# **Against Upwards Agree\***

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#### **Abstract**

Bjorkman & Zeijlstra (2019) claim that agreement with the absolutive argument in ergative-absolutive languages follows naturally in an Upwards-Agree system supplemented by the relation of Accessibility if  $\varphi$ -agreement is parasitic on structural case assigned to the absolutive noun phrase either by T or by v. By drawing evidence from two distantly related East Caucasian languages—Chirag and Avar—the present article argues that this theory is both too strong and too weak. I then show that the problematical facts are trivially analysable with standard Agree (Chomsky 2000 et seq.).

**Keywords** agreement, case, binding, checking, valuation, ergativity, East-Caucasian

# 1 Introduction

Ever since its introduction by Chomsky (2000), the inner workings of the core syntactic operation Agree have been at the heart of a lively debate in the minimalist literature. A major source of controversy in this debate is the directionality of feature valuation. According to the traditional definition, Agree operates in a configuration whereby unvalued probes c-command valued goals, with probing proceeding downwards and feature values being transmitted upwards (Chomsky 2000, Carstens & Diercks 2013, Preminger & Polinsky 2015 among others). Even though many have since claimed that the reversal of the direction of Agree might be required under some circumstances if Agree is to become the main mechanism of establishing syntactic dependencies, Zeijlstra (2012) is one of the earliest attempts to formulate a unified theory of Agree where the direction of

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probing is uniformly upwards. Preminger (2013), Preminger & Polinsky (2015), Polinsky & Preminger (2019) observe a number of issues related to  $\varphi$ -agreement that pose a substantial challenge to this unificationist project.

Aiming to overcome these challenges, Bjorkman & Zeijlstra (2019) develop an original conception of Agree, involving a rigid mechanism of upwards probing with a view to unifying  $\varphi$ -agreement with other feature-covariance relations such as negative concord, modal concord, and, potentially, anaphora.

Bjorkman & Zeijlstra (2019) present several empirical case studies (agreement in the English *there*-construction, agreement with nominative objects in Icelandic, agreement with absolutive objects in Hindi-Urdu, and long-distance agreement in Basque and Tsez) to illustrate their theory of Upwards Agree (UA) in action. Bjorkman & Zeijlstra (2019: 563) also formulate three predictions made by their theory of agreement phenomena as following from a strictly upwards-probing formalization of Agree.

P1: all uninterpretable features (uFs) must be checked by c-commanding interpretable features (iFs)

**P2:** the reversal of the direction of valuation is licensed as a side effect of a prior UArelation in a different feature once the feature in question has been checked by a c-commanding feature, both of which are only possible if the feature's checker is itself not fully valued

**P3:** raising an element to the specifier of a probing head for reasons of EPP is only possible in the context a prior UA-relation between the probe and the goal

The present paper has two goals. Firstly, it seeks to establish whether Bjorkman & Zeijlstra's (2019) proposal constitutes a successful theory of  $\varphi$ -agreement by focusing on their analysis of agreement in ergative-absolutive languages. Secondly, I place their theory in the broader context of the unificationist approach to syntactic dependencies by zooming in on particular predictions of Agree-based theories of anaphoric binding.

I begin by outlining the uniformly UA-approach to  $\varphi$ -Agree as formulated in Bjorkman & Zeijlstra 2019 and summarize their proposal for agreement phenomena in the ergative-absolutive language Hindi-Urdu (Section 2). Adopting all of Bjorkman & Zeijlstra's (2019) assumptions, I subsequently show that their UA-*cum*-Accessibility view of Agree fails to capture argument-predicate agreement with both the absolutive object and the ergative subject in the Northeast Caucasian language Chirag, and amendments to the core proposal result in different predictions than **P2** and **P3** (Section 3). I then show that **P1** is also incorrect by drawing on another ergative-absolutive language, Avar, whose absolutive case on subjects of intransitives is assigned internally to vP and independently of T, ruling out an explanation in terms of UA (Section 4). Section 5 sketches an account of the facts that were problematic for Bjorkman & Zeijlstra (2019) in terms of downwards probing and upwards valuation. Section 6 briefly weighs the purported benefits of reducing syntactic binding to Upwards Agree and summarizes the discussion by concluding that Upwards Agree has no upper hand in accounting for either  $\varphi$ -agreement or binding.

# 2 Absolutive case, $\varphi$ -agreement and Accessibility

At the core of Bjorkman & Zeijlstra's (2019) theory is the distinction between interpretable and uninterpretable features on the one hand, and valued and unvalued ones on the other. Consequently, two types of featural relations are postulated—checking and valuation. Checking, defined in (1), is invariably unidirectional and precedes valuation. Valuation, on the other hand, can proceed both upwards and downwards, as defined in (2), provided certain very specific conditions are met. The conditions are stated in (3).

# (1) Upward Agree (= feature checking)

 $\alpha$  checks an uninterpretable feature on  $\beta$  iff:

- a.  $\alpha$  carries a matching interpretable feature;
- b.  $\alpha$  c-commands  $\beta$ ;
- c.  $\alpha$  is the closest goal to  $\beta$

(Bjorkman & Zeijlstra 2019: 535)

(2) A valued feature on  $\alpha$  can value a matching unvalued feature on  $\beta$  iff  $\alpha$  and  $\beta$  are accessible to each other, and no other accessible element  $\gamma$  with a matching valued feature intervenes between  $\alpha$  and  $\beta$ . (Bjorkman & Zeijlstra 2019: 537)

#### (3) Accessibility

 $\alpha$  and  $\beta$  are accessible to each other iff an uninterpretable feature (uF) on  $\beta$  has been checked (via UA) by a corresponding interpretable feature (iF) on  $\alpha$ .

(Bjorkman & Zeijlstra 2019: 536)

Accessibility as stated in (3) allows syntactic dependencies between an unvalued feature on head H and a valued one on head G in H's c-command domain as a side effect of a prior checking relation between an uninterpretable feature on G and a matching interpretable feature on H. This mimicks the effects of Downwards Agree while simultaneously maintaining a consistently Upwards-Agree system. As Bjorkman & Zeijlstra (2019) emphasize, valuation must always be preceded by checking, since only checked features can be valued (Bjorkman & Zeijlstra 2019: 537).

A prototypical context where Downwards Agree has been argued to have the upper hand over Upwards Agree is instantiated by  $\varphi$ -agreement with absolutive objects in ergative-absolutive languages. The following example of a transitive clause from Hindi-Urdu illustrates the point:<sup>1</sup>

<sup>1</sup> I use the following abbreviations: 1 = First person, 2 = Second person, 3 = Third person, ABS = absolutive, ACC = accusative, APL = apudlative, CM = class marker, CVB = converb, DAT = dative, ERG = ergative, F = feminine, FIN = finiteness, GEN = genitive, INF = infinitive, IPF = imperfective, LOC = locative, M = masculine, N = neuter, NMLZ = nominalizer, NOM = nominative, OBL = oblique, PFV = perfective, PL = plural, PRS = present, PST = past, PTCP = participle, REFL = reflexive, SG = singular, SUPEL = superelative. Examples without a literature reference come from my field notes.

(4) Raam-ne **vah kitaabē** paṛ<sup>h</sup>-**ii** th-**ĩi** [Hindi-Urdu] Raam-ERG those books(F) read-(PFV)F.PL be.PST-F.PL 'Raam had read those books.' (Bjorkman & Zeijlstra 2019: 545)

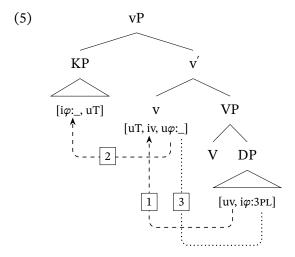
The sentence in (4) involves a periphrastic perfective verbal form  $par^hii$   $th\tilde{u}$ . The participial lexical verb,  $par^hii$ , agrees in number and gender with the plural feminine noun phrase vah  $kitaab\tilde{e}$  'those books' appearing in a morphologically unmarked case. The auxiliary  $th\tilde{u}$  agrees with the same noun phrase in person, number and gender. The external argument Raamne 'Raam' carries ergative marking. Given the lower structural position of the internal argument with respect to both the external argument and the two  $\varphi$ -probes (v and T), the question arises how featural relations between them can be accommodated within a purely UA-system.

It is this difficulty which the notion of Accessibility in (3) is meant to solve. In Bjorkman & Zeijlstra's view, a featural relation established between a c-commanded probe and a c-commanding goal in feature  $F_1$  can subsequently be used to establish a second featural relation, in feature  $F_2$ , even when the structural positions of the unvalued and valued features are reversed so that the unvalued one c-commands the valued one.

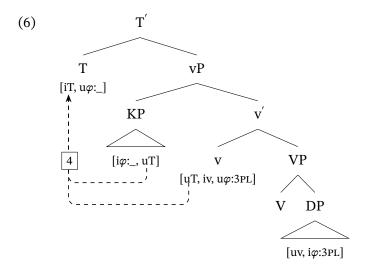
More concretely, Bjorkman & Zeijlstra (2019) propose that in Hindi-Urdu perfective and perfect clauses, agreement with the absolutive object vah  $kitaab\tilde{e}$  'those books' obtains as a result of v checking structural accusative case on the object which it c-commands. Bjorkman & Zeijlstra (2019) further follow Legate (2008) in treating unmarked case in Hindi-Urdu as being ambiguous between the structural accusative and nominative. Since  $\varphi$ -agreement in Hindi-Urdu is controlled by nominals lacking any overt case marking, the (accusative) object vah  $kitaab\tilde{e}$  'those books', by virtue of lacking any overt case marking, can value the unvalued  $\varphi$ -feature on v. Let us consider a sample derivation of object agreement in detail.

Upon the construction of the vP, the internal argument probes upwards to check its [uv] feature corresponding to structural accusative (**Step 1** in (5)). Following the assignment of structural case to the internal argument, the [u $\varphi$ :\_] feature on v probes upwards to be checked—but not valued—by an interpretable but unvalued [i $\varphi$ :\_] feature on the ergative subject (**Step 2** in (5)). Finally, in **Step 3**, the existence of a prior UA-relation between v and the internal argument licenses the reversal of the direction of valuation, transmitting  $\varphi$ -feature values from the internal argument onto v. The result is object agreement on the lexical verb.<sup>2</sup>

<sup>2</sup> In all tree diagrams in this paper, the dashed line represents probing, the dotted line notates valuation, whereas the solid line is reserved for movement. I also follow Bjorkman & Zeijlstra (2019) in representing all tree diagrams as head initial, in the interest of legibility.



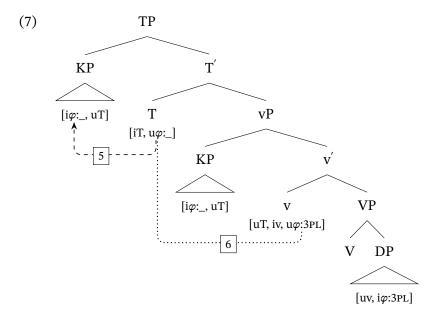
When T enters the structure, the [uT] feature on both the ergative subject and v probes upwards to be checked by T (**Step 4** in (6)). The [uT] feature on the ergative subject KP is Pesetsky & Torrego's (2002) interpretation of structural nominative case, and the same feature on v ensures that v and T are in an Accessibility relation.



Once **Step 4** has been completed, the only uninterpretable feature that has been neither checked nor valued is the  $[u\varphi:]$  feature on T itself. When it probes upwards, there is no available goal to check it. Given the existence of a prior UA-relation between T and the ergative subject in its c-command domain, the ergative subject moves to Spec,TP, from where its  $[i\varphi:]$  feature will check T's  $[u\varphi:]$ , as per **Step 5** in (7). This is how Bjorkman & Zeijlstra (2019) propose to reduce finite T's EPP property to the interaction of Upwards Agree and Accessibility: because the movement of the subject to Spec,TP is parasitic

on a prior featural relation between it and the finite T, no additional EPP features are required.<sup>3</sup>

Since this checking relation does not result in valuation due to the  $\varphi$ -defectivity of ergative subjects, however, and in the presence of another UA-relation between T and v, Accessibility enables v's uninterpretable but by now valued  $\varphi$ -feature to value the matching feature on T (**Step 6** in (7)).



Thus, once supplemented with particular assumptions regarding the aetiology of ergative subjects, the UA-*cum*-Accessibility approach put forth by Bjorkman & Zeijlstra (2019) is capable of deriving the object agreement facts in ergative-absolutive languages.<sup>4</sup> Ergative-absolutive languages such as Nepali, with the structural subject as the only agreement controller, are also accounted for. The key assumptions are summarized below:

- unmarked case on objects is structural accusative assigned by v;
- unmarked case on subjects is structural nominative assigned by T;

<sup>3</sup> In fact, even though Bjorkman & Zeijlstra (2019) do not say this explicitly, EPP features on functional heads attracting phrasal projections to those heads' specifiers are not an easy fit in a purely UA-system, since they must, by definition, probe downwards rather than upwards. This automatically rules out any modifications to Bjorkman & Zeijlstra's (2019) system that would involve EPP features.

<sup>4</sup> Whilst some of these assumptions such as the adpositional character of Hindi-Urdu ergatives are common currency in contemporary literature (see Polinsky 2016b and references there), others are significantly more contentious. In particular, endowing a low head such as v with an uninterpretable [uT] feature has no motivation other than to make v and T accessible to one another. Similarly, endowing a lexically/inherently case-marked ergative KP with a structural nominative feature serves no other purpose than to establish an accessibility relation between the ergative subject and T.

• ergative subjects, by virtue of being embedded inside semi-adpositional KP shells, instantiate defective agreement goals incapable of valuing  $[u\varphi:]$  features on v.

In the sections to follow, I first show that Bjorkman & Zeijlstra's (2019) analysis of object agreement faces considerable difficulties accommodating those ergative-absolutive languages where both ergative and absolutive noun phrases are legitimate agreement controllers. I then show that their assumptions regarding unmarked case in intransitives are also untenable.

# 3 Ergative subjects as defective agreement goals

Bjorkman & Zeijlstra's (2019) analysis of object agreement in Hindi-Urdu and Basque relies on their view of ergative subjects in certain ergative-absolutive languages as instantiating defective goals for the purposes of valuing  $[u\varphi:]$ -features which are nevertheless capable of checking them. When discussing the properties of ergative subjects in Hindi-Urdu, Bjorkman & Zeijlstra (2019) write:

The ergative DP in Spec,TP is thus responsible for checking  $[u\varphi]$  on T. Why does it not also value that feature? Here we again adopt the proposal made in DA-based accounts of quirky agreement in Icelandic: we suggest that the  $\varphi$ -features of ergative DPs are defectively valued, or (more accurately) that the features of the DP are rendered inactive due to the presence of a case phrase (KP) shell above the DP, a shell that is missing in nominative or absolutive DPs. In Hindi-Urdu the ergative K head must bear a fully unvalued  $[i\varphi]$  feature. This feature checks but cannot value the  $[u\varphi]$  feature on T, which therefore seeks to be valued by some other accessible  $\varphi$ -feature. (Bjorkman & Zeijlstra 2019: 546–547)

An immediate problem for such an analysis of object agreement as a byproduct of failed valuation by an adpositional ergative subject is that Bjorkman & Zeijlstra's (2019) theory severely restricts the scope of the empirical domain of its application to object agreement in ergative languages that display no subject agreement. In particular, languages with superficially adpositional ergative marking that nevertheless allow finite T to agree with the ergative subject while simultaneously displaying object agreement with the absolutive argument are left unaccounted for. The problem stems from the definition of Accessibility and the restrictions on the ordering of checking and valuation imposed by Bjorkman & Zeijlstra's (2019) system. I illustrate the issue by considering the subject and object agreement patterns in Chirag (Dargwa < East Caucasian, ca. 2,000 speakers).

Chirag is a head-final morphologically ergative language with a fairly flexible constituent order and rich inflectional morphology. Finite verbs in Chirag agree with their arguments in noun class, number and person. I first describe noun class and number agreement and formulate the problem for Bjorkman & Zeijlstra's (2019) UA-analysis of

object agreement in Section 3.1. I then turn, in Section 3.2, to person agreement and show that it poses the same challenge for UA. Section 3.3 discusses potential workarounds, ultimately concluding that they all have unwelcome consequences for Bjorkman & Zeijlstra's (2019) theory of Agree.

# 3.1 Noun class and number agreement in Chirag

Noun class and number agreement on lexical verbs in Chirag always tracks unmarked (=absolutive) case and normally appears as a prefix on the verb, provided the verb has a slot for such a prefix, though infixal placement is also attested. It is independent of transitivity and finiteness, appearing in non-finite contexts as well. Example (8) illustrates the basic pattern for a periphrastic construction involving an intransitive verb.

(8) Patimat r-uč'- le r-u-de [Chirag]
Patimat.ABS(F) F-sing:IPF-CVB F-be-PST

'Patimat was singing.' (adapted from Evstigneeva 2017: 613)

Both the non-finite lexical verb  $ru\check{c}'le$  'singing' and the finite auxiliary rude 'was' in (8) carry the feminine agreement prefix r- crossreferencing the features of the verb's only absolutive argument, Patimat 'Patimat'. I return to the case and agreement interaction in East Caucasian intransitives and the challenges it poses to Bjorkman & Zeijlstra's (2019) analysis of  $\varphi$ -agreement in the following section but set them aside for now, concentrating on transitives instead.

As regards transitive clauses, the lexical verb agrees in noun class and number with the absolutive internal argument, as outlined above, whereas the auxiliary agrees with the ergative subject. Consider (9) below, which I take to be structurally parallel to the Hindi-Urdu example from the previous section.

(9) (When I came to visit my parents, ...)

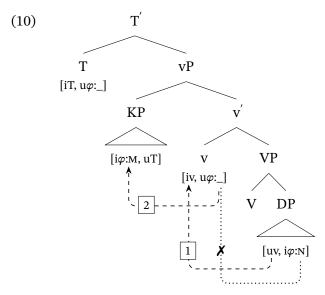
dat:i- le du<sup>ç</sup>rq b-irq'- le Ø-u- de /\*b-u- de [Chirag]
father-ERG(M) shed.ABS(N) N-make:IPF-CVB M-be-PST N-be-PST

'Father was making the shed.' (adapted from Evstigneeva 2017: 613)

Just like example (4) from Hindi-Urdu, the Chirag example (9) involves a periphrastic tense form consisting of a non-finite lexical verb (participle in Hindi-Urdu, converb in Chirag) and a finite auxiliary. In Chirag, the non-finite lexical verb, birq'le' making', carries a neuter agreement prefix, b-, cross-referencing the absolutive internal argument du'rq' shed'. This is similar to the Hindi-Urdu participle in (4), which agrees with the absolutive internal argument in number and gender. Unlike in Hindi-Urdu, however, the Chirag auxiliary reflects the features of the ergative subject dat:ile' father' by carrying a corresponding agreement marker. The neuter agreement marker b- signalling agreement with the absolutive internal argument is unacceptable.

A corollary of the availability of subject agreement, on Bjorkman & Zeijlstra's own assumptions, is the ability of structural subjects to both check and value  $[u\varphi:]$  features, in line with their suggestion for Nepali (Bjorkman & Zeijlstra 2019: 545ff.). Because the ergative subject *dat:ile* 'father' controls full agreement on the auxiliary, it should also be an appropriate agreement controller for the agreement on the lexical verb.

For the sake of concreteness, let us consider an UA-style derivation for (9), schematized in (10) below. Adopting Bjorkman & Zeijlstra's conventions, I take the internal argument  $du^{\varsigma}rq$  'shed' to carry a valued interpretable  $[i\varphi:N]$  feature and an uninterpretable accusative [uv] feature. In a similar vein, the ergative external argument dat:ile 'father' carries a valued interpretable  $[i\varphi:M]$  feature and an uninterpretable structural case feature, [uT]. Unlike Bjorkman & Zeijlstra's (2019) analysis of Hindi-Urdu agreement, however, there will be no [uT] feature on v, since v and v do not spell out identical v-feature values; consequently, v is specified with an [v] and an  $[u\varphi:]$  features.



Applying Bjorkman & Zeijlstra's (2019) analysis to Chirag transitive clauses such as (9) above, the internal argument will probe upwards to get its case feature checked against the [iv] feature on v (**Step 1** in (10)). As **Step 2**, v's [ $u\varphi$ :\_] feature will probe upwards, which will result in it being checked against a matching feature on the ergative subject, just as we have seen for Hindi-Urdu in Section 2 above. Unlike their counterparts in Hindi-Urdu, however, ergative subjects in Chirag are not defective, which means that in addition to being able to check [ $u\varphi$ :\_] on v, they will also be able to immediately value it, incorrectly predicting only subject agreement to be available. Indeed, if the [ $i\varphi$ :N] feature were to value v's [ $u\varphi$ :\_], no reversal of the direction of valuation would be possible, contrary to prediction **P2** on p. 1, which allowed it only as a last resort option in the context of failed valuation under UA. Since, on Bjorkman & Zeijlstra's (2019) analysis, object agreement in ergative-absolutive languages is enabled by Accessibility

in the context of failed valuation by a higher defective goal, and the goal in (10) is not defective, only subject agreement on both the lexical verb and the auxiliary is predicted.<sup>5</sup>

# 3.2 Person agreement in Chirag

Turning to person agreement, it is restricted to finite contexts and has distinct exponents for singular and plural, which effectively makes it person and number agreement. In prototypical transitive clauses, person agreement is controlled by the structural subject specified with either ergative or dative case, meaning that both ergative and dative subjects carry valued person and number features. In intransitive clauses, person agreement is controlled by the only (absolutive) argument. Person agreement with third-person NPs receives zero exponence, as in (8) above, but must be realized overtly if the agreement controller is specified as either first or second person. Noun class and number agreement on the lexical verb are controlled, as detailed in Section 3.1 above, by the absolutive internal argument. To see how noun class, number and person agreement work, let us consider (11) and (12), where both the internal and external arguments are speech-act participants and the verb appears in a non-periphrastic present-tense form.

If the first-person singular absolutive internal argument du 'I' is feminine and the second-person singular ergative external argument  $2a^{\varsigma}c$ : e 'you' is masculine, as in (11), then the verb's noun-class agreement prefix spells out the noun class of the internal argument and is realized as the feminine prefix r-. In addition to the noun-class morphology, however, the verb also carries a morpheme, -de, spelling out the 2SG-features of the ergative external argument. Person agreement with the internal argument is illicit.

Similarly, in (12), the verb's prefixal agreement is with the absolutive internal argument in noun class and number; person agreement is, as before, with the ergative external

The noun class and number agreement pattern with dative-subject transitive verbs is the same as the pattern described in the main text for the prototypically agentive transitive verbs: the non-finite lexical verb agrees with the absolutive internal argument, whereas the auxiliary agrees with the dative subject. The fact that both the absolutive and the dative argument value the same (sub)set of  $\varphi$ -features (i.e. noun class and number) rules out a potential extension of Bjorkman & Zeijlstra's (2019) analysis of agreement with 'defective' quirky subject in Icelandic to Chirag. I thank an anonymous reviewer for encouraging me to consider this possibility.

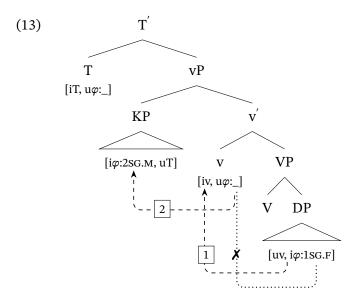
<sup>5</sup> Not all transitive clauses in Chirag mark their A arguments with ergative case: the A argument of psychological/experiencer verbs is typically encoded with dative, as below. The internal argument of such verbs is typically absolutive.

<sup>(</sup>i)  $\chi$ : walaba-j očk:e d- ujk:- le r-u-de / \*d- u-de granny- DAT(F) glasses. ABS(NPL) NPL-search: IPF-CVB F-be-PST NPL-be-PST 'Granny was looking for her glasses.' (adapted from Evstigneeva 2017: 613)

argument.

(12) di- c:e ?u r-iq:- an- da /\*r-iq:- an- de [Chirag] 1SG-ERG(M) 2SG.ABS(F) F-lead:IPF-PRS-1SG F-lead:IPF-PRS-2SG
'I (M) am leading you (F).' (adapted from Belyaev 2013: 95)

To summarise, the agreement pattern in the non-periphrastic construction in (11) and (12) above is exactly the same as the one we have seen for noun class and number agreement in the periphrastic construction in Section 3.1 above. Because the ergative subject clearly is capable of controlling agreement, it is unclear how it is meant to check—but crucially not value—the [u $\varphi$ :\_] feature on v. Consequently, person agreement is equally problematic for Bjorkman & Zeijlstra's (2019) analysis of agreement with absolutives, as the tree (13) representing sentence (11) above illustrates.



Let us now consider a deviation from the basic agreement pattern outlined above. It involves the so-called agreement displacement conditioned by the place of the agreement-controlling arguments on the Referential Hierarchy (Silverstein 1976): both person agreement in non-periphrastic contexts and all agreement on the auxiliary in periphrastic contexts are sensitive to the 1, 2 > 3 hierarchy. Cases where the ergative/dative external argument is higher on the Referential Hierarchy are of no particular interest, since they fully accord with the basic agreement pattern amply illustrated above. Agreement displacement is only visible when the absolutive internal argument is positioned higher on the Referential Hierarchy than the ergative/dative external argument, as in (14), illustrating the effect in a non-periphrastic context.

#### (14) 1, 2 > 3 hierarchy in non-periphrastic contexts

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ite ?u r-iq:- an- de /*r-iq:- le [Chirag] 3SG:ERG(M) 2SG.ABS(F) F-lead.IPF-PRS-2SG F-lead.IPF-PRS 'He is leading you (F).' (adapted from Evstigneeva 2017: 621)
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The second-person singular feminine internal argument ?u 'you' in (14) triggers the appearance of second-person singular agreement on the verb (alongside the prefixal noun-class agreement always controlled by the absolutive argument). The phonologically null third-person agreement is unacceptable. As a result, the verb only displays object agreement and no subject agreement. Example (15) illustrates agreement displacement in a periphrastic context involving a dative external argument.

#### (15) 1, 2 > 3 hierarchy in periphrastic contexts

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it- i du r-ik:- le r-u- da /*\emptyset-u /*\emptyset-u- da [Chirag] he-DAT 1SG.ABS(F) F-love:IPF-CVB F-be-1SG M-be M-be-1SG 'He loves me (F).' (adapted from Evstigneeva 2017: 623)
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Because agreement in (14) and (15) above has exactly the profile Bjorkman & Zeijlstra's (2019) analysis would predict, I would now like to demonstrate that the similarity is accidental and must not be interpreted as a vindication of their approach.

In order for Bjorkman & Zeijlstra's (2019) approach to derive the pattern of agreement displacement, the ergative third-person pronoun *ite* 'he' in (14) and the dative third-person pronoun *iti* 'he' in (15) must for some reason fail to value the noun-class and number features on v so that v's  $[u\varphi:]$  feature can instead be valued by the first- or second-person internal argument under Accessibility. This is presumably due to the relevant features being absent from the topmost layer of the adpositional KP structure posited for ergative and dative subjects. This, however, is inconsistent with the facts from Section 3.1, where third-person ergative and dative subjects were perfectly capable of controlling agreement, which indicates that their noun-class and number features are present and fully accessible for probing.

#### 3.3 Potential workarounds

I now present three potential workarounds that could be advanced with a view to salvaging Bjorkman & Zeijlstra's (2019) account of object agreement in ergative-absolutive languages. I argue for all three that they result in substantial changes to the core of Bjorkman & Zeijlstra's (2019) overall proposal and, ultimately, different predictions.

# 3.3.1 Eliminating the checking requirement

The first way of ensuring that v can agree with the absolutive internal argument in Chirag transitives is to allow its  $[u\varphi:]$  feature to be valued, without first being checked, *before* the external argument is merged into the structure. Mechanically, this will replicate

Bjorkman & Zeijlstra's (2019) analysis of object agreement in Hindi-Urdu: the internal argument's accusative [uv] feature will probe upwards, to be checked by v's [iv] feature, whereupon Accessibility will ensure that v's own [u $\varphi$ :\_] feature is valued against the interpretable and valued  $\varphi$ -feature on the internal argument.

However, this adjustment to Bjorkman & Zeijlstra's (2019) system has an unwelcome consequence: relaxing the conditions for the reversal of the direction of valuation to accommodate the Chirag facts effectively invalidates Bjorkman & Zeijlstra's (2019) analysis of EPP-less movement to the specifier of a probing head. Recalling our discussion of the movement of the Hindi-Urdu ergative subjects to Spec, TP, which was motivated by the necessity of T's  $[u\varphi]$  feature to be checked by a c-commanding goal, the elimination of this requirement effectively means that the Accessibility-enabled reversal of the direction of valuation is now available by default, and the subject now needs an extra feature to trigger its movement to Spec, TP. It will also not help to reorder checking and valuation, as suggested by an anonymous reviewer, so that the  $[u\varphi:]$  feature on v could first be valued by the accessible interpretable feature on the internal argument before being checked by the defective ergative/dative external argument. This is because, firstly, Bjorkman & Zeijlstra (2019) are explicit about the requirement that only checked features be able to be valued and, secondly, because allowing valuation to precede checking effectively invalidates their analysis of movement to Spec, TP and falsifies their prediction P2. Finally, if the system is modified to allow valuation to precede checking, it becomes impossible to derive the default singular agreement pattern in the English there-construction (cf. There's three books on the table), since T will invariably agree with the expletive associate because of Accessibility.

# 3.3.2 Accessibility-driven movement to Spec,vP

The second potential workaround would be to allow the internal argument to undergo Accessibility-driven movement to Spec,vP in the same way subjects move to Spec,TP, whereupon it would be able to both check and value the  $[u\varphi:]$  feature on v. The external argument would then be merged as an outer specifier of vP. Given the fact that both v and the verb's arguments are located within the same locality domain, they must all be part of the same numeration. Bjorkman & Zeijlstra (2019) subscribe to the Merge-over-Move contention, whereby internal Merge cannot apply until the numeration has been exhausted, which is essential for their account of the *there*-construction in English (Bjorkman & Zeijlstra 2019: 537ff.). Allowing the internal argument to be internally merged prior to the numeration being exhausted violates Merge over Move, thereby invalidating Bjorkman & Zeijlstra's (2019) analysis of the *there*-construction. Furthermore, as there is no Chirag-internal evidence of the movement of the internal argument to the inner specifier of v, postulating such movement makes the theory unfalsifiable.

#### 3.3.3 Different formalization of case discrimination

Another workaround, suggested by an anonymous reviewer, would be to redefine the notion of case discrimination as a property of the probing head rather than the agreement controller, in the spirit of Deal (2017). If, according to the reviewer, the low  $\varphi$ -probe (i.e. v) were case discriminating in only allowing valuation by an unmarked-case NP, Bjorkman & Zeijlstra's (2019) analysis would derive the object-agreement facts with relative ease. There are two issues raised by adopting this view of case discrimination. The first one concerns the overall compatibility of Bjorkman & Zeijlstra's (2019) definition of Accessibility with Deal's (2017) way of modelling case assignment: because Deal (2017) adopts the dependent-case approach to case assignment whereby absolutive case does not reduce to structural accusative, postulating a featural dependency between the internal argument and v creates an unmotivated redundancy.

The second issue is empirical and internal to Chirag, since there is a straightforward way of testing the reviewer's suggestion. What one needs is an environment with two absolutive NPs hierarchically flanking the  $\varphi$ -probe. The environment in question is the so-called *biabsolutive construction*, illustrated in (16), where both the internal and the external argument of an agentive transitive verb appear in the unmarked absolutive case (see Forker 2012 for an extensive overview of the syntactic and semantic properties of the construction in multiple East Caucasian languages).

In example (16) above, the two absolutive NPs are legitimate agreement controllers and the non-finite lexical verb iq:le 'leading' agrees with the internal argument while the auxiliary cross-references the features of the external argument. Since v is by hypothesis case discriminating, when its  $[u\varphi:]$  feature probes upwards, it should be valued by the matching feature on the absolutive external argument it 'she', wrongly predicting subject agreement on both the lexical verb and the auxiliary. I therefore conclude that reinterpreting case discrimination along the lines suggested by the reviewer does not salvage Bjorkman & Zeijlstra's (2019) theory in its failure to account for object and subject agreement in Chirag.

#### 4 Absolutive case in intransitive clauses

In developing their analysis of agreement with absolutive objects, Bjorkman & Zeijlstra (2019) rely on Legate's (2008) proposal whereby the morphologically unmarked absolutive case is ambiguous between structural nominative and structural accusative. In this section, I show that absolutive subjects of intransitive clauses in Chirag and Avar (another East Caucasian language) receive their case internally to the vP and independently

of T, which creates an additional challenge for Bjorkman & Zeijlstra's (2019) proposal as it casts doubt on the validity of their **P1** prediction. In so doing I also fine-tune the taxonomy of ergative-absolutive languages developed by Legate (2008).

Let us recall the Chirag example (8), repeated here as (17), where an intransitive lexical verb and an auxiliary both agree with an absolutive third-person argument in noun class and number.

(17) Patimat r-uc'- le r-u-de [Chirag]
Patimat.ABS(F) F-sing:IPF-CVB F-be-PST

'Patimat was singing.' (adapted from Evstigneeva 2017: 613)

The case and agreement pattern in (17) from Chirag is common to the overwhelming majority of East Caucasian languages. In this section, I focus on Avar, primarily because it is better documented than Chirag, but the main patterns of case and agreement are common to the other East Caucasian languages, including Chirag.

Anticipating the discussion in this section, the problem is this: if the absolutive case on the only argument in (17) were shown to be dissociated from T, there would be no accessibility relation between the absolutive subject and T. Consequently, the absolutive subject would be unable to move to Spec,TP to check and value T's uninterpretable unvalued  $[u\varphi:]$  feature, incorrectly predicting the absence of agreement on the auxiliary. To establish that this problem does indeed arise, let us examine the nature of the absolutive case in East Caucasian languages more closely.

# 4.1 ABS=NOM and ABS=DEF languages (Legate 2008)

Legate (2008) shows that the morphologically unmarked case in ergative-absolutive languages—the absolutive—need not in fact form a homogeneous class, either within a language or across languages. Based on the behaviour of unmarked arguments in a variety of syntactic environments (the ability to mark complements of adpositions and oblique arguments in the double-object construction; non-preservation in non-finite environments; case marking in split-ergative constructions), she divides the ergative-absolutive languages into two classes.

**Absolutive-as-nominative (ABS=NOM) languages** show unequivocal signs of the absolutive case being assigned by T to both the transitive objects and intransitive subjects, effectively reducing the absolutive to structural nominative. In these languages, unmarked case is not attested on the objects of adpositions or second objects in double-object constructions, nor is it preserved on either the transitive object or the intransitive subject in non-finite environments. Under split-ergativity, a change of case on the transitive subject brings about a change in case marking on the transitive object (Legate 2008: 69–70).

**Absolutive-as-morphological-default (ABS=DEF) languages** display a different distribution of the unmarked case: in such languages, complements of adpositions as well as second objects in double-object constructions appear in the unmarked case. Furthermore, the unmarked case is preserved, in non-finite environments, on the transitive object but crucially not on the intransitive subject. In split-ergative constructions, multiple absolutives are attested, and a change of case on the transitive subject need not give rise to a change in case marking on the transitive object. Legate (2008) argues that Hindi-Urdu belongs in this class, and Bjorkman & Zeijlstra (2019) adopt that analysis. The ABS=DEF system is in fact a tripartite one: A<sup>ERG</sup> vs. O<sup>ACC</sup> vs. S<sup>NOM</sup>, with the nominative S and accusative O coinciding in the morphology. The key notion here is that of the morphological default: a morpheme that is inserted in a number of syntactically distinct contexts. In the case at hand, structural nominative and structural accusative are syntactically distinct but happen to coincide in the morphology. Their syntactic distinctness comes from the two cases being contingent on the presence of distinct functional heads in the syntactic structure: the nominative is contingent on the presence of finite T whereas the accusative is contingent on the presence of transitive v (Legate 2008: 62). Manipulating the finiteness factor in Hindi-Urdu, for example, results in distinct outcomes for S (both unergative and unaccusative) and O: since the unmarked case in non-finite environments survives on the O argument but does not survive on the S argument, the conclusion that they are syntactically distinct is justifiable. If manipulating the same factor does not reveal a distinction, the notion of morphological default is inapplicable, and speaking of syntactic defaults becomes more appropriate. Using Legate's (2008) own tools, I show directly below that there is no abstract nominativeaccusative distinction underlying the Avar absolutive, meaning that the Avar absolutive cannot be a morphological default.

#### 4.2 The Avar absolutive is neither nominative nor default

Avar (East Caucasian, ca. 700,000 native speakers) is a head-final morphologically ergative language where verbal agreement uniformly tracks the unmarked (absolutive) case. Anticipating the discussion in this subsection, the Avar absolutive cannot be identified with either the high absolutive (ABS=NOM) or the low absolutive (ABS=DEF) as defined by Legate (2008) despite sharing some of the properties associated with both groups.

Firstly, complements of postpositions in Avar never appear unmarked for case. Instead, most postpositions assign genitive or locative to their complements (Forker to appear, Rudnev 2015a). Avar shares this characteristic with Legate's (2008) ABS=NOM languages. Two examples are given in (18) below.

(18) a. \*stol / stol- al- da t'ad [Avar]
desk.ABS desk-OBL-LOC on
'on the desk'

b. \*ža‹l›go / židergo ħaq'ałuł
 <PL›REFL.ABS REFL.GEN about</li>
 'about themselves'

In (18a), the spatial postposition t'ad 'on' assigns locative case to its complement noun phrase stolalda 'desk.LOC'; in (18b), the non-spatial postposition  $\hbar aq$ 'alul 'about' assigns genitive to the plural reflexive  $\check{z}idergo$  'themselves.GEN' in its complement. In neither case can the complement NP appear in the unmarked case.

Secondly, and again in parallel with their counterparts in the ABS=NOM languages, the two objects in the Avar double-object construction obligatorily receive non-identical case marking:

(19) dos die /\*mun t'ex l'una [Avar] he.ERG 1SG.DAT 1SG.ABS book.ABS(N) give.PST 'He gave me the book.'

As (19) shows, indirect objects like *die* 'to me' in Avar ditransitive clauses never appear in the unmarked case, which is reserved for the internal arguments (e.g. *t'ex* 'book').

Thirdly, Avar displays an optional aspect-based split in the otherwise robustly ergative alignment known as the *biabsolutive construction* (Forker 2012). In it, both the transitive subject and the transitive object appear in the unmarked case, much like what we have seen in Chirag in Section 3.3.3.

(20) a. insuca xer b-ec- ul- e- b b-uk'-ana [Avar] father.ERG(M) hay.ABS(N) N-mow-PRS-PTCP-N N-be- PST
b. emen xer b-ec- ul- e- w w-uk'-ana father.ABS(M) hay.ABS(N) N-mow-PRS-PTCP-M M-be- PST 'Father was mowing (the) hay here.' (Forker 2012: 88-89)

The availability of multiple NPs in the unmarked case within the same sentence is reminiscent of Legate's (2008) discussion of the ABS=DEF languages.

Fourthly, unlike both ABS=NOM and ABS=DEF languages, the unmarked S and O arguments of finite clauses remain unmarked in non-finite environments such as low nominalizations and infinitival clauses. These are traditionally considered non-finite because of a lack of tense morphology or independent temporal reference just like gerunds and infinitives in English, and are also incompatible with clausal negation. The preservation of the unmarked case in non-finite environments clearly sets the Avar absolutive apart from the unmarked case in both the ABS=NOM and ABS=DEF languages. I first illustrate the preservation of the absolutive case in transitive clauses with a view to showing that Avar is not an ABS=NOM language. Example (21) is the finite baseline whereas examples (22) and (23) show that finiteness has no bearing on either case marking or agreement (unlike Chirag and the other Dargwa languages, Avar

has no person agreement, and all agreement is in noun class and number).

#### (21) Finite transitive clause

was-as mašinal r– ič- ul- a [Avar] son-ERG(M) cars.ABS(PL) PL- $\sqrt{\text{sell}}$ -PRS-FIN 'The son sells cars.' (Rudney 2020b: ex. 4a)

#### (22) Transitive nominalization

[was-as mašinal r- ič- i ] łik'a- b iš b-ugo son-ERG(M) cars.ABS(PL)  $PL-\sqrt{sell}-NMLZ$  good-N thing.ABS N-be.PRS 'That the son sells cars is a good thing.' (Rudnev 2020b: ex. 4b)

#### (23) Transitive infinitival clause

insu- e b-oł'- ana [was-as mašinal r- ič- ize ] father.OBL-DAT(M) N-want-PST son-ERG(M) cars.ABS(PL) PL- $\sqrt{\text{sell}}$ -INF 'Father wanted his son to sell cars.' (Rudnev 2020b: ex. 4c)

The agreeing transitive verb CM- $i\check{c}$ -'sell' agrees in the three clause types above with the plural absolutive object NP  $ma\check{s}inal$  'cars.ABS', as witnessed by the appearance of the plural agreement prefix r- on the verb. The external argument wasas 'boy' uniformly carries ergative marking in all clause types. Because the unmarked case is preserved on the O argument in the absence of T in the nominalization in (22) and in the infinitival clause in (23), the Avar absolutive is not nominative and Avar is not an ABS=NOM language.

Turning to intransitives, we observe the same pattern of case preservation: the unmarked case on the S argument survives in the absence of T. Example (24) is a finite baseline involving an unergative verb, *CM–eker-* 'run', whose sole argument appears in the absolutive case. This absolutive case persists in a low nominalization (25) and an infinitival clause (26), meaning that it cannot be structural nominative. I conclude that, because the unmarked case on the S-argument of Avar unergatives is not structural nominative, Avar is not an ABS=NOM or ABS=DEF language.

#### (24) Finite unergative clause

was w-eker- an- a insuqe [Avar] boy.ABS(M)  $M-\sqrt{\text{run-PST-FIN}}$  father.APL 'The boy ran to his father.' (Rudnev 2020b: ex. 5a)

### (25) Unergative nominalization

[was insuqe w-eker- i ] lik'a- b iš b-ugo boy.ABS(M) father.APL M- $\sqrt{\text{run}}$ -NMLZ good-N thing.ABS(N) N-be.PRS 'The boy running to his father is a good thing.' (Rudnev 2020b: ex. 5b)

#### (26) Unergative infinitival clause

kinazego b-oł'ana [was insuqe w-eker- ize ] everyone.DAT(PL) N-want.PST boy.ABS(M) father.APL M- $\sqrt{\text{run}}$ -INF 'Everyone wanted the boy to run to his father.' (Rudnev 2020b: ex. 5c)

The unmarked absolutive case also persists on the sole arguments of unaccusative verbs irrespective of finiteness, as shown for a finite clause in (27), an oblique-case nominalization in (28) and an embedded infinitival clause in (29). As before, the verb uniformly agrees with its absolutive argument in all clause types.

# (27) Finite unaccusative clause

Murad w-ač'- ana [Avar]
Murad.ABS(M) M-come-PST

'Murad has come.' (Rudnev 2015b: 143)

#### (28) Unaccusative nominalization

[Mun w-ač'- in- aldasa] rak' b-oχ- ana dir 2SG:ABS(M) M-come-NMLZ-SUPEL heart.ABS(N) N-rejoice-PST 1SG:GEN 'Your arrival has made me happy.' (adapted from Rudnev 2015b: 147)

#### (29) Unaccusative infinitival clause

[Emen w-ač'- ine] b-ok'- un b-uk'-ana nižee father.ABS(M) M-come-INF N-want-CVB N-be- PST 1PL:DAT 'We wanted father to come.'

We can conclude from the identity of patterns of agreement and case assignment across finite and non-finite clauses that high functional heads such as T are not implicated in negotiating either case or agreement.<sup>6</sup>

The literature contains multiple explicit arguments for dissociating case and agreement in East Caucasian languages from high functional heads such as T and in favour of confining them to vP (Gagliardi et al. 2014 for Lak and Tsez; Polinsky 2016a, Polinsky et al. 2017 for Archi; Rudnev 2020a,b for Avar). Avar agreeing nominalizations, for

<sup>6</sup> Both the absolutive case and noun-class (and number) agreement are also preserved on the O- and S- arguments in non-finite environments in the Dargwa languages, suggesting that the unmarked case in these languages is equally irreducible to the structural nominative. Because the relevant data from Chirag are unavailable, I use the available data from Sanzhi Dargwa to illustrate, simplifying the glosses somewhat.

instance, are smaller than infinitives, and both are so small as to be incapable of hosting negation (Wurmbrand 2001).

I conclude that Avar is neither an ABS=NOM nor an ABS=DEF language in the sense of Legate 2008 but belongs to a third class of ergative-absolutive languages. Consequently, we are forced to conclude that either the unmarked case on intransitive subjects in Avar finite and non-finite clauses is not nominative, or that structural nominative can be assigned, internally to vP, by a head other than the finite T. That absolutive subjects of intransitive clauses in Avar receive their unmarked case even in the absence of finiteness creates a scenario which rules out, wholesale, the accessibility-based analysis of  $\varphi$ -agreement discussed for absolutive objects. I explicate the reasons in the next subsection.

## 4.3 Why subject agreement in Avar is problematic for Accessibility

The identity of agreement marking and case assignment across all clause types being strong evidence for both of those relations being negotiated vP-internally, the problem can be formulated thus. If v carries unvalued  $\varphi$ -features which can only be valued against an absolutive argument, then an absolutive argument must appear in a position either (a) c-commanding v and thus able to both check and immediately value its  $[u\varphi:]$  feature under UA, or (b) being c-commanded by it on the condition that that argument is accessible to v as a result of a prior UA-relation. In Bjorkman & Zeijlstra's (2019) view, the sole arguments of intransitives in Hindi-Urdu are assigned structural nominative by virtue of having their [uT] feature checked by a higher T. This option, however, is a dead end for Avar intransitives, since, as we have just seen, their sole arguments appear in the unmarked case even in the absence of T, which is arguably not implicated at all in case assignment. Thus, condition (a) does not hold. Nor does condition (b) hold, as, given standard assumptions about unaccusative and unergative vPs, their arguments do not have their case checked by v in such a way as to make them accessible for  $\varphi$ -valuation. Sentences (30) and (31), schematically represented as (32) and (33), are a case in point.

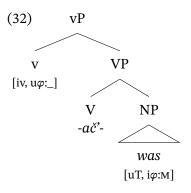
# (30) Intransitive unaccusative was w-ač'- ana boy.ABS(M) M-come-PST 'The boy arrived.' (31) Intransitive unergative was w-eker-ana boy.ABS(M) M-run-PST 'The boy ran.'

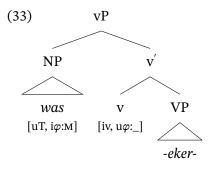
If, by hypothesis, the sole arguments of intransitives are specified with [uT] features in

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(i) u- l ha?ib- de [u dawlači<w>ce Ø-iχw-ni ] [Sanzhi Dargwa] 2SG-ERG say.PST-2SG 2SG.ABS(M) <M>wealthy M-be- NMLZ (adapted from Forker 2020: 472)
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Other East Caucasian languages exhibiting the same pattern of absolutive case and agreement preservation in the absence of T are Godoberi (Kibrik 1996: 107), Bagvalal (Kibrik 2001: §5.2.2), Kryz (Authier 2009: 319), Khwarshi (Khalilova 2009: 366), Ingush (Nichols 2011: §25.5), Lak and Tsez (Gagliardi et al. 2014), Archi (Polinsky 2016a, Polinsky et al. 2017), Mehweb (Ganenkov 2019) and Tsova-Tush (Hauk 2020: §3.2.1), and probably many others. Therefore, they pose the same challenge for UA-analyses as Avar.

both unaccusative contexts like (30)/(32) and unergative contexts like (31)/(33), those features would remain unchecked in low nominalizations and infinitival clauses owing to the absence of T in those structures. Moreover, because v does not license structural case in either unaccusatives or unergatives, there is no prior UA-relation between it and the verbs' arguments that would make the arguments accessible for valuation, and the  $[u\varphi:]$  feature on v also remains unvalued in both (32) and (33).





Before concluding the discussion in this section, let us briefly consider two potential modifications to the analysis in Bjorkman & Zeijlstra 2019 in an attempt to reconcile it with the agreement facts in Avar. One modification would require allowing v to assign structural accusative case to the O argument in unaccusatives, thus establishing an UA-relation for  $\varphi$ -valuation to piggyback on. This would, however, still leave case and agreement in unergatives unaccounted for, unless v were also allowed to assign structural accusative to the subject of an unergative. Given the impossibility of reducing the Avar absolutive to either the nominative or the accusative illustrated in section 4.2, pursuing this option seems problematic.

A second modification, perhaps more in line with the facts at hand but clearly going against the spirit of both Legate 2008 and Bjorkman & Zeijlstra 2019, would be to treat absolutive case as a theoretical primitive irreducible to an ambiguity between structural nominative and structural accusative. It could then be assigned by v to the O argument in unaccusatives (cf. Coon & Preminger 2011: §4.3 for an analysis of Chol intransitives

along those lines), creating the necessary UA-relation. Agreement in unergatives would still remain challenging, though, at least if one were to also account for it being case-discriminating, as Bjorkman & Zeijlstra (2019) claim to do: when v's  $[u\varphi:]$  feature probes upwards, the subject's  $[i\varphi]$  feature will be unable to check it because the subject is still caseless and therefore unable to check or value v's  $[u\varphi:]$  feature.

Finally, even if the vP-internal assignment of the unmarked case in Avar intransitives were somehow reconciled with Bjorkman & Zeijlstra's (2019) approach to  $\varphi$ -agreement, the lack of a featural relation between the absolutive arguments and high functional heads would leave unexplained the fact that finite auxiliaries still agree with the absolutive arguments.

**Summary** Having adopted all of the assumptions in Bjorkman & Zeijlstra 2019, I have spent the preceding sections investigating the crosslinguistic applicability of that approach to agreement phenomena. I have shown that the system developed in Bjorkman & Zeijlstra 2019 faces serious challenges with respect to accounting for the relatively simple subject and object agreement patterns in ergative-absolutive languages such as Chirag, and attempts at patching it have a detrimental effect on core aspects of the proposal, violating predictions **P2** and **P3**. It is also likely that more complicated cases of mixed agreement will create additional problems for the account based on Accessibility. We have also seen that **P1** does not hold either: absolutive subjects in Avar get case and trigger agreement internally to the vP in the absence of higher c-commanding licensers and, by extension, Accessibility.

# 5 Solution: back to Upwards Valuation

This section sketches an alternative proposal involving exclusively upwards valuation. I restrict my attention to the Chirag and Avar facts from sections 3 and 4 above, but the analysis also straightforwardly extends to other ergative-absolutive languages. Moreover, given that Bjorkman & Zeijlstra's (2019) analysis is an alternative to conceptions of Agree already in existence, there already are accounts of the Hindi-Urdu facts. My sole aim in this section is to show that the facts in question are easily compatible with mainstream approaches to  $\varphi$ -agreement without additional assumptions or stipulations rather than to adjudicate between them. Nor is it my intention to develop an exhaustive account of the Chirag and Avar agreement systems with all their intricacies. In developing the analysis, I dispense with most of the assumptions made by Bjorkman & Zeijlstra (2019), resulting in a simpler analysis. Before moving on, however, let us recapitulate the main explananda.

- subject and object agreement in Chirag transitives
- object agreement in Avar transitives

subject agreement in Avar intransitives

In addition to the main explananda listed above, the proposed account should be extendable to the sensitivity of agreement in Chirag transitives to the 1, 2 > 3 person hierarchy and the biabsolutive construction in both Chirag and Avar.

# 5.1 Common ingredients

Since noun class agreement in both Chirag and Avar tracks the absolutive argument, whose unmarked case survives in non-finite environments, I take v to be specified with an unvalued  $\varphi$ -feature  $[\varphi:]$ . In surface morphology, it will be realized as the agreement prefix (or, more restrictedly, infix) on the verb. Another  $[\varphi:]$  feature appears on the finite T, which, at least in Chirag, will expone person agreement. All probing is restricted to the probe's c-command domain: T and v will inspect their c-command domain in search of matching valued  $\varphi$ -features.

I assume that, in addition to valued  $\varphi$ -features, all noun phrases carry unvalued case features, [CASE:\_]. For case assignment, I propose that absolutive case on the subjects of intransitives and objects of transitives is the absence of case (Kornfilt & Preminger 2015) whereas ergative case is a dependent case assigned via upwards case competition (Marantz 1991, Bobaljik 2008, Baker 2012, Preminger 2014, Levin & Preminger 2015). I follow Baker (2015), Preminger (2014, to appear), Levin & Preminger (2015) in locating case assignment in the syntax and having it temporally precede agreement, as schematized in (34) for a hypothetical transitive clause with a feminine external argument and a neuter internal argument.

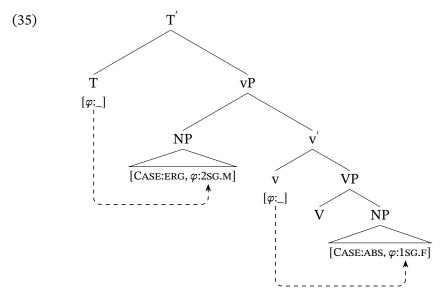
#### (34) vP-internal case and agreement in Chirag and Avar

We are now in a position to see how this relatively frugal view of the interaction of case and agreement accommodates the Chirag and Avar facts that the incomparably richer theory of Bjorkman & Zeijlstra (2019) was unable to accommodate.

#### 5.2 Agreement in Dargwa transitives

Given the foregoing assumptions, the account of noun class and person agreement in Chirag transitive clauses is straightforward. I first illustrate the non-periphrastic context and then turn to the periphrastic context.

For concreteness, let us consider (35), which illustrates what the structure for the Chirag sentence (11), repeated here as (36), would look like.



The tree in (35) exclusively focuses on agreement, assuming case has already been assigned configurationally as in (34a) above.

(36) 
$$2a^{\varsigma}$$
- c:e du r-iq:- an- de /\*r-iq:- an- da [Chirag] 2SG-ERG(M) 1SG.ABS(F) F-lead:IPF-PRS-2SG F-lead:IPF-PRS-1SG 'You (M) are leading me (F).' (adapted from Belyaev 2013: 95)

Given the c-command relation between v and the absolutive internal argument du 'I', the unvalued  $[\varphi:]$  feature on v can be valued by the  $[\varphi:1\text{SG.F}]$  feature on the internal argument, resulting in feminine noun-class agreement. Similarly, the valued  $[\varphi:2\text{SG.M}]$  feature on the ergative external argument  $?a^{\varsigma}c:e$  'you' will value T's  $[\varphi:]$  feature since the external argument is the closest NP in T's c-command domain, resulting in second-person agreement.

In periphrastic contexts, everything is the same, with one slight difference. The auxiliary can in principle inflect for both noun class and number on the one hand, and for person, on the other. Unlike person agreement, which is restricted to finite environments, noun-class agreement on the auxiliary is preserved in non-finite ones, which I take to mean that the two agreement morphemes spell out distinct heads. I propose that the auxiliary is merged as an additional v-head with its own unvalued  $[\varphi:]$  feature and takes the lexical vP as its complement (Ross 1967, Harwood 2014, Bruening 2017). If T is merged, then it forms a complex head with the auxiliary v and therefore spells out both noun-class and person agreement. In the absence of finite T, only noun-class agreement on the auxiliary is spelled out.

Let us now consider the diagram in (38) illustrating the structure for the Chirag sentence (9), repeated here as (37).

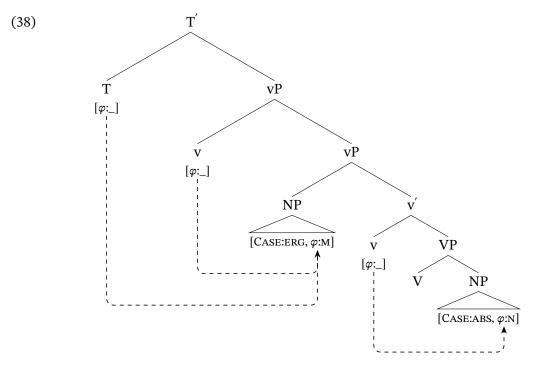
(37) (When I came to visit my parents, ...)

dat:i- le du<sup>\(\Gamma\)</sup>rq b-irq'- le \(\Omega\)-u- de /\*b-u- de [Chirag]

father-ERG shed.ABS N-make:IPF-CVB M-be-PST N-be-PST

'Father was making the shed.'

As mentioned above for the non-periphrastic scenario, the tree in (38) also focuses solely on agreement, assuming case has already been assigned configurationally as in (34a) above.

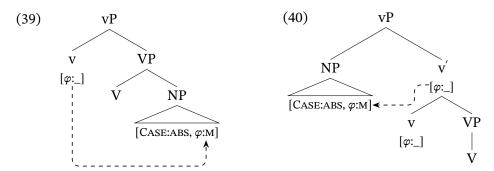


Given the c-command relation between the lower v and the absolutive internal argument  $du^{\varsigma}rq$  'shed', the unvalued  $[\varphi:\_]$  feature on v can be valued by the  $[\varphi:N]$  feature on the internal argument, resulting in neuter agreement on the non-finite lexical verb, birq'le 'making'. Similarly, the valued  $[\varphi:M]$  feature on the ergative external argument dat:ile 'father' will value the auxiliary v's  $[\varphi:\_]$  feature since the external argument is the closest NP in this head's c-command domain, resulting in masculine agreement on the auxiliary. Since third person agreement does not have an overt exponent, the finite auxiliary surfaces with neuter noun-class agreement.

<sup>7</sup> Exactly the same mechanism can derive agreement with the absolutive internal argument in transitive clauses in Avar, the only difference concerning either the availability of a  $\varphi$ -probe on T or a different portion of Marantz's (1991) disjunctive case hierarchy (i.e., only unmarked case) being available for  $\varphi$ -agreement as opposed to Chirag, where both unmarked and dependent case can control agreement.

# 5.3 Agreement in Avar intransitives

The Avar absolutive being assigned vP-internally in the absence of a higher head is, as we have seen, problematical for UA but compatible with the assumptions in section 5.1. In the absence of a case assigner c-commanded by the intransitive verbs' sole argument, the argument will remain caseless, thus being able to control  $\varphi$ -agreement. In an unaccusative structure, schematized in (39), the  $[\varphi:]$  feature on v c-commands the matching valued feature on the subject and is able to agree with it. Allowing a head's features to be inherited by projections of that head (Rezac 2003, Béjar & Rezac 2009, Carstens 2011, Rudnev 2020a) will ensure that the unvalued feature on the unergative v can be valued from v under sisterhood with the sole argument, as in (40) below.



The analysis of  $\varphi$ -agreement in terms of Upwards Valuation sketched so far fulfils the three desiderata formulated at the beginning of this section: it derives subject and object agreement in Chirag transitives, it derives object agreement in Avar transitives, and it derives subject agreement in Avar intransitives. I now show that the proposal is also flexible enough to extend to agreement displacement as well as case and agreement in the biabsolutive construction.

#### 5.4 Agreement displacement and the biabsolutive construction

As far as I can tell, the current analysis is compatible with the two main categories of approach to agreement displacement: (i) approaches taking the person/salience hierarchies to be theoretical primitives operating in morphology, and (ii) approaches seeking to reduce the effects of such hierarchies to relativized, articulated probes (see Preminger 2014: §7 for discussion). If, on the one hand, the person hierarchy is afforded the status of a theoretical primitive, case and agreement will be computed as described above but the realizational component will evaluate the relative position of the two core arguments on the person hierarchy and spell out the features of the higher-ranking one. The articulated-probe approach, on the other hand, will posit distinct probes for person, number and gender/noun class and distribute them between the two  $\varphi$ -probes, v and T, as follows: the lower probe will be specified for number and noun class but not person, whereas the higher one will also be specified for person. In sentences with

a third-person external argument and a first- or second-person internal argument, the person probe above the external argument will look past that argument because it has no [participant] features. The internal argument, however, does carry [participant] features and can thus value the person probe on T. Since choosing between these two groups of analysis is orthogonal to the purposes of the present paper, I now turn to the biabsolutive construction.

Recall that the biabsolutive construction was special because it contained two absolutive arguments both controlling agreement. It was also morphosyntactically special in being restricted to the periphrastic progressive forms. Adopting the approach of Coon & Preminger (2017) to aspect-based split ergativity, I propose that the periphrastic progressive contains an additional layer of structure inside the verb phrase effectively creating an additional domain for case competition and hiding, as it were, the internal argument from the external argument. Because both the internal argument and the external argument are not c-commanded by a caseless NP inside their respective domains, they both remain caseless and are assigned the unmarked absolutive case, therefore being legitimate agreement controllers. Finally, the periphrastic progressive is only optionally biabsolutive, which suggests that the analysis in terms of additional structure should be enriched by the notion of object shift along the lines of Baker & Vinokurova (2010), Levin & Preminger (2015), Coon & Preminger (2017). If object shift applies, the internal argument is brought into the same case competition domain as the external argument, resulting in the latter being assigned dependent ergative case. The interpretive effects of the biabsolutive construction, described in detail by Forker (2012), such as the information-structural inertness of the internal argument manifested in its inability to receive a definite or specific interpretation and the topicalization of the absolutive external argument, also receive a natural explanation on this account. Only those objects that have undergone object shift would be interpreted as definite/specific.

Summarizing the discussion in this section, let us briefly compare the present account with Bjorkman & Zeijlstra's. The standard view of Agree as involving a relation between a probe and a goal in its c-command domain trivially derives the case and agreement facts in Chirag and Avar that posed a serious challenge to Bjorkman & Zeijlstra's (2019) reinterpretation of Agree as UA. The resulting account, though indubitably incomplete, is also simpler: it postulates one featural opposition ('valued–unvalued'), one type of feature interaction ('valuation') constrained by c-command, and it involves no countercyclicity inherent in Bjorkman & Zeijlstra's (2019) approach. Finally, it also pays heed to a broader range of crosslinguistic variation in the domain of case and agreement in ergative-absolutive languages.

#### 6 Discussion and conclusion

A common thought in the directionality-of-valuation debate concerns the theoretical gain afforded by a consistently UA-system such as the one proposed by Bjorkman &

Zeijlstra (2019) and discussed over the previous sections. In particular, reanalysing Agree by admitting a checking component alongside a valuation component as well as postulating otherwise unmotivated structural Case features on inherently case-marked noun phrases might be argued to be justified if the revised operation readily extends to other featural dependencies not obviously related to  $\varphi$ -agreement while simultaneously eliminating EPP-features from the inventory of possible formal features. Bjorkman & Zeijlstra (2019) name negative concord, sequence of tense, NPI-licensing, binding, semantic agreement, and inflection doubling as phenomena of relevance providing the strongest motivation for UA. It could therefore be argued that in order for downwards Agree/upwards valuation to be a successful theory of Agree, it should be able to say something about formalising the above phenomena in terms of Agree.

Because addressing all of the above phenomena is beyond the scope of this paper, I briefly consider reflexive binding, a poster child for UA-approaches, since I believe that it poses additional challenges to Bjorkman & Zeijlstra's (2019) theory of Agree instead of supporting it, which casts doubt on the plausibility of the entire unificationist enterprise.

In particular, let us recall Section 3 and the analysis of agreement with absolutive objects in Hindi-Urdu as following from the ergative subject, a KP, being  $\varphi$ -deficient by virtue of carrying interpretable but unvalued  $[i\varphi:\_]$  features. A similar analysis is proposed for long-distance object agreement in Basque. This allows v's uninterpretable  $[u\varphi:\_]$  features to be checked without being valued and enforces valuation, enabled by Accessibility, by the absolutive internal argument. It is this defective character of  $\varphi$ -features on ergative subjects at the heart of Bjorkman & Zeijlstra's (2019) system that predicts ergative subjects in Hindi-Urdu and other ergative-absolutive languages with object agreement, including Basque, to be unable to antecede reflexives. Once a reflexive probes upwards to have its interpretable but unvalued  $\varphi$ -features valued, the probe will fail to find a valued goal, since the ergative subject's valued  $\varphi$ -features will be too deeply embedded inside the KP shell to be visible.

It is a matter of record in the literature, however, that ergative subjects in both Hindi-Urdu and Basque *can* bind reflexives, as shown in (41) for Hindi-Urdu and (42) for Basque. Basque reflexives, moreover, reflect the full  $\varphi$ -feature sets of their ergative antecedents, which is unexpected if those ergative antecedents are  $\varphi$ -defective.

- (41) Meena- ne apne aap-ko dekh-aa thaa [Hindi-Urdu] Meena(F)-ERG self's self-DAT see- (PFV)M.SG be.PST.M.SG 'Meena had seen herself.' (Murugesan 2019: 152)
- (42) Ø [zeuen buru-a ] saldu d-Ø- u- zue [Basque] pro.2PL.ERG 2PL.POSS head-ART(ABS) sold 3-SG-AUX-2PL 'You gave yourselves away.'

  (lit.: 'You have sold your head.') (adapted from Preminger 2019: ex. 40b)

Consequently, if one were to pursue an approach to reflexive binding in terms of Up-

wards Agree, capitalising on the anaphors'  $\varphi$ -deficiency (see Murugesan 2019 for a recent implementation and Preminger 2019, Rudnev 2020b for a critique), the ergative subjects' ability to bind reflexives suggests that postulating unvalued  $\varphi$ -features on KPs is unwarranted.

Many more arguments exist against reducing reflexive binding to  $\varphi$ -agreement (see Safir 2010, 2014, Preminger 2019, Bruening 2019), from which I conclude that such a reduction has not been attained. It follows that, contrary to the claims in the binding-as-Agree literature, reflexive binding does not provide the slightest support for theories of UA in general, and Bjorkman & Zeijlstra's (2019) implementation in particular. It is likely that closer scrutiny of negative concord, sequence of tense, NPI-licensing, semantic agreement, and inflection doubling will reveal comparable inconsistencies. The theoretical gain attained by adding further assumptions such as complicating Agree by positing a checking component alongside a valuation component or postulating unmotivated structural Case features on K(ase) projections diminishes significantly.

To conclude, Bjorkman & Zeijlstra's (2019) account of  $\varphi$ -agreement with absolutive noun phrases in ergative-absolutive languages is incompatible with the case and agreement facts in at least two East Caucasian languages. I have argued that accounting for crosslinguistic variation in varieties of ergative and absolutive demands substantial revisions of Bjorkman & Zeijlstra's (2019) theory of Agree and until such time, the Caucasian facts in question instantiate arguments against it.

In defending an analysis of the Chirag and Avar agreement facts in terms of standard, downwards-probing, Agree, I do not deny that standard Agree has problems of its own, both in the realm of agreement phenomena and beyond. In particular, as Bjorkman & Zeijlstra (2019) rightly observe, standard Agree involving the transmission of feature values onto a probe from a goal in its c-command domain fares worse than their interpretation of the operation when it comes to extending its empirical coverage to concord phenomena or anaphoric binding. Yet, as we have seen, reflexive binding is fundamentally incompatible with Bjorkman & Zeijlstra's (2019) approach, invalidating the entire enterprise of reducing all syntactic dependencies to Upwards Agree. Finally, for an account of agreement to qualify as the unifier of agreement with concord and binding, it should first and foremost be a successful account of agreement.

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