

# Upward Agree is superior

Bronwyn Bjorkman (bronwyn.bjorkman@utoronto.ca)  
Hedde Zeijlstra (hzeijls@uni-goettingen.de)

Draft version, december 2014

**Abstract.** In Zeijlstra (2012), it was argued that the syntactic operation Agree can only take place between a probe that carries an uninterpretable feature and a goal that carries a matching interpretable feature when the goal is the closest potential goal that c-commands the probe. Similar ideas have been proposed by Wurmbrand (2012a,b, 2014). This version of Agree has been dubbed Upward Agree (UA), as opposed to Downward Agree (DA, where the probe c-commands the goal). Zeijlstra argues for UA on the basis, first, that some instances of syntactic agreement can only be analyzed as instances of UA (i.e. they cannot be analyzed as instances of DA); and second, that it is possible to analyze all other instances of Agree as instances of UA. These latter cases include both long-distance  $\phi$ -agreement and Agree-driven movement effects (“EPP” effects), which have elsewhere been discussed as evidence in favor of DA.

UA has received some criticism, most notably by Preminger (2013), who presents and discusses two cases of long-distance  $\phi$ -agreement, one from Tsez (Polinsky and Potsdam 2000), and one from substandard Basque (Etxepare 2006, Preminger 2009, 2011, 2013). Preminger argues that these instances of long-distance agreement cannot be accounted for by Zeijlstra’s proposals, and so argue against a redefinition of Agree in terms of UA.

This paper addresses the question of whether UA can account for cases of apparently “downward”  $\phi$ -agreement, including phenomena such as long-distance agreement. Contra Preminger, we argue that the conclusion that UA is untenable as a universal mechanism for agreement is unjustified – rather than suggesting that the UA proposal should be weakened, we argue that the apparent counterexamples to UA vanish once we adopt a more restrictive version of UA. We argue that this more restrictive version of UA, slightly modified from Zeijlstra (2012), is in fact uniquely able to account for notable asymmetries between upwards and downwards  $\phi$ -agreement. These asymmetries include a typological link between downwards  $\phi$ -agreement and Case, as already suggested by Baker (2008), and the observation that downwards  $\phi$ -agreement is often in some sense defective as compared to upwards  $\phi$ -agreement, as observed going back to work on Spec-Head feature checking, and noted in connection to the UA debate by Bjorkman (2011). We also show that this novel version of UA fares better in explaining EPP-effects.

## 0. Upward vs. Downward Agree

In Zeijlstra (2012), it was argued that the syntactic operation Agree can only take place between a probe that carries an uninterpretable feature and a goal that carries a matching interpretable feature when the goal is the closest potential goal that c-commands the probe. Similar ideas have been proposed by Wurmbrand (2012a,b, 2014). This version of Agree has been dubbed Upward Agree (UA), as opposed to Downward Agree (DA, where the probe c-commands the goal). UA is defined as follows:

- (1) Upward Agree:  $\alpha$  can Agree with  $\beta$  iff:
- a.  $\alpha$  carries at least one uninterpretable feature and  $\beta$  carries a matching interpretable feature;
  - b.  $\beta$  c-commands  $\alpha$ ;
  - c.  $\beta$  is the closest goal to  $\alpha$

Zeijlstra argues first, that some instances of syntactic agreement can only be analyzed as instances of UA (i.e. they cannot be analyzed as instances of DA); and second, that it is possible to analyze all other instances of Agree as instances of UA. These latter cases include both long-distance  $\phi$ -agreement and Agree-driven movement effects (“EPP” effects), which have elsewhere been discussed as evidence in favor of DA.

UA has received some criticism, most notably by Preminger (2013), who presents and discusses two cases of long-distance  $\phi$ -agreement, one from Tsez (Polinsky and Potsdam 2000), and one from substandard Basque (Etxepare 2006, Preminger 2009, 2011, 2013). Preminger argues that these instances of long-distance agreement cannot be accounted for by Zeijlstra's proposals, and so argue against a redefinition of Agree as in (1).

Preminger does not, however, argue against the conclusion that certain other instances of agreement do follow from UA. Rather, Preminger concludes that while  $\phi$ -agreement in Tsez and Basque (and perhaps all  $\phi$ -agreement) requires DA, other phenomena may require a mechanism akin to UA. This leaves open the possibility of there being two different kinds of Agree, or for there being variation in the direction of Agree, either cross-linguistically (as proposed by Baker 2008) or as a last resort when DA cannot apply (Bejar & Rezac 2009, Carstens 2012).

This paper addresses the question of whether UA can account for cases of apparently “downward”  $\phi$ -agreement, including phenomena such as long-distance agreement. Contra Preminger, we argue that the conclusion that UA is untenable as a universal mechanism for agreement is unjustified – rather than suggesting that the UA proposal should be weakened, we argue that the apparent counterexamples to UA vanish once we adopt a more restrictive version of UA. We argue that this more restrictive version of UA, slightly modified from Zeijlstra (2012), is in fact uniquely able to account for notable asymmetries between upwards and downwards  $\phi$ -agreement. These asymmetries include a typological link between downwards  $\phi$ -agreement and Case, as already proposed by Baker (2008), and the observation that downwards  $\phi$ -agreement is often in some sense defective as compared to upwards  $\phi$ -agreement, as observed going back to work on Spec-Head feature checking, and noted in connection to the UA debate by Bjorkman (2011). We also show that this novel version of UA fares better in explaining EPP-effects.

The article is organized as follows. First, in section 1, we briefly recapitulate Zeijlstra's original argument in favor of UA, by discussing the two types of Agree that motivated it: instances of agreement that can only be analyzed as UA and agreement-driven movement into Spec-Head configurations (“EPP” effects). In section 2, we discuss instances of long-distance agreement that are (more) problematic for the approach, including the two counterexamples from Tsez and substandard Basque that were provided by Preminger (2013). In section 3, then, we argue that although most of criticisms focused on the last category (long-distance agreement), a more serious problem for the proposed version of UA in Zeijlstra (2012) is that it is not restrictive enough in its account of EPP effects. We propose a more restrictive version of UA that resolves these issues. In section 4 we show that this more restricted theory is further able to account for the link between Case and the direction of  $\phi$ -agreement proposed by Baker (2008) and we demonstrate that this revised version of UA can account for long-distance  $\phi$ -agreement, including the two apparent counterexamples from Tsez and substandard Basque. Section 5 discusses other instances of long-distance  $\phi$ -agreement, also discussed by Van Koppen (2011), such as complementizer agreement and other instances where long-distance  $\phi$ -agreement seems more defective than spec-head agreement. Section 6 concludes.

## **1. Background: motivating UA**

As said in the introduction, the central argument for UA has been that certain instances of morpho-syntactic agreement seem to apply only in an upward fashion. All these core cases of UA are instances where a clear semantic dependency is encapsulated in the syntax, e.g. Negative Concord and Sequence of Tense, or cases of Multiple Agree in general. The second step in the argumentation is then that the mechanism that underlies these cases of UA can also

account for movement into spec-head configurations and long-distance agreement. Whereas the former looks fairly straightforward, instances of long-distance agreement prove to be harder.

### 1.1 Core cases of UA

#### *Negative Concord*

Zeijlstra presents three examples of core cases of UA: Negative Concord, Sequence of Tense and Multiple Agree. Each of these cases have been discussed independently in the syntactic literature and presented as arguments in favor of a different treatment of Agree than the standard Chomskyan approach (Chomsky 2000, 2001).

In Negative Concord languages, multiple indefinites can or even must be morpho-syntactically marked for negation, even though such clauses contain only one semantic negation, as is illustrated in (2) for Czech.

- |     |    |   |       |
|-----|----|---|-------|
| (2) | a. | Dnes <i>nikdo</i> *(ne)volá<br>Today n-body NEG.calls<br>'Today nobody is calling'                              | Czech |
|     | b. | Milan *(ne)vidi <i>nikoho</i><br>Milan NEG.sees n-body<br>'Milan doesn't see anybody'                           |       |
|     | c. | Dnes <i>nikdo</i> *(ne)volá <i>nikomu</i><br>Today n-body NEG.calls n-body<br>'Today nobody is calling anybody' |       |

Since multiple negatively marked indefinites may co-occur in a single clause without giving rise to multiple semantic negations, such elements should be taken to carry an uninterpretable feature that must stand in an Agree relation with an element carrying an interpretable negative feature. Since such indefinites also always take scope under negation and scope relations are derived from c-command configurations, scholars who argue that Negative Concord reflects syntactic agreement (Brown 1999, Zeijlstra 2004, 2008, Haegeman & Lohndal 2010), argue that the underlying Agree relation must be UA, yielding syntactic structures as in (3)a or b (depending on whether the negative marker is the carrier of semantic negation or a negative agreement marker as well).

- |     |    |  |
|-----|----|--|
| (3) | a. | [Dnes [TP <i>nikdo</i> <sub>[uNEG]</sub> ] [NegP <i>nevolá</i> <sub>[iNEG]</sub> t <sub>j</sub> <i>nikoho</i> <sub>[uNEG]</sub> ]]]      |
|     | b. | [Dnes <i>Op</i> <sub>[iNEG]</sub> [TP <i>nikdo</i> <sub>[uNEG]</sub> <i>nevolá</i> <sub>[uNEG]</sub> <i>nikoho</i> <sub>[uNEG]</sub> ]]] |

The treatment of Negative Concord as an instance of syntactic agreement is not uncontroversial, although many aspects of it point in this direction and argue, for instance, against a treatment of Negative Concord in purely semantic terms (as has been proposed by De Swart & Sag 2002). For instance, Negative Concord is clause-bound, sensitive to syntactic locality effects and in general obligatory, three aspects that would be unexplained under non-syntactic treatments of the phenomenon (cf. Zeijlstra 2004). What is clear, however, is that if Negative Concord is taken to be an instance of syntactic agreement, it must be the result of UA.

#### *Sequence of Tense*

Beyond Negative Concord, there are other phenomena that seem to require an analysis in terms of UA. One example is *Sequence of Tense*. Sequence of Tense refers to the phenomenon where subordinate tense is dependent on matrix tense. In examples (4) and (5), the most salient

reading is one where the saying event takes place at the time when Mary was ill, not prior to it. In this sense, the semantic contribution of the second past tense morpheme seems to be zero.

- (4) a. John said Mary was ill  
 b. Jan zei dat Marie ziek was Dutch  
 John said that Mary ill was  
 ‘John said Mary was ill’

Many current approaches to Sequence of Tense propose that the past tense features of the embedded clause are uninterpreted, and are licensed via a relationship with interpretable tense in the matrix clause (cf. Ogihara 1995, Kratzer 1998, a.o.). Von Stechow (2002) develops this type of account using a mechanism of *feature transmission* (Heim 2008); using standard syntactic mechanisms, the same analysis is naturally expressed in terms of Upwards Agree, as noted by Zeijlstra (2012).

The UA approach to Sequence of Tense combines nicely with another observation described by von Stechow 2002, namely that verbal tense morphology itself is semantically vacuous and that semantic tense is induced by a higher, abstract operator.

- (5) Wolfgang played tennis on every Sunday  
 = ‘For every Sunday in the past there is a time t at which Wolfgang plays tennis’  
 ≠ ‘There is a past time on every Sunday at which Wolfgang plays tennis’  
 ≠ ‘For every Sunday, there is time t before it is such that Wolfgang plays tennis at that time’

Simplifying things somewhat, assuming that past tense morphemes carry a feature [uPAST] that can undergo (Multiple) Agree with a higher element carrying [iPAST], may solve both the Sequence of Tense problem (i.e. why can't subordinate past tense morphemes not be interpreted as semantic past tense operators?) as well as the problem behind (4) and (5), namely why the LF position of the semantic past tense differs from the surface position of a past tense marker. This is illustrated in (6). Here, both the matrix and the subordinate finite verb do not introduce semantic past tense, whereas the entire sentence still receives a past tense interpretation.

- (6) [John T<sub>[iPAST]</sub> [said<sub>[uPAST]</sub> [Mary was<sub>[uPAST]</sub> ill]]]

Of course, Sequence of Tense has not only been analysed in terms of syntactic Agree. Traditionally, Sequence of Tense has been analysed either in terms of feature checking (as in Ogihara (1995), in addition to Von Stechow 2002 cited above), or in terms of a real semantic embedded past tense, as in the so-called Upper Limit Constraint (cf. Abusch 1997), which is a semantic mechanism that can be adopted to ensure that the temporal reference of complement clause does not exceed the temporal reference of the matrix clause. Even if Sequence of Tense can be accounted for in purely semantic terms, however (i.e. with embedded past being semantically interpreted as past), the observation in (5) remains unaccounted for, suggesting that the syntax behind tense morphology more generally must involve some kind of UA configuration anyways, at least for languages where finite verbs can appear *in situ*.

#### *Multiple case:*

A final argument in favour of the existence of UA (i.e. phenomena that cannot be accounted for by DA only) comes from multiple case agreement. Agree must always take place between the probe and the highest matching goal in its search domain, otherwise it would violate the

condition that states that no additional matching inactive (i.e. previously valued/interpretable) goal may intervene between the probe and the goal, known as the Defective Intervention Constraint (DIC). Consequently, Multiple Agree, i.e. Agree between one probe and multiple goals, should be expected to be ruled out: Agree between the probe and the highest goal would render this goal in active and this inactive goal would in turn block Agree between the probe and any lower goal.

However, Ura (1996) and Hiraiwa (2001, 2005) argued that Multiple Agree actually does take place. One of the examples they provide concerns Japanese multiple nominative constructions, like (7).

- (7) John-**ga** [yosouijouni nihonjin-**ga** eigo-**ga** hidoku] kanji-ta. Japanese  
 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.’

Following Takezawa (1987), Ura (2000), who convincingly shows that infinitivals in Japanese cannot check nominative case, argues that in (7), all three nominative DPs must have their case features checked/valued by a single  $T^\circ$  in the matrix clause, the only available  $T^\circ$  carrying [iT]. However, this would lead to a violation of the Defective Intervention Constraint (DIC): Agree between  $T^\circ$  and the highest DP would render this DP inactive and this DP should then act as an intervener for Agree between  $T^\circ$  and any of the lower DPs.

- (8) [  $T^\circ$  DP [ ... DP ... [... DP ...] ]  
       [u $\phi$ ] [i $\phi$ ] [i $\phi$ ] [i $\phi$ ]  
       [iT] [uT] [uT] [uT]  
           |       |       |       |

Hiraiwa (2001, 2005) claims that in (12)/(13) the DIC can be circumvented if it is assumed that the probe in such constructions, due to some feature [+multiple], is allowed to match with the highest goal first and wait with establishing an Agree relation until it matches with all available goals. After multiple matching has been completed, Agree between the probe and its matched goals takes place simultaneously. Although technically compatible with the way DA is defined and with the DIC, this solution is far from satisfactory.

Most notably, there is no necessity in the first place for the probe to apply multiple matching, as a single match between the probe and the highest goal, followed by Agree, would already satisfy all the probe’s checking requirements. Hence, probing down with a second goal, for the probe, is a superfluous operation and should be ruled out under minimalist logic. What the data seem to suggest is actually that it is not so much the regular version of Agree that needs to apply multiply but rather the reverse. It is the uninterpretable case/tense features on the goals rather than the probe that necessitate multiple agree, something that runs against the spirit of DA, but follows straightforwardly under UA: every [uT] feature needs to be checked/valued against a c-commanding [iT] feature.

#### *Interim Summary*

What Negative Concord, Sequence-of-Tense and multiple case phenomena demonstrate is that there are at least some instances of agreement that can only be accounted for in an UA fashion, since all these phenomena require Agree to be licit under the following configuration:

- (9) [ [iF] ... [uF] ... ([uF])]

Standard versions of Agree (e.g. Chomsky 1995, 2000, 2001, Pesetsky & Torrego 2007, Bošković 2007) do, however, not allow for Agree under this configuration. The central question, now, is whether all instances of Agree follow under this configuration, as Zeijlstra (2012) has argued, whether other instances of Agree can only be accounted for in a DA fashion, effectively resorting to two different types of Agree (Preminger 2013), or whether UA needs to be modified (this paper). Before showing how and why UA needs to be modified, we first look at the two types of agreement that generally called for a DA approach: agreement-triggered movement (“EPP” effects), in section 1.2, and long-distance agreement (LDA), in section 2.

## 1.2 EPP effects and Spec-Head agreement

Under Chomsky’s (2000, 2001) standard version of Agree, Spec-Head agreement results from DA between a probing head and a lower goal, together with movement triggered by an independent [EPP] feature on the probing head. In addition, in order to be legible as a potential candidate for an Agree relation, the lower goal must also be equipped with an additional uninterpretable feature (a requirement known as the *Activity Condition*) that gets checked/valued against the higher head as a side-effect of DA. Formally:

- (10) Chomsky 2001:  $\alpha$  can agree with  $\beta$  iff:
- $\alpha$  carries at least one unvalued and uninterpretable feature and  $\beta$  carries a matching interpretable and valued feature.
  - $\alpha$  c-commands  $\beta$ .
  - $\beta$  is the closest goal to  $\alpha$ .
  - $\beta$  bears an unvalued uninterpretable feature, which can be checked against  $\alpha$ .
- (11) a. Agree  $\Rightarrow$
- |                   |          |      |
|-------------------|----------|------|
| $[\alpha_{[EPP]}$ | $[\beta$ | $]]$ |
| $[uF]$            | $[iF]$   |      |
| $[iK]$            | $[uK]$   |      |
- b. [EPP]  $\Rightarrow$
- |          |                   |          |       |
|----------|-------------------|----------|-------|
| $[\beta$ | $[\alpha_{[EPP]}$ | $[\beta$ | $]]]$ |
| $[iF]$   | $[uF]$            | $[iF]$   |       |
| $[uK]$   | $[iK]$            | $[uK]$   |       |

Bošković (2007) provides a series of arguments against the role of the EPP-feature, arguing that this feature can be dismissed with once Agree is taken to be strictly unidirectional. This means that every instance of so-called bidirectional Agree (DA plus the additional reverse checking by the goal against the higher head) should be reduced to two instances of unidirectional Agree without alluding to any EPP-features. In short, Spec-Head agreement follows when the probe first establishes an Agree relation with the lower goal, where its uninterpretable feature gets checked/valued against the matching feature on the lower goal. Because Agree is (by hypothesis) unidirectional, the goal can never have its additional uninterpretable feature checked/valued back against the probing head, so the only way to have this uninterpretable feature checked/valued against the probing head is by immediately moving it to a position c-commanding this head, i.e. its specifier, as in (12). Since it is known at the stage of the derivation where the first instance of Agree applies that uninterpretable feature on the lower goal can only be checked/valued if it moves, this checking need is the trigger for movement (and no EPP feature needs to be alluded to).

- (12) a. Agree  $\Rightarrow$   $\begin{bmatrix} \alpha \\ [\text{uF}] \\ [\text{iK}] \end{bmatrix} \begin{bmatrix} [\beta] \\ [\text{iF}] \\ [\text{uK}] \end{bmatrix}$
- b. Agree  $\Rightarrow$   $\begin{bmatrix} [\beta] \\ [\text{iF}] \\ [\text{uK}] \end{bmatrix} \begin{bmatrix} \alpha \\ [\text{uF}] \\ [\text{iK}] \end{bmatrix} \begin{bmatrix} [\beta] \\ [\text{iF}] \\ [\text{uK}] \end{bmatrix}$

Zeijlstra (2012) follows the logic behind Bošković's proposal that [EPP] can be replaced by applying strict version of unidirectional Agree. However, that paper also notes that nothing in hinges Bošković's proposal actually hinges on the direction of Agree: the crucial ingredient is that once Agree applies strictly unidirectionally, the EPP feature can be dismissed with. Under UA, the same effects are derived. First the lower element ( $\beta$ ) has its uninterpretable feature checked against the higher head ((13)a) and subsequently, in order to have the uninterpretable feature on the head checked off,  $\beta$  moves to the specifier position where Agree can take place between its uninterpretable feature and the matching uninterpretable feature on the head.

- (13) a. Agree  $\Rightarrow$   $\begin{bmatrix} \alpha \\ [\text{uF}] \\ [\text{iK}] \end{bmatrix} \begin{bmatrix} [\beta] \\ [\text{iF}] \\ [\text{uK}] \end{bmatrix}$
- b. Agree  $\Rightarrow$   $\begin{bmatrix} [\beta] \\ [\text{iF}] \\ [\text{uK}] \end{bmatrix} \begin{bmatrix} \alpha \\ [\text{uF}] \\ [\text{iK}] \end{bmatrix} \begin{bmatrix} [\beta] \\ [\text{iF}] \\ [\text{uK}] \end{bmatrix}$

Thus, every instance of Agree that involves bidirectional Agree plus movement of a lower element across some Agree-ing head (previously accounted for in terms of [EPP]) can be accounted for either in terms of DA or in terms of UA. Hence, under Bošković's proposal, which seems to fare better than Chomsky's version of Agree as it does not require EPP-features to trigger any kind of movement, agreement triggered movement (i.e. Spec-Head agreement) is fully compatible with UA.

One question emerges, however: how is it known in (13)a that the uninterpretable feature on the head must be checked off by the lower goal? This seems to necessitate that in some way the head must have access to the uninterpretable feature on  $\beta$ . Zeijlstra (2012) does not address this question, but in our refinement of the UA proposal we provide an answer to this question.

## 2. Problems for Upward Agree

### 2.1 Long-distance agreement

In the previous section we saw that EPP effects are not problematic for the UA proposal. The remaining question, then, is how UA can account for cases of long-distance agreement (LDA). LDA involves cases where a goal (carrying [iF]) never seems to move across the probe. If such cases truly exist, UA cannot be the only kind of Agree available. Although LDA is not as frequent as Spec-Head agreement and is quite often 'defective', in the sense that it only seems to Agree with some of the uninterpretable features on a higher probing instead of all of them, even defective LDA appears to pose an initial challenge for the UA framework.

Zeijlstra's UA proposal discusses some cases of LDA, and proposes (primarily following Koopman 2005) that in all cases of LDA there is some stage in the derivation where

(14) a. There seems to have arrived a student  
b. There seem to have arrived some students

- In a similar fashion, Koopman (2005) has argued that Icelandic quirky subject constructions like (16) (where subjects are datives and objects nominative and where the verb agrees in number with the nominative object), long taken as a core case of LDA, actually can be understood in terms of Spec-Head agreement once it is assumed that dative-nominative verbs have an additional structural TP-vP layer, like (17), where the object appears on the specifier of lower TP.

- (17) [<sub>TP</sub> Me Expl T [<sub>VP</sub> [<sub>TP</sub> [The horses]<sub>i</sub> T [<sub>VP</sub> seem [<sub>TP</sub> t<sub>i</sub> to be slow]]]]]

(18)    a.    Ik denk de-s doow en ich Marie ôs kenn-e treffe                      Limburg Dutch  
I think that.2SG you and I Mary meets.2SG  
'I think that you and I can meet'

       b.    Omda-n André en Valère tun juste underen computer kapot was          West Fl.  
Because.PL André and Valère then just their computer broken was.SG  
'Because André and Valère's computer broke down just then'

In summary, the core of Zeijlstra (2012)'s approach to LDA is to argue that all known cases of LDA can be analyzed instead in terms of Spec-Head agreement at some other point in the derivation. A recent paper by Preminger (2013), however, demonstrates that there are at least some cases of LDA that cannot be analyzed in these terms, and so are counterexamples to



Zeijlstra's UA theory. Moreover, under Zeijlstra's (2012) solution, as well as under standard DA approaches, it remains mysterious why LDA is so often defective. And in any case, the movement-based approaches to expletive and quirky nominative LDA outlined above are far from uncontroversial. All these arguments motivate further revisions to the UA theory, to be discussed below in section 3, which will capture all cases of LDA as epiphenomenal results of UA.

## 2.2 *Novel counterexamples: Preminger (2013)*

Preminger (2013) discusses cases of LDA that appear to pose a more serious challenge to a theory of UA than the ones described above. The relevant cases involve LDA across a clause boundary, in cases where it is clear that the agreement target remains within the embedded clause (at all stages of the derivation), while the agreeing head is located in the matrix clause. Agreement between such a head and a target can therefore only take place in a downward fashion.

Both cases discussed by Preminger involve agreement with embedded absolutive DPs. He observes that absolutive agreement can target DPs contained within an embedded clause in both Tsez (Polinsky and Potsdam 2010) and 'Substandard' Basque (Etxepare 2006, Preminger 2009, 2011, 2013). In the following example from Tsez, we see that the matrix verb *iyxo* ('know') agrees with an absolutive topic in the embedded clause for its class feature. The naïve prediction of an Upwards Agree account is that the embedded absolutive must c-command the matrix verb at some point in the derivation, but Polinsky and Potsdam (2010) present strong evidence that this DP remains inside the embedded clause. Since the auxiliary has been merged in the main clause directly (for obvious reasons), in no point in the derivation could the absolutive have c-commanded the auxiliary.

- (19) Enir [ užā magalu b-āc'ruḥi ] 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 2001:606)

Preminger discusses similar evidence from non-standard varieties of Basque, where the matrix auxiliary morphologically agrees with an embedded absolutive argument. In the following example, this takes the form of plural agreement with the DP *harri horiek* 'those stones':

- (20) [[[Miren-entzat] [harri horiek] altxa-tze-n] probate d-it-u-zte ]  
 Miren-BEN stones those.PL.ABS lift.NMZ.LOC  
 attempted 3.ABS-PL.ABS.√.3.PL.ERG  
 'They have attempted to lift those stones for Miren'

If  $\varphi$ -agreement required a DP to c-command its agreement target, as in Zeijlstra (2012)'s proposal regarding LDA, this agreement pattern would seem to require that the absolutive DP move covertly out of the embedded clause, into a position above matrix T.

Preminger argues against this possibility, however, by showing cases where a dative argument acts as an intervener for  $\varphi$ -agreement. The following example differs structurally from (20) only in that the benefactive argument is expressed by a dative rather than by a benefactive post-position.

- (21) [[[Lankide-e-i] [**liburu horiek**] irakur-tze-n] probate d-Ø/\*it-u-zte ]  
 Colleagues.ART-PL.DAT books those.**PL.ABS** read.NMZ.LOC  
 attempted 3.ABS-**SG/PL.ABS**.√.3.PL.ERG  
 ‘They have attempted to read those books to the colleagues’

Preminger argues that the ungrammaticality of plural agreement in (21) demonstrates that the dative DP acts as an intervenor for  $\varphi$ -agreement between the matrix T and the embedded DP at the point in the derivation where  $\varphi$ -Agree takes place, and that consequently there can be neither a case nor a  $\varphi$ -Agree relationship between these two elements.<sup>1</sup>

We take Potsdam & Polinsky’s and Preminger’s arguments that cases such as (19)-(20) do not involve UA along the lines of (1) to be valid. At the same time, it looks like other cases of agreement (as the ones discussed in 1.1) still must be analyzed as UA. If Upwards Agree is indeed needed to account for phenomena such as negative concord, but cannot account for long-distance agreement phenomena, one might ask whether both UA and DA are needed to account for agreement phenomena in natural language. Preminger makes this suggestion towards the end of his paper, saying the following:

"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”.

Another possibility is that the two empirical domains,  $\varphi$ -agreement proper and the concord phenomena discussed by Zeijlstra, are an instance of the same process after all, and that the direction of valuation is intrinsically flexible. The latter is an idea that has been pursued, in different forms and with varying implementations, in recent work by Baker (2008), Béjar and Rezac (2009), and Carstens (2012)." (Preminger 2013: 499)

Both of these possibilities – that UA and DA are formally distinct operations, or that they are parameterized variants of one another – predict that there should be a principled way to identify where each of these operations applies.

And indeed, the core cases motivating Upwards Agree appear promising in this regard. While Standard Agree was originally proposed by Chomsky (2000, et seq.) to account for the relationship between arguments and clause structure ( $\varphi$ -agreement, *Wh* terms), UA has been proposed instead in the domain of clausal operators such as negation and tense, although one might wonder why features involved in the formation of interrogative or other speech acts would not fall under the latter category.

Unfortunately, however, attempts to divide Standard and Upwards Agree on this kind of basis break down upon closer inspection: there appears to be no natural way to distinguish the domain of application of DA from the domain of application of UA.

First, given that Standard Agree has been proposed to apply between arguments and functional structure, one could suggest that DA applies to relations between heads and phrases, while UA applies between heads. This would correctly distinguish finite  $\varphi$ -agreement – a relationship between the head T and a DP – from agreement for finite verbal inflection features – a relationship between T and a lower V, or between T and an embedded T in the case of sequence of tense. It would not correctly distinguish the former from negative concord, however, as this involves UA (as discussed in section 1), but also involves agreement between interpretable features on higher heads and lower phrasal negative quantifiers. A division

---

<sup>1</sup> One could argue that in exactly those cases where a dative intervenes for  $\varphi$ -agreement, the

between UA and DA along the lines of the phrasal statues of the participants in an Agree relation would thus not work.

A second way to distinguish the two operations would be on the basis of the type of features involved. One could propose that Standard Agree applies to features interpretable on DPs ( $\varphi$ , *Wh*, etc.), while Upwards Agree applies elsewhere (negation, tense, etc.). Against this possibility, consider Baker's (2008) observation that finite  $\varphi$ -agreement in some Bantu languages is only possible (but is obligatory) when a DP c-commands the agreeing verb, regardless of whether that DP is the finite subject:

- (22) a. Omo-mulongo mw-a-hik-a mukali. Kinande  
 LOC.18-village.3 18S-PAST-arrive-FV woman.1 (Baker 2008:158)  
 "At the village arrived a woman."  
 b. Oko-mesa kw-a-hir-aw-a ehilanga.  
 LOC.17-table 17S-PAST-put-PASS-FV peanuts.19  
 "On the table were put peanuts."

This shows that even in the domain of  $\varphi$ -agreement both UA and DA appear to be necessary (in different languages). For this reason, parametrization on the basis of the types of features related by Agree seems on the wrong track as well.

This leaves only the possibility that the distinction between DA and UA is a matter of cross-linguistic parametric variation, with both options being available in natural language. But it cannot even be the case that any given language exhibits either only UA or DA. A language like Basque, for example, has both long-distance agreement (pointing in the direction of DA) and a system of Negative Concord (pointing in the direction of UA, cf. Laka 1990). This free variation would significantly weaken the predictive power of a theory built on Agree, as there does not seem to be any principled way to distinguish the domains of application of the two different agreement operations.

A much more attractive alternative is to find a way for typical UA phenomena to co-exist with the long-distance agreement facts put forward by Polinsky and Potsdam (2010) and Preminger (2013), within a stricter view of Agree. Such a stricter view would be either a version of DA that is modified in such a way that the UA-like facts follow as an epiphenomenon, or the other way around.

There are good reasons to assume that UA is not a by-product of DA: UA-like phenomena always apply in an upward fashion and can also apply without any concurrent DA-like Agree relation. The opposite view, however – a theory that would allow certain instances of DA as a by-product of UA – has a number of advantages.

First, while we see that certain DA-like phenomena (such as  $\varphi$ -agreement) can actually be cases of UA in other languages (like  $\varphi$ -agreement in Kinande), the reverse does not apply: no language in the world seems to exploit DA-based Negative Concord or Sequence of Tense.

Second, the core example of DA,  $\varphi$ -agreement, often seems to be dependent on other grammatical relationships (like case), which could be analysed along the lines of UA: Bobaljik (2008) even takes Case to be a pre-condition for  $\varphi$ -agreement, based in part on languages like Icelandic where finite agreement is always with a nominative DP regardless of that DP's position or grammatical role. In a similar vein, Baker (2008) shows that in many languages DA underlying  $\varphi$ -agreement depends on Case as well.

Finally, LDA phenomena, which of all agreement phenomena most strongly call for a treatment in terms of DA, at the same time are often strikingly defective, as noted in connection with UA by Bjorkman (2011). For instance, LDA in English expletive *there* constructions is often optional, with singular agreement surfacing even with plural associates. LDA in both English expletive *there* constructions and Icelandic quirky subject constructions

only manifests itself in number and never in person (both are always restricted to 3<sup>rd</sup> person). In cases of complementizer agreement in varieties of Dutch, moreover, the agreement paradigm itself is always defective as well (and hardly ever exhibits a full rich agreement pattern). Agreement with higher DPs, by contrast, appears never to be defective in these ways. If DA were the basic mechanism of agreement in natural language, and agreement with post-verbal DPs therefore the simplest expression of  $\varphi$ -agreement (agreement in the absence of movement), we would not expect the asymmetry to run in this direction: we would expect instead that UA would exhibit gaps or deficiencies in  $\varphi$ -agreement. The existence of defective agreement in LDA, and only in LDA, thus lends support to a view in which UA is basic and DA epiphenomenal.

For these reasons, in the next section we develop a new version of UA that allows, in certain configurations only, apparent DA to be parasitic on UA. However, it should be noted that this is not achieved by simply loosening UA. On the contrary, the cases under discussion only follow by further restricting the original UA proposal.

### 3. Upward Agree: restricting the theory

In this section we propose how a more restricted version of UA can handle the counter examples by Preminger (2013) as well as other instances of LDA as an epiphenomenon of UA. In order to show this, we must, however, first look at the UA treatment of EPP-effects. It turns out that the original UA account of these effects, in which movement into a specifier is triggered in order to create a UA-compatible configuration for feature checking, faces both a look-ahead and a look-back problem. The proposal we present is a solution to these problems that at the same time manages to account for the problems outlined above.

#### 3.1 *EPP-effects: a look-ahead and a look-back problem*

The original UA approach followed Bošković (2007) by arguing that [EPP]-driven movement can be dispensed with once it is assumed that Agree must take place in a strict unidirectional fashion only. The relevant configurations from (13) are repeated below in (23). Because the probing head  $\alpha$  bears an additional interpretable feature that can check off an uninterpretable feature on the goal  $\beta$ , it is necessary for the goal to first be in a position lower than the probe (to allow Agree in one direction), and then later move to a position above the probe (to allow Agree in the other direction).

- (23) a. Agree  $\Rightarrow$
- |           |          |    |
|-----------|----------|----|
| $[\alpha$ | $[\beta$ | ]] |
| $[uF]$    | $[iF]$   |    |
| $[iK]$    | $[uK]$   |    |
- b. Agree  $\Rightarrow$
- |          |           |          |     |
|----------|-----------|----------|-----|
| $[\beta$ | $[\alpha$ | $[\beta$ | ]]] |
| $[iF]$   | $[uF]$    | $[iF]$   |     |
| $[uK]$   | $[iK]$    | $[uK]$   |     |

Whereas the step in (23)a applies straightforwardly ( $\beta$ 's  $[uK]$  feature is simply checked against the higher  $[iK]$  feature of  $\alpha$ ), the step in (23)b is problematic: how is it known at this stage in the derivation that  $\beta$  must move across  $\alpha$  to check the latter's  $[uF]$  feature? Since it is possible that at a later stage in the derivation some third element  $\gamma$  is merged that carries  $[iF]$  as well,

nothing guarantees that at this stage of the derivation  $\beta$  must itself move to check  $\alpha$ 's [uF] feature, a typical look-ahead problem.

This problem is only solved if  $\beta$  is already an available candidate in the structure to check the [uF] feature on  $\alpha$ , before other potential goals may be merged, and so  $\beta$  can move before some other element  $\gamma$  has an opportunity to enter the derivation. But in order to know that  $\beta$  bears the relevant feature ([iF]), it seems necessary for  $\alpha$  to look down into its c-command domain to identify a potential target for Agree. If this downwards search is possible, however, then the central claim of UA is significantly weakened, by allowing probes not only to look up (as proposed by UA) but also to look downwards (as in DA).

In summary, motivating EPP-effects by linking it to the creation of Spec-Head agreement creates a look-ahead problem, one that seems only solvable if downwards probing is in one way or the other re-introduced, a look-back problem, which then weakens the UA framework. This problem is not addressed in Zeijlstra (2012) (though see fn. 19 in that article for some discussion), and under the UA system proposed by him, no restrictions are imposed on when lower goal can raise across the probe to check off an uninterpretable feature on that probe. As consequence, a configuration such as (24), where the sole trigger for movement would be to establish an Agree relation between  $\alpha$  and  $\beta$  (with no prior UA relationship, as in (23)), is predicted to be grammatical. Zeijlstra (2012), however, does not present any examples that would fit this pattern, and we are not aware of such examples either.

$$(24) \quad \text{Agree} \Rightarrow \begin{array}{ccc} [\beta & & [\alpha & & [\beta & & ]]] \\ [iF] & & [uF] & & [iF] \end{array}$$

In order to circumvent the problem, we propose that probes can indeed only look upwards when establishing new Agree relationships, but that once a probe and a goal already stand in a feature checking relation these elements remain accessible to one other for subsequent feature checking. Formally, we propose an accessibility condition whereby a probe can only look up for potential goal, unless it stands already in a different Agree relation with a lower goal. This then makes the lower goal visible for an upward searching probe.

- (25) Accessibility condition:  $\alpha$  is accessible to  $\beta$  iff:
- a.  $\beta$  c-commands  $\alpha$  (respecting additional locality restrictions) *or*
  - b. if  $\alpha$  and  $\beta$  are members of an Upwards Agree-chain  
where  $\langle x_n, \dots, x_1 \rangle$  is an UA-chain iff every chain member  $x_{i+1}$  stands in an UA relation with  $x_i$ .

The trigger for movement into Spec-Head configurations now follows naturally. In (26),  $\alpha$  and  $\beta$  already stand in an UA relation since lower  $\beta$  has its uninterpretable [uK] feature checked against the interpretable feature [iK] on  $\alpha$ . Since  $\alpha$  and  $\beta$  already stand in this Agree relation, they will remain accessible to each other. Since  $\beta$  is already accessible to  $\alpha$ , no further additional downwards search mechanism has to be adopted in order for  $\alpha$  to know that  $\beta$  is a candidate for checking  $\alpha$ 's [uF] feature.

$$(26) \quad \begin{array}{ccc} [\beta & & [\alpha & & [\beta & & ]]] \\ [iF] & & [uF] & & [iF] \\ [uK] & & [iK] & & [uK] \end{array}$$

Our proposal solves both problems outlined above in relation to Spec-Head agreement. First, the look-ahead problem is solved, because the lower goal is now accessible to the probe; under

any mechanism that states that if a particular syntactic operation must take place when all candidates that can establish this are available, movement of the goal across the probe is triggered to check off the latter's uninterpretable features. Second, the ability of the probe to look down in order to see this goal is now made possible by the prior UA relation between an uninterpretable feature on the goal and an interpretable one on the higher goal without alluding to any notion in terms of DA. Finally, the configuration (24) is ruled out because the lower element is not accessible, and so is not a potential mover.

One could object that our proposal has now become similar to Chomsky's (2000, 2001) version of Agree, where a lower goal must have an uninterpretable feature in order to be visible to the probe (a condition known as the Activity Condition), and that as a side-effect of the Agree relation this uninterpretable feature on the goal gets checked off as a kind of reflex. While the proposal we present is indeed similar in the sense that it is a necessary condition for a higher probe to agree with a lower goal that this goal stands in a prior UA relation with the probe, our proposal only requires this revised activation condition to apply for those Agree configurations where the goal starts out below the probe before it moves across it. Crucially, if the goal is first Merged above the goal (or raises for independent reasons), no such condition applies. (9) (repeated as (27) below) is still a valid configuration for Agree (and a necessary one, given the argumentation in section 1.1), whereas Chomsky's version of Agree would incorrectly rule it out.

(27) [ X<sub>[iF]</sub> ... Y<sub>[uF]</sub> ... (Z<sub>[uF]</sub>) ]

What this shows us already is that this version of UA makes correct predictions for all core cases of UA and for Spec-Head agreement. The question that is now left open, is what exactly determines when an accessible candidate for Agree can be (re)merged in a position for Agree to take place. It turns out that the answer to this question, which we address in the next section, will allow for particular instances of long-distance agreement without making any reference to DA.

Finally, note that accessibility is defined in terms of chain conditions, so that the accessibility relation is transitive: if some lower element *x* is accessible to some higher *y*, and if *y* is accessible to an even higher *z*, then *x* is also accessible to *z*. The reason to take accessibility to be a transitive is that accessibility is a locality condition, and locality conditions are otherwise transitive in exactly this sense. In the case of movement, for instance, if  $\alpha$  can be a movement target for  $\beta$ , and  $\beta$  can be a movement target for  $\gamma$ ,  $\alpha$  is automatically an (indirect) movement target for  $\gamma$  too. The same applies for chains of Agree relations. The transitivity of accessibility naturally makes empirical predictions, which turn out to be correct. We will see in section 4 that the transitivity of accessibility is relevant for accounts of LDA in Hindi-Urdu and Basque, where we follow previous accounts in assuming that agreement across clause boundaries is mediated by a functional head at the edge of an embedded clause.

### 3.2 *Long-distance agreement*

The accessibility condition relates Agree and movement in a principled and constrained way. Whenever a probing head with some uninterpretable feature is merged and it checks off some uninterpretable feature of a lower matching goal, this makes the goal accessible, and therefore makes it a candidate to move into the specifier position of the probe, where it can check off an uninterpretable feature of the probe in turn. For instance, if the probing head is *T*, which bears an uninterpretable feature [*u*φ], a DP carrying [*i*φ] will only be able to raise to Spec,TP if it already stands in an independent Agree relation with *T*, i.e. a relationship for nominative Case.

This is shown below, following Pesetsky & Torrego's (2004) proposal that nominative Case is an instance of checking off a [uT] feature:

- (28) a. 

[T	[DP	]]
[u $\phi$ ]	[i $\phi$ ]	
[iT]	[ <del>uT</del> ]	
- b. 

[ DP	[T	[DP	]]]
[i $\phi$ ]	[ <del>u<math>\phi</math></del> ]	[i $\phi$ ]	
[ <del>uT</del> ]	[iT]	[ <del>uT</del> ]	

Like other accounts of Spec-head agreement (including Chomsky 2001, 2002 and Boskovic 2007), we assume that whenever some candidate is able to raise into the specifier position, it must do so, so that Spec-head agreement is established whenever possible. This requirement on early checking prevents a feature from remaining unchecked, if that feature could be checked at some stage in the derivation but not at any later stages. Arguably this is not a principle that is restricted to Agree, but to syntactic operations in general. For purposes that will become clear later on, let us formalize this principle that we can dub 'Earliness' as follows.

- (29) *Earliness*: if some syntactic operation is necessary (i.e. not applying it would render the sentence ungrammatical), and can apply at some derivational stage, it must apply at this derivational stage.

It is clear that (29) would cause the lower goal in Spec-head agreement to immediately raise into the specifier position of the probing head, so long as nothing else would prevent that movement. But it does more. Suppose, for instance, that after merger of the probing head  $\alpha$ , the numeration also has an available a goal  $\gamma$  carrying [iF], as illustrated in (30). *Earliness* tells us that Agree must take place now. Now, in this configuration, should  $\beta$  move or should  $\gamma$  be merged? Both would be accessible to the probe and both can check off [uF] on  $\alpha$ . So, is the next step (31)a or (31)b?

- (30) 

[ $\alpha$	[ $\beta$	]]
[uF]	[iF]	
[iK]	[ <del>uK</del> ]	
- (31) a. 

[ $\beta$	[ $\alpha$	[ $\beta$	]]]
[iF]	[ <del>uF</del> ]	[iF]	
[ <del>uK</del> ]	[iK]	[ <del>uK</del> ]	
- b. 

[ $\gamma$	[ $\alpha$	[ $\beta$	]]]
[iF]	[ <del>uF</del> ]	[iF]	
	[iK]	[ <del>uK</del> ]	

Both options, in principle, yield a grammatical structure, as both [uF] on  $\alpha$  and [uK] on  $\beta$  are checked off. In such cases, principles of computation efficiency apply. Since external merger of  $\gamma$  is a less costlier operation than remerging  $\beta$ , the former will be the preferred option, a principle known as the Merge-over-Move constraint (Chomsky 1995): this not only prefers operations that empty the numeration, it also decreases the number of derivational steps.

But now a new problem arises: an element  $\gamma$  merged to check [uF] may be only partially specified for *values* of F. Particularly in the context of  $\phi$ -features, it is widely assumed

that there is internal structure to feature values, i.e. a single  $\phi$ -feature has values for both person and number, and possibly gender as well (Chomsky 1995, Harley and Ritter 2002; Bejar 2003 a.o.). Suppose that in the configuration in (30), the element  $\alpha$  carries an uninterpretable  $\phi$ -feature that is unvalued for both person ( $\pi$ ) and number ( $\nu$ ):

$$(32) \quad \begin{array}{ll} [\alpha & [\beta \quad ]]] \\ [u\phi: \pi\_ , \nu\_ ] & [i\phi; \pi, \nu] \\ [iK] & [\text{u}\cancel{K}] \end{array}$$

The  $\phi$ -feature of  $\alpha$  can be fully valued if a higher goal  $\gamma$  is merged containing a fully matching interpretable  $\phi$ -feature ( $[i\phi: \pi, \nu]$ ) or if, in absence of such a higher goal  $\gamma$ ,  $\beta$  raises to  $\alpha$ 's specifier position. But what would happen if  $\gamma$  were  $\phi$ -incomplete, for example if its interpretable  $\phi$ -feature were valued only for person, and not for number (or if it had no value at all)?

The Merge-over-Move constraint would still require that  $\gamma$  be merged in these cases, even though  $\beta$  has a more fully specified  $i\phi$  feature. The reason is that the *checking* requirement of the  $\phi$ -feature is still fulfilled: Agree can take place, since the interpretable  $\phi$ -feature on  $\gamma$  matches with the uninterpretable  $\phi$ -features on  $\alpha$ , given the UA definition in (1) that states that an uninterpretable feature Agrees with a c-commanding goal that contains a matching interpretable feature. So in (33), all uninterpretable features are checked.

$$(33) \quad \begin{array}{lll} [\gamma & [\alpha & [\beta \quad ]]] \\ [i\phi; \pi] & [\text{u}\phi; \pi, \nu] & [i\phi; \pi, \nu] \\ & [iK] & [\text{u}\cancel{K}] \end{array}$$

Though the uninterpretable  $\phi$ -feature is not fully *valued*, it is *checked*. A configuration like (33) thus does not violate any syntactic condition: all uninterpretable features have been associated with interpretable counterparts. However, at the same time (33) would still be ungrammatical, as the uninterpretable  $\phi$ -feature must still be valued. The question is how the  $[u\phi]$  feature can be given a value for number. In order to answer this question, we first need to specify the distinction between valuation and checking in more detail.

Pesetsky & Torrego's (2007) propose that valuation and checking should be disentangled in their system – their proposal also allows for interpretable but unvalued and uninterpretable but valued instances of features. Even though for Pesetsky & Torrego checking and valuation are representationally but not operationally distinct, disentangling the two also allows for a view that the two to be distinct operations. The requirement that every  $[uF]$  be c-commanded by a corresponding  $[iF]$  is then a *checking* requirement, whereas *valuation*, by contrast, is a mechanism that requires that every unvalued feature receives a proper value by a matching feature that is already valued. The idea that checking and valuation are different operations has also been proposed, in slightly different terms, in recent work by Arregi and Nevins (2012), who distinguish two operations: Agree-Link (in the syntax) and Agree-Copy (in the post-syntactic morphology). Under this view, every unchecked feature needs be checked against an interpretable feature under Agree; every unvalued feature needs be valued after it has been checked.

These properties of Agree naturally and readily follow under our proposal. First, if checking and valuation are distinguished, checking must be the more fundamental of the two operations: feature interpretability is relevant at LF, so checking necessarily occurs in the narrow syntax, while feature valuation is relevant only for morphological realization (at least for uninterpretable features), and so could in principle be delayed to the post-syntactic





- (36) a. There's several books on the table.  
 b. There are several books on the table.

Our proposal thus predicts that only in cases where a probing head partially Agrees with a higher goal in its specifier position, the probe may also be partially valued with the lower goal. Long distance agreement may therefore take place if and only if: (i) some “defective” goal is present in the specifier of the probe; (ii) the lower goal contains the “remaining” feature values missing on the element in the specifier; and (iii) the lower goal stands in an independent Agree relation with the goal. Consequently, this rules out cases where long distance agreement takes place without some additional Agree relation between the probe and the lower goal; and without some incomplete specifier being present in the specifier position of the probe. If these predictions turn out to be correct, the original UA approach, enriched by the accessibility condition in (25), can capture every instance of agreement without introducing any kind of ‘downward operations’ in the syntax. The next section will show for all representative cases of long-distance agreement presented in the literature that these predictions are indeed correct.

#### 4. Case and $\phi$ -agreement

Our theory so far predicts that every probe carrying an uninterpretable (and potentially unvalued) feature must have this feature checked under UA against a higher goal carrying a matching interpretable feature. At the same time, if this checking feature cannot value any unvalued feature on the goal, a goal that is c-commanded by the probe may value these features, provided that this lower goal and the probe stand in an additional UA relationship.

This novel account has especially strong repercussions for  $\phi$ -agreement. The reason for this is twofold: first, most (apparent) counterexamples to the UA approach involve  $\phi$ -agreement, already suggesting that there is something special going on in this domain of agreement; second,  $\phi$ -agreeing heads have been argued by many to stand in an additional agreement relation with the agreeing goal, namely case-agreement. For this reason, in this section we discuss the relation between  $\phi$ -agreement and case agreement. First we outline the predictions our proposal makes for case agreement in general (in 4.1) and in the section thereafter, we discuss cases of defective long-distance agreement (4.2). In section 4.3, we discuss the cases that Preminger (2013) takes to be problematic for the UA approach, and we argue that these are not problematic to our proposal, once it is assumed that the lower DPs that value the target of agreement in these languages, either directly or indirectly receive their case from this target (where receiving indirect case means that the lower DP receives case from some element that receives case itself from the target of agreement). In fact, it turns out that even these cases are handled at least equally well, if not better by UA than by DA. Section 4.4 spells out some concluding thoughts about this topic.

##### 4.1 $\phi$ -agreement and case: deriving the Case-Linked Agree generalization

The interdependence of Case and agreement is central to current Minimalist theory. The standard view is that Case valuation is dependent on  $\phi$ -agreement: the Case value of an argument arises as a reflex of its valuation of the  $\phi$ -features of the Case-assigning head. However, the dependence between Case and agreement is not uni-directional. Recall from the discussion in 3.1 that in order for the lower goal to be visible to the probe, it must contain an uninterpretable feature as well, in the case of  $\phi$ -agreement a Case feature (In Chomsky's terms

this is the *activation condition*). Hence, Case valuation and  $\phi$ -agreement can occur only when both the probe and the goal bear relevant uninterpretable features.

Bobaljik (2008) argues further that case is a precondition for  $\phi$ -agreement. A substantial part of the evidence he put forwards for this comes from languages that allow both subject and object agreement, such as Icelandic. Bobaljik observes that both subject agreement and object agreement in languages like Icelandic always take place with nominative DPs: if the subject is a dative the verb will agree with the nominative object. For Bobaljik, this is evidence that case assignment and  $\phi$ -agreement take place at the same stage in the derivation, and that this is a post-syntactic stage, as he takes case assignment to be post-syntactic in the first place (cf. Marantz, 1991). If we are correct in assuming that  $\phi$ -agreement is the source of subject movement to Spec,TP (instead of some spurious [EPP] feature) the same argument instead entails that both  $\phi$ - and case agreement take place in narrow syntax.

The UA system developed in the previous section resembles Chomsky's and Bobaljik's proposals, in the sense that Case valuation is a precondition for morphological agreement. The UA system is quite different, however, in the sense that not all cases of  $\phi$ -valuation depend on Case: it is only in cases of "long distance" agreement, with arguments that do not c-command the agreeing head in their base position, that  $\phi$ -agreement must be dependent on other Agree relations. Such instances of  $\phi$ -valuation are not themselves the product of Agree, properly speaking, as Agree is concerned only with feature checking, not directly with valuation.

Our proposal predicts three possible configurations for  $\phi$ -agreement, two of which require  $\phi$ -valuation to be dependent on another instance of Agree (canonically Case-agreement):

- |      |    |                                   |                             |                             |                             |
|------|----|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|
| (37) | a. | Upward $\phi$ -agreement:         |                             | $[i\phi: a, b]$             | $[u\phi: \underline{a}, b]$ |
|      | b. | derived Upward $\phi$ -agreement: | $[u\phi: \underline{a}, b]$ | $[i\phi: a, b]$             | $[u\phi: \underline{a}, b]$ |
|      |    |                                   | $[iK]$                      | $[uK]$                      | $[iK]$                      |
|      | c. | long-distance $\phi$ -agreement:  | $[i\phi: a]$                | $[u\phi: \underline{a}, b]$ | $[i\phi: b, c]$             |
|      |    |                                   |                             | $[iK]$                      | $[uK]$                      |

Under our proposal, upward  $\phi$ -agreement simpliciter does not have any necessary dependency on Case; Long-distance  $\phi$ -agreement and movement-triggering  $\phi$ -agreement, by contrast, do have such a dependency (strictly speaking not on Case, but on any additional Agree relation between the target and the controller of agreement). We can call this the Case-Linked Agree generalization:

- (38) *Case-Linked Agree generalization*: F may  $\phi$ -Agree with a DP/NP that it c-commands if and only if F also stands in a Case-Agree relation with that DP/NP (otherwise F must  $\phi$ -agree with a c-commanding DP/NP).

This generalization – that only  $\phi$ -agreement with lower DPs is dependent on Case – can be empirically confirmed by the data provided in Baker (2008). Baker proposes the following two parameters governing Case and Agreement:

- (39) *The Direction of Agreement Parameter (DAP)* (Baker 2008)  
F agrees with DP/NP only if DP/NP asymmetrically c-commands F (Yes or No).  
(No: most Indo-European languages; Yes: most Niger Congo languages)
- (40) *The Case Dependence of Agreement Parameter (CDAP)* (Baker 2008)  
F agrees with DP/NP only if F values the Case feature of DP/NP (or vice versa).  
(No: most Niger Congo languages; Yes: most Indo-European languages)

Whereas for Baker these two parameters are independent (and should constitute four logical types of languages), the data presented by Baker rather suggest that these two parameters are also parametrically related: most languages with a YES value for DAP have a NO value for CDAP and vice versa, a pattern completely in line with the *Case-Linked Agree generalization*. And several languages that appear to be exceptions to this pattern, under closer inspection actually adhere to this generalization (cf. Baker 2010).<sup>3</sup>

The *Case-Linked Agree generalization* claims that all languages with downwards  $\phi$ -agreement are like Icelandic or English, where downwards  $\phi$ -agreement is limited to DPs with a particular Case value (i.e. nominative or absolutive). It is only upwards  $\phi$ -agreement that can be Case-independent. Baker discusses such cases from Bantu languages, including Kinande. In Kinande the finite verb  $\phi$ -agrees with the closest higher DP, regardless of its grammatical function. This illustrated in (41). It is an open question whether Niger-Congo languages exhibit structural case (Harford Perez 1985, Diercks 2013, a.o.), but even if they do,  $\phi$ -agreement is not dependent on it, as illustrated by agreement with the locative argument in (41)b.

- (41) a. Abakali mo-ba-seny-ire olukwi (lw'-omo-mbasa) Kinande  
 women.2 AFF-2S/T-chop-EXT wood.11 LK11-LOC.18-axe.9  
 'The woman chopped wood (with an axe).'  
 b. Oko-mesa kw-a-hir-aw-a ehilanga.  
 LOC.17-table 17S-T-put-PASS-FV peanuts.19  
 'On the table were put peanuts.'  
 c. 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).'

The *Case-Linked Agree generalization* follows for us from the central mechanism of UA (see (37)): a probing head can only establish an Agree relation with some lower XP if that XP already stands in another UA relation with that probe (and front it to its specifier if necessary). Otherwise, the probe can only Agree with a higher XP. Because no other existing version of Agree can derive this generalization, it constitutes a strong argument in favor of UA.

#### 4.2 Case-related long distance agreement

The UA proposal predicts that features on a head can be valued by a lower goal only if two conditions are met: (i) those features are checked, but not (fully) valued via UA by some higher goal, and (ii) only if the lower goal stands in some additional UA relation with this probe. Applied to instances of Case and  $\phi$ -agreement,  $\phi$ -agreement between finite T and a lower DP can only take place if this lower DP stands in a Case-Agree relation with T and if some other DP checks the uninterpretable  $\phi$ -feature on T, but does not (fully) value it.

<sup>3</sup> For example, Kapampangan is a language with a YES-value for CDAP (T agrees with an NP in Kapampangan if and only if it assigns nominative case to that NP; *v* agrees with an NP in Kapampangan if and only if it assigns ergative case). But agreement between T and an NP only takes place if the subject is in Spec,TP, and not if it appears below (for Baker movement to Spec,TP occurs only if a DP is focused). Baker therefore takes Kapampangan to have a YES-value for DAP. However, one could equally well argue that it has a NO-value for DAP, in the sense that when it agrees it does so with the lower subject, that is consequently raised. The difference between Kapampangan and other languages is that T-agreement does not always take place. This is a pattern that completely in line with (40)

We now illustrate how this mechanism applies to instances of long-distance agreement in both ergative-absolutive and nominative-accusative languages. Languages with ergative-absolutive patterns of agreement perhaps best show the correlation between Case and  $\phi$ -valuation, since agreement in transitive clauses is quite generally with an argument that is unambiguously c-commanded by the locus of morphological agreement (T), i.e. with the absolutive object. We will take Hindi-Urdu as an example (4.2.1). In languages with a nominative agreement pattern, the correlation becomes clear in exactly those cases where the subject is non-nominative, since agreement then takes place between T and a lower nominative argument. Here we focus on Icelandic quirky subject constructions (4.2.2). The agreement patterns in these languages have been taken as strong arguments of favor of DA, as the target of agreement never seems to be c-commanded by its controller. However, it turns out, that these agreement patterns naturally follow from our UA proposal as well.

In fact, it turns out that UA even accounts better for these cases than DA. The reason (discussed in 4.2.3) is that many cases of long-distance agreement (but not of Spec-head agreement or other cases of upward agreement) can be defective. This is always been problematic for proposals in terms of DA, as it remains mysterious why the primary Agree relation should result in defective agreement, but follows naturally from UA where downward agreement is nothing but the result of valuation of an uninterpretable feature on a higher probe by a lower DP in cases where the checker of this uninterpretable feature did not or only partially value its features. In the first case, downward agree will be complete; in the latter case defective.

#### 4.2.1 Hindi-Urdu

Languages with ergative-absolutive agreement canonically  $\phi$ -agree with the internal argument in transitive clauses. In other words, these languages show systematic agreement with a DP that is c-commanded by the locus of finite agreement, here assumed to be T. This section illustrates how such a system can be accounted for with UA only, making specific reference to the agreement pattern found in Hindi-Urdu.

Importantly, the set of languages with ergative-absolutive agreement is a subset of languages with ergative-absolutive case systems. What this means is that “ergative”  $\phi$ -agreement with transitive objects is always *case-linked* agreement with absolutive DPs, in accordance with the *Case-Linked Agree generalization*, which can be derived from our UA proposal.<sup>4</sup>

Hindi-Urdu exhibits an aspectually split ergative system, where ergative alignment surfaces only in perfective and perfect contexts. This split is illustrated in (42), where only the (a) example contains the ergative marker *-ne* on the subject and  $\phi$ -agreement with the object.

- (42) a. Raam-ne vah kitaabē par<sup>h</sup>-ii th-ii Hindi-Urdu  
 Raam-ERG those books(FEM) read-(PFV)FEM.PL be.PAST-FEM.PL  
 ‘Raam had read those books.’  
 b. Raam vah kitaabē par<sup>h</sup>-t-aa th-aa  
 Raam those books(FEM) read-IMPF-MASC.SG be.PAST-MASC.SG  
 ‘Raam used to read those books.’ (Mahajan 1997: 46)

---

<sup>4</sup> Ergative-absolutive languages with non-case-linked  $\phi$ -agreement (e.g. languages where finite agreement is possible with either ergative- or absolutive-marked subjects) are also accounted for by our UA proposal, as languages where finite agreement is uniformly with a DP in Spec-TP.

Morphological agreement in Hindi-Urdu is with the structurally highest DP without any overt case marking. In the imperfective this is generally the surface subject; in the perfective it is the unmarked internal argument, if any. Internal arguments in both perfective and imperfective clauses can also appear with “Differential Object Marking” (DOM) when they are specific or animate. DPs with this marking (homophonous to the dative marker *-ko*) cannot control  $\phi$ -agreement (being overtly case marked). When there is no unmarked DP that can control  $\phi$ -agreement (as with all unergatives and in the presence of DOM direct objects), the verb surfaces with third-person singular morphology.

- We assume that ergative in Hindi-Urdu is an inherent and oblique case assigned to external arguments in a specifier position. The idea that ergative is an inherent case is well-established in current work (Woolford 1997, Ura 2000, Legate 2008, a.o.); it is generally proposed that ergative is assigned to the external argument in its base position within *v*P, a view that has been adopted specifically for Hindi-Urdu by authors such as Ura (2000) and Anand and Nevins (2006) (though note that the specific head responsible for ergative case in Hindi-Urdu must be present only in perfective clauses).<sup>5</sup>

At the same time, the internal argument DP also bears an unvalued and uninterpretable case feature, which also probes upwards to UA with finite T.

- The presence of [u $\phi$ ] on T motivates movement of a DP to Spec-TP. Both the external argument and the internal argument are accessible to T, according to the definition of accessibility in (25), but as the external argument is structurally closer, it is this DP that moves to Spec-TP.

<sup>5</sup> Bjorkman (in prep.) argues on this basis that ergative case in Hindi-Urdu should be attributed directly to a perfective aspectual head Asp, rather than to *v*.

Hindi-Urdu is able to check but not value the  $[u\phi]$  feature on T. Because the internal argument is accessible to T, it is thus a candidate for last-resort valuation on the basis of accessibility.

- (45)  $\begin{array}{ccccc} [DP_{ergative} & [T & [DP_{ergative} & \nu & [DP_{absolutive}]] \\ [i\phi] & [\cancel{u\phi}:pers,num] & [i\phi] & & [i\phi:pers,num] \\ [\cancel{uT}] & [iT] & [\cancel{uT}] & & [\cancel{uT}] \\ [iERG] & & [iERG] & & \end{array}$

Were the internal argument licensed via DOM, however, it would be similarly unable to value the  $\phi$ -feature of T (either because DOM objects do not establish a case-checking relationship with T, or because DOM objects have the same problematic case shell that ergative subjects do). This is illustrated in (46), which can be understood as a schematic representation of sentences like (43).

- (46)  $\begin{array}{ccccc} [DP_{ergative} & [T & [DP_{ergative} & \nu & [DP_{DOM}]] \\ [i\phi] & [\cancel{u\phi}] & [i\phi] & & [i\phi] \\ [\cancel{uT}] & [iT] & [\cancel{uT}] & & [\cancel{uT}] \\ [iERG] & & [iERG] & & \end{array}$

In this case (and also in unergative sentences, where there is no internal argument at all), the probing  $\phi$ -feature of T is checked, but cannot be valued. We suggest that default agreement occurs whenever all features are checked, but some remain unvalued. Valuation, but not checking is a fallible operation, a natural statement to make, since valuation feeds morphological realization, and morphological realization can assign an elsewhere realization in unspecified contexts.<sup>6</sup>

At this point it is worthwhile to discuss an interesting pattern of LDA found in Hindi-Urdu, discussed in Bhatt (2005), where the matrix verb (and potentially also an auxiliary) agrees with an argument of an embedded infinitival clause.

<sup>6</sup> A quite different approach is necessary if we assume instead that “absolutive” objects in Hindi-Urdu have their case licensed by  $\nu$ , as proposed by Legate (2008). Legate suggests that 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.

The chief problem this approach creates for the current UA proposal is in explaining how the  $\phi$ -features of a morphologically-absolutive/structurally-accusative internal argument could be accessible to finite T for valuation. While  $\phi$ -feature agreement on the main verb (as in (42)a) can be mediated via  $\nu$ , this is not possible for agreement on the finite auxiliary verb.

One path forward would be to propose that finite absolutive agreement is accomplished indirectly, via a checking relationship between T and  $\nu$  (assuming that  $\nu$  probes upwards to Agree with T). Another possibility is that accusative internal arguments do check case features against  $\nu$ , but then for some reason probe further to establish a second case relationship with T. This second approach would capture the idea that accusative case is structurally more complex than nominative, though still not as “complex” as dative, for example. On this story, perfective clauses in Hindi-Urdu are actually quite different from Icelandic quirky subject constructions in that the object has its ordinary transitive objective case (i.e. accusative), despite showing a different agreement alignment than is found in non-ergative contexts in the language.

- (47) Vivek-ne [ kitaab par.h-nii] chaah-ii  
 Vivek-Erg book.F read-Inf.F want-Pfv.FSg  
 ‘Vivek wanted to read the book.’ (Bhatt 2005: 760)

This is possible only when the matrix clause is perfective, so that the matrix (ergative) subject is not a possible target for  $\phi$ -agreement; a non-ergative subject would agree with the finite verb itself. This LDA is optional, but correlates with agreement within the infinitival clause itself. Bhatt (2005) demonstrates that though it is possible for both the embedding and non-finite verbs to agree with the absolutive DP (48)a, and possible for neither to agree (48)d, it is ungrammatical for either to agree without the other doing so as well (48)b-c.

- (48) a. LDA + Infinitival agreement  
 Shahrugh-ne [t: ehnii kaat: -nii] chaah-ii thii  
 Shahrugh-Erg branch.F cut-Inf.F want-Pfv.F be.Pst.FSg  
 ‘Shahrugh had wanted to cut the branch.’  
 b. LDA without Infinitival agreement  
 \*Shahrugh-ne [t: ehnii kaat: -naa] chaah-ii thii  
 Shahrugh-Erg branch.F cut-Inf.M want-Pfv.F be.Pst.FSg  
 c. Infinitival agreement without LDA  
 \*Shahrugh-ne [t: ehnii kaat: -nii] chaah-aa thaa  
 Shahrugh-Erg branch.F cut-Inf.F want-Pfv.MSg be.Pst.MSg  
 d. Neither LDA nor Infinitival agreement  
 Shahrugh-ne [t: ehnii kaat: -naa] chaah-aa thaa  
 Shahrugh-Erg branch.F cut-Inf.M want-Pfv.MSg be.Pst.MSg  
 ‘Shahrugh wanted to cut a/the branch.’ (Bhatt 2005: 761)

Bhatt argues that Hindi-Urdu LDA is dependent on restructuring, but does not reflect direct Case licensing of the embedded absolutive by the matrix clause. This latter is for two reasons: first, overt absolutive objects are licensed in non-finite subject clauses (where they cannot be licensed/c-commanded by a matrix functional head); and second, embedded infinitives never allow overt unaccusative subjects (unless these occur with genitive case), though these could in principle receive absolutive case from the matrix clause.

- (49) [imlīi khaa-naa] achchhaa hai  
 tamarind.F eat-Inf good.Msg be.Prs.3Sg  
 ‘To eat tamarind is good.’

- (50) a. \*Ram-ne [Mohan jaa-naa] chaah-aa  
 Ram-Erg Mohan go-Inf want-Pfv  
 b. Ram-ne [Mohan-kaa jaa-naa] chaah-aa  
 Ram-Erg Mohan-Gen go-Inf want-Pfv  
 ‘Ram wanted Mohan to leave / Mohan’s leaving.’

Bhatt proposes that LDA in Hindi-Urdu arises in the context of restructuring because matrix T establishes a relationship with embedded T – this relationship turns non-finite T into a probe. This departs from recent approaches to restructuring, such as Wurmbrand (2001), where restructuring arises from the embedded structure being small or abbreviated in some sense.

We can preserve the small-complement approach to restructuring within an alternative UA account of Hindi-Urdu LDA. Suppose that non-finite complements in Hindi-Urdu are very



small, no larger than *vP*, and that the nominal nature of infinitival morphology indicates that the entire embedded predicate has been nominalized. This nominalized *v* head case licenses the embedded absolutive object (as suggested above for absolutive objects more generally), and it in turn is case licensed by a head in the matrix clause.

By the transitivity of accessibility, this renders the embedded absolutive DP accessible to matrix *T* as a  $\phi$ -valuer. The correlation of LDA with infinitival agreement can be accounted for as a correlation with the size of the restructured complement: if the complement is large enough to contain a null PRO subject (as Bhatt suggests), this PRO subject can trigger (default) agreement, and prevent the absolutive object from valuing the  $\phi$ -features of the embedded *v* head in the first place. We will see below that a similar case of indirect agreement can account for LDA in Basque.

#### 4.2.2 Icelandic

The examples above show how case agreement is necessary for  $\phi$ -agreement in languages where an ergative case DP is unable to value the  $\phi$ -features on *T*: with intransitives, the absolutive DP (that Case-Agrees with higher *T*) raises to Spec,TP to check and value the unvalued  $\phi$ -features on *T*; with transitives the ergative subject raises to Spec,TP to check off the uninterpretable  $\phi$ -features on *T*, but the ergative is unable to value them. Consequently, they are valued by the absolutive object. Therefore,  $\phi$ -agreement is always with the absolutive.

In nominative-accusative languages, the subject is generally nominative. It starts out below *T*, with which it Case-Agrees. Then, in order to check and value the uninterpretable  $\phi$  – feature on *T*, it raises to Spec,TP. However, in some of these nominative-accusative languages, the subject can sometimes have oblique case and nominative case may then appear on the object. This is the case with quirky subject constructions in Icelandic. In Icelandic, certain experience and raising verbs select dative subjects:

- |      |    |   |                              |
|------|----|---|------------------------------|
| (51) | a. | Jóni líkuðu Tessir sokkar<br>Jon.DAT like.3PL these socks.NOM<br>'Jon likes these socks'                          | Icelandic<br>(Bobaljik 2008) |
|      | b. | Mér virdast hestarnir vera seinir<br>Me seem.3.PL the.horses be slow<br>'It seems to me that the horses are slow' |                              |

As can be seen in (51) the verb agrees with the nominative object and not with the dative subject. However, this agreement turns out to be much more restricted than object agreement with absolutives shown above. One major distinction is that nominative agreement always has 3<sup>rd</sup> person, regardless of the person of either the subject or the object. If the subject is 1<sup>st</sup> or 2<sup>nd</sup> person, agreement is still 3<sup>rd</sup> person; if the object is 1<sup>st</sup> or 2<sup>nd</sup> person quirky subjects are not even allowed:

- |      |    |   |                            |
|------|----|---|----------------------------|
| (52) | a. | Honum batnaði<br>Him.DAT recovered.3SG<br>'He recovered'                        | Icelandic<br>(Boeckx 2008) |
|      | b. | Okkur batnaði/*bötnuðum<br>Us.DAT recovered3.SG/recovered.1PL<br>'We recovered' |                            |

- (53) \*Einhverjum hafð alltaf líkað þið  
 Someone has all liked you  
 Int: ‘Someone likes y’all.’

The Icelandic facts illustrate a case in which LDA is defective, i.e. it only applies to number (with some kind of 3<sup>rd</sup> person default agreement). Instead of taking feature defectivity as an accidental property of LDA, the facts follow naturally of under our UA proposal once we assume with Rezac (2008) and many others that datives are embedded in a designated PP (or KP) layer and if we further assume that the head of this dative PP/KP has a interpretable  $\varphi$ -feature valued for 3<sup>rd</sup> person only. Then the dative PP/KP simply checks off the uninterpretable  $\varphi$ -feature in T and values it for 3<sup>rd</sup> person:

- (54) a. [Jóni<sub>[i $\varphi$ : 3RD]</sub> líkuðu<sub>[iTi $\varphi$ : 3RD, \_\_]</sub> Tessir sokkar<sub>[uTi3.PL]</sub>]  
 b. [Mér<sub>[i $\varphi$ : 3RD]</sub> virdast<sub>[iTi $\varphi$ : 3RD, \_\_]</sub> hestarnir<sub>[uTi3.PL]</sub> vera seinir]

Now the uninterpretable  $\varphi$ -feature in T still needs to be valued. Since, the dative cannot do this (as it is only valued for number), T needs to be valued by some other element. Since T Case-agrees with the nominative object, the nominative DP is an accessible candidate for number valuation. Consequently, the nominative DP values the number feature on T.

- (55) a. [Jóni<sub>[i $\varphi$ : 3RD]</sub> líkuðu<sub>[iTi $\varphi$ : 3RD, .PL]</sub> Tessir sokkar<sub>[uTi3.PL]</sub>]  
 b. [Mér<sub>[i $\varphi$ : 3RD]</sub> virdast<sub>[iTi $\varphi$ : 3RD, .PL]</sub> hestarnir<sub>[uTi3.PL]</sub> vera seinir]

The result is that the feature defectivity of  $\varphi$ -feature is actually only apparent. Rather, the agreement is split: 3<sup>rd</sup> person  $\varphi$ -agreement takes place with the dative subject; number agreement takes place with the nominative object.

This captures already the cases in (51). But we need to say more about how valuation takes place. For instance, why is it that (53) is out? Arguably, the reason is that since the both the nominative and the dative value the uninterpretable  $\varphi$ -feature on T, the featural requirements may not be in conflict: otherwise a valuation crash would appear. But how about the cases in (52)? Again, no number feature can be valued. Still, the sentence realizes singular number morphology? The only thing we can say here is that even though every feature has to be checked, it is not needed that it always gets valued: if a particular feature remains unvalued at the end of the derivation it can still be realized as default morphology, as discussed before. This is, however, not a particular property of valuation (which can take place in the syntax), but rather a property of PF, where particular values are spelled out. The final question, then, is: couldn't the person feature of the dative be the result of default spell-out as well (as proposed, for instance, by Preminger 2013)? The answer is no. If that were the case, it would still be mysterious why in (53) the nominative person features could not value the person feature on T. The only way to account for the person-number asymmetry is by assuming that dative subjects are more specifically marked for person than for number morphology, and that in Icelandic 3<sup>rd</sup> person morphology realizes a specific feature and cannot always be regarded default morphology.

Finally, the proposal solves another thorny problem concerning Icelandic quirky case constructions. The problem is that though Icelandic LDA is subject to intervention effects, these effects arise only when the interveners are overtly realized in their intervening position, not when they further raise to a higher position. This is illustrated in (56) below, where *Jóni* acts as an intervener in (56)a, but no longer does so if it raises further to the matrix subject position. This is problematic for both syntactic and post-syntactic approaches to quirky

subjects in Icelandic. Under syntactic approaches the overtness of the dative should not matter, so if it can intervene in (56)a, it should also intervene in (56)b. Under post-syntactic approaches, such as Bobaljik (2008), the dative, since it does not trigger  $\phi$ -agreement should be inaccessible, and therefore invisible.

- (56) a. Mér \*virdast/virdist [ Jóni vera taldir t líka hestarnir.]  
 Me.DAT seem.PL / seem.SG Jóni.DAT be believed like horses.NOM  
 ‘I perceive Jon to be believed to like horses.’  
 b. Jóni virdast/\*virdist [t vera taldir líka hestarnir.]  
 JON.DAT seem.PL / seem.SG be believed like horses.NOM  
 ‘Jon seems to believed to like horses.’

Under our proposal, the nominative object receives case from finite T. This renders the nominative accessible to T, and since T’s [ $u\phi$ ] feature has been checked by the dative subject, the nominative object should be able to value T’s [ $u\phi$ ] feature for number (it has been valued for person already by *Mér* in (56)a *Jóni* in (56)b). However, in (56)a *Jóni* intervenes in this valuation relation (it carries interpretable  $\phi$ -features). As a result, in narrow syntax, where all lower copies of moved elements are still visible, valuation is impossible and cannot take place. At PF, where unpronounced copies are deleted, valuation may take place if the relevant copy gets deleted. That is indeed the case in (56)b; in (56)a *Jóni* does not get deleted, and valuation cannot take place. Only default singular may then appear on the verb.

Bobaljik points out that these intervention effects only arise when the verb are different clauses. In monoclausal construction, dative subjects do not intervene, as shown in (57) below.

- (57) Thad voru einhverjum gefnir thessir sokkar  
 EXPL were.PL someone.DAT given.PL these socks.NOM  
 ‘Someone was given these socks.’

However, as Holmberg & Hróarsdóttir (2003) suggest, in (57) the dative may have been base-generated in a position above T.<sup>7</sup> In that case, there is no dative intervener between T and the nominative and nothing blocks valuation.<sup>8</sup> One might also conceive of other constructions where the dative starts out below the nominative and raises across it to  $\nu$ P. In those cases valuation can take place before the dative intervenes. Since such a construction would only be possible if the nominative and the dative appear in the same clause, these data can be captured well.

### 4.3 Preminger’s counter examples

We are now in a position to evaluate Preminger’s claims regarding the incompatibility of long-distance agreement in Basque and Tsez with an Upward Agree framework. We will see that the Tsez examples follow directly and solve a problem that Polinsky & Potsdam’s (2001) account faces and that the Basque examples also favour an UA over a DA analysis, given that the Accessibility relation is transitive (as proposed in section 3.1). We first discuss Tsez and then Basque.

<sup>7</sup> Icelandic raising constructions show that dative subjects can start out below T and raise to Spec,TP, but do not show that they always must be base-generated below T.

<sup>8</sup> See Bobaljik (2008: fn. 30) for more discussion of this analyses along these lines.

#### 4.3.1 Agreement with embedded absolutive topics in Tsez

The same approach can be applied to Tsez, where embedded absolutive topics agree with matrix  $T^\circ$ . Polinsky and Potsdam (2001) present examples like (58), where embedded absolutive arguments can agree (in noun class) with the finite matrix verb, provided that this embedded absolutive is a topic.

- (58) Enir [ užā magalu b-āc’ruḷi ] b-iyxo  
 mother [ boy bread.ABS(III) III-ate ] III-know  
 ‘The mother knows [ that (as for the bread) the boy ate it’

If the embedded absolutive is not a topic, agreement between this argument and the matrix verb is absent, and the latter agrees with the entire embedded clause (class IV):

- (59) Enir [ užā magalu b-āc’ruḷi ] r-iyxo  
 mother [ boy bread.ABS(III) III-ate ] IV-know  
 ‘The mother knows that the boy ate the bread’

Polinsky and Potsdam (2001) convincingly argue that the agreement pattern in (58) cannot be established outside the embedded clause, i.e. by movement of the embedded agreement target into a Spec-Head configuration with matrix  $T^\circ$ . They demonstrate that the embedded topic cannot raise into the matrix clause, and also that it is not possible for agreement to be triggered by a covert pronoun in the matrix clause that corefers with the embedded topic. From this they argue that the matrix verb agrees with some element that is structurally lower at every stage of the derivation – in other words, that LDA in Tsez requires DA.<sup>9</sup>

In order to account for the fact that LDA in Tsez is restricted to embedded absolutive topics, Polinsky and Potsdam assume that these topical arguments (covertly) raise into a position in the left-periphery of the embedded clause (between CP and IP). Assuming a locality mechanism that does not allow the probing head to search too deeply in an embedded clause, this would guarantee that only topics can agree with matrix T, since non-topical arguments would not undergo this kind of raising. Linking  $\varphi$ -agreement to covert movement, however, is problematic for any view in which syntactic agreement feeds a post-syntactic morphological component: if  $\varphi$ -agreement is delayed to LF (necessary if it results from covert movement), then its effects should be invisible on the PF branch of the derivation.

The question thus arises whether there is some other way to account for the restriction of LDA in Tsez to topics. Since topic constructions are generally comparable to constructions with doubled co-referring pronouns (witness the translation: “[t]he mother knows [that (as for *the bread*) the boy ate *it*]” of (58)) and since Tsez exhibits null pronouns, we suggest that the underlying structure of (58) should be viewed instead as in (60).

- (60) [<sub>TP</sub> Enir [<sub>TOPP</sub> *pro*.III [<sub>TP</sub> užā magalu b-āc’ruḷi ] ] b-iyxo]  
 mother [ *pro*.ABS.III boy bread.ABS(III) III-ate ] III-know  
 ‘The mother knows [ that (as for the bread) the boy ate it’

<sup>9</sup> 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).

The position of *pro.III* in (60) is identical to the target position of the topic in Polinsky and Potsdam’s analysis. All structural conditions that the LF-agreement analysis requires are therefore also fulfilled here, modulo the fact that the trigger of agreement is already available for agreement prior to the split to LF and thus also available at PF. Because this pronoun is located within the embedded clause, Polinsky and Potsdam’s arguments against a *matrix* null pronoun in the matrix clause thus do not extend to this analysis.

In the structure in (60), the overt DP *magalu* receives case from embedded T and  $\phi$ -agree with it. This would be a standard case where  $\phi$ -agreement with an absolutive is made possible by a UA Case relationship (as discussed for Hindi above). The topic-doubling pronoun *pro.III*, however, base-generated outside embedded TP, cannot receive Case from embedded finite T. The only source for structural case available is matrix T. This gives us reason to believe that matrix T and *pro.III* stand in an Agree relation for Case – as a UA relation, this can render *pro.III* accessible to matrix T. Matrix T, at the same time, has an uninterpretable and unvalued [ $u\phi$ : ] feature. This feature can be checked by the ergative subject *enir* (‘mother’), but in Tsez (again as in Hindi) ergatives cannot (fully) value this feature (see 4.2.1). Because *pro.III* is accessible to matrix T, *pro.III* may value this checked-but-unvalued  $\phi$ -feature, as proposed in section 3. Naturally, if the sentence were to lack an embedded topic, *pro.III* would be absent and there would be no accessible absolutive that could value the  $\phi$ -features of matrix T. Consequently, matrix T can never  $\phi$ -agree with a non-topical embedded absolutive – indeed, matrix T never agrees directly with an overt embedded absolutive, but instead indirectly with a null pronominal doubled topic in the left-periphery of the embedded clause.

The Tsez examples are thus not counter-examples, but can instead be fully accounted for by UA, in such away that we account for the limitation of LDA to embedded topics while also eliminating the problematic proposal that agreement results from covert movement at LF.

#### 4.3.2 Agreement with embedded absolutive arguments in non-standard Basque

Another potentially problematic case for UA involves similarly long-distance  $\phi$ -agreement in “substandard” Basque,<sup>10</sup> where a matrix auxiliary can show  $\phi$ -agreement with an embedded absolutive argument contained within a nominalized complement clause. Unlike in Tsez, in relevant Basque examples there is no interaction with topicalization.

- (61) [[[Miren entzat] [**harri horiek**] altxa-tze-n] probate d-**it**-u]  
 Miren-BEN stones those.**PL.ABS** lift.NMZ.LOC  
 attempted 3.ABS-**PL.ABS**.√.3.PL.ERG  
 ‘They have attempted to lift those stones for Miren’

Preminger’s (2013) argument that the  $\phi$ -agreement seen in (61) must result from DA builds on his earlier analysis of Basque LDA in the context of distinguishing agreement from clitic doubling (Preminger 2009). In that paper Preminger argues that absolutive agreement of the type seen in (61) reflects a direct (Downwards) Agree relation between a probe in the matrix clause and the embedded absolutive DP. An important diagnostic for this Agree relationship is the fact that the addition of a dative argument (if its presence is not morphologically reflected on the auxiliary) to the embedded clause blocks LDA (resulting in default 3<sup>rd</sup> singular agreement), as shown in (62) where an embedded dative DP has replaced the benefactive PP in

<sup>10</sup> Called “substandard” due to the fact that LDA of this type is accepted by a subset of Basque speakers, not correlating with regional divisions or other factors.

(61). Preminger (2009) argues that this profile of defective intervention is a diagnostic for Agree, and so (absolutive)  $\phi$ -agreement Basque must result from a DA relationship between the matrix auxiliary and the embedded absolutive argument.<sup>11</sup>

- (62) [[[**Lankide-e-i**] [**liburu horiek**] irakur-tze-n] probate d- $\{\emptyset/*it\}$ -u-(z)te]  
 Colleague(s)-ART.PL-DAT book(s) those.**PL.ABS** read.NMZ.LOC  
 attempted 3.ABS- $\{SG.ABS/*PL.ABS\}$ . $\sqrt{}$ 3.PL.ERG  
 ‘They have attempted to read those books to the colleagues.’

Setting aside for a moment the question of the direction of Agree, however, consider that this instance of LDA fits broadly into Baker’s generalization: as Preminger comments in the (2009) paper, this pattern of post-verbal agreement in Basque is indeed dependent on the (absolutive) case value of the  $\phi$ -agreement target. This provides some initial plausibility for the idea that these facts might be reconcilable with the UA framework developed in this paper.

Following Preminger (2009), we will assume that only absolutive agreement in Basque is the result of feature valuation via Agree: Preminger argues that ergative and dative “agreement” on the Basque auxiliary both instead exhibit the profile of clitic doubling. Both Preminger (2009) and Etxepare (2006) distinguish two sub-cases of LDA in Basque: cases where the (nominalized) embedded clause bears *locative* morphology, as in (61) and (62), and agreement is possible for both person and number (Preminger, 2009), dubbed the *locative construction*; and cases where the (nominalized) embedded clause appears with a suffixed article (-a) and case morphology, and where agreement is possible only for number. Both Etxepare and Preminger argue that agreement in the latter case, dubbed the *case-marked construction*, is *mediated* by a head at the edge of the nominalized clause; Preminger argues, however, that the locative construction involves direct agreement between a matrix probe and the embedded absolutive.

The crux of our proposal is that in both cases, LDA—and, importantly, the *disruption* of LDA—reflects the domain in which the embedded absolutive is Case licensed. When the embedded absolutive DP establishes a Case relationship with a head at the *edge* of the embedded clause, LDA is possible. Dative arguments result in “defective intervention” not because they act as intervening goals for DA, but because they insulate the embedded absolutive from valuing higher functional heads.

There are strong reasons to associate LDA with the absence of additional structure in the embedded clause. Etxepare (2006) demonstrates that LDA is possible in the case-marked construction, seen below, when the embedded clause (i) have no overt subject, and are interpreted as sharing the matrix subject,<sup>12</sup> (ii) have no independent temporal reference, i.e. do not show independent temporal modification, and (iii) exhibit independent Case-agreement relationships with the matrix clause, i.e. the non-finite nominalized clause is Case-marked and itself can trigger finite agreement on the matrix auxiliary.

The contrast in (63) illustrates that LDA is not possible when the embedded clause has an independent temporal modifier (*tomorrow/in two days*). Assuming that such temporal

<sup>11</sup> This part of Preminger’s argument directly addresses Zeijlstra (2012)’s proposal that (some) cases of apparent LDA can be explained as the result of of covert movement into Spec-Head configurations.

<sup>12</sup> Etxepare assumes that obligatory control embedded clauses have a PRO subject controlled by the matrix subject. We follow Preminger (2009) in instead adopting Wurmbrand’s (2001) analysis of obligatory control, in which it involves a bare VP (no external argument) in the embedded clause.

modifiers reflect the presence of temporal functional heads (tense or aspect), this supports the view that LDA is disrupted by additional embedded functional material.

- (63) a. [ e bihar / bi egun barru liburu batzuk sal-tze-a ]  
tomorrow/within two days book some-ABS sell-NOM-D  
pentsatu genuen  
planned aux.(1pE-3sA)  
‘We decided to buy some books within two days from now/tomorrow.’ (No  
LDA-embedded temporal modification OK)
- b. \*[ e bihar / bi egun barru liburu batzuk sal-tze-a ]  
tomorrow/within two days book some-ABS sell-NOM-D  
pentsatu genituen  
planned aux.(1pE-3pA)  
‘We decided to buy some books tomorrow/within two days from now.’ (LDA –  
embedded temporal reference ungrammatical)

Ettxepare demonstrates, moreover, three important interactions with dative Case marking. First, an absolutive that occurs within a dative-marked embedded clause triggers dative marking on the matrix auxiliary, rather than absolutive agreement, as shown in (64). Second, dative arguments can control morphology on the matrix auxiliary, but only if they occur in a dative-marked embedded clause and there is no embedded absolutive argument, as shown in (65). Third, as already seen in (62) above for the locative construction, absolutive arguments cannot trigger LDA in the presence of an embedded dative argument if that dative argument is not morphologically reflected (by means of clitic doubling) on the main clause auxiliary.

- (64) Uko egin **die** [ **kalteordainak** eskatzeari]  
refusal do Aux(3singE-3plID-3singA) damage-pl-A ask-for-N-Det-Dat  
‘He/she refused to pay damages.’ [Ettxepare 2006, (2b)]
- (65) ?Uko egin **die** [ **buruzagiei** obeditzeari]  
refusal done Aux(3sE-3plIDat-3sA) chief-pl-Dat obey-Nom-D-Dat  
‘He/she refused to obey the chiefs.’ [Ettxepare 2006, (105)]

As Ettxepare (2006) and Preminger (2009) observe, the fact that in the case-marked construction number agreement with the embedded absolutive argument shows up via a matrix dative-agreement morpheme when the embedded clause is itself marked dative argues quite strongly that  $\varphi$ -agreement is mediated in these cases by a functional head at the edge of the nominalized clause: matrix T/v establishes a Case/ $\varphi$ -relationship with the nominalized clause, which in turn may have its own Case/ $\varphi$ -relationship with the absolutive DP. The absolutive DP thus stands in an indirect Case-relationship with the finite auxiliary. It is this indirect relationship, then, that allows the  $\varphi$ -features of the absolutive DP to be transmitted to the matrix clause, indexed by the morpheme appropriate to the Case value of the embedded clause as a whole. Though both Preminger and Ettxepare develop this type of approach within a DA framework, here we show that a similar proposal can be expressed easily in UA terms.

We first assume, following Rezac et al. (2014) that absolutive case on internal arguments in Basque is licensed by little *v* (cf. 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 upwards to establish a Case relationship with the embedded *v* head. Second, following the essence of Ettxepare’s account, we assume that the nominalizer that appears in the non-finite complement clauses of interest (*-tze*) realizes a functional head in

the embedded clause. Etxepare proposes that *-tze* heads a temporal Zeit Phrase (Stowell 1996), but given the temporal dependence and obligatory control of the embedded clauses where LDA is possible, we propose instead that the nominalizer *-tze* is a variant of *v*, thus able to assign absolutive case, but that given its nominal nature it also bears its own uninterpretable Case feature, and so must again probe upwards and establish a relationship with a higher Case-checking head. It is this Case relationship that forms the basis for absolutive-linked  $\varphi$ -valuation in finite clauses: we assume that the morphological realization of absolutive  $\varphi$ -agreement on the matrix auxiliary reflects agreement with matrix *v* followed by movement to T, where the finite auxiliary itself is spelled out.

On the basis of these two Case-checking relationships, both established via UA, the embedded absolutive will be accessible to embedded *v*, and embedded *v* will be accessible to matrix *v*. Given the fact that accessibility is subject to a transitivity condition as in (25) (see the discussion in 3.1) and which has already been empirically motivated for LDA in Hindi-Urdu, the embedded absolutive is accessible to matrix *v* for the purposes of  $\varphi$ -valuation.

In the locative-marked construction, shown again in (66), it is crucial for LDA that the locative marker itself is not able to license the Case feature on the nominalizing *-tze* (this may provide some explanation for the fact that LDA in the case-marked and locative-marked contexts are accepted by different speakers, according to Etxepare 2006). The Agree relations involved and the subsequent  $\varphi$ -valuation they make possible, are illustrated in (66)-(67).

(66) [[[Miren entzat] [**harri horiek**] altxa-tze-n] probate d-it-u]

Miren-BEN stones those.**PL.ABS** lift.NMZ.LOC

attempted 3.ABS-**PL.ABS**.√.3.PL.ERG

‘They have attempted to lift those stones for Miren’

- (67) a. Upward Case-Agree between absolutive object *harri horiek* and embedded nominalizing *v* (realized as *-tze*)  
 b. Upward Case-Agree between embedded nominalizing *v* (realized as *-tze*) and matrix *v* (realized by *-it*)  
 c. Checking, but no valuation of matrix *v* by ergative *pro*  
 d. Valuation through accessibility of matrix *v* by the absolutive object *harri horiek*

Note again that valuation is controlled by accessibility, which is defined in terms of UA only, and therefore fully compatible with an UA approach. Since the DA approach is not directly able to account for the case-based restrictions on Basque LDA, the Basque facts speak rather in favor of our UA proposal than against it.

Note that the case-marked construction and locative construction essentially involve the same step. Preminger (2009) links the restriction to number-agreement in the case-marked construction to the presence of the article (which he identifies as a D head). This is compatible with our proposal here, assuming that nominalizing *-tze* in the case marked construction moves to D, which itself is valued for third person features but not for number. Since no D head is present in the locative construction, *tze* can never be valued for person, and therefore all features of the absolutive object value the matrix probe.

Now let us further consider the interaction of LDA with dative case marking. In instances where the number value of the embedded absolutive is indexed by a dative agreement marker in the matrix clause, the answer is simple: from the perspective of a matrix agreeing head (or matrix clitic doubling), the accessible  $\varphi$ -features belong to a dative argument (the entire embedded clause).

The second question concerns the fact that LDA with embedded dative arguments, possible only when the embedded clause as a whole is similarly dative-marked, are slightly



more difficult to account for. However, what this shows is that the normalizer can only assign dative case to its object, if itself receives dative case from the matrix clause. If the nominalizer itself would only be absolutive, it can no longer Case-Agree with a dative object DP. Naturally, such a dative object could still receive dative, for instance, from an embedded head Appl<sup>o</sup>, but this would render the object inaccessible to the matrix auxiliary and thus forbid LDA.

Assuming that dative arguments are introduced by an applicative head also accounts neatly for the intervention effects. Consider (62) again, repeated below in (68).

- (68) [[[**Lankide-e-i**] [**liburu horiek**] irakur-tze-n] probate d-**{Ø/\*it}**-u-(z)te]  
 Colleague(s)-ART.PL-DAT book(s) those.**PL.ABS** read.NMZ.LOC  
 attempted 3.ABS-**{SG.ABS/\*PL.ABS}**.√.3.PL.ERG  
 ‘They have attempted to read those books to the colleagues.’

We assume that the dative argument is introduced by an additional argument-structural head—though it is convenient to give this head a separate label (Appl) it is essentially an additional vP layer. Even though the absolutive object may still have its case feature checked against *v* (as absolutives are fine in these constructions), the intervening dative interrupts the valuation relationship between the embedded absolutive DP and the nominalizing head realized by *-tze*. As a consequence, the matrix probe cannot be valued by the embedded absolutive object through *tze* either. Valuation is thus blocked and default agreement surfaces on the auxiliary.

To conclude, the Basque facts pose no problem for our proposal of UA, and in fact makes several predictions concerning the conditions under which Basque LDA can take place, which all are born out.

#### 4.4 *Concluding remarks*

So far, our proposal makes the correct predictions for LDA phenomena that are case-related. It accounts for the cases in which LDA is possible, and why it is often subject to additional constraints, in comparison to upward agreement or spec-head agreement. Moreover, the correspondence between case and  $\varphi$ -agreement, originally observed by Baker (2008), naturally follows, even for those cases involving ‘indirect case-agreement’, which appear to be problematic for the generalization in (40).

At the same time, our proposal makes some specific claims regarding the syntactic nature of case-licensing. This may seem to run counter to recent approaches to case, which take it to be a wholly post-syntactic morphological phenomenon. Our proposal indeed differs from these approaches, as we necessarily locate structural case-licensing in the narrow syntax. At the same time, our proposal may be more in line with these alternative approaches than might appear at first sight.

First, our proposal allows for a difference between case checking (in syntax) and case valuation (ultimately at PF), given that checking and valuation are taken to be different operations, one being dependent on the other. In that sense, our proposal is to some extent similar to, for instance, Legate (2008), who distinguishes between syntactic case checking in narrow syntax and postsyntactic realization of case morphology. Second, we take an ambivalent stand with respect to the question whether ergative or dative case are structural or inherent. Languages can differ with respect to the status of these cases (see also Polinsky 2014), and on our account it is only in languages where ergative case is structural that a lower ergative could control  $\varphi$ -agreement with a higher probe. Finally, several scholars have argued that default case does not have to be checked (e.g., Kornfilt and Preminger 2014). Arguments for this position include the occurrence of default case on extra-clausal DPs, as in vocatives (which can surface with default case in many languages). Other proposals argue that default

case *can* surface in the absence of any Case-Agree relation, though it may also surface as a result of case licensing. Such proposals are not compatible with our proposal here, but we should emphasize that our proposal only makes different prediction when it comes to DPs that, again, control  $\varphi$ -agreement with a higher target. Consequently, our proposal does not exclude unchecked case *a priori*, it only rules out DPs with unchecked case in LDA or raising constructions.

## 5. Other potential domains for UA

### 5.1 Complementizer agreement

Van Koppen (2011) suggests that Complementizer Agreement (CA) of the kind found in Dutch dialects poses a problem for UA generally. In the relevant varieties, complementizers show  $\varphi$ -agreement with the subject of the embedded clause. This is illustrated in (69) for West Flemish:

- (69) a. k peinzen da-n / \*da die venten Marie kenn-en.  
I think that-PL / that-SG those men Marie know-PL  
'I think that those men know Marie.'  
b. k peinzen da / \*da-n dienen vent Marie kenn-t.  
I think that-SG that-PL that man Marie know-SG  
'I think that that man knows Marie.' (West Flemish, van Koppen 2011)

The issue posed by this type of example is in principle the same as the one posed by LDA phenomena: just as in cases of finite agreement with post-verbal arguments, C is here agreeing with a DP that apparently never c-commands it.

The problem here is in a way more serious, however. While we have argued that LDA always requires that the lower goal have been made accessible by a prior UA Case licensing relationship, and that movement into a higher position have been blocked by another element already in the relevant Spec, neither of these conditions appears to be met in Dutch CA. In particular, it is not plausibly the case that nominative Case licensing results from a probe on C in these varieties of Dutch.

Despite the surface similarities, we propose a quite different analysis of Dutch CA than of LDA  $\varphi$ -agreement phenomena. Like other cases of apparently "downwards" probing agreement, CA in many varieties is defective, in the sense that it makes fewer distinctions than corresponding finite agreement on T (Hoekstra and Smits, 1998). As we have argued here, this is characteristic of non-canonical agreement relations, not of cases of simple agreement between a probe and goal.

Another complicating factor is that CA is disrupted by movement in some varieties. This is illustrated in (70) for Hellendoorn Dutch.

- (70) a. Ik dèenke \*dat/darr-e wiej den besten bint.  
I think that/that-1p we the best are  
'I think that we are the best!'  
b. WIEJ denkt Jan dat /\*darre die pries ewönnen hebt, nie ZIEJ.  
WE think Jan that/that-1p the prize won, not THEY  
"WE John thinks won that prize, not THEY."  
(Hellendoorn Dutch, van Koppen 2011)

Again, this is not the profile of canonical  $\phi$ -agreement phenomena: once an agreement relationship has been established, subsequent movement of the goal is not expected to disrupt valuation.

So while CA has been used to explicitly argue in favour of DA (Van Koppen 2011, Van Koppen and Haegeman to appear), these exceptional properties have led to a number of alternative proposals. Many of these argue that CA reflects a kind of inheritance relationship between the  $\phi$ -features of T and those of C, so that subject agreement with T is the (indirect) source of CA (a.o. Den Besten 1977, Zwart 1993, Chomsky 2008). Others have proposed that CA involves direct  $\phi$ -agreement, but with a head other than C, so that the subject does c-command that head (a.o. Shlonsky 1994, Zeijlstra 2012). Any of these alternative proposals is compatible with the UA framework developed here: what is important for us is only that CA does not reflect the presence of a downwards-probing  $\phi$ -probe on C. The fact that CA in Dutch is disrupted by movement further makes this look like it could be a morphological phenomenon in some cases, with  $\phi$ -agreement resulting from morphological linear adjacency (where valued features may be further manipulated); it could also be the case that CA has different sources in different varieties of Dutch.

Looking beyond Germanic at a broader typology of CA, we find striking evidence actually in favour of UA: complementizers agree with arguments of the matrix clause, rather than the embedded clause, in all other cases of CA described in the literature (Baker 2008, Kawasha 2007, Idiatov 2010).

A relevant case from the Bantu language Lubukusu is described by Dierks (2013), where an embedded complementizer shows (long-distance) morphological agreement with the matrix subject.

- (71) a. Ba-ba-ndu ba-bol-el-a Alfredi ba-li a-kha-khil-e.  
 2-2-people 2S-said-AP-FV 1Alfred 2-that 1S-FUT-conquer  
 ‘The people told Alfred that he will win.’  
 b. Alfredi ka-bol-el-a ba-ba-ndu a-li ba-kha-khil-e.  
 1Alfred 1S-said-AP-FV 2-2-people 1-that 2S-FUT-conquer  
 ‘Alfred told the people that they will win.’

This is exactly the type of agreement pattern we expect to find in a UA system: the complementizers in (71) agree with the closest c-commanding subject in each case. Dierks (2013) further demonstrates that the intervention of certain subject-like DPs, including passive *by*-phrases and DP-internal possessors (when the agreeing complementizer is in the CP complement to a noun) intervene for this agreement relation.

Diercks’ analysis of these facts is fully compatible with our UA proposal. He argues that Lubukusu CA is mediated by a subject-oriented anaphor in Spec-CP. This anaphor establishes its relationship with the matrix subject as a result of covert movement to the closest TP, much as in many analyses of clitic movement. Note that this analysis therefore would not require a direct UA relationship between the embedded C head and the matrix subject, but still involves a Spec-Head (i.e. UA) relationship between the covert anaphor and C.

What is important here is not the details of Diercks’ analysis, but the fact that the profile of CA he describes, and which we find in many other languages, is fully compatible with UA. This further supports alternative accounts of CA in Dutch, as arising from something other than DA.

## 5.2 *Partial and full agreement in Standard Arabic*

Another phenomenon that requires some discussion on its UA (in)compatibility concerns cases where the richness of agreement varies on the basis of overt movement. Take for instance Standard Arabic. Standard Arabic allows for two subject-verb configurations, SV and VS. VS configurations involve partial agreement, SV configurations full agreement:

- (72) a. L-banaat-u darab-na/\*-atl-?awlaad-a St. Arabic<sup>13</sup>  
 The-girls-Nom hit-PAST-3Fpl/\*-3Fsg the-boys-Acc  
 The girls hit the boys  
 b. Darab-at/\*-na ?al-banaat-u Zayd-an  
 Hit-PAST-3Fsg/\*-3Fpl the-girls-Nom Zayd-Acc  
 The girls hit Zayd

Postverbal subjects do not agree for number, whereas preverbal subjects do. An important exception to this rule arises in the case of pronouns:

- (73) a. Naamuu hum  
 Slept.M.Plur They  
 ‘They slept’  
 b. \*Naama hum  
 Slept.M.SG They

Pronouns always trigger full agreement. Without providing a full analysis of these facts, we presume that the VS structure involves a subject in Spec, $\nu$ P, whereas the subject in SV constructions is in Spec,TP. The most natural step, now, seems to assume that the probe for number resides in  $T^{\circ}$ , whereas the probe for gender resides in  $\nu^{\circ}$ , much in line with recent work by Koenen & Zeijlstra (2004), who argue based on a variety of languages that poor agreement is hosted in  $\nu$ , while rich agreement is hosted in T. The co-existence of the two constructions would then just reflect the optionality of the number probe.<sup>14</sup> If the number probe is absent, the verb probes for gender in  $\nu$ , and moves on to T (from where it licenses the nominative). If T contains an additional number probe, the subject (accessible to T) is triggered to move to Spec,TP. In both cases, agreement with the  $\nu$  probe is pronounced in T as a result of V-to-T movement.

The question now arises as to how to understand the pronoun cases. However, before that a small word on person agreement. The data in (72) show that person agreement shows up in both the SV and the VS construction, although it may be hard to distinguish 3<sup>rd</sup> person agreement from 1<sup>st</sup> and 2<sup>nd</sup> person agreement, as the latter always have to surface on the verb (given that 1<sup>st</sup> and 2<sup>nd</sup> person is only present on pronouns). But still the data then suggest that  $\nu$  hosts a gender and person probe ( $[u\phi: \pi, \gamma]$ ) and T optionally a probe that contains at least ( $[u\phi: \nu]$ ), though possibly ( $[u\phi: \pi, \nu]$ ), since nothing would forbid a subject to revalue T with an identical person value as the one on  $\nu$ .

Now, let us look at (73) again. What we see is that the VS configuration does show agreement with the subject in number. According to Aoun, Benmamoun and Sportiche (1994), the difference between pronouns and other DPs is that pronouns are inherently valued for

<sup>13</sup> Examples taken from Harbert & Bahloul 2002

<sup>14</sup> Benmamoun (2000) discusses correlations between tense and word order (and thus with agreement) across varieties of Arabic, suggesting that there is a correlation between present tense and SVO word order. On the approach taken here, this could be accounted for by linking the number probe on T to present tense specification.

person, number and gender, while non-pronominal DPs are not. But what does being inherently valued mean? It amounts to some element carrying an unchangeable person, number and gender-features. Nominal stems are at best inherently valued for gender only; number features are hosted on a different functional head in the nominal spine, as the same nominal base may receive both singular and plural morphology. Assuming that a DP hosts a separate projection for number morphology, NumP, the features would be as follows:

- (74)    N            -            Num  
           [iφ: γ]            [iφ: ν]

So, N can check and value the probe on ν. But pronouns are different. They arguably do not carry separate heads containing different features (though see, for instance, Sauerland 2008 or Wiltschko 2014 for different views), but a single interpretable feature valued for person, number and gender: [iφ: π, ν, γ]. Hence, in order to value ([uφ: π, γ]) on ν, the entire [iφ: π, ν, γ] feature on the pronoun checks and values it as a whole. We may think of this as feature overvaluation. Consequently, the [uφ] feature on ν gets valued for all φ-features, even when it does not ask for it. When the verb moves to T it will thus carry with it the complete φ-feature set of a pronominal subject, though only the gender feature of a non-pronominal DP argument would be carried upwards in a similar context.

The solution above does not go into full detail, but shows that the Standard Arabic facts are compatible in principle with UA. That does not entail that these facts are automatically DA-incompatible. Preminger (2014) offers a view in Agree-obstruction that derives these facts in a DA fashion that is based on stipulations that are “rather comparable” (in his words) to the ones needed for UA. We will not evaluate the proposals in details, but conclude that there is no disagreement on the compatibility of the Standard Arabic facts, or any other cases where full agreement triggers additional movement in comparison to partial agreement. At the same time, though UA is not necessary to account for these facts, one might observe that our proposal does not require many additional assumptions: if movement is triggered by features, then optional movement must be triggered by optional features, so the optional additional number probe rather seems a necessary and independent assumption. The different behaviour between pronouns and non-pronominal DPs, which Preminger’s (2014) proposal does not capture, for us follows directly from the different morphological structure of nouns and pronouns.<sup>15</sup>

---

<sup>15</sup> A question that may arise is how to cope with auxiliary-verb-constructions, given that both auxiliaries and verbs agree in Arabic. Auxiliaries and verbs that precede the subject only agree in person and gender; auxiliaries and verbs that follow the subject agree in person, gender and number (see the data below, taken from Aoun, Benmamoun and Sportiche (1994).

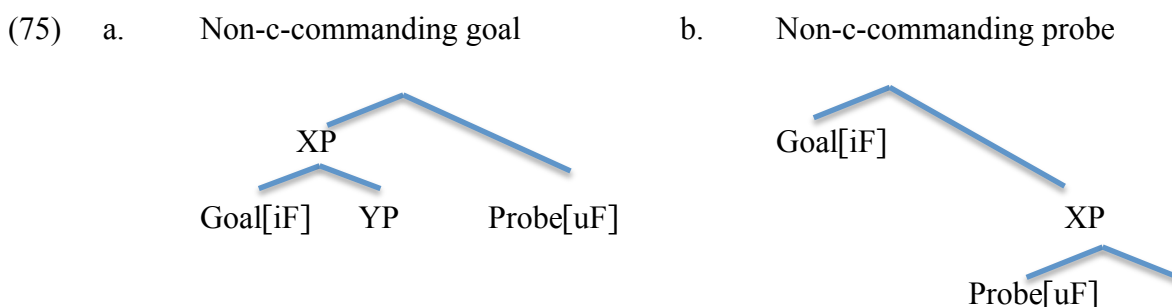
- (i)    kaan-at            ta-ktub-u            al-bint-aani            darsa-humaa  
       was-3.F.SG    3F-write-SG    the-girl(F)-3.Dual    lesson-F.Dual  
       “The two girls were writing their lesson”
- (ii)    kaan-at            al-bint-aani            ta-ktub-aani            darsa-humaa  
       was-3.F.SG    the-girl-3.Dual            3.F-write-Dual            lesson-F.Dual  
       “The two girls were writing their lesson.”
- (iii)    al-bint-aani            kaan-ataa            ta-ktub-aani            darsa-humaa  
       the-girls-3Dual            was-3.F.Dual    3.F-write-Dual            lesson-F.Dual  
       “The two girls were writing their lesson.”

### 5.3 Other potential problems for UA

So far we have discussed a variety of presented counterexamples against UA and have tested the predictions that our UA proposal makes with respect to existing cases of upward and downward agreement. The conclusion so far has been that the UA is tenable in all discussed cases and moreover fares better than competing DA proposals in a large subset of them. In the remainder of this section, we discuss at a few final phenomena that have been presented to us outside the official literature as problems for Zeijlstra's (2012) proposal, but that are still of relevance for the evaluation of UA. Below we discuss the two most important ones, and we show that these are were only not problematic for the original UA proposal and not the current one, or that they are problematic for either of them.

#### *Goals inside goals and first conjunct agreement*

Van Koppen (2011) provides a general evaluation metric to evaluate UA and DA proposals. Apart from the more obvious means of comparison (instances of DA for UA approaches; instances of UA for DA approaches), she argues that UA proposals would have problems with non-c-commanding goals, whereas DA would have problems with non-c-commanding probes.



Whereas, trees of the second kind have not been often observed, trees of the former kind can indeed be attested, an argument van Koppen adduces in favour of DA approaches. First conjunct agreement is a good example, illustrated by the Polish example in (76):

- (76) Do pokoju weszła młoda kobieta i chłopiec.  
 To room enteredF.SG [young woman and boy]  
 'Into the room walked a young woman and boy.'

The verb in (76) agrees in gender and number with the first feminine conjunct. This would not be possible under the version of UA in Zeijlstra (2012), as there is no stage of the derivation at which the DP *młoda kobieta* c-commands the finite verb (only the entire conjunct c-commands the goal).

The current proposal, however, does not face the same problem: if the checker of the uninterpretable  $\phi$ -feature on the verb does not (completely) value it, it can be valued by the closest lower goal available, both the entire conjunct as the first conjunct, the reason being that the source of nominative arguably case for both is the probing head, rendering them both accessible to it (the second conjunct is also accessible, but is simply too far a way to value the

---

These facts require some accommodation of the UA perspective adopted here, although the pattern again is the same: a subject can only value an auxiliary or verb's number-feature as long as it c-commands it, which is exactly the pattern expected under an UA approach.

probe if necessary, as the first conjunct intervenes). One might wonder why the verb is also able to agree in number with the first conjunct, but as Van Koppen (2005) points out, first conjuncts and entire conjunctions are equidistant to any higher probe, and so are both equally likely to value the probe.

The discussion above shows that the general evaluation metric that involves valuation by a goal inside another goal is no longer problematic for this proposal, and thus cannot act as a standard of comparison to evaluate our proposal against DA approaches.

### *Clausal agreement in Zulu*

Another possible counter-example deserves discussion at this point. Halpert (2012) argues that Zulu exhibits agreement with embedded CPs in Zulu, in contexts where it is impossible for the CP to move to a position c-commanding the verb.

The examples in (77) illustrate that in Zulu it is possible for a subject to raise out of a finite complement clause. The second example further illustrates that raised subjects only optionally trigger agreement on the matrix verb. When the subject does not raise, the verb instead shows class 17 morphology.

- (77) Raised subject: optional subject agreement
- a. uZinhle u- bonakala [ ukuthi u- zo- xova ujeqe  
AUG.1Zinhle 1s- seem that 1s- FUT- make AUG.1steamed.bread  
'It seems that Zinhle will make steamed bread.'
  - b. uZinhle ku- bonakala [ ukuthi u- zo- xova ujeqe  
AUG.1Zinhle 17s- seems that 1s- FUT- make AUG.1steamed.bread  
'It seems that Zinhle will make steamed bread.' [Zulu: Halpert (2012, 244)]

Halpert (2012) argues that the class 17 morphology in (77) reflects agreement with the embedded CP argument, though the same morphology appears as a "default" elsewhere in Zulu, when no  $\phi$ -agreement has taken place. Agreement with the embedded CP is required, Halpert proposes, to make the embedded subject accessible for agreement and movement to matrix Spec-TP (following the proposal by Rackowski and Richards 2005 that agreement with an entire phase allows agreement with elements contained within that phase).

If this is correct, it poses considerable challenges for the proposal that postverbal agreement is dependent on some prior licensing relation: beyond the fact that CPs plausibly do not require structural licensing of the type required by DPs, there is considerable evidence that Zulu and many other Bantu languages do not exhibit structural case licensed by T.

The claim that *ku-* results from agreement with CP is surprising, though, given that elsewhere in the language *ku-* appears as a more clearly default agreement marker. Halpert discusses evidence from non-agreeing (post-verbal) subjects, Weather-predicates, and raising predicates when the subject remains within the embedded clause as evidence for this claim:

- (78) Ku-pheka uZinhle Zulu  
17S- cook AUG.1Zinhle  
'Zinhle is cooking.' [Halpert (2012, ex. 340)]
- (79) Ku-ya-banda Zulu  
17S- YA- be.cold  
'It's cold.' [Halpert (2012, ex. 341)]

- (80) Ku-bonakala [ukuthi uZinhle u- zo- xova ujeqe ] Zulu  
 17S- seems that AUG.1Zinhle 1S- FUT- make AUG.1steamed.bread  
 ‘It seems that Zinhle will make steamed bread.’ [Halpert (2012, ex. 342)]

Examples like the ones above suggest that Zulu exhibits a zero expletive pronoun that also triggers default-17 agreement. Zulu is a language with optional object agreement as well, however, and clausal objects trigger *ku*-agreement in examples like the following:

- (81) a. Ngi- ya- ku- cabanga [ ukuthi uMlungisi u- ya- bhukuda manje] Zulu  
 1SG- YA- 17O- think that AUG.1Mlungisi 1S- YA- swim now  
 ‘I think that Mlungisi is swimming now.’  
 b. \*Ngi- ku- cabanga [ ukuthi uMlungisi u- ya- bhukuda manje]  
 1SG- 17O- think that AUG.1Mlungisi 1S- YA- swim now  
 [Halpert (2012, ex. 343)]

If Halpert is correct, it is not possible to morphologically distinguish agreement with the embedded CP from agreement with the zero pronoun. The motivation for her to assume that (81) reflects clausal agreement is due to the specific theory-internal assumptions she makes (clausal agreement being precondition for attraction of the subject of the finite complement), but the facts as such are compatible with an analysis in terms of agreement with a zero expletive, which again is fully compatible with our approach.

## 6. Conclusions

To conclude, in this paper we have argued that a more restricted version of Upward Agree overcomes a number of the counterexamples previously presented against it, including agreement with expletives and Icelandic quirky subject constructions, as well as the facts presented by Preminger (2013) about “sub-standard” Basque embedded absolutive arguments and embedded topical arguments in Tsez.

By assuming that UA establishes chains, whose members remain accessible for future operations (i.e. movement into Spec-Head checking configurations, and valuation), this proposal overcomes problems that all previous models of Agree have faced: it accounts for instances of LDA that have previously presented challenges to UA, while still maintaining the standard UA account of phenomena that cannot be analysed in terms of DA. Moreover, it provides an explanation for the observation that case in many (though not all) languages is a necessary condition on  $\varphi$ -agreement, with that correlation being absolute in cases of LDA. The UA system developed here is also able to explain the triggering of movement, including subject movement to Spec,TP, without alluding to any [EPP]-features. Finally, it explains the correlation between LDA and the defectivity of agreement, a phenomenon that has hardly been accounted for before.

In accounting for specific empirical phenomena, this paper makes a number of specific assumptions, including (though by no means limited to) the syntactic nature of case-licensing, the existence of mediators in agreement patterns, the origin of agreement suffixes in cases of complementizer agreement, and the nature of Arabic VSO patterns. While they are not universally adopted, however, all these assumptions have independent motivation, and in several cases we have identified alternative assumptions that are equally compatible with UA.

Whether UA as a general mechanism for all existing agreement patterns is of course a matter of ongoing and future research. However, on the basis of all existing presented



counterexamples we conclude that UA is indeed tenable, and fares overall much better than its DA competitors.

## References

- Abusch, D. (1997). 'Sequence of tense and temporal de re.' *Linguistics and philosophy* 20: 1-50.
- Arregi, K., & Nevins, A. (2012). *Morphotactics: Basque auxiliaries and the structure of spellout* (Vol. 86). Dordrecht: Springer.
- Aoun, J., Benmamoun, E., and Sportiche, D. (1994). 'Agreement and conjunction in some varieties of Arabic.' *Linguistic Inquiry* 25:195–220.
- Baker, M. (2008). *The Syntax of Agreement and Concord*. Cambridge: Cambridge University Press.
- Baker, M. (2010). 'On Parameters of Agreement in Austronesian Languages.' In R. Mercado, J. Sabbagh and L. Travis (eds.) *Austronesian and Theoretical Linguistics*. John Benjamins, Amsterdam. 345-374
- Baker, M. & N. Vinokurova. (2011). 'Two modalities of Case assignment: Case in Sakha.' *Natural Language & Linguistic Theory* 28: 593-643.
- Benmamoun, E. (2000). *The Feature Structure of Functional Categories*. Oxford University Press.
- Béjar, S. (2003). *Phi-syntax: A theory of agreement*. Ph.D thesis, University of Toronto.
- Béjar, S., & Rezac, M. (2009). 'Cyclic agree.' *Linguistic Inquiry*, 40: 35-73.
- den Besten, H. (1977). 'On the Interaction of Root Transformations and Lexical Deletive Rules.' In W. Abraham (ed.), *On the Formal Syntax of the Westgermania. Papers from the "3rd Groningen Grammar Talks"* Groningen, January 1981. Amsterdam/Philadelphia: Benjamins. 1983. 47-131.
- den Besten, H. (1989). *Studies in West Germanic Syntax..* Amsterdam/Atlanta, GA: Rodopi.
- Bhatt, R. (2005). 'Long distance agreement in Hindi-Urdu.' *Natural Language & Linguistic Theory*, 23: 757-807.
- Bjorkman, B. (2011). *BE-ing default: The morphosyntax of auxiliaries*. Ph.D thesis, MIT.
- Bobaljik, J. (2008) 'Where's Phi? Agreement as a Post-Syntactic Operation.' In: D. Harbour, D. Adger and S. Béjar (eds), *Phi-Theory: Phi features across interfaces and modules*. Oxford: Oxford University Press, 295-328.
- Boeckx, C. (2008). *Aspects of the Syntax of Agreement*. 2008. London: Routledge.
- Bošković, Ž. (2007). 'On the locality and motivation of Move and Agree: An even more minimal theory.' *Linguistic Inquiry* 38: 589-644.
- Brown, S. (1999). *The Feature Structure of Functional Categories*. Oxford University Press, 2000
- Carstens, V. (2012). Delayed Valuation: a reanalysis of "upwards" complementizer agreement and the mechanics of case. Ms. LingBuzz/001432
- Chomsky, N. (1995). *The Minimalist Program*. Cambridge, MA: The MIT Press.
- Chomsky, N. (2000). 'Minimalist Inquiries: The Framework.' In R. Martin, D. Michaels and J. Uriagereka (eds), *Step by Step: Essays on Minimalist Syntax in honor of Howard Lasnik*. Cambridge, MA: The MIT Press.
- Chomsky, N. (2001). Derivation by Phase. In M. Kenstovicz (ed), *Ken Hale: A Life in Language*. Cambridge, MA: The MIT Press. 1-54.
- Chomsky, N. (2008). 'On Phases.' In: R. Freidin, C. Otero & M.L. Zubizarreta (eds.), *Foundational Issues in Linguistic Theory*, 133-166. Cambridge, MA: The MIT Press.

- Diercks, M. (2013). 'Indirect agree in Lubukusu complementizer agreement.' *Natural Language & Linguistic Theory*, 31: 357-407.
- Etxepare, R. (2006). 'Number long distance agreement in (substandard) Basque.', In J. Lakarra and J. Hualde (Eds), *Studies in Basque and historical linguistics in memory of Robert L. Trask*, vol. XL, Supplements of the Anuario del Seminario de Filología Vasca "Julio de Urquijo" 1-2: 303-349.
- Haegeman, L. & M. van Koppen (2012). Complementizer agreement and the relation between T and C. To appear in *Linguistic Inquiry* 43: 441-454.
- Haegeman, L. & T. Lohndal (2010). 'Negative concord and multiple agree: a case study of West Flemish.' In *Linguistic Inquiry* 41: 181-211.
- Halpert, C. (2012). *Argument licensing and agreement in Zulu*. Ph.D thesis, MIT.
- Harbert, W. & Bahloul, M. (2002). Postverbal subjects in Arabic and the theory of agreement". In J. Ouhalla and U. Shlonsky (eds), *Themes in Arabic and Hebrew Syntax*. Dordrecht: Kluwer. 45-70.
- Harford Perez, C. (1985). Aspects of complementation in three Bantu languages. PhD Thesis, University of Wisconsin dissertation.
- Harley, H., & Ritter, E. (2002). Person and number in pronouns: A feature-geometric analysis. *Language*, 78(3), 482-526.
- Heim, I. (2008). Features on bound pronouns. *Phi theory: Phi-features across modules and interfaces*, 35-56.
- Hiraiwa, K. (2001). Multiple agree and the defective intervention constraint in Japanese. *MIT working papers in linguistics* 40: 67-80.
- Hiraiwa, K. (2005). Indeterminate-agreement: Some consequences for the Case system. *Minimalist approaches to clause structure*, 93-128.
- Hoekstra, J. & L. Marác (1989). 'On the position of inflection in West Germanic.' Working Papers in Scandinavian Syntax 44: 75-88.
- Hoekstra, Eric, and Caroline Smits. (1999). Everything you always wanted to know about complementizer agreement. In E. van Gelderen and V. Samiian (eds.), *Proceedings of the Western Conference on Linguistics (WECOL) 1998*.
- Holmberg, A., & Hróarsdóttir, T. (2003). Agreement and movement in Icelandic raising constructions. *Lingua*, 113: 997-1019.
- Idiatov, D. (2010). Person-number agreement on clause linking markers in Mande. *Studies in Language*, 34: 832-868.
- Kawasha, B. (2007). Passivization in Lunda. *Journal of African languages and linguistics*, 28: 37-56.
- Kayne, R. (2006). *Expletives, Datives, and the Tension between Morphology and Syntax*. Ms NYU.
- Koenenman, O. & Zeijlstra, H. (2014). 'The Rich Agreement Hypothesis Rehabilitated.' *Linguistic Inquiry* 45: 571-615.
- Koopman, H. (2005). 'Agreement: in defence of the "Spec head configuration".' In C. Boeckx (ed), *Agreement systems*. Amsterdam: Benjamins.
- van Koppen, M. (2011). The directionality of Agree. Invited paper presented at BCGL6.
- Kornfilt, J., & Preminger, O. (To appear). Nominative as no case at all: an argument from raising-to-accusative in Sakha. In *Proceedings of the 9th Workshop on Altaic Formal Linguistics*. Cambridge, MA: MITWPL.
- Kratzer, A. (1998). 'More Structural Analogies Between Pronouns and Tenses.' In D. Strolovitch and A. Lawson (eds.), *Proceedings of SALT VIII*. Ithaca. CLC-Publications.
- Laka, I. (1990): *Negation in Syntax: On the Nature of Functional Categories and Projections*. PhD Dissertation, MIT.
- Legate, J. A. (2008). Morphological and abstract case. *Linguistic Inquiry*, 39(1), 55-101.

- Leu, T. (2008). What for *internally*. *Syntax* 11: 1-25.
- Mahajan, A. (1997). Universal grammar and the typology of ergative languages. *Studies on Universal Grammar and typological variation*, 35-57.
- Marantz, A. (1991). 'Case and Licensing.' In G. Westphal, B. Ao, and H.-R. Chae, (Eds.), *Proceedings of the Eighth Eastern States Conference on Linguistics*. 234-253.
- Moro, A. (1997). The raising of predicates. Predicative noun phrases and the theory of clause structure. Cambridge: Cambridge University Press.
- Ogihara, T. (1995). The semantics of tense in embedded clauses. *Linguistic inquiry*, 663-679.
- Perez, C. H. (1986). *Aspects of complementation in three Bantu languages*. Indiana University Linguistics Club.
- Pesetsky, D. & E. Torrego (2004). Tense, case and the nature of syntactic categories. In J. Guéron and J. Lecarme (eds), *The syntax of time*. Cambridge, MA: The MIT Press. 495-538.
- Pesetsky, D., and E. Torrego. (2007). 'The syntax of valuation and the interpretability of features.' S. Karimi, V. Samiian and W. Wilkins (eds.), *Phrasal and Clausal Architecture: Syntactic derivation and interpretation*. Amsterdam: Benjamins. 262-294.
- Polinsky, M. & Potsdam, E. (2001). Long-distance agreement and topic in Tsez. *Natural Language & Linguistic Theory* 19: 583-646
- Preminger, O. (2009). 'Breaking Agreements: distinguishing agreement and clitic-doubling by their failures.' *Linguistic Inquiry* 40: 619-666
- Preminger, O. (2011). 'Asymmetries between person and number in syntax: a commentary on Baker's SCOPA.' *Natural Language & Linguistic Theory* 27: 917-937.
- Preminger, O. (2013). 'That's not how you agree: a reply to Zeijlstra.' *The Linguistic Review* 30: 491-500
- Preminger, O. (2014). *Agreement and its failures. Linguistic Inquiry Monographs* 68. Cambridge, MA: MIT Press.
- Rackowski, A. and Richards, R. (2005). *Phase Edge and Extraction: A Tagalog Case Study. Linguistic Inquiry* 36: 565-599.
- Rezac, M. (2008). 'The syntax of eccentric agreement: The Person Case Constraint and Absolutive Displacement in Basque.' *Natural Language and Linguistic Theory* 26 : 61-106.
- Rezac, M. (2014). 'The syntax of eccentric agreement: the Person Case Constraint and absolutive displacement in Basque.' *Natural Language & Linguistic Theory* 26: 61-106.
- Rezac, M., Albizu, P., & Etxepare, R. (2011). The structural ergative of Basque and the theory of Case. *Natural Language & Linguistic Theory*, 1-58.
- Sauerland, U. (2008). 'On the semantic markedness of phi-features.' In: D. Harbour, D. Adger and S. Béjar (eds), *Phi-Theory: Phi features across interfaces and modules*. Oxford: Oxford University Press. 57-82.
- von Stechow, A. (2002). Binding by verbs: Tense, person and mood under attitudes. In *Proceedings of NELS* 33: 379-403.
- de Swart, H. & I. Sag (2002). 'Negation and Negative Concord in French.' *Linguistics and Philosophy* 25: 373-417.
- Takezawa, K. (1987). *A configurational approach to case-marking in Japanese*. Ph.D thesis, University of Washington.
- Ura, H. (1996). *Multiple Feature-Checking: A Theory of Grammatical Function Splitting*. Ph.D. Dissertation, MIT.
- Ura, H. (2000). *Checking theory and grammatical functions in universal grammar*. New York: Oxford University Press.
- Wiltschko, M. (2014). *The universal structure of categories. Towards a formal typology*. Cambridge University Press.

- Woolford, E. (1997). Four-way Case systems: ergative, nominative, objective, and accusative. *Natural Language and Linguistic Theory* 15: 181–227.
- Shlonsky, U. (1994). Agreement in comp. *The Linguistic Review* 11: 351–375.
- Wurmbrand, S. (2001). *Infinitives: Restructuring and Clause Structure*. Berlin/ New York: Mouton de Gruyter.
- Wurmbrand, S. (2012a). Parasitic participles in Germanic: Evidence for the theory of verb clusters. *Taal en Tongval* 64: 129–156.
- Wurmbrand, S. (2012b). The syntax of valuation in auxiliary–participle constructions. In J. Choi et al. (Eds.), *Coyote Working Papers: Proceedings of the 29th West Coast Conference on Formal Linguistics (WCCFL 29)* University of Arizona: Tucson.
- Wurmbrand, S. (2014). The Merge Condition: A syntactic approach to selection. In P. Kosta, L. Schürcks, S. Franks, & T. Radev-Bork (eds.), *Minimalism and Beyond: Radicalizing the interfaces*. Amsterdam: John Benjamins. 139–177.
- Zeijlstra, H. (2004). *Sentential negation and Negative Concord*. PhD Dissertation, University of Amsterdam.
- Zeijlstra, H. (2008). ‘On the syntactic flexibility of formal features.’ In Biberauer, T. (ed), *The Limits of Syntactic Variation*, Amsterdam: Benjamins. 143–174.
- Zeijlstra, H. (2012). There is only one way to agree. *The linguistic Review* 29: 491 – 539.
- Zwart, J.-W. (1993). *Dutch Syntax: A minimalist approach*. PhD Dissertation, Groningen University.
- Zwart, J.-W. (1997). *Morphosyntax of verb movement: a minimalist approach to the syntax of Dutch*. Dordrecht: Kluwer Academic Publishers.