sita saw the girl.' (Mahajan 1990:87)
c. siitaa kelaa khaa-tii thii
   Sita-F-NOM banana-M-NOM eat-F-IMPF be-F-PAST
   'Sita (habitually) ate bananas.' (Mahajan 1990:72)

3-2 Balochi

In Balochi, in the ergative domain the logical subject (agent) of transitive verbs appears in the oblique case and the logical object in the direct case, or sometimes also in the dative case; indirect objects are invariably in the oblique. The verb agreement pattern in these constructions is that of the verb being without ending, which is equivalent to the form of the 3SG. However, in the non-ergative constructions the verb may agree in number with a 3rd person direct object in that it can take the suffix of the 3 PL.

The Southern Balochi ergative construction may be illustrated as in Table 9, adapted from Korn 2003b:5.

1. Korn also notes the oblique case of the logical object in several Balochi dialects.
Table 9 The Ergative construction in Southern Balochi dialects  [Korn 2003b:5]

<table>
<thead>
<tr>
<th>Agent</th>
<th>Object</th>
<th>Verbal ending</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>DIR:Ø</td>
<td>agreeing with the object (optional):</td>
</tr>
<tr>
<td>SG -aa</td>
<td></td>
<td>SG -Ø</td>
</tr>
<tr>
<td>PL -aan</td>
<td></td>
<td>PL -ænt</td>
</tr>
<tr>
<td>PN 1st, 2nd</td>
<td>OBL/OBJ:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SG -aa(raa)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PL -aan(raa)</td>
<td></td>
</tr>
</tbody>
</table>

The examples below represent this construction in Southern Balochi (examples are cited from Korn (2003b:5)).

(34)
æliiaa gunii burt-ænt
Ali-OBL-SG sacks-DIR-PL took-PL
'Ali took the sacks.'  (Collett 1983:21)

(35)
aayaan mænaa gušt
they-OBL-PL me-OBL-SG told-SG
'They told me.'  (Collett 1983:9)

Farrell (1989:24) notes that: "In Balochi the tense/aspect difference to which NP case and verb agreement morphology is sensitive seems to be a matter of the tense and transitivity of the final stem in the clause, whether auxiliary or main." That is the transitivity or intransitivity of periphrastic verbal constructions is determined by the respective properties of the finite (auxiliary) verb, not by those of the main verb. So if a particular aspectual form is constructed with an intransitive auxiliary verb final, then even if the main verb is transitive, the logical subject (agent) will be interpreted as Subject of an intransitive verb (and the object (dO) is treated as Accusative, belonging to the main verb (gindægaa in (36)), which is non-perfective).

(36)

pænč saal-aa če mæn-Ø išii-aa gind-æg-aa it-AA
five year-OBL from I-DIR he-OBL see-INF-OBL was-l-SG

'For five years I kept seeing him.'  (Farrell 1989:24)

3-3 Pashto

The only language in the present study where the main verbs of ergative constructions seem to show personal concord with dO is Pashto (see examples in §1.2 and §2.2.2). As was indicated, Pashto lacks DOM in its ergative domain (although maintaining it in the nonergative (present) constructions (28a,b)), separating it from its other two Indo-Iranian sisters investigated through this study.

It is interesting to contrast Pashto with HU and
Balochi in this regard. 33b in HU, and 35 in Balochi, both languages have marked dO, since these objects have definite and animate reference and both languages have DOM in the ergative domain. As in both languages the agreement of verbs is dependent on case marking, both show null concord of main and auxiliary verbs. However, in Pashto's ergative domain, for the compound verbs, the distinguishing matter is not DOM, rather tense and aspect together is considered as the determining factors of the verbal agreement (Roberts 2000), which will be clarified below.

Among the languages included in the study, Pashto is idiosyncratic in its ergative patterning. It was seen, in 7 (cf. §1.2), above that Pashto's simple verbs show the classic ergative 'split', indicating that past tense sentences are inflected on an ergative/absolutive pattern, while, present tense sentences are inflected on an nominative/accusative pattern, i.e. its ergative domain consists of past tenses in simple verbs. However, the matter is more complicated with its compound verbs.

Pashto's compound verbs are formed by the combination of adjectives and nouns with transitive and intransitive auxiliaries (examined closely by Roberts (2000)). Considering them, both tense and aspect are relevant in determining its split-ergative pattern. This dual criterion for ergativity has resulted in verbal agreement that is 'split' in a single sentence, one element of the verb agreeing with the object, and the other element of the verb agreeing with the subject, which results in its split patterning (examples in this section are cited from Roberts 2000).

In past tense transitive sentences with perfective aspect, both parts of the compound verb agree with the object, which might be expected from pattern of ergativity that was illustrated in 7 above for Pashto's simple verbs. That is, in this ergative domain the dO is unmarked and controls verbal agreement.

(37) Past perfective: object agreement

a. sængin karkey maat-æ kR-æ
Sangin-M window-F-SG broken-F-SG do(PAST-PERF)-F-3-SG
'Sangin broke the window'

b. sængin waer maat kR-o
Sangin-M door-M-SG broken-M-SG do(PAST PERF)-M-3-SG
'Sangin broke the door' (Roberts 2000:39)

The same agreement pattern, within the ergative domain, is also observed in the non-perfective aspects of the past tense examples below, in which the two parts of the compound verb form a single word, and the adjectival portion is uninflected:
(38) Past non-perfective: object agreement
   a. sængin   karkay      maat-æw-álæ
       Sangin-M  window-F-SG       broken-TRANS-F-3-SG-(PAST-IMPF)
       'Sangin was breaking the window'.
   b. sængin   wær          maat-æw-u
       Sangin-M  door-M-SG       broken-TRANS-M-3-SG-(PAST-IMPF)
       'Sangin was breaking the door'  (Roberts 2000:41)

As seen in 37 & 38 above, the main verb in
Pashto agrees for number and gender, while if an
auxiliary occurs (past or present), the auxiliary
shows agreement for person and number (and for
gender in the third person singular) (Klaiman

In the non-ergative (e.g. present) tenses of Pashto,
the verbal inflections show personal concord with
subjects (Si and St), which are exemplified in present
non-perfective example below.

(39) Present non-perfective: subject agreement
   a. sængin   karkay      maat-æw-i
       Sangin-M  window-F       broken-TRANS(PRES-IMPF)-3-SG
       'Sangin is breaking the window(s)'
   b. sængin   wærúnæ      maat-æw-i
       Sangin-M  doors-M-PL     broken-TRANS(PRES-IMPF)-3-SG
       'Sangin is breaking the doors'  (Roberts 2000:40)

Nonetheless, evidence for disassociating subject
and object agreement in a single sentence comes
from perfective aspect in non-past tense sentences, in
which the adjectival portion of the compound verb
agrees with the object, while the perfective auxiliary
agrees with the subject (Roberts 2000:42).

(40) present perfective: split agreement
   a. táaso   karkay      maat-æ        kay
       2-PL     window-F-SG     broken-F-SG     do-PRES-PERF-2-PL
       'you (PL) break the window'
   b. táaso   karkay      maat-e        kay
       2-PL     windows-F-PL    broken-F-PL    do-PRES-PERF-2-PL
       'you (PL) break the windows'
   c. táaso   wær       maat          kay
       2-PL     door-M-SG      broken-M-SG    do-PRES-PERF-2-PL
       'you (PL) break the door'
   d. táaso   wærúnæ     maat          kay
       2-PL     doors-M-PL     broken-M-PL    do-PRES-PERF-2-PL
       'you (PL) break the doors'  (Roberts 2003:42-43)
The compound verb agreement patterns illustrated above indicate that the non-verbal (adjectival or nominal) element of the compound verb is either uninflected, or agrees with the object; unlike the auxiliary verb, adjectives never show subject-agreement, regardless of tense or aspect. Auxiliaries, on the other hand, must always agree with either the subject or object.

Thus, compound verbs, illustrating the crucial role of aspect, show that agreement is yet more complicated than suggested by the introductory remarks, since the two parts of the compound verb may agree with different constituents in the same sentence.

4- The Typology of Variation in the Domain of the Study
To sum up, the examined patterns of ergative marking and agreement morphology in Modern Indo-Iranian languages: Hindi/Urdu, Pashto and Balochi represent the typological characteristics of differential subject marking, differential object marking, tense/aspect split, and the main and auxiliary verb agreement in varying degrees, which can be classified among the sample as follows:

The tense/aspect split, as well as ergative (oblique) subject marking is observed in all the surveyed languages as an ergative domain characteristic. However, the noted tense/aspect split is supplemented by a nominal hierarchy split indicating differential subject marking (DSM) only in Pashto and Balochi.

As for the agreement facts all three languages agree with the nominative object, i.e. the highest argument associated with the nominative case, showing default agreement otherwise.

Considering the main verb agreement patterns and its relation to case marking, the surveyed languages can be classified, with differential object marking (DOM) being the illustrating factor:

- HU and Balochi both maintain differential object marking (DOM) in their ergative domain. However, Balochi agrees only for the number parameter, while HU shows agreement for gender, as well as number.
- Pashto lacks DOM in its ergative domain, and in agrees for person in addition to number and gender.

Klaiman (1987:94) points to an implicational relationship among a number of languages displaying ergativity in South Asia, which is attested in this study. She notes in her survey, that there is no system with full ergative agreement patterns, i.e. none has ergative main verb agreement unless in maintains tense/aspect split in its system. Also she adds, ergative main verb agreement occurs for gender only if it also occurs for number, and for person only if it occurs for gender. Finally, $dO$ triggers main verb agreement for person only in a domain of a system where DOM is lacking. That is, no language in which DOM occurs in the ergative domain has personal concord of main or auxiliary verbs with $dO$.

The comparative paradigm for oblique marking and agreement patterns acheived through the present study, is illustrated in Table 10; The summarized
array of data demonstrate the crucial point in the typology that the agreement pattern of each language is related to, but crucially not fully determined, by the subject-marking pattern. The notable feature of the Pashto in this regard is its morphological syncretism of the nominative and the ergatives in the case of plural subjects, in all persons. In other words, the loss of subject marking has occurred in its number (plural) paradigm. Also testified throughout the research is the fact that the person split in Balochi is maintained in all tenses, while being limited in Pashto to the present tense.

<table>
<thead>
<tr>
<th>Language</th>
<th>Oblique marking</th>
<th>DSM</th>
<th>Agreement</th>
<th>Agreement features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindi/Urdu</td>
<td>1st, 2nd, 3rd, SG and PL</td>
<td>_</td>
<td>NOM subjs, NOM objs (3SG)</td>
<td>gender, number</td>
</tr>
<tr>
<td>Balochi</td>
<td>3rd, SG and PL</td>
<td>1st, 2nd, SG and PL</td>
<td>NOM subjs, NOM objs (3SG)</td>
<td>number</td>
</tr>
<tr>
<td>Pashto</td>
<td>3rd, SG</td>
<td>1st, 2nd, SG</td>
<td>NOM subjs, NOM objs (3PL)</td>
<td>gender, number, person</td>
</tr>
</tbody>
</table>

Noteworthy is that the achieved comparative patterns can be considered as representatives of languages in the Indo-Iranian family. It should be clear from the presented data that the groupings of subject-marking types and agreement types do not overlap exactly. While many of these patterns in Indo-Iranian languages have been noted in previous researches, a synthesis of these systems into this broad, yet structured, typology has not been adequately made in the literature.

5- Conclusion

In this paper, we have brought out the characteristic patterns of variation within the nominal and verbal ergative paradigms in a range of new Indo-Iranian languages. An important insight of this paper is the partial independence of case-marking and agreement systems in the languages discussed. Hindi/Urdu, Pashto and Balochi languages are commonly presented as examples of morphological ergativity. A less commonly noted fact is that ergative marking and agreement patterns are not uniform across these languages. The overt morphological expression of ergative case marking occurs to varying degrees in their nominal paradigms, while in the verbal paradigm the ways in which agreement morphology cross references arguments illustrates the common default agreement with the nominative argument in all three systems.

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چکیده
هدف از پژوهش حاضر ارائه تحلیلی جامع از ساخت کتابی دو جزیی در نمونه‌ای منتخب از زبان‌های جنوب آسیا است که بر این اساس از مبانی تمامی زبان‌های متعلق به دین بدنی، زبان‌های هنده‌ای/ اردو (از شاخه زبان‌های هنده‌ای)، پشتو و بلوچی (از شاخه زبان‌های ایرانی) مورد پژوهش واقع شده‌اند. شمار محدود زبان‌های هنده‌ای- ایرانی مورد بررسی، ضمن دریگری گوناگونی موجود در حوزه زبانیان امکان دسترسی به اهداف و تعمیم‌های مورد بررسی در پژوهش را نیز فراهم می‌آورد.
زبان‌های مورد وصف، به عهده نظام‌های کتابی دو جزیی، جملگی، انسجام آشکار و نسبت به پیش‌بینی سیلوستین (1976) در نمایش سلسله مراتب گروه‌های اسمی و نشان‌گذاری رایط‌های متجزه می‌سازند.
تحلیل به انجام رسیده تصویرگر مجموعه‌ای از فرآیندهای مرتبط در نمونه زبانی است که اینگونه‌ای حالت‌نمایی، گوناگونی‌های بین‌زبانی متظاهر در نقشه‌های دستوری مفعول و عامل و نیز اینگونه‌ای مشابه‌های زبانی را می‌تواند در ارائه مباحث مطرح، نخست اینگونه‌ای حالت‌نمایی و گسترده تنوعات موجود و در آن در نمونه‌های منتخب مورد تحلیل واقع شده است. به دنبال آن، تفکیک‌های رده‌شناختی، ضمن دلایلی بر تنوعات حالت نمایی، گوناگونی‌های بین‌زبانی مؤثر بر مفعول و نیز عامل را مورد بحث و بررسی واقع می‌دارد که در قالب و راهبرد نشان‌دادهکاری زبانی، تجیلی ساختاری تأثیر که عبارتند از: الف- حالت نمایی افتراقی ۱ در نظام اسمی که مشتمل است بر فاعل نمایی افتراقی و مفعول نمایی افتراقی، ب- مطابق نشان داد در نظام فعلی. پژوهش حاضر ضمن توجه به نیاز اساسی موجود به تحقیقاتی بیان‌دهن بر مجموعه‌ای مرتبط از زبان‌های کتابی ساختاری، به ارائه طبقه‌بندی مقاطع از زبان‌های مورد بررسی برداخته و نتایج سودمند حاصل از آن در ارائه تعمیم‌های ساخت‌کتابی را مورد تأکید واقع داشته است.

واژگان کلیدی: زبان‌های هندویان، ساخت کتابی دو جزیی، انسجام حالت، گوناگونی‌ها، تفکیک‌های رده‌شناختی،

4. case coherence
7. Typological splits
8. differential subject marking (DSM)
9.  differential object marking (DOM)
11. NP hierarchy

3. Differential case marking (DCM)
4. Split ergativity
5. case coherence
6. variations
7. Typological splits
8. differential subject marking (DSM)
9. differential object marking (DOM)
10. universals
11: NP hierarchy