

# the VP structure and case checking properties of sentences with non-nominative subjects: Hindi/Urdu

Alice Davison

University of Iowa April 23, 2001

*Iowa City, Iowa, U.S.A.*

## 1. Introduction

Hindi/Urdu, like many other Indic languages, has subjects which are not nominative (Masica 1991, Mohanan 1994). Nominative is the default case for subjects of finite verbs, unless other conditions obtain. Specific predicates require dative *-koo* or other postpositional subjects (locatives *-par* 'on', *-meeN* 'in', genitive *-kaa*, instrumental *-see*). The agent phrase with *-see* 'with, by' has subject properties in some passive sentences. In addition, subjects of most transitive verbs regularly require the ergative postposition *-nee* in finite clauses with perfective aspect, and no auxiliary verbs which block ergative case. A small number of intransitive verbs allow ergative subjects optionally under the same conditions as transitive verbs. Nonfinite clauses may have genitive subjects (infinitives, participles) or dative subjects (participial subjects in Exceptional Case Marking constructions). Examples of these sentence types will be included in discussion below. Linguistic theories which give central importance to a link between the subject grammatical role and nominative case, and verbal agreement, must allow extension of their constitutive principles to accommodate non-nominative arguments with subject properties.

In this paper, I will use the Chomskyan grammatical theory as modified in Ura 2000, specifically to account for 'split' subject properties. I will criticize and extend this theory to account for the similarities in Hindi/Urdu between ergative and other postpositional cases, and more importantly, their differences. The central difference is the distinction between a structural case (ergative) and lexical cases (dative and other cases selected by lexical cases), which in turn will follow in my analysis from a difference of the verbal projection. The verbal projection contains all the arguments, including the subject, which then raises a VP- external position. The verbal projection itself may consist of a minimal VP project, or of a complex vP (light verb projection with internal VPs. The internal structure of the VP projected by a lexical item in this analysis reflect the aspects of its semantic composition which determine case selection and also the grammatical function which each argument may assume. Not all verbal projections, then are the same syntactically.

### *1.1. An overview of subject properties*

In the sections below, I describe the syntactic and morphological criteria for subjects in Hindi/Urdu. Some, like reflexive binding and obligatory control of null subjects in certain adverbial clauses, are quite common and are found in many other languages, though not universally. Others are less common, or specific to Hindi/Urdu and other genetically

related languages.

### 1.1.1. Nominative case for subjects and objects

Nominative case is an absolute criterion for subject status in English and some other languages. In finite clauses, it is the only case possibility. But in languages with other case possibilities for subject, nominative case does not uniquely mark grammatical subjects. Hindi/Urdu is such a language: nominative direct objects are common, as well as nominals which are part of N-V complex predicates. In this language, nominative case means the absence of a postposition, as well as a 'direct' morphological form. The 'oblique' morphological form is required by postpositions (Masica 1991). The contrast will be apparent in the examples below.

Subjects may have nominative case, but in the very same sentence, the direct object may have nominative case as well. In addition, if the thematic object of a complex predicate has postpositional case, then the N component may also have nominative case, controlling agreement. As will be noted in the next section, only nominative arguments may determine agreement features. Nominative case is found on subjects (1)-(3), direct objects (4)-(5) and N within N-V complex predicates (6):

#### (1) Nominative subject, nominative object

ab	kabhaa	vee	aisii	ciizooN	-kii	laadnii	nahiiN	laad-eeN -gee!
<i>now</i>	<i>ever</i>	<i>3pl-nom</i>	<i>such</i>	<i>things</i>	<i>-Gen</i>	<i>load-fs-nom</i>	<i>not</i>	<i>load-Fut-3mpl</i>

'From now on, they would never haul loads of things like that!' (Renu, p. 38) [Subject agreement]

#### (2) Nominative subject, dative object

hiraaman	kabhii	___	bhuul	sak	-taa	hai,	us zamaanee-koo!
<i>Hiraman</i>	<i>ever</i>		<i>forget</i>	<i>be-able</i>	<i>-impf</i>	<i>is3s</i>	<i>that time -dat</i>

'Hiraman could never forget that time!' (Renu, p. 36) [subject agreement]

#### (3) Nominative subject, locative postpositional object

woo	hamaaree	kuttee-see	Dar	ga-yaa
<i>3s</i>	<i>our</i>	<i>dog- from</i>	<i>fear</i>	<i>go-pf-ms</i>

'He got frightened of our dog'. (Bahri 1992.266) [Subject agreement]

#### (4) Nominative direct object, dative subject

mujhee	eek upay	suujh	ga-yaa	(hai)
<i>I-dat</i>	<i>one means</i>	<i>see</i>	<i>go-p</i>	<i>is-3s</i>

*'I saw/have seen a solution; a solution came/has come to my mind'* (Bahri 1992:670)  
 [object agreement]

**(5) Nominative direct object, ergative subject**

[pro	hooš	-meeN	aa-tee	hii]	us-	[PRO	kaan	pakaR-kar]
					nee			
	<i>consciousness</i>	<i>-in</i>	<i>come-impf</i>	<i>-only</i>	<i>3s-erg</i>		<i>ear</i>	<i>seize-PRT</i>

qasam	khaa-ii	thii
<i>oath-fs</i>	<i>eat-pf-f</i>	<i>was-fs</i>

*'As soon as he regained consciousness, he pulled his ears and swore an oath'*. (Renu p. 38)  
 [object agreement]

**(6) Nominative predicate N, genitive object**

[pro	din	bhar	raajkaaj	kar-nee	kee baad	woo	[PRO	rooz	raat-meeN
	<i>day</i>	<i>whole</i>	<i>administrattion</i>	<i>do-inf</i>	<i>gen</i>	<i>after</i>	<i>3s</i>	<i>daily</i>	<i>night-in</i>
usii	kooThari-meeN	jaa-kar	[PRO	apnii	priya	vastuooN-koo	deekh-kar]		
<i>that-empf</i>	<i>small room-in</i>	<i>go-PRT</i>		<i>self's</i>	<i>dear</i>	<i>objects-dat</i>	<i>see-PRT</i>		
apnee	bacpan-kii	yaad	kar	lee-taa	thaa				
<i>self's</i>	<i>childhood-gen</i>	<i>memory-fs</i>	<i>do</i>	<i>take-impf-ms</i>	<i>was-ms</i>				

*'Having been busy all day with administration, and every night having gone into that cell, having seen his own dear things, he used to recall/remember his childhood'* (Bahl 1974: 72-73.)  
 [subject agreement]

The examples above show that nominative case occurs on the direct object as well as the subject, so that it is not uniquely associated with the subject or external argument. In the next section, I show that verbal agreement is not uniquely associated with subjects, although nominative case is uniquely associated with verbal agreement.

**1.1.2 Verbal agreement with nominative arguments**

In the set of examples above (1)-(6) there is information about which sentence constituent determines verbal agreement as well as about the distribution of nominative case. Some subjects are nominative. In all the sentences in which the subject is nominative, agreement is determined by the subject (3). This is true even when the direct object is nominative, as in (1) and (6). If the case of the subject is not nominative, then the nominative direct object determines agreement (4)-(5). Sentences (1) and (6) have counterparts (7)-(8), in which the sentence aspect is perfective, and requires ergative case on the subject. The direct object controls agreement if it is nominative (7)-(8):

(7)

kabhaa	unhooN-nee	aisii	ciizeeN-kii	laadnii	nahiiN	laad-ii
<i>ever</i>	<i>3pl-erg</i>	<i>such</i>	<i>things-Gen</i>	<i>load-fs-nom</i>	<i>not</i>	<i>load-pf-fs</i>

'They would never hauled loads of things like that' [Object agreement]

(8)

us-nee	[PRO	apnii	priya	vastuooN-koo	deekh-kar]	apnee	bacpan-kii	yaad
<i>3s-erg</i>		<i>self's</i>	<i>dear</i>	<i>objects-dat</i>	<i>see-PRT</i>	<i>self'</i>	<i>childhood--gen</i>	<i>memory-fs</i>
kar	lii		thii					
<i>do</i>	<i>take-impf-fs</i>		<i>was-fs</i>					

Having seen his own dear things, he had recalled/remembered his childhood (Bahl 1974: 72-73.) [object agreement]

In (8) verbal complex agrees with the N *yaad* 'memory' which combines with the light verb *kar-naa* 'do'. It can be argued that *yaad* is the syntactic object of the V, though the whole predicate's object theta role is assigned to *apnee bacpan* 'self's childhood'. Khan (1988) argues that only true arguments can have nominative case and control agreement. Both nominative case and agreement are associated with arguments, and neither is uniquely associated with subjects. Ergative case, however, is uniquely associated with subjects (Davison 1999b). In the next sections, I will survey other features of sentence syntax and interpretation which do single out subjects uniquely.

### 1.1.3 Reflexive binding

Hindi/Urdu has subject-oriented reflexives (Kachru 1971, Mohanan 1994, Davison 1999, 2001). If there is more than one c-commanding antecedent in the local binding domain, the subject is chosen as the antecedent for the reflexive. The sentences in (9)-(11) are example, with a nominative subject (9) or ergative subjects (10)-(11):

(9)

woo <sub>i</sub>	baccee <sub>j</sub> -koo	apnee-aap <sub>i/ni</sub> -see	kaisee	alag	kar	sak-tii	hai?
<i>3s-</i>	<i>child-dat</i>	<i>self's self-from</i>	<i>how</i>	<i>separate</i>	<i>do</i>	<i>be-able-impf-fs</i>	<i>is</i>

'How can she<sub>i</sub> separate/remove the child<sub>j</sub> from self<sub>i/ni</sub>?'

(10)

baccee<sub>i</sub>-nee [duusree baccee<sub>j</sub> -see apnee\*<sub>j</sub>/us\*<sub>i/j</sub>k-kee khilaunee chiin li-ee  
*child-erg second child -from self's/ 3s-gen-mpl toy-mpl snatch take-pf.mpl*

[One child<sub>i</sub>] snatched from [another child<sub>j</sub>] self's<sub>i/\*j</sub> toys.'

(11)

maaN<sub>i</sub>-nee raam<sub>j</sub>-koo [PRO<sub>j</sub> apnee-aap\*<sub>i/j</sub>-koo gumnaam patr likh-nee -kee liyee  
*mother-erg Ram-dat self-(self)-dat anonymous letter write-inf .of sake*  
 manaa ki-yaa  
*forbidden do-pf*

'Mother<sub>i</sub> forbade Ram<sub>j</sub> [PRO<sub>j</sub> to write self<sub>i/j</sub> anonymous letters]'  
 [Simplex] apnee-koo = Ram(preferred)/mother [Complex] apnee aap-koo=Ram/\*mother

The arguments in a single finite clause could plausibly both be antecedent in (9) and (10), but only the subject is coindexed with the reflexive. The simplex reflexive *apnee-koo* 'self-dat' in (11) has two possible antecedents, the local subject and the matrix subject. Hindi/Urdu allows long-distance reflexive binding across non-finite clause boundaries. In addition to nominative and ergative subjects, dative experiencer arguments also bind subject-oriented reflexives (Davison 1969), both in the simplex finite clause (12), and in complex clauses with a non-finite small clause (13)

(12)

siitaa<sub>j</sub> -koo apnee<sub>i/j</sub> (aap)<sub>i/\*j</sub>-see kroodh aa-yaa  
*Sita-dat self's -self-from anger come-pf*

'Sita<sub>j</sub> got angry with self<sub>i/\*j</sub>

(13)

raam<sub>i</sub> -koo [siitaa<sub>j</sub> apnee<sub>i/j</sub> (aap\*<sub>i/j</sub>)-see naaraaz] lag-tii hai  
*Ram-dat Sita-nom self's -self-from angry seem-impf-f be-pres-3s*

'Sita<sub>j</sub> seems to Ram<sub>i</sub> [angry with self<sub>i/j</sub> ]' (H. Khanna, p.c.) apnee aap-see= Sita, apnee-see=Ram/Sita

The simplex reflexive *apnee-see* can be coindexed with either the local subject *siitaa* or with both *siitaa* or the long-distance subject *raam*, just as the reflexive in (11) is coindexed with the local PRO antecedent or the ergative matrix subject (which would be nominative in a non-perfective sentence, with the same indexing of the reflexive). What is crucial for reflexive coindexing is subject status<sup>1</sup>. Compare the simplex clauses (9)-

(10) with the complex multi-clause sentences (11) and (13) In simplex clauses, there is only one possible interpretation for the reflexive, even if the sentence has three arguments. In complex sentences, there can be multiple antecedents. Each subject is a possible antecedent provided that the intervening clause boundaries is non-finite. Subject status is also required for the antecedent and controller of the PRO subject of a participle clause. Even when there are multiple antecedents which would make sense as antecedents, only a subject is the controller.

#### 1.1.4 Control of PRO in *-kar* clauses,

Like other languages, Hindi/Urdu has both subject and object control of the PRO subject of complement clauses. Sentence (11) is an example of a matrix object which controls PRO. A particular adverbial participle requires a null subject PRO, which is obligatorily controlled by a matrix subject. These clauses are marked by the perfective suffix *-kar* on a bare verb stem. Ergative and dative experiencer NPs also control PRO subjects of *-kar* clauses:

#### (14)

maiN [PRO baap-kee paas jaa-kar kah-uuNgaa ki  
*I-nom father-to go-prt say-fut-1sm that..*

'[PRO having gone to my father], I will say that .(cf. Grierson 1916: 101)'

#### (15)

[PRO<sub>i/\*j</sub> is-baat-koo sun-kar] pita<sub>i</sub>-nee apnee<sub>i/\*k</sub> beeTee<sub>j</sub>-koo maaf kar di-yaa  
*this matter-dat hear-Prt father-erg self' son -Dat pardoned*

'[PRO<sub>i/\*j</sub> having heard this news, father<sub>i</sub> forgave self's<sub>i/\*k</sub> son<sub>j</sub>

#### (16)

[PRO<sub>i/\*j</sub> is-baat-koo sun-kar pita<sub>i</sub>-koo apnee<sub>i/\*k</sub> beeTee<sub>j</sub>-par taras aa-yaa  
*this matter-dat hear-prt father-dat self's son -on pity come-pf*

[PRO<sub>i/\*j</sub> having heard this news, father<sub>i</sub> felt pity for self's<sub>i/\*k</sub> son<sub>j</sub>

In (15)-(16), the matrix clause contains two arguments, either of which might plausibly be the subject of the perfective participle 'having heard that news'. Yet only the syntactic subject of the matrix clause is a possible controller. Nominative, ergative and dative experiencer subjects are possible controllers.<sup>2</sup>

Ability to control PRO or bind a reflexive is not determined by semantic role. Both nominative and ergative subejcts can have a variety of thematic roles (agent, cause, experiencer, goal and even patient). Dative subjects are normally experiencers, but the verb *mil-naa* assigns a goal interpretation to the dative subject (17). Not every goal can count as a subject, even if the argument is made prominent by the omission of an agent (18):

(17)

us <sub>i</sub>	-koo	apnii <sub>i/*j</sub>	Daak	nahiiN	mil-ee <i>gii</i>
<i>3s</i>	<i>-dat</i>	<i>self's</i>	<i>mail-f</i>	<i>not</i>	<i>receive-fut-3fs</i>

'He/she will not receive self's mail'

(18)

(*) [PRO* <sub>i/*j</sub>	ghar	badal-kar]	us <sub>i</sub> -koo	apnii <sub>i/*k</sub>	Daak <sub>j</sub>	pahuNc-aa-ii	nahiiN	ga-ii
	<i>house</i>	<i>change-prt</i>	<i>3s-dat</i>	<i>self's</i>	<i>mail</i>	<i>arrive-cause-pf-f</i>	<i>not</i>	<i>go-pf-fs</i>

'[PRO\*<sub>i/\*j</sub> having moved, he/she<sub>i</sub> couldn't be forwarded self's\*<sub>i/\*j</sub> mail'.

The goal argument *us-koo* '3s-dat' in (18) does not count as a subject which controls PRO and binds *apnii* 'self's'. The sentence is ungrammatical in the interpretation in which PRO and *apnii* have the index of *us-koo*. It does have an interpretation in which the antecedent is the passive agent of the passive verb *pahuNcaaii gaii* 'was forwarded' (or the speaker). From examples like this, we must conclude that PRO control and reflexive binding are governed by structure-based principles, including those which define syntactic subjects. These criteria apply to subjects with ergative, dative and other cases, in addition to nominative (see Mohanan 1994 for examples involving locative and genitive case). In the next two sections, I discuss some verbal auxiliaries which pick out syntactic subjects.

### 1.1.5 Subject-oriented modal auxiliaries

Another indexing relation which refers to subjects regardless of case is the one which holds with auxiliary verbs like *sak-naa* 'be able' and *paa-naa* 'manage'. Both of these verbs are incompatible with ergative case, so the contrast of subject marking is between nominative and dative.<sup>3</sup> If more than one argument is present, the choice of reference is to the subject (21)-(22), but see below in 3.1.1 for other options..

(19)

maiN	wahaaN	jaa-nee	na	paa-yaa	(huuN
<i>I-nom</i>	<i>ther</i>	<i>go-inf-obl</i>	<i>not</i>	<i>manage-pf</i>	<i>am</i>

'I didn't manage to go there'. (Porizka 1963: 344)

(20)

maiN	uttar	dee	na	sak-aa	(huuN)
<i>I-nom</i>	<i>answer</i>	<i>give</i>	<i>not</i>	<i>be-able-pf</i>	<i>am</i>

*'I couldn't give an answer' (Porizka 1963: 232)*

**(21)**

maiN      is taaree-koo      deekh      nahiiN      sak-ii  
*I-Fs-Nom      this star-ms -Dat      see      not      be-able-Pf-fs*

*'I wasn't able to see this star (my eyes aren't sharp enough, I didn't know where to look my telescope isn't good, there is too much light in the sky etc.)*

**(22)**

mujhee      yah taaraa      dikhaaai      nahiiN      dee sak-aa  
*Ifs-dat      this star-ms-nom      sight      not      give be-able-Pf-ms*

*'I wasn't able to see/catch a glimpse of this star (my eyes aren't sharp enough, I didn't know where to look, my telescope isn't good, there is too much light in the sky etc.)*

**(23)**

baRii      muškilooN-see      mujhee      yah      hiraN      dikhaaai      dee      paa-yaa  
*great      difficulties-with      I-dat      this      deer      sight      give      manage-pf-ms*

*'With great difficulty I managed to see/glimpse this deer'.*

The ability expressed in the auxiliary is of the experiencer--factors which affect the ability of the experiencer to see, rather than properties of the object seen which prevent from being easily seen. Another auxiliary which refers to the subject is the verb *baiTh-naa* 'to sit', which conveys that the subject did something which should have been avoided, or which the subject couldn't help doing(24). This subject reference is found in dative-experiencer sentences as well (25)-(26):

**(24)**

aap      Daayarii      paRh      baiTh-ii  
*you-nom      diary-nom      read      sit-pf-fs*

*'You couldn't help reading the diary (e.g. it was left lying open)'.*

**(25)**

usee      paRoosii      dikhaaai      dee      baiTh-ii  
*3s-dat      neighbor-f-nom      sigh      give      sit-pf-fs*

*'He couldn't help seeing the neighbor'.*

(26)

mujhee	us-par	kroodh	aa	baiTh-aa
<i>I-dat</i>	<i>3s-on</i>	<i>anger</i>	<i>come</i>	<i>sit-pf</i>

*'I couldn't help getting angry at him/her'.*

The modal or auxiliary can refer to both the nominative and dative experiencers. In a later section, however, we will see an interesting variation in the property of dative experiencers, with respect to the auxiliary reference, as well as reflexive binding and PRO control. Dative subjects have the somewhat marked option of *not* being subjects.

### 1.1.6 Summary

In section 1.1, I have discussed a number of grammatical relations which are structure-dependent in some way, and refer to grammatical subjects. The grammatical reference is the same, regardless of whether the subject has nominative, ergative or dative (or other oblique) case. In later sections, I will propose an explanation of how subjects may receive different kinds of case, yet have similar syntactic properties. As a preparation for that proposal, in section 1.2, I will give an overview of subject case in Hindi/Urdu in various syntactic contexts. I will propose that the distinction between structurally dependent case and semantic (lexical/inherent) case is of great importance in understanding subject properties and other features of sentences in Hindi/Urdu. In particular, I will propose that nominative and ergative are structural cases, while dative (locative, genitive of possession) are inherent, lexical, semantically linked cases.

### 1.2. Syntactic contexts and subject case marking

In this section, I present examples which motivate a distinction in Hindi/Urdu between structural and lexical/inherent case. The distinction is most clearly seen in syntactic contexts which affect subject case, if it is structural, but do not affect lexical/inherent case. In the next sections, I will compare ergative and dative case on subjects in a variety of sentence domains. The tense inflection may vary, or in the case of subordinate clauses, the case assigner may vary. Throughout, I will make the now standard assumption that structural subject case is assigned to the Specifier of TP (Chomsky 1986) after the subject is moved from VP (Speas 1990).

#### 1.2.1 Finite clauses-indicative

Nominative case on subjects is the default case and does not vary in finite clauses. But ergative case is found only in finite, perfective clauses, subject to other conditions as well (Davison 1999b). The contents of INFL (TENSE/ASPECT) will therefore determine subject structural case. A finite clause with future tense cannot have an ergative subject (27), and a finite perfective sentences like (28) cannot fail to have an ergative subject. But dative case is not sensitive to the properties of TENSE/ASPECT (29):

(27)

ab kabhaa vee/\*unhooN-nee aisii ciizooN- kii laadnii nahiiN laad-eeN-gee!  
*now ever 3pl-nom/\*3pl-erg such things-gen load-fs-nom load-Fut-3mpl*

'From now on, they would never haul loads of things like that!' (Renu, p. 38)

**(28)**

kabhaa \*vee/ unhooN-nee aisii ciizooN- kii laadnii nahiiN laad-ii  
*ever \*3pl-nom/ 3pl-erg such such things-gen load-fs-nom not load-pf-fs*

'They would never hauled loads of things like that' [Object agreement]

**(29)**

mujhee eek upay suujh ga-yaa (hai) /suujh rahaa hai  
*I-dat one means see go-p is-3s /see prog is*

'I saw/have seen a solution; a solution came/has come to my mind/is forming in my mind' (Bahri 1992.670)'

Embedded finite indicative clauses have the same case-marking pattern as unembedded clauses. An example comes from conditional clauses, which may be indicative, as in (30)-(31). Subjects may be ergative (30) or dative (31).

**(30)**

agar tum-nee/\*0 mujhee bataa-ya ki tum-koo meeraa kah-naa buraa lag-aa,  
*if you-erg/\*nom I-dat tell-pf that you-dat my say-Inf bad strike-pf*  
 too maiN nahiiN samajh-ii  
*then I-nom not understand-pf-fs*

'If you told me that what I was saying annoyed you, I didn't understand'

**(31)**

agar usee meerii baat burii lag-ii hai  
*if 3s-dat my matter bad strike-pf is*  
 too woo mujhee bataa -ee-gii  
*then 3s-nom I-dat tell -Fut- 3fs*

*'If she was bothered at what I said, then she will tell me.'*

### 1.2.2 Finite clauses-conditional

Another kind of conditional is counterfactual, and it requires imperfective aspect marking on the verbal complex, removing the perfective aspect on which ergative case marking depends. The counterpart of (30) must lose ergative case on the subject (32), while the dative case remains invariant (33):

#### (32)

tum (*nee)	mujhee	bataa- <b>taa</b>	ki	tum-koo	meeraa	kah-naa	buraa	lag-aa,
<i>you-nom/*erg</i>	<i>I-dat</i>	<i>ell-impf</i>	<i>that</i>	<i>you-dat</i>	<i>my</i>	<i>say-inf</i>	<i>bad</i>	<i>strike-pf</i>
too	maiN	kah-naa	band	kar	dee-tii			
<i>then</i>	<i>I-nom</i>	<i>say-inf</i>	<i>shut</i>	<i>do</i>	<i>give-impf</i>			

*'If you had told me that what I was saying annoyed you, then I would have shut up.'*

#### (33)

agar	usee	meerii baat	burii	lag-tii	too	woo	mujhee	bataa-tii
<i>if</i>	<i>3s-dat</i>	<i>my matter</i>	<i>bad</i>	<i>strike-impf</i>	<i>then</i>	<i>3s</i>	<i>I-dat</i>	<i>tell-impf</i>

*'If she had been bothered at what I said, then she would have told me.'*

Ergative case is sensitive to differences of tense/aspect inflection in the clause, but dative case is not. I take this difference to mean that ergative case is structurally licensed in a syntactic relation with TENSE/ASPECT; ergative NPs must move to the Specifier position of the TensePhrase or clause in order to license ergative case. But dative case is not sensitive to properties of TENSE/ASPECT, a property which suggests that dative is assigned in VP, by the verb which assigns the NP a semantic role. If it moves to the Specifier of TP, the reason is not to license Case. This point will be developed in more detail below.

### 1.2.2 Non-finite clauses: Exceptional Case Marking, participle clauses

Non-finite embedded clauses have the form of perfective or imperfective participles. Since they are non-finite, another of the conditions on ergative case is lost. In the finite clauses in (34) and (35), the subject must be ergative. But if the clause is embedded under a matrix perception verb, ergative case is lost (36)-(37).

#### (34)

bacchooN-nee/*baccee	keek	khaa	liyaa
<i>children-erg/ *children-nom</i>	<i>cake</i>	<i>eat</i>	<i>take-pf</i>

*'The children ate cake'.*

**(35)**

kuttee -nee/kuttee\*0    zamiin-meeN    gaDDhee    khooD-ee    haiN  
*dog-ms-erg/\*nom    ground-in    hole-nom-impl    dig-pf.mpl    be-pf-pl*

*'The dog has dug holes in the ground'.*

**(36)**

maiN-nee    [baccooN-**koo**/\*baccooN-nee    keek    khaa-tee hu-ee]    deekh-aa  
*I-erg    children-dat/ \*children-erg    cake    eat -impf be-pf    see-pf*

*'I saw [the children eating/eat cake]'.*

**(37)**

mujhee    [kuttaa    (\*kuttee-nee)    zamiin-meeN    gaDDhee    khooD-aa    huaa]  
*I-dat    dog-ms-nom    (\*dog-erg)    ground-in    hole-nom-impl    dig-pf.ms    be-pf-ms*  
lag-taa    jaan    paR-taa    hai  
*strike-impf    knowledge    fall-impf    is*

*'The dog seems to me to have dug holes in the .ground'<sup>4</sup>.*

Instead the embedded subject must have dative case (36) or nominative case (37). Dative case is not affected by the embedded status of the clause (38)-(39)

**(38)**

baccee-koo    buxaar    aa    rahaa    hai  
*child-dat    fever-ms    come    prog-ms    is*

*'The child is getting a fever'.*

**(39)**

maaN-nee    [PRO    [baccee-koo    buxaar    aa-tee    hu-ee]    deekh-kar]  
*mother-erg    child-dat    fever    come-impf    be-pf    see-Prt*  
DaakTar-koo    bulaa-yaa  
*doctor-dat    call-pf-ms*

*'The mother, [PRO having seen [the child getting a fever]] called the doctor'.*

The dative experiencer of *buxaar aa-naa* 'have/get a fever' can get dative marking more or less redundantly in the Exceptional Case marking context in (39). The difference between ergative and dative case in embedded clauses supports the distinction made in the previous section, that ergative is a structural case, and dative is a lexical/inherent case.

### 1.2.3 Non-finite clauses: infinitives

Infinitives disallow ergative case, but allow genitive case on overt subjects which are not controlled (40). Dative experiencers may retain dative case (41):

#### (40)

[kuttee *-nee/*0 -kee	zamiin-meeN	gaDDhee	khooD-nee]-see	pitaa-koo	kroodh aa-yaa
<i>dog-*erg/*nom/Gen</i>	<i>ground-in</i>	<i>hole-impl</i>	<i>dig-inf-from</i>	<i>father-dat</i>	<i>anger come-pf</i>

*'Father got angry at the dog's digging holes in the ground.'*

#### (41)

bhaaaii-koo	kroodh	aa-tee	hii]	woo	ghar-kee andar	ghuus	ga-yaa
<i>brother-dat</i>	<i>anger</i>	<i>come-impf</i>	<i>emph</i>	<i>3s</i>	<i>house-gen-inside</i>	<i>enter</i>	<i>go-pf</i>

*'When brother got angry, he went into the house.'*

There is one infinitive context in which dative subjects behave in a distinctly different way from other types of subject. In contexts of obligatory control, dative subjects may be antecedents, but not the controlled PRO subject. If (42) is embedded in (43), the result is categorically ungrammatical.

#### (42)

usee	paisaa	mil	ga-yaa
<i>3s-dat</i>	<i>money-nom</i>	<i>receive</i>	<i>go-pf</i>

*'He/she got money.'*

#### (43)

*woo	[PRO	paisaa	mil-naa ]	caah-taa	hai
<i>3ms-nom</i>		<i>money-nom</i>	<i>receive-inf</i>	<i>want-impf</i>	<i>is</i>

*'He wants [PRO to get money].'* (Possible with an embedded verb like *paa-naa* 'find')

This fact could mean that experiencer/goal arguments of this type are not subjects (necessarily), or that the dative-assigning properties of V are not consistent with the case properties of PRO. This issue will be discussed in a later section.

### 1.2.5 Lexical and structural case: summary

In section 1.2, I have focussed on contrasts of case marking in a variety of syntactic contexts. Ergative case is sensitive to the tense/aspect inflectional properties of the clause. Counterfactual conditionals and non-finite clauses lack the perfective aspect or finite tense which are both required to license ergative case. Dative case on experiencer or goal arguments is not sensitive to inflectional conditions, and persists in non-finite embedded contexts. This difference follows from a difference of case type: nominative and ergative case is a structural case, licensed by a relation between the subject NP and TENSE/ASPECT, but dative case is a lexical case assigned with VP by the verbs, and related to semantic roles. Dative subjects have one striking property which is different from other kinds of subject. They cannot occur in controlled PRO position. Some other differences in dative subjects have also come to light, in reflexive binding and the subject orientation of auxiliaries. Explanations will be considered in later sections, and it will be proposed that dative subjects have the option of being subjects, the normal case, or of not being subjects.

### 1.3 An overview of the lexical classes of Hindi/Urdu: case of subject and object

The predicates in the Hindi/Urdu lexicon can be divided into classes on the basis of the case of the subject and the object. As we might expect, there are differences among predicates. The case of the subject is not generally a matter of option, though there is some variation on object case. So we can subdivide predicates into the following general classes:

(44) Predicate classes by subject case:

- A. Ergative subjects in perfective clauses
- B. Optional ergative subjects in perfective clauses
- C. Dative subjects (all clauses)
- D. Nominative subjects (all clauses)

Transitive verbs in Classes A and B may have the dative *-koo* postposition on the direct object. The direct object must have specific or animate reference, or the dative is infelicitous. Only direct objects have optional dative case. Indirect objects require dative case. The other classes are classified by the case of the object, when the verb has more than one argument.

(45) Predicates classified by subject and other case:

Subject	Direct object	Indirect object
Class A Ergative (in perfective cl)	Optional dative	Obligatory dative
Class B Optional ergative	Optional dative	*

Class C Dative	Nominative	*
Class D Nominative	Locative	*

Interestingly, there are no ditransitive verbs in Classes B-D. Ditransitive verbs, with three or more thematic arguments, belong only to Class A. If we include causative verbs within the class of ditransitives, they too belong only to Class A, with ergative case on the causer argument. Intransitive verbs belong to classes B-D; there are no intransitive verbs with an obligatory ergative subject in perfective clauses. Intransitives may have nominative or dative subjects.

Predicates in Hindi/Urdu show another formal division into classes in addition to the groups determined by case and valence. Predicates may consist of a verb stem, whether complex or derived. Or the predicate may consist of a 'light' verb combined with a noun or adjective (Bahl 1974, 1978, Verma 1993). Some examples of nearly synonymous predicates are given in (36) Light verbs include transitive *kar-naa* 'do, make', *dee-naa* 'give', intransitive *hoo-naa* 'be, become' and *aa-naa* 'come'.

**(46) Simple and complex predicates**

Class	Simplex predicate	Complex predicate
Class A	<i>khooj-naa</i> 'search for, discover'	<i>khooj kar-naa</i> 'search for, investigate' <i>pahcaan kar-naa</i> 'identify, become acquainted'
Class B	<i>pahcaan-naa</i> 'recognize, identify'	*
Class C	<i>dikh-naa</i> 'be visible/see'	<i>dikhaaii dee-naa</i> 'be visible/see' <i>Dar hoo-naa</i> 'be afraid of'
Class D	<i>Dar-naa</i> 'be, become afraid of'	*

Complex predicates belong to Classes A (obligatory ergative) and C (dative experiencer). There are no optionally ergative complex predicates (B) that I know of. But some Class A verbs become obligatorily nominative-subject or dative verbs when reanalyzed as light or auxiliary verbs, such as *V +kar-naa* 'be in the habit of V-ing' and *dee-naa* 'give' in *dikhaaii dee-naa* 'be visible/see'. Note that semantically similar predicates may belong to different subject-case classes..

One classification I will not attempt in this paper is by semantic or thematic roles assigned to the argument..The main focus of this paper is on case-licensing (nominative and other cases) and grammatical function (subject properties). If we distinguish structural case from lexical case, then it is not possible to link a specific semantic role with a single case. Subjects with nominative or ergative case have a variety of thematic roles (Davison 2000). The same is true for nominative or dative direct objects. These are the grammaticla

functions which receive structural case. Dative case is obligatory for goal indirect objects, and if a subject is marked for dative case, then it has the experiencer or goal role. Dative in these roles is a lexical or inherent case, having a privative force. If an argument is marked dative obligatorily, the NP has one of a very narrow range of semantic roles.

### 1.3.1 Problems of transitivity; VV compounds

In the previous section I proposed various criteria for classifying predicates, including case, valence and compounding. In that section, I used argument structure to define transitivity. Throughout the paper, I will be referring to semantic or valence-defined transitivity: a predicate is transitive if it has more than one argument and assigns more than one thematic role. Ergative case is sensitive to this method of defining transitivity (except for the small number of intransitives with optional ergative case. Syntactic transitivity is harder to define (cf Hock 1985). It could refer to predicates which assign structural case on both the subject and the direct object, including the predicates of both classes A and B. Classes C and D would count as intransitive, though many of them, perhaps most, are semantically transitive (cf. Van Valin 1997).

Another measure of transitivity is found in VV compounds. The main verb V1 combines with another lexical verb V2 in a number of contexts (Hook 1973, Butt 1995). VV combinations are often used to signal that a normal endpoint is reached (Singh 1999). The unmarked combinations are summarized in (47):

#### (47) Verb-Verb compounds

V1	V2
Class A (transitive)	transitive: <i>lee-naa</i> 'take', <i>dee-naa</i> 'give'
Class B	transitive: <i>lee-naa</i> 'take', <i>dee-naa</i> 'give' intransitive <i>jaa-naa</i> 'go'
Class C (dative subject)	intransitive <i>jaa-naa</i> 'go'
Class D (nominative subject)	intransitive ' <i>jaa-naa</i> ' go, <i>aa-naa</i> come' <i>paR-naa</i> 'fall'

The small class of B verbs marks its direct object with a structural case, but the members of the class also combine with both transitive and intransitive verbs of the normal sort defined in (47). The ergative case is required on the subject if V2 is transitive and a class A verb like *lee-naa* 'take', but nominative if V2 is intransitive *jaa-naa* 'go'. The case of the object is unaffected, whatever the V2 may be.

VV compounds may be used for more 'marked meanings as well, such as the unavoidable events in (24)-(26) expressed by V + *baiTh-naa* 'sit'. . . Actually all VV combinations of transitives and intransitives are possible, with more or less special meanings (Nespital 1997). A verb of Class D such as *kuud-naa* 'jump (from) combines with a transitive V2 *lee-naa* 'take, do for one's own benefit'. The case of the subject may be nominative or ergative in perfective clauses (Nespital 1997:249-255). The V2 may

affect subject case but leave object case unaffected. This fact suggests that case assignment on the direct object is independent of case assignment of the subject. Whatever affects or changes the range of possibilities for the subject does not require adjustments in object case. Finally, the case of the subject does not invariably and consistently reflect either semantic valence or syntactic transitivity.

## **2. An overview of a theory of split subject properties**

In Section 1, I gave an overview of subject marking in Hindi/Urdu. The picture is complex, in that subject marking is not reflected directly in case or semantic valence. Dative (and locative) subjects have lexical case, linked to goal and experiencer semantic roles which are inherently non-volitional. Subjects with nominative or ergative case have a variety of semantic roles, not necessarily agentive or causative ones, though these are the most common roles. Nominative subjects may refer to experiencers, patients or themes as well. Ergative subjects may refer to non-volitional causes, experiencers and patients (in the latter case there are a number of idioms N+ *khaa-naa* 'eat' describing bad experiences, the patient of which corresponds to the ergative subject of 'eat'). So I will consider these cases to be structural rather than semantically related.

The goal of this section is to outline a theory of case and grammatical function which accounts for the facts of Hindi/Urdu. The licensing of cases can be very simple, if they are lexical cases. Structural cases, especially ergative, depends on a complex array of conditions, each of which depends on some choice (main verb, tense/aspect, auxiliary verb). Subject properties also vary. Of the subject criteria discussed in 1, nominative subjects have the most, ergative subjects nearly all, and dative subjects vary in having some or even none; that is, they alone have the option of not being subjects. In other words, subject status is not a single holistic concept, but rather a cluster of properties which may be independent of one another. The definition of grammatical subject and distribution of case licensing features in Hindi/Urdu is complex, and resembles what is found in related languages like Punjabi and Kashmiri, and different to a greater or lesser degree from what is found in related languages like Nepali, Marathi, Sinhala and Bangla, and areally related languages such as Tamil, Malayalam and Kannada.

I will take as starting point a proposal made by Ura (1996, 2000) for a generative theory of case-checking and grammatical function. This theory recasts some of the assumptions of the Minimalist Program (Chomsky 1995) so as to define a number of parameters along which languages may vary, deriving different results from a small number of operating factors. It also makes use of syntactic structures for the VP which allow for some variation in VP structure. I will propose some modifications in VP structure to reflect finer-grained differences reflected in the classes of predicates listed in (44).

Ura (2000) discusses dative subject constructions and morphological ergative marking in a number of languages, including Hindi/Urdu. His proposal provides a way of dissociating morphological/semantic properties from subject grammatical function where it is necessary to do so. He also proposes some parameters for explaining how languages differ from one another in dative and ergative constructions, as well as for explaining how different constructions license case (inverse, varieties of passive, locative inversion, double objects).

I will outline the principal components of Ura's proposal by giving two sample derivations, an ergative subject sentence and a dative subject sentence. I will then summarize the theoretical devices which are necessary, and comment on what is stringly convincing about the proposal, and what is not. In Section 3, I will propose a revision which comes closer to accounting for the specific facts of Hindi/Urdu.

### 2.1 Ergative subject clauses

I give a sample derivation of the ergative subject sentence (47), based on Ura (2000:ch1)

(47)

bacooN-nee <sub>i</sub>	apnii <sub>i/*j</sub>	billii	deekh-ii
children-erg	self's	cat-fs	see-pf-fs

*The children<sub>i</sub> saw/looked at self's<sub>i/\*j</sub> cat'.*

Ura's proposal assume that syntactic projections are constructed phrase by phrase through the operation of merger (MERGE), which brings together elements in a subcategorization relation. A transitive verb like *deekh-naa* 'see' combines with its object to form a VP projection (48). The theme theta role for *deekh-naa* is discharged with merger. with NP

(48)

		VP
	3	
NP[Nom][3fs]		V <Argt 1*Argt 2>
apnii <sub>i/*j</sub> billii		deekh-ii
self's cat-fs		see-pf-fs

Following the notation in Speas (1990), I show the theta grid for V; theta roles which are discharged are marked with \* on the relevant argument. VP merges with a light verb *v* which is necessary for the assignment of the other theta role, and more especially for checking the nominative case of the object. Normally structural case is not checked in the same position in which the theta roles is assigned (Chomsky 1995). The subject NP merges as the outer specifier of of vP, and its theta role is discharged:

(49)

		vP <*Argt1, *Argt2> (theta discharge)
		3
NP[Erg]		v
bacooN-nee <sub>i</sub>	3	

children-erg                      VP                      v [+ΘPC; checks ergative case]

3

NP[Nom][3fs]                      V <Arg1 \*Arg2>

apni<sub>i/\*j</sub>    billi                      deekh-ii

self's    cat-fs                      see-pf-fs

So far in (49), the direct object has merged with V, gotten a theta role. The subject with ergative case has merged with vP and gotten a theta role. The basic assumptions so far are quite general and standard:

- a) Phrases are constructed by MERGE
- b) Thematic roles are assigned to specifiers of V-projections (Ura 2000:20)
- c) Movement (COPY + MERGE) is forced to occur in the syntactic derivation if the case feature to be checked is *strong*; if it is *weak*
- d) Structural case, such as [NOM], and Φ (agreement) features are checked by movement to the syntactic domain of the head bearing that feature. The feature may be + or -strong. Case features of [-Interpretable] are deleted; agreement features are [+Interpretable] because they contribute to the interpretation of NP. They are deleted on the checking head TENSE, not on NP.

Ura proposes that ergative case checking is different from subject nominative checking, which requires movement to the Specifier of Tense and also triggers agreement. To check ergative case in morphologically ergative sentences, he introduces a new parameter for checking case which has a positive value in Hindi/Urdu, and here applies to the ergative case.

- e) +Theta Position Checking Parameter (ΘPC) allows a structural case to be checked in the same position as the theta role is assigned (Ura 2000: 38, 208).

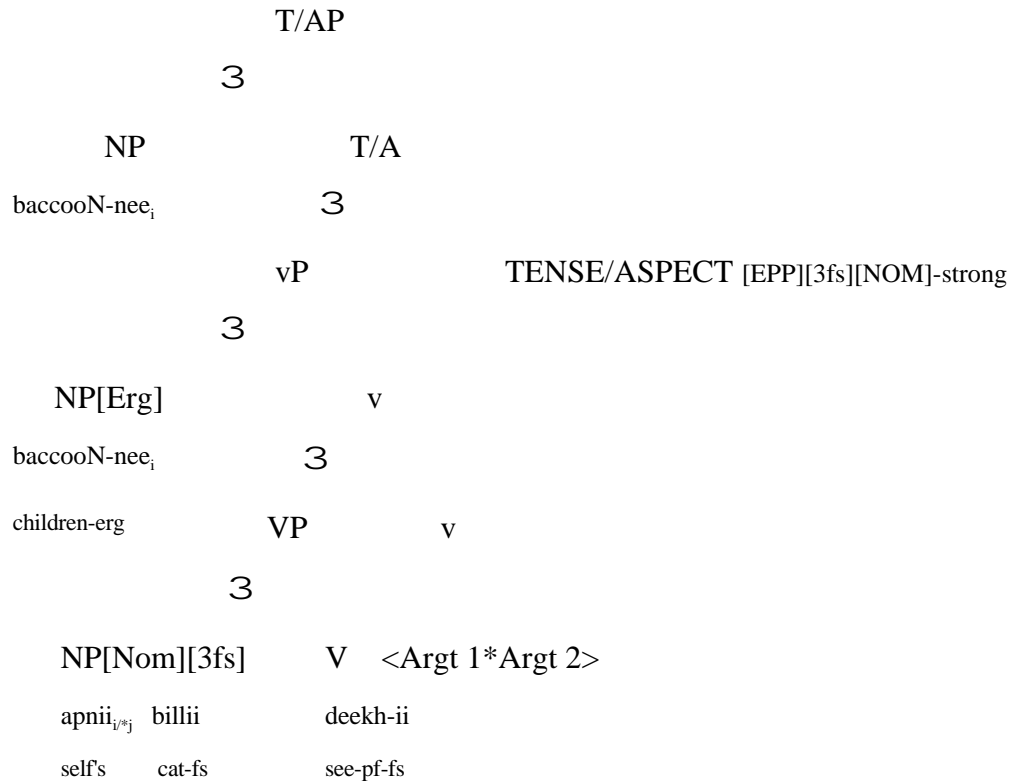
The ergative case is checked in Specifier/vP; since Hindi/Urdu is a split ergative language, licensing ergative case only in perfective (finite) clauses. Ura proposes that languages of this type have a special kind of v head which includes the +ΘPC value, and is selected by the tense/aspect projections to be merged above. This is one feature of Ura's proposal which will be modified in later sections.

The final merger of vP is with TENSE (ASPECT). The TENSE projection has a (strong) feature which requires a nominal phrase to merge as the Specifier. This feature is the Extended Projection Principle feature (EPP). It requires the ergative subject to move. It cannot affect the direct object because at this point in the derivation, the object is still within VP, a different syntactic domain from vP which is the merged position of the subject. Movement in syntax is limited by syntactic domains. The attracting head TENSE

is closer to the ergative DP than to the direct object. If both were in the same minimal syntactic positions (such as vP) then both would be equidistant, and either one could move. This condition is an important one, whose consequences are described in 3.1.1.

f) Movement is driven by an attracting feature matching a feature on the moved NP. equidistance: Two NPs are equidistant from a single attracting head only if they are in the same minimal domain (complement or specifier of the same head; Ura 2000:31).

(50)



(50) shows the sentence just before TENSE checks its strong EPP features. TENSE also checks the person-number-gender features of the nominative object, but not in the syntactic derivation. This [-strong] feature is checked after the sentence is fully formed, and the  $\Phi$  feature complex itself moves to adjoin to TENSE, creating a checking configuration in Logical Form (Ura 2000:105). Agreement checking would have to be done in LF as well.

A similar sentence has accusative case on the object, with some consequences for agreement.

(51) Dative direct object

baccooN-nee<sub>i</sub>    apni<sub>i/3j</sub>    billii-koo    deekh-aa

children-erg      self      cat-fs-da      see-pf-ms

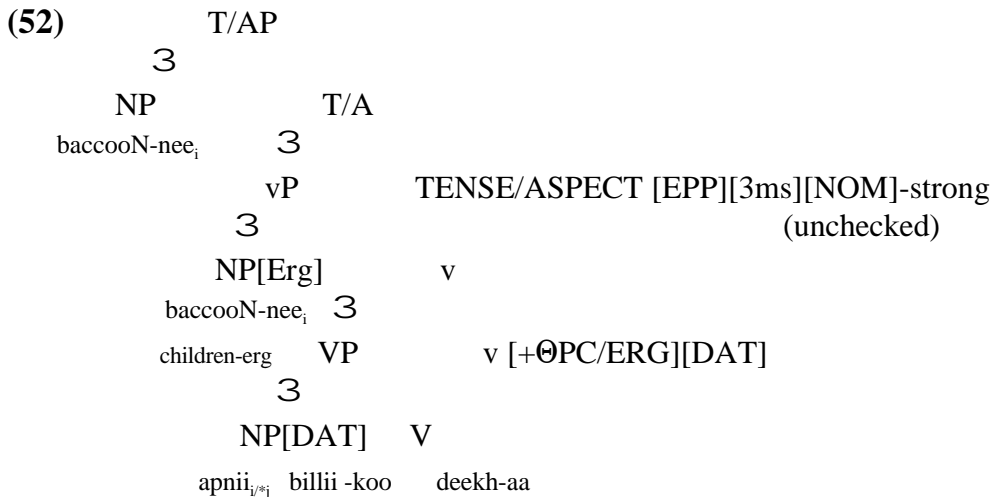
*'The children<sub>i</sub> saw/looked at self's<sub>i/\*j</sub> cat'.*

In (51) the direct object has a *-koodative* port-position, because the NP *apnii billii-koo* has a specific and animate referent. Because postpositions block agreement, and there is no nominative argument in (51)m the the verbal complex has the default set of agreement features, 3ms. Hindi/Urdu has a positive value for the parameter (f)::

g) Impersonal Parameter: the [NOM] feature on TENSE need not be checked (Ura 2000: 36-38)..

The TENSE head for (51) is exactly the same as the sentence (47). The unchecked [NOM] feature, normally a fatal flaw in LF representations, does not cause the derivation to crash. What is really different is the presence of the 'accusative' *-koo* on the direct object. In most languages an accusative case would be the default and only structural case allowed on a direct object. If the case feature is [-strong], as in many languages, the it is checked at LF by movement to the light verb  $\bar{v}$ . which has the object case feature on it. Ura treats nominative case as an exception which is allowed to happen as a 'lexical idiosyncrasy' (Ura 2000:103) in a vP projection of a verb, reflecting the normal occurrence of accusative case in most transitive vP projections. I will assume with Ura that in (51), [-strong] accusative case is checked by the head of vP, but in a later section I will return to the question of nominative and accusative objects.

I summarize the derivation of (51) in (52), showing the (initial) position of features::



The last combination of case properties of interest is shown in (53), in which *both* the subject and direct object are nominative.

(53)

baccee	apnii <sub>i/*j</sub>	billii	deekh	rahee	haiN
<i>children-mpl</i>	<i>self's</i>	<i>cat-fs</i>	<i>see-pf-ms</i>	<i>prog-mpl</i>	<i>3mpl</i>

*'The children<sub>i</sub> are looking at self's<sub>i/\*j</sub> cat'.*

Two parameters accommodate this combination. First, the weak [NOM] feature on TENSE checks both [NOM] features. So in some languages a checking feature may enter into two checking relations, and is not deleted the first time it checks a feature. Second, the agreement is controlled only by the nominative subject, and not by the nominative direct object.. Therefore, nominative checking is independent of agreement checking in this (and other) languages, unlike English and other where nominative case and  $\Phi$ -feature checking are part of the same operation.

Ura's proposal for languages like Hindi/Urdu includes the following parameter values: (1) The EPP feature of TENSE is [+strong], (2) the light verb head of the transitive VP shell has the + $\Theta$ PC/ERG feature which allows ergative to be checked (in the syntactic derivation) before movement, (3) the light verb projection does not have to have a [DAT] feature, so that Nominative case is a possibility on the object; (4) The  $\Phi$  feature of TENSE and the nominative case feature are weak, and may be checked at LF (6) the nominative feature on TENSE may enter into multiple case-checking relations, and (7) Hindi/Urdu is a +Impersonal parameter language.

The common subject properties of nominative, ergative and dative subjects in Ura's proposal come from the checking relations which these NPs enter into. All of them enter into a relation with TENSE, by virtue of the EPP feature on TENSE, which is strong, and forces a NP to movement into the Specifier position of TP. This specifier becomes quite naturally the antecedent, if reflexives if subject-oriented reflexives are clitics on TENSE at Logical Form (Cole and Hermon 1991, Cole et al 1994, Davison 2001). Reflexive binding is a relation in Logical form which holds between TENSE+REFLEXIVE and the specifier of TP.

Control of subject-oriented PRO is explained in different terms. Ura notes that in Navajo and others languages in which the subject and object overlap in properties, the constituents with agreement relations to INFL/TENSE are the ones which have control properties (Ura 2000::81). Borer's proposal (1986) for explaining control of PRO via agreement makes the same assumption. Ura argues that dative subjects in Japanese induce honorifica agreement, and so are in the right kind of relation to INFL, a relation in LF based on +interpretable features. Yet in Hindi/Urdu, controller of PRO need not enter into overt agreement with the matrix verb. If the matrix subject is not nominative, in fact it may not under any circumstances control agreement. Further, PRO itself has no agreement features in Hindi/Urdu. This is another weak point of Ura's proposal which will be revised in later sections of this paper.

The last example in the section demonstrates the derivation of a dative subject clause (54):

**(54)**

bacooN-koo<sub>i</sub>    apnii<sub>i/\*j</sub>    billii    dikhaaii    dii    (hai)  
*children-mpl-dat    self's    cat-fs    sight    give-pf-fs    is-3sl*

*'The children<sub>i</sub> (have) caught sight/seen self's<sub>i/\*j</sub> cat'.*

The structure for (54) is very similar in Ura's proposal to the other transitive sentences in (47), (51) and (53). The vP projection before case checking would be (55):

(55)                    vP <\*Argt1, \*Argt2> (theta discharge)  
                           3  
                           NP[Dat]            v  
                           bacooN-koo<sub>i</sub>            3  
                           children-dat    VP                    v [+ΘPC; checks dative case]  
                           3  
                           NP[NOM][3fs]    V  
                           apnii<sub>i/\*j</sub>    billii    dikhaaii    d-ii  
                           self's    cat-fs    sight    give-pf-fs

The light verb v is allowed to assign lexical dative case to the subject, which is checked at the same time as theta assignment. The same light v is allowed 'not to assign accusative case'. Interestingly, Tamil does have dative subject verbs which assign accusative case (Paramasivam 1979, Lehman 1993, Schiffman 2000), coexisting with nominative-subject verbs with accusative objects. But the combination of dative and accusative cases is very unusual, and is not found in the other Dravidian languages or typologically similar Indic languages. The presence of dative lexical case in Hindi/Urdu seems to entail nominative case and no other. This idea will be pursued further, and related to an interesting alternation in grammatical functions which is possible only for dative subject verbs, and never for ergative subject verbs.

### 3. Dative and ergative subjects

Ura's account of case and grammatical function (2000) derives sentences phrase by phrase, by the options of MERGE and MOVE (COPY and MERGE). Movement is driven by feature checking. Heads which have features attract constituents with those features, subject to locality conditions: phrases in different minimal phrase domains are not equidistant from an attracting head. Features may be strong, requiring movement for feature checking before the sentence is spelled out, or weak, allowing feature checking to be postponed until after Spellout, with feature (not constituent) movement in Logical Form. Ura's proposal is based on (A) the strong or weak properties of features which are checked: Nominative and other cases, the Extended Projection Principle (EPP), and  $\Phi$  features, (B) the case and theta role properties of the VP shell which projects the clause predicate, and (C) the conditions on case checking: the case may or may not be checked without movement ( $\Theta$  PC). Nominative case is subject to much variation: it need not be

checked (Impersonal Parameter), it may be checked multiply (Multiple) and it may be checked with  $\Phi$  features or separately.

### 3.1. Some problems with Ura's proposal

These parameters represent a departure from standard assumptions, but they are sufficient to derive a wide array of different outcomes in different languages based on very small differences of the basic syntactic processes. This approach also explains how subject properties can be associated with non-subjects as well as subjects in the classic position as Specifier of TP. Subject properties can be split and shared among different constituents. The constituent which takes priority is the one which has the strongest feature checking relation to TENSE. Ura's proposal is enough to differentiate a number of constructions, and to derive small differences in the same construction in different languages, but it does not go far enough to give a really convincing account of structures in a specific language. In the next sections, I will propose some revisions which give Ura's proposal a better fit to the dative and ergative constructions in Hindi/Urdu. The VP structure assigned to dative-subject verbs will radically differ from the VP which allows ergative subjects. Dative experiencers have the option of *not* being sentence subjects. Control of PRO will be mediated by the EPP feature-checking relation with TENSE, rather than  $\Phi$  features. A derivational paradox in ergative case licensing will be eliminated.

#### 3.1.1 Dative subjects and reversals

Dative and ergative subjects are found in transitive clauses, which Ura represents with the same complex VP shell (as in (52) and (54)). The differences of case and theta role are simply lexical idiosyncrasies, given the sameness of the VP structure. He allows for a 'reanalysis' of the complex VP shell into a simple VP for experiencer verbs in Dutch (2000:139-141) to account for reversals of subject and object.

Reversals of this kind are possible in Hindi/Urdu, but only for Class C verbs, never classes A/B or D (45)-(46). Class C predicates have dative subjects and nominative objects. For example, Yamabe (1990) shows that there are two possible ways of expressing the meaning 'X likes Y' (56a,b):

#### (56) a.

maalik <sub>i</sub>	-koo	apnaa <sub>i/nj</sub> /us <sub>ij</sub>	-kaa	kuttaa	acchaa	lag-taa	hai
<i>master-dat</i>		<i>self's/ 3s-gen</i>		<i>dog-nom</i>	<i>good</i>	<i>strike-impf</i>	<i>is</i>

*'The master likes self's dog.'* (Yamabe 1990:)

#### (56) b.

kuttaa	apnee <sub>ij/nj</sub>	maalik <sub>i</sub>	-koo	acchaa	lag-taa	hai
<i>dog-nom</i>	<i>self's</i>	<i>master-dat</i>		<i>good</i>	<i>strike-impf</i>	<i>is</i>

*'The master likes self's dog.; the dog is pleasing to self's master.'* (Ibid)

In (56a), the dative subject binds a possessive reflexive in the nominative theme. In (56b), the nominative theme binds a reflexive in the dative subject. The second option is required (57b) to avoid a nominative reflexive, which is ungrammatical (57a)

**(57) a.**

\*raam<sub>i</sub>-koo    sirf    apnaa aap<sub>i/\*j</sub>    acchaa    lag-taa    hai  
*Ram-dat    only    self's self-nom    good    strike-impf    is*

' *Ram likes only himself.* (Yamabe 1990:117)

**(57) b.**

raam<sub>i</sub>    sirf    apnee (aap)<sub>i/\*j</sub>-koo    acchaa    lag-taa    hai  
*Ram-nom    only    self's self -dat    good    strike-impf    is*

' *Ram likes only himself*' (Ibid)

A synonymous sentence with a class A (ergative subject) predicate does not have the reversal (58a,b) even when the reflexive is ergative (58bc) instead of nominative (58b)

**(58) a.**

kumaar<sub>i</sub>    apnee (aap)<sub>i/\*j</sub>-koo    pyaar    kar-taa    hai  
*Kumar-nom    self's self -dat    love    do-impf    is*

' *Kumar loves himself*' (Yamabe 1990:115)

**(58) b**

\*kumaar<sub>i</sub> -koo    apnaa (aap)<sub>i/\*j</sub>    pyaar    kar-taa    hai  
*Kumar-dat    self's self -nom    love    do-impf    is*

' *Kumar loves himself*' (Yamabe 1990:115)

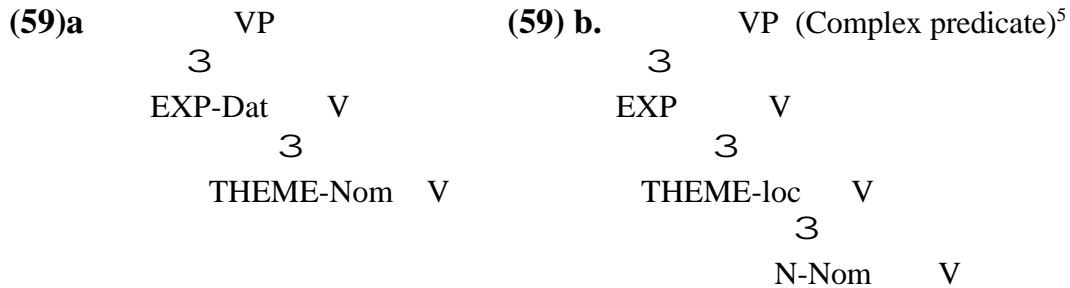
**(58)c**

\*kumaar<sub>i</sub> -koo    apnee (aap)<sub>i/\*j</sub> -nee    pyaar    ki-yaa    hai  
*Kumar-dat    self's self -erg    love    do-pf    is*

' *Kumar has loved himself*'

These reversals, while not common, are possible with class C predicates, especially to avoid a nominative reflexive. What sentences like (56b) and (57b) show is that either the

theme or the experiencer of a psychological predicate has the option of moving out of VP to Specifier of TP, where it checks the EPP feature of TENSE, and may bind a reflexive or control PRO. Accordingly, I propose the VP structure in (59) for this class:



The Experiencer checks dative inherent case in VP. The Experiencer and Theme are in the same minimal domain, the projection of V, and for that reason they are both equidistant from TENSE. Whichever one checks the strong EPP feature of TENSE also binds reflexives, clitics on TENSE at LF. If the Experiencer moves to TP, then the nominative theme checks nominative case and  $\Phi$  feature agreement by movement of the features to TENSE at LF. If the Theme moves, it checks nominative and  $\Phi$  features in Spec TP (whether in the syntax or LF is unclear).

Reversals, like reflexive binding, are possible over non-finite clause boundaries:

**(60) a.**

raadhaa-koo    hii    [apnee-see    baRii    bhuul    hu-ii]    jaan    paR-tii    hai  
*Radha -dat    -only    self-from    big    mistake-fs    be-pf-fs    knowledge    fall-impf-f    is*

*'Only Radha sees [that she made a big mistake]; lit. A big mistake seems to Radha to have been made by self'.*

**(60) b.**

raadhaa-see    apnee-aap-koo    hii    baRii    bhuul    hu-ii    jaan    paR-tii    hai  
*Radha -from    self-'s self -dat    only    big    mistake-fs    be-pf-fs    knowledge    fall-impf-f    is*

*'Only Radha sees [that she made a big mistake]; lit. A big mistake seems to Radha to have been made by self'.*

**(61) a.**

raadhaa-nee-hii    [apnee aap-koo    baRii    bhuul    ki-yaa    hu-aa]    samajh-aa    hai  
*radha-erg-onl    self's self dat    big    mistake    do-pf    be-p    consider-pf    is*

*'Radha considers herself to have made a big mistake'.*

(61) b.

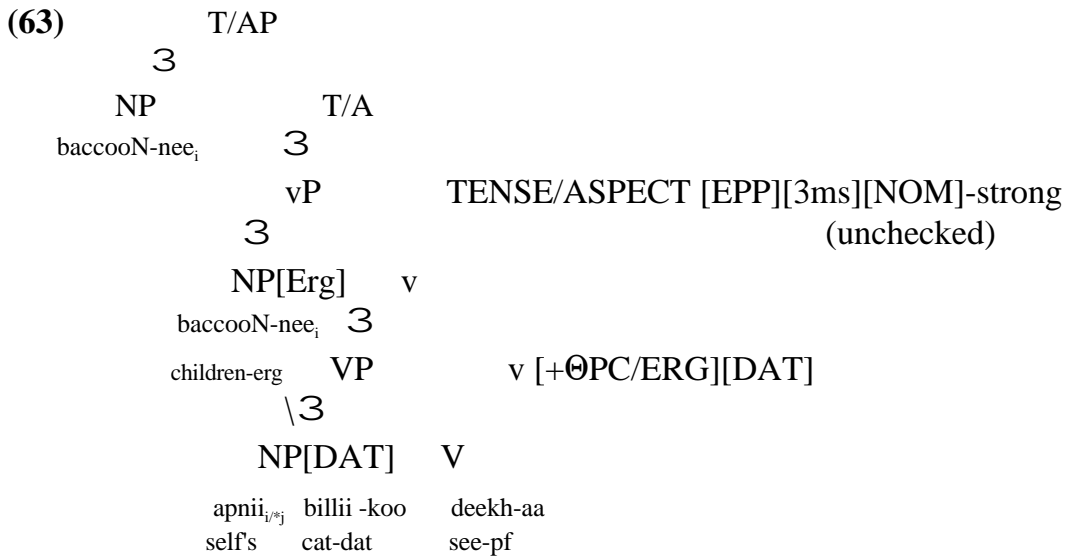
\*raadhaa-koo-hii [apne (aap)-nee hii baRii bhuul ki-yaa hu-aa samajh-aa hai  
 radha-dat -only self's self erg-emph big mistake do-pf be-pf consider-pf is

'Radha considers herself to have made a big mistake'.

The matrix verb in (61) is a class B verb, with an optional ergative subject. It does not allow a dative ECM object to check the matrix EPP feature because the subject and objects in this kind of VP projection are not in the same minimal domain. I will use Ura's complex VP for class A/B predicates, which have ergative subjects and the option of a dative object (required for ECM subjects of embedded clauses) (62)

**3.2 A complex VP shell for ergative subject predicates**

I will use Ura's complex VP shell (63) for class A/B predicates, which have ergative subjects and the option of dative direct objects.



Class A/B predicates have the property of being able to assign an optional (structural) dative case to the direct object. If DAT is assigned, it is a weak case feature, not requiring syntactic movement to the vP projection for case checking. It is checked by feature movement at LF. If NOM is assigned to the theme/direct object, it is checked at LF by TENSE. In this case, however, as there is no NOM on NP in (63) the NOM feature on TENSE remains unchecked (+Impersonal Parameter). Ergative case is checked in vP by the theta assigner v (+θPC) without movement. But this condition will be somewhat modified below, as there are further conditions on ergative licensing (3.5). After ergative case checking in vP, the NP is raised to TENSE to check the EPP feature on TENSE. Only the [Erg] NP can be raised because it is closer than the theme to the attracting RPP feature.

**3.3. Dative subjects and pronoun binding: the non-subject option**

As Anju Saxena noted (1985), while both dative and ergative subjects bind reflexives, dative subjects but not ergative subjects can bind pronouns as well. This fact was also noticed in Gurtu (1992). It suggests that dative subjects are *not* (always) subjects. The dative experiencer in (64) binds both a reflexive and a pronoun:

**(64)**

vadhu <sub>i</sub>	-koo	us-kee <sub>i</sub>	maa <sub>N</sub> -baap	yaad	aa-yee
bride-dat		3s -gen	mother-father- <sub>mpl</sub>	memory-f	come-pf- <sub>mpl</sub>

*'The bride<sub>i</sub> remembered self's /her<sub>ij</sub> parents' (Saxena 1985:285)*

**(65)**

vadhu <sub>i</sub>	-nee	*us-kee <sub>i</sub>	/ apnee <sub>i</sub>	maa <sub>N</sub> -baap-koo	yaad	ki-yaa
bride-erg		*3s-gen	/ self's	mother-father-dat	memory-f	do-pf- <sub>ms</sub>

*'The bride<sub>i</sub> remembered self's /her<sub>ij</sub> parents' (Saxena 1985:285)*

The possessive pronoun *us-kee* '3s-gen' has only the disjoint reading in (65), though it can be bound by the dative experiencer NP in (64). The reason, I propose, is that the ergative NP in (65) must be raised to Spec/TP to check the EPP feature, and also for eventual case licensing at LF (3.5.1). The Dative NP is checked for case within VP, as a lexical case. It can remain there is some other NP checks the EPP feature.

**3.4 Control of PRO and agreement**

Control of PRO in non-subcategorized is a subject property of dative experiencers in many languages, including Japanese. Ura explains this property as the consequence of the dative NP having a construable relation (at LF) with  $\Phi$  features, although he does not explain this relation in concrete detail. Japanese has honorific agreement, controlled by both nominative and dative subjects.

**(66)**

yamada-sensei-ni	sono	mongai-ga	o-	wakari-ni	nar-u
<i>Yamada-prof-dat</i>	<i>that</i>	<i>problem-nom</i>	<i>honorific</i>	<i>understand-dat</i>	<i>become-pres</i>

*'Professor Yamada understands(hon) that problem.'* (Ura 2000:101)

Hindi/Urdu and other Indic languages mark non-nominative cases with postpositions, which typically block agreement. Yet postpositionally marked NPs control PRO, as the examples in earlier sections have shown. The adverbial *V-kar* 'having V-ed' clauses which require subject controller have not agreement internally. PRO itself does not control agreement, which is otherwise possible in non-finite clauses, on either participles or infinitives. The following sentence shows long-distance agreement over the non-finite clause boundary of the subcategorized infinitive clause.

(67)

mujhee	[PRO	saaikal	calaa-nii]	aa-tii	hai/*huuN
<i>I-dat</i>		<i>bicycle-fs</i>	<i>ride-inf-f</i>	<i>come-impf-f</i>	<i>is/*am</i>

*I know [(how) to ride a bicycle]'*.

PRO in (67) is coindexed referentially with its matrix controller *mujhee* 'I-dat'. But even though PRO has an index, it does not control agreement. Instead, the embedded clause object which has 3fs controls agreement on the infinitive and the matrix verbal complex.

### 3.4.1 Control as regulated by the Extended Projection Principle

An alternative to Ura's proposal is to say that PRO is controlled in the same way as reflexives, by being in a construable relation with TENSE. For reflexives the connection with TENSE comes from the proposal discussed earlier: subject-oriented reflexives are clitics on TENSE at LF. Reflexive coindexing is a consequence of the syntactic (and feature-checking) relation between TENSE and its Specifier. For PRO, especially PRO in non-subcategorized adverbials, the coindexing will be based on two coindexing relations/ First, both PRO and its matrix controller are subject, construed with the functional projection which has the EPP feature in their respective clauses. This functional projection could be TENSE or ASPECT, as the perfective suffix *-kar* 'having V-ed' seems to express only aspect. Second the embedded TENSE/ASPECT is referentially dependent on the matrix TENSE for a reference time. I propose that the dependency relation includes both nominal indices as well as temporal ones. PRO is syntactically coindexed with *-kar* in its clause, and the reference time and the temporal reference must be the same as on the matrix TENSE. These construal relations at LF are interpreted within the discourse context as referential coindexing. This explanation will have to be modified somewhat for object control verbs, which control PRO within VP or perhaps a lower phrase.

### 3.4.2 The incompatibility of PRO with lexical dative case.

Finally, what accounts for the *inability* of datives to be controlled (43)? Dative case on experiencers in Hindi/Urdu is, I claim, a lexical case. PRO has a structural 'null' case checked by non-finite TENSE/ASPECT. Lexical case is obligatory and checked in situ within VP, so that it is always present when VP is merged with TENSE/ASPECT. The ungrammaticality in control contexts is the result of a case clash between the requirements of the predicate assigning lexical case and null case feature of the functional projection. This clash is found in many languages, including Russian. Icelandic is different in interesting and subtle ways. Lexical dative case subjects may be controlled, but there is also evidence that lexical case on subjects in Icelandic is also structurally licensed (Freidin and Sprouse 1991). This difference must represent a parametric difference between Icelandic and other languages.

### 3.5 Checking split ergative case

In this paper, I have proposed that the verbs which allow ergative subjects have a complex vP shell projection (49),(52), with a light verb which assigns a theta role to the external argument and check an ergative case feature in situ. These predicates are the class A

predicates, as well as the class B verbs which have the option of checking or not checking ergative case. Both class A and class B verbs allow *-koo* dative direct objects, whether or not the subject is ergative. This object property is a stable property of both A and B verbs, and of no other classes in Hindi/Urdu. I am ascribing this object case property to the presence of the light verb *v* in the vP projection. It checks the weak [DAT] feature at LF. For that reason, I will propose that optional ergative subject verbs have not lost the vP projection when they have nominative subjects instead of the expected ergative subject. These verbs do not have dual vP shell and simple VP projections.

The case checking of ergative within vP is a necessary condition, but not sufficient. The rest of the checking conditions seem to me to be a consequence of movement to the Specifier of the functional projections TENSE and ASPECT to satisfy the EPP. In some way, ergative case licensing has a requirement for a match between [Erg] and the lexical value *finite* in TENSE and the lexical value *perfective* in ASPECT. The actual content of the term *finite* is independent tense reference. In more technical terms, this means that there is an ordering or overlap relation between speech time and a reference time (Giorgi and Pianesi (1997)). The semantic content of *perfective* is that the event time precedes the reference time. This part of ergative case licensing is therefore an aspect of semantic construal, based on the LF representation in which the ergative NP is in the Specifier position of TENSE and Aspect.

There is a further complication in Hindi/Urdu and other Indic languages which have split ergative case. The simple past in these languages is expressed with perfective aspect alone, contrasting with the tensed perfect tenses which have an overt tense auxiliary (68a,b)

**(68) a.**

tum-nee	coorii	nahiiN	kii	hai
<i>you-erg</i>	<i>theft-f</i>	<i>not</i>	<i>do-pf-f</i>	<i>is</i>

*'You have not stolen anything (but there still are some problems at this time).'*

**(68) b.**

tum-nee	coorii	nahiiN	kii
<i>you-erg</i>	<i>theft-f</i>	<i>not</i>	<i>do-pf-f</i>

*'You have not stolen anything (end of the matter, no present relevance).'*

McGregor (1995:27) notes that the perfective alone (68b) denotes only past time, with no other reference to a reference time distinct from the event time. The combination of perfective aspect and an overt tense auxiliary relates the reference to the speech time in (68a). If the bare perfective sentence (68b) did contain some kind of independent but phonologically null tense, then it should have the same kind of meaning as (68a), but it does not. So I conclude that no tense morpheme is present in (68b), only an ASPECT projection headed by *perfective* and able to license ergative case.

Ergative case be licensed by both TENSE and ASPECT and by ASPECT alone. I propose that the past tense interpretation of (68b) is derived at LF. Perfective aspect orders the event time before the reference time. This underspecified reference time is unselectively bound by the discourse context. The unselective binding is part of LF construal and embedding of the sentence in a discourse context. The result is that the reference time in the meaning of *perfective* becomes deictic, and thus counts as finite, meeting the licensing condition on ergative case. The licensing conditions on ergative subjects of bare ASPECT phrases are not met until unselective binding has taken place.<sup>6</sup> If this is the right explanation, then it supports the idea that some part of ergative case licensing is done in Logical Form.

The details of ergative case licensing are complex. Part of the process involves a simple case checking in situ within vP. The rest of the licensing process is connected with construal and interpretation at LF, suggesting that a weak case feature is involved. I will propose a complex of two features as part of [Erg], one strong and one weak<sup>7</sup>. I believe that this account, in spite of its unconventionality, is closer to the right account than Ura's proposal. Ura proposes that ergative case licensing take place in one operation within vP. The light verb head has a special property, not further explained, and this property is one which is selected only by perfective aspect (and finite tense). It seems to me that this account has an internal ordering paradox within it. By Ura's account, vP is constructed by MERGE with just the right v-head, v-Erg, which checks ergative case and *then* is merged with the higher functional projections TENSE/ASPECT. The selectors get merged *after* the selected head v-Erg has checked case and lost its feature. Suppose that the wrong values of TENSE and ASPECT are selected. Then subcategorization selection of the right kind of vP fails, and one assumes that the unmergeable vP has no well-formed interpretation. In my account, if the wrong values of TENSE and ASPECT are chosen, then some weak features remain unchecked at LF, a standard case of an uninterpretable object.

### ***3.6 Some remaining problems for ergative licensing***

The licensing of ergative case requires an account of some remaining puzzles, for which I propose solutions below, still retaining the vP shell. These puzzles include the effect of compounded verbs on subject but not object case, intransitive ergative sentences, and the indirect object which intervenes between the subject and direct object of class A predicates.

#### **3.6.1 VV compounds, auxiliaries and ergative case licensing**

A sentence may have the right kind of transitive verb (Class A/B), finite tense and perfective aspect, and still not have well-formed ergative subject case. The reason is that the main verb is combined with a non-ergative auxiliary, such as *V+paa* 'manage', *V+sak* 'be able' (20-21) or an intransitive compound verb like *V+baiTh* 'sit' (24). The result is a sentence like (69a), whose main verb can also be compounded with a transitive verb (69b). Note that the dative structural case on the direct object is retained even in (69a), suggesting that the light vP projection is still present even when the ergative case is suppressed.

**(69) a.**

machlii is puuree aadmii-koo khaa ga-ii  
*fish-fs this whole man-dat eat go-pf-fs*

*'The fish ate up this whole man (in an uncontrollable way).'*

**(69) b.**

machlii-nee is aadmii-koo khaa li-yaa  
*fish-fs-erg this man-dat eat take-pf*

*'The fish ate this man (for its own benefit).'*

The rightmost verb in the VV combination determines the subject case. An intransitive main verb like *kuud-naa* 'jump' normally combines with another intransitive verb in a compound (70b) but it can combine with a transitive verb (70b), and have ergative case.

**(70) a**

woo nadii-meeN kuud paR-aa  
*3s river-in jump fall-pf-ms*

*'He suddenly jumped into the river'. (Nespital 1997:254)*

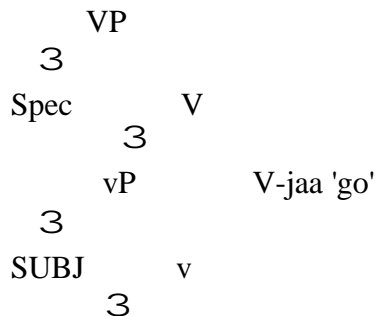
**(70) b.**

kalaabaaz-nee pandrah fuT -kii uuNcaaii-see kuud dikhaa-yaa  
*Kalabaz-erg 15` foot -gen height-from jump show-pf-ms*

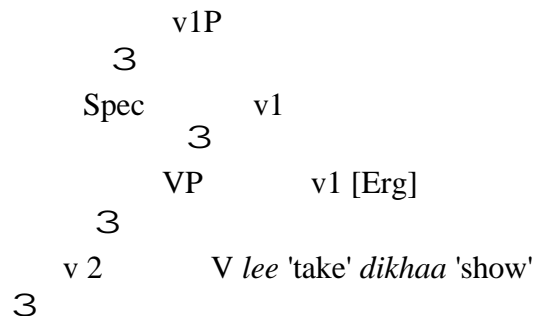
*'Kalabaaz proved/turned out to be able to jump from a height of 15 feet'. (Nespital 1997:253)*

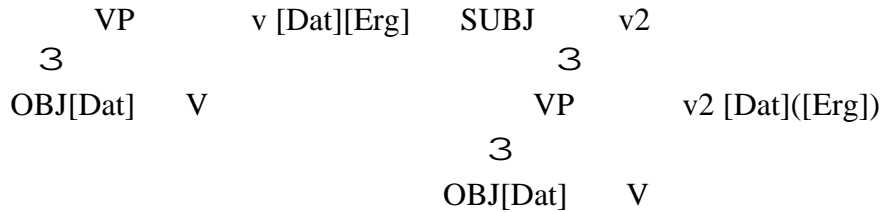
What the above examples show is that the main verb retains its (in)transitivity and object case licensing abilities, but the second V imports its own verbal projection. I propose that the compound VP structure of (69a) is (71), while the verbal projection of (69b) and (70b) is (72).

**(71)**



**(72)**





In these compound structures, I assume that the lower *v* head raises and left-adjoins to the upper *V* or *v*. The rightmost member, the head, determines whether ergative case is licensed or not in the verbal projection. It is not licensed in (71), because the rightmost member *V* has no ergative feature, regardless of what the lower *vP* (or *VP*) is. Ergative case is required in (72), because *v1* has the feature [Erg]. This (part of the ) feature must be strong, as it attracts *SUBJ* to the highest *vP*. The *SUBJ* could originate in an intransitive *V* projection as well, and still get ergative case, as in (70b). This combination is not usual, as compounds verbs tend to assign ergative case only if both verbs are ergative case assigners.

### 3.6.2. Intransitive ergative subjects

Verbs such as *bhauNka-naa* 'bark' optionally allow ergative subjects. The conditions for licensing ergative subjects are just the same as for transitive verbs as discussed above, except for semantic valence. There is no cognate object noun *\*bhauNk* 'barking'. There is also no apparent contrast of volitionality either (but see Butt 1995 on Pakistani Urdu). The class of verbs of this type is very small and idiosyncratic (Davison 1999). I will analyze these verbs as having dual *VP* and *vP*[Erg] projections.

### 3.6.3 Indirect objects

Indirect objects with dative or locative case belong only to Class A. The indirect object intervenes between the subject in the light *vP* project and the direct object in *VP*. In principle it could block the checking of the [Nom] feature on the direct object, checked by *TENSE* in *LF*. But the indirect object case is a lexical case, checked by *VP*. *VP* is therefore not a closer potential attractor with a structural case feature. There is another possible intervention condition, however. If the indirect object is (lexical/inherent) dative, the choice of a structural dative case on the direct object is strongly dispreferred. This could be for processing reasons, because of the ambiguity of direct and indirect object. This combination of two datives might be grammatically ill-formed, as the lexical dative intervenes between the theta position of the direct object in *VP* and its *LF* case-checking position in *vP*. I will leave this issue open, as it does not affect the main point.

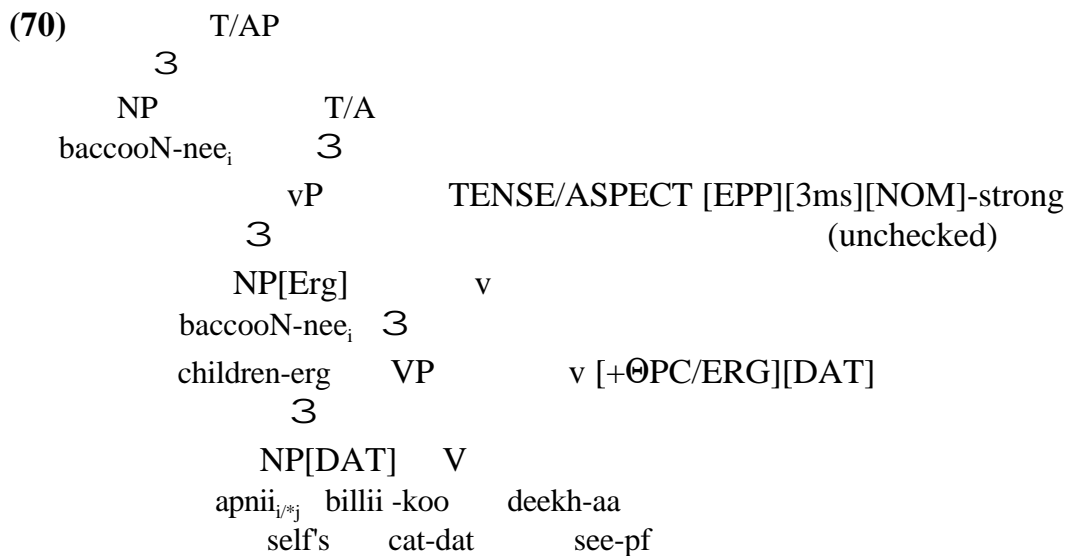
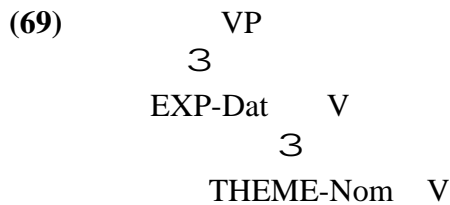
## 4. Summary

In this paper, I have given a number of arguments for saying that both dative and ergative NPs are subjects. They have common syntactic properties with nominative subjects, including the binding of subject oriented reflexives, controlling subject-oriented *PRO* subjects of adverbial clauses, and being modified by subject-oriented auxiliary and modal verbs. The explanation given is that these NPs all are raised to the subject position, specifier of *TENSE/ASPECT* to meet the Extended Projection Principle requirement that sentences have subjects (Chomsky 1995, Ura 2000). Ura proposes a new way of thinking of grammatical functions as being defined by checking relations rather than a single

specific position. These subject relations can be shared by one NP, or divided among more than one. Hence nominative case can be a subject property or not. The binding and control properties are mediated by checking relations with TENSE.

#### 4.1 Dative and ergative subject differences

In this paper, I have shown that there are differences among dative, nominative and ergative subjects. The differences stem from two main differences (A) Dative is a lexical case, which is checked in situ by the head which assigns it a theta role. Ergative and nominative case are structural cases, which need not be checked in situ, and are determined by specific combinations of TENSE and ASPECT (B) The second major difference from which a number of contrasting syntactic properties are derived is the composition of the verbal projection. I propose that dative subject verbs are projected in a simple VP (69), while ergative subject verbs are projected in a complex vP shell which separates the internal and external arguments:



The subject and object in (69) are equidistant from TENSE, so that either one can move to Spec/TP to check the EPP feature. This fact derives the 'reversals' of binding and auxiliary modification in 3.1.1. No such options are allowed in (70), in which the subject and object are not equidistant, because of being in distinct minimal projections

#### 4.2 Parameters and parameter values

In this modification I have proposed here of Ura's account, I have used the following parameters and parameter values for Hindi/Urdu:

- (1) The EPP feature of TENSE is strong
- (2) The vP projection has the value (+ $\Theta$ PC), so that structural as well as lexical case can be checked without movement from the theta-assigning head.
- (3) The v head of vP has the option of not assigning [DAT] to direct objects.
- (4) The [DAT] feature is weak, and checked by v in LF
- (5) The [NOM] feature is weak, and checked by TENSE/ASPECT at LF
- (6) The [NOM] feature is +Multiple, and may be checked more than once.
- (7) The [NOM] feature is +IMpersonal, and may remain unchecked.
- (8) The  $\Phi$  agreement feature is weak, and may be checked separately from [NOM]
- (9) Ergative case consists of two features. One is strong, and is checked by the light verb v. The other is weak, and is checked by *finite* and *perfective* in LF.

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1. This overview of reflexive binding and the subject condition covers the majority of cases. There are additional conditions: the antecedent must be animate (Davison 2001). Discourse or logophoric antecedents are not possible (Montaut 1991). When multiple subject antecedents are possible, pragmatic and semantic principles may define a preferred antecedent (Montaut 1991). There is also a sub-class of sentences which allow non-subject, inanimate antecedents (Mahajan 1990, Davison 2001), and some actually occurring examples in which discourse or pragmatically salient antecedents are possible. These cases deserve further investigation. Nevertheless, speakers of Hindi/Urdu consistently choose subject antecedents for reflexives if presented with a sentence. If the same sentence is presented with a pronoun or pronoun-reflexive, non-subject reflexives are possible. I conclude that reflexives are bound in accordance with structure-based conditions, including the subject condition. See Cole et al (1994), Davison (2001) for syntactic proposals which derive the binding facts in Hindi/Urdu.

2. Dative subjects in other languages like Russian are controllers of perfective adverbial clauses (Kondrashova 1993). In Hindi/Urdu, there is a small sub-class of exceptions to the generalization

about *kar* participles. They may have lexical subjects, or be coindexed with a non subject (Davison 1981). Related languages such as Marathi and Nepali resemble Hindi/Urdu in some respects, but allow a wider range of structures and readings (Wallace 1985, Pandharipande (1997).

3. The verb *paa-naa* is also a main verb with the sense 'to find'. In that sense, it takes an ergative subject in perfective finite sentences:

i)

maiN-nee [kamree-koo khaalii] paa-yaa  
*I-erg room-dat empty find-pf*

'I found [the room empty]'. (Bahri 1992: 387)

4. For some speakers, the ergative is still possible in this context, affecting the agreement:

i)

mujhee [kuttee-nee zamiin-meeN gaDDhee khooD-ee huee] lag-tee/jaan paR-tee haiN  
*I-dat dog-ms--erg ground-in hole-impl dig-pf.ms be-pfms strike-impf/seem-impf are*

'The dog seems to me to have dug holes in the ground'.

Mahajan (p.c.) suggests that the ergative case is licensed by the matrix finite tense. I assume that the licensing would be coindexation of the matrix tense with the embedded clause auxiliary *huee*, a possibility for some speakers but not all. This issue deserves further investigation, to find independent evidence and an explanation for the differences among grammars which admit (i) and those which do not..

5. Complex predicates include N-V combinations like *NP-see khiijh hoo-naa* 'to be annoyed'

i)

mujhee [kuttooN-kee bhauNk-nee]-see khiijh hoo-tii hai  
*I-dat dogs-gen bark-inf-from annoyance be-impf is*

'I am annoyed at [the dogs barking]', Bahri 1992:133

6. An alternative is to reanalyze perfective as past, giving the morphological form two interpretations. The perfective suffix has only non-finite agreement (number/gender) in Hindi/Urdu (Giorgi and Pianesi 1997). Other Indic languages without split ergative case have reanalyzed a perfective suffix as past tense, with the addition of finite agreement (person/number)(Masica 1991).As Hindi/Urdu does not have person agreement in the 'past' , there is no evidence for the same reanalysis as in Bangla, for example.

7. Making ergative case a doubly licensed case is another awkward feature of split ergatives. If there are two features, then it is not implausible that one is strong and the other is weak. An alternative exists in the system of checking in Ura 2000, which is to say that a functional head

must be checked twice against a DP before the (strong) feature can be deleted; this possibility is used for the *bi-* prefix in Navajo. This explanation does not carry over very naturally to split ergativity. Some languages have ergative case in all contexts (Bittner and Hale 1999), others require tense to be present, others tense and perfective aspect. The first type of language would have only one strong feature, the others would have two whether strong or weak,.