Phases are *Read-Only*: Evidence from Hindi-Urdu

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ABSTRACT

Under Chomsky (2000, 2001)'s Phase Impenetrability Condition, phases induce Transfer of their complements, rendering the complements inaccessible. As a consequence, cross-phasal dependencies are ruled out. Recent work on phases has suggested that instead of being eliminated, transferred phase complements remain in the syntax (Bošković 2003; Obata 2010; Chomsky 2012; Chomsky et al. 2019). In this paper, I expand on the idea of spelled out phase complements being visible but not completely accessible for syntactic processes. I propose a *Read-Only* view of phases, wherein phase complements are not deleted from the narrow syntactic derivation for inspection after undergoing Transfer, but the featural content of the phase complement becomes unalterable. The major consequence of this view is a nuanced conception of phase locality, such that some cross-phasal dependencies—namely those that do not require feature valuation of a transferred element—are possible. Cross-phasal dependencies that do value features of transferred elements continue to remain impossible, like in standard phase theory. I show that Hindi-Urdu φ-agreement and case assignment bear out the predictions of *Read-Only* with regard to cross-phasal dependencies. φ-agreement by a higher probe with a transferred goal, where the goal itself is not altered, is possible in Hindi-Urdu. On the other hand, accusative case assignment into a spelled out phase complement—which involves valuing the case feature of the transferred goal—is impossible. However, the same transferred DP that cannot be accusative is able to condition dative case on a DP in a higher phase. I argue that no notion of phases—other than *Read-Only*—accounts for the Hindi-Urdu pattern. The phase locality imposed by *Read-Only* offers a new way of accommodating dependencies between elements belonging to different phases in a principled way.

1 Phases and locality

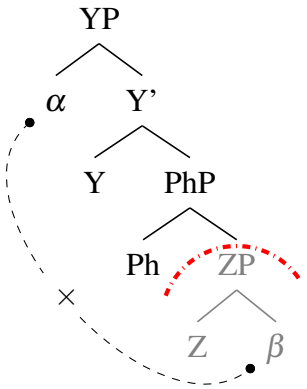
In modern syntactic theory, syntactic structure is typically constructed in chunks called phases. According to Chomsky (2000, 2001)'s Phase Impenetrability Condition (PIC) in (1), phases send their complements to the interfaces, rendering the complement inaccessible for further syntactic operations. Chomsky (2004) calls this operation of shipping off phase complements Transfer.

(1) **PHASE IMPENETRABILITY CONDITION** (Chomsky 2000:108)
In phase α with head H, the domain of H is not accessible to operations outside of α, only H and its edge are accessible to such operations.

Chomsky (2008) proposes that the cycle involved in the derivation is strong enough to prevent spelled out phase complements to even be looked into, so phase complements are entirely 'forgotten' by the narrow syntax after they are sent to the interfaces. Following Chomsky (2004, 2007, 2008), Ott (2011) interprets Transfer as an operation eliminating phase complements from the syntax—a common assumption in subsequent literature (Polinsky & Potsdam 2001; Bruening 2001; Branigan & MacKenzie 2002; Legate 2003; Grosz & Patel 2006; Epstein et al. 2009; Keine 2013, among others).

Due to phase complements being removed from the derivation upon Transfer in Chomsky's theory, dependencies between transferred elements (β) and elements active in the derivation (α) are ruled out in his PIC framework, (2):[1]

(2) *No cross-phasal dependencies*



Despite the prevalence of Chomsky (2004, 2007, 2008)'s phase complement-eliminating view of Transfer in the syntactic literature, more recent work has suggested that phase complements are *not* in fact eliminated from the syntax. Instead, transferred phase complements remain fixed in place in the narrow syntactic derivation under this alternative view (Bošković 2003, 2007; Fox & Pesetsky 2005; Obata 2010, 2017; Chomsky 2012 and Chomsky et al. 2019).

Bošković (2003, 2007) in particular argues that phases induce cyclic linearisation of their complements, thus constraining movement out of them, but linearised elements remain visible to Agree and other processes. Cross-phasal φ-agreement is then permitted (and shown to be possible in some languages) in Bošković (2003, 2007)'s view, raising questions about the sensitivity of other syntactic dependencies to phases.

In this paper, I explore the behaviour of case assignment in relation to phases. While the early-Chomskyan view of phases does not capture the possibility of cross-phasal φ-agreement, I argue that phases inducing cyclic linearisation alone à la Bošković (2003, 2007) also does not sufficiently model their behaviour, because phases also constrain case assignment. Case assignment to a transferred nominal does not affect the fixed order of linearised elements at that phase, so spelled out phase complements that remain present to

[1] The Chomsky (2001) version of the PIC also rules out dependencies with material in phase complements, the difference being that the inaccessibility of a phase complement is delayed until the next higher phase head merges.

be agreed with under Bošković (2003, 2007)'s view should also in principle be available for case assignment.

Keeping in mind case assignment alongside φ-agreement and movement, I propose an extension and refinement of Bošković (2003, 2007)'s proposal, termed *Read-Only*, (3).

(3) ***Read-Only***
Upon Transfer, phase complements undergo cyclic linearisation and feature freezing, but remain visible from outside.

The important addition of *Read-Only* is that, in addition to cyclic linearisation, phases induce feature freezing: the featural content of material inside a phase complement remains visible but cannot subsequently be altered. In relation to cross-phasal dependencies, *Read-Only* offers a middle ground between Chomsky (2000, 2001, 2004, 2007, 2008)'s conception of phases, and Bošković (2003, 2007)-style cyclic linearisation. The distinctive properties of *Read-Only* are stated in (4):

(4) a. Dependencies relating transferred item β and phase-external α that modify α are possible;

b. Dependencies relating transferred item β and phase-external α that modify β are impossible.

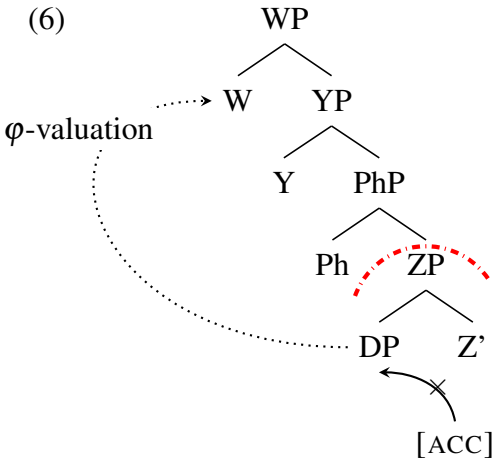
Crucial empirical evidence for *Read-Only* in (4) comes from Hindi-Urdu case and φ-agreement patterns. In particular, I show that in Hindi-Urdu:

(5) a. A φ-agreement relation valuing a phase-external probe in response to a transferred goal DP is possible—the probe gets modified.

b. Accusative case assignment to a transferred DP conditioned by a phase-external element is impossible—the transferred DP gets modified.

c. Dative case assignment to a DP in a higher phase conditioned by a transferred DP is possible—the higher DP gets modified.

(6)



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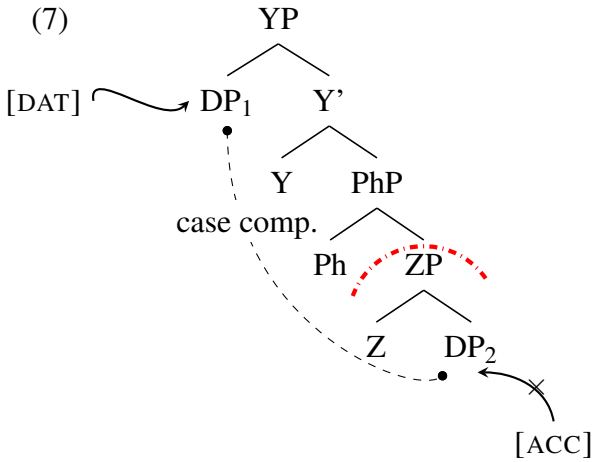


The following structural assumptions about Hindi-Urdu are used to implement *Read-Only*:

(8) a. $fseq = \langle C \succ T \succ Asp \succ Voice \succ v\ (\succ Appl) \succ V \rangle$

b. C, Voice, and *v* are phase heads

To study the behaviour of case assignment in relation to phases, I now turn to a theory of accusative case assignment in Hindi-Urdu, whose sensitivity to phases is contrasted with φ-agreement.

2 The accusative case–φ-agreement asymmetry in Hindi-Urdu

This section addresses the asymmetry between cross-phasal accusative case assignment and φ-agreement. I first show that the former cannot target a nominal that has undergone Transfer, and then show that the latter can. Against this background, I argue that *Read-Only*—unlike other accounts of phase locality—captures the disparity between the two processes.

2.1 Accusative case

Hindi-Urdu has differential object marking (Aissen 2003; Montaut 2018; Kalin 2018; Kalin & Weisser 2019), which I analyse as accusative case following Baker & Vinokurova (2010); Baker (2015, to appear).[2] (9) shows that some direct objects are obligatorily accusative, while (10) shows that some objects are optionally accusative, depending on certain semantic properties of the DP (Mahajan 1990; Butt 1993; Mohanan 1994; Butt & King 2004; Kachru 2006; Keine 2007; Mahajan 2017a; Kidwai 2022).

(9) *Obligatorily accusative object*
Komal=ne Tina*(=ko) dekhaa
Komal=ERG Mina*(=ACC) saw
'Komal saw Tina'

(10) *Optionally accusative object*
Komal=ne fuul(=ko) dekhaa
Komal=ERG flower(=ACC) saw
'Komal saw a/the flower'

The pattern for accusative case on a direct object in Hindi-Urdu—similar to other differential object marking (DOM) systems—is roughly summarised in (11). (Aissen 2003; Bhatt 2007; Davison 2014)

[2]By 'accusative case' I specifically mean the *-ko* marker that appears on many direct objects of transitive clauses and becomes optional under passivisation. I distinguish accusative *-ko* from abstract/null case assigned to direct objects, and from dative *-ko* which appears on indirect objects/goals and does not alternate.

(11) *Accusative case in Hindi-Urdu*

a. Specific animate DOs are obligatorily accusative

b. For inanimate DOs, accusative case correlates with specificity

c. Nonspecific inanimate DOs are never accusative

Neither unaccusative arguments nor unergative arguments can receive accusative case, (12).

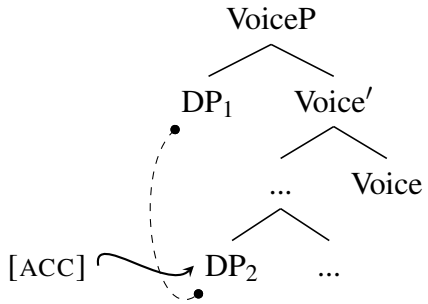
(12) *No accusative on intransitive arguments*
{laṛkaa / *laṛke=ko} giraa / khããsaa
{boy / *boy=ACC} fell / coughed
'The boy fell / coughed'

The appearance of accusative case on objects only in the presence of a higher argument suggests a dependent case analysis of the Hindi-Urdu accusative, following Baker & Vinokurova (2010); Baker (to appear). Under a head case analysis, assigning accusative case to an object only in the presence of a higher DP would be a coincidence. A dependent accusative case rule for Hindi-Urdu is stated in (13) (c.f. Baker to appear).

(13) **DEPENDENT ACCUSATIVE CASE**
If a case-unmarked DP_1 c-commands DP_2 in VoiceP, assign accusative to DP_2

The external argument introduced in Spec,VoiceP is the case competitor of the accusative object, (14).

(14) *Dependent accusative case*



The rule in (13) then makes correct predictions for intransitives like (12) and transitives with obligatorily accusative objects like (9)—In the case of intransitives, there is no case competitor so no accusative case is assigned. In transitive clauses with obligatorily accusative objects, the presence of the external argument within VoiceP triggers the accusative case rule on the direct object.

However, (13) alone does not derive the optionality of accusative case on many inanimate DPs like *fuul* in (10). I claim that the optionality of accusative case in cases like (10) is a *v*P phase effect—in combination with independently-motivated object shift, following (Baker & Vinokurova 2010; Baker to appear)'s analysis of DOM in Sakha and other languages.

Bhatt & Anagnostopoulou (1996) note that different relative orders of the direct and indirect object in ditransitives are possible in Hindi-Urdu, importantly showing accusative

direct objects to be structurally higher than case-unmarked direct objects, (15):

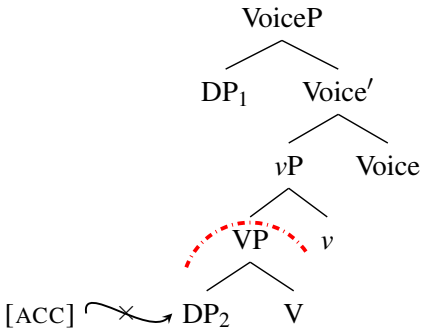
(15) *No -ko on unmoved direct objects*

a. S IO DO*(*=ko)* V
miinaa=ne ṭiinaa=ko **kitaab**(*=ko) dii
Mina=ERG Tina=DAT book(*=ACC) gave
'Mina gave Tina a/the book'

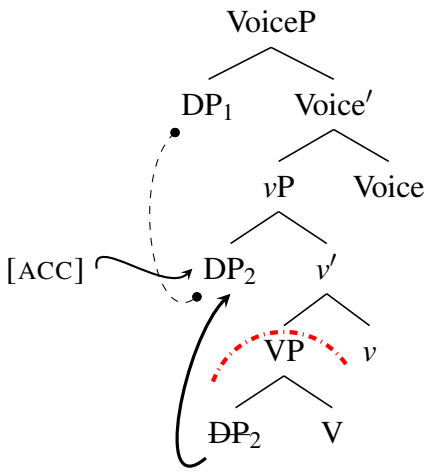
b. S **DO**=*ko* IO V
miinaa=ne **kitaab=ko**$_j$ ṭiinaa=ko ___$_j$ diyaa
Mina=ERG book=ACC$_j$ Tina=DAT ___$_j$ gave
'Mina gave Tina the book'

Since the syntactic properties of accusative direct objects in ditransitives are identical to those of accusative direct objects in monotransitives, it must be the case that accusative objects in monotransitives are also higher than case-unmarked objects.[3] Therefore, I follow Baker (to appear) in claiming that object shift feeds accusative case in Hindi-Urdu. Accusative case is never assigned to a direct object in its base position, (16). Following Bhatt & Anagnostopoulou (1996) as well as Baker & Vinokurova (2010), I assume that accusative case is fed by semantically-motivated Diesing (1992)-style movement. I further assume that Diesing (1992)-style movement lands in the specifier of *v*P, (17). Specific animate objects always undergo Diesing (1992)-style movement, and so are always accusative. Inanimate direct objects may or may not undergo movement out of VP, depending on their specificity, resulting in variable accusativity. Nonspecific and inanimate objects remain in VP, and do not receive accusative case.

(16) *No accusative case on unmoved DO*



(17) *Movement to Spec,vP feeds* ACC



[3]The optionality of accusative direct objects in both ditransitive and monotransitive clauses depends on semantic properties like animacy and specificity. Additionally, accusative objects in both types of clauses may become case-unmarked under passivisation.

DP_2 in (16) fails to receive accusative case because it undergoes Transfer as part of the vP phase complement by the time DP_1 is merged into the structure. In (17), DP_2 escapes *Transfer* by moving to Spec,*v*P, and thus receives accusative case by being in the same local domain as its case competitor DP_1.

2.2 φ-agreement

φ-agreement in Hindi-Urdu is obligatory, and targets the structurally highest DP that bears no case marker, (18). In (18a), the case-unmarked subject—the highest DP in the structure—controls φ-agreement. In (18b), the subject already has ergative case, so the case-unmarked object is the φ-agreement controller.

(18) a. *Subject agreement*
laṛkii chaand dekheg-ii / *-aa
girl.F.SG moon.M.SG see.FUT-F.SG / *-M.SG
'The girl will see the moon'

b. *Object agreement*
laṛke=ne tasviir dekh-ii / *-aa
boy.M.SG=ERG photograph.F.SG saw-F.SG / *-M.SG
'The boy saw a photograph'

Case-marked DPs in Hindi-Urdu never control agreement. In (19), the subject is ergative and object is accusative. Thus there is no case-unmarked DP to agree with, and the verb must show default (masculine singular) agreement.

(19) *Default (masculine singular) agreement*
laṛkii=ne kitaabõ=ko paṛh-aa / *-ii / *-ĩĩ
girl.F.SG=ERG book.F.PL=ACC read-M.SG / *-F.SG / *-F.PL
'The girl read the books'

Following Bobaljik (2008); Preminger (2014), I assume that the Hindi-Urdu φ-probe on T is *case-discriminating*, such that only DPs without a valued case feature can be targeted by the φ-probe.[4] The φ-agreement algorithm for Hindi-Urdu is given in (20):

(20) **φ-AGREEMENT ALGORITHM**
Agree with a subject iff it is case-unmarked;
or else agree with an object iff it is case-unmarked;
or else show default (masculine singular) agreement

φ-agreement in Hindi-Urdu does not need to be fed by moving the agreement controller, as Davison (1991); Boeckx (2004); Bhatt (2005); Bhatt & Keine (2017); Keine (2020) have argued (pace (Mahajan 1989, 2017b)).

In the idiom in (21a)—from Bhatt & Keine (2017)—X-*kii khuub marammat karna* 'give X a beating', the idiomatic object *marammat* must stay in its base position for the idiomatic reading to be preserved. Movement of the idiomatic object, as in (21b), destroys the idiomatic reading and results in a sentence that can only be interpreted literally. When the subject is ergative, the idiomatic object in its base position in (21a) must be a φ-agreement target, so movement is not required for φ-agreement in Hindi-Urdu.

[4]There is good reason to claim that the φ-probe is on T and not on a lower head like *v* or Voice. First, when both arguments in a transitive clause are unmarked, subject agreement is the only possibility, as shown in (18a). The preference of subject agreement over object agreement follows straightforwardly if the probe is higher than the subject and object, since the subject is more local to the probe. Object agreement is then correctly predicted to only be possible when the subject is invisible for φ-agreement due to being case-marked, as in (18b). Béjar & Rezac (2009) use a similar line of argumentation for Basque, where they claim that the Basque φ-probe is on *v*, given that object agreement has precedence over subject agreement in the language. Additionally, if the φ-probe were on *v*/Voice, the Agree relation involved in φ-agreement would be predicted to be upward or downward, instead of just downward, making the system more complex.

The second argument for the Hindi-Urdu φ-probe being on T comes from the interaction between ergative case assignment and φ-agreement. If φ-agreement precedes ergative case assignment, we would expect that φ-agreement-controlling subjects can receive ergative case. However, such a pattern where a subject is both ergative and controls φ-agreement is completely unattested in any variety of Hindi-Urdu (i), suggesting that the φ-probe is at least as high as the ergative-assigning head.

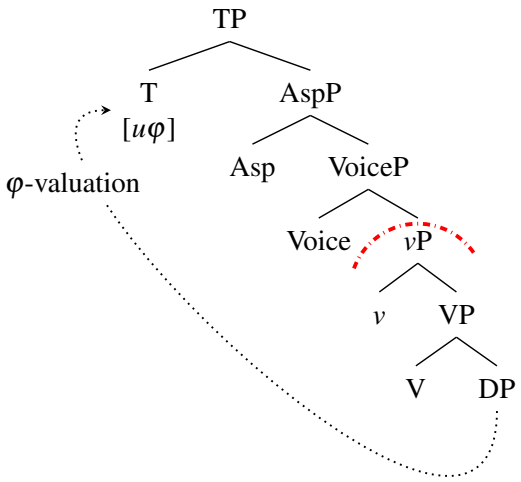
(i) *Ergative subjects never control agreement*
larkii=ne seeb khaay-**aa** / *-**ii**
girl.F.SG=ERG apple.M.SG saw-M.SG / *-F.SG
'The girl ate an apple'

(21) a. *Idiom (with obligatory object agreement)*
aamir=ne aman=kii khuub marammat ki-**i**/*ki-**yaa**
Aamir=ERG Aman=GEN many repairs.F.SG did-F.SG/*did-M.SG
'Aamir gave Aman a good beating' (lit.: 'Aamir did Aman's many repairs')

b. *No movement of idiomatic object marammat*
#[khuub marammat]$_j$ aamir=ne aman=kii ___ $_j$ kii
many repairs$_j$ Aamir=ERG Aman=GEN ___ $_j$ did
'Aamir did Aman's many repairs' (*no idiomatic reading*)

Since φ-agreement in Hindi-Urdu is obligatory and does not require the agreement controller to move, at least some (object) DPs control agreement from within a phase complement, after they have already undergone Transfer, (22).

(22)



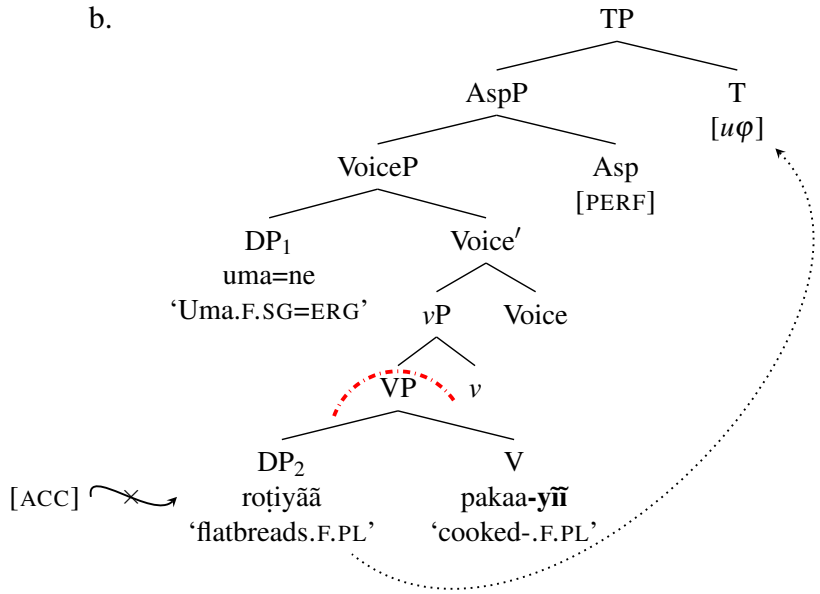
Recall from §2.1 that *v* is a phase, as shown by the inability to assign accusative case into its complement. Then, the lack of analogous *v*P phase effects for Hindi-Urdu φ-agreement is surprising.

2.3 Accusative case–φ-agreement asymmetry

Accusative case assignment is local, and cannot target an object in a transferred phase complement. φ-agreement, on the other hand, may target unshifted objects in VP after it has already undergone Transfer. In the monotransitive example (23a)—illustrated in (23b)—*roṭiyãã* 'flatbreads' cannot receive accusative case (conditioned by external argument *Uma*) in its base position but *roṭiyãã* 'flatbreads' obligatorily controls agreement from VP.

(23) a. *Case-unmarked agreeing object*
uma=ne roṭiyãã pakaa-**yĩĩ** / *-**yii** / *-**yaa**
Uma.F.SG=ERG flatbreads.F.PL cooked-F.PL / *-F.SG / *-M.SG
'Uma cooked (the) flatbreads'

b.



Read-Only is the only conception of phases that is able to account for the differences between cross-phasal accusative case assignment and φ-agreement. A PIC view of phases does not predict the opacity of phases for accusative case assignment but not φ-agreement in (23). If *v*P is a phase and phase complements are thus inaccessible for both case assignment and φ-agreement, agreement with *roṭiyãã* 'flatbreads' in (23) is unexpected. If *v*P is not a phase under the PIC conception, accusative case assignment is expected on *roṭiyãã* 'flatbreads' in its base position. There is no derivational option under a PIC conception of phases that permits an element in a phase complement to be targeted for φ-agreement but not case assignment.

Bošković (2003)'s cyclic linearisation alone also fails to make the correct predictions with regard to the accusative case–φ-agreement asymmetry in (23). Even with *v*P phasehood, *roṭiyãã* 'flatbreads' in VP is incorrectly predicted to be accessible for accusative case assignment under this view.

Due to feature freezing of transferred phase complements under *Read-Only* repeated in (24), there is a straightforward account of the accusative case assignment–φ-agreement asymmetry. Accusative case assignment to *roṭiyãã* 'flatbreads' into a VP is impossible because valuing the DP's case feature requires overwriting a transferred phase complement after the features in it are already frozen in place. φ-agreement with *roṭiyãã* 'flatbreads' in its base position in the *v*P phase complement, on the other hand, remains possible because it only involves inspecting a phase complement without tampering with its frozen features.

(24) ***Read-Only***
Upon Transfer, phase complements undergo cyclic linearisation and feature freezing, but remain visible from outside.

Now that I have contrasted the impossibility of assigning case into a transferred phase complement with the seemingly exceptional ability of φ-agreement to target a transferred DP,

I bring in dative case and its ability to be conditioned by a transferred element to provide further support for a *Read-Only* system.

3 The accusative case–dative case asymmetry

In this section, I argue for a dependent case analysis of dative case in Hindi-Urdu, and show that dative case can be conditioned by a transferred case competitor. However, the same transferred case competitor that may trigger dative case on a higher case competitor cannot itself receive accusative case, which only a *Read-Only* view of phases can account for.

3.1 Dative case

Dative case in Hindi-Urdu appears in ditransitives (25), experiencers (26), and causatives, among other constructions. In ditransitives, the indirect object invariably receives dative case, which is syncretic with accusative *-ko*. Following Larson (1988); Davison (2004); Pylkkänen (2008), I assume that indirect objects as well as experiencers are introduced in the specifier of an Appl(icative) head, which *v* takes as its complement.

(25) *Dative on Indirect Objects*
miina=ne ṭiina*(=ko) kitaab dii
Mina=ERG Tina*(=DAT) book gave
'Mina gave Tina a/the book'

(26) *Dative experiencer*
chhatr*(=ko) ḍigrii milii
student*(=DAT) degree got
'The student got the degree.'

Evidence for dative *-ko* and accusative *-ko* being different cases (pace Kalin 2014) comes from dative case being obligatory in contrast with the often optional accusative case. Dative *-ko* is obligatory on indirect objects even if they are inanimate (27a), but accusative *-ko* is optional on inanimate objects (27b). Unlike with accusative case, a DP's semantic properties have no influence on the obligatoriness of dative case.

(27) a. *Inanimate DO, optional Accusative -ko*
nisha=ne fuul(=ko) dekhaa
NishaERG flower(=ACC) saw
'Nisha saw a/the flower'

b. *Inanimate IO, obligatory Dative -ko*
nisha=ne fuul*(=ko) paanii diyaa
Nisha=ERG flower*(=DAT) water gave
'Nisha watered the flower' (Lit:'Nisha gave water to the flower')

In passives of transitives, accusative *-ko* becomes optional on a direct object (28a), even on DPs that require it in active voice. When an indirect object is passivized however, dative *-ko* remains obligatory on the indirect object, (28b).

(28) a. *Passivised DO, optional Accusative -ko*
raam(=ko) bulaayaa gayaa
Ram(=ACC) called PASS
'Ram was called'

b. *Passivised IO, obligatory Dative -ko*
raam*(=ko) kitaab dii gayii
Ram*(=ACC) book given PASS
'Ram was given a book'

It is clear from (27-28) that although dative and accusative case is Hindi-Urdu are both realised as *-ko*, they are structurally different.

The dative case data we have seen so far is compatible with both, a head case analysis of the Hindi-Urdu dative (where Appl assigns dative case to its specifier), and a dependent case analysis where dative is assigned to the higher of two DPs that *v* c-commands. Causatives are crucial in showing that only a dependent case analysis correctly accounts for the distribution of Hindi-Urdu dative case, as I have also argued in Agarwal (2024).

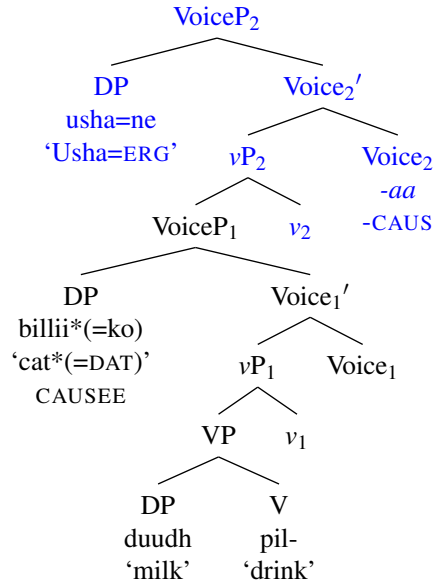
Ingestives—like in (29a)—are a class of transitive verbs in Indic that are made causative by adding a causative morpheme *-aa* to the verb stem, and introducing a causer argument, as in (29b). *Usha* is the added causer argument in (29b), while *billii* 'cat' becomes the causee. Importantly, dative case is found in causativised ingestives—the causee DP *billii* 'cat' in (29b), which is sandwiched between *Usha* and *duudh* 'milk' is marked dative.

(29) a. *Ingestive*
billii=ne duudh pii-yaa
cat=ERG milk drink-PFV
'The cat drank milk'

b. *Causativised ingestive*
usha=ne billii*(=ko) duudh pil-aa-yaa
Usha=ERG cat*(=DAT) milk drink-CAUS-PFV
'Usha made the cat drink milk'

Following Baker & Vinokurova (2010), Harley (2008), and Bhatt & Embick (2017) for Sakha, Japanese, and Hindi respectively, I assume that the structure of transitive causatives is derived from the structure of plain transitives by adding a causer and a causative morpheme, (30).

(30) *Causative structure*



Under functional head case theory, there are two contenders for dative case assigners in the causative: First, Voice_1, which introduces *billii* 'cat' in both the ingestive in (29a) and its causative in (29b). Second, the causative head Voice_2, which embeds VoiceP_1 and introduces the causer. I will now argue that neither of these heads assign dative case in the causative in Hindi-Urdu.

Voice_1 does not assign dative case to *billii* 'cat' in the simple ingestive in (29a), so it cannot assign dative case to *billii* 'cat' in the causative in (29b). As seen in (31), the simple ingestive is ungrammatical with a dative subject in place of an ergative subject.

(31) *Ingestive with dative subject*
*billii=ko duudh pii-yaa
cat=DAT milk drink-PFV
Intended: 'The cat drank milk'

Voice_2—the causative head—also does not assign dative case. Consider the unergative in (32a), and its causativised counterpart in (32b). Notably, the causee in the causative in (32b) is not dative. It is either case-unmarked or accusative, but not dative, as evidenced by the optionality of *-ko*. Recall from (28) that any instance of optional *-ko* is accusative. Passivising (32b) corroborates that *-ko* on *kutta* 'dog' is accusative, and not dative, (32c).

(32) a. *Unergative*
kutta dauṛ rahaa hai
dog run PROG AUX.PRES
'The dog is running (around)'

b. *Causativised unergative*
salma kutte(=ko) dauṛ-aa rahii hai
Salma dog(=ACC) run-CAUS PROG AUX.PRES
'Salma is making a/the dog run'

c. *Passive of causativised unergative*
kutta / kutte=ko dauṛ-aa-yaa jaa rahaa hai
dog / dog=ACC run-CAUS-PFV PASS PROG AUX
'The dog is being made to run.'

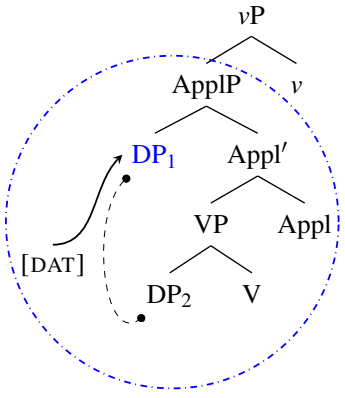
Thus, the causative head *-aa*—represented as Voice_2 in (30)—also cannot assign dative case. Then, no head is available to assign dative case to the causee in causatives of transitive ingestives like (29b), and dative case in Hindi-Urdu cannot be a functional head case.

Since dative case only ever appears in the presence of a lower DP in (25-29), its distribution is best captured with dative being a dependent case. In Agarwal (2022, 2024), I propose the rule in (33) for dependent dative case in Hindi-Urdu, following Baker & Vinokurova (2010) for Sakha.

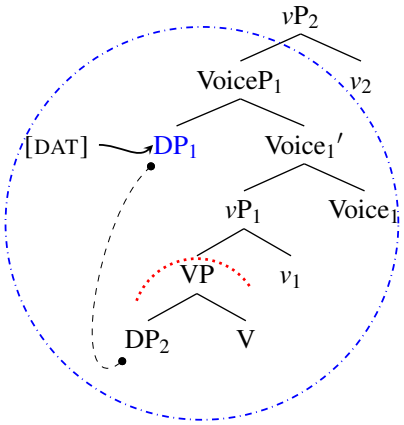
(33) **DEPENDENT DATIVE CASE RULE**
If DP_1 c-commands DP_2 in the complement of *v*P, assign dative to DP_1

Along with goals in ditransitives and experiencer arguments (34a), (33) also accounts for the assignment of dative case to causees in ingestivised causatives like *billii* 'cat' in (29b) as in (34b), due to the presence of the lower case competitor DP_1. Similarly, (33) correctly accounts for the absence of dative case on the embedded arguments in (32), since a lower case competitor is absent.

(34) a. *Dative case on goals/experiencers*



b. *Dative case in causatives*



I have argued here that the dependent dative case analysis exemplified in (34b) is the only

viable account of dative in ingestivised causatives. Importantly for our purposes, DP_2—the case competitor of the dative DP_1—is in a lower phase, but—as (29b) showed—dative case is still obligatorily assigned in the causative.

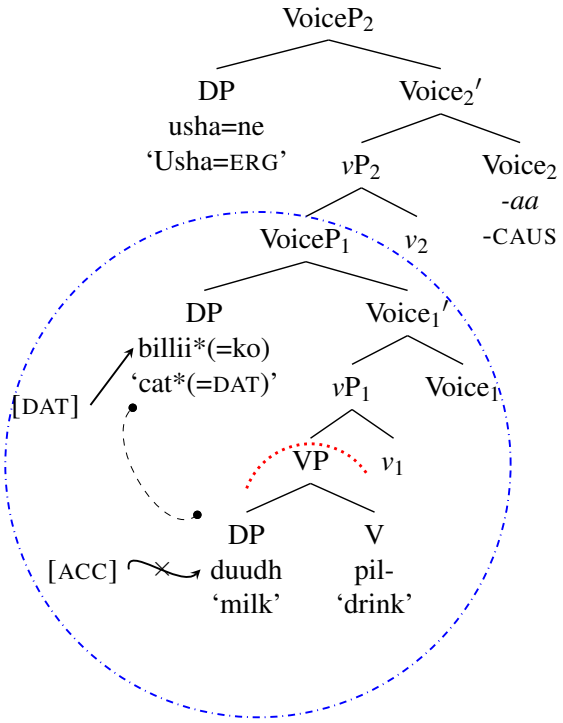
3.2 Accusative-dative asymmetry

In this subsection, I square the ability of a transferred DP in the ingestivised causative construction to condition dative case on an active DP with the inability of the same transferred DP to receive accusative case. I then show that *Read-Only* derives this asymmetry between locally-assigned accusative case and nonlocal dative case.

Reconsider the example of the ingestivised transitive causative construction in (29b), repeated here as (35) and illustrated in (36). Here, *duudh* 'milk' cannot receive accusative case due to being trapped in VP, but nevertheless conditions dative case on *billii* 'cat' when vP$_2$ merges and the structural description of the dative rule is met.

(35) *Causativised ingestive*
usha=ne billii*(=ko) duudh pil-aa-yaa
Usha=ERG cat*(=DAT) milk drink-CAUS-PFV
'Usha made the cat drink milk'

(36)



In (35), *duudh* 'milk' stays in-situ and undergoes *Transfer* as a part of VP when v_1 enters the structure. Then, *duudh* 'milk' has already been spelled out by the time the accusative case competitor *billii* 'cat' is merged in VoiceP$_1$. I noted in §2 that accusative case cannot be assigned to a transferred DP. Thus, the unmoved object *duudh* 'milk' cannot receive

accusative case via the rule in (13) even though it has a higher case competitor in VoiceP_1.

Turning to dative case assignment in (35), the causee *billii* 'cat' obligatorily receives dative case, which (34b) showed is triggered by the presence of a lower DP, specifically the object. In this instance, *duudh* 'milk'—being the only lower DP—must be the case competitor for dative case on *billii* 'cat'. Despite *duudh* 'milk' having undergone *Transfer* in the *v*P cycle$_1$, it still exceptionally conditions dative case on *billii* 'cat' when v_2 merges.

As was the case with the asymmetry between cross-phasal φ-agreement and accusative case assignment, the PIC and Bošković (2003) are unable to account for the pattern observed with regard to accusative and dative case competition in Hindi-Urdu, while *Read-Only* derives it. For the PIC account, if *v*P_1 is a phase under this view, *duudh* 'milk' in (35) is expected to be unavailable to condition dative case on *billii* 'cat', since *duudh* 'milk' should already be deleted from the syntax when the causee merges. Note that *duudh* 'milk' in (35) also controls agreement from its base position, which would be disallowed if it were completely inaccessible. If *v*P is not a phase given the PIC, *duudh* 'milk' in its base position is incorrectly predicted to receive accusative case conditioned by *billii* 'cat' in addition to conditioning dative case on *billii* 'cat' (and controlling φ-agreement).

Bošković (2003)'s cyclic linearisation also fails to accommodate the asymmetry between cross-phasal accusative case assignment and dative case competition. Whether or not *v*P phasehood is assumed under this view, the unmoved object *duudh* 'milk' is wrongly expected to be available for accusative case assignment, alongside conditioning dative case on *billii* 'cat'.

Once again, *Read-Only* is the only conception of phases that encompasses the asymmetry between accusative and dative case in Hindi-Urdu. *duudh* 'milk' in (35), which undergoes *Transfer* in the *v*P phase cycle, cannot receive accusative case under *Read-Only* due to its case feature being frozen in place. *duudh* 'milk', however, is still visible post-*Transfer* to condition dependent dative case on *billii* 'cat', since a case competition relation merely requires read-access to the features of *duudh* 'milk' in VP.

4 Discussion and conclusion

Using case and agreement data from Hindi-Urdu, I have argued for a *Read-Only* view of phases (37), under which complements of phases are still present in the narrow syntax after Transfer, but are not modifiable.

(37) ***Read-Only***
Upon Transfer, phase complements undergo cyclic linearisation and feature freezing, but remain visible from outside.

Major evidence for *Read-Only* phases came from the asymmetric visibility of transferred nominals for φ-agreement and case competition, but not accusative case assignment. Under this conception of phases, cross-phasal dependencies that modify a phase-external element are permitted, therefore correctly permitting φ-agreement or case competition with a transferred element, which only modifies the active element in the higher phase. Cross-phasal

dependencies that modify a transferred element are not allowed under *Read-Only*. Therefore, cross-phasal accusative case assignment—which requires valuing and thus modifying the features of a transferred DP—is correctly ruled out.

As shown in Table 1 below, existing notions of phase locality, like the Chomsky (2000, 2001)'s PIC or Bošković (2003)'s cyclic linearisation are unable to account for the selective sensitivity of the three dependencies to phases in Hindi-Urdu, necessitating the nuanced view of phase locality offered by *Read-Only*.

Post-spellout / View of locality	Visibility	Agreement	Case assign.	Case comp.
Chomsky (2000, 2001)'s PIC	*	*	*	*
Bošković (2003)	✓	✓	✓	✓
Read-Only	✓	✓	*	✓
Observed in Hindi-Urdu	✓	✓	*	✓

Table 1: Phase effects under different theories

The strong predictions of *Read-Only* for the (im)possibility of cross-phasal φ-agreement, case assignment, and case competition post-Transfer raises interesting questions about how this notion of phase locality regulates other cross-phasal syntactic dependencies. In Hindi-Urdu in particular, which has a rich case system, the sensitivity of accusative case assignment to phases begs the question of whether ergative case assignment also respects phases. In Agarwal (2022), I bring in light verb constructions to show that ergative case—a functional head case—cannot in fact be assigned into a transferred phase complement, in contrast to φ-agreement. The ergative case–φ-agreement asymmetry replicates the results of §2, providing further support for a *Read-Only* view of phases.

Like case assignment, movement out of a transferred phase complement also remains correctly ruled out in this system by the cyclic linearisation clause of *Read-Only*, much like it is ruled out under the PIC and Bošković (2003).

Further work in phase locality would test the predictions of *Read-Only* for φ-agreement, case assignment, and case competition in other languages with similarly attested long distance dependencies, especially in cases where existing theories of phase locality do not suffice. Exploring further syntactic dependencies, like NPI-licensing, *wh*-licensing, control etc., and their sensitivity to phases would also be revelatory for the *Read-Only* system.

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