Delayed Valuation[*]
A reanalysis of goal features, "upwards" complementizer agreement,
and the mechanics of Case
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There are at least four opposing views on the directionality and configuration of Agree relations. In mainstream Minimalism, Agree is strictly downward "probing" (Chomsky 2000, 2001, Boskovic 2007, Epstein & Seely 2006), but some recent works argue instead that Agree always looks upwards (Zeijlstra 2012; Wurmbrand 2012). A third perspective takes agreement to follow from the Spec, head configuration (Koopman 2006; and see Chomsky's 2013 labeling through shared prominent features), and under a fourth proposal, the directionality of Agree varies parametrically (Baker 2008). While each of these approaches has some empirical support, none achieves the strict conceptual necessity that is a central goal of Minimalist theory. In this paper I argue, following Epstein's 1999 approach to c-command, that a downward directionality for Agree follows automatically and necessarily from the bottom-to-top construction of syntactic objects. But if a uF does not find any source of valuation in its c-command domain at first Merge, directionality-free matching and DELAYED VALUATION are possible up to the point of cyclic Transfer. The approach eliminates several stipulations from agreement theory, deducing that the uFs making goals "active" in Agree relations are simply those that find no match in their c-command domains at Merge.

1 Introduction
1.1 Approaching goal features

Minimalist theory posits a class of morpho-syntactic features that are unvalued and uninterpretable (uFs). uFs are analyzed as *probes* which must acquire values from matching features of a suitably local expression. The search space of a probe α is generally taken to be its c-command domain, comprised of the contents of α's sister β. This approach to valuation was initially motivated by empirical phenomena like (1) (see Chomsky 2000).

(1) a.   There *is* [a man] in the room.
   b.   There *are* [two men] in the room.

Epstein 1999 argues that the central role of c-command in syntactic relations has a derivational basis, and his proposals yield a simple, organic account of the downward directionality of probing: at the point of Merge, α has no place to look other than β. It follows automatically that β is where α must seek the valuation that it needs. Thus (2):[1,2]

(2) MERGE ($T_{u\phi}$ [$_{vP}$ DP_{3S}...]) *necessarily* → [$Tu_{u\phi3S}$ [$_{vP}$ DP_{3S}...]].

Its explanatory power and elegant design make this idea highly appealing. Many locality properties of the Agree relation are derivable under two additional assumptions similarly rooted in the derivation. The first of these is cyclic Spell-Out, which by purging accumulated content at regular intervals accounts for common depth limits on valuation relations (see the Phase Impenetrability Constraint of Chomsky 2000, 2001). The second factor is the assumption alluded to above that valuation occurs whenever possible. The default, Minimalist approach is that the probe α cannot delay, arbitrarily ignoring relevant material with which it was merged and instead awaiting the arrival of content added at a later point, higher in the tree (see the Earliness Principle of Pesetsky 1989).

   Familiar syntactic processes attributable to unvalued features show downwards sensitivity (among them (1)a,b, and see discussion of German Case and West Germanic complementizer agreement to be discussed below). So in addition to the virtue of simplicity, the derivational approach has ample motivation in empirical patterns. But questions arise in connection with the features identifying "active" *goals* in Agree relations,

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[1] I abstract away from proposals that T inherits its features from C (Chomsky 2007, 2008; Richards 2007).
[2] In glosses, <X> means that X moved; X̶ indicates valuation of X. CA= complementizer agreement; SA=subject agreement; PST = past. Cardinal numbers (1-3) denote person features when accompanied by a number specification (s= singular and pl= plural). Arabic numbers 1-17 are noun classes, hence 2SA=subject agreement for noun class 2, but 2sSA is 2nd singular SA. Other abbreviations should be transparent.

such as a DP's uCase. As uFs that need values, they meet the definition of probes. If probing

cannot be delayed, the very existence of goal features is puzzling. Why is it licit for them to

lack valuation until a probe finds them? Why do they not probe their own c-command

domains and, if a match is absent there, cause the derivation to fail?[3]

　　I propose that there is no separate species of goal features: every uF must seek

valuation in its sister upon Merge. If a uF γ fails to be valued before phasal Transfer, the

result is a PF crash due to unclarity as to how γ should be pronounced (see Epstein,

Kitahara & Seely 2010 and Carstens 2010 on this conception of uF-induced crashes). But

prior to the fatal point of Transfer, DELAYED VALUATION is possible (see (3)).[4] Thus the

defining property of goal features is that their valuation does not happen right away (see

(4), and the approach to Case sketched in (5)). [5]

(3) **DELAYED VALUATION**: Valuation that is not obtained in a uF's original c-command domain.

(4) **Goal features**: uFs that find no match at the point of first Merge.

(5) Why Case is a goal feature: upon Merge, D's uCase cannot be valued.

　　　[DP D$_{uCase}$　　　[NP…]]
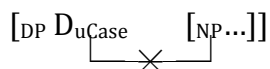
Understanding this much about goal features yields some new insights into atypical

valuation relations including apparent upwards agreement phenomena (see Baker 2008,

Diercks 2011, 2013, Zeijlstra 2012) and downwards Case-checking (Bobaljik &

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[3] Bošković 2007, 2011; Epstein & Seely 2006 argue that goals must raise to probe; see discussion below.
[4] See Bejar & Rezac 2009 for a similar analysis of *agreement displacement,* to be discussed in §4.
[5] I use DP as a cover term for a set of projections, as Rizzi 1997 argued for CPs. The bearer of a DP's uCase is higher than the head licensing genitive DP-internally in constructions like *John's mother*. Thanks to Mark Baker for pointing out this issue. Relatedly, an anonymous reviewer asks why, in a case like *His attempt to win*, the pronoun cannot obtain accusative by downward-probing the verb. First, a genitive Case-valuer is closer. Secondly, I assume pronouns have internal structure like full DPs; usually their person features are properties of D, number originates in the Num head of NumP, and grammatical gender is a property of N. The c-command domain of D is hence NP even in a pronoun. Dechaine & Wiltschko (2002) identify 3 types of pronouns in natural language. Only one lacks internal structure, and it functions only as a predicate.

Wurmbrand 2005; Wurmbrand 2004/2006). And exploration of such instances of DELAYED

VALUATION gives us important information regarding how it comes about.

1.2   Mechanics of DELAYED VALUATION

As noted above, a model of syntax that assumes cyclic Transfer to the interfaces predicts

that uF and its valuer necessarily occupy the same phase. I will provide several kinds of

evidence that this is correct. On the other hand, there is no convincing conceptual basis for

expecting any particular directionality to hold in DELAYED VALUATION. Taking as a point of

departure Epstein 1999, I argued in §1.1 that the downward orientation of Agree relations

like (1)a,b follows from the bottom-up construction of syntactic objects by Merge. This

rationale does not extend to relations that might value a uF which finds no match in its

sister. I accordingly propose that DELAYED VALUATION is directionality-neutral:

(6)   **Directionality-Free Mechanics of Delayed Valuation**
        uF with no match in its c-command domain can be valued:
        (i)   Ex situ, by raising into locality with a matching feature, *OR*
        (ii)   In situ, by the closest matching feature within the same phase.

I argue that valuation after the point of first Merge often exhibits a misleading downward

bias due to the frequent involvement of edge features, raising expressions with uFs to

locations c-commanding their valuers (see (7)). (7) is a version of "imperfection driven"

movement which I assume underlies cases that I will analyze as XP-probing, inspired by

(but adapting) Boskovic 2007, 2011 (see also the Survive Principle of Stroik 1999, Heck &

Muller 2000 on Phase Balancing; see Koopman & Sportiche 1991, Carstens 1991 for much

earlier attempts to unify upward and downward-looking Case and agreement processes).

(7) **Why there is movement**: the edge feature of a head H removes uF from within the
        complement of H.

We will also see, however, that absent an edge feature c-commanding the valuer, valuation

of a uF by an expression merged higher in the tree is possible, with the bearer of uF either

remaining in situ or raising to be the valuer's closest c-commandee.

Thus while the analysis is not compatible with "upwards" or Spec, head agreement

as a parametric choice (Baker 2008, Diercks 2011) or as a universal (Zeijlstra 2012;

Wurmbrand 2012, Koopman 2006) it allows "upwards" valuation processes in all

languages, in circumstances where first Merge provides no results. Any intrinsic

directionality to valuation relations is thus illusory, and so perhaps is any actual process of

"probing" on this view (thanks to Daniel Seely for suggesting this to me; and see Preminger

2011 for a different perspective). [6]

1.3   Preview of empirical evidence for DELAYED VALUATION

My proposals for DELAYED VALUATION explain the well-documented existence of alternations

in the directionality of agreement and Case valuation both across languages and across

phenomena within a single language (reflecting the presence or absence of edge features,

and whether or not a match exists for a uF when it is first merged). Evidence comes from

English and German Case, from contrasts between West Germanic and Lubukusu

complementizer agreement (CA), and from a comparison of the latter with Lubukusu

agreeing 'how' (Carstens & Diercks 2013). I summarize briefly a few of the crucial facts.

Bobaljik & Wurmbrand 2005 argue persuasively from scopal contrasts like (8) versus

(9) that a German internal argument can be valued nominative in situ if it is sufficiently

local to T. If its base position is more distant (separated by two lexical VPs, which I will

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[6] Preminger 2011 argues persuasively that while agreement must always be attempted, uφ can licitly go unvalued if a source of valuation is lacking. On this view, the Lubukusu CA facts to be discussed in this paper seem to suggest that expectations for those attempts can be quite demanding, as a lazier grammar might be content to settle for default CA when a match is unavailable in the c-command domain (see §3.3 on CA in expletive constructions). I leave exploration of this intriguing issue and its implications to future research.

argue constitute a phase), the nominative object must raise to Spec TP for valuation (see

(10)a-c). Hence the directionality of nominative valuation varies in a single language.

(8) weil mindestens einem Kind jede Übung gelungen ist
since at.least one.DAT child every.NOM exercise managed AUX
'Since at least one child managed to do every exercise' ∃»∀/?∀»∃

(9) weil alle Fenster zu schließen vergessen wurden
since all windows(NOM) to close forgotten were
'Since they forgot to close all the windows' ∀ » forget; *forget » ∀

(10) a. ✓[TP T [vP [VP...OB~~uCase~~]]]

b. *[TP T [vP [VP1 ...[VP2...OB_{uCase}]]]

c. ✓[TP OB~~uCase~~ T [vP [VP1 ...[VP2...<OB_{uCase}>]]]

Turning to complementizer agreement (CA), West Germanic (WG) and Lubukusu CA differ

in that uϕ on a WG complementizer (C) is valued by the embedded subject (see (11)a). In

contrast, the agreeing Lubukusu C can only agree with the subject of the immediately

higher clause (see (12)a). I argue that WG agreeing C is a low C, Fin(ite) in the cartography

of Rizzi 1997, whereas Lubukusu C is the high C Force, merged after Transfer of the

embedded subject ((11)b versus (12)b; transferred material here and subsequently is

shaded). A successful derivation including the Lubukusu C therefore relies on DELAYED

VALUATION. Simplifying slightly, I propose in §3.6 that an edge feature of v* raises ForceP to

a matrix Spec, vP where it c-commands the subject (see (12)c).

(11) a. Kvinden **dan** die boeken te diere zyn [West Flemish; Haegeman 1992]
I-find that-PL the books too expensive are
'I find those books too expensive.'

b. Mechanics of West Germanic complementizer agreement: at Merge, uϕ of Fin
successfully probes the embedded subject

Fin_{uϕ} [TP SU T [vP <SU> v [vP ...]]]

(12) a. N-enya   **n**-di   Barack Obama   a-khil-e   [Lubukusu; Diercks 2013]
        1sSA-want 1s-that 1Barack.Obama 1S-win-SBJ
        'I want Barack Obama to succeed.'

      b. uϕ of Lubukusu Force cannot probe the transfered subject of an embedded clause.

         [$_{ForceP}$ Force $_{u\phi}$...[$_{FinP}$ Fin [$_{TP}$ SU ...]]]
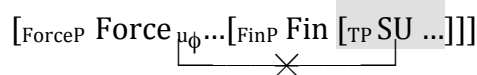
      c. Valuation of Lubukusu CA: ForceP inherits uϕ of Force, which probes the matrix
        subject after an edge feature of v* raises ForceP.

         [$_{vP}$ ForceP$_{u\phi}$ [$_{vP}$ SU [$_{v'}$ v [$_{VP...}$V <ForceP>]]]
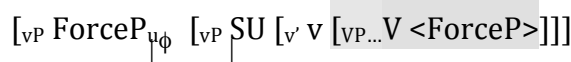
                                                                 ForceP raises to probe

The facts of German Case and West Germanic versus Lubukusu CA can thus be accounted

for by assuming uF is either valued in situ or raises to c-command a source of valuation.

English [*for...to*] infinitives provide evidence that raising to be closest c-commandee also

suffices for DELAYED VALUATION (see (13), and additional evidence from Arabic in §2.3).

(13)   a. For him to be arrested would surprise me.
        b. [$_{CP}$ For$_{uAcc}$ [$_{TP}$ 3S$_{uCaseAcc}$ to be [$_{vP}$ v [$_{VP}$ arrested <3S$_{uCase}$>]]]]...

Summing up, valuation relations are not intrinsically directional at all. Bottom-to-top

construction of syntactic objects often creates configurations in which uF has a match in its

sister, giving rise to the appearance that Agree must probe downwards. Similarly the

operation of edge features, which raise any uF from the complement of a head to its Spec

(see (7)), makes downward probing or the Spec, head relation seem to have privileged

status. But a careful exploration of DELAYED VALUATION phenomena reveals that only locality

between uF and its valuer determines whether valuation can apply.

1.4   uF of X become uF of XP

The approach to goal features and upwards agreement phenomena that I advocate here

leads inevitably to rejection of the view that unvalued features on X abort XP or make it

impossible for XP to Merge with Y (Chomsky 2000; Adger 2003). Chomsky 2000:132

writes, "Properties of the probe [...] must be exhausted before new elements of the lexical sub-array are accessed to drive further operations." But a DP bearing unvalued uCase is licit in syntactic relations with other expressions, including Merge with a selecting head (Merge (H, DP_{uCase})), and Agree with a higher probe that can value its uCase. As an unvalued uF, uCase meets the definition of a probe, rendering untenable the hypothesis in Chomsky's quote. Bošković 2007, 2011 and Epstein & Seely 2006 argue convincingly that DPs probe for Case values when they raise to c-command T or v. Assuming with these authors that these heads have intrinsically valued uCase, (14) is cross-linguistically well-motivated:

(14) *Match and delayed valuation where DP's uCase is the "probe"*

$$[_{TP} \; DP_{uCase} \; [_{T'} \; T_{uNom} \; ... \;]]$$

Similarly, under the traditional view of adjectives as heading AP adjuncts to NP or nP, concord on adjectives also entails that XPs can probe (see (15)-(17)).[7] Building on Carstens 2000, 2008, 2010, 2011 I propose that concord is a subcase of agreement and that a unified theory is possible and desirable. Assuming this and the ability of XPs to probe, (17) accounts for adjectival concord (raising of N(P) derives surface word orders). As noted in §1.3, the same mechanics underlie valuation of Lubukusu's agreeing C. See also §3.2 and Carstens & Diercks 2013a for an XP-probing analysis of Lubukusu agreeing 'how'.

(15) a kitabu   [_{AP} *ki*zuri sana]   [Swahili]
          7book   7good very
          'a very good book'

      b. mzigo   [_{AP} *m*zito   mno]
   3load   3heavy too
          'too heavy a load'

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[7] There is controversy on this issue. See Cinque 2005 and Shlonsky 2004 for an alternative view, and Carstens 2011b for a rejoinder, analyzing adnominal modifiers as XPs. Note also the absence of "deactivation" since agreement here does not involve Case features; see §3.6.4 and Carstens 2010, 2011.
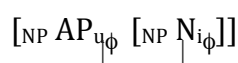
(16) a. la   muchacha   [$_{AP}$ muy bonit*a*]   [Spanish]
         the.fem girl.fem   very pretty.fem
         'the very pretty girl'

     b. une   voiture [$_{AP}$ plus vit*e*]   [French]
         a.fem   car.fem   more fast.fem
         'a faster car'

(17)   a. *AP contains no source of valuation for A's uφ*

       [$_{AP}$ A$_{uφ}$ ...]
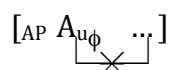
     b. *uφ of A become features of AP and probe N*

       [$_{NP}$ AP$_{uφ}$ [$_{NP}$ N$_{iφ}$]]

Throughout this paper I accordingly assume that XP bears the features of X as is consistent

with the fact that X determines XP's label. Any unvalued features of X become properties of

XP and can probe the c-command domain of XP.

1.5   Structure of the paper

This paper consists of five sections. In §2 I lay the groundwork for DELAYED VALUATION in an

exploration of Case, focusing on Bobaljik & Wurmbrand's treatment of German nominative

in restructuring contexts and English [*for…to*] infinitives. §3 considers in detail the

phenomenon of complementizer agreement in Lubukusu, arguing for the DELAYED

VALUATION analysis of why it takes its features from an expression in the matrix clause. The

general conclusion is that agreement parallels uCase in its syntactic behavior, acquiring a

value in its Merge location if a match is available in its sister, or raising into locality with a

more distant source of valuation. §4 sketches extensions of the approach to agreement

displacement phenomena from Bejar & Rezac 2009 and to uTense on V. §5 concludes.

2. Mechanisms of delayed Case valuation
2.1 Introduction

The workings of DELAYED VALUATION are readily observable in Case-relations of familiar

languages. This section presents evidence from Bobaljik & Wurmbrand 2005 that an

internal argument in German can be valued nominative *in situ* if it is close enough to T. If its

distance from T is too great for this, however, the internal argument raises to Spec, TP. I

argue that the latter strategy for nominative valuation is a subcase of XP "raising to probe"

a source of valuation from a derived, c-commanding position (see Boskovic 2007, 2011 and

Epstein & Seely 2006). Then I argue from English [*for…to*] infinitives that raising to be

closest c-commandee also feeds Case valuation.

2.2 German nominative in Bobaljik & Wurmbrand 2005

Bobaljik & Wurmbrand 2005 (Henceforth B&W) demonstrate that in German restructuring

contexts, the Case of an internal argument is determined by the matrix verb. If the matrix

verb is active, the internal argument is accusative (18). If the matrix verb is passive (19)

the object of the restructuring verb is nominative although this verb bears no passive

morphology itself.

(18) a. weil er   den   /*der   Traktor   versucht hat [t_{OBJ} zu reparieren]
        since he   the.ACC/*the.NOM   tractor   tried   has t_{OBJ} to repair
        'Since he tried to repair the tractor'   *active*

   b. weil er jeden   /*jeder   Brief vergessen   hat [t_{OBJ} zu öffnen]
      since he every.ACC/ *every.NOM letter forgotten   has t_{OBJ} to open
      'Since he forgot to open every letter'   *active*

(19) weil der   Traktor zu reparieren versucht wurde
     since the.NOM tractor to repair   tried   was.SG
     'Since they tried to repair the tractor'   *passive*

B&W argue that T does not always have a specifier in German. Their evidence comes from

scope asymmetries indicating that nominative DPs in restructuring contexts are not

uniform in location. In (9) (repeated below) the nominative must be interpreted as having wide scope over the verb 'forget'. Thus the interpretation cannot be one where the implicit agent remembered to close some but not all windows; rather, (9) means that no windows were remembered to be closed. In contrast, in the simple passive like (8) (repeated below) and in (20) where the restructuring verb is a modal, a narrow scope reading is preferred for the nominative. B&W account for this difference with the proposal that the internal argument obligatorily raises to Spec, TP when it originates in the complement of a lexical restructuring verb like 'forget'. In the remaining cases the internal argument can (and therefore perhaps must) remain in situ: there is no motivation for it to raise because it is close enough to T to acquire the nominative Case value from T without moving.

(9)   weil alle Fenster   zu schließen   vergessen wurden
      since all   windows(NOM)   to close   forgotten were
      'Since they forgot to close all the windows   ∀ » forget; *forget » ∀

(8)   weil mindestens   einem   Kind jede   Übung   gelungen ist
      since at.least   one.DAT child every.NOM exercise   managed AUX
      'Since at least one child managed to do every exercise'   ∃»∀/?∀»∃

(20) weil mindestens   einem   Kritiker   jeder   Film   gefallen sollte
      since at.least   one.DAT critic   every.NOM   film   please   should
      'Since at least one critic should like every movie'   ∃»∀/?∀»∃

B&W argue for the generalizations in (21) and (22). I reproduce their analysis of (8) and (20) in (23) and their analysis of (9) in (24).[8]

(21) A DP may not be interpreted (for scope and binding) in a position lower than the domain in which it undergoes Case/agreement-checking = its *agreement domain*.

(22) Case/agreement-checking may occur without DP-movement but only within a single agreement domain.

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[8] German datives cannot be agreed with or raised to Spec, TP even in passives (see among others McFadden 2006). I assume they do not count in the calculation of *closeness* for the relation (Agree (T, DP_{uCase})) in (23).

(23) *Representation of* (8) *and* (20): *in situ valuation for* DP_{nom}

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                    TP
            VP              T
      IO-DAT      VP
              DO-NOM      V
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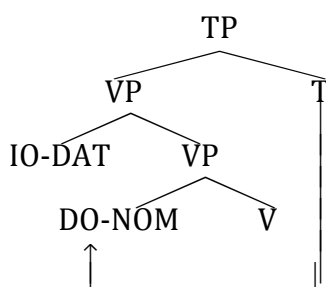
(24) *Representation of* (9): *Case driven movement and ex situ valuation of* DP_{nom}

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              TP
      DO-NOM         T'
              VP1          T
          ...      V'
              InfP/VP2    V'
          ...        V'
              <DO-NOM>      V
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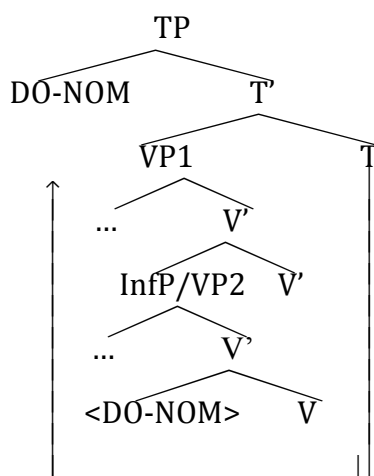
B&W thus provide a strong and persuasive argument that successful valuation of a DP's uNom does not require raising to c-command T in all cases, contra Bošković 2007, 2011 and Epstein & Seely 2006. But in situ valuation of uCase can happen only when T and the relevant DP are within the same *agreement domain.* It follows from the theory of cyclic Transfer that the full inventory of *agreement domains* must include the phases v*P and ForceP. Phasal Transfer also potentially explains why a DP within VP2 cannot be valued nominative by the matrix T. Given this, and in the interests of forging a general account under one rubric, I suggest that the VP complement to a lexical restructuring verb in

German be viewed as a phase in the sense of a Spell Out unit.[9]

2.3 [For…to] infinitives and Arabic Case from C: raising to closest c-commandee

Consider next the slightly different hypothetical case in (25) where an edge feature is available in a position closest c-commanded by a potential valuer for uF on an expression Z. B&W's account of in situ nominatives in simple restructuring clauses argues that valuation is really a matter of two uFs establishing a matching relation under locality. Given this, a natural question arises as to whether (25) is be a legitimate valuation configuration as well.

(25) $[_{XP}\ X_{uF1}\ [_{YP}\ Z_{uF2}\ [_{Y'}\ Y\ [_{WP} <Z_{uF2}> \ldots]]]$

I suggest that (25) is precisely the situation under which a subject's Case is valued in English [*for…to*] infinitives such as (26) and (27). It is well known that the presence of *for* on the left edge of an infinitival clause correlates positively with the possibility of an accusative subject appearing in an infinitive. This led Chomsky 1981 to propose that *for* is a prepositional complementizer, assigning accusative to the subject of its complement.[10] (26) demonstrates with a pronominal theme argument of a passive verb. (27) illustrates the analysis for a transitive verb with an agent subject.

(26) a. For him to be arrested would surprise me.
     b. $[_{TP}\ 3S_{uCase}$ to be $[_{vP}\ v\ [_{VP}$ arrested $<3S_{uCase}>]]]\ldots$
     c. $[_{CP}\ For_{uAcc}\ [_{TP}\ 3S_{uCase}$ to be $[_{vP}\ v\ [_{VP}$ arrested $<3S_{uCase}>]]]]\ldots$
     d. $[_{CP}\ For_{uAcc}\ [_{TP}\ 3S_{uCaseAcc}$ to be $[_{vP}\ v\ [_{VP}$ arrested $<3S_{uCase}>]]]]\ldots$

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[9] Bobaljik & Wurmbrand argue that VP2 does not include an edge feature in part to account for the absence of reconstructed readings for the raised DP (see discussion in B&W:30, their (41)). Hence it arguably has some but not all features of a strong phase. They also claim that VP1 cannot have an edge feature either, for movement theoretic reasons, though I see no reason in principle to rule out the option that the nominative may surface in a Spec of VP1 if German T happens to have no EPP feature in a given sentence, and VP1 does. Scope phenomena motivating their analysis would still seem to be captured.

[10] In more recent literature attention has turned away from the correlation of *for* with accusative, focusing on its incompatibility with subject extraction **Who do you want for __ to visit?* See Pesetsky 1991, Bošković & Lasnik 2003, Kim 2008 for proposals that English null C is an affix; its overt counterparts show up when affixation is impossible. I leave aside the relationship of this question to the issue of *for* and Case.

(27) a. For Mary to invite John is typical.
    b. [$_{TP}$ Mary$_{uCase}$ to [$_{vP}$ <Mary$_{uCase}$> v [$_{VP}$ invite John]]]…
    c. [$_{CP}$ For$_{uAcc}$ [$_{TP}$ Mary$_{uCase}$ [$_{vP}$ <Mary$_{uCase}$> v [$_{VP}$ invite John]]]]…
    d. [$_{CP}$ For~~uAcc~~ [$_{TP}$ Mary~~uCaseAcc~~ to [$_{vP}$ <Mary$_{uCase}$> v [$_{VP}$ invite John]]]]

(26) and (27) argue that raising to be closest c-commandee as in (25) is licit; hence the directionality-neutral approach to valuation is supported. We need only suppose that a lexical DP cannot occupy [Spec, *for*] to complete the account of this pattern of facts (perhaps because that DP is a non-operator).[11] With respect to the Activity Requirement of Chomsky 2001, it seems in principle possible that *for* has uφ agreeing abstractly with the infinitival subject, the same as English *v* agrees abstractly with the DP that it Case-licenses.

    Melebari & Seely 2011 provide similar evidence from Standard Arabic that Case-valuation is possible under raising of a DP to be the closest c-commandee of a head with a Case-"assigning" feature. They demonstrate that the Arabic complementizer *ʔanna* licenses accusative Case on a DP that follows it; hence the contrast between the nominative subject in (28)a and the accusative subject in (28)b. Melebari & Seely analyze this as re-valuation of the subject's uCase (see Bejar & Massam 1999 on this phenomenon), so it does not disprove the narrow claim that *unvalued* features must (raise to) probe their valuers downwards as in Bošković 2007, 2011 and Epstein & Seely 2006). It does however strongly suggest that valuation is not contingent upon the valuee's c-commanding the valuer, hence weakening the motivation to reject (25).[12]

(28) a. ʔal-ʔawlad-u qaraʔ-u   d-dars-a   *Main clause SU is NOM*
      the-boys-NOM read-3PL.MASC the-lesson-ACC
      'The boys read the lesson.'

---

[11]Alternatively *for* has no edge feature (hence the **[for t]* effect might reduce to the impossibility of [<wh> *for*]). It is unexpected, however, for *Who do you want for John to visit?* to be licit under this approach.
[12] It is well known that when a lexical subject is post-verbal in Standard Arabic, agreement on V is invariantly singular. Melebari & Seely 2011 among others argue that a null singular expletive is probed by T and raises to Spec TP in VS. This refutes Zeijlstra's (2012) claim that the pattern motivates universal "Reverse Agree".

b. Ɂanna al-Ɂawlad-a   Ɂakal-u   T-Taʕaam̰-a   yusʕidu-ni   *Ɂanna values SU as ACC*
   that   the-boys-ACC ate-3PL.MASC the-food-ACC   pleases 3PL.MASC-me
   'That the boys ate the food pleases me.'

2.4   Arguments against valuation in a *cyclic Spec:* Boskovic 2007

Bošković 2007 discusses two apparent counter-examples to the hypothesis of valuation in

(25) which he calls raising to a *cyclic* Spec. He first argues that sentences involving the

English verbs *conjecture* and *remark* do not license accusative, and that this causes the

unacceptability of (29)a. He next concludes from the ill-formedness of (29)b that raising

the object of *conjecture* or *remark* to Spec of a CP embedded under an accusative Case-

licenser does not remedy the problem (see (29)c).

(29) a. *John conjectured/remarked something.

   b. *I know what John remarked/conjectured.

   c. *I [$_{vP}$ v [$_{VP}$ know [$_{CP}$ what [$_{TP}$ John remarked <what>]]]]
                                                        Case-valuation fails

Bošković also argues that the unacceptability of (30)a is due to the fact that ECM-type Case-

licensing is unavailable with such verbs as *wager*. W*h*-movement of the embedded subject

yields an improved result (see (30)b), and Bošković proposes that this is because Case-

valuation can only be obtained if a DP raises to c-command the Case-licenser. Hence *who*

obtains Case through A'-movement to the higher Spec, vP en route to Spec, CP (see (30)c).

(30) a. *John wagered Mary to be smart.
   b. Who did John wager to be smart?
   c. [$_{vP}$ <who$_{uCase}$> v$_{uNom}$ [$_{VP}$ wager [$_{CP}$ <who> [$_{TP}$ __ to be smart]]]]
                                                No Case-valuation from 1st move
                                             2nd move yields success: (Agree (who$_{uCase}$, v))

These are challenging problems, but I think insufficient basis to conclude that the

relationship for ex situ valuation is narrowly directional rather than purely local. While a

full treatment lies outside this paper's scope, I will sketch out alternative approaches.

First, a different interpretation of (29) might be that *remark* and *conjecture* simply do not c-select DP complements. No strategy for Case-valuation of a DP complement can overcome this problem, and (29) is therefore irrelevant to the issues at hand.

Second, Postal 1974, Pesetsky 1992, Ura 1993, and Bošković 1997 show that *wager*-class verbs have a set of curious properties beyond the simple contrast in (30)a,b. Like ECM verbs, they allow passivization and pronominalization of the subject of their infinitival complement (see (31)a,b). A full DP subject is more felicitous if it bears some thematic relation to the higher *wager*-class verb (31)c. I add to these prior observations my judgment that an *in situ wh*-subject is better than a name (compare (31)d with (30)a).

(31)   a. ?Mary was wagered to be smart.
        b. ?We wagered him to be the winner.
        c. We wagered Mary's weight to be 120 pounds.
        d. Who wagered who to be smart?

The approach to (30)b sketched in (30)c has nothing to say about these quirks of licensing for subjects embedded under *wager*-class verbs. I leave a full account for future research, concluding merely that the additional facts seem to weaken Bošković's case against Case-valuation for a closest c-commandee. Their complexity suggests other factors are at play.

2.5   Summary

The facts I have examined in connection with Case converge on an important general conclusion: the distinction between unvalued probe and goal features is illusory. The two function identically; all that is necessary for valuation is establishing a local match between relevant features. When valuation is not available to a uF at the point of first Merge, DELAYED VALUATION can take place if uF moves to a location where it closest c-commands a potential valuer or is its closest c-commandee. On this basis I have proposed (6), which seems the strongest and hence the most interesting hypothesis for valuation:

(6) **Directionality-Free Mechanics of Delayed Valuation**
uF with no match in its c-command domain can be valued:
(i) Ex situ, by raising into locality with a matching feature *OR*
(ii) In situ, by the closest matching feature within the same phase.

Since at least George & Kornfilt 1981 agreement and Case have generally been viewed as tightly related phenomena -- two sides of a single coin. In the next section I will present evidence strongly confirming this view. I will show that agreement on a head can be valued by material in that head's sister at Merge or, failing that, through one of the same DELAYED VALUATION mechanisms motivated by German and English Case.

3.   Evidence from "upward" complementizer agreement.
3.1   Introduction

Complementizer agreement (CA) exhibits a kind of cross-linguistic variation that has fueled recent controversy over the directionality of Agree. While West Germanic complementizers can agree only with the subject of the embedded clause they introduce (see (11)a, repeated below), complementizers in some African languages must agree with the subject of the immediately higher clause. I illustrate this in (32) with Lubukusu data from Diercks 2013.

(11) a. Kvinden [CP **dan**   die boeken te   diere   zyn]   [West Flemish; Haegeman 1992]
        I-find   that-PL the books too expensive are
        'I find those books too expensive.'

(32) Khw-aulile   [CP **khu**-li/*<u>ba</u>-li   <u>ba-limi</u>   ba-funa   ka‑ma-indi.]   [Lubukusu]
     1plSA-heard   1pl-that/2-that 2-farmers 2S-harvested 6-6-maize
     'We heard that the farmers harvested the maize.'

Both kinds of CA are demonstrably independent of subject agreement on the verb.

Haegeman & van Koppen 2012 argue that WG C has uϕ distinct from T's uϕ, and each is valued separately. Among their evidence is the fact that Limburgian C can agree with the left member of a conjoined subject, while T must agree with the whole:[13]

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[13] Some conjoined DPs in Lubukusu allow mismatches between SA and CA, depending on noun class and (apparently also) person hierarchies. I leave these issues to future research.

(33) Ich dink [_CP_ de-s [toow en Marie] kump]. [Lumburgian]
    I think that-**2s** you(s) and Marie come.**pl**
    'I think that you and Marie will come'

Diercks 2013 provides two arguments that Lubukusu CA is independent agreement on C and not simply a copy of T's subject agreement. When subjects are extracted, T agrees only in number and gender (Diercks's "Alternative Agreement Effect," = AAE below). In contrast, agreeing C exhibits full features of gender, number, and person (see (34)). Second, imperative verbs do not bear SA; but 2nd person CA is possible on agreeing C selected by an imperative verb as shown in (35)a,b (I assume with Diercks that imperatives contain a silent 2nd person subject with which C can agree).[14]

(34) Naanu **o**-manyile a-li (***o**-li) Alfred a-l-ola?
    who AAE-knows 1-that (*AAE-that) 1Alfred 1SA-FUT-arrive
    'Who knows that Alfred will arrive?'

(35) a. Suubisye **o**-li o-kh-eche muchuli.
      promise 2s-that 2sSA-FUT-come tomorrow
      'Promise me that you (sg) will come tomorrow.'

    b. Loma **mu**-li orio muno.
      say 2pl-that thank you very much (pl)
      'Say thank you very much.'

3.2 Against a directionality parameter

Baker 2008 views this kind of variation in CA as at least partially explained by an upward/downward parameter (U/D) on Agree. But a fruitful approach to parameters attributes them to properties of lexical items (Borer 1984, Chomsky 1995). As Baker acknowledges, a U/D parameter is probably not implementable in these terms. U/D is also

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[14] Ndayiragije (personal communication) suggests that Lubukusu agreeing C is not a C at all but a verb agreeing with a controlled *pro* subject. But a control analysis faces severe problems. §3.5 shows that a matrix IO/causee cannot value uφ of Lubukusu C and explains this with the proposal that IOs/causees have Case-licensing in situ and hence are inactive for Agree. Case-valued expressions are always licit controllers, so the approach cannot be modified to suit a controlled *pro* account. We could stipulate that every Lubukusu matrix verb with a ForceP complement functions like *promise*, but this lacks any principled basis. Lastly, it seems undesirable for the categorial realization of clauses to be CP in one language and VP in the next language (or the next construction within the same language) without strong independent motivation.

anomalous from a derivationalist standpoint (see discussion of (2) in §1.1).

In addition to these theoretical drawbacks, Carstens & Diercks 2013a show that upward probing is incompatible with the syntax of Lubukusu agreeing 'how'. In a transitive SVO clause, 'how' can only agree with the external argument. But in an A-movement type of locative inversion, a locative DP raises to Spec, TP and values subject agreement, while 'how' agrees downward with the thematic subject in its base position. Since only selected locatives can invert, Diercks 2011 proposes that inverting locatives originate as sisters to V. Adopting this assumption permits Carstens & Diercks to give a unified analysis of 'how's agreement features. They argue that 'how' is a vP-adjunct, differing from English 'how' only in that it has uφ which must be valued under closest c-command by the highest argument in vP (see (36) and (37), adapted from Carstens & Diercks 2013:(68) and (37) respectively and see Carstens & Diercks for a proposal that the locative clitic on the verb in (37) heads a projection AgrLP and probes only for locatives. AgrL is instrumental in the locative DP's movement to Spec, TP across the logical subject).

(36) a. Ba-ba-ana   ba-kha-kule   bi-tabu   ba-rie(na)/*bi-rie(na)?
    2-2-children 2SA-FUT-buy 8-books   2-how/8-how
    'How will the children buy books?'

   b. [$_{TP}$ 2children T$_{uPhi2}$ [$_{vP}$ [$_{vP}$ <2children> [$_{v'}$ v [buy 8books]]] how$_{uPhi2}$]]

(37) a. **Mu**-mu-siiru **mw**-a-kwa-**mo**   ku-mu-saala ku-rie?
    18-3-forest   18SA-PST-fall-18L 3-3-tree   3-how
    'How did a tree fall in the forest?' (Lit: In the forest fell a tree how?)

   b. [$_{TP}$ 18forest T$_{uPhi18}$ [$_{AgrLP}$ <18forest> AgrL [$_{vP}$ [$_{vP}$ v [$_{VP}$ 3tree [$_{V'}$ fall <18forest>]]] how$_{uPhi3}$]]]

The facts of agreeing 'how' show that Lubukusu uφ probes its c-command domain at first

Merge, as the derivationalist view of syntax predicts.[15] They are thus incompatible with

 analysis of Lubukusu as an upward-agreeing language.

3.3   The question of anaphoricity and point of view

Diercks 2013 proposes that Lubukusu CA is "indirect agreement," mediated by an

anaphoric null operator that raises from Spec, CP to T. The primary reason for this is a

strict subject orientation that will be the topic of §3.6. But some patterns of usage and

interpretation that he discusses are also suggestive of anaphora so I will review and

comment on them briefly here.

Diercks reports that the speakers he interviewed preferred a non-agreeing C when

the upstairs subject is inanimate. On this basis he proposes that the valuer of Lubukusu CA

must have a point of view or a "mind to report," a state of affairs that seems supportive of

the anaphoric analysis (see also Diercks, Putnam & Van Koppen 2011/2012 where it is

proposed that agreeing C is an anaphor with unvalued interpretable φ–features).

But Diercks acknowledges an inconsistency in that Lubukusu CA can have expletive

values, absent a thematic subject ((38)a,b= (73) and (74) in Diercks 2013). In such a case,

only the embedded subject plausibly has a mind to report or a point of view. While raising

it covertly might seem a way to address Diercks's point of view requirement, the embedded

subject's φ-features don't match CA, and covert raising, if it happens in such contexts, does

not license anaphora. This is clear from the inability of a subject under a raising verb to

antecede a matrix reflexive in a case like (39).

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[15] This is partly obscured by frequent pairing of uφ and edge features; see Carstens 2005; Collins 2004.

(38) a. Ka-lolekana   ka-li Tegani   ka-a-kwa
        6SA-seems   6-that   6SA-PST-fall
        'It seems that Tegan fell'

    b. Li-lolekana li-li   Sammy a-likho   a-lwala
        5SA-seems 5-that   1SA-PROG 1SA-be.sick
        'It seems that Sammy is sick'

(39) *It seems to himself [that John is sick]

The speakers I consulted differed from those of Diercks's study in accepting CA with

inanimate subjects as in (40), and in lacking some additional usage restrictions that Diercks

reported for agreeing C including preference for a different C, *bali*, to report hearsay (see

(41)). If the subject orientation of Lubukusu CA were related to the usage restrictions as

Diercks proposes, we might expect it to be absent for speakers who lack these restrictions,

but this is not the case; these speakers also have subject-oriented CA. Diercks (personal

communication) informs me that the division of labor among Cs varies considerably across

small geographic areas. In contrast, the subject orientation of CA is consistent.

(40) a. E-barua   y-ø-eke-sy-a   e-li   Nelson   o-mu-sangafu
        9-letter   9SA-PST-see-CAUS-FV 9-that   1Nelson 1-1-happy
        'The letter showed that Nelson was happy'

    b. E-barua   y-a-suubi-sy-a   e-li   ba-keni   ba-cha
        9-letter   9SA-PST-believe-CAUS-FV 9-that 2-guests   2SA-leave
        'The letter promised that the guests would leave'

    c. E-barua   y-a-sindu-sy-a   ba-ba-na e-li   ba-keni khe-beecha
        9-letter   9SA-PST-surprise-CAUS-FV 2-children 9-that 2-guests 2SA-come-FV
        'The letter made the children surprised that the guests were coming'

(41) *Diercks's speakers' division of labor for agreeing C and* bali *(not found in my sample)*

    Mosesi   a-ul-ile   a-li/bali Sammy   k-eba   chi-rupia
    1Moses   1SA -hear-PST   1-C/BALI 1Sammy   1SA-stole   10-money
    'Moses heard that Sammy stole the money.'
    [*a-li*: Moses and the speaker believe it.]
    [*bali:* Moses doesn't believe it or the speaker doubts it.]

I conclude that Lubukusu CA and its controller are not connected by anaphora or point of view. For speakers who have the restrictions Diercks reported, they can be accounted for quite simply in terms of selection (see (42)).

(42)   *Hypothesis for (overt) complementizer selection, Diercks's speakers:*

   Bali: Hearsay
   Agreeing C: Animate subjects
   Mbo: Elsewhere

3.4 Summary

I have shown that agreeing 'how' is inconsistent with analysis of Lubukusu as an upward-agreeing language. CA with expletive subjects as in (38) is incompatible with the claim that the controller of CA must have a mind to report. A few usage restrictions on Lubukusu CA can be attributed to selection, for the speakers who have them. The way is clear to pursue the strongest and most interesting hypothesis about CA phenomena, namely a unitary theoretical approach.

3.5   The DELAYED VALUATION approach

I propose that, like the difference between probe and goal features discussed in §1.1, the contrasting properties of CA in the two languages are due to whether valuation is available for the relevant uFs in their Merge locations. The analysis rests on interaction among independently motivated factors: (i) the Phase Impenetrability Condition of Chomsky 2000; (ii) an articulated left edge as in Rizzi 1997, 1999 allowing differences in the heights of the 2 agreeing Cs; [16] and (iii) one of the DELAYED VALUATION mechanisms sketched out in

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[16] Putnam & van Koppen (2010) also argue that Cs at different heights in the articulated left periphery have contrasting agreement properties. In their analysis however, the Force-level C of the English *alls* construction and the low C of West Germanic CA both agree with the embedded subject.

relation to goal features in §2. Rizzi's approach to the left periphery is illustrated in (43)

(INT = interrogative; FOC = focus). The version of the PIC that I adopt is shown in (44).

(43) *The articulated left periphery: Rizzi 1997, 1999*

   …[ForceP FORCE [FocP FOC [IntP INT [FinP FIN [TP SU T…]]]]]

(44) In a phase α with head H, the domain of H is inaccessible to operations outside α, only H and its edge are.[17]

Since WG C clearly has access to the contents of the embedded TP I propose that it is the

lowest C, Rizzi's Fin. When uϕ of Fin is merged, the subject is accessible (see (45)). Hence

Fin's uϕ finds a match immediately, in its c-command domain:

(45) *West Germanic complementizer agreement*: *uϕ of Fin successfully probe the subject*

   Fin$_{u\phi}$ [TP SU T [vP <SU> v VP]]

In contrast, Lubukusu's agreeing C is closer to the matrix clause – I will assume it is Rizzi's

Force. Suppose Fin is a phase head; then by the time Force Merges, Transfer has taken

place and the subject is already gone (see (46)). Thus like a goal feature in (4) and (5), uϕ of

agreeing C cannot be valued unless Merge of additional material expands the possibilities.

(46) *Lubukusu complementizer agreement: Force$_{u\phi}$ cannot probe Transferred SU*

   [ForceP Force$_{u\phi}$…[FinP Fin [TP SU …]]]

Fine-tuning a bit, there is reason to think the phase head of the CP-domain is intermediate

between ForceP and FinP. Carstens & Diercks 2013b argue from cases like (47)a,b that

there is HYPER-RAISING out of Lubukusu tensed clauses. (47)a shows that HYPER-RAISING is

compatible with reconstructed readings where the matrix subject is construed in the

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[17] The version of the PIC in Chomsky 2001 (see below) can capture the delay in Lubukusu CA valuation if both ForceP and FinP are strong phases, so Force cannot reach across Fin into TP, and if the analysis of hyper-raising constructions in (47) is slightly modified). I leave this aside.
(i) Given phases ZP and HP, the domain of H is inaccessible to operations at ZP, only H and its edge are.

embedded clause. (47)b shows that HYPER-RAISING can feed matrix passive. These examples

also illustrate that HYPER-RAISING can cross the non-agreeing C *mbo* but not the agreeing C.

(47) a. E-fula e-lolekhana (mbo/*e-li)   e-kha-kw-e   muchiri
        9-rain 9SA-appear (that/*9-that) 9SA-FUT-fall-FUT   tomorrow
        'It seems like it will rain tomorrow' [Lit: rain seems (that) will fall tomorrow]
        OK to say upon reading the forecast in the paper

     b. O-mu-keni ka-suubil-wa   mbo (*a-li)   k-ola
        1-1-guest   1SA-believe-PASS   that (*1-that) 1SA-arrive
        'The guest was believed to have arrived.'

Following Carstens & Diercks 2013b I identify *mbo* as Lubukusu's low C Fin. The simplest

approach to the permeability of *mbo* clauses is to assume with Carstens & Diercks that *mbo*

is not a phase head. [18] Hence cyclic Transfer must be triggered by a null head located

between *mbo* and agreeing C. [19] Rizzi 1999 posits a C intermediate between Fin and Force,

where overt interrogative (Int) Cs appear in some languages. I will assume that there are

positive and negative values for Int and that the CP it heads (IntP) is selected by Force (see

(48)). A raising verb selects a bare FinP headed by *mbo,* out of which A-movement is

possible (and see note 18 on long-distance agreement); other verbs usually select ForceP

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[18] Bošković 2007 reviews evidence from Chuckchee and Blackfoot from Stepanovic & Takahashi (2001) and Legate 2005 suggesting that Agree can reach into an embedded clause. He argues that only Move is subject to the PIC. Given the evidence that Lubukusu cross-clausal agreement fails, I suggest instead that the relevant C in Chuckchee and Blackfoot is the low non-phasal C Fin, so that long-distance Agree in these languages relies on the same embedded clause permeability as Lubukusu hyper-raising across *mbo*. See also Bhatt 2005, Bobaljik & Wurmbrand 2005 for analyses of some long-distance agreement in terms of restructuring, and Polinsky & Potsdam 2001 for arguments that long-distance agreement in Tzez is mediated by a null topic in Spec of the embedded CP.
[19] A reviewer asks about embedded topicalization. It can only target a position to the right of agreeing C and is impossible in an *mbo* clause. C cannot agree with the topic (see (i)). These factors suggest (ii) where TopP is below both ForceP and phasal Int. Since *mbo* cannot surface, its location relative to TopP is unclear.

(i) John a-loma a-/*li-li   litunda, Nolu ka-kula   /John a-loma (*mbo) litunda (*mbo) Nolu ka-kula
    John 1SA-say 1/*5-that 5fruit   1SA-bought/   1 SA-say (*that) 5fruit (*that)   1SA-bought
    'John said that the fruit, Nolu bought'

(ii) [ForceP C$_{u\phi}$ [IntP Int [TopP fruit…]]]

complements [20] containing phasal IntP. Thus *mbo* clauses are permeable, and uφ of the agreeing C cannot be valued by an embedded subject – all the desired results are obtained.

(48) *An intermediate C (Int) triggers phasal Transfer, blocking CA with embedded SU*

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$$[_{\text{ForceP}} \text{Force}_{u\phi} [_{\text{IntP}} \text{Int} [_{\text{FinP}} \text{Fin} [_{\text{TP}} \text{SU} ...]]]]$$
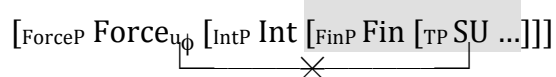
The situation for uφ of Force in (48) is parallel to that of D's uCase in (5). There are two general routes by which DELAYED VALUATION might in principle proceed here. Force might raise into locality with an expression bearing iφ (with or without pied-piping surrounding material). Alternatively, Force might obtain valuation in situ when an expression is merged higher bearing matching iφ. Teasing out the best among these options is the next task.

3.6 The subject orientation and its implications
3.6.1 The empirical problem

The evidence that ForceP must be able to raise lies in the identity of the expression that ultimately values its uφ. Diercks 2013 demonstrates that only the subject of the immediately superordinate clause can value uφ of Lubukusu agreeing C. C cannot agree with a more remote subject (see (49)); nor with an indirect object (IO) or causee in a double object construction (henceforth DOC. See (50); (49) and (50)a from Diercks 2013; thanks to Lillian Waswa for (50)b). The subject orientation is Diercks's primary reason for proposing an anaphoric approach to Lubukusu CA.

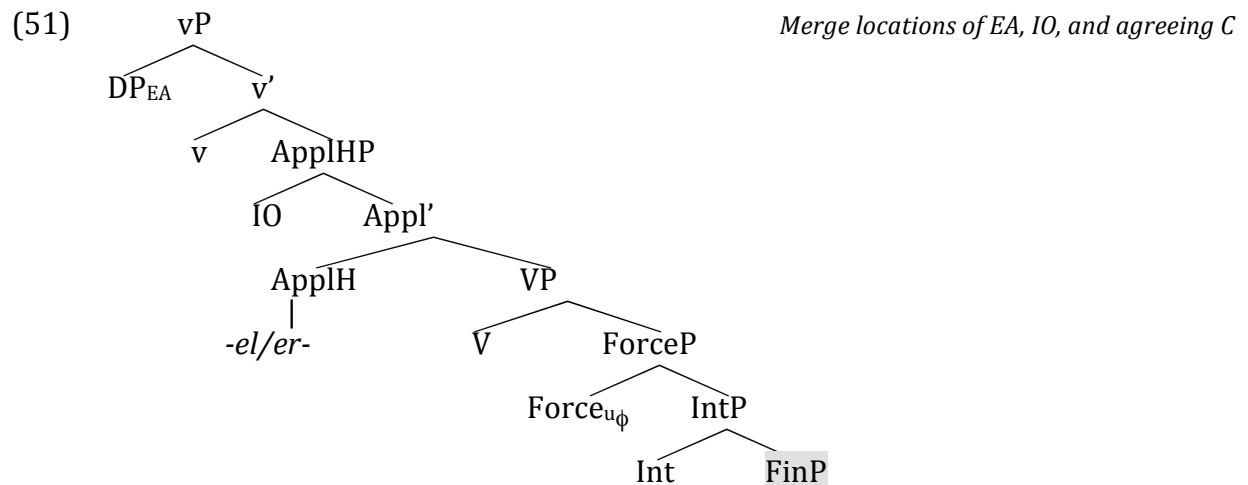(49) Alfredi ka-a-loma   a-li   ba-ba-andu ba-mwekesia *a-/ba-li   o-mu-keni k-ola
    1Alfred 1SA -PST-say 1-that 2-2-people 2SA-revealed *1-/2-that 1-1-guest 1S-arrived
    'Alfred said people revealed that the guest arrived.'

(50) a. Ewe w-abol-el-a   Nelsoni *a-/o-li   ba-keni   ba-rekukha.
    you 2sSA-say-APPL-FV 1Nelson 1/2s-that 2-guests   2SA-left
    'You told Nelson that the guests left.'

---

b. N-ok-esy-a   Wekesa   ndi   /(*ali)   ba-keni   ba-rekhukha.
1SSA-see-CAUS-FV 1Wekesa 1s-that (*1-that) 2-guests   2SA-left
'I showed Wekesa that the guests had left.'

(49) shows that the relation valuing Lubukusu CA is local, as Diercks 2013 points out. Given

this, (50) present a puzzle. Following Marantz 1993 and McGinnis 2001 I assume that IOs

in Bantu languages Merge in Spec of a 'high' Appl(icative)P located between vP and VP.

Hence the schematic structure of (50)a is (51). Following Baker & Safir 2012 I assume

Lubukusu causees and applied objects have similar syntax; hence there is a Caus head

counterpart to Appl, though for reasons of length I focus on applicatives here.[21] Evidence

that IO asymmetrically c-commands DO is given in (52) (see Barss & Lasnik 1986; Marantz

1993).[22] The Merge positions of the subject and agreeing C are thus clearly non-local.

(51)   vP   *Merge locations of EA, IO, and agreeing C*

DP_{EA} v'

     v   ApplHP

        IO   Appl'

          ApplH   VP

          -el/er-   V   ForceP

                   $Force_{u\phi}$ IntP

                         Int   FinP

(52) a. Na-a-rer-er-a   buli   mayi$_i$ omwana wewe$_i$
      1SSA-PAST-bring-APPL-FV   every 1mother 1child   1POSS1
      'I brought each mother$_i$ her$_i$ child' *(OK with bound variable reading)*

    b.*Na-a-rer-er-a   mayi   w-ewe$_i$ buli   omusoleli$_i$
      1SSA-PAST-bring-APPL-FV 1mother 1-POSS-1 every 1boy
      *'I brought his$_i$ mother each boy$_i$' *(OK only without bound reading)*

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[21] See however Baker & Safir 2012 on some differences related to first and second person objects that will not be relevant here, and for a proposal that the category responsible for raising DO over IO is head of LinkP.
[22] Binding relations in Lubukusu double object constructions (DOCs) are more complex than this, as will be detailed §3.7. I assume that the more rigid word order and binding pattern when both objects are human reveal the underlying hierarchical relations; based in part upon prior works on DOCs cited in this section.

Whether Force(P) is hypothesized to raise or to be valued by a feature of the subject interacting with it downwards, the IO (or causee) would seem to be in the way. Diercks's proposed subject-oriented logophoric null operator addresses this. But as previously noted (see (38)), CA can have expletive values, and only a subset of speakers have the usage restrictions that support Diercks's claim of an anaphoric relation. His approach also has to stipulate that uφ of C cannot instead probe downwards like Lubukusu 'how' does (see §3.2). The DELAYED VALUATION approach avoids both of these problems, reducing the directionality of Lubukusu CA to a general theory of agreement and Case. It remains only to flesh out the derivation and explain the basis for non-intervention by an IO or causee.

3.6.2 Datives and intervention

I propose that IOs in Lubukusu are Case-licensed in situ by Appl so they are not active to Agree with C; similarly, causees can be assumed to be Case-valued by the causative affix Caus (since the affixes incorporate and raise to the middle field with the verb, the directionality of these relations is an open question). A reasonable first hypothesis is that their dative Case value makes IOs/causees wholly irrelevant for valuation of CA. Once the subject is Merged in Spec, vP, it can Agree with uφ of C across the intervening IO or causee because SU is not Case-valued until it raises to Spec, TP (see §3.6.4 for details).

There is some initial support for such an approach in the behavior of datives in German. As I noted in the introduction, Bobaljik &Wurmbrand 2005 argue that German T can value a VP-internal nominative if the domain is small enough (see (20) and (23), repeated below); and this valuation relation ignores an intervening dative argument.

(20) weil   mindestens   einem   Kritiker jeder   Film gefallen sollte
    since at.least   one.DAT   critic   every.NOM   film please   should
    'Since at least one critic should like every movie'   ∃»∀/?∀»∃

(23)

```
                TP
         VP            T
   IO-DAT    VP
      DO-NOM      V
```
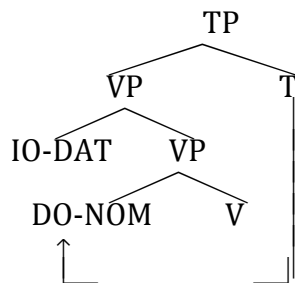
German datives differ from Lubukusu IOs and causees in significant respects, however. It is well-established that as an inherent Case, German dative retains its identity even when it is borne by the object of a passive verb. And unlike an accusative, the German dative object in a passive cannot interact with T to value its uϕ (see (53), adapted from McFadden (2006)).

(53) a. *Under passivization, accusative OB becomes nominative and values uϕ of T*

> Meine Brüder   sind/*ist   geschoben   worden
> my   brothers(NOM)   be.PL/be.SING   pushed   become
> 'My brothers were pushed'

     b. *Under passivization, dative OB retains its Case value and cannot value uϕ of T*

> Meine Brüdern   *sind/ist   geholfen   worden
> my   brothers(DAT)   be.PL/be.SING   pushed   become
> 'My brothers were helped'

     c. *Nominative cannot replace dative on a passivized IO, and SA is impossible*

> *[Die Wissenschaftler]   sind/   Den Wissenshaftlern   ist
> [the scientists](NOM)   *be.PL/   [the scientists](DAT)   be.SING

> [ein groβer Auftrag]   gegeben   worden
> [a big assignment]NOM   given   become
> 'The scientists were given a big assignment'

In contrast, passivized Lubukusu IOs value SA. Compare the Lubukusu (54) with German (53)b,c. The contrast suggests that the Case of Lubukusu IOs is structural, and that they are therefore not systematically inert for Agree.

(54) Sammy   ka-bol-el-wa   **a**-li   ba-keni   b-ola.
     1Sammy   1SA-say-APPL-PASS   1-that 2-guests   2SA-arrived
      'Sammy was told that the guests arrived.'

The final and greatest reason for caution about positing that Lubukusu IOs do not count in the calculus of closeness is that even inherent datives, which cannot value SA themselves and do not block Case valuation in circumstances like (20)/(23), nonetheless function as *defective interveners* in φ-relations. I demonstrate in (55) with an Icelandic example from Holmberg & Hróarsdóttir (2003).[23] As in German, T appears able to value nominative on a VP-internal DP across an intervening dative. But SA of T with DP$_{Nom}$ is impossible in this configuration. If the dative raises out of the way, however, the Agree relation can proceed.

(55) a. það   finnst/*finnast [einhverjum stúdent]DAT [SC tölvurnar   ljótar]
         there find.SG/*find.PL some student.SG.DAT   the.computers.PL.NOM ugly
         'Some student finds the computers ugly'

     b. [Einhverjum stúdent]1   finnast *t*1[SC tölvurnar   ljótar]
         some student.SG.DAT   find.PL   the.computers.PL.NOM ugly
         'Some student finds the computers ugly'

Thus a number of factors would lead one to expect IOs might block a valuation relationship between SU and in situ uφ of Lubukusu Force. In the next section I present evidence that DOCs are "symmetrical" in Lubukusu, and discuss a proposal of McGinnis 2001 that in such languages Appl is a phase head. Like the defective intervention possibility discussed above, this analysis suggests that if ForceP remained in situ its features could not interact with the subject and it would Transfer to Spell Out with uφ of Force unvalued. On the other hand, the approach also provides an independently motivated mechanism for raising ForceP into locality with the subject, overcoming the potential phase-theoretic and defective intervention problems at the same time.

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[23] See also Preminger 2011 for helpful discussion.

3.6.3 A move-and-Agree account

Lubukusu has what are called "symmetrical" double object constructions: either DO or IO can generally be realized as an object pronoun, or move to Spec, TP in a passive (see also Baker & Safir 2012). McGinnis 2001 argues that in such languages, Appl is a phase head with an edge (= EPP) feature[24] permitting DO raising across IOs to feed passive and pronominalization. The examples in (56) demonstrate this symmetry (thanks to Aggrey Wasike for (56)). I illustrate McGinnis's approach in (57).

(56) a. Khu-rer-er-e   o-mu-soleli   bi-tabu
       1plSA-bring-APPL-PAST   1-1-boy   8-book
       'We brought the boy books'

    b   Khu-**mu**-rer-er-e   bi-tabu
       1plSA-1OM-bring-APPL-PAST   8book
       'We brought him books'

    c. Khu-**vi**-rer-er-e   o-mu-soleli
       1plSA-8OM-bring-APPL-PAST   1-1-boy
       'We brought them (to) the boy'

    d. Omusoleli   a-rer-er-w-e   bi-tabu
       1boy   1SA-bring-APPL-PASS-PAST   8-book
       'The boy was brought books'

    e. Bi-tabu   bi-rer-er-w-e   o-mu-soleli
       8-book   8SA-bring-APPL-PASS-PAST   1-1-boy
       'The books were brought (to) the boy'

(57) *Raising DO in a "symmetrical" language – Appl is a phase-head head with an edge feature (cf. McGinnis 2001).*

_____
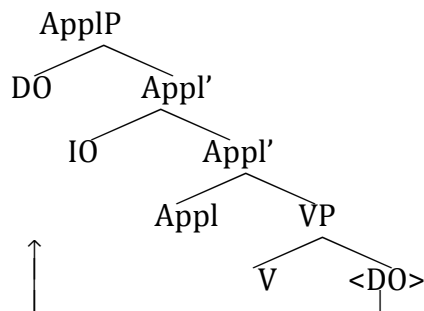
[24]Chomsky 2008 defines an A' position as one created by an edge feature of a phase head, raising questions about the A/A'-status of pronominalization and passivization under this analysis. I discuss this in §3.7.

In contrast, only the IO can passivize or pronominalize in an "asymmetrical" DOC like (58).

McGinnis argues that when DOCs are asymmetrical, Appl is not a phase head. It hence has

no edge feature, so the DO is trapped below the IO (leaving aside A'-movement).

(58) a. *A book was given the children

    b. *We gave it the children (out with DO reading for the pronoun)

    c. *In an "asymmetrical" language, Appl is not a phase head so DO cannot raise (cf. McGinnis 2001).*
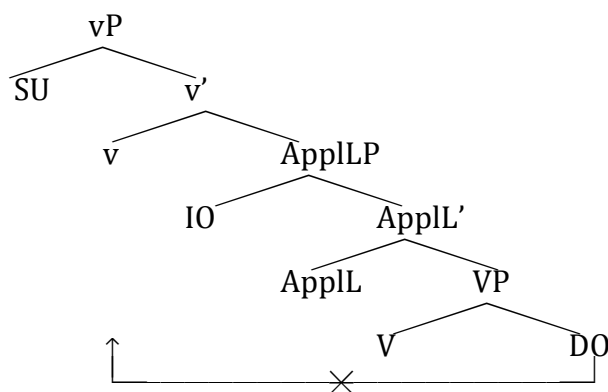
McGinnis's successful analysis of the two varieties of applicatives extends nicely to the

symmetrical DOCs of Lubukusu. Interestingly for our purposes, it is incompatible with an

approach to Lubukusu CA in terms of in situ valuation of Force$_{u\phi}$. This is because by the

time the subject is merged, the complement to the Appl phase head including ForceP will

have been spelled out: [25] [26]

---

[25] This phase-theoretic problem arises also for approach in Diercks 2013 where it is argued that a null anaphoric operator raises to T. Unless the operator raises to T via Spec, ApplP it cannot escape the transferred VP. Unlike raising of ForceP argued for above, this movement does not fall out as a subcase of raising DO across IO. For Diercks, Putnam, and Van Koppen 2012, the problem looks slightly different: it would seem that agreeing C must undergo long head-movement across Appl to v (also not a subcase of DO over IO movement).

[26] Abels 2012 proposes that feature-sharing between goals and phase heads (which can iterate) provides an alternative to movement for circumventing the PIC. The framework involves assumptions that my paper has not considered so I leave this possibility for future research.

(59) *If Lubukusu Appl is a phase head, an in situ approach to valuing CA must fail*

$$[_{vP} \text{ SU } [_{v'} \text{ v } [_{ApplP} \text{ IO } [_{Appl'} \text{ Appl } [_{VP} \text{ V } [_{ForceP} \text{ Force}_{u\phi}....]]]]]]]$$

On the other hand, McGinnis's proposal that an edge feature of phasal Appl can raise the DO

yields a straightforward movement analysis for valuing Force$_{u\phi}$. Since ForceP is the direct

object, the possibility of raising it is automatically available under McGinnis's approach.

(60) $[_{ApplP} \text{ ForceP}_{u\phi} [_{ApplP} \text{ IO } [_{Appl'} \text{ Appl } [_{VP} \text{ V } <\text{ForceP}_{u\phi}>]]]]]$

As noted above, I propose that the IO or causee receives dative from Appl and hence is

"inactive" for Agree relations with other probes. Hence it cannot value uϕ of Force:

(61) *ForceP raises to outer Spec, Appl but Agree does not occur*

$$[_{ApplP} \text{ ForceP}_{u\phi} \ [_{ApplP} \text{ IO}_{dative} [_{Appl'} \text{ Appl } [_{VP} \text{ V } <\text{ForceP}_{u\Phi}>]]]]$$
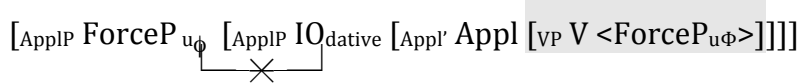
As the derivation continues, Merge introduces v and the thematic SU in Spec, vP. Subjects

seem never to become comparably "inactive" in Lubukusu, interacting with multiple probes

and valuing agreement many times. §3.6.4 addresses the question of why this is so. For

present purposes, let us take it as a given. In line with the imperfection-driven approach to

movement in (7), if v* has an edge feature then it will raise ForceP to outer Spec, vP where

uϕ of ForceP is successfully valued by downward probing.[27]

(62) *An edge feature of v* can raise ForceP again, feeding downwards Agree (ForceP$_{u\Phi}$, SU)*

$$[_{vP} \text{ ForceP}_{u\phi} \ [_{vP} \text{ SU } [_{v'} \text{ v } [_{ApplP} <\text{ForceP}_{u\phi}> [_{ApplP} \text{ IO } [_{Appl'} \text{ Appl } [_{VP} ...]]]]]]]$$

---

[27] Example (54) demonstrated that C agrees with the derived IO SU in a passive containing a double object verb with a ForceP complement. This result follows from assuming that Appl itself can be passivized (see (i)). It does not then dative-mark the IO, which is therefore "active." ForceP can stop in outer Spec, ApplP and probe IO before the IO raises to Spec, TP. This solution is simple and consistent with the approach to movement in (7). I assume the analysis extends to passives of causatives.

(i) $[_{TP} \text{ IO } [_{vP} \text{ v } [_{PassP} \text{ Pass } [_{ApplP} \text{ ForceP}_{u\phi} [_{ApplP} <\text{IO}> [_{Appl'} \text{ Appl } [_{VP} ...]]]]]]]$

The fact that ForceP *can* raise to Spec, v* does not entail that it always must do so, however; recall the two possibilities for valuation of German nominative objects discussed in §2.2. If the edge feature of v* is optional like the EPP feature of German T, valuation of ForceP's uφ might happen in Spec, ApplP of (62) without further raising. Similarly, in situ valuation of ForceP's uφ might be possible upon Merge of the subject where Appl is absent, if v*'s edge feature is optional (see (63)).

(63) [$_{vP}$ SU [$_{v'}$ v [$_{VP}$ V [ForceP$_{uφ}$]]]]   *Downwards valuation for uφ of Force in situ?*

CPs have a well-documented propensity to extrapose, gravitating to the peripheries of clauses. Assuming that this might happen late, it potentially eliminates word order evidence on the derivational history (see Stowell 1981 and references therein on contrasts like (64)a-c). Lubukusu ForceP complements are uniformly right peripheral like their English counterparts (see (65)), suggesting that they extrapose.[28] I accordingly leave open the question of whether an edge feature of v* always raises ForceP.

(64) a. John said [$_{DP}$ his name] loudly.

b. *John said [$_{CP}$ that he was leaving] loudly.

c. John said loudly [$_{CP}$ that he was leaving].

(65) *A CP complement cannot precede an indirect object or an adverb:*

a. *Ewe w-abol-el-a   [$_{CP}$ o-li   ba-keni   ba-rekukha] [$_{IO}$ Nelsoni]
   you 2sSA-say-APPL-FV   2sSA-that 2-guests   2SA-left   1Nelson
   Intended: 'You told Nelson that the guests left.'

b. Juma   a-ø-lom-a   lukali [$_{CP}$ a-li/ mbo ba-keni ba-ba   b-oola]
   1Juma   1SA-PST-say-FV loudly   1-that/that 2-guests 2SA-PERF 2SA-arrive
   'Juma said loudly that the guests had left'

---

[28] Depending on its landing site, extraposition might be hypothesized to suffice to make ForceP sufficiently local to the subject for agreement to take place. But see Takano 2003 for evidence that "right-adjoining" a "heavy NP" object does not change c-command relations (in his view, because it really consists of moving it leftwards and then raising a remnant across it). Given uncertainties about its derivation and consequences I do not rely on extraposition of ForceP for the crucial results here.

c. * Juma   a-ø-lom-a   [$_{CP}$ a-li/ mbo ba-keni ba-ba   b-oola]   lukali
   1Juma   1SA-PST-say-FV   1-that/that 2-guests 2SA-PERF 2SA-arrive loudly

Summing up, in a symmetrical DOC the base position of a ForceP complement to V is too distant from the subject for in situ valuation to be likely, assuming with McGinnis that Appl in such cases is a phase head. Because Appl has a phasal edge feature that routinely raises DOs to the height of IOs, a move-and-Agree account is readily available. Uφ of ForceP might be licensed as closest c-commandee of the subject, or a phasal edge feature of v* might raise ForceP to outer Spec, vP where it c-commands the in situ subject before CP extraposition. What is important for our purposes is that DELAYED VALUATION makes both possibilities available, and provides the necessary ingredients for a unified account of Lubukusu and WG CA, and of CA and Case.

3.6.4   Multiple probe-goal relations with subjects

In this subsection I consider the phenomenon of multiple agreement and argue that subjects in Lubukusu differ from other arguments in being able to engage in relations with multiple probes. For this reason once ForceP raises across the IO its uφ can be valued by the subject.

In Minimalist theory, "activity" in A-relations is generally related to Case (Chomsky 2000; 2001). The role of Case in Bantu languages is a topic of some controversy due to widespread Case-theoretic anomalies including full-featured multiple agreement phenomena and a variety of inversion constructions (see among others Baker 2003, Carstens 2001, 2005, 2010, 2011; Carstens & Diercks 2013b; Diercks 2012; Halpert 2012; Harford-Perez 1986; Henderson 2007; Ndayiragije 1999; Zeller 2011). But Carstens & Mletshe, to appear, argue that the anomalies coexist with abstract Case in Xhosa and are

therefore red herrings of a sort. I adopt this conclusion without elaboration for reasons of length. In what follows I describe multiple SA and suggest that it always tracks the nominative argument because nominative is valued ex situ in Spec, TP. In contrast, I have argued that IOs and causees have a 1:1 relationship with their local licensor, Appl/Caus.[29]

Lubukusu has multiple SA in full φ-features in compound tense constructions and 'how' questions (see (66)a,b), motivating the generalization in (67).

(66) a. **a**-kha-be   ne-**a**-khola   siina?
      1SA-FUT-be ne-1SA -do   7what
      'What will s/he be doing?'

    b. Ba-ba-ana   **ba**-kha-kule bi-tabu   **ba**-rie(ena)?
       2-2-children 2SA-FUT-buy 8-book   2-how
       'How will the children buy books?'

(67) Full φ-feature agreement with a subject does not "deactivate" it in Lubukusu; subjects can have relations with multiple uφ probes.

In theory-neutral terms, the fact that uφ of Lubukusu ForceP agrees only with a subject may be viewed as just one among many indicators that structural subjects in Bantu languages have an unusual capacity to license agreement multiple times. This phenomenon, dubbed "hyper-agreement" in Carstens 2011a, is impossible in English (see (68)).

(68)   a. *John has is sleepings.
        b. *He seems __ has left.
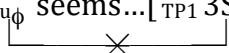
Chomsky (2000, 2001) addresses (68)b, attributing it in part to a strict agreement/Case connection. He argues that Agree with a "φ-complete" probe (in (68)b/(69)b, the lower T) values a DP's uCase (see (69)b). This prohibits the embedded subject from Agreeing with the matrix T (see (69)c). Chomsky (2001:6) writes, "Once the Case value is determined, N

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[29] Halpert 2012 argues from the distribution of polarity items that in Zulu applied constructions, Appl Case-licenses the argument to its right, usually the DO, while a higher licenser Case-values IO. See Carstens & Mletshe 2013 for arguments against this. I assume that Lubukusu Appl values Case on its own argument (since APPL+V always raises across the IO, the directionality of this relationship is an open question).

no longer enters into agreement relations and is 'frozen in place.'"

(69) *In (68)b, agreement/movement of 3S is blocked after Case-valuation in the lower clause*

    a.   [$_{TP1}$ T1$_{u\phi}$ 3S$_{uCase}$ have left] $\rightarrow$

    b.   [$_{TP1}$ T1$_{u\phi\text{3S}}$ 3S$_{uNom}$ have left]

    c. *[$_{TP2}$ T2$_{u\phi}$ seems…[$_{TP1}$ 3S$_{uNom}$T1…]]

I pointed out in Carstens 2001 that subjects in Bantu languages typically do not exhibit the

"frozen in place" property, analyzing cases like (66)a as in (70), consistent with (67).

(70) *Asp agrees with and raises SU; then T agrees with and raises SU*

    [$_{TP}$ SU   T$_{u\phi}$ [$_{AspP}$ <SU> Asp$_{u\phi}$ [$_{vP}$ <SU> …]]]
        Agree x2   Agree x1
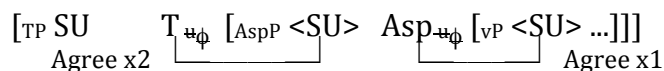
I assume following Carstens 2010, 2011 that the grammatical gender component of noun

class (uGen) functions as an "activity" feature: uGen is uninterpretable so, like uCase, it

makes a nominal expression "active". But unlike uCase, uGen comes from the lexicon with a

value that is not affected by its participation in Agree relations. Carstens proposes that

"deactivation" accompanies Case valuation in a language like English because successive

Agree relations can tamper with a Case value, leading to unclarity as to how uCase should

be pronounced (see Nevins 2005, Epstein, Kitahara & Seely 2010, and Carstens 2010 on

this conception of uF-induced crashes).[30] No such issue arises for uGen since it is never

valued via Agree. It therefore does not "deactivate" and can serve as goal iteratively, in

successive Agree relations until and unless the expression that bears it obtains a Case

value. The reusability of uGen as an active goal feature is clearly demonstrated in the

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[30]I refer the reader to Carstens 2011a for fuller details on how multiple agreement is ruled out in English. Also relevant here is evidence in Epstein, Kitahara & Seely 2010, Bejar & Massam 1999, and Melebari & Seely 2011 that Case values can be altered in the course of the derivation, but this seems subject to variation across languages and Cases. I will not explore the issue here, though I note a potential relevance to the analysis of hyper-raising (see discussion of (47) in §3.5), which I leave for future research.

widespread phenomenon of DP-internal concord in languages with grammatical gender. Lastly, N-to-D adjunction makes uGen accessible to clause level probes in Bantu, so all agreement includes gender and can in principle iterate like concord.

Summarizing, I have argued that Bantu DPs can interact with multiple probes until and unless they obtain Case values. To account for why subjects but not IOs and causees can value uϕ of Force we need only assume that valuation of a subject's uCase happens when it raises to Spec, TP as argued for English by Boskovic 2007 and Epstein & Seely 2006: Lubukusu T always has an edge (EPP) feature that can and therefore must raise the subject, as the closest expression to it bearing a uF (see (7) on why there is movement). The evidence of multiple SA argues that aspectuals also have probe and edge features that interact with the subject before its Case-value is fixed. In contrast, Appl confers immediate Case-licensing on its IO argument in situ rendering it inactive for further Agree relations.

3.6.5 A note on CNPCs and Raising to Object

The restriction to subjects for valuation of Lubukusu CA also shows up in complex noun phrases (CNPs) and instances of raising to object (RtO). Neither the head of a CNP nor an RtO expression can value uϕ of C. I illustrate in (71) and (72) and discuss each case in turn.

(71) n-a-ulila   [$_{DP}$ li-khuwa [$_{CP}$ **nd**-/*li-li   Sammy   ka-a-kula   li-tunda]]
      1sSA-PST-hear   5-word   1s/*5-that 1Sammy 1sSA-PST-buy 5-fruit
      'I heard the rumor that Sammy bought the fruit.'

(72) N-enya   Baraka Obama [$_{CP}$ **nd**-i   a-khil-e]
      1sSA-want   1S-that   1SA-win-SUBJ
      'I want Barak Obama to win'

In a model that assumes valuation can only happen by downward probing at Merge and by raising to c-command (Boskovic 2007, Epstein & Seely 2006), the CNP pattern is not too surprising. Agreeing C, lacking access to the embedded subject, would have to rely on an

edge feature raising it to closest c-command the subject. But under my proposal that valuation is not intrinsically directional, the facts raise some questions (see (73)).

(73) *In a directionality-free system, why could N of a CNPC not value in situ uϕ of Force?*

$$[_{vP} \, v \, [_{VP} \, V \, [_{DP} \, D \ldots [_{NP} \, N \, [_{ForceP} \, Force \, _{u\Phi} \ldots]]]]]$$

                                                                      a potential match under locality

I suggest that the CNP case reduces to the same factors that underlie the phenomenon of multiple agreement generally, namely, it tracks the nominative argument because nominative is not valued until the subject reaches Spec, TP. A tentative mechanics follows.

Assume that when no match is present in the c-command domain of uF at first Merge, DELAYED VALUATION is not attempted until the next phase head is introduced. Assume also that there is no phase head internally to Lubukusu DPs. Merge of v* triggers several relevant processes that are essentially simultaneous (see Chomsky 2008) including valuation of the object DP's uCase as accusative and Merge of the matrix subject. I suggest that Case-valuation of the DP is shared with D and N as manifested by morphological marking of the head noun in many languages with overt Case. Returning to the question of CA, the not-yet-Case-valued subject is hence the choice to value uϕ of Force even in this syntactic environment (see (74). Bantu N typically adjoins to D; see Carstens 2011a,b).[31]

(74) *Nothing can happen until phasal v* is merged; then Case-valuation of the containing*
    DP is shared with its head, making it inactive. Hence CA must be valued by SU

$$[_{vP} \, SU \, v \, [_{VP} \, V \, [_{DP} \, N+D \, [_{NP} \, N \, [_{ForceP} \, Force_{u\phi} \,]]]]]$$

A number of interesting issues arise in relation to these facts and the hypothesized non-phasal status of D, but they lie outside this paper's scope. I leave them to future research.
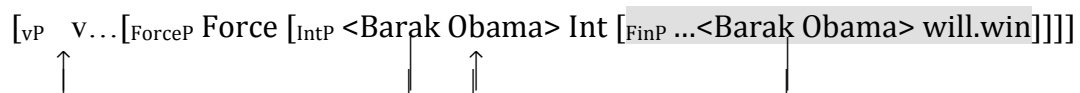
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[31] CPs do not typically extrapose out of NPs as they do from clausal positions (= Case positions in Stowell 1981). I assume that if there is movement involved in valuing CA of a CNP, the entire CNP raises as a unit.

As for RtO, significantly this is the only licit case of "NP-movement" across agreeing C: subject-to-subject raising across agreeing C is impossible (see (75) from Diercks 2013).

(75) a. Michael   a-lolekhana   mbo   (*a-li)   a-si-kona
        Michael   1SA-appear   that   (*1-that)   1SA-still-sleep
        'Michael appears to be still sleeping'

    b. O-mu-keni ka-suubil-wa   mbo (*a-li)   k-ola
        1-1-guest   1SA-believe-PASS   that (*1-that) 1SA-arrive
        'The guest was believed to have arrived.'

Bruening 2001 argues persuasively that such a restriction diagnoses an A'-variety of RtO, moving an expression from within the source clause to the CP phase edge. If RtO across agreeing C is A'-movement, the facts of (72)and (75) find a simple account.

I proposed in §3.5 that the left-peripheral phase head is Int, a C intermediate between Force and Finite. Under Bruening's approach, the Lubukusu RtO expression in (72) lands in outer Spec, IntP (see (76)a). Under the standard assumption that outer Spec, vP can serve as an A'-position, we predict the possibility of RtO from Spec, Int to matrix Spec, vP. But an expression undergoing RtO across agreeing C is correctly predicted to be unable to participate in A-relations, and this includes "improper movement" into Spec, TP (see (76)) and valuing uφ of Force (see Svenonius 2000 on the opacity of operators to A-probing). [32] In contrast, raising across the non-agreeing, non-phasal C *mbo* is true A-movement and hence can land in either Spec, vP or Spec, TP.

(76) a. *RtO across agreeing C is A'-movement to phasal Spec, IntP, thence to Spec, vP*:

[$_{vP}$ v…[$_{ForceP}$ Force [$_{IntP}$ <Barak Obama> Int [$_{FinP}$ …<Barak Obama> will.win]]]]

---

[32] If the RTO expression remained in [Spec, Int] the result would resemble embedded topicalization, with the order [Agreeing C-Object-SU…]. This order is possible; see note 17. I assume that whether Spec, vP "counts" as A- or A'- depends on whether its occupant is an operator, that is, moving to or from an A' position.

b. *RtO across agreeing C to matrix Spec, TP is illicit "improper movement":*

   * [$_\text{TP}$ Michael T …seems… [$_\text{ForceP}$ Force [$_\text{IntP}$ <Michael> Int [$_\text{FinP}$ …<Michael> V]]]]

The precise configuration under which uϕ of ForceP agrees with the subject in an RtO construction depends upon whether v* has and uses one or two phasal edge features. As I noted in §3.6, CP "extraposition" makes it difficult to determine precisely the derivation. I illustrate the logical possibilities in (77), both of which are consistent with my system of DELAYED VALUATION. I leave the choice among them open.

(77) *Whether or not remnant ForceP raises to a second outer Spec, vP it will ignore the A' RTO expression and agree with the "active" DP subject (SU).*

   a. *Downwards Agree if v has two phasal edge features*

      [$_\text{vP}$ [$_\text{ForceP}$ Force$_\text{uϕ}$]] [$_\text{vP}$ Barak Obama [$_\text{vP}$ SU v [$_\text{VP}$ want <[$_\text{ForceP}$ Force$_\text{uϕ}$]>]]]] *OR*

   b. *"Reverse agree" if v has only one phasal edge feature*

      [$_\text{vP}$ Barak Obama [$_\text{vP}$ SU v [$_\text{VP}$ want <[$_\text{ForceP}$ Force$_\text{uϕ}$]>]]]]

3.7   On binding and the edge feature of Appl

§3 has developed an analysis of how uϕ of Force is valued, based upon the approach to 'high' symmetrical applicatives in McGinnis 2001. Following McGinnis, I have argued that ApplP has an edge feature that raises the DO across the IO in a language with symmetrical DOCs. McGinnis argues that this edge feature indicates that Appl is a phase head.

Chomsky 2008 proposes that an A' position is one created by the edge feature of a phase head. As I noted in footnote 24, questions accordingly arise about the nature of DO raising across the IO, mediated by Appl. Should the status of Appl as a phase head be reassessed? Or is Chomsky's biconditional linkage between phasal edge features and A' positions too rigid?

There are several kinds of evidence that DO-raising across the IO is A-movement. We saw in §3.6.3 that DO and IO are symmetrical for pronominalization and passive. This is in itself extremely strong evidence. My investigation also uncovered some novel evidence from binding for this conclusion.

(78)a and(79)a illustrate the symmetrical ordering possibilities in DOCs. When the IO precedes the DO as in (78)a, a universal quantifier in the former can bind a pronoun in the latter as expected (see (78)b, and compare to the unacceptable (79)c). But just in case the DO precedes the IO as in (79)a, a universal quantifier in the DO can bind a pronoun in the IO (compare the licit (79)b with the illicit (78)c). McGinnis 2010 argues that binding relationships are irreversibly established as each phase is completed. Under this assumption, and given that the ApplP phase is not completed until the DO raises to outer Spec, Appl, the change in binders is correctly predicted to be licit.

(78) a. Khu-rer-er-e   o-mu-loleli bi-tabu
         1plSA-bring-APPL-PAST   1-1-boy   8book
         'We brought the boy books'

     b. Khu-rere-re   buli   mu-soleli   si-tabu   si-e-we
         1plSA -bring-APPL-PAST   every 1-boy   7-book   7-POSS-1
         'We brought every boy his (own) book'

     c. *Khu-rere-re   o-mwen-ene-syo   buli   si-tabu
          1plSA -bring-APPL-PAST 1-1-owner-7   every 7-book
         *'We brought its owner every book'

(79) a. Khu-rer-er-e   bi-tabu   o-mu-soleli.
         1plSA -bring-APPL-PAST   8-book   1-1-boy
         'We brought the boy books' [Lit: We brought books the boy]

     b. Khu-rere-re   buli   si-tabu o-mw-ene-syo
         1plSA -bring-APPL-PAST   every 7book   1-1-owner-7
         'We brought every book (to) its owner'

     c.*Khu-rere-re   si-tabu   si-e-we   buli   mu-soleli
         1plSA -bring-APPL-PAST   7book   7-POSS-1   every 1-boy
         'We brought every book (to) its owner'

(80) a. ...[vP SU v+Appl+bring [ApplP every boy [Appl' <Appl>[VP V his book]]]]   *= (78)b*

41

b. …[$_{vP}$ SU v+Appl+bring [$_{ApplP}$ every book [$_{ApplP}$ its owner [Appl' <Appl> [$_{VP}$ …]   = (79)b

If raising of the DO across the IO were A'-movement, we would expect (79)b to be

unacceptable like the bound reading in the English *Every paycheck, I gave its owner*.

Summing up, raising of the DO over the IO patterns as A-movement with respect to

binding.[33] It also feeds passivization and pronominalization, both of which are typically

part of A rather than A' relations. Hence one of three things must be true:

(81) Hypotheses consistent with A-movement of DO over IO in high Appl constructions

   a. Appl has an extra edge feature but it is not a phase head.

   b. A position created by the edge feature of a phase head is not always an A'-position,
      contra Chomsky 2008.

   c. 'High' applicative constructions are always surrounded by an invisible layer of
      structure including a Spec position into which the DO A-moves across the IO; hence
      A-movement is not to an outer Spec, Appl contra McGinnis 2001.

Among these options (81)b seems the most promising. Arguing against (81)a is the fact

that multiple edge features are consistent properties of v and C, and not available in every

kind of XP. The problem with (81)c is that the IO in Spec, ApplP should intervene to block

single step A-movement of the DO from VP to any Spec external to ApplP, so the desired

results are unobtainable. An OVS construction referred to as Subject-Object-Reversal (SOR)

in the Bantu linguistics literature is also relevant to the question of edge features and A'-

positions (see the Kilega (82)a from Kinyalolo 1991). It has been argued in Ndayiragije

1999, Kinyalolo 1991 that the inverted object in Kirundi and Kilega SOR constructions

lands in the canonical subject position. To account for the fact that the thematic subject in

Spec, vP does not block raising of the DO in the Kilega (82)a, Carstens (2005, 2011)

---

[33] Klaus Abels (personal communication) points out that to complete the binding evidence for A-movement
we need to know if a raised DO can bind an IO anaphor. A test requires that both DO and IO be animate, and
absent overt Case-marking in Lubukusu this cannot be differentiated from IO binding DO. I leave it aside.

proposes that the DO first moves to an outer Spec, vP (see (82)b). If outer Spec, vP were always and only an A' position, A-movement through it to Spec, TP would be impossible.

(82) a. Maku ta-ma-ku-sol-ag-a   mutu   weneene.
      6beer NEG-6SA-PROG-drink-HAB-FV 1person 1alone
      'No one usually drinks beer alone'
      [Lit: Beer doesn't usually drink a person alone]

    b. *SOR: Agree (T, OB) is possible after OB raises to outer Spec, vP*

    T [$_{vP}$ OB [$_{vP}$ SU [$_{v'}$ v [$_{vP}$ V <OB>]]]] → [$_{TP}$ OB T [$_{vP}$ <OB> [$_{vP}$ SU [$_{v'}$ v [$_{vP}$ V <OB>]]]]]

I conclude that (81)b is correct.[34] The A/A' distinction must be otherwise derived, perhaps by defining an A' position as one to which an expression with an operator feature moves (see Carstens & Diercks 2013a for discussion of Lubukusu inversion constructions).

3.8   Interim conclusions

This section has proposed that CA in WG languages and in Lubukusu differ because Lubukusu agreeing C is merged higher than its counterparts in WG languages. For this reason, WG Cs can agree with an embedded subject, but Lubukusu C cannot. The result is that Lubukusu C has only the higher clause in which to find valuation. It patterns as a subcase of multiple subject agreement, as is common in Lubukusu and many other Bantu languages. I follow Carstens 2010, 2011 in attributing multiple SA to the operation of N-to-D, making the uGen feature of Bantu nouns accessible to clause-level probes. Because of uGen, until a DP has acquired a Case-value, it can participate in agreement many times.

An applied construction can potentially disrupt the relation (Agree (SU, C)) because inactive dative IOs intervene structurally between agreeing C and the higher subject. But

---

[34] In §3.5 I argued that Fin is non-phasal to account for raising from tensed clauses headed by *mbo.* Adoption of (81)b makes an alternative interpretation possible: we might instead suppose that *mbo* = Fin IS a phase head, but one whose Spec is not an A' position. I leave the decision among these options to future research.

since Lubukusu Appl has the edge feature that yields symmetry in DOCs it can raise ForceP

into locality with the not-yet-Case-valued subject, overriding this difficulty.

I have left open the question of whether ForceP always raises to Spec, vP to c-command

the subject because the common phenomenon of CP-extraposition eliminates word order

evidence. An edge feature of phasal v* is always available, making the movement derivation

a possibility. On the other hand, uφ of Force might be valued in situ like the Case of German

nominative objects in simple clauses (see §2.2). So long as ForceP is not stranded in a Spell

Out domain without a source of valuation, the derivation should be licit. In principle, either

outcome suffices to permit DELAYED VALUATION of Lubukusu C.

4.   DELAYED VALUATION extensions
4.1   Agreement displacement and delayed valuation: Bejar & Rezac 2009

Something very like the concept of DELAYED VALUATION was developed independently in the

work of Bejar & Rezac 2009 based on the phenomenon of "agreement displacement" (see

also Bejar 2003; Rezac 2003). Bejar & Rezac explore languages in which they argue that

person feature hierarchies play a crucial role in determining whether agreement is valued

by the internal or the external argument. If the internal argument is first or second person,

the verb agrees with it (see (83)a-c); following their conventions the relevant agreement

morpheme is underlined, as is its controller in the translation). But third person is low on

the hierarchy (in fact underspecified) and therefore if the object of the verb is third person

and the subject is first or second person, the verb's uφ agrees with the subject (83)d. For

Bejar & Rezac, this indicates a second cycle of probing under *cyclic expansion* (see (84))*.*

Simplifying somewhat the technical details, this is possible because the unvalued features

of v are inherited by projections of v, and can initiate a continuation of the search.[35]

(83) a. ikusi z-in-t-u-da-n   c. ikusi n-ind-u-zu-n   [Basque]
          seen 2-X-PL-have-1-PST   seen 1-X-have-2- PST
          'I saw you.'   'You saw me.'

     b. ikusi n-ind-u-en   d. ikusi n-u-en
          seen 1-X-have- PST   seen 1-have- PST
          'He saw me.'   'I saw him.'

(84) a. [vP EA [v-Agr [vP V IA]]]   *Agree cycle 1*

     b. [vP EA [v-Agr [vP V IA]]]   *Agree cycle 2*

Bejar & Rezac's analysis provides important and compelling evidence that the absence of a

match in the c-command domain of a uF is not fatal to the derivation. Given cross-linguistic

evidence that an expression must have a uF to be "active" in agree relations, the DPs that

can value the uϕ probe qualify as probes themselves as I have argued previously in this

paper. Basque and other agreement displacement languages thus can be taken as

supporting evidence that the positions of would-be probe and goal can be reversed; goals

are probes. Thus agreement displacement converges with Bobaljik & Wurmbrand's

treatment of in situ Nominative valuation, in which there is "downwards" valuation of DP's

uCase without its undergoing raising. I suggest that it is preferable to analyze agreement

displacement in this way than to suppose that vP can search material that it dominates. A

model that dispenses with the probe-goal distinction has no need for this assumption.

4.2   Tense features and "Reverse Agree"

Following Pesetsky & Torrego 2007, Wurmbrand 2012 and Zeilstra 2012 argue that tense

features on English verbs are uninterpretable, and must be valued by the interpretable

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[35] See Nevins 2011 for an approach in terms of simultaneous Multiple Agree. Absent clear constraints or a principled account of where Multiple Agree is possible, I prefer to avoid it (see Haegeman & Londahl 2010 for a persuasive argument against its involvement in licensing of multiple negative concord items).

features of T. Partly on this basis Wurmbrand and Zeijlstra argue that the Minimalist

"downwards' probing approach to Agree should be rejected in favor of "Reverse Agree:"

(85) a. $T_i...V_{uT}$ → $T_i...V_{\overline{uT}}$

      b. Reverse Agree: universally, valuation obtains when iF closest c-commands uF
          (adapted from Wurmbrand 2012, Zeijlstra 2012)

The general approach that I have proposed is quite compatible with "Reverse Agree"

valuation for uT on a verb: lacking valued iT locally within its c-command domain, V's uT

must obtain DELAYED VALUATION for the derivation to converge. Assuming V always raises to

v, it is in the same phase as T and hence can be valued downwards in situ.

(86)   a.

uT of V finds no match at Merge

in situ DELAYED VALUATION *for uT of V*
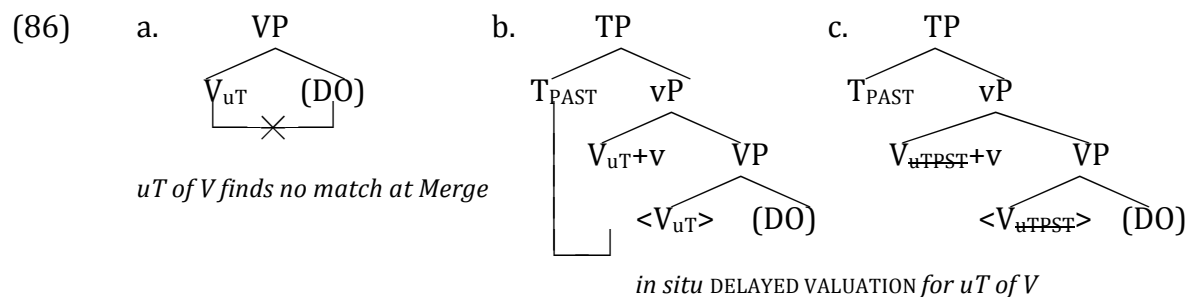
My two-point mechanics for DELAYED VALUATION, coupled with the approach to motivating

movement in (7), argue that if there is an available edge feature in some language, we

might see vP/VP raise into locality with T as an alternative to in situ valuation of V's uTense

feature. Assume that VP inherits unvalued features from its head as I proposed for all XPs

in §1.4; and that v and hence vP also inherit these features, as a consequence of V-to-v

adjunction. Then we predict that some languages might value V's uTense as in (87):

(87) a.

vP raises and probes T for DELAYED VALUATION
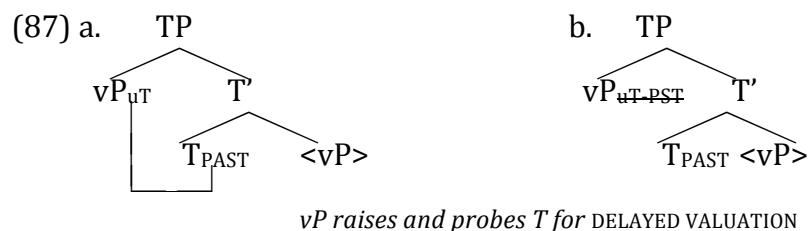
In fact, a proposal rather like this is made in Travis 2006 for "snowballing" movement in Malagasy. Travis argues that Malagasy DPs check their features by incorporation of D into relevant heads, leaving Spec positions open. Travis proposes that predicate movement checks the same kinds of features in Malagasy that head-movement checks in a language like English. I suggest that valuation of uT is involved in motivating predicate movement. The fact that DPs remain in situ paves the way for edge features to raise vPs, since they bear the uF of unvalued tense. Hence like valuation of uCase on DP, valuation of uTense on V can be valued in situ or by raising of vP.

5. Conclusion

In this paper I have argued that valuation is not directional. If a match for uF on head X is available in H's sister at Merge, valuation will happen immediately and instantiate downward Agree. But if no match is available at this point, uF can obtain DELAYED VALUATION either in situ or by raising of XP. In situ DELAYED VALUATION occurs under closest c-command by an expression merged prior to any head with an edge feature, within the same phase. This is how DELAYED VALUATION of nominative Case works in passives of German simple clauses and simplex restructurings, and how agreement displacement works in a language like Basque. DELAYED VALUATION is also possible under movement of XP to c-command an expression with matching features, as when a German object in a complex restructuring construction requires nominative from T; or whenever an edge/EPP feature c-commands the source of Case valuation as it always does in English finite TP. English [*for...to*] infinitives provide evidence that raising to be closest c-commandee also suffices to permit DELAYED VALUATION.

The anomalous concept of "active" goal features receives a principled account under this analysis, yielding a simpler theory: goal features are simply uFs that find no match in their c-command domains at first Merge, and obtain valuation when a matching feature is merged higher in the tree. The upward orientation of Lubukusu complementizer agreement falls out from the approach, coupled with independently motivated factors including cyclic Transfer and the articulated left-periphery.

I conclude that there is no upwards/downwards agreement parameter, contra Baker 2008 and Diercks 2011; and no basis for rejecting the downwards probing model of valuation, contra Zeijlstra 2012 and Wurmbrand 2012. Empirical phenomena robustly support the existence of Agree relations in which the uF c-commands its source of valuation, including SA with post-verbal subjects; West Germanic CA; and agreement of the Lubukusu vP-adjunct 'how' with an in situ subject. See also Preminger 2012 for additional arguments including the existence of agreement between material in an embedded clause with a head in a higher clause, touched on in my note 18 (based on Bošković 2007,Stepanovic & Takahashi 2001, Legate 2005 among others).

But some of the factors in the above-cited works do warrant a "Reverse Agree" analysis. I have argued that this is entirely due to match failures in the c-command domain of a uF at the point of first Merge, and the ensuing processes of DELAYED VALUATION.

References

Abels, K. 2012. *Phases: an essay on cyclicity in syntax.* Berlin/Boston: Walter de Gruyter.

Adger, D. 2003. *Core Syntax.* 2003. New York and Oxford: Oxford University Press.

Baker, M. 2003. Agreement, Dislocation, and Partial Configurationality, in *Formal Approaches to Function in Grammar,* eds. A. Carnie, H. Harley, E. Jelinek, and M. Willie, 107-132. Amsterdam: John Benjamins.

Baker, M. 2008. *The Syntax of Agreement and Concord.* Cambridge and New York: Cambridge University Press.

Baker, M., K. Safir and J. Sikuku 2012. Sources of (a)symmetry in Bantu double object constructions. To appear in *Proceedings of WCCFL 31.*

Barss, A. & H. Lasnik. 1986. A note on anaphora and double objects. *Linguistic Inquiry* 17: 347-354.

Bejar, S. 2003. φ-syntax: A theory of agreement. Doctoral dissertation, University of Toronto, Ontario.

Bejar, S. and D. Massam. 1999. Multiple Case-checking *Syntax* 2.2: 65-79.

Bejar, S. & M. Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40.1: 35-73.

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

Bobaljik, J. & S.Wurmbrand. 2005. The Domain of Agreement. *Natural Language and Linguistic Theory* 23:809-865.

Borer, H. 1994. *Parametric Syntax: Case Studies in Semitic and Romance Languages.* Dordrecht: Foris Publications.

Bošković, Ž. 1997. *The Syntax of Non-Finite Complementation.* Cambridge, MA: MIT Press.

Bošković, Ž. 2002. A-movement and the EPP. *Syntax* 5: 167-218.

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

Bošković, Ž. 2008. What will you have, DP or NP? In *Proceedings of NELS 37,* eds. E. Elfner

    and M.Walko, 101-114. Amerst, Mass: GSLA.

Bošković, Ž. 2011. Last Resort with Move and Agree in derivations and

    representations. In *The Oxford Handbook of Linguistic Minimalism,* ed. C. Boeckx, 327-

    353. New York and Oxford: Oxford University Press.

Bošković, Ž. and H. Lasnik. 2003. On the distribution of null complementizers.

    Linguistic Inquiry 34:527 – 541.

Bruening, B. 2001. Raising to object and proper movement. Unpublished ms., University of

    Delaware.

Carstens, V. 2011a. Hyperactivity and Hyperagreement in Bantu. *Lingua* 121.5:721-741.

Carstens, V. 2011b. Head-movement in Bantu DPs. Paper presented at the 41st meeting

    of the North East Linguistics Society, Philadelphia, PA.

Carstens, V. 2010. Grammatical gender and the theory of uninterpretable features. In

    Exploring Crash Proof Grammars, ed. M. Putnam, 31-57. Amsterdam: John

    Benjamins.

Carstens, V. 2008a. DP in Bantu and Romance. In *The Bantu-Romance Connection; a*

    comparative inverstigation of verbal agreement, DPs, and information structure, eds De

    Cat, C. and K. Demuth, 131-166. Amsterdam: John Benjamins.

Carstens, V. 2008b. Feature Inheritance in Bantu. Ms., University of Missouri.

Carstens, V. 2005. Agree and EPP in Bantu. *Natural Language and Linguistic Theory*

    23:219-279.

Carstens, V. 2003. Rethinking complementizer agreement. *Linguistic Inquiry* 34.3:393-

    412.

Carstens, V. 2001. Multiple agreement and Case deletion. *Syntax* 4.3:147-163.

Carstens, V. 1991. The syntax and morphology of determiner phrases in Kiswahili. UCLA
PhD dissertation.

Carstens, V. & M. Diercks. 2013a. Agreeing How? *Linguistic Inquiry* 44.2:179-237.

Carstens, V. & M. Diercks. 2013b. Parameterizing Case and Activity: Hyper-raising
in Bantu. In *Proceedings of the 40th Annual Meeting of the North East Linguistic Society*,
eds. S. Kan, C. Moore-Cantwell, R. Staubs, 99-118. Amherst: University of
Massachusetts Graduate Linguistic Student Association.

Carstens, V. & L. Mletshe. To appear. Radical Defectivity: Xhosa expletive constructions and
flavors of T and v. Forthcoming in *Linguistic Inquiry.*

Carstens, V. & L. Mletshe. 2013. N-words in disguise: a negative concord approach to
augmentless NPIs in Xhosa and Zulu. Lingbuzz/001938.

Chomsky, N. 1981. *Lectures on Government and Binding.* Dordrecht: Foris Publications.

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

Chomsky, N. 2000. Minimalist inquiries: The framework. In *Step by step: Essays in
honor of Howard Lasnik*, ed. R. Martin et al, 89-155. Cambridge: MIT Press.

Chomsky, N. 2001. Derivation by phase. In *Kan Hale: A life in language*, ed. M.
Kenstowicz, 1-52. Cambridge: MIT Press.

Chomsky, N. 2007. Approaching UG from below. In *Interfaces +Recursion = Language?*,
eds. U. Sauerland and H.-M. Gartner, 1-29. Berlin: Mouton de Gruyter.

Chomsky N. 2008. On Phases. In *Foundational Issues in Linguistic Theory*, ed. R. Freidin, C. P.
Otero and M-L Zubizarreta, 133-166. Cambridge, MA: MIT Press.

Chomsky, N. 2013. Problems of projection. In *Lingua* 130: 33-49.

Cinque, G. 2005. On deriving Greenberg's Universal 20. *Linguistic Inquiry* 36.3: 315-332.

Dechaine, R-M and M. Wiltschko. Decomposing pronouns. *Linguistic Inquiry* 33.3:409-442.

Diercks, M. 2010. *Agreement with Subjects in Lubukusu*. PhD dissertation, Georgetown U.

Diercks, M. 2011. The morphosyntax of Lubukusu locative inversion and the

    parameterization of Agree. *Lingua* 121.5: 702-720.

Diercks, M. 2012. Parameterizing Case: Evidence from Bantu. *Syntax* 15.3: 253-286.

Diercks M. 2013. Lubukusu complementizer agreement as a logophoric relation.

    Natural Language and Linguistic Theory 31.2: 257-407*.*

Diercks, M., M. Putnam, & M. van Koppen. 2011/2012. The directionality of Agree: can a

    universal feature valuation operation be established? Paper delivered at *The*

    Minimalist Program: Quo Vadis? Potsdam, Germany, and manuscript in progress.

Epstein, S. 1999. Unprincipled syntax and the derivation of syntactic relations. In *Working*

    Minimalism, eds. S.Epstein and N. Hornstein, 317-345. Cambridge: MIT Press.

Epstein, S., Kitahara, H., & T. D. Seely. 2010. Uninterpretable features: what are they, and

    what do they do? In *Exploring Crash-Proof Grammars*, ed. M Putnam, 125-142.

    Amsterdam: John Benjamins.

Epstein, S. & T. D. Seely. 2006. *Derivations in Minimalism.* Cambridge: Cambridge University

    Press.

George, L., and J. Kornfilt. 1981. Finiteness and boundedness in Turkish. In *Binding and*

    filtering, ed. F. Heny, 105-127. Cambridge, Mass: MIT Press.

Grohman, K., Drury, J. and Castillo, C. 2000. No more EPP. In *WCCFL 19 Proceedings,* ed.

    Billery and Lillehaugen, 153-166. Somerville, MA: Cascadilla Press.

Halpert, C. 2012. Argument Licensing in Zulu. MIT PhD dissertation.

Haegeman, L. 1992. Some speculations on argument shift, clitics and crossing in West

    Flemish. Ms., University of Geneva.

Haegeman, L. and T. Lohndal. 2010. Negative concord and (multiple) Agree: a case study of

    West Flemish. *Linguistic Inquiry* 41: 181-211.

Haegeman, L. & M. Koppen. 2010. Complementizer agreement and the relationship

    between T and C. *Linguistic Inquiry* 43.3:441-454.

Harford Perez, C. 1985. Aspects of complementation in three Bantu languages. Madison,

    WI: University of Wisconsin PhD dissertation.

Heck, F. & G. Muller. 2000. Successive cyclicity, long distance superiority, and optimization.

    WCCFL 19 Proceedings, ed. R. Billerey and B.D. Lillehaugen 218-231. Summerville:

    Cascadilla Press.

Henderson, B. 2007. Multiple agreement and inversion in Bantu. *Syntax* 9.3: 275-289.

Holmberg, A. & B. Hróarsdóttir. 2003. Agreement and movement in Icelandic raising

    constructions. *Lingua* 113:997–1019.

.Julien, M. 2002. *Syntactic Heads and Word Formation*, Oxford University Press, NY.

Kim, K. 2008. English C moves downward as well as upward: an extension of Bošković &

    Lasnik's (2003) approach. *Linguistic Inquiry* 39.2: 295-307.

Kinyalolo, K.K.W. 1991. *Kilega and the Spec, head agreement hypothesis.* UCLA PhD thesis.

Koopman, H. 2006. Agreement configurations: in defense of "Spec, head". In *Agreement*

    Systems, ed. Cedric Boeckx, 159-199. Amsterdam: John Benjamins.

Koopman, H., and D. Sportiche. 1991. The position of subjects. *Lingua* 85.1:211-258.

Legate, J.A. 2003. Some interface properties of the phase. *Linguistic Inquiry* 34.3: 506-516.

Legate, J. 2005. Phases and cyclic agreement. In *MITWPL* 49: *Perspectives on Phases.*, ed. M.

    McGinnis & N. Richards: 147-156. Cambridge, MA: MIT Linguistics Department.

Marantz, A. 1993. Implications of asymmetries in double object constructions. In

Theoretical aspects of Bantu grammar, ed. S. Mchombo, 113–150. Stanford: CSLI,.

McFadden, T. 2006. German inherent datives and argument structure. In *Datives and Other*

    Cases, eds. D. Hole, A. Meinunger, and W. Abraham. Amsterdam/Philadelphia: John

    Benjamins Publishing Company.

McGinnis, M. 2001. Variation in the phase structure of applicatives. In *Linguistic Variation*

    Yearbook 1: 105-146.

McGinnis, M. 2005. UTAH at Merge: evidence from multiple applicatives. In *MITWPL 49:*

    Perspectives on Phases, ed. M. McGinnis and N. Richards, 183-200. Cambridge, MA: MIT

    Linguistics Department.

McGinnis, M. 2010. Binding Preservation. Talk delivered at UBC Colloquium.

Melebari, A. & T. D. Seely. 2011. Agreement without 'exception' in Standard Arabic? Paper

    presented at University of Michigan, Ann Arbor.

Nevins, A. 2011. Multiple Agree with clitics: person complementarity vs. omnivorous

    number. *Natural Language and Linguistic Inquiry* 29:939-971.

Nevins, A. 2005. Derivations without the Activity Condition. *MITWPL 49:* 283-306.

Ndayiragije, J. 1999. Checking Economy. *Linguistic Inquiry* 30.3: 399-444.

Obata, M. and S. Epstein. 2011. Feature-Splitting Internal Merge: improper movement,

    intervention and the A/A'-distinction. *Syntax* 14.2: 122-147.

Pesetsky, D. 1989. Language-particular rules and the Earliness Principle. Talk delivered

    at the *GLOW* colloquium, University of Utrecht.

Pesetsky, D. 1992. *Zero Syntax, vol. 2: Infinitives.* Unpublished manuscript, MIT.

 http://web.mit.edu/linguistics/www/pesetsky/infins.pdf.

Pesetsky, D. & E. Torrego. 2007. The syntax of valuation and the interpretability of features.

 In *Phrasal and Clausal Architecture: Syntactic derivation and interpretation*, ed. S.

 Karimi, V. Samiian and W. Wilkins*.* Amsterdam: John Benjamins. 262-294.

Pesetsky, D. & E. Torrego. 2004. Tense, Case, and the nature of syntactic categories. In *The*

 Syntax of Time, ed. J. Guéron and J. Lecarme, 495-538. Cambridge, MA: MIT Press.

Polinsky, M. and E. Potsdam. 2001. Long-Distance Agreement and Topic in Tsez. *Natural*

 Language and Linguistic Theory 19, 583–646.

Postal, P. 1974. *On raising: one rule of English grammar and its implications.* Cambridge,

 Mass: MIT Press.

Preminger, O. 2012. Reversing agreement is untenable: a reply to Zeijlstra. lingbuzz

 001442.

Preminger, O. 2011. Agreement as a fallible operation. MIT PhD dissertation.

Putnam, M. & M. Van Koppen. 2010. All there is to know about the *alls*-construction. *The*

 Journal of Comparative Germanic Linguistics 14.1: 81-109.

Pylkkänen, L. 2008. *Introducing Arguments*. Cambridge: MIT Press.

Rackowski, A & N Richards. 2005. Phase edge and extraction: a Tagalog case study.

 Linguistic Inquiry 36.4: 565-599.

Rezac, M. 2003. The fine structure of cyclic Agree. *Syntax* 6.2: 156-182.

Richards, M. 2007. On feature inheritance: an argument from the phase impenetrability

 condition. *Linguistic Inquiry* 38: 563-572.

Rizzi, L.1997.The fine structure of the left periphery. In *Elements of Grammar,* ed. L.

Haegeman, 281-337. Dordrecht: Kluwer Academic Publishers.

Rizzi, L. 1999. On the Position "Int(errogative)" in the Left Periphery of the Clause. Ms.,

University of Siena.

Shlonsky, U. 2004. The form of Semitic nominals. *Lingua* 114 (12): 1465-1526.

Stjepanović, S., and T. Shoichi . 2001. Eliminating the Phase Impenetrability Condition.

Paper presented at the workshop *Motivating movement: Explaining the displacement

property of natural language*, University of Ulster.

Stowell, T. 1981. Origins of phrase structure. MIT PhD dissertation.

Stroik, T. 1999. The Survive Principle. *Linguistic Analysis* 282-309.

Svenonius, P.. 2000. Quantifier Movement in Icelandic. In *The Derivation of VO and OV*, ed. P.

Svenonius, 255- 292. Amsterdam: John Benjamins.

Takano, Y. 2003. How antisymmetric is syntax? *Linguistic Inquiry* 34.3: 516-526.

Travis, L. 2006. VP, D^0–movement languages. In *Crosslinguistic Research in Syntax and

Semantics: Negation, Tense, and Clausal Architecture,* eds. R. Zanuttini, H. Campos,

E. Herburger, P. Portner, 127-150. Georgetown: Georgetown University Press.

Ura, H. 1993. On feature-checking for *wh*-traces. In *MIT Working Papers in Linguistics 19:

Papers on Case and agreement II,* ed. C Phillips, 377-399. Cambridge, Mass:

Department of Linguistics and Philosophy.

Wurmbrand, S. 2004/2006. Licensing Case. Ms, UConn/publication in *Journal of

Germanic Linguistics* 18.3: 175-236.

Wurmbrand, S. 2012. The syntax of valuation in auxiliary-participle constructions. In *Coyote Working Papers: proceedigns of the 29th annual West Coast Conference on Formal Linguistics* ed. J. Choi et. al, 154-162. University of Arizona, Tuscon.

Zeller, J. 2006. Raising out of finite CP in Nguni: the case of *fanele. Southern African Linguistics and Applied Language Studies* 24:255–275.

Zeller, Jochen. 2012. Instrument inversion in Zulu. In *Proceedings of the 42nd Meeting of the Annual Conference on African Linguistics,* ed. M. Marlo, C. Green, M. Morrison, and T. Purvis, 134-148. Somerville, MA: Cascadilla Press.

Zeijlstra, H. 2012. There is only one way to Agree. lingBuzz1435.