Coding Grammatical Relations in Dhimal

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Grammatical relations play a vital role not only in the grammar of simple clauses but also in major syntactic processes in Dhimal. The overt coding properties of grammatical relations include nominal morphology and verb agreement in Dhimal. The nominal morphology as coding property presents a consistent nominative pattern of control in Dhimal. The pronominal verb agreement and number agreement also follow the nominative pattern. The Equi-NP deletion (or the co-referent deletion) in complement clauses displays the nominative control in the language.

Key words: Coding properties, cross-reference, co-referential complement, zero anaphora, nominative control.

1. Introduction

This paper deals with the grammatical relations in Dhimal within the framework of the functional-typological grammar developed by Givón (2001a, b). Dhimal is one of the Tibeto-Burman languages spoken by the Dhimals residing originally in the far-eastern Tarai region (i.e., Jhapa, Morang and Sunsari districts) of Nepal. Effort has been made to provide the examples drawn from naturally occurring texts. All the examples are interlinearized with appropriate free translations in English. In this paper, we deal with the formal properties of grammatical/syntactic relations, viz. subject, direct object and indirect object in Dhimal; mainly, in response to three problems: What are the grammatical relations in Dhimal? How are the grammatical relations encoded in Dhimal? And, what pattern of syntactic control do major rule governed syntactic processes tag on in this language? Grammatical relations in Dhimal are subject, direct object and indirect object. Grammatical relations play a vital role in the structure of both simple and complex constructions.\(^1\) In Dhimal, grammatical relations are characterized by two major formal properties referred to as overt coding properties and behavioral properties.

This paper is organized into four sections. In section 2, we deal with the overt coding properties of grammatical relations in Dhimal. In section 3, we deal with the behavior and control properties of grammatical relations. Section 4 summarizes the findings of the discussion.

\(^1\)Cross-linguistically, these relations play a vital role not only in the structure of simple clauses but also in major syntactic processes (complex constructions) such as promotion to direct object, de-transitivization, complementation, causativization, nominalization, relativization, raising, and various types of anaphoric reference and agreement (Givón 1997; 2001a).

Gipan 3:2. 48-60.
2. Overt coding properties

Overt coding properties are the properties which may be realized overtly in the basic structures of the languages. Such properties, as Givón (2001a: 175) notes, are "perceptually discernible features of the grammatical code." Cross linguistically, arguments are most commonly distinguished by three types of coding properties: nominal morphology (case marking), verb agreement and word order. Of such properties, verb agreement is morphological, case marking is both the morphological and syntactic and word order is syntactic. These overt coding properties remarkably determine the grammatical roles of the clausal participants. The relevance of the overt coding properties to grammatical relations even in simple clauses varies from one language to another, or within the same language from one case-role to the other (Givón1997: 8). We examine the overt coding properties and their relevance to grammatical relations in Dhimal.

2.1 Nominal morphology

The nominal morphology, as one of the overt coding properties, refers to the NPs morphological case marking in determining the grammatical relations. In nominative-accusative languages such as English and Japanese the case marking morphology codes the grammaticalized subject in a unified way as nominative and direct-object as accusative regardless of semantic role or transitivity. In contrast, in ergative-absolutive languages, case marking morphology codes the syntactic distinction between transitive and intransitive clauses (Givón 2001: 208). Unlike in many Tibeto-Burman languages spoken in Nepal, in Dhimal, the subject of an intransitive clause and the agent of a transitive clause, irrespective of the tense, aspect or person, are marked as nominative whereas the object of the transitive clause is marked as accusative. Thus, like Garo (Burlings 2003b: 396), Tani(Sun 2003: 457) and Hakhalai (Peterson 2003: 409) languages, Dhimal is consistently nominative-accusative language. Despite the fact that other Tibeto-Burman languages spoken in Nepal are ergative-absolutive, Dhimal exhibits nominative-accusative pattern. This may be because of the areal influence since the languages like Rajbanshi, Maithili and Bengali (Indo-Aryan) and Santhali (Austro-Asiatic) spoken in Dhimal speaking area follow nominative-accusative pattern. And,
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Dhimal might have adopted this feature due to an areal influence. Examples in (1a-b) exhibit the nominative-accusative case marking pattern in Dhimal.

(1) a. **Intransitive clause**
   
   \[
   \text{ka \text{d}zim\^a} \\
   \text{ka-} \Phi \quad \text{dzim-g\^a} \\
   \text{1SG-NOM \quad sleep-PST.1SG} \\
   \text{`}I slept.`
   \]

   b. **Transitive (non-human patient/object)**
   
   \[
   \text{ka \text{u}m \text{tsa}g\^a} \\
   \text{ka-} \Phi \quad \text{um-} \Phi \quad \text{tsa-g\^a} \\
   \text{1SG-NOM \quad rice-ACC \quad eat-PST.1SG} \\
   \text{`}I ate rice.`
   \]

   In example (1a), the subject of the intransitive clause is encoded by the nominative marker -\(\Phi\). Similarly, the agent of the transitive clause in (1b) is marked as nominative and the non-human object/patient of the transitive clause in (1b) is marked as accusative.

   However, a human participant/object is marked as dative in Dhimal, as in (2).

(2) **Transitive (human patient)**

   \[
   \text{ka \text{nase\(\text{h} \text{e}\text{n} \)dai\(\text{g}\)\^a}} \\
   \text{ka \quad na-se\(\text{h} \text{e}\text{n} \) \text{danai-g\^a}} \\
   \text{1SG \quad 2SG-DAT \quad beat-PST.1SG} \\
   \text{`}I beat you.`
   \]

   In example (2), we see that the pronominal argument in object/patient role is marked by the dative case -\(\text{se\(\text{h} \text{e}\text{n}\)}\). Thus, the nominal morphology as coding property follows a consistent nominative pattern in Dhimal.

**2.2 Verb agreement**

Dhimal displays the pattern of verb agreement/verb cross-referencing to index the person and number in the complex of verb. They are discussed as follows:

a. **Pronominal verb agreement**

   In a single-argument clause, only the reference of the first person singular and second person singular and plural arguments are indexed in the complex of the verb in Dhimal. Following are the examples:

   (3) a. \(\text{ka \text{le}\text{ng}\^a}\)

      \[
      \text{ka-} \Phi \quad \text{le\(\text{ng}\)-fi-ka} \\
      \text{1SG-NOM \quad laugh-PST.1SG} \\
      \text{`}I laughed.`
      \]

\(^8\)Nominative is almost always the functional term in a nominative-accusative system, and may also be formally unmarked (Dixon 2010b: 120).
b. \( \text{na leŋ}^{\text{a}} \)
   \( \text{na-} \Phi \quad \text{leŋ-fi-na} \)
   2SG-NOM laugh-PST-2
   'You laughed.'

c. \( \text{wa leŋ} \)
   \( \text{wa-} \Phi \quad \text{leŋ-fi} \)
   3SG-NOM eat-PST
   'S/he laughed.'

In example (3a), first person singular subject \( \text{ka} \) is indexed in the verb which is blended with the past tense morpheme \( -\text{fi} \) resulting in a portmanteau morpheme \( -\text{g}^{\text{a}} \). Similarly, in (3b) the second person singular subject \( \text{na} \) is indexed in the verb which is blended with the past tense morpheme \( -\text{fi} \) resulting in a portmanteau morpheme \( -\text{n}^{\text{a}} \). However, in (3c) the subject in the third person is not indexed in the verbal complex at all.

The first person singular participant reference in the verbal complex is distinctly realized in the clause that encodes future tense reference whereas the second person subject participant reference is realized in the present and future tenses. Following are the examples:

(4) a. \( \text{ka um tsan}^{\text{j}} \)
   \( \text{ka um tsa-an-ka} \)
   1SG rice eat-FUT-1SG
   'I will eat rice.'

b. \( \text{na ūt}^{\text{e}} \text{h}^{\text{a}} \text{nes}^{\text{k}} \text{e}^{\text{j}} \text{na} \)
   \( \text{na ūt}^{\text{e}} \text{h}^{\text{a}} \text{nes}^{\text{k}} \text{e}^{\text{j}} \text{na} \)
   2SG market go-PRS-2
   'You go to the market.'

c. \( \text{nelai ūt}^{\text{e}} \text{h}^{\text{a}} \text{nes}^{\text{k}} \text{e}^{\text{j}} \text{ena} \)
   \( \text{nelai ūt}^{\text{e}} \text{h}^{\text{a}} \text{nes}^{\text{k}} \text{e}^{\text{j}} \text{ena} \)
   2PL market go-COL-PRS-2
   'You (all) go to the market.'

In example (4a), the first person singular subject/agent is distinctly indexed in the verbal complex. Similarly, in (4b, c) the second person singular and plural subject participants are indexed invariably by \( -\text{na} \). The plurality in (4c) is indexed by the collective marker \( -\text{su} \) attached to the verb stem \( \text{hane} '\text{go}' \).

The first person plural subject/agent is not distinctly indexed in the verbal complex, however, the plural marker \( -\text{n}^{\text{a}} \), employed exclusively for the first person, indicates the subject/agent reference, as in (5):

(5) a. \( \text{kelai um tsan}^{\text{j}} \text{ak}^{\text{k}} \text{e}^{\text{j}} \)
   \( \text{kelai um tsa-n}^{\text{a}} \text{a-k}^{\text{e}} \text{e}^{\text{j}} \)
   1PL rice eat-1PL-1SG
   'We (all) eat rice.'
In examples (5a, b), there is no overt agent participant reference for the first person plural, however, since the plural marker is employed only when the subject/agent participant is in the first person, it is apparent that the subject/agent is first person plural. In contrast, in (5c) no number marker is employed in the verb in the future tense. It leaves the verbal complex unmarked for the number, along with the person.

In Dhimal, pronominal agreement on the verb complex is controlled by the grammatical roles of the participants. Thus, the pronominal indexation/verb agreement in Dhimal is exclusively controlled by the nominative principle, i.e., the subjects regardless of transitivity.

b. Number agreement

Dhimal overtly indexes dual and plural number of the subject/agent arguments in the verb complex for first person and second person. Duality is indexed by the suffix \(-ni\) in both first and second person as in (6):

(6)  a. \(kid^b\)\(\text{in}^b\)\(\text{emi} \ um \ tsak^e\)\(\text{enij}\)
    \(\text{kid}^b\)\(\text{in}^b\)\(\text{emi} \ um \ tsak^e\)\(\text{enij}\)
    1DU rice eat-PRS-DU
    'We (two) eat rice.'

b. \(nid^b\)\(\text{in}^b\)\(\text{emi} \ um \ tsak^e\)\(\text{enij}\)
    \(\text{nid}^b\)\(\text{in}^b\)\(\text{emi} \ um \ tsak^e\)\(\text{enij}\)
    2DU rice eat-PRS-DU
    'You (two) eat rice.'

c. \(od^b\)\(\text{in}^b\)\(\text{emi} \ um \ tsak^e\)
    \(\text{od}^b\)\(\text{in}^b\)\(\text{emi} \ um \ tsak^e\)
    3DU rice eat-PRS
    'They (two) eat rice.'

From examples in (6a, b), it may be observed that duality in the verbal complex is indexed by the morpheme \(-ni\) in both the first and second person. In contrast, in example (6c), the third person verbal complex is not marked with the dual marker. However, the pronoun indicates the dual reference of the participant even in the third person.

Dhimal does not contrast the verbal complex in terms of inclusivity. Plurality in first person is marked by \(-n^a\). In contrast, plurality in second person is marked by the
collective marker -su, whereas the number distinction is not realized in the third person. Following are the examples:

(7) a. kelai um tsanʰakʰe
   kelai  um  tsa-nʰa-kʰe
   1PL. rice eat-1PL-PRS
   'We (all) eat rice.'

b. nelai um tsasukʰena
   nelai  um  tsa-su-kʰe-na
   2PL. rice eat-COL-PRS-2
   'You (all) eat rice.'

c. obalai um tsakʰe
   obalai um  tsa-kʰe
   3PL. rice eat-PRS
   'They (all) eat rice.'

In example (7a), plurality of the first person is indexed by the morpheme -nʰain the verbal complex. Similarly in (7b) plurality of the second person is indexed by the morpheme -su, followed by the second person reference -na in the verbal complex. In example (7c) the third person verbal complex is not marked for plural number, similar to the dual number as exemplified in (5c) above.

2.3 Word order

Basic word order in Dhimal is SOV with nominative-accusative case marking pattern. Both the subject of an intransitive clause, as in (8a) and the agent of a transitive clause, as in (8b) occupy the same clause initial position. However, as in Bhujel (Regmi 2012a: 119-21), this order is not rigid. For the pragmatic effects, especially in topocalized and contrastively focused constructions, the constituents may be permuted within the clause to a great extent. In a nominative-accusative language like Dhimal, both subject and agent, which are the main clause topic and the direct object/patient, the secondary topic, may be permuted from their stipulated places in the clause. Thus, in a language in which constituent order is permitted to be relatively free, word order is not a definite diagnostic of grammatical relations.

(8) a. wa leŋfi
   wa     leŋ-fi
   3SG laugh-PST
   'He laughed.'

b. wa um tsaŋi
   wa     um     tsa-ŋi
   3SG rice eat-PST
   'He ate rice.'

In example (8a) the subject of the intransitive clause and in (8b) the agent of the transitive clause have occupied the same clause initial position.
Of the three overt coding properties that commonly identify the grammatical relations, Dhimal mainly exhibits nominal case marking and verb agreement. Of these, nominal case marking, which displays a nominative pattern in Dhimal, is the more straightforward properties of grammatical relations. Moreover, verb agreement, i.e., pronominal and number agreement display nominative pattern. Word order as a coding property is less straightforward in Dhimal, i.e., all NPs in basic transitive and single-argument clauses occur in the clause initial position. However, they may be displaced for pragmatic purposes. Thus, word order does not encode grammatical coding pattern in Dhimal. However, in Dhimal, word order distinguishes between the nominative subject and accusative object in the transitive clauses and the nominative NP in single argument clauses.

3. Behavior-and-control properties

Apart from the overt-coding properties, grammatical relations are also characterized by the formal properties referred to as behavior-and control properties (i.e., behavioral constraints). Givón (2001a: 177) defines "behavior-and-control properties of GRs are, in practical terms, a list of the syntactic constructions or 'processes' whose behavior can be governed, at least potentially, by the GRs subject and/or direct-object." Such properties are syntactic constructions whose behavior is most likely to be governed either by the subject or direct-object grammatical relations. Much like overt-coding properties, behavior-and-control properties, are not always applicable across the board. Within the same language, some rule governed syntactic processes or constructions may be relevant only to the subject or only to the object. Moreover, in a morphologically nominative-accusative language like Dhimal, the morphology does not reveal unified categories of subject and direct object.

We examine the patterns of syntactic control in the light of the cross-linguistic underpinnings in some syntactic constructions in Dhimal as follows:

3.1 Equi-NP deletion and grammatical relations

Equi-NP deletion is a syntactic process in which the co-referential argument/NP in the complement clause is deleted. Brainard (1997: 122) notes "equi-NP deletion takes place between a main clause and complement clause: when an argument in the main clause is co-referential with one in the complement clause, the co-referential complement argument is deleted." Such deletion is controlled by the subject of the main clause. In

\footnote{Brainard (1997: 91) presents three patterns of syntactic control attested cross-linguistically: (a) nominative pattern (b) ergative pattern and (c) mixed pattern. In nominative pattern, the required argument of single-argument clause and the subject of the transitive clause control most of the syntactic processes. However, in ergative pattern, the required argument of single-argument clause and the object of transitive clause control most of the syntactic processes. In mixed pattern, the required argument of single-argument clause combines with the subject of transitive clause to control some syntactic processes (following a nominative pattern) and with object to control other syntactic patterns (following an ergative pattern).}
both transitive and intransitive complement clauses, the equi-NP deletion is controlled by the nominative subject. Thus, in Dhimal, the Equi-NP deletion (or co-reference) in complement clauses displays a nominative pattern of control in modality verb like \( kiʔ \) 'want' either with indirect object complement (9a) or direct object complement (9b).

(9) a. **Indirect object complement clause**

\[ka \text{ itaj fiili kiʔk}^3\alpha\]
\[ka, \Phi_i \text{ ita-} \eta \text{ fi-i-li} \text{ kiʔ-k}^3\alpha\]
1SG here-EMPH sit-INF want-PRS.1SG
'I want to stay in here.'

b. **Direct object complement clause**

\[ka \ um tsali kiʔk}^3\alpha\]
\[ka, \Phi_i \text{ um tsa-li} \text{ kiʔ-k}^3\alpha\]
1SG rice eat-NMLZ want-PRS.1SG
'I want to eat rice.'

In example (9a, b), the deleted NPs in the complement clause (enclosed in the square brackets) are co-referential with the NPs in the respective main clauses. Regarding the equi-NP deletion, Givón (1997: 24) asserts that it applies differently to grammatical relations in different types of complement taking verbs within the same language. In English modality verbs (want, start, try), the equi-NP is relevant to the subject of both clauses. In English manipulation verbs (force, make, tell), on the other hand, it is relevant to the subject of the complement and object of the main clause.

In Dhimal, as in English sentence, 'she told him (0) to leave' the human object of manipulative verbs is direct object, so the equi can be formulated in terms of the subject of the complement and the direct object of the main clause, as in (10a, b):

(10) a. **ka waseñey um tsali doʔg}^3\alpha**

\[ka \ wa-señey_\Phi \text{ um tsa-li doʔ-g}^3\alpha\]
1SG 3SG-DAT rice eat-INF say-PST.1SG
'I said him to eat rice.'

b. **amai tsanñey kam pali lagaihi**

\[amai \ tsan-ñey_\Phi \text{ kam pa-li lagai}-\text{fi}i\]
mother son-DAT work do-INF employ-PST
'The mother employed the son to work.'

In example (10a), the equi-NP of the manipulation verb doʔ 'say' is co-referential with the subject of the complement and the object of the main clause. Similarly in (10b), the equi-NP of the manipulation verb lagai 'employ' is co-referential with the subject of the complement clause and object of the main clause.

### 3.2 Reflexives and grammatical relations

Reflexivization is another behavior and control property to be applicable to subject grammatical relation. Givón (1997: 24) notes "the true reflexive invariably is controlled
by the subject, although the co-referentially-deleted argument may be direct or indirect object.” That is, only the nominative subject NP becomes the reflexive pronoun regardless of transitivity. In Dhimal, reflexivization clearly exhibits nominative control, as in (11):

(11)  

(a) \textit{wa tamiŋ danaihi}  
\textit{wa} tami-ŋ danai-fi  
3SG self-EMPH beat-PST  
'S/he beat himself/herself.'

(b) \textit{obalai tripasa taimiŋ tsumteŋ ole-fi} doʔ-kʰe bas  
obalai, tripasa [tami-ŋ], tsum-təŋ ole-fi doʔ-kʰe bas  
3PL tripasa self-EMPH bring-SEQ emerge-PST say-PRS that's all  
'They emerged out taking Tripasa themselves, that's all.' (TBDFS_95)

(c) \textit{dashari din hiteŋ aroŋ kantsʰi}  
das barʌ din fii-ten aro-ŋ kantsʰi  
ten twelve day sit-SEQ again-EMPH Kanchhi  
kalau taiko sita bidarʰu:teŋ hanihi  
kalau [taiko] si-ta bida rʰu-teŋ hane-fi  
then self house-LOC leave ask-SEQ go-PST  
'Having stayed for ten to twelve days, the youngest sister went to her own home.' (LBDFS_47)

Examples in (11a-c), show that the reflexive, in Dhimal, is indexed by the reflexive pronoun \textit{tai} optionally followed by the human classifier -\textit{mi}. Such reflexive pronoun is controlled by the subject NP which is marked as nominative. That is, the nominative subject NP can become the reflexive pronoun in Dhimal.

3.3 Zero anaphora in chained clauses and grammatical relations

Zero anaphora in chained clauses involves conjoined or adjacent independent clauses that share co-referential arguments. The use of zero anaphora, as in English (Givón 2001a: 177), as a pronominal device to mark co-reference in clause-chaining is confined to the subject grammatical relation in Dhimal. The zero in a chained (conjoined) clause could only be governed by the subject of the preceding clause as in (12a), not by its object (12b). Following are the examples from Dhimal.

(12)  

(a) \textit{ka waseheŋ dusugʰa katʰa pagʰa}  
ka, waseheŋ dusu-gʰa katʰa pa-gʰa  
1SG 3SG-DAT meet-PST.1SG talk do-PST.1SG  
kalau hate hanegʰa  
kalau  Ph, hate  fane-gʰa  
then market go-PST.1SG  

\(\text{The same pattern is observed in Bhujel, one of the Tibeto-Burman languages spoken in Nepal (Regmi 2014: 150).}\)
'I met him, talked (to him), then went to the market.'

b. * ka wasehêŋ dusug'a kat'a pag'a
ka, wa-sehêŋj dusu-g'a ɸj kat'a pa-g'a
1SG 3SG-DAT meet-PST.1SG talk do-PST.1SG
kalau fiate fiane-fi
then market go-PST
'I met him, talked (to him), then (he) went to market.'

From the examples in (12a, b), it is clear that the governed zero (Φ) could only be the subject of the chained clause, not the object (see Givón 2001a: 177), i.e., an absent argument (zero anaphor), in the subsequent clause is coreferential with the agent/subject argument.

3.4 Relativization and grammatical relations

In Dhimal, the same zero coding strategy is used in the relative clauses, regardless of whether the focus of relativization is subject, direct object or indirect objects. The same situation is reported in Japanese (Givón 1997: 14; 2001a: 183). In the same way, relativization in Dhimal is not governed by grammatical roles because all the grammatical relations are relativized employing the same strategy, as in (13):

11 In Puma, one of the Rai-Kirati languages, relativization can be a test for grammatical relations "since A-arguments, S-arguments and P-arguments are relativized by different strategies" (Sharma 2014: 336).
Examples in (13b-d) exemplify that the same nominalizing morpheme -ka is employed to relativize different arguments in Dhimal.

### 3.5 Co-reference in imperatives

Imperatives are constructions in which an argument of the clause is co-referential with the addressee; thus, the argument can be said to control co-reference (Brainard 1997: 131). In Dhimal, the co-referential argument may be present in the surface structure usually as the second person pronoun, as in (14a), or it may be absent, as in (14b):

(14) a. na edai dzamaleŋ tʰapkkai tsumpu pose
   na edai dzamal-ŋ tʰapkkai tsum-pu pose
   2SG this child-DAT immediately bring-AND.IMP rear.IMP
   'You take this child instantly and take care of it.' (TBDFS\_355)

   b. te kunu fane-tsa doʔfi doʔkʰe
      te kunu fane-tsa doʔ-fi doʔ-kʰe
      okay than go-IMP.AFF say-PST say-PRS
      'Okay, you go now (he says).' (TBDFS\_512)

In example (14a), the argument naʔ2SG of the imperative verbs tsumpu 'bring away' and pose 'rear' is present in the surface whereas in (14b) the co-referential argument of the imperative verb fane 'go' is covert, however, understandable because the co-referential argument for the imperative is always the second person pronoun.

### 4. Summary

In this paper, we discussed the grammatical relations in Dhimal. The grammatical relations play a vital role not only in the grammar of simple clauses but also in major syntactic processes. Here, we mainly focused on the way the grammatical relations are encoded and the pattern of syntactic control in major rule-governed syntactic processes in Dhimal. We examined the overt coding properties of grammatical relations, i.e., nominal morphology and verb agreement. The nominal morphology as coding property presents a consistent nominative pattern of control in Dhimal. The pronominal verb agreement and number agreement also follow the nominative pattern. The Equi-NP deletion (or the co-referent deletion) in complement clauses displays the nominative control. However, in Dhimal, relativization does not play any role for controlling the grammatical relations. Dhimal also displays pronominal verb agreement in first person and second person pronouns with three numbers in the western variety and only singular and plural numbers in the eastern variety.

### Abbreviations

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