Checking Up on (ϕ-)Agree

Bronwyn M. Bjorkman
Hedde Zeijlstra

We argue for a uniformly upward-probing implementation of Agree (Upward Agree, UA), showing that it can account for a wide range of long-distance agreement phenomena, including cases that have been cited as evidence against earlier UA models of ϕ-agreement. Our core revision to earlier UA approaches is a distinction between checking and valuation: while we maintain that checking is strictly regulated by UA, we propose that valuation depends on a secondary relation of *accessibility*, which allows valuation of a higher probe by a lower, accessible goal, in cases where the checker of the probe cannot (fully) value it. This model provides a better account of asymmetries between Spec-head agreement and long-distance agreement patterns, and also accounts for movement-agreement interactions without a need for EPP features.

Keywords: agreement, (Upward) Agree, long-distance agreement, case, checking, valuation

1 Introduction

In recent work, a debate has arisen concerning the directionality of the operation Agree. While Chomsky (2000) originally proposed that uninterpretable features must probe downward to find an interpretable and valued goal (Downward Agree, DA), more recent work has suggested that uninterpretable features instead probe upward (Upward Agree, UA), as in the following definition (adapted from Zeijlstra 2012):

(1) *Upward Agree*
    α enters an Agree relation with β iff
    a. α carries at least one uninterpretable feature and β carries a matching interpretable feature;
    b. β c-commands α;
    c. β is the closest goal to α.

The motivation for DA has arisen primarily from patterns of φ-agreement with lower arguments, often collectively referred to as "long-distance" agreement, while the central motivation for UA has come from phenomena such as negative concord (Zeijlstra 2004, 2008b, 2012), sequence of tense (Zeijlstra 2012), (strict) NPI (negative polarity item) licensing (Den Dikken 2006, Chierchia 2013), binding (e.g., Reuland 2006, Hicks 2009), semantic agreement (Smith 2015), and inflection doubling (Wurmbrand 2012a,b, 2014, Bjorkman 2016). In this context, the question arises whether either DA or UA can provide a unified account of featural relations in syntax. Indeed, there is an increasing body of work that argues that the direction of probing should be flexible, across languages and potentially across features (Merchant 2006, 2011, Baker 2008, Béjar and Rezac 2009).

Rather than adopting a flexible definition of Agree, we argue here for a unification of feature checking in the direction of UA. We begin with the observation that while long-distance agreement is the core case of agreement for DA, in fact long-distance agreement is less robust than agreement with higher arguments in several ways. This casts doubt on the universal validity of DA. Furthermore, we demonstrate that our version of UA (slightly modified from previous proposals) actually predicts the attested constraints on long-distance agreement. This result is particularly relevant given Preminger's (2014) argument that certain cases of cross-clausal agreement (specifically in Tsez and Basque) are incompatible with any UA account. We also show that our account of long-distance agreement eliminates the need for special EPP features to derive Agree-related movement, developing and improving a proposal by Bošković (2007) that movement is triggered solely by the need to check uninterpretable features.

The core of our proposal rests on the observation that downward φ-agreement (i.e., morphological agreement between a φ-probe and a goal c-commanded by this probe) appears to always be parasitic on preexisting UA relations between such probes and goals, while upward φ-agreement (i.e., morphological agreement where the goal c-commands its φ-probe) seems independent of such specific requirements of the goal. Baker (2008) makes similar observations for languages with case-linked φ-agreement; in this article, we extend the generalization beyond case to information-structure-linked agreement of a type that has been described for Tsez (Polinsky and Potsdam 2001), as well as for various Algonquian languages (see Branigan and MacKenzie 2002, Hamilton and Fry 2016). We argue that this asymmetry arises because apparent downward agreement is in all cases an instance of (possibly incomplete) upward valuation that is dependent on a separate independently established UA relation, often based on case licensing, but sometimes based on other features as well. This move unifies downward φ-agreement with canonical instances of UA (Spec-head agreement, negative concord, inflection doubling, etc.), a unification that has been unavailable in DA frameworks, though it also crucially relies on a distinction between checking and valuation, as in Pesetsky and Torrego 2007, Arregi and Nevins 2012, and Bhatt and Walkow 2013. We thus use the term *agreement* for actual surface instances of covarying (φ-)morphology, distinct from *Agree*, which is an operation that establishes syntactic dependencies via feature checking.

The organization of this article is as follows. In section 2, we provide a detailed overview of the asymmetries in agreement with higher vs. lower controllers, and discuss the challenges

DA approaches face in accounting for those asymmetries, motivating a reanalysis in UA terms. In section 3, we briefly introduce the formal mechanism of UA as it has been applied in previous work, before discussing in more detail the modified version of UA that we apply to downward φ-agreement. In section 4, we present case studies, demonstrating how UA can account not only for basic cases of case-linked agreement (quirky agreement with nominative objects, ergative-absolutive agreement patterns), but also cross-clausal agreement of the types found in Basque and Tsez. In section 5, we compare the resulting picture with the alternative possibilities framed in terms of DA, addressing recent criticisms of UA more generally; we also discuss some domains for future work. Section 6 concludes.

Our central conclusion is that downward agreement is not incompatible with UA. This is because UA is a mechanism of feature checking, which is compatible in some cases with the checker of a probe being distinct from the element that values it.

2 Asymmetries in φ-Agreement

Looking across languages, one finds finite verbal agreement with both higher and lower arguments (i.e., arguments that c-command the target of agreement, and arguments that are c-commanded by the target of agreement), both directions of agreement often being attested within a single language. The existence of agreement with structurally lower arguments is in fact part of the original motivation for DA articulated by Chomsky (2000) and poses an empirical challenge for UA theories (as it did for earlier theories of Spec-head agreement).

From the perspective of a downward-probing theory, agreement with structurally lower arguments—often referred to as *long-distance agreement* (LDA) even when linearly and structurally quite local—is thus the core case of φ-agreement, the result of Agree without any movement triggered by proposed EPP features. This might lead to an expectation that LDA should be less marked than agreement with structurally higher arguments—or at least should not be more marked.

Comparing the two configurations for agreement, however, instead reveals asymmetries that favor upward agreement (i.e., agreement with higher arguments) as the default. Both across and within languages, downward agreement (i.e., LDA) is marked in two different ways: it is often *defective*, and it appears to generally be *dependent* on other properties of the agreement target. Below we discuss defectivity and dependency in turn.

By saying that downward agreement is often *defective*, we mean that when both downward and upward agreement are attested within a single language, downward agreement—agreement with structurally lower goals—may track only a subset of the φ-features reflected by upward agreement. The reverse, where agreement with higher goals tracks a subset of the φ-features active in a language's agreement system, appears to be unattested.

To illustrate, a well-known case of defectivity in downward agreement can be found in Arabic. In Standard Arabic, clausal subjects can generally appear in either pre- or postverbal position, but φ-agreement with preverbal DPs is richer than φ-agreement with postverbal DPs: preverbal subjects control number, person, and gender agreement, while postverbal subjects control only person and gender agreement (Fassi Fehri 1993).

(2) a. L-banaat-u   darab-na/*-at   l-ʔawlaad-a.
         the-girls-NOM hit.PAST-3F.PL/*-3F.SG the-boys-ACC
         'The girls hit the boys.'
     b. Darab-at/*-na   ʔal-banaat-u Zayd-an.
         hit-PAST-3F.SG/*-3F.PL the-girls-NOM Zayd-ACC
         'The girls hit Zayd.'
         (Standard Arabic; Harbert and Bahloul 2002)

This asymmetry is surprising from the perspective that core cases of agreement are downward, but is expected if upward agreement is the canonical configuration for Agree.[1]

   A similar profile arises in English "expletive" *there*-sentences, though in English postverbal agreement is only optionally defective: existentials can exhibit agreement with a plural postverbal associate, as in (3a), but for many speakers this agreement is optional in colloquial registers, so that (3b) is also grammatical.

(3) a. There are three books on the table.
     b. There's three books on the table.

   The Arabic and English cases are not the only examples of defective (long-distance) downward agreement. Baker (2008) generalizes such patterns under his Structural Condition on Person Agreement (SCOPA), which states that person agreement can only be local (for him, under Spec-head agreement of a T probe), whereas number or gender agreement can apply either locally or at a distance, as illustrated in (4) for Gujarati. Baker points out that in perfective aspect Gujarati verbs agree with the object (4a). However, such objects can never trigger person agreement on an (auxiliary) verb (4b), even though auxiliary verbs can agree in person when agreement is with the subject in Spec,TP (4c).

(4) a. mEN tehmahri behEn-one   bolawi.
         I.ERG your   sisters.F-ACC invited.F
         'I invited your sisters.'
     b. māi tam-ne   mar-yā   che.
         I.ERG you.PL-ACC strike-PERF.M.PL be.PRES.3SG
         'I have struck you.'
     c. tEhme āw-ya   cho.
         you.PL come-PERF.M.PL be.PRES.2SG
         'You have come.'
         (Gujarati; Baker 2008:92, after Bhatt 2005)

---

[1] Pronominal subjects in Arabic do always trigger full agreement for both person and number, even when they occur in postverbal position (Fassi Fehri 1988, Benmamoun 2000). Benmamoun suggests that the overt postverbal pronoun in such cases is not the structural subject, but instead a means of focusing a null *pro* subject (in preverbal position). In support of this, he notes that a nominative pronoun can also focus an accusative pronominal object.

Baker's SCOPA has turned out to be too strong as a generalization: Preminger (2011) points out that there are cases where full φ-agreement can apply at a distance. Nonetheless, the weaker generalization we advance here remains uncontested, namely, that whenever there is an asymmetry between upward and downward agreement, it is always downward agreement (long-distance φ-agreement) that is defective. The reverse pattern (defective local φ-agreement with full long-distance φ-agreement) is apparently unattested.

The second type of asymmetry is that downward φ-agreement is *dependent* on properties of the agreement target (e.g., its case), while upward agreement need not be. This has been widely noted by authors working on φ-agreement phenomena. It is on the basis of the many languages where φ-agreement is dependent on (morphological) case that Bobaljik (2008) argues that φ-agreement must derivationally follow case calculations, so that it can make reference to their output, though for Bobaljik both agreement and m(orphological)-case are determined postsyntactically. Baker (2008) proposes a less absolute link between the direction of agreement and its sensitivity to case: he shows that several languages that allow downward agreement often also make that agreement dependent on the argument's case value (Baker 2008:219–223). For instance, in languages like Icelandic, finite agreement is possible with lower (object) arguments, but only when those arguments are nominative.

Another illustration of this dependency can be found in the well-studied interactions between ergative-absolutive patterns of case and agreement. It is commonly noted that ergative alignment in agreement appears to depend on ergative alignment in case: there seems to be no language with a nominative-accusative case system but ergative-absolutive agreement, while the reverse system of ergative-absolutive case with nominative-accusative alignment in agreement is quite common (Dixon 1979 et seq.). In light of the current discussion, this generalization can be restated as follows: in languages with ergative-absolutive case systems, agreement is either (a) uniformly with clausal subjects (i.e., with arguments structurally higher than the agreeing head), or (b) dependent on case (i.e., with absolutive arguments, regardless of their structural position). Again we see that the type of agreement predicted by DA is dependent on case, while the type of agreement predicted by UA can be independent. Other patterns that reveal this asymmetry between UA and DA can be found in languages like Kinande, a Bantu language where finite agreement can only target preverbal DPs, independent of the argument's grammatical role, as illustrated in (5). This uniformly upward φ-agreement does not appear to be case-linked; it is an open question whether Niger-Congo languages exhibit structural case at all (e.g., Harford Perez 1985, Diercks 2013, Halpert 2015), but even if they do, φ-agreement is not dependent on it, as illustrated by agreement with the locative argument in (5c–d).

> (5) a. Abakali mo-ba-seny-ire   olukwi   (lw'-omo-mbasa).
>   women.2 AFF-2S/T-chop-EXT wood.11 (LK11-LOC.18-axe.9)
>   'The women chopped wood (with an axe).'
>   b. Olukwi si-lu-li-seny-a   bakali   (omo-mbasa).
>   wood.11 NEG-11S-PRES-chop-FV women.2 (LOC.18-axe.9)
>   'WOMEN do not chop wood (with an axe).'

    c. Oko-mesa   kw-a-hir-aw-a   ehilanga.
       LOC.17-table 17S-T-put-PASS-FV peanuts.19
       'On the table were put peanuts.'

    d. Omo-mulongo   mw-a-hik-a   mukali.
       LOC.18-village.3 18S-PAST-arrive-FV woman.1
       'At the village arrived a woman.'
       (Kinande; Baker 2008:158, 160)

Agreement of the type seen in Kinande, not dependent on any property of the target, can be analyzed as resulting from a simple upward-probing Agree relation (UA). That does not mean that this is the only analysis possible, of course: as Preminger and Polinsky (2015) point out, one could always maintain that these goals start out below the probe and move to the preverbal position as a result of a downward-probing Agree relation (DA) and stand in another Agree relation with this probe as well (e.g., a structural case relation or a discourse-configurational relation).

    The patterns of agreement surveyed so far all involve long-distance ɸ-agreement that is dependent on case. A different pattern appears to obtain with truly long-distance agreement, in languages with *cross-clausal* agreement between a matrix clause and an argument of an embedded finite clause, such as has been described for Tsez (Polinsky and Potsdam 2001) and for Algonquian languages (Branigan and MacKenzie 2002, Hamilton and Fry 2016). These languages exhibit LDA dependent not on case, but on information structure. Polinsky and Potsdam (2001) demonstrate that cross-clausal agreement in Tsez, which is possible only with embedded absolutive arguments, is obligatory when the embedded absolutive is a topic; in the absence of a topical interpretation for the embedded absolutive, agreement is impossible.

  (6) Enir   [uẓā magalu   b-āc'ruɬi] b-iyxo.
      mother [boy bread.ABS(III) III-ate   ] III-know
      'The mother knows [(that) (as for the bread) the boy ate it].'
      (Tsez; Polinsky and Potsdam 2001:609, (56b); translation adapted)

Branigan and MacKenzie (2002) describe a similar set of facts in the Algonquian language Innu-aimûn. Innu-aimûn, like Tsez, exhibits optional agreement with embedded arguments, which results in a topic-like interpretation for those arguments. Cross-clausal agreement in Tsez is discussed in more detail in section 4.3; for present purposes, what is relevant is that in such languages downward agreement is dependent on a property of the target argument other than case.

    The independence of UA-compatible feature valuation is yet clearer when we look outside the domain of ɸ-agreement (where the data have been accounted for in both UA and DA terms, and so do not conclusively decide between the two models). For reasons of space, we will discuss two examples here: negative concord and inflectional doubling.

    If negative concord constructions are analyzed in terms of syntactic agreement (as proposed in Brown 1999, Weiss 2002, Zeijlstra 2004, 2008a, Haegeman and Lohndal 2010), negative indefinites should be treated as elements carrying an uninterpretable negative feature [uNeg] that

agree with a negative operator (which could be realized as either a negative marker or a covert operator). An example like (7) should thus be analyzed as either (8a) or (8b).

(7) Nikdo nevolá nikomu.
    n-body NEG.calls n-body
    'Nobody is calling anybody.'
    (Czech)

(8) a. [$_{TP}$ nikdo$_{[u\text{Neg}]j}$ [$_{NegP}$ nevolá$_{[i\text{Neg}]}$ t_j nikoho$_{[u\text{Neg}]}$]]
    b. [$Op_{[i\text{Neg}]}$ [$_{TP}$ nikdo$_{[u\text{Neg}]}$ nevolá$_{[u\text{Neg}]}$ nikoho$_{[u\text{Neg}]}$]]

Being indefinites, these elements take scope below negation, which shows that the underlying Agree relation is UA. Nevertheless, such an Agree relation between a semantically negative element (carrying [iNeg]) and one or more negative indefinites (carrying [uNeg]) is not accompanied by another (DA) Agree relation. It is the sole Agree relation between these elements. Hence, if negative concord is indeed an instance of syntactic agreement, it is an instance of independent UA.[2]

UA has also been used to account for inflection-doubling constructions of various kinds. Wurmbrand (2012a) focuses on parasitic participle constructions of the type illustrated for Frisian in (9), where the verbal complement of a participial verb (here *wollen* 'want.PTCP') can optionally mirror participial morphology.

(9) Hy soe it dien / dwaan wollen ha.
    he would it do.PTCP / do.INF want.PTCP have.INF
    'He would have liked to do it.'
    (Frisian; Den Dikken and Hoekstra 1997:1070, (3))

This type of inflection-doubling construction cannot be analyzed in terms of movement: whether verbs raise to combine with inflection, or affixes lower, movement cannot combine the same inflection with more than one head. Wurmbrand argues that inflection doubling is best accounted for as a case of multiple Agree, but that this is only possible if a high inflectional feature (i.e., an interpretable participial feature) is able to value lower counterparts (i.e., unvalued and uninterpretable features on lower verbs)—in other words, a licensing account of data like (9) is only possible in a UA framework. Wiklund (2007) and Bjorkman (2016) develop similar analyses of other inflection-doubling constructions.

---

[2] Though the treatment of negative concord as an instance of syntactic agreement is not uncontroversial (see, e.g., the purely semantic accounts of negative concord in de Swart and Sag 2002 and in Ovalle and Guerzoni 2004), its properties do argue in favor of a syntactic treatment of some kind: negative concord is clause-bound, sensitive to syntactic locality effects, subject to crosslinguistic variation, and in general obligatory (see Zeijlstra 2004, 2008a, de Swart 2009). Under purely semantic analyses or other analyses that do not take negative concord to involve syntactic agreement, such properties are rather unexpected.

Overall, what we see is that phenomena beyond ɸ-agreement are fully compatible with the generalization that UA is independent agreement. While the cases of dependent ɸ-agreement we have identified so far can—and have—been analyzed in DA terms, the same is not true in these other empirical domains, where the only alternative to UA is to introduce a second mechanism of feature valuation into the syntactic model. Given Minimalist goals, we should instead aim if at all possible to account for all syntactic feature dependencies via a single mechanism.

The dependency of DA not only is surprising from the perspective of the standard DA account, but also fails to receive a unified analysis in DA treatments. The observation that agreement is dependent on case or on other grammatical features recalls Chomsky's (1995) Activity Condition, requiring goals to bear at least one unchecked feature (this is generally assumed to be a case feature, but nothing forbids this role from being played by other features, such as uninterpretable topic features). However, the Activity Condition does not explain why agreement with higher arguments does not exhibit the same dependency—and, in fact, the dependency of cross-clausal agreement is typically explained not in terms of the Activity Condition but in structural terms (by requiring topics to move to a peripheral position in the embedded clause), though in both Tsez and Innu-aimûn this movement must be unpronounced.

The argument here is not that the defectivity and dependency of (long-distance) downward agreement are incompatible with DA; it is only that they are surprising from the perspective of any theory that takes downward probing to be the core configuration for Agree. The asymmetry between upward and downward agreement in these regards is yet more surprising, as DA takes upward agreement (in this case, Spec-head agreement) to be the result of DA combined with an EPP (sub)feature. Indeed, this highlights a further issue for DA theories: EPP features were introduced into the theory as a way to link movement and feature checking while allowing for agreement in the absence of movement. The presence of EPP features on certain heads (finite T in English, the participial agreement head in French) was used to explain cases of movement-dependent ɸ-agreement that had previously been used to argue for Spec-head as the sole configuration for feature checking. Whether or not they were successful in that context, EPP features have remained an undesirable theory-internal mechanism, one that should be replaced if possible but that has remained at the center of DA approaches to Agree-triggered movement.

Since cases of UA (where the goal is base-generated in a position structurally higher than the probe) do not seem to show instances of defectivity and dependency comparable to those that arise when agreement takes place at a distance or involves raising to a higher position, the central question in this article is whether an account framed in terms of UA can do better—that is, whether it is able to provide a mechanism of feature checking that can account not only for phenomena such as negative concord and verbal inflection (the domains for which UA was originally adopted), but also for patterns of long-distance ɸ-agreement and its marked properties. In the remainder of this article, we argue that it can: that UA can in fact provide a more unified theory of ɸ-agreement, by explaining both the comparative dependency and defectivity of agreement with postverbal arguments, while also dispensing with the need for additional EPP features as part of the theory. This theory is developed in section 3, before being applied to a number of test cases in section 4.

3 Upward Agree and Accessibility

We have noted a number of puzzles that arise for a syntactic theory of (φ-)agreement if downward probing is taken to be the core configuration for Agree. The question is whether a theory framed in terms of upward probing can better account for the empirical landscape of φ-agreement, without losing ground elsewhere.

In this section we argue that it can, but that the extension of UA to LDA—especially cross-clausal agreement—requires some modification to existing UA theories. The core of our proposal is a distinction between Agree, an operation that checks uninterpretable features, and a separate (and subsequent) operation of valuation. This resembles a proposal by Arregi and Nevins (2012), who distinguish two operations: Agree-Link (in the syntax) and Agree-Copy (in the postsyntactic morphology). Though our proposal differs in some details, both our view and theirs recall the distinction between feature interpretability and feature valuation made by Pesetsky and Torrego (2007) and adopted in much subsequent work. In short, we argue that the first operation, feature checking, works in a strictly upward fashion (adhering to the UA scheme), and that valuation can only take place between valued and unvalued features on elements that stand in a checking relation. Checking takes place as in (10).

(10) *Upward Agree (= feature checking)*
     α checks an uninterpretable feature on β iff
     a. α carries a matching interpretable feature;
     b. α c-commands β;
     c. α is the closest goal to β.

More concretely, we propose that checking is a necessary precondition for valuation and therefore always precedes it. In other words, an uninterpretable and unvalued feature [uF:_] can only be valued after it has been checked (via UA) by a matching c-commanding interpretable feature.[3] Because checking is only possible in UA configurations, the checker must c-command the checkee at some point in the derivation. At the same time, LDA shows that there are cases of φ-agreement where the valuer never c-commands the valuee. The disentanglement of checking from valuation prevents the apparent contradiction between these two claims, opening up the possibility that the checker and the valuer of a particular uninterpretable and unvalued feature are distinct. If, for instance, a checker cannot value its checkee (or can only partially value it), some other feature may act as an alternative source of valuation. The question, then, is how to allow lower elements to value higher features without reintroducing downward probing: after all, if a probe could search in its c-command domain to find a valuer, we would expect it to be able to find a checker by the same means.

---

[3] The reason checking precedes valuation is that while uninterpretable features must be dealt with either by the point of LF (see Chomsky 1995 et seq.) or else within narrow syntax (see, e.g., Zeijlstra 2014), the values of such uninterpretable features are presumably relevant only for morphological realization en route to PF.

Rather than reintroducing downward probing for the purposes of valuation, we propose that valuation is indeed restricted by upward-probing checking relations, but that the relevant checking relation need not be for the feature that is valued. Specifically, we suggest that Agree (which is always upward-probing) establishes a relation of accessibility between syntactic elements, defined as follows:

(11) α and β are accessible to each other iff an uninterpretable feature (uF) on β has been checked (via UA) by a corresponding interpretable feature (iF) on α.

Note that the accessibility relation defined in (11) does not refer to any instance of downward probing. We propose that it constrains both feature valuation and (EPP-driven) movement: for any head H^0, only elements accessible to H^0 can value its features (i.e., can trigger φ-agreement), and only elements accessible to H^0 can (be triggered to) move into Spec,HP (i.e., for the purposes of checking an uninterpretable feature on H^0).

Consider first the relationship of accessibility to feature valuation in the domain of φ-features, for the moment setting aside movement-checking interactions. If we assume that all uninterpretable features must be checked and that UA is the sole mechanism of feature checking, then uninterpretable [uφ] features in T (for example) must be c-commanded by interpretable [iφ] features, as schematized in (12a).[4] This relation of checking renders the [iφ] features accessible to [uφ] features (and vice versa), and valuation is possible on the basis of that accessibility relation, as in (12b).

(12) a. *Checking via UA between [u*φ*] and [i*φ*]*

TP
DP
[iφ:*val*]
T^0
[uφ:_]
. . .
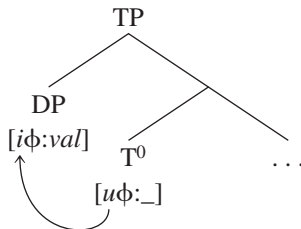
b. *Valuation, dependent on accesssibility*

TP
DP
[iφ:*val*]
T^0
[uφ:*val*]
. . .

---
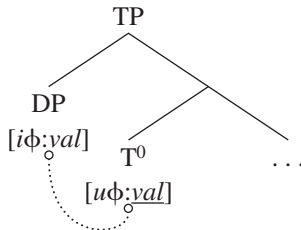
[4] Alternatively, the features involved in finite agreement can be seen as interpretable or uninterpretable D-features, of which φ-features are values or subfeatures.

In the above case, the distinction between checking and valuation is not fully visible, because the same element both checks and values [uφ:_] on T. Consider, however, the possibility that the [iφ] features that check [uφ:_] on T are themselves unvalued, or are only defectively valued. In this case, accessibility has a larger role to play: [uφ:_] can be valued by [iφ] on some lower element, but only if that element itself had some other feature [uF] checked (via UA) by [iF] on T, rendering the lower element accessible to T. This would occur, for example, in expletive *there*-constructions in English. As a nominal element, *there* carries an interpretable φ-feature, but it cannot be fully valued: *there*-constructions are compatible with both singular and plural agreement, and so *there* has either an interpretable but fully unvalued φ-feature ([iφ]) or an interpretable φ-feature valued for 3rd person only ([iφ:3]).[5] In either case, *there* cannot fully value the uninterpretable and unvalued φ-feature on T. In exactly this configuration, T can be valued by a lower element carrying a fully valued φ-feature, provided that this element stands in some prior UA relation with T. This is stated formally in (13).

(13) A valued feature on α can value a matching unvalued feature on β iff α and β are accessible to each other, and no other accessible element γ with a matching valued feature intervenes between α and β.
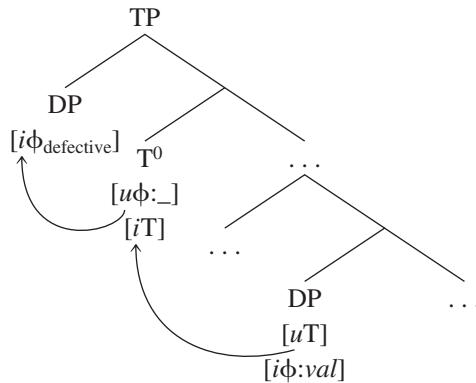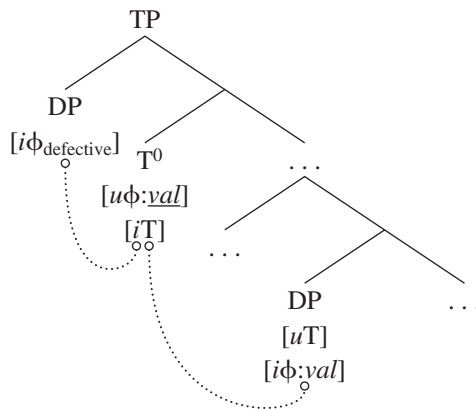
The question naturally arises why the probe would still first try to enter an Agree relation with the specifier in Spec,TP (which we assume is base-generated in that position), instead of being fully valued by the accessible lower subject. We assume that this is due to the interplay of two requirements: only checked features can be valued, and valuation takes place as soon as possible. As a result, when the checker can value the probe, it will do so, and only if the checker cannot will the probe complete valuation with the help of another goal.[6] This is stated formally in (14).

(14) If an interpretable feature on α checks an uninterpretable feature on β and the interpretable feature on α can also value the uninterpretable feature on β, it must do so.

In the domain of finite φ-agreement, the most obvious basis for this prior checking relation is structural case. We follow Pesetsky and Torrego (2002) in assuming that nominative case corresponds to uninterpretable finite tense on DP, and we propose that an upward-probing checking relation between [uT] on DP and [iT] on T renders the other features of the DP accessible to T for subsequent valuation. If the [uφ:_] features of T cannot be fully valued by the [iφ] features that check them, valuation by the features of the accessible lower DP is thereby possible.

---

[5] *There*-constructions are in fact restricted to 3rd person agreement, but this is presumably the result of a definiteness effect (Milsark 1974 et seq.) and so does not provide evidence for a 3rd person feature on *there*.

[6] Another question concerns why T′ merges with *there* instead of remerging with the subject goal in the first place. Should external Merge (from the numeration) or internal Merge (of an accessible element) be preferred, when both would allow [uF] on a head to be checked? Here we follow Chomsky (1995), who proposes that external Merge should always be preferred in such cases, though this proposal has occasionally been criticized (e.g., Richards 1998, Castillo, Drury, and Grohmann 1999, Shima 2000).

(15) a. *Checking via UA*

```
                           TP
                  ┌─────────┴─────────┐
                 DP                    
         [iφ_defective]   ┌──┴────┐
                         T⁰       ...
                        [uφ:_]  ┌──┴──┐
                        [iT]   ...    ┌──┴────┐
                                     DP      ...
                                    [uT]
                                   [iφ:val]
```

b. *Valuation based on accesssibility*

```
                           TP
                  ┌─────────┴─────────┐
                 DP                    
         [iφ_defective]   ┌──┴────┐
                         T⁰       ...
                        [uφ:val]  ┌──┴──┐
                        [iT]   ...    ┌──┴────┐
                                     DP      ...
                                    [uT]
                                   [iφ:val]
```

In English *there*-constructions, this means that the postverbal associate is able to value the unvalued φ-feature on T by virtue of bearing nominative case, the result of a prior checking relation between the associate and T.

What we have proposed here—that a checking relation established on the basis of one feature can allow another feature to be valued (in the "direction" opposite that of the original probe)—is essentially nothing more than a reversal of the commonly accepted view, going back to Chomsky 1995, that structural case features are checked or valued as a reflex of φ-agreement. Rather than making case dependent on φ-agreement, we have made (a subset of) φ-agreement dependent on structural case—or, more precisely, on some other upward-probing feature.

Now let us consider the relationship between accessibility and Agree-related movement. From a descriptive perspective, many languages exhibit instances where φ-agreement appears to be possible only if a DP moves into the specifier of the agreeing head; widely discussed examples include participial agreement in French, possible only when internal arguments move to the left of the participle (Kayne 1989), and correlations between the status of an adposition as pre- or postnominal and whether it exhibits morphological agreement (Kayne 1994). Chomsky (1995, 2000) proposes to account for such correlations by making Agree the trigger for movement: in

the presence of a diacritic EPP feature (or subfeature), Agree is followed by movement of a goal into the specifier of the probing head. This approach has the advantage of closely linking agreement and movement, but at the cost of otherwise unmotivated and somewhat mysterious EPP features. The benefit of such features was to explain why not every instance of agreement would trigger movement, as in the many cases of LDA we have noted already, though much work since has aimed at providing a more principled explanation of these so-called EPP effects (Alexiadou and Anagnostopoulou 1998, Lasnik 2003, Epstein and Seely 2006, Bošković 2007, Landau 2007, Boeckx 2008, Richards 2010, Sigurðsson 2010, Kučerová 2014, among many others).

Accessibility provides a principled and constrained way to relate Agree and movement *without* reference to EPP features: accessibility governs not only valuation, but also (internal) Merge. This allows us to link Agree with movement without reintroducing a mechanism of downward probing. Consider, for example, a structure in which T bears an uninterpretable feature $[u\phi]$. For this feature to be checked, an element carrying $[i\phi]$ must be merged, whether externally or internally, above T. Under our proposal, internal Merge is possible only if a DP bearing $[i\phi]$ already stands in an independent Agree relation with T—for example, if the DP probed upward to check $[uT]$ (= nominative case) against T. The previously established UA case relation renders the (potential) goal accessible to the probe, and so the probe does not have to search downward to see whether a matching goal is available. A sample derivation is illustrated in (16).

(16) a. [T [DP]]
$$[u\phi] \quad [i\phi]$$
$$[iT] \quad [\bcancel{uT}]$$

b. [DP [T [⟨DP⟩]]]
$$[i\phi] \quad [\bcancel{u\phi}]$$
$$[\bcancel{uT}] \quad [iT]$$
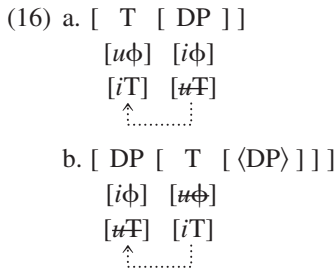
This means that the need of uninterpretable features to be checked by a higher matching interpretable feature triggers movement. As discussed before, since it is possible that the checker of some feature is not its (full) source of valuation, our proposal can unify the idea that agreement triggers movement (instead of an EPP feature) with the existence of LDA.

We assume that in those configurations where an accessible element is able to move in order to check the feature of a higher head, it does so immediately, as in previous accounts of Spec-head agreement (including Chomsky 2000, 2001 and Bošković 2007). This requirement on early checking avoids derivational "missed opportunities" and ensures that checking takes place as soon as possible, whenever it can. In fact, we assume that every operation (movement, checking, valuation) takes place as soon as it can. Finally, note that under our proposal not every uninterpretable feature drives movement (which was one of the original reasons to disentangle uninterpretable features from movement triggers): if some element with matching interpretable features directly merges above the probe, whether in its specifier or yet higher, it will check the probe's uninterpretable feature without any need for movement—though, as we have argued, in the right circumstances the probe could still be *valued* by a lower argument.

In sum, the relation of accessibility underlies not only valuation (when valuation is independent of checking), but also EPP-driven movement into Spec-head configurations. In the next section, we demonstrate how this modified UA framework can account for the types of LDA that have been described in the literature.

4 Three Types of LDA

In this section, we show that UA, augmented by a theory of accessibility-driven valuation as outlined in section 3, can account for the three main types of LDA that have been discussed in the literature, while also explaining the dependency and defectivity of LDA noted in section 2.

We begin with clause-bound instances of LDA, where finite agreement tracks a DP that is lower than the agreeing head but nonetheless within the same clause. This is the most widely attested type of LDA, including (quirky) agreement with low nominative objects and agreement with absolutive objects in languages with ergative-absolutive agreement systems. Though these patterns are standardly accounted for in terms of a downward-probing $[u\phi]$ feature on T, we show in section 4.1 that the UA account in terms of accessibility-based valuation provides a more natural explanation of the fact that these agreement patterns are uniformly dependent on the structural case of the agreement target. The system is illustrated for quirky nominative agreement in Icelandic and absolutive agreement in Hindi-Urdu.

The second type of LDA we discuss involves finite agreement into a (nominalized) nonfinite clause. We argue that this type of long-distance valuation is best understood as the result of two more local relations: one between the embedded argument and the nominalizing head at the edge of the embedded domain, and one between the embedded clause as a whole and the agreeing head in the matrix clause. Both of these local instances of valuation, we suggest, are dependent on a case relation established on the basis of UA. This proposal is illustrated with reference to LDA into nonfinite clauses in Basque (as discussed in Etxepare 2006, Preminger 2009, 2011, 2013, Rezac, Albizu, and Etxepare 2014, among others).

The third type of LDA involves matrix agreement with a DP contained within an embedded finite clause, as has been described for Tsez (Polinsky and Potsdam 2001) and for several Algonquian languages (Branigan and MacKenzie 2002, Hamilton and Fry 2016). In these languages, as we illustrate in section 4.3 for Tsez, agreement is dependent not on the case of the agreed-with DP but on its information-structural status. Here, as with agreement into nonfinite clauses, we argue that apparently long-distance valuation arises from two more local valuation relations, themselves based on local UA checking relations—but because the embedded clause is a full finite clause rather than a (nominalized) nonfinite constituent, the mediating head at the left periphery of the embedded domain is involved not in licensing case but in licensing a topic or focus feature.

4.1 Case-Linked LDA

In this section, we demonstrate that accessibility-constrained valuation can account for core instances of LDA, contexts in which finite agreement tracks the ϕ-features of a DP that occurs

lower than the agreeing head (e.g., T). Central to our account of these data is that the type of agreement discussed in this section is case-linked: agreement in this configuration is possible only with DPs with a particular case feature, typically realized as nominative or absolutive.

We propose that ϕ-valuation in long-distance configurations is case-linked for the simple reason that it is always dependent on an accessibility relation between the higher head and the lower DP, established on the basis of a prior (UA-compatible) checking relation for the DP's case feature. In other words, we suggest that long-distance valuation is only possible in configurations such as (17), where the lower DP checks an uninterpretable feature against the higher agreeing head.

(17) *UA for case ([uT]) enables accessibility-driven valuation*
   a. UA probes upward
   $$[\quad DP \quad [\quad T^0 \quad [\quad DP \quad]]]$$
   $$[i\phi_{\text{defective}}] \quad [u\phi:\_] \quad [i\phi:\alpha]$$
   $$[iT] \quad [uT]$$
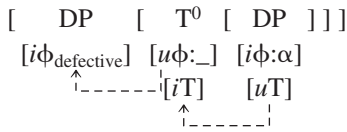
   b. Accessibility established by UA allows valuation
   $$[\quad DP \quad [\quad T^0 \quad [\quad DP \quad]]]$$
   $$[i\phi_{\text{defective}}] \quad [u\phi:\underline{\alpha}] \quad [i\phi:\alpha]$$
   $$iT \quad uT$$
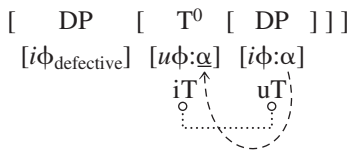
In the remainder of this section, we show more concretely how this accounts for quirky nominative agreement in Icelandic and for ergative-absolutive agreement in Hindi-Urdu.

4.1.1 Quirky Agreement in Icelandic   Quirky agreement with nominative objects in Icelandic is often cited as evidence for a downward-probing model of ϕ-agreement. Here, we nonetheless demonstrate that the accessibility-based theory of valuation can account for the Icelandic agreement facts.

As mentioned in section 3, we adopt Pesetsky and Torrego's (2002) proposal that nominative corresponds to an uninterpretable (finite) tense feature ([uT:fin]) on D. In the UA system we have outlined, this [uT] feature probes upward and is checked by a corresponding [iT] feature on T. This checking relation renders the subject accessible to T; it is therefore a candidate for movement to Spec,TP, motivated to check [uϕ] on T (which it can also value).

Not all clauses involve this typical confluence between the structural subject, nominative case, and finite agreement, however. In some nominative-accusative languages, famously including Icelandic, certain subjects occur with nonnominative case (often dative or accusative), with nominative case surfacing instead on the object. In Icelandic, a quirky case pattern is found with certain experiencer and raising verbs, whose subjects occur with dative case, as shown in (18).

(18) a. Jóni   líkuðu   þessir sokkar.
       Jon.DAT like.3PL these socks.NOM
       'Jon likes these socks.'

    b. Mér   virdast   hestarnir   vera seinir.
        me.DAT seem.3PL the.horses be   slow
        'It seems to me that the horses are slow.'
        (Icelandic; Bobaljik 2008)

What is relevant for our interests here is that dative subjects fail to control finite agreement in Icelandic: in (18), the finite verb instead agrees with the lower nominative DP. The examples in (19) show that quirky dative subjects cannot control agreement even when they are a verb's sole argument.

(19) a. Honum   batnaði.
        him.DAT recovered.3SG
        'He recovered.'
     b. Okkur batnaði/*bötnuðum.
        us.DAT recovered.3SG/recovered.1PL
        'We recovered.'
        (Icelandic; Boeckx 2008)

Agreement with nominative objects is more restricted than agreement with nominative subjects in Spec,TP, however; quirky agreement with 1st or 2nd person nominative objects is not possible, the sentences being ill-formed regardless of the morphological form of the verb (Sigurðsson 1996, Taraldsen 1996).

(20) *Einhverjum   hafið alltaf líkað þið.
      someone.DAT has   all   liked you.PL
      Intended: 'Someone likes y'all.'
      (Icelandic; Boeckx 2008)

Icelandic thus illustrates a case in which LDA is defective; that is, it only applies to number (with some kind of 3rd person default agreement). This fact follows naturally if we do not take feature defectivity to be an accidental property of LDA but instead assume that the ϕ-features of T are initially partially valued by the quirky dative in Spec,TP, which is ϕ-valued for 3rd person but not for number. It is only because the higher dative DP fails to fully value T that valuation by the lower nominative DP is possible.

     To go through this derivation in more detail, we assume, with Rezac (2008) and many others, that datives are embedded in a designated PP (or KP) layer, and that it is this shell that is responsible for defectivity as an agreement target, because the head of this dative PP/KP has an interpretable ϕ-feature valued for 3rd person only. The presence of the PP/KP layer prevents the (fully valued and interpretable) ϕ-features of the DP from being visible on PP/KP: semantically these features are still interpreted, but they no longer play a role in the external syntax of the nominal. Because the ϕ-features of the dative PP/KP are interpretable, the dative is a potential checker for the uninterpretable ϕ-feature on T, but because the dative PP/KP has a ϕ-feature valued only for 3rd person (regardless of the ϕ-features of K/P's DP complement), it checks the

uninterpretable φ-feature on T but is able to value it only for 3rd person, not for number. This is shown in (21), for sentences repeated from (18).

(21) a. [Jóni$_{[i\phi:3]}$ líkuðu$_{[iT][u\phi:3,\ \_]}$ þessir sokkar$_{[uT][i\phi:3PL]}$].
     b. [Mér$_{[i\phi:3]}$ virdast$_{[iT][u\phi:3,\ \_]}$ hestarnir$_{[uT][i\phi:3PL]}$ vera seinir].

At this point, the uninterpretable φ-feature on T is still unvalued for number. It can be valued by an interpretable φ-feature other than the one that checked it, but only (we propose) if that other feature is accessible to it, due to some other UA relation. The nominative case relation between the nominative object and T is exactly such a relation: because T checks the nominative [uT] feature on the object, the nominative DP is an accessible candidate for number valuation.[7] Consequently, the nominative DP values the number feature on T, as illustrated in (22).

(22) a. [Jóni$_{[i\phi:3]}$ líkuðu$_{[iT][u\phi:3,\ \mathbf{PL}]}$ þessir sokkar$_{[uT][i\phi:3PL]}$].
     b. [Mér$_{[i\phi:3]}$ virdast$_{[iT][u\phi:3,\ \mathbf{PL}]}$ hestarnir$_{[uT][i\phi:3PL]}$ vera seinir].

The net result is that quirky agreement is split: 3rd person φ-agreement takes place with the dative subject, while number agreement takes place with the nominative object. This also forms part of our explanation for why examples like (20), where the nominative object is 1st or 2nd person, are ruled out. Split valuation imposes a matching requirement: when both the nominative and the dative value T as 3rd person, no conflict arises, but if the dative values T as 3rd person while the nominative object values it as 1st or 2nd person, the result is ungrammatical.[8]

    Following our proposal in section 3, movement to Spec,TP is possible only if the dative is already accessible to T. For this reason, we must assume further that the PP/KP layer, though providing inherent dative case to its DP complement, is itself in need of structural case licensing, and thus bears an uninterpretable feature ([uT]) that is checked by T (Pesetsky and Torrego 2002). This instance of UA establishes the accessibility relation that allows the dative to move to Spec,TP.

    This approach to quirky agreement may also shed light on certain puzzles involving dative intervention in Icelandic. The problem is that although Icelandic quirky agreement is subject to intervention effects, these effects arise only when the interveners are overtly realized in their intervening position, not when they raise further to a higher position. This is illustrated in (23), where *Jóni* acts as an intervener in (23a), but does not act as an intervener when it raises further to the matrix subject position in (23b).

(23) a. Mér   *virdast/virdist   [Jóni   vera taldir   líka hestarnir   ].
        me.DAT seem.PL/seem.SG [Jon.DAT be   believed like horses.NOM]
        'I perceive Jon to be believed to like horses.'

---

[7] We assume that in quirky clauses there is no source for accusative case, and so an object with a [uv] feature (= accusative) would fail to be licensed.

[8] A reviewer wonders why, if the ban on 1st/2nd person LDA objects is just a failure of valuation, the ungrammaticality of mismatch follows: why doesn't this simply result in default agreement? We suggest it is because this configuration does not involve an *absence* of features, which would indeed result in default agreement morphology; instead, it involves a feature *mismatch*. It is not that T lacks any φ-values; rather, it contains one too many, and this mismatch cannot be resolved by default morphology (as suggested, for example, in Bjorkman 2016). In support of this, Schütze (2003) notes that verbs with syncretic 1st and 3rd persons can surface in these constructions.

  b. Jóni virdast/*virdist [vera taldir líka hestarnir].
   Jon.DAT seem.PL/seem.SG [be believed like horses.NOM]
   'Jon seems to be believed to like horses.'
   (Schütze 1997:108–109)

  This pattern of intervention has presented a puzzle for both syntactic and postsyntactic approaches to quirky agreement in Icelandic. If agreement is purely syntax-internal, then the surface position of the dative should not matter: if it intervenes in (23a), it should also intervene in (23b) (assuming that a copy of the dative remains in its base position). But if agreement is entirely postsyntactic and simply targets the highest potential agreement target, as proposed for example by Bobaljik (2008), then it is not clear why the surface position of the dative *Jóni* would block agreement in (23a), since (23b) suggests that this argument is generally unavailable for ϕ-agreement.

  The advantage of our proposal is that it can distinguish the two contexts for valuation in (23). While checking must take place in narrow syntax—assuming that the checking of uninterpretable features must be accomplished prior to LF—valuation can occur either in the narrow syntax or on the branch to PF, so long as it takes place prior to morphological realization. Valuation of $[u\phi]$ by lower arguments remains contingent on accessibility, however, and should be possible only when $[u\phi]$ has been checked (but not valued, or only partially valued) by a higher element. Valuation (like checking) is also subject to Relativized Minimality (Rizzi 1990) and cannot take place across an intervening accessible potential valuer.

  In both (23a) and (23b), all three arguments are accessible to T (as we have argued that accessibility to T is a precondition for movement to Spec,TP), and in both cases $[u\phi]$ on T cannot be fully valued by the dative argument in its specifier (though the dative subject does check $[u\phi]$ on T). In both (23a) and (23b), the lower nominative argument is accessible to T, but minimality considerations mean that it can only value T if there is no other potential valuer that intervenes between them. In (23a), the lower dative is such an intervener, both in narrow syntax and at PF. In (23b), however, the unpronounced copy of the dative argument is no longer visible at PF, and so it is no longer an intervener for purposes of Relativized Minimality. In the absence of any nominal that can fully value $[u\phi]$ on T, the finite verb surfaces with 3rd person singular morphology.[9]

---

 [9] A complicating factor pointed out by Bobaljik (2008) is that these intervention effects only arise when the agreeing verb and the nominative object are in different clauses. In monoclausal contexts, dative subjects do not intervene even when they surface between T and the nominative object, as is possible in transitive expletive clauses such as (i).

 (i) Það voru einhverjum gefnir þessir sokkar.
   EXPL were.PL someone.DAT given.PL these socks.NOM
   'Someone was given these socks.'
   (Bobaljik 2008:298, 321)

It is not obvious, however, that the expletive in clauses such as (i) is located in Spec,TP; as Holmberg and Hróarsdóttir (2004) suggest, the dative may occur in Spec,TP, with the expletive merged directly to the left-peripheral verb-second position. If so, transitive expletive clauses would be parallel to (23b) rather than to (23a), and the dative would not intervene between T and the nominative object. See Bobaljik 2008, fn. 30 for more discussion of analyses along these lines.

The effect of this is that although a head can in principle be valued by any accessible element, minimality considerations typically restrict the valuers to two: the closest c-commanding accessible element, and the closest c-commanded accessible element (in the absence, for example, of accessible elements in adjoined positions).

In summary, even though Icelandic agreement has often been cited as providing evidence for a downward-probing model of Agree, we have shown in this section that it can be accommodated within an upward-probing model that distinguishes checking from valuation. The further assumptions needed in this case—in particular, the assumption that dative DPs are defectively valued for φ-features—are also needed by alternative DA accounts. In the next section, we show that the same is true for the UA account of ergative-absolute agreement systems, another case of systematic "downward" agreement.

4.1.2 Absolutive Agreement in Hindi-Urdu   Languages with ergative-absolutive alignment in agreement present another widely attested instance of LDA, and thus another apparent challenge for UA. As Dixon (1979) observes, there appear to be no languages with a nominative-accusative case system but with an ergative-absolutive agreement system, while languages with an ergative-absolutive case system exhibit both nominative-accusative and ergative-absolutive agreement systems. From the perspective of a UA-based theory of φ-agreement, this typological generalization is striking, presenting another example of the dependence of LDA. When ergative-absolutive case alignment cooccurs with an ergative-absolutive agreement pattern, φ-agreement on the finite verb is controlled by absolutive DPs, regardless of whether they appear above or below T. Here, we illustrate how our proposal can account for agreement patterns in one ergative-absolutive agreement system, that of Hindi-Urdu.[10]

Hindi-Urdu exhibits an aspectually split ergative system, where ergative alignment surfaces only in perfective and perfect contexts. This split is illustrated in (24), where (24a) is in the perfect, contains the ergative marker *-ne* on the subject, and exhibits φ-agreement with the object. In the imperfective example in (24b), by contrast, φ-agreement is with the (unmarked) subject.

(24) a. Raam-ne vah kitaabẽ paṛʰ-ii th-ĩ.
      Raam-ERG those books(F) read-(PFV)F.PL be.PAST-F.PL
      'Raam had read those books.'
   b. Raam vah kitaabẽ paṛʰ-t-aa th-aa.
      Raam those books(F) read-IMPF-M.SG be.PAST-M.SG
      'Raam used to read those books.'
      (Hindi-Urdu; Mahajan 1997:46)

---

[10] For ergative-absolutive languages where the structural subject controls agreement, not much more needs to be said: in these languages (e.g., Nepali; see Bobaljik 2008), finite agreement is always with the subject (regardless of its case value), which can both check and value the uninterpretable and unvalued φ-feature of the agreeing head (i.e., T), in a UA configuration.

The unmarked subject case in (24b) is often glossed as nominative, but transitive objects and "absolutive" intransitive subjects similarly lack any overt case morphology.[11] Morphological agreement in Hindi-Urdu is with the structurally highest DP that lacks any overt case marking. In the imperfective this is generally the surface subject, while in the perfective it can be either an unmarked internal argument (in transitive clauses) or an unmarked subject (in unaccusative intransitive clauses).[12] When there is no unmarked DP, the verb surfaces with 3rd person singular morphology; this is the case with all unergative verbs (whose subjects bear the ergative marker) and with transitive verbs whose internal argument occurs with differential object marking. This is shown in (25), where the internal argument *kitaab* occurs with the differential object marker *-ko*.

(25) Rahul-ne kitaab-ko   par̥ʰ-aa   th-aa.
     Rahul-ERG book(F)-DOM read-(PFV)M.SG be.PAST-M.SG
     'Rahul had read the book.'
     (Hindi-Urdu; Bhatt 2005:760)

Following much current work in the literature on ergativity, we assume that ergative in Hindi-Urdu is an inherent oblique case assigned to the external argument in its base position in Spec,vP. The view that ergative is an inherent case is well-established in current work (e.g., Woolford 1997, Ura 2000, Legate 2008); this has been proposed specifically for Hindi-Urdu by authors such as Ura (2000) and Anand and Nevins (2006).[13]

To explain movement of ergative subjects to Spec,TP, we must say that ergative DPs do bear an uninterpretable structural case feature, despite having been assigned inherent case, much as we proposed above for dative subjects in Icelandic. If ergative case in Hindi-Urdu is adpositional, as argued by Mahajan (1997), this is identical to the proposal made above for Icelandic: inherent case (here, ergative rather than dative) involves a KP shell above the DP, a shell whose head itself bears an uninterpretable structural case feature. This $[uT]$ feature probes upward, establishing a UA relation with T and thereby making the ergative DP a candidate accessible for movement to Spec,TP (motivated to check $[u\phi]$ on T).

The ergative DP in Spec,TP is thus responsible for checking $[u\phi]$ 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 ϕ-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-

---

[11] Internal arguments in both perfective and imperfective clauses can also appear with differential object marking when they are specific or animate. DPs with this marking (homophonous with the dative marker *-ko*) cannot control ϕ-agreement (in line with the generalization that overtly case-marked DPs never control agreement).

[12] Agentive intransitive verbs typically occur with ergative subjects in the perfective.

[13] As Anand and Nevins (2006) discuss, it must be explained why the ergative "flavor" of v occurs only in perfective clauses. Bjorkman (2018) argues on this basis that ergative case in Hindi-Urdu should be attributed directly to a perfective aspectual head, Asp, rather than to v.

Urdu, the ergative K head must bear a fully unvalued [iφ] feature.[14] This feature checks but cannot value the [uφ] feature on T, which therefore seeks to be valued by some other accessible φ-feature.

The question that now arises is how an absolutive internal argument is able to value the φ-features of T. For the accessibility-based account of valuation to go through, the absolutive argument must have had some other feature checked by T, presumably a case feature. Is it plausible that absolutive arguments are licensed by T in Hindi-Urdu?

There are a number of different accounts of how absolutive case is licensed in ergative-absolutive systems. One possibility is that "absolutive" case has multiple sources in Hindi-Urdu, and that morphologically unmarked objects have their case licensed by v, as proposed by Legate (2008). For Legate, in a subset of ergative languages, including Hindi-Urdu, the apparent "absolutive" case is simply a morphological default, with heterogeneous structural sources. In such a language, the syntax assigns either structural nominative or structural accusative, but the morphological realization of these case features is underspecified so that both are realized as a least-marked case with the morphological distribution of absolutive.

Note that this may create some complexity for the UA account of finite agreement with absolutive internal arguments: though absolutive subjects would be structurally nominative (though morphologically default, following Legate) and so accessible to T for φ-valuation, if absolutive objects are structurally accusative and so licensed by v rather than T, they should not be accessible to value the φ-features of T. Even if φ-feature agreement on the main verb, as in (24a), could be mediated via v, this could not account for agreement on the finite auxiliary verb.

A possibility that we propose here is that finite absolutive agreement is accomplished indirectly: the absolutive argument does not value the φ-features of T directly, but does value the φ-features of v, which in turn value T. The first step of valuation, between the absolutive internal argument and the φ-features of v, is possible because v checks the absolutive argument's case feature, rendering the argument accessible to v. The second step of valuation, between v and T, is possible because v probes upward to Agree with T, checking its own [uT] feature. As a result, when T cannot have its φ-features fully valued by the ergative subject, it can be valued instead by v (see section 4.2 for more discussion on mediated, indirect agreement). For Hindi-Urdu, this correctly predicts that agreement on T and agreement on v always share a target—in other words, that an auxiliary and a participial verb always agree with the same argument. And indeed, in other Indo-Aryan languages, including Kutchi Gujarati (Patel-Grosz and Grosz 2014), agreement on T and v is not linked in this way, which we can attribute to a failure of this valuation dependency between the two functional heads.

---

[14] In principle, the ergative subject could instead be defectively valued, bearing only 3rd person features (but no number or gender features): because 1st and 2nd person objects are always specific and definite, they are always overtly marked by the differential object marker -*ko*, and so cannot be the target of agreement. For concreteness, we assume in the text that ergative DPs occur with totally unvalued φ-features, but nothing in the analysis depends on this point. Thanks to an anonymous reviewer for bringing this point to our attention.

4.1.3 Summary of Case-Linked LDA   Both Icelandic and Hindi-Urdu illustrate languages where φ-valuation occurs in the absence of a UA-compatible checking configuration: an uninterpretable φ-feature is checked by a DP that cannot (fully) value it, and so it is valued (or partially valued) by another, lower DP that is accessible due to an independent UA relation with the φ-probe. In both of these cases—and in all similar cases of clause-internal finite agreement of which we are aware—φ-agreement in both these languages is dependent not only on the case of the agreeing DP, but also on a case that is licensed by the target of φ-valuation: T in Icelandic, v in Hindi-Urdu (which in turn values T). In the next two sections, we turn to instances of agreement across clauses, what one might think of as truly long-distance agreement. We show that these can also be accounted for within the UA system we have developed here, where valuation is based on accessibility and where a feature may be checked and valued by distinct elements.

4.2 Mediated Case-Linked LDA

In this section, we discuss finite agreement that targets a DP contained within an embedded nonfinite clause. Like the patterns of agreement in Icelandic and Hindi-Urdu, agreement into nonfinite clauses appears to always be case-linked: in the examples we know of, it always targets an embedded absolutive DP. If the embedded absolutive could be shown to be case-licensed by the matrix agreeing head, we could extend the analysis of intraclausal agreement directly. In Basque, however, it appears that embedded absolutive DPs are licensed within the embedded clause. Preminger (2013) cites this type of agreement pattern in Basque as an argument against a UA-based theory of φ-agreement—specifically, against Koopman's (2005) assumption that LDA reflects covert movement into Spec-head configurations, adopted in Zeijlstra 2012.

We argue that cross-clausal agreement into nominalized clauses is accomplished via UA, but is mediated by a head at the edge of the embedded domain. It is thus the result of two separate valuation relations: one between the absolutive DP and a head at the edge of the embedded clause, and one between this head of the (nominalized) embedded clause and the agreeing head in the matrix clause. We suggest that this two-step relation is only possible when the embedded clause is nominalized, and the head at the edge of the embedded domain is itself responsible for checking absolutive case on the embedded DP.

Agreement into a nonfinite embedded clause is only possible for some Basque speakers. Etxepare (2006) describes it as belonging to a "substandard" variety, accepted by some speakers but not correlated with regional or social factors. In this pattern, a matrix auxiliary can show φ-agreement with an embedded absolutive argument contained within a nominalized complement clause, as illustrated by agreement between *harri horiek* 'those stones' and the matrix auxiliary in (26).

(26) [[Harri horiek   ] altxa-tze-n] probate   d-it-u-zte.
     [[stones those.PL.ABS] lift-NMZ-LOC] attempted 3.ABS-PL.ABS-AUX-3PL.ERG
     'They have attempted to lift those stones.'
     (Basque; Etxepare 2006:333)

This pattern of cross-clausal agreement in Basque is particularly interesting from our current perspective because Preminger (2013) argues that it cannot be accounted for in UA terms. Our

goal in this section is to briefly review Preminger's argument, before demonstrating that the analysis we propose can be extended to Basque without encountering the problems identified by Preminger.

Preminger's argument against a UA analysis of (26) builds on his own earlier analysis of LDA in Basque. Preminger (2009) argues that absolutive agreement of the type seen in (26) reflects a direct (Downward) Agree relation between a probe in the matrix clause and the embedded absolutive DP; he diagnoses this as an instance of Agree, and not of clitic doubling, on the basis that it is subject to dative intervention. The interaction of LDA with a dative argument is visible in (27), which differs from (26) in having an additional dative argument. In (27), the embedded absolutive can no longer control φ-agreement on the matrix auxiliary, resulting in the default 3rd person singular form.

(27) [Lankide-e-i   [liburu   horiek   ] irakur-tze-n] probate
      [colleague(s)-ART.PL-DAT [book(s) those.PL.ABS] read-NMZ-LOC] attempted
      d-{Ø/*it}-u-(z)te.
      3.ABS-{SG.ABS/*PL.ABS}-AUX-3PL.ERG
      'They have attempted to read those books to the colleagues.'
      (Basque; Preminger 2009:640)

Preminger argues that this profile of defective intervention by dative arguments is a diagnostic for Agree-based morphological agreement, and he concludes that (absolutive) φ-agreement in Basque must result from a downward-probing Agree relation between the matrix auxiliary and the embedded absolutive argument. The question is whether the facts can also be explained assuming an upward-probing system of Agree. We suggest in the remainder of this section that it can. We do not dispute Preminger's conclusion that the pattern of dative intervention argues in favor of an Agree-based account of morphological agreement (against a clitic-doubling alternative), but we suggest a different structural account of why the presence of a dative argument prevents cross-clausal agreement in these environments.

Before we explore this alternative, let us situate this pattern of LDA in somewhat more detail. The example in (26) involves a nominalized embedded clause that bears locative morphology; as discussed by both Etxepare (2006) and Preminger (2009), this so-called locative-marked construction contrasts with another construction that (for some speakers) allows agreement into nonfinite clauses, where the embedded clause is instead case-marked (and bears a suffixed article). This construction is dubbed the *case-marked construction*. The locative-marked construction we discuss here allows agreement for both person and number, while the case-marked construction allows agreement for number only.

Both Etxepare and Preminger analyze agreement in the case-marked construction as being mediated by a head at the edge of the nominalized clause.[15] It is with respect to the locative-

---

[15] A strong piece of evidence for the conclusion that φ-agreement is mediated in the case-marked construction is that the embedded absolutive DP can trigger either absolutive or dative marking on the matrix auxiliary; the choice is determined by the case marking that occurs on the embedded clause as a whole. This pattern is naturally explained if

marked construction that Preminger departs from Etxepare's earlier analysis, arguing for a direct Agree relation between a matrix head and the embedded absolutive DP in this case. Our proposal thus represents a return to Etxepare's earlier proposal—that is, to his claim that in those cases where the matrix auxiliary agrees with an embedded object, this embedded object has received case from some head that in turn had its case licensed by some head in the agreeing matrix clause, so that the embedded object is indirectly related to that matrix head. Note that this does not mean that every embedded absolutive object stands in such an indirect case relation; only those objects that control LDA must stand in such a relation.

We assume, following Rezac, Albizu, and Etxepare (2014) among others, that absolutive case on object arguments in Basque is licensed by little v (see Legate's (2008) proposal that this is more generally true for a subset of ergative-absolutive languages). The internal argument of the embedded clause thus probes upward to check its case feature against the embedded v head. We further assume that the nominalizer that appears in the nonfinite complement clauses of interest (-tze) realizes a functional head in the embedded clause, which we identify as a little-n head whose complement is vP.[16] As a nominal, this little-n head bears an uninterpretable case feature ([uv]), but also an interpretable but unvalued φ-feature ([iφ:_]). As shown in (29), [iφ: _] on n checks the corresponding [uφ:_] feature on the v head in its complement; v, meanwhile, is able to license structural case on the embedded internal argument. These checking relations establish the accessibility relations shown in (30), on the basis of which the internal argument can value [uφ:_] on v, which can in turn value [iφ:_] on n. For ease of illustration, the trees in this section do not reflect head-final word order.

This leaves the case feature on n to be checked. For the UA account of LDA in the locative-marked construction (repeated in (28)) to go through, it is important that the locative suffix (-n) itself not be able to case-license the nominalized clause (i.e., not be able to check the case feature on the nominalizing n head -tze). As a consequence, the head realized by -tze will establish a UA relation with the v head in the matrix clause, rendering it accessible for subsequent φ-valuation.[17] We assume for concreteness that the case of the embedded clause is directly checked

---

the embedded nominalized clause has its own φ-features valued by the embedded absolutive DP, these values then being reflected by either agreement with or clitic doubling of the embedded clause (to account for the fact that the case-marked construction involves only LDA for person, we adopt Preminger's (2009) proposal that the article -a is valued for 3rd person, but not for number). While Etxepare (2006) and Preminger (2009) propose mediated DA accounts along these lines, a UA-based approach can account for the same facts—assuming that the internal argument is rendered accessible to the mediating head by a case-checking relation, much as we proposed in section 4.1.2 that internal arguments in Hindi-Urdu are rendered accessible to v (which mediates φ-valuation of T).

[16] Etxepare (2006) identifies -tze with a temporal Zeit Phrase (Stowell 1996), but this fails to explain why clauses into which LDA occurs are temporally dependent, disallowing independent temporal modification, as Etxepare notes. Nominalizations, by contrast, are often temporally dependent on the finite clauses in which they occur.

[17] As Etxepare (2006) observes, if some speakers do allow the locative suffix -n to case-license the nominalized embedded clause, while others do not, this could account for the fact that different speakers accept LDA in the case-marked and locative-marked constructions. We do not claim that every instance of the locative-marked embedded nomi-

by matrix v in the locative-marked construction. Assuming that the matrix finite auxiliary occurs directly in T, some further valuation operation between v and T in the matrix clause must subsequently allow v to value [$u\phi$] on matrix T (as we proposed in section 4.1.2 for absolutive agreement with internal arguments in Hindi-Urdu).

(28) [[Harri horiek   ] altxa-tze-n] probate   d-it-u-zte.
     [[stones those.PL.ABS] lift-NMZ-LOC] attempted 3.ABS-PL.ABS-AUX-3PL.ERG
     'They have attempted to lift those stones.'
     (Basque; Etxepare 2006:333)

(29)

---
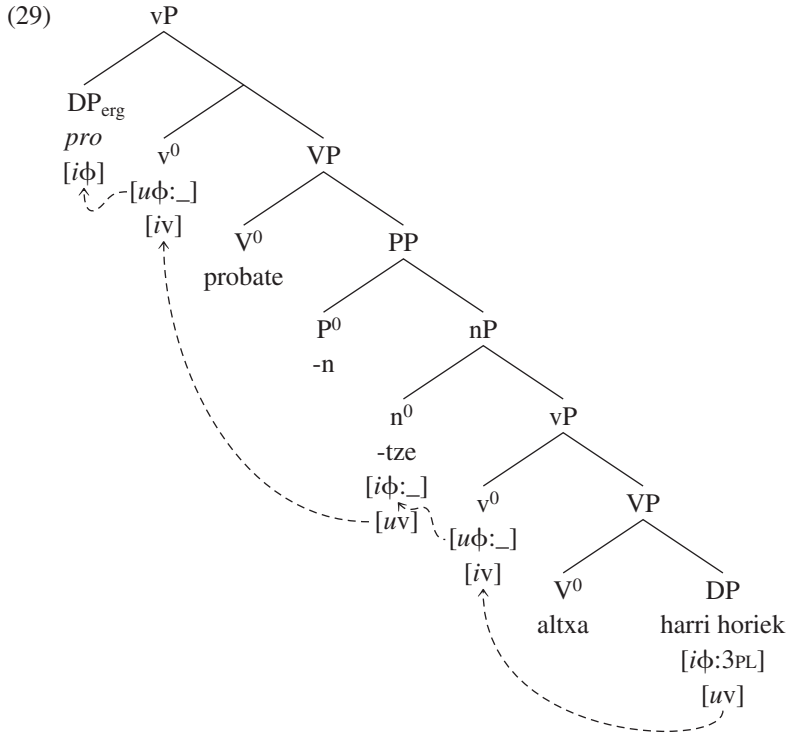
nalized clause must receive case from matrix v (or any other functional head in the matrix clause, for that matter); rather, we claim that if the embedded argument controls ɸ-agreement on the matrix auxiliary, it must. Consequently, instances where the source of the absolutive lies outside the matrix auxiliary only count as counterexamples for our proposal if at the same time the embedded argument inside those clauses controls matrix ɸ-agreement. For a number of *-tze-n* constructions, it can indeed be argued that they do not receive absolutive case from some functional head in the matrix clause—for instance, if the matrix clause already contains another absolutive argument (then, it depends on one's view on multiple case-checking whether an additional absolutive argument could have been checked against the v head, or whether another case source should be alluded to). To the best of our knowledge, however, in none of the relevant instances does the internal argument control matrix agreement (see Etxepare 2006, Preminger and Polinsky 2015).

(30)
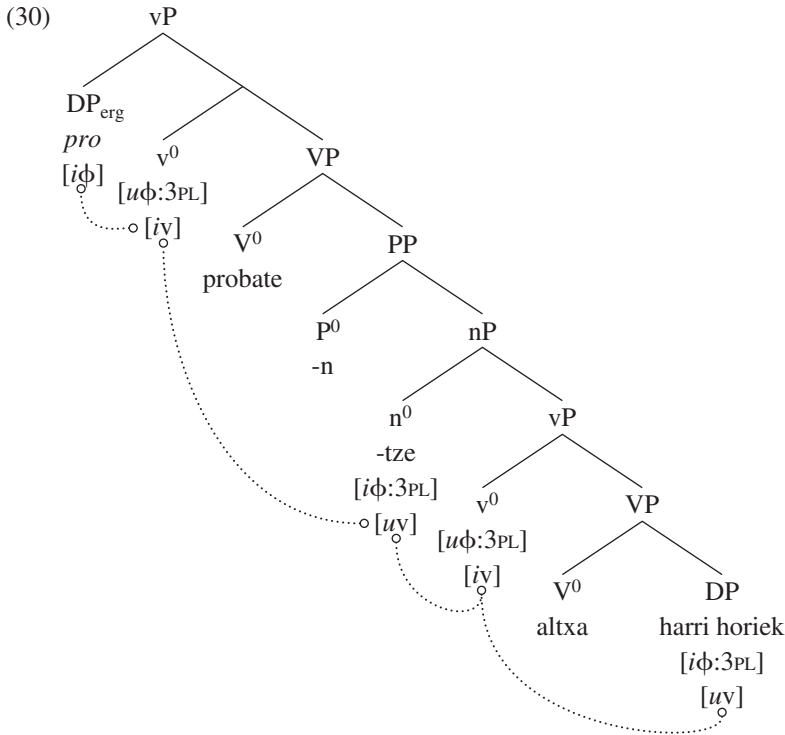
With this basic account of agreement in the locative-marked construction in place, we can now further consider the interaction of LDA in the locative-marked construction with the presence of a dative argument within the embedded clause. These facts can be explained straightforwardly if the presence of an argumental dative DP in the embedded clause reflects the presence of additional functional structure. Consider (27) again, repeated in (31).

(31) [Lankide-e-i   [liburu   horiek   ] irakur-tze-n] probate
     [colleague(s)-ART.PL-DAT [book(s) those.PL.ABS] read-NMZ-LOC] attempted
     d-{∅/*it}-u-(z)te.
     3.ABS-{SG.ABS/*PL.ABS}-AUX-3PL.ERG
     'They have attempted to read those books to the colleagues.'
     (Basque; Preminger 2009:640)

We assume that the dative argument *lankide-e-i* is introduced in the specifier of an applicative head. Though it is convenient to give this head a separate label (i.e., Appl^0), it is essentially an additional vP layer, above the vP that checks absolutive case on the embedded object.

The presence of this additional applicative vP means that the head that checks absolutive case is no longer the highest head in the embedded domain. It is therefore no longer in a checking relation with the nominalizing head realized by *-tze*. As a consequence, no chain of valuation links the absolutive DP to the nominalizing head; in turn, that DP is unable to value the nominalizing head's φ-features, meaning that these features cannot be passed on to the matrix clause.

This interruption of valuation is illustrated by the tree in (32).

(32) *Applicative vP interrupts sequence of checking relations between absolutive DP and matrix clause*
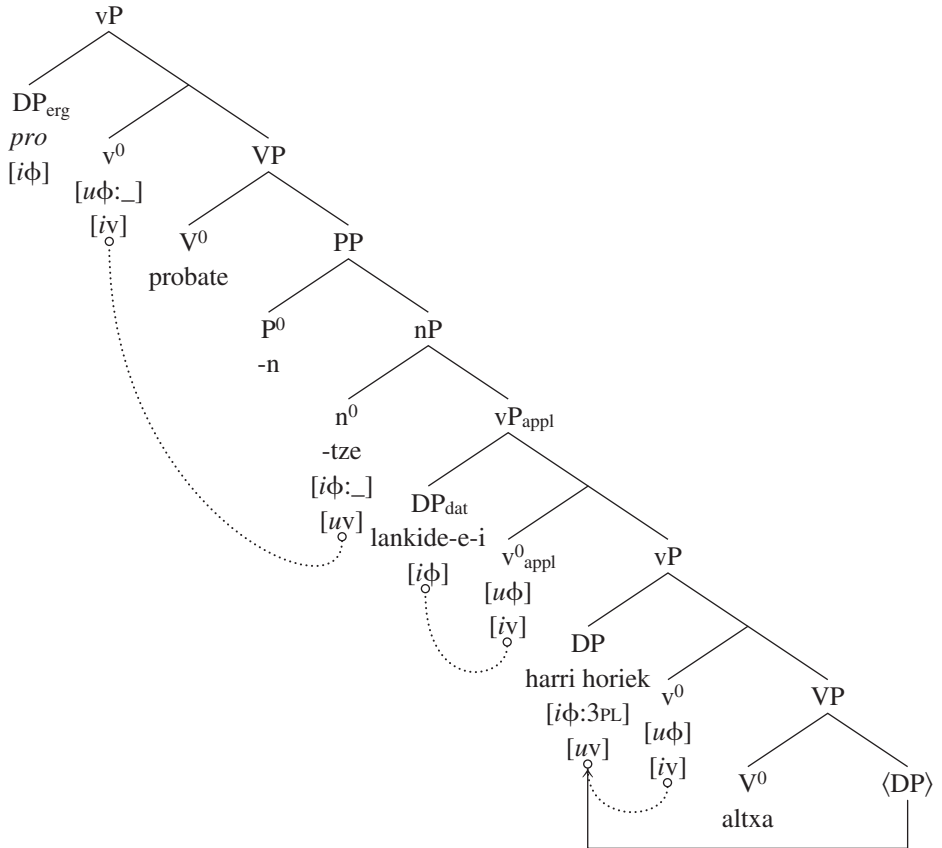
While in (29) the [uφ] feature on the most deeply embedded v is checked by the n head that immediately dominates it, in (32) the intervening applicative vP forces this feature to instead be checked by the internal argument. This is an instance of the preference for external over internal Merge (Merge over Move) that we alluded to earlier: though the internal argument could check [uφ] on v in (29) just as it does in (32), this movement is rendered unnecessary by the merger of the n head immediately above v.[18]

  This account of cross-clausal agreement does not require assumptions substantially different from those made by either Etxepare or Preminger, aside from our core proposal about the direction

---

[18] As an anonymous reviewer observes, we might expect the dative DP in Spec,vP$_{appl}$ to bear either [uv] or [uT], as we claimed above for Icelandic. This checking relation is omitted from (32) as it does not bear on the accessibility of the DP argument *harri horiek* 'those books'.

of Agree and the separation of valuation from checking, though it does rely on specific assumptions about the configurations of case checking within a nominalized vP structure. We thus conclude that an upward-probing Agree system, in which valuation is contingent on accessibility relations established by UA-based feature checking, is able to account for the Basque facts, contra Preminger 2013.

This is not necessarily the only way of accounting for LDA in Basque locative-marked constructions under UA, however. An alternative, somewhat more in line with Preminger 2009, would be to assume that unlike the case-marked construction, the locative-marked construction might not always contain a nominalized vP; sometimes, it might contain just a nominalized VP. Rezac, Albizu, and Etxepare (2014) point out that in the case-marked construction the *tze*-phrase can contain a source for ergative case, whereas in the locative-marked construction this source must be absent. This suggests that *tze*-phrases in the case-marked construction are structurally richer than *tze*-phrases in the locative-marked construction. If the embedded clause in the locative-marked construction contains a nominalized VP, the locus of absolutive case for the embedded argument lies outside the *tze*-phrase and the embedded absolutive would receive case directly from matrix v (under this view, the embedded nominalizer would not need to be case-checked itself; cf. Preminger and Polinsky 2015). In those cases where the embedded object must have received case from within the embedded *tze*-phrase (and there are various cases where this is so), the *tze*-phrase should contain v. Note that under our proposal, LDA then would only be possible when *tze*-phrases lack v.

On a final note, the structural account of dative intervention we have proposed in this section for Basque differs from the account of dative intervention proposed earlier in the case of Icelandic. What unifies these proposals is that neither relies on the status of dative DPs as "defective" goals for Agree, a concept that has presented some puzzles in syntactic theory. Much syntactic work has been done on the interaction of dative arguments with φ-agreement; though we cannot review this literature here, we note that a possible topic for future work is the question of whether attributing intervention effects to different sources in different cases can account for some of the crosslinguistic differences that have been observed in this domain.

4.3 Mediated Topic-Linked Agreement into Finite Clauses

While the cross-clausal agreement seen in Basque involves agreement into a nonfinite clause, in this section we discuss examples of agreement across finite clause boundaries. Such agreement patterns have been described for the Nakh-Dagestanian language Tsez (Polinsky and Potsdam 2001) and for several Algonquian languages, including Passamaquoddy (Bruening 2001, LeSourd 2010), Innu-aimûn (Branigan and MacKenzie 2002), Plains Cree (Dahlstrom 2014), Ojibwe (Rhodes 1994, Lochbihler and Mathieu 2016), and Mi'gmaq (Hamilton 2015, Hamilton and Fry 2016).

Like all other cases of LDA of which we are aware, this type of agreement is dependent on properties of the target DP. But in contrast to both within-clause agreement and agreement into nonfinite clauses, agreement into finite clauses is not dependent on the case of the agreement controller; rather, it is dependent on information-structural properties of the target DP. Polinsky

and Potsdam (2001), for example, demonstrate that cross-clausal agreement in Tsez is possible only with (absolutive) DPs interpreted as topics. Branigan and MacKenzie (2002) make a similar suggestion for Innu-aimûn; Hamilton and Fry (2016) demonstrate that the possible targets of cross-clausal agreement vary across the Algonquian family, but nonetheless argue that in all cases the target DP is related via Agree to a head in the left periphery of the embedded clause, and that this Agree relation correlates with information-structural effects.

Our account of cross-clausal agreement in these languages is structurally parallel to our account of agreement into nominalized nonfinite clauses in Basque. The difference is that rather than entering into a checking relationship with a head in the vP domain (for the purposes of case licensing), the embedded argument enters into a checking relationship with a head at the edge of the embedded clause's left periphery. Rather than checking a case feature against this head, the embedded argument checks a feature associated with its status as a topic or focus element. Just as in the nonfinite cases, however, this instance of Agree establishes an accessibility relation that allows the left-peripheral head to be φ-valued by the embedded argument—and to pass the relevant φ-values onward to heads with which it subsequently enters an Agree relation in the matrix clause.

To illustrate our account, we focus on the pattern of cross-clausal agreement described by Polinsky and Potsdam (2001) for Tsez, as in (33), where the finite matrix verb agrees in noun class with an embedded absolutive argument.

(33) Enir   [užā magalu   b-āc'rułi] b-iyxo.
     mother [boy bread.ABS(III) III-ate   ] III-know
     'The mother knows [that (as for the bread) the boy ate it].'
     (Polinsky and Potsdam 2001:609, (56b); translation adapted)

The grammaticality of examples like (34), where the matrix verb does not agree with an embedded argument, might suggest that cross-clausal agreement is optional in Tsez, but Polinsky and Potsdam demonstrate that it is in fact obligatory when the embedded absolutive is interpreted as a topic, as in (33). If the embedded absolutive is not a topic, the matrix verb cannot agree with it, instead agreeing with the embedded clause as a whole (showing class IV morphology), as in (34).

(34) Enir   [užā magalu   b-āc'rułi] r-iyxo.
     mother [boy bread.ABS(III) III-ate   ] IV-know
     'The mother knows that the boy ate the bread.'
     (Polinsky and Potsdam 2001:609, (56a))

Polinsky and Potsdam show that this pattern of cross-clausal agreement cannot be explained in terms of movement of the embedded absolutive into the matrix clause, or by doubling the embedded absolutive DP by a null *pro* topic. They conclude that cross-clausal agreement in Tsez can only be accounted for by a downward-probing theory of Agree.[19] In order to account for the

---

[19] Polinsky and Potsdam (2001) argue for an Agree-based analysis of Tsez, against a treatment of Agree in terms of Spec-head agreement only. Preminger (2013) develops the Tsez facts as an argument specifically in favor of DA, against the UA proposal in Zeijlstra 2012.

restriction of cross-clausal agreement to embedded topics, Polinsky and Potsdam propose that topics (covertly) raise to a position at the edge of the embedded clause. Assuming that Agree probes cannot search past the edge of a finite embedded domain, this would guarantee that only topics can agree with matrix T, since nontopical arguments would not undergo this kind of raising.

The Tsez pattern of agreement can also be accounted for within the framework of accessibility-based valuation developed in this article. Key to our proposal is the fact that in the absence of LDA, embedding verbs in Tsez show class IV agreement, appearing to agree with the embedded clause as a whole.[20] This motivates the view that apparent agreement between the matrix verb and an embedded argument is in fact mediated by a head at the edge of the embedded domain, just as in our analysis of cross-clausal agreement in Basque.

Specifically, we propose that the embedded absolutive DP bears an uninterpretable topic feature, which we abbreviate [uTop]. This feature probes upward and is checked by a corresponding [iTop] feature, located on a head in the left periphery of the embedded clause. For simplicity of representation, we refer to this head as C, setting aside the issue of whether embedded clauses in Tsez exhibit an expanded sequence of projections in the left periphery.
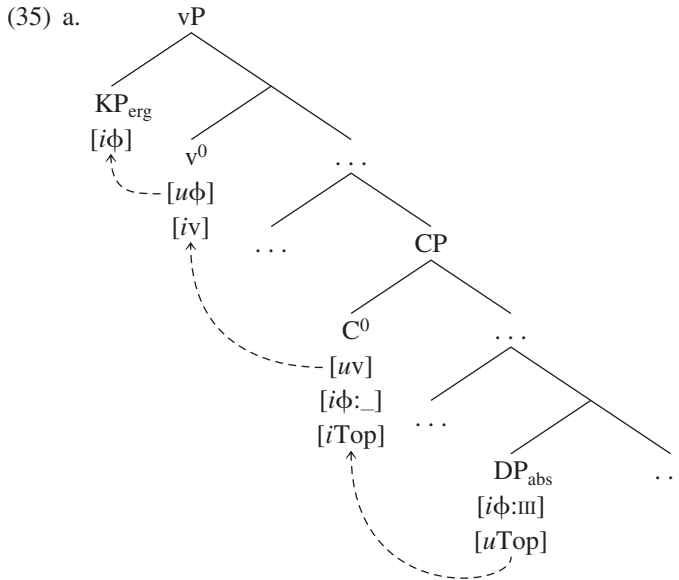
Given that embedded clauses trigger morphological agreement in Tsez, it is natural to assume that in addition to this optional [iTop] feature, this embedded C head also bears ϕ-features, but that these features are unvalued, as reflected by the fact that embedded clauses trigger default noun class agreement on the matrix verb in the absence of cross-clausal agreement. Whether or not the absolutive DP moves covertly to Spec,CP, the fact that it stands in a feature-checking relation with C means that it is accessible to C and can value its unvalued ϕ-features.

If the embedded absolutive DP were not a topic, it would be unable to establish the checking relation that renders it accessible to C, and so could not pass its ϕ-values to C. Note, moreover, that in contrast to Polinsky and Potsdam's original analysis, our analysis does not have to assume any covert movement of the absolutive DP, as it is the ϕ-features on C, and not those on the DP, that control agreement on the matrix verb. This is an advantage because feeding relations between covert movement and agreement seem otherwise unattested.
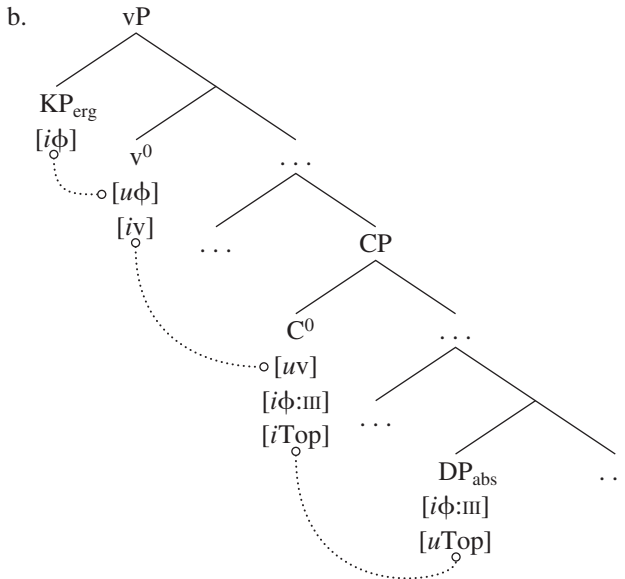
The C head also bears an additional uninterpretable case feature, necessary in our system to account for agreement with the embedded clause as a whole; we assume that this feature is [uv], in line with Polinsky's (2015) proposal that agreement in Tsez is always due to v. This feature will probe upward and be checked by the matrix v, making the ϕ-feature of the embedded C accessible to value the [uϕ] feature realized on the matrix verb. Note that by saying that C is essentially nominal in Tsez (given that it carries interpretable ϕ-features), the presence of a case feature on C is a minimal extension, if not a natural one (if carrying interpretable ϕ-features is what makes a particular element nominal and therefore subject to case assignment). Regardless

---

[20] An alternative is that the class IV marker in (34) is a morphological default, reflecting total failure of agreement rather than agreement with the embedded clause. Class IV is associated with inanimate nouns (though some inanimates belong to class III, together with nonhuman animals) and can be viewed as the elsewhere class in Tsez (Polinsky and Comrie 1999, though see Plaster, Polinsky, and Harizanov 2013 for further discussion). The key point for our analysis, however, is that the matrix verb in (34) shows the same agreement as any verb agreeing with a simplex class IV noun.

of this, the presence of such a case feature may indeed be what marks an embedded clause as such, making it dependent on higher functional structure. Finally, it correctly allows us to distinguish embedded C (which allows unmarked topics to remain in their base position) from matrix C (which requires overt movement of unmarked topics): if the C head that licenses in-situ topics did not carry a feature $[u\text{v}]/[u\text{T}]$, nothing would prevent the embedded clause in (33) from occurring as a main clause with a topical interpretation of the absolutive object, contrary to fact (Maria Polinsky, pers. comm.). The derivation is shown in (35); the ergative subject is included because it is required to check $[u\phi]$ on v, though—like ergative subjects in Hindi and dative arguments in Icelandic—it cannot fully value v because it is contained in a KP shell with unvalued ϕ-features.[21] For concreteness, we assume that the absolutive DP remains in situ.

(35) a.

---

b.

```
                        vP
                       /  \
                      /    \
                   KP_erg   \
                   [iφ]      \
                     ○    v⁰   …
                      ⋮  [uφ]  /  \
                         [iv] /    \
                          ○  …      CP
                           ⋮       /  \
                              C⁰   /    \
                             ⋮[uv]      …
                          ○ [iφ:III]   /  \
                            [iTop]    /    \
                              ○      …      \
                               ⋮   DP_abs   …
                                  [iφ:III]
                                  [uTop]
                                    ○
```

Again, this account of cross-clausal agreement in Tsez in terms of accessibility-based valuation does not require any more elaborate assumptions than the alternative downward-probing analysis. Moreover, by having this agreement pattern be mediated by the head at the edge of the embedded domain, we do not encounter the puzzle of why Agree in some cases targets a whole embedded clause and in other cases targets a DP in the specifier of the embedded clause.[22]

4.4 Summary

In this section, we have reviewed three types of LDA: case-linked agreement within clauses, case-linked agreement into nonfinite embedded clauses, and information-structure-linked agreement into finite embedded clauses. All the instances of LDA of which we are aware fall into one

---

[22] As noted above, similar patterns of cross-clausal agreement are found across the Algonquian language family. As in Tsez, cross-clausal agreement in Algonquian is associated with the information structure of the embedded clause—but unlike in Tsez, this is not restricted to embedded topics. In Innu-aimûn, for example, cross-clausal agreement targets not only embedded topics but also embedded *wh*-elements (Branigan and MacKenzie 2002). As *wh*-elements cannot be topics, this is a counterexample to a general association between cross-clausal agreement and topichood, but it is compatible with a broader association between cross-clausal agreement and the embedded left periphery. For Blackfoot, similarly, Bliss (2008) argues that cross-clausal agreement is sensitive to contrastive focus, whose semantics is also often associated with a left-peripheral head.

Our account of cross-clausal agreement in Tsez extends naturally to Algonquian, with the minimal addition that features other than an uninterpretable topic feature can establish accessibility between C and the target DP (indeed, ruling this option out would otherwise have been an undesirable stipulation). For reasons of space, we do not discuss Algonquian cross-clausal agreement in more detail here, but we note that microvariation within this language presents a potential test case of the system developed here, and we refer interested readers to the work cited above, particularly the comparative discussion in Hamilton and Fry 2016.

of these categories; we have shown how each can be accounted for by a theory of UA that separates checking from valuation, restricting the latter in terms of accessibility.

We have argued that cross-clausal agreement into both finite and nominalized nonfinite clauses is mediated by a head at the edge of the embedded domain. Though such agreement is always dependent on properties of the agreed-with DP, which properties it is dependent on is determined by the properties of the mediating head: nonfinite nominalized heads in the vP domain of the clause are typically involved in case dependencies with argument DPs, while heads at the left periphery of embedded finite clauses are typically involved in dependencies based on information structure or *wh*-features.

Our goal in this section has been to demonstrate the advantage of the UA account of LDA, in directly accounting for its dependency on properties of the agreement target. A more modest goal, however, has been to demonstrate that the UA account of these facts is comparable, in terms of the types of additional assumptions it requires for particular cases, to existing DA analyses. Given this equivalence, theories of syntactic feature dependencies can be evaluated partly on their success beyond the domain of φ-agreement—and in this broader domain, we believe that UA has shown a clear advantage. In the next section, we turn to this broader comparison, addressing claims that other cases of syntactic feature dependencies—those that have formed the basis for proposals of UA—should be accounted for by a mechanism other than Agree.

5 Discussion: A Single Mechanism of Feature Checking

Our main empirical goal in this article has been to demonstrate that a UA framework can account for patterns of LDA, especially as these have been cited as conclusive evidence against UA and in favor of a downward-probing model of Agree. To do this, we have somewhat modified existing UA models to distinguish checking (accomplished via Agree) from valuation (constrained by accessibility and only possible for features that have independently been checked). We have further argued that UA in fact offers a better explanation for asymmetries between agreement with structurally higher arguments and LDA, asymmetries that can be found both within and across languages. Finally, we have shown that the same relation of accessibility that we have used to account for LDA also allows us to dispense with EPP features as a means of linking agreement and movement.

This project is motivated by the view that syntactic feature dependencies—instances in which features appear to be morphologically realized in one position, but semantically interpreted in another—should, if possible, be given a unified account. There is no question that the dependencies involved in LDA appear at first to suggest a downward-probing model of feature licensing. But other dependencies—notably those involved in verbal inflection and negative concord—have been shown to be incompatible with downward probing (see Bjorkman 2011, Wurmbrand 2011, 2012a,b, 2014, Zeijlstra 2012). Unification must proceed in one direction or the other; in this article, we have shown that UA can indeed account for LDA.

Another alternative would be to abandon the unification project altogether and assume that feature dependencies can arise from a plurality of sources. This is the approach taken by both

Preminger (2013) and Preminger and Polinsky (2015), who argue against earlier extensions of UA to φ-agreement. As Preminger states:

> It might therefore be a good idea for theorizers working on the formal relation underpinning phenomena such as negative concord and sequence-of-tense to find a new term for the formal mechanism they are researching, one that does not appeal to what traditional grammarians had termed 'agreement'. (Preminger 2013:499)

This proposed alternative, however, fails to account for exactly the properties that first motivated Agree-based accounts of such phenomena, albeit in upward-probing terms. Like φ-agreement, negative concord and verbal inflection involve a disconnect between the position or positions in which features are pronounced and a single position in which those features are interpreted. That disconnect is further subject to strict syntactic locality and can be disrupted by the presence of intervening elements. It could be the case that there are two syntactic feature-licensing mechanisms with this set of properties. Surely the default position, however, should be that there is only one such mechanism. This is the conservative position we defend here.

A suggestion related to Preminger's has been advanced by authors such as Baker (2008), Merchant (2011), and Carstens and Diercks (2013): that there is indeed only one Agree operation, but that its directionality varies, either across languages or across feature types. This offers a different kind of unification between φ-agreement and core UA phenomena—but again at the cost of a less restrictive theory. The choice between upward- and downward-probing Agree cannot be made on the basis of feature type or for languages as a whole. It cannot be made on the basis of feature type, because φ-features would then involve both downward probing (in languages that show LDA) and upward probing (as is taken to be the case in languages like Kinande and Arabic). It cannot be made for a language as a whole because languages with downward-probing φ-features would have upward-probing negation or inflectional features. The UA theory we have developed here is more restrictive, and so makes stronger predictions about the typology of possible agreement systems—in particular, the prediction that LDA always involves a bidirectional dependency between the agreeing head and the agreed-with DP.

Preminger and Polinsky (2015) give several arguments against a UA unification of φ-agreement with phenomena such as verbal inflection and negative concord.[23] According to them, one of the strongest arguments against a UA treatment of φ-agreement comes from a consideration of the following two patterns:

(36) [. . . H$^0_{\text{(agrees with } \alpha)}$ . . . [. . . Pred$_{(\alpha\text{'s } \theta\text{-assigner})}$ . . .]]

(37) [. . . Pred$_{(\alpha\text{'s } \theta\text{-assigner})}$ . . . [. . . H$^0_{\text{(agrees with } \alpha)}$ . . .]]

If we assume that DPs never merge in a position lower than where they are assigned their θ-roles, then (36) represents LDA of H with a lower element (i.e., matrix agreement with an embedded argument), while (37) represents LDA of H with a higher element (i.e., embedded agreement

---

[23] Preminger and Polinsky 2015 was intended as a rebuttal of a previous, prepublished version of this article. Several parts of our analysis have been modified or revised. In this section, we only discuss the major criticisms raised against UA that apply to the proposal in this version.

with a matrix argument). Preminger and Polinsky observe that the configuration in (37) appears to be unattested, and they argue that while DA correctly excludes such configurations, a UA theory of φ-agreement would incorrectly predict them to be possible.

At least two points can be raised in response to this argument. First, there do seem to be configurations of syntactic licensing that conform to the schema in (37), albeit outside the domain of φ-agreement. For example, in (38) the Italian negative marker *non*, carrying a semantically interpretable negative feature [*i*Neg], may license embedded *nessuno* 'nobody' and *niente* 'nothing', both carrying [*u*Neg] (Zeijlstra 2004, 2008a; see also Brown 1999, Weiss 2002); and in (39) embedded nominatives in Japanese receive case from the finite verb in the matrix clause (Hiraiwa 2001). Since there is no reason to assume that these targets of agreement have covertly raised into the main clause, mutatis mutandis, they adhere to the schema in (37).

(38) Oggi *(non) pretendo che nessuno dica   niente.
     today (NEG) ask.1SG that n-body says.SUBJ n-thing
     'I don't ask today that anybody says anything.'
     (Italian[24]; Zeijlstra 2004:266, (90))

(39) John-ga [yosouijouni nihonjin-ga   eigo-ga   hidoku] kanjita.
     John.NOM [than.expected the.Japanese-NOM English-NOM bad.INF] thought
     'It seemed to John that the Japanese are worse at speaking English than he had expected.'
     (Japanese; Zeijlstra 2012:499, (12))

By contrast, no cases have been attested where a neg-word is licensed by a negative marker in an embedded clause, or where some DP has its case licensed by an element in a lower clause. Hence, the observed crosslinguistic patterns crucially apply only to instances of φ-agreement, not to agreement in general; so far, then, the observations made might at first glance call for a nonunified treatment of agreement. However, uniformity can be maintained, since minimality considerations may explain why the configuration in (37) appears to be unattested in the domain of φ-agreement. For an embedded H to be either checked or valued by a matrix DP, it is necessary both that there be no absolute locality boundary between them (e.g., a finite clause boundary), but also that there be no closer DP that could have checked or valued H. The circumstances in which an embedded predicate is not only close enough to enter an Agree relation with a matrix DP, but also has no closer DP with which it could have entered this relation, are plausibly vanishingly rare.

A second response to Preminger and Polinsky's argument is that even though cases like (36) have been attested in the domain of φ-agreement, they are not common, as Preminger and Polinsky also acknowledge. And, as we have argued here, such cases are also generally more constrained than ones where the target and controller of agreement are clausemates: they are dependent on other instances of agreement and they are often, though not always, defective. There is nothing

---

[24] Note that subjunctive CPs do not form islands in Italian (see Giorgi and Pianesi 2004). Indicative CPs do. If the embedded verb in (38) were indicative, the sentence would be ungrammatical.

in the standard theory of DA that explains these constraints. Naturally, this does not mean that such constraints cannot be explained in DA terms. For instance, Preminger (2011) argues that the defectivity of LDA may result from intervention effects (by decomposing ϕ-agreement into separate person and number probes, the number probe being the lower one and a phase head). While we acknowledge that such solutions are technically feasible, they do not appear to offer an obviously more elegant analysis than the UA system proposed here.

   A second major criticism voiced by Preminger and Polinsky concerns the alleged reduction of agreement mechanisms. They argue that the possibility of unifying phenomena like verbal inflection and negative concord with ϕ-agreement is irrelevant, because it is impossible to reduce every correspondence between pairs of expressions to morphosyntactic agreement. For instance, in (40) (their (43)), the pronoun *she* must match its antecedent's ϕ-features, though it would not make any sense to presume that there is a morphosyntactic agreement between the two DPs.

(40) A: I met the most fascinating woman yesterday.
      B: Oh yeah, who was she/*he?

As Preminger and Polinsky observe, no existing agreement proposal argues that this should be accounted for in terms of morphosyntactic agreement. Hence, natural language exhibits (at least) two feature-matching mechanisms, one on the morphosyntactic side, and (at least) one on the pragmaticosemantic side.

   But of course, it is not surprising that different modules of grammar exploit different mechanisms to realize correspondences between pairs of expressions. The question at stake, however, is whether more than one mechanism is available within the morphosyntactic component of grammar. Since phenomena like negative concord, multiple case licensing, and verbal inflection are all subject to syntactic locality relations,[25] they cannot be explained by a pragmaticosemantic mechanism along the lines of the one responsible for feature matching under coreference in (40). Since these phenomena cannot be treated in DA terms (and Preminger and Polinsky do not claim they should be), treating ϕ-agreement in terms of DA would necessarily require two coexisting agreement mechanisms in the morphosyntax. By contrast, the central claim of this article is that there is only one such mechanism, albeit a mechanism that consists of two components (checking and valuation).

   In this light, it is interesting to look at another claim about theoretical reduction. Preminger and Polinsky refer to our approach as a "hybrid valuation" approach, because it allows both downward valuation (as a default case) and upward valuation (in restricted contexts). They argue that a single-direction approach (either UA or DA) would be preferable. Since pure UA (without the accessibility modification) cannot deal with all instances of LDA, this would be an argument

---

[25] Arguably many more phenomena fall into this category as well. Chierchia (2013), for example, takes NPI licensing to be an instance of UA between a higher interpretable exhaustification feature and a lower uninterpretable exhaustification feature present on the NPI. Similarly, Hicks (2009:105) argues that binding is an Agree/valuation relation between a higher antecedent and a lower anaphor. By contrast, the properties of a pragmatic mechanism regulating feature matching between coreferring pronouns in discourse are discussed in Bjorkman 2017.

in favor of DA. However, this claim faces two problems. First, one may wonder what is actually theoretically simpler: two coexisting single-direction mechanisms (i.e., DA plus a second mechanism to account for negative concord, verbal inflection, etc.) or one hybrid mechanism with a default direction and well-motivated constraints on exceptions to that. Second, note that a major challenge for DA approaches is to account for the fact that many instances of ɸ-agreement are instances of Spec-head agreement and not of LDA. Standardly, Spec-head agreement must be driven by additional features (EPP features, edge features, etc.). Under our approach, syntactic movement is always driven by the need of uninterpretable features to be checked under UA. If a lower element with a matching uninterpretable feature is accessible to a higher probe with a matching interpretable feature, it can raise to a position immediately c-commanding it (its specifier). Hence, our UA approach not only reduces clear cases of UA with long-distance ɸ-agreement, but also reduces Spec-head agreement and LDA to the same mechanism, without postulating any additional features triggering movement.

Let us conclude with the exact predictions that our UA approach makes. First, our proposal requires that every uninterpretable feature be checked by a higher, c-commanding matching interpretable feature. Second, valuation of a higher feature by a lower element is possible if and only if (a) the element carrying this higher unvalued feature stands in an additional (direct or mediated) UA relation with this lower valued feature (e.g., for structural case or information-structural features); (b) this feature has fulfilled its checking requirements under UA (i.e., if it is uninterpretable, it has been checked by a c-commanding matching interpretable feature); and (c) valuation of an uninterpretable feature by a lower element is only possible if its checker is not fully valued. Third, raising an element to the specifier of a probing head to check an uninterpretable feature on that head (an "EPP effect") is again only possible if the raised element stands in an additional UA relation with that head. These are all clear and falsifiable predictions. If these predictions turn out to be correct, then it is indeed possible to account for all instances of syntactic agreement in one unified way.

Our proposal does commit us, among other things, to a syntactic implementation of something like structural case, the licensing of arguments by functional heads. This is in opposition to, for example, competition-based accounts of morphological case, as in much work following Marantz (1991, 2000). For reasons of space, we cannot offer a complete resolution of this tension here, but we note that our core proposal could be restated within theories of nominal licensing that depart considerably from standard case theory. We require that DP arguments be involved in upward-probing licensing dependencies with the functional heads on which they trigger ɸ-agreement, but not that those same dependencies determine morphological case: the checking requirements of case features determine the structural distribution of nominal arguments, not necessarily their morphological form. One such alternative might be found in Sheehan and Van der Wal's (2015) proposal, where nominal projections must agree with functional heads in order to be integrated with a complete extended projection (i.e., a clause).

Our proposal also commits us to a particular view of finite agreement in languages without overt movement to Spec,TP. We must assume that Spec,TP is in fact filled in such languages by a null expletive *pro*; if it were not, the uninterpretable and unvalued ɸ-features of T would remain

unchecked (even if they were eventually valued by a lower nominal), because checking is possible only in UA configurations. The alternative is that T bears no uninterpretable φ-features at all—resulting either in no finite agreement in the language, or in agreement that reflects the features of some head other than T, one lower than the agreement-triggering nominal.

One might also object that an upward-probing theory of Agree is in some sense countercyclic: UA is triggered by properties of an element contained within an already built structure, rather than by a daughter of the root node.[26] Though UA does require that probes search upward whenever a new element is merged into a structure, UA relations are nonetheless always established between the highest element in a tree and some lower element, just as in DA; Zeijlstra (2017) further suggests that this potential conceptual issue can be resolved if uninterpretable features percolate upward until they stand in a sisterhood relation with an interpretable counterpart. For this reason, though the issue of cyclicity represents a potential conceptual disadvantage for the UA account, it is not fatal, particularly in view of the broader empirical coverage that we have argued UA has over DA.

Finally, we have not discussed φ-agreement beyond simple finite cases. At least two contexts merit investigation in future work. The first is agreement in auxiliary-participle constructions, particularly when multiple auxiliary verbs occur in a clause. In some languages, LDA can involve morphology on all the verbs in a sequence, not just the finite verb (e.g., Arabic agreement with low nominative subjects). The UA approach to these phenomena would require either that a DP establish licensing relations with multiple higher heads in a clause or that agreement be mediated by inflectional licensing relations between the verbs themselves. The second type of φ-agreement that we leave to future work is agreement within the DP itself, not only between the noun and higher elements, such as determiners, numerals, adjectives, and possessors, but also among functional heads that provide the semantic locus of features, such as number, gender, and person.

6 Conclusion

In this article, we have argued that a version of Upward Agree can account for a wide range of long-distance agreement phenomena, including cases that have been cited as evidence against upward-probing models of φ-agreement in general. Our core additions to UA are the distinction between checking and valuation, and the introduction of accessibility as a relation that persists after UA-based checking has occurred. Accessibility defines the set of elements that can enter into subsequent valuation relations, but also identifies the set of elements available for movement into a checking relation, accounting for movement-agreement interactions without alluding to any EPP features. We have argued that the distinction between checking and valuation, and the introduction of accessibility, makes it possible to better explain asymmetries between Spec-head agreement and LDA. We have shown how these proposals account for the configurations in which LDA is attested and the ways in which it is constrained. The UA approach to φ-agreement thus not only allows a single morphosyntactic mechanism of feature licensing, but also has empirical

---

[26] Thanks to Brandon Fry (pers. comm.) and to an anonymous *LI* reviewer for bringing this point to our attention.

advantages internal to the account of ɸ-agreement itself. Finally, we have argued that a recently voiced criticism of the UA approach does not negatively affect our proposal.

References

Alexiadou, Artemis, and Elena Anagnostopoulou. 1998. Parametrizing AGR: Word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory* 16:491–539.

Anand, Pranav, and Andrew Nevins. 2006. The locus of ergative case assignment: Evidence from scope. In *Ergativity: Emerging issues*, ed. by Diane Massam, Alana Johns, and Juvenal Ndayiragije, 3–25. Dordrecht: Springer.

Arregi, Karlos, and Andrew Nevins. 2012. *Morphotactics: Basque auxiliaries and the structure of spellout*. Dordrecht: Springer.

Baker, Mark C. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.

Béjar, Susana, and Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40:35–73.

Benmamoun, Elabbas. 2000. *The feature structure of functional categories: A comparative study of Arabic dialects*. Oxford: Oxford University Press.

Bhatt, Rajesh. 2005. Long distance agreement in Hindi-Urdu. *Natural Language and Linguistic Theory* 23: 757–807.

Bhatt, Rajesh, and Martin Walkow. 2013. Locating agreement in grammar: An argument from agreement in conjunctions. *Natural Language and Linguistic Theory* 31:951–1013.

Bjorkman, Bronwyn M. 2011. BE-ing default: The morphosyntax of auxiliaries. Doctoral dissertation, MIT, Cambridge, MA.

Bjorkman, Bronwyn M. 2016. Go get, come see: Motion verbs, morphological restrictions, and syncretism. *Natural Language and Linguistic Theory* 34:53–91.

Bjorkman, Bronwyn M. 2017. Singular *they* and the syntactic representation of gender in English. *Glossa* 2:80.

Bjorkman, Bronwyn M. 2018. Ergative as perfective oblique. *Syntax* 21:321–361.

Bliss, Heather. 2008. Structuring information in Blackfoot: Against the A′-agreement analysis of cross-clausal agreement. In *Proceedings of the 2008 Annual Conference of the Canadian Linguistics Association*, ed. Susie Jones. http://homes.chass.utoronto.ca/~cla-acl/actes2008/CLA2008_Bliss.pdf.

Bobaljik, Jonathan David. 2008. Where's phi? Agreement as a post-syntactic operation. In *Phi-theory: Phi features across interfaces and modules*, ed. by Daniel Harbour, David Adger, and Susana Béjar, 295–328. Oxford: Oxford University Press.

Boeckx, Cedric. 2008. *Aspects of the syntax of agreement*. London: Routledge.

Bošković, Željko. 2007. On the locality and motivation of Move and Agree: An even more minimal theory. *Linguistic Inquiry* 38:589–644.

Branigan, Phil, and Marguerite MacKenzie. 2002. Altruism, Ā-movement, and object agreement in Innu-aimûn. *Linguistic Inquiry* 33:385–407.

Brown, Sue. 1999. *The syntax of negation in Russian: A Minimalist approach*. Stanford, CA: CSLI Publications.

Bruening, Benjamin. 2001. Syntax at the edge: Cross-clausal phenomena and the syntax of Passamaquoddy. Doctoral dissertation, MIT, Cambridge, MA.

Carstens, Vicki, and Michael Diercks. 2013. Agreeing how? Implications for theories of agreement and locality. *Linguistic Inquiry* 44:179–237.

Castillo, Juan Carlos, John Drury, and Kleanthes K. Grohmann. 1999. Merge over Move and the Extended Projection Principle. In *University of Maryland working papers in linguistics 8*, ed. by Sachiko Aoshima, John Edward Drury, and Tuomo Neuvonen, 63–103. College Park: University of Maryland, Department of Linguistics.

Chierchia, Gennaro. 2013. *Logic in grammar: Polarity, free choice, and intervention.* Oxford: Oxford University Press.

Chomsky, Noam. 1995. *The Minimalist Program.* Cambridge, MA: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89–155. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.

Dahlstrom, Amy. 2014. *Plains Cree morphosyntax.* London: Routledge.

de Swart, Henriëtte. 2009. *Expression and interpretation of negation: An OT typology.* Dordrecht: Springer.

de Swart, Henriëtte, and Ivan A. Sag. 2002. Negation and negative concord in Romance. *Linguistics and Philosophy* 25:373–417.

Diercks, Michael. 2013. Indirect agree in Lubukusu complementizer agreement. *Natural Language and Linguistic Theory* 31:357–407.

Dikken, Marcel den. 2006. Transparent, free . . . and polarised: The (poli)tics of polarity in transparent free relatives. In *Organizing grammar: Linguistic studies in honor of Henk van Riemsdijk*, ed. by Hans Broekhuis, Norbert Corver, Riny Huybregts, Ursula Kleinhenz, and Jan Koster, 97–107. Berlin: Mouton de Gruyter.

Dikken, Marcel den, and Eric Hoekstra. 1997. Parasitic participles. *Linguistics* 35:1057–1090.

Dixon, R. M. W. 1979. Ergativity. *Language* 55:59–138.

Epstein, Samuel David, and T. Daniel Seely. 2006. *Derivations in Minimalism.* Cambridge: Cambridge University Press.

Etxepare, Ricardo. 2006. Number long distance agreement in (substandard) Basque. *Anuario del Seminario de Filología Vasca "Julio de Urquijo"* 40:303–349.

Fassi Fehri, Abdelkader. 1988. Agreement in Arabic, binding and coherence. In *Agreement in natural language: Approaches, theory, description*, ed. by Michael Barlow and Charles A. Ferguson, 107–158. Stanford, CA: CSLI Publications.

Fassi Fehri, Abdelkader. 1993. *Issues in the structure of Arabic clauses and words.* Dordrecht: Kluwer.

Giorgi, Alessandra, and Fabio Pianesi. 2004. Complementizer deletion in Italian. In *The structure of CP and IP: The cartography of syntactic structure, vol. 2*, ed. by Luigi Rizzi, 190–210. Oxford: Oxford University Press.

Haegeman, Liliane, and Terje Lohndal. 2010. Negative concord and (multiple) Agree: A case study of West Flemish. *Linguistic Inquiry* 41:181–211.

Halpert, Claire. 2015. *Argument licensing and agreement.* Oxford: Oxford University Press.

Hamilton, Michael David. 2015. Phrase structure in Mi'gmaq: A configurational account of a "non-configurational" language. *Lingua* 167:19–40.

Hamilton, Michael D., and Brandon J. Fry. 2016. Long-distance agreement in Algonquian: Accounting for syntactic variation. Paper presented at the 50th annual meeting of the Chicago Linguistic Society. https://www.dropbox.com/s/yp5zyyoudzlgtee/CLS50_BJF%26MDH_CLSTemp.pdf?dl=0.

Harbert, Wayne, and Maher Bahloul. 2002. Postverbal subjects in Arabic and the theory of agreement. In *Themes in Arabic and Hebrew syntax*, ed. by Jamal Ouhalla and Ur Shlonsky, 45–70. Dordrecht: Springer.

Harford Perez, Carolyn. 1985. Aspects of complementation in three Bantu languages. Doctoral dissertation, University of Wisconsin, Madison.

Hicks, Glyn. 2009. *The derivation of anaphoric relations.* Amsterdam: John Benjamins.

Hiraiwa, Ken. 2001. Multiple Agree and the Defective Intervention Constraint in Japanese. In *Proceedings of the 1st HUMIT Student Conference in Language Research (HUMIT 2000)*, ed. by Ora Matushansky et al., 67–80. MIT Working Papers in Linguistics 40. Cambridge, MA: MIT, MIT Working Papers in Linguistics.

Holmberg, Anders, and Thorbjörg Hróarsdóttir. 2004. Agreement and movement in Icelandic raising constructions. *Lingua* 114:651–673.

Kayne, Richard S. 1989. Facets of Romance past participle agreement. In *Dialect variation and the theory of grammar*, ed. by Paola Benincà, 85–103. Dordrecht: Foris.

Kayne, Richard S. 1994. *The antisymmetry of syntax*. Cambridge, MA: MIT Press.

Koopman, Hilda. 2005. In defense of Spec-head agreement. In *Verb first: On the syntax of verb-initial languages*, ed. by Andrew Carnie, Heidi Harley, and Sheila Ann Dooley, 281–302. Amsterdam: John Benjamins.

Kučerová, Ivona. 2014. The syntax of null subjects. *Syntax* 17:132–167.

Landau, Idan. 2007. EPP extensions. *Linguistic Inquiry* 38:485–523.

Lasnik, Howard. 2003. *Minimalist investigations in syntactic theory*. London: Routledge.

Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39:55–101.

LeSourd, Phillip S. 2010. On raising to object in Maliseet-Passamaquoddy. In *Proceedings of WSCLA 14: The Workshop on Structure and Constituency in the Languages of the Americas*, ed. by Heather Bliss and Raphael Girard, 171–182. Vancouver: University of British Columbia, Department of Linguistics. https://lingpapers.sites.olt.ubc.ca/files/2018/01/UBCWPL26-WSCLA1314-Lesourd .pdf.

Lochbihler, Bethany, and Eric Mathieu. 2016. Clause typing and feature inheritance of discourse features. *Syntax* 19:354–391.

Mahajan, Anoop. 1997. Universal Grammar and the typology of ergative languages. In *Studies on Universal Grammar and typological variation*, ed. by Artemis Alexiadou and T. Alan Hall, 35–57. Amsterdam: John Benjamins.

Marantz, Alec. 1991. Case and licensing. In *Proceedings of the Eighth Eastern States Conference on Linguistics*, ed. by Germán Westphal, Benjamin Ao, and Hee-Rahk Chae, 234–253. Columbus: Ohio State University, Department of Linguistics.

Marantz, Alec. 2000. Case and licensing. In *Arguments and case: Explaining Burzio's Generalization*, ed. by Eric Reuland, 11–30. Amsterdam: John Benjamins.

Merchant, Jason. 2006. Polyvalent case, geometric hierarchies, and split ergativity. In *Proceedings of the 42nd annual meeting of the Chicago Linguistic Society. Vol. 2: The parasessions*, ed. by Jackie Bunting, Sapna Desai, Robert Peachey, Chris Straughn, and Zuzana Tomkova, 47–67. Chicago: University of Chicago, Chicago Linguistic Society.

Merchant, Jason. 2011. Aleut case matters. In *Pragmatics and autolexical grammar: In honor of Jerry Sadock*, ed. by Etsuyo Yuasa, Tista Bagchi, and Katharine Beals, 382–411. Amsterdam: John Benjamins.

Milsark, Gary. 1974. Existential sentences in English. Doctoral dissertation, MIT, Cambridge, MA.

Ovalle, Luis Alonso, and Elena Guerzoni. 2004. Double negatives, negative concord and metalinguistic negation. In *CLS 38.1: The main session. Proceedings from the main session of the 38th meeting of the Chicago Linguistic Society*, ed. by Mary Andronis, Erin Debenport, Anne Pycha, and Keiko Yoshimura, 15–31. Chicago: University of Chicago, Chicago Linguistic Society.

Patel-Grosz, Pritty, and Patrick Grosz. 2014. Deriving 'ergative' object agreement in Western Indo-Aryan: A case study. Ms., University of Tübingen.

Pesetsky, David, and Esther Torrego. 2002. Tense, Case, and the nature of syntactic categories. In *The syntax of time*, ed. by Jacqueline Guéron and Jacqueline Lecarme, 495–538. Cambridge, MA: MIT Press.

Pesetsky, David, and Esther Torrego. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and clausal architecture: Syntactic derivation and interpretation. In honor of Joseph E. Emonds*, ed. by Simin Karimi, Vida Samiian, and Wendy Wilkins, 262–294. Amsterdam: John Benjamins.

Plaster, Keith, Maria Polinsky, and Boris Harizanov. 2013. Noun classes grow on trees. In *Language typology and historical contingency: In honor of Johanna Nichols*, ed. by Balthasar Bickel, Lenore A. Grenoble, David A. Peterson, and Alan Timberlake, 153–170. Amsterdam: John Benjamins.

Polinsky, Maria. 2015. Tsez syntax: A description. Ms., Harvard University, Cambridge, MA.

Polinsky, Maria, and Bernard Comrie. 1999. Agreement in Tsez. *Folia Linguistica* 33:109–130.

Polinsky, Maria, and Eric Potsdam. 2001. Long-distance agreement and topic in Tsez. *Natural Language and Linguistic Theory* 19:583–646.

Preminger, Omer. 2009. Breaking agreements: Distinguishing agreement and clitic doubling by their failures. *Linguistic Inquiry* 40:619–666.

Preminger, Omer. 2011. Agreement as a fallible operation. Doctoral dissertation, MIT, Cambridge, MA.

Preminger, Omer. 2013. That's not how you agree: A reply to Zeijlstra. *The Linguistic Review* 30:491–500.

Preminger, Omer. 2014. *Agreement and its failures*. Cambridge, MA: MIT Press.

Preminger, Omer, and Maria Polinsky. 2015. Agreement and semantic concord: A spurious unification. https://ling.auf.net/lingbuzz/002363.

Reuland, Eric. 2006. Icelandic logophoric anaphora. In *The Blackwell companion to syntax*, ed. by Martin Everaert and Henk van Riemsdijk, 544–557. Oxford: Blackwell.

Rezac, Milan. 2008. The syntax of eccentric agreement: The Person Case Constraint and absolutive displacement in Basque. *Natural Language and Linguistic Theory* 26:61–106.

Rezac, Milan, Pablo Albizu, and Ricardo Etxepare. 2014. The structural ergative of Basque and the theory of Case. *Natural Language and Linguistic Theory* 32:1273–1330.

Rhodes, Richard A. 1994. Agency, inversion, and thematic alignment in Ojibwe. In *Proceedings of the 20th Annual Meeting of the Berkeley Linguistics Society*, ed. by Susanne Gahl, Andy Dolbey, and Christopher Johnson, 431–446. Berkeley: University of California, Berkeley Linguistics Society.

Richards, Norvin. 1998. The Principle of Minimal Compliance. *Linguistic Inquiry* 29:599–629.

Richards, Norvin. 2010. *Uttering trees*. Cambridge, MA: MIT Press.

Rizzi, Luigi. 1990. *Relativized Minimality*. Cambridge, MA: MIT Press.

Schütze, Carson. 1997. Infl in child and adult language: Agreement, case and licensing. Doctoral dissertation, MIT, Cambridge, MA.

Schütze, Carson T. 2003. Syncretism and double agreement with Icelandic nominative objects. In *Festschrift for Christer Platzack*, ed. by Lars-Olof Delsing, Cecilia Falk, Gunlög Josefsson, and Halldór Ármann Sigurðsson, 2:295–303. Lund: Lund University, Department of Scandinavian Languages.

Sheehan, Michelle, and Jenneke van der Wal. 2015. Do we need abstract Case? In *WCCFL 33: Proceedings of the 33rd West Coast Conference on Formal Linguistics*, ed. by Kyeong-min Kim, Pocholo Umbal, Trevor Block, Queenie Chan, Tanie Cheng, Kelli Finney, Mara Katz, Sophie Nickel-Thompson, and Lisa Shorten, 351–360. Somerville, MA: Cascadilla Press.

Shima, Etsuro. 2000. A preference for Move over Merge. *Linguistic Inquiry* 31:375–385.

Sigurðsson, Halldór Ármann. 1996. Icelandic finite verb agreement. *Working Papers in Scandinavian Syntax* 57:1–16.

Sigurðsson, Halldór Ármann. 2010. On EPP effects. *Studia Linguistica* 64:159–189.

Smith, Peter W. 2015. Feature mismatches: Consequences for syntax, morphology and semantics. Doctoral dissertation, University of Connecticut, Storrs.

Stowell, Tim. 1996. The phrase structure of tense. In *Phrase structure and the lexicon*, ed. by Johan Rooryck and Laurie Zaring, 277–291. Dordrecht: Springer.

Taraldsen, Knut Tarald. 1996. On agreement and nominative objects in Icelandic. In *Studies in comparative Germanic syntax*, ed. by Hubert Haider, Susan Olsen, and Sten Vikner, 307–327. Dordrecht: Kluwer.

Ura, Hiroyuki. 2000. *Checking theory and grammatical functions in Universal Grammar*. Oxford: Oxford University Press.

Weiss, Helmut. 2002. Three types of negation: A case study in Bavarian. In *Syntactic microvariation*, ed. by Sjef Barbiers, Leone Cornips, and Susanne van der Kleij, 305–332. Amsterdam: Meertens Institute Electronic Publications in Linguistics.

Wiklund, Anna-Lena. 2007. *The syntax of tenselessness: Tense/mood/aspect-agreeing infinitivals*. Berlin: Mouton de Gruyter.

Woolford, Ellen. 1997. Four-way case systems: Ergative, nominative, objective and accusative. *Natural Language and Linguistic Theory* 15:181–227.

Wurmbrand, Susi. 2011. Agree and Merge. Ms., University of Connecticut, Storrs.

Wurmbrand, Susi. 2012a. Parasitic participles: Evidence for the theory of verb clusters. *Taal en Tongval* 64:129–156.

Wurmbrand, Susi. 2012b. The syntax of valuation in auxiliary-participle constructions. In *Coyote papers 20: Proceedings of the Poster Session of the West Coast Conference on Formal Linguistics 29*, ed. by Jaehoon Choi, E. Alan Hogue, Jeffrey Punske, Deniz Tat, Jessamyn Schertz, and Alex Trueman. Tucson: University of Arizona, Department of Linguistics. https://repository.arizona.edu/handle /10150/253431.

Wurmbrand, Susi. 2014. The Merge condition. In *Minimalism and beyond: Radicalizing the interfaces*, ed. by Peter Kosta, Steven Franks, Teodora Radeva-Bork, and Lilia Schürcks, 130–167. Amsterdam: John Benjamins.

Zeijlstra, Hedde. 2004. Sentential negation and negative concord. Doctoral dissertation, University of Amsterdam.

Zeijlstra, Hedde. 2008a. Negative concord is syntactic agreement. Ms., University of Amsterdam.

Zeijlstra, Hedde. 2008b. On the syntactic flexibility of formal features. In *The limits of syntactic variation*, ed. by Theresa Biberauer, 143–173. Amsterdam: John Benjamins.

Zeijlstra, Hedde. 2012. There is only one way to Agree. *The Linguistic Review* 29:491–539.

Zeijlstra, Hedde. 2014. On the uninterpretability of interpretable features. In *Minimalism and beyond: Radicalizing the interfaces*, ed. by Peter Kosta, Steven Franks, Teodora Radeva-Bork, and Lilia Schürcks, 109–129. Amsterdam: John Benjamins.

Zeijlstra, Hedde. 2017. Projection and feature percolation. Colloquium talk, Cambridge University, 21 February.

(Bjorkman)
Department of Languages, Literatures, and Cultures
Queen's University
103 Stuart Street, Kingston Hall, Room 416
Kingston, Ontario K7L 3N6
Canada

bronwyn.bjorkman@queensu.ca

(Zeijlstra)
Seminar for English Philology
Georg-August-Universität Göttingen
Käte-Hamburger-Weg 3
37073 Göttingen
Germany

hzeijls@uni-goettingen.de