# Accusative case and the verbal domain in Hindi-Urdu

Sana Kidwai sak83@cam.ac.uk

University of Cambridge - Syntax Lab<br/> 2 June 2020

# 1 Background

- (1) Two main approaches to case assignment: Agree-based case assignment and dependent case assignment. Both rely heavily on transitivity for ACC assignment.
- (2) Dependent cases depend on the presence of another argument in the same local domain. ACC is assigned to the lower argument in a TP, i.e. in a basic transitive clause.
- (3) The role of transitivity in Agree-based case assignment may be less obvious at first but is clearly seen with Burzio's generalisation which ties the presence of ACC to the presence of external arguments (EAs), in particular, agents.
- (4) One way of deriving Burzio's Generalisation is to say that the functional head (typically Voice or v) which introduces the EA and assigns it the agent theta-role is the same head which assigns ACC.
- (5) There are two reasons to believe that the same head may not be responsible for both tasks in HU.
  - a. In some dialects, ACC may be preserved in passive sentences (6).
  - b. In regular transitive clauses, the object can be NOM despite the presence of an EA/agent (7).
- (6) **Omar=ko** pakRa gya. Omar=ACC catch.PFV.M.SG PASS.M.SG

'Omar was caught.'

(7) Sana=ne **seb** khaya. Sana=ERG apple.NOM eat.PFV.M.SG

'Sana ate an apple.

- (8) Why should there be a link between EAs/agents and ACC?
- (9) I decided to investigate the verbal domain in HU to try to figure out which heads are present in different verbal structures and what their functions are with respect to argument introduction and case assignment.

# 2 Distribution of accusative case

### 2.1 Transitive clauses

- (10) ACC is marked with -ko in HU and is identical to the DAT marker. It is found on DOs with both ERG and NOM subjects (11).
- (11) a. Sana=ne **seb(=ko)** khaya. Sana=ERG apple(=ACC) eat.PFV.M.SG

'Sana ate an/the apple.'

b. Sana seb(=ko) kha-rahi he. Sana.NOM apple(=ACC) eat-PROG.F.SG be.3.SG

'Sana is eating an/the apple.'

(12) ACC alternates with NOM due to differential-object-marking. DOM in HU is conditioned by specificity/definiteness (Butt, 1993; Butt and King, 2004; Mohanan, 1994).

 $\underbrace{pronouns > proper \ names}_{\text{always marked}} > \underbrace{definite > specific}_{\text{sometimes marked}} > \underbrace{non - specific}_{\text{never marked}}$ 

Figure 1: Definiteness scale and DOM in HU

- (13) It has been shown that marked and bare objects are not in the same position in HU.
- (14) Control into adjuncts: Marked objects can control the PRO subject of the adjunct (15a). Bare objects cannot (15b).
- (15) a.  $Mina=ne_i$  bazaar=mein eik  $sailaani=ko_j$   $[PRO_{i/j}$  nachthe Mina=ERG market=LOC one tourist=ACC [PRO dance.IPFV.OBL huej dekhabe.PFV.OBL] see.PFV.M.SG

'In the market, Mina saw a tourist dancing / Mina saw a tourist while she was dancing.'

b.  $Mina=ne_i$  bazaar=mein eik  $sailaani_j$   $[PRO_{i/??j}$  nachtheMina=ERG market=LOC one tourist.NOM [PRO dance.IPFV.OBL huej dekhabe.PFV.OBL] see.PFV.M.SG

'In the market, Mina saw a tourist while she was dancing /  $??\mathrm{Mina}$  saw a tourist dancing.'

(Bhatt, 2007:17)

- (16) Position with indirect objects: The basic word order in HU is Subj-IO-DO-V. The DO cannot be marked in this order (17a). However, the DO can be marked if it scrambles to position between the subject and IO (17b). There is no ambiguity as to which DP is the DO and which is the IO (Bhatt and Anagnostopoulou, 1996).
- (17) a. Sana=ne Omar=ko **khath(\*=ko)** bheja. Sana=ERG Omar=DAT letter(\*=ACC) send.PFV.M.SG

'Sana sent a/the letter to Omar.'

b. Sana=ne **Omar=ko** Hira=ko bheja. Sana=ERG Omar=ACC Hira=DAT send.PFV.M.SG

'Sana sent Omar to Hira.'  $\neq$  'Sana sent Hira to Omar.'

- (18) Object shift: DO must move to a position outside VP to receive ACC.
- (19) Presumably, both the position targeted by object shift and the head which assigns ACC are higher than the IO to prevent intervention.
- (20) Linking the EA/agent and ACC to the same v has the disadvantage of leaving no space in the specifier for object shift since it is already occupied by the subject.
- (21) Why should the IO intervene? It either receives DAT as an inherent case or as a structural case within a PP, and should not be visible for intervention. Defective dative intervention has not been proposed for HU before.

### 2.2 Dative predicates

- (22) ACC is never found with DAT subjects (23), even when the object is a proper name.
- (23) a. Sana=ko **billi(\*=ko)** dikhi. Sana=DAT cat(\*=ACC) see.PFV.F.SG

'Sana saw a/the cat.'

b. Sana=ko **Omar(\*=ko)** yaad-aya. Sana=DAT Omar(\*=ACC) memory-come.PFV.M.SG

'Sana remembered/missed Omar.'

- (24) Subbarao (2012) shows that dative predicates have a similar structure to unaccusatives, in that they do not have an EA.
- (25) This leads us to the dependency of ACC on the presence of an EA/agent.

### 2.3 Unaccusatives

- (26) One of the main reasons for linking ACC to the presence of the EA/agent is the lack of ACC on subjects of unaccusatives (27).
- (27) PeR(\*=ko) kata. Tree(\*=ACC) cut.M.SG

'The tree was cut.'

- (28) Raising analysis of unaccusatives: Subject originates as an IA which is unable to receive case in its base position. As a result, the IA raises to subject position to receive NOM.
- (29) Bhatt (2007) argues that unaccusative verbs in HU must be able to assign case because of the grammaticality of overt DPs in non-finite clauses with unaccusative verbs (30). Since T is unable to assign case in these clauses, case must come from the unaccusative verb.
- (30) [PeR(=ko) kal katna] chahiye tha.
  [Tree(=ACC) yesterday cut.INF] want be.PST.M.SG
  'The tree should have been cut yesterday.' (Bhatt, 2007:13)
- (31) If unaccusative verbs can assign case, then why does the IA raise? This could be to satisfy EPP but it has been argued that HU does not have a strong EPP feature (lack of overt expletives, low position of DAT subjects) (Bhatt, 2007).
- (32) It is also possible that the IA does not raise in HU. We can use the tests used to distinguish the low position of DAT subjects from the SpecTP position of ERG and NOM subjects.
- (33) If unaccusative verbs can assign ACC, then why can't subjects of unaccusatives and objects of dative predicates be ACC?
- (34) There must be some other source for case in sentences like (30) but what?
- (35) ECM is an attractive option to explain *-ko* since *chah* 'want' is dative predicate. But *-ko* is possible without *chah* too (36) and this would still not explain grammaticality of the bare object.
- (36) [**PeR(=ko)** kal katna] tha. [Tree(=ACC) yesterday cut.INF] be.PST.M.SG

'The tree was supposed to be cut yesterday.'

### 2.4 Passives

- (37) Lack of ACC on the promoted object is another reason for associating ACC with the presence of the EA/agent.
- (38) Preserving dialects of HU are a well-known exception to this generalisation.
- (39) $Omar^*(=ko)$ Sana=nepakRa. (active) a. Sana=ERG  $Omar^*(=ACC)$  catch.PFV.M.SG 'Sana caught Omar.' b. Omar (Sana=se) pakRa (bare PN) gya.Omar.NOM (Sana=INS) catch.PFV.M.SG PASS.M.SG 'Omar was caught (by Sana).' **Omar=ko** (\*Sana=se) pakRa c. (marked PN) gya.Omar=ACC (\*Sana=INS) catch.PFV.M.SG PASS.M.SG 'Omar was caught (\*by Sana).' (40)bistar(=ko) toR (active) a. Sana=nediya. Sana=ERG bed(=ACC) break give.PFV.M.SG 'Sana broke the bed.' b. Bistar (Sana=se) toRa (bare inanimate) gya. Bed.NOM (Sana=INS) break.PFV.M.SG PASS.M.SG 'The bed was broken (by Sana). **Bistar=ko** (\*Sana=se) toRa (marked inanimate) с. gya.(\*Sana=INS) break.PFV.M.SG PASS.M.SG Bed = ACC'The bed was broken (\*by Sana).
- (41) When the demoted subject is included, the object can no longer have ACC (39c, 40c, cf. 39b, 40b). This is exactly the opposite of what is expected if ACC depends on the presence of the agent.
- (42) Bhatt (2007) shows that not all the passive examples given above involve promotion of the object, i.e. licensing by T, by testing their grammaticality in non-finite clauses. Marked passive subjects are possible in infinitives (43). Unmarked passive subjects are only possible with DPs that are optionally marked in active clauses (44, cf. 39a, 40a).<sup>1</sup>

 $<sup>^1\</sup>mathrm{The}$  subject can also be GEN. This may be similar to the ACC-ing vs POSS-ing alternation in English gerunds.

(43) a. [Rina=ko bazaar=mein dekha jaana] sharam=ki baat [Rina=ACC market=LOC see.PFV.M.SG PASS.INF] shame=GEN.F.SG talk he. be.PRES.3.SG

'For Rina to be seen in the market is a matter of shame.'

b. [PeR=ko is tarah=se kaata jaana] sharam=ki[Tree=ACC this.OBL way=INS cut.PFV.M.SG PASS.INF] mistake baat he.be.PST.F.SG

"For the tree to be cut down like this is a matter of shame."

(Bhatt, 2007:9)

(44) a. \*/**Rina** bazaar=mein dekha jaana] sharam=ki baat [Rina.NOM market=LOC see.PFV.M.SG PASS.INF] shame=GEN.F.SG talk he. be.PRES.3.SG

 $\neq$  'For Rina to be seen in the market is a matter of shame.'

b. [**PeR** is tarah=se (\*Sana=se) kaata jaana] [Tree.NOM this.OBL way=INS (\*Sana=INS) cut.PFV.M.SG PASS.INF] sharam=ki baat he. mistake be.PST.F.SG

'For the tree to be cut down like this (\*by Sana) is a matter of shame.' (Bhatt, 2007:9)

- (45) We can speculate that there are two processes at work:
  - a. One involves true passivisation: ACC is not assigned, the object is promoted and licensed by T, and receives NOM. It is possible to optionally include the demoted subject.
  - b. The other is not true passivisation: ACC is assigned, the object is not promoted nor licensed by T. The demoted subject cannot be included. However, passive morphology is still seen.

## 3 Complex verbs

### 3.1 Morphologically complex verbs: Indirect causatives

- (46) Simple causatives (transitives) are formed using either vowel lengthening (NULL class) or the *-aa* suffix (-AA class) (Bhatt and Embick, 2017).
  - a. NULL class: kat/kaat (cut), pit/peet (beat), khul/khol (open) ...
  - b. -AA class: pak/pak-aa (cook), bach/bach-aa (save), hil/hil-aa (rock) ...

- (47) Indirect causatives are formed using the -v(aa) suffix (Bhatt and Embick, 2017).
  - a. NULL class: *kat-v-aa* (cause to cut), *pit-v-aa* (cause to beat), *khul-v-aa* (cause to open) ...
  - b. -AA class: *pak-v-aa* (cause to cook), *bach-v-aa* (cause to save), *hil-v-aa* (cause to rock) ...
- (48) Indirect causatives can only be used in transitive contexts. An instrumental agent can be optionally included.
- (49) a. Sana (Omar=se) peR(=ko) kat-**vaa**-rahi he. Sana.NOM (Omar=INS) tree(=ACC) cut-CAUS-PROG.F.SG be.PRES.3.SG 'Sana is having a/the tree cut (by Omar).'
  - b. Sana (Omar=se) khaana(=ko) pak-**vaa**-rahi he. Sana.NOM (Omar=INS) food(=ACC) cook-CAUS-PROG.F.SG be.PRES.3.SG 'Sana is having (the) food cooked (by Omar).'
- (50) Indirect causatives involve two event structures. Bhatt and Embick (2017) propose that the lower event structure in HU indirect causatives is a passive (cf. Nie, 2020).
- (51) Bhatt and Embick (2017) show that passives are different from unaccusatives in that the former but not the latter grammatically encode agentivity through the presence of  $v_{[AG]}$ .
- (52) Semantic interpretation: An agent must be present for passives to be true but not for unaccusatives to be true.
- (53) a. *Paani ubala ja-raha he.* (passive) Water.NOM boil.PFV.M.SG PASS-PROG.M.SG be.PRES.3.SG

'The water was boiled.'

- b. *Paani ubal-raha he.* (unaccusative) Water.NOM boil-PROG.M.SG be.PRES.3.SG 'The water is boiling.' (Bhatt and Embick, 2017:106-107)
- (54) Control into non-finite adverbial adjuncts: The implicit agent of the passive can control PRO in non-finite adverbial adjuncts. These adjuncts are ungrammatical with unaccusatives as there is no controller.
- (55) a. [PRO hanste hanste] peR kaate ja-rahe (passive) [PRO laughing laughing] trees.NOM cut.PFV.M.PL PASS-PROG.M.PL hein. be.PRES.3.PL

'The trees are being cut by someone who is laughing.'

b. \* [PRO khaate khaate] peR kat-rahe hein. (unaccusative) [PRO eating eating] trees.NOM cut-PROG.M.PL be.PRES.3.PL

 $\neq$  'The trees are being cut by someone who is eating.'

(Bhatt and Embick, 2017:107)

(56) From these tests, Bhatt and Embick (2017) conclude that passives grammatically encode agentivity while unaccusatives do not.



(58) Structure of passive verbs:



- (59) So passives have the same  $v_{[AG]}$  as transitive verbs which encodes agentivity but do not project an EA in specifier position. Unaccusatives have neither agentivity nor an EA.
- (60) Structure of indirect causatives:



(61) The embedded passive structure is responsible for the INS agent in indirect causatives.

- (62) How are INS agents introduced in passive structures?
- (63) Prediction: Indirect causatives should only be possible where passives are.
- (64) This holds for some exceptional verbs (e.g. *chah* 'want') which cannot undergo passivisation and also cannot form indirect causatives.
- (65) Bhatt and Embick (2017) claim that unergatives are problematic for their analysis because they can be passivised (66b) but cannot form indirect causatives without being transitivised (66c).
- (66) a. *Patang uR-rahi he.* Kite.NOM fly-PROG.F.SG be.PRES.3.SG

'The kite is flying.'

b. Patang uRi gai. Kite.NOM fly.PFV.F.SG PASS.F.SG

'The kite was flown (by someone).'

c. Sana=ne (Omar=se) patang uR-vai. Sana=ERG (Omar=INS) kite.NOM fly-CAUS.F.SG

'Sana had the kite flown (by Omar).'

- (67) I do not think unergatives are necessarily problematic as the passive version (66b) also has a transitive interpretation. That is, (66b) is interpreted as having an agent (cf. 53).
- (68) Exactly which heads does causative morphology spell out?

#### 3.2 Syntactically complex verbs: Light verb constructions

- (69) Complex predicates:
  - a. V-V: *likh-lena* 'write-take'
  - b. N-V: yaad-aana 'memory-come'
  - c. A-V: saaf-karna 'clean-do'
- (70) It has been discussed extensively that LVs behave differently from both auxiliaries and main verbs and form a class of their own (Butt, 2010; Butt and Ramchand, 2001).
- (71) The main verb and LV do not form a complex lexical unit (Mahajan, 2012).
  - a. The main verb can be topicalised, i.e. moved, without the LV.
  - b. The main verb and LV can be separated by negation.
  - c. Causative morphology attaches to the main verb only.

- (72) The order of elements within the verbal domain is very rigid (73).
- (73) Verb (caus) (LV) (pass) (prog) (be auxiliary)
- (74) *likh -vaa liya ja raha tha* write -CAUS take.M.SG PASS PROG.M.SG be.PST.M.SG 'was being caused to write'
- (75) Butt and Ramchand (2001) suggest that these elements spell out different heads. Presumably, this is V v Voice Asp T.
- (76) Tense and agreement marking is seen on the highest head (77a-c) as well as some of the lower heads in some cases (77d, e).
- (77) a. Sana=ne kitaabein **likhiin.** V Sana=ERG books.NOM write.PFV.F.PL 'Sana wrote (the) books.'
  - b. Sana=ne kitaabein likh -vaiin. V CAUS Sana=ERG books.NOM write -CAUS.PFV.F.PL 'Sana had the books written.'
  - c. Sana=ne kitaabein likh -vaa liin. V CAUS LV Sana=ERG books.NOM write -CAUS take.PFV.F.PL 'Sana had the books written.'
  - d. *Kitaabein likh -vaa li gaiin.* V CAUS LV PASS Books.NOM write -CAUS take.F.PL PASS.PFV.F.PL

'The books were written.'

e. Kitaabein likh -vaa **li** ja **rahi hein.** V CAUS LV PASS PROG be Books.NOM write -CAUS take.F.PL PASS PROG.F.PL be.PST.F.PL

'The books were being written.'

#### 3.2.1 Argument structure

- (78) Butt and Ramchand (2001) take an event decomposition approach and claim that LVs spell out sub-events.
- (79) What role does the LV play in assigning theta-roles? Although LVs cannot add to the overall valency of the predicate, they can specify the nature of arguments - e.g. the LV de 'give' may specify a causer argument.

- (80) What role do these functional heads play in case assignment?
- (81) Butt and Ramchand's (2001) structure for complex events:



- a. vP introduces the causation event and licenses different types of external arguments, i.e.  $NP_3$ , the subject of 'cause.' v is spelled out as a tensed causative verb.
- b. VP specifies the nature of the process and licenses the entity undergoing process, i.e. NP<sub>2</sub>, the subject of 'process.' V is spelled out as a non-finite verb.
- c. RP specifies the result state of the event and licenses the entity the that holds the result state, i.e.  $NP_1$ , the subject of 'result.' R is spelled out as a bare stem.
- (82) Butt and Ramchand (2001) go on to illustrate the structure for two types of V-V predicates: 'let-type' and 'result-type' predicates.
- (83) Let-type predicates: Main verb is in non-finite form and carries oblique marking,<sup>2</sup> followed by a LV (84).
- (84) a. Anjum=ne Sadaf=ko khat likhne diya. Anjum=ERG Sadaf=ACC letter.NOM write.INF.OBL give.PFV.M.SG
  'Anjum let Saddaf write the letter.' (Butt and Ramchand, 2001:8)
  b. Nadya rone lagi. Nadya.NOM cry.INF.OBL be.attached.PFV.F.SG

<sup>&#</sup>x27;Nadya began to cry.'

<sup>(</sup>Butt and Ramchand, 2001:17)

<sup>&</sup>lt;sup>2</sup>Oblique marking is usually seen on non-nominative nouns in HU.

(85) According to Butt and Ramchand (2001), these predicates do not have a RP.



- (87) These complex predicates have the same argument and case pattern as the causative versions of the main verb.
- (88) a. Anjum=ne khat likh-aa. Anjum=ERG letter.NOM write-PFV.M.SG

'Anjum wrote a/the letter.'

b. Anjum=ne khat likh-vaa-ya. Anjum=ERG letter.NOM write-CAUS-PFV.M.SG

'Anjum had a/the letter written.'

- (89) Simple causatives/transitive morphology is found on the LV in complex predicates.
- (90) Indirect causative morphology is found on the main verb. The main verb loses its non-finite form and is found in its bare stem form instead.
- (91) Anjum=ne Sadaf=ko khat likh-vaa diya.
  Anjum=ERG Sadaf=ACC letter.NOM write-CAUS give.PFV.M.SG
  'Anjum made Saddaf write the letter.'
- (92) Result-type predicates: Main verb is in its bare stem form, followed by a LV.

(93) Nadya=ne khat **likh liya**. Nadya=ERG letter.NOM write take.PFV.M.SG

'Nadya wrote the letter.'

(Butt and Ramchand, 2001:3)



- (95) It is unclear why V moves to v. Butt and Ramchand do not give a syntactic explanation for why this might be so.
- (96) Prediction: It should be possible for all three heads to be realised overtly. This is correct as seen in (97), where *likh* is R, *lene* is V and *diya* is v.
- (97) Nadya=ne Saddaf=ko khat likh lene diya. Nadya=ERG Saddaf=ACC letter.NOM write take.INF.OBL give.PFV.M.SG
  'Nadya let Saddaf write the letter.' (Butt and Ramchand, 2001:23)
- (98) The order of these heads is fixed, as shown by the ungrammaticality of (99), where likhne is V, de is R, and diya is v.
- (99) \*Nadya=ne Saddaf=ko khat likhne de diya.
   Nadya=ERG Saddaf=ACC letter.NOM write.INF.OBL give give.PFV.M.SG
   ≠ 'Nadya let Saddaf write the letter.' (Butt and Ramchand, 2001:23)
- (100) Not all combinations and orders of LVs are possible. Which combinations and permutations are licit?

- (101) If LVs found in let-type predicates in v and LVs found in result-type predicates are in V, then:
  - a. There should be only one of each type of LV.
  - b. LVs found in result-type predicates should not follow LVs found in let-type predicates.
- (102) Progressive marking can't attach directly to le 'take' (result-type LV = V) but it can to de 'give' (let-type LV = v). Is this a lexical idiosyncrasy or a positional generalisation?
- (103) a. \* Sana kitaabein likh **le-rahi** thi. Sana.NOM books.NOM write take-PROG.F.SG be.PST.F.SG

 $\neq$  'Sana was writing (the) books.'

b. Sana Omar=ko kitaabein likne **de-rahi** Sana.NOM Omar=DAT books.NOM write.INF.OBL give-PROG.F.SG *thi.* be.PST.F.SG

'Sana was letting Omar write (the) books.'

#### 3.2.2 Implications for case assignment

- (104) LV may affect subject case (ERG) but not object case (ACC) (Butt, 2010; Butt and Ramchand, 2001; Davison, 2001; Mahajan, 2012). This suggests:
  - a. Assignment of subject and object cases are independent (Davison, 2001).
  - b. Subject case, specifically ERG, is associated with the same v which certain LVs can occupy. For example, Mahajan (2012) claims that ERG is a lexical case assigned by certain LVs.
  - c. Object case, specifically ACC, is associated with a v lower than the one associated with LVs.

## References

- Bhatt, R. (2007). Unaccusativity and Case Licensing. Handout version of talks given at the University of Delhi (January 2007), the Ohio State University (April 2007), and McGill University (May 2007).
- Bhatt, R. and Anagnostopoulou, E. (1996). Object Shift and Specificity: Evidence from ko-phrases in Hindi. In Dobrin, L., Singer, K., and McNair, L., editors, *Proceedings of CLS 32*, page unknown, Chicago. Chicago Linguistics Society.
- Bhatt, R. and Embick, D. (2017). Causative derivations in Hindi-Urdu. *Indian Linguis*tics, 78(1-2):93–151.

- Butt, M. (1993). Object Specificity and Agreement in Hindi/Urdu. In Beals, K., Cooke, G., Kathman, D., Kita, S., McCullough, K. E., and Testen, D., editors, *Papers from* the 29th Regional Meeting of the Chicago Linguistic Society, pages 89–103. Chicago Linguistic Society.
- Butt, M. (2010). The Light Verb Jungle: Still Hacking Away. In Amberber, M., Baker, B., and Harvey, M., editors, *Complex predicates: cross-linguistic perspectives on event structure*, pages 48–78. Cambridge University Press, Cambridge, UK.
- Butt, M. and King, T. H. (2004). The Status of Case. In Dayal, V. and Mahajan, A., editors, *Clause Structure in South Asian Languages. Studies in Natural Language and Linguistic Theory*, pages 153–198. Springer, Dordrecht.
- Butt, M. and Ramchand, G. (2001). Complex Aspectual Structure in Hindi/Urdu. Oxford University Working Papers in Linguistics, Philology and Phonetics, 6:1–30.
- Davison, A. (2001). The VP structure and case checking properties of sentences with non-nominative subjects in Hindi/Urdu. Handout at University of Iowa.
- Mahajan, A. (2012). Ergatives , antipassives and the overt light v in Hindi. *Lingua*, 122(3):204–214.
- Mohanan, T. (1994). Argument Structure in Hindi. CSLI Publications, Stanford.
- Nie, Y. (2020). Morphological causatives are Voice over Voice. Word Structure, 13(1):102–126.
- Subbarao, K. (2012). South Asian Languages. Cambridge University Press, New York.