Complementizer agreement and intervention effects

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Abstract
This paper provides an account of complementizer agreement (CA) in Limbum where a complementizer agrees with the superordinate subject in \( \varphi \)-features. Contra the previous accounts of Diercks (2013) and Carstens (2015) for CA in Lubukusu, a direct Agree analysis of the phenomenon is empirically motivated for the Limbum data. Since the C probe is always c-commanded by the goal, the direct Agree results from upwards probing of C. The argument is based on the presence of intervention effects which are realised under structural conditions such as minimality and c-command. These intervention effects are defective and are analysed as instances of failed agreement (cf. Preminger 2014). Instances where intervening indirect objects and causees fail to inhibit or trigger \( \varphi \)-agreement on the C probe are considered to follow from the activity condition and case discrimination which render them incapable of being potential goals for \( \varphi \)-agreement.

1 Introduction

In many Bantu languages, a declarative-embedding complementizer agrees with the subject of its selecting clause in \( \varphi \)-features as illustrated in (1). This phenomenon has been formally discussed for Lubukusu (Bantu, Kenya) by Diercks (2011, 2013) as a case of indirect agree and by Carstens (2015) as a result of delayed valuation.

\[
\begin{align*}
\text{(1) a. & yi kwà’cì yî-ne màmà bì vù 2PL think 2PL-COMP grandmother FUT1 come} & \text{‘You think that the grandmother will come.’} \\
\text{b. & màmà kwà’cì i-ne yi bì vù grandmother think 3SG-COMP 2PL FUT1 come} & \text{‘The grandmother thinks that you will come.’} \\
\end{align*}
\]

Limbum

As shown in section 2, Limbum (Grassfields Bantu, Cameroon) and Lubukusu CA have many properties in common. However, in spite of the many similarities, a direct agree account of the phenomenon which has been rejected for Lubukusu by Diercks (2013) and Carstens (2015) is advocated for Limbum.

I show that these two approaches to the Lubukusu and Limbum type of CA where the C agrees with the matrix subject are greatly challenged by a number of properties of Limbum CA. I therefore argue that Limbum CA is best analysed as a direct Agree phenomenon where the agreeing C probes upwards (Zeijlstra 2012) and has it’s features valued by the matrix subject.

2 Relevant properties of Complementizer agreement

This section shows that Lubukusu and Limbum are very similar with respect to the properties of CA. Since Lubukusu has been well described and analysed by Diercks (2013) and Carstens
The relevant properties are highlighted here with corresponding data from Limbum. The section begins with a paradigm of CA in the language as shown in (2).

(2)  
<table>
<thead>
<tr>
<th>Free pronoun</th>
<th>Inflected complementizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>wè</td>
<td>wè-nè ‘you-COMP’</td>
</tr>
<tr>
<td>yè/í</td>
<td>í-nè ‘he/she/it-COMP’</td>
</tr>
<tr>
<td>sì</td>
<td>sì-nè ‘we(Incl.)-COMP’</td>
</tr>
<tr>
<td>sò</td>
<td>sò-nè ‘we(Dual)-COMP’</td>
</tr>
<tr>
<td>wèr</td>
<td>wèr-nè ‘we(Excl.)-COMP’</td>
</tr>
<tr>
<td>yì</td>
<td>yì-nè ‘you.PL-COMP’</td>
</tr>
<tr>
<td>wöhè/ó</td>
<td>ó-nè ‘they-COMP’</td>
</tr>
</tbody>
</table>

In the following subsections, I show that in spite of the similarities between the two languages, the previous accounts cannot successfully account for the phenomenon in Limbum.

The main property of the agree operation involved here is that the complementizer generally agrees only with the subject of the matrix clause. For Lubukusu, this property has already been observed by Diercks (2011) and Carstens (2015). The constructions in (3) illustrate this property of CA for Limbum. The restriction that the complementizer agrees only with subjects is also justified as the object DP does not trigger this agreement in spite of the fact that it is the minimally closer DP to the complementizer. Agreement between the object and the complementizer is thus ungrammatical as shown in (4).

(3)  
| a. bì fɔ ó là ó-ne sì vù  
people DET 3PL.Agr say 3PL-COMP 1PL come  
‘The people have said that we should come.’ | Limbum |
| b. sì à là sì-ne bì fɔ ó vù  
1PL 1PL.Agr. say 1PL-COMP people DET 3PL.Agr come  
‘We have said that the people should come.’ | Limbum |

(4)  
| bì fɔ ó mú sùŋ me *me-ne/ó-ne sì vù  
people DET 3PL.Agr PST2 tell 1SG 1SG-COMP/3PL-COMP 1PL come  
‘The people told me that we should come.’ | Limbum |

Even though it has been generalised that the complementizer can only agree with subjects, there is need to restate that it only agrees with the most local subject. This is because whenever the agreeing complementizer is preceded by two or more subjects, it agrees only with the most local one. Diercks (2013) and Carstens (2015) also make this observation for Lubukusu. In Limbum, agreement on the complementizer can only be triggered by the more local subject of the matrix clause. This is evident from the recursive embedding construction in (5).

(5)  
| Nfor à mú la í-ne bì ó ci sùŋ *í-/ó-ne wè  
Nfor 3SG.Agr PST2 say 3SG-COMP people 3PL.Agr PROG tell 3SG-/3PL-COMP 2SG come  
‘Nfor said that people are reporting that you have come.’ | Limbum |

It has been observed in some West African languages that this type of agreement is logophorically controlled (Idiatov 2009). Based on facts from the Mende languages such as Jula of Samatiguila and Tura, Idiatov shows that the complementizer generally agrees with the logophoric center (the source of the information reported in the embedded clause) of its selecting clause as exemplified in (6).

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1 The Limbum examples presented in this paper are based on my native-speaker intuitions.
a. Ngí ndé-iló ngí má n-ge í wá [Mende]
   1SG say-PST 3SG.POSS on 1SG-COMP 3SG.SBJ come
   ‘I told him to come’ (Lit.: I said it to him that he should come) (Innes 1971:139)

b. Wó lé tén fo-nín an bòrò n-kò bye yè ná bí [Jula]
   DEM FOC PST say-PTCP 1PL by 1PL-COMP all IPFV come today
   ‘It was asked by us that everybody comes today.’ (Idiatov 2009)

This property of complementizer agreement in the Mende languages does not characterise complementizer agreement in Lubukusu and Limbum. If agreement on the complementizer is controlled by the logophoric center or source of the reported discourse, we will expect agreement to take place with the constituent which is the source of the information expressed in the embedded clause in (7). However, since the complementizer agrees with the matrix subject, it is clear that this agreement is controlled by the subject and not by the source of the information expressed in the embedded clause. In (7), we see that even when the source of the information reported in the embedded clause is included in the main clause as an oblique, the complementizer still agrees only with the matrix subject.

(7)wer à mû yò? sí mû wer-ne/*î-ne Nfor à sê? ngu
   1PL 1PL.Agr PST2 hear PREP child 1PL-COMP/3PL-COMP Nfor 3PL.Agr. fetch wood
   ‘We heard from the child that Nfor fetched wood.’ Limbum

As shown in (7), the complementizer agrees only with the matrix subject. An attempt to strictly have CA with the logophoric center renders the clause ungrammatical. This shows that CA in these languages is only controlled by the subject of the matrix clause.

Having established that CA is subject oriented, the next question that arises is whether there are any further restrictions on the kind of subjects C can agree with. As shown in the following subsections, CA holds with any constituent that performs the role of a subject; in spite of its structure or thematic/non-thematic nature.

According to Diercks (2010, 2013), there are a number of distributional restrictions on the agreeing C in Lubukusu. Due to these restrictions, Diercks postulates the following conditions on the controller of Lubukusu CA.

(8) Conditions to trigger complementizer agreement (Diercks 2013:42)
   a. Controller of agreement must be a subject.
   b. Controller of agreement can establish a point of view (i.e. has a mind to report).

The condition in (8a) is in line with the data discussed this far. However, Carstens (2015:11) presents counterarguments against the condition in (8b). The first set of data she presents shows that agreement is also triggered by an expletive subject (9).

(9) a. Ka-lolekana ka-li Tegani ka-a-kwa Lubukusu
   NC.6SA-seems NC.6-COMP Tegan NC.6SA-PST-fall
   ‘It seems that Tegan fell.’ Carstens (2015:12)

b. Li-lolekana li-li Sammy a-likho a-lwala
   NC.5SA-seems NC.5-COMP NC.1SA-PROG Sammy NC.1SA-be.sick
   ‘It seems that Sammy is sick.’ Carstens (2015:12)

Being pleonastic or dummy as Svenonius (2002) describes them, expletive subjects lack semantic content and so do not have ‘a point of view or mind to report’. However, contrary to the conditions presented in (8), expletive subjects also agree with the probing C. This also further buttresses the fact that CA is not controlled by the logophoric center of the selecting clause, otherwise an agree relation will not be established with a non-thematic subject.
Like Lubukusu CA, Limbum agreeing C also agrees with expletive subjects as shown in (10).

(10) a. í mū bāŋ í-ne mē mū dō mà ndāb
    EXPL PST2 good 3SG-COMP 1SG PST2 go PREP house
    ‘It was good that I went home.’  [Limbum]

    b. í dōŋshi í-ne bō wó ò vù
    EXPL seems 3SG-COMP children 2SG.POSS 3PL come
    ‘It seems that your children have come.’  [Limbum]

In addition, if CA is controlled by the point of view holder or is semantically controlled, it will be expected that the complementizer agrees with the Experiencer. The example in (11a) consists of a high DP *Tanko* which is the experiencer of the action expressed by the verb *yāŋ* ‘pain’. Like with Lubukusu, CA is triggered by the syntactic subject in Limbum.

(11) a. í mū yāŋ í-ne mē mū nātī
    EXPL PST2 pain 3SG-COMP 1SG PST2 leave
    ‘It pained that I left.’  [Limbum]

    b. í bā bāŋ í-ne mū wāb à chàà
    EXPL PST1 good 3SG-COMP child 3PL.POSS 3SG. succeed
    ‘It was good that their child succeeded.’  [Limbum]

3 Intervention effects

The preceding sections have shown that agreement on the C is triggered by (i) the most local superordinate subject and (ii) that it is not semantically controlled. It has also been established that the phenomenon has very similar properties in Limbum and Lubukusu. In this section, I present one key property of CA which initially seems to be the major difference between the pattern of agreement in the two languages.

Intervention effects arise when an object occurs between the immediately higher subject and the agreeing complementizer. This section shows that whenever a direct object occurs between the agreeing elements, it blocks the agreement that will otherwise take place between the matrix subject and the complementizer. This is a key characteristic of Limbum CA which sets it apart from the Lubukusu data; thereby posing a challenge for the previous accounts and warranting a different analysis for the data presented here.

3.1 Ditransitive verbs

According to Diercks (2013), when the verb of the matrix clause in Lubukusu is ditransitive, the indirect object which occurs between the matrix subject and the complementizer does not inhibit agreement (12). Besides not inhibiting agreement, the intervening object DP does not trigger agreement on the complementizer either.

(12) a. ewe w-a-bol-el-a Nelsoni o-li (*a-li) ba-keni ba-rekukha
    2SG 2SG-PST-say-AP-FV 1.Nelson 2-that (1-that) 2-guests 2SG-left
    ‘You told Nelson that the guests left.’  Lubukusu (Diercks 2013)

    b. ba-ba-ana ba-a-ombelesya Sammy ba-li (*a-li) ba-keni
    2SG-2SG-children 2SG-2PST-convince 1.Sammy 2-that (1-that) 2-guests
    ba-a-rekukha
    2SG-2PST-leave
    ‘The children convinced Sammy that the guests left.’  Lubukusu (Diercks 2013)
Contrary to this, CA in Limbum is blocked when an object occurs between the subject of the matrix clause and the agreeing complementizer as shown in (13). The intervening object also does not establish an agree relation with the agreeing complementizer.

(13) a. Paul à mű sűŋ me (*f/*me)-ne we dò rdjèr
    Paul 3SG.Agr PST2 tell 1SG 3SG/1SG-COMP 2SG go journey
    ‘Paul told me that you have travelled.’  \[Limbum\]

b. mè mű sűŋ Paul (*me/*f)-ne wè dò rdjèr
    I PST2 tell Paul 1SG/3SG-COMP you go journey
    ‘I told Paul that you have travelled.’  \[Limbum\]

As shown in (13a), the complementizer cannot Agree with the matrix subject, nor can it Agree with the matrix object. The sentences in (14) are minimal pairs for (13) and show that when there is no matrix object in these sentences, agreement with the matrix subject actually holds. Thus, the matrix object is evidently the constituent that is responsible for the lack of complementizer agreement.

(14) a. Paul à mű lāā f-ne we dò rjer
    P. 3SG PST2 say 3SG-COMP 2SG go journey
    ‘Paul said that you have travelled.’  \[Limbum\]

b. mè mű lāā me-ne we dò rjer
    I PST2 say 1SG-COMP you go journey
    ‘I said that you have travelled.’  \[Limbum\]

As shown in (15), φ-agreement takes place between the C and the expletive subject. However, in (16) this agree relation is not established and the only reason for this is the intervening presence of the Experiencer of the matrix clauses in (16). Therefore, a c-commanding object acts as a defective intervener to CA with a higher subject.

(15) a. í mű bəŋ f-ne mæ mű dò mà ndàb
    EXPL PST2 good 3SG-COMP 1SG PST2 go PREP house
    ‘It was good that I went home.’  \[Limbum\]

b. í dọŋshi f-ne bō wó ó vù
    EXPL seems 3SG-COMP children 2SG.POSS 3PL come
    ‘It seems that your children have come.’

(16) a. í mű yánŋ Tanko (*f)-ne mæ mű nàtì
    EXPL PST2 pain T. 3SG-COMP I PST2 leave
    ‘It pained Tanko that I left.’  \[Limbum\]

b. í bəŋ bəŋ bì fo (*ô)-ne mû vàb à chàà
    EXPL PST1 pleased people DET 3SG-COMP child 3PL.POSS 3SG. succeed
    ‘It pleased the people that their child succeeded.’

3.2 Causative, benefactive constructions and PPs

Even though CA in Limbum can be blocked by intervening objects, there are certain cases where these intervention effects do not occur. In these particular instances, complementizer agreement still takes place even though object DPs occur between the agreeing complementizer and the matrix subject. When a sentence has PP embedded indirect object or causee in the position between the complementizer and the matrix subject, agreement still takes place in spite of its presence. The Limbum causative constructions in (17) show the lack of intervention effects. The causer (matrix subject) agrees with the complementizer even though the causee is between them.
(17) a. bí fó ó wēb-sí Nfor *í-/ó-ne ó bí sūŋ nì mè
   people DET 3PL fear-CAS Nfor 3SG-/3PL-COMP 3PL FUT1 report to 1SG
   ‘The people frightened Nfor that they will report him to me.’  Limbum

b. mè mū nāŋ-sí bō *ó-/me-ne ó būmì
   1SG PST2 lie.down-CAS children 3PL-/1SG-COMP 3PL sleep
   ‘I made the children to lie down so that they can fall asleep.’  Limbum

Since Limbum has intervention effects, our expectation is that in (18) and (19), CA should be
blocked since the complementizer and the subject are mediated by a DP. However, the subject
still triggers agreement on the complementizer.

(18) Shey à mū là ni bō fò *ó-/í-ne ó
   S. 3SG.Agr PST2 say to children DET 3PL-/3SG-COMP 3PL FUT1 go.
   ‘Shey said to the children that they will go.’  Limbum

(19) yà màà à mū là bzhí nì wñr *wñr-/í-ne wñr bò
   1SG.POSS mother 3SG.Agr PST2 cook food BEN. 1PL 1PL-/3SG-COMP 1PL can
   vùsì
come
   ‘My mother cooked food for us so that we may come.’  Limbum

3.3 Interim summary

So far, Limbum CA is very similar to that of Lubukusu in relevant properties. As discussed
in section 2.1, CA is generally subject oriented in both languages. The complementizer agrees
with the subject of the matrix clause and in cases where the complementizer is c-commanded by
two or more subjects, it agrees with the most local one. Secondly, in both languages, agreeing
complementizers agree with expletive subjects and this is against the idea that agreement is
logophorically controlled. There is the lack of intervention effects from indirect objects and
causees in morphological causative constructions. Even though CA in the two languages have
all these properties in common, they differ in that in Limbum, CA is blocked by direct objects.

4 Previous analyses and why they don’t work for Limbum

In the literature on CA, two possible kinds of analyses have been proposed for the pattern
of Limbum and Lubukusu CA where the complementizer agrees with a superordinate subject.
These analyses include the indirect agree analysis of Diercks (2013) and delayed valuation
analysis of Carstens (2015). Since these accounts have been proposed based on Lubukusu data,
this paper shows that these previous analyses cannot clearly account for Limbum data and
presents an analysis of the phenomenon in Limbum. This section is aimed at briefly discussing
these analyses and highlighting some of their drawbacks especially considering the Limbum
data and intervention effects in particular.

4.1 Indirect agree (Diercks 2013)

Diercks (2011, 2013) provides an indirect agree account of Lubukusu CA. The analysis is con-
sidered indirect because agreement between the complementizer and the matrix subject is
analysed to be mediated by a null operator (OP). In other words, there is no direct relationship
between C and the superordinate subject. The null operator is a subject-oriented anaphor and
is bound by the matrix subject. In this way, Diercks posits that the agreement on C is based
on a binding relationship which is likened to anaphoric binding. The unvalued features of the
complementizer head are valued by the null subject-oriented anaphor which has the subject
of the selecting clause as its antecedent. Since the obvious agree relation is mediated by the null anaphor, Diercks (2011) refers to this as indirect agree. An indirect agree analysis of the Lubukusu data in (21a) is shown in (22).

(20) \[ \text{TP SUBJECT}_1 \ldots [\text{CP } \ldots \text{OP}_1 \ldots \text{C}_0 \ldots \ldots \ldots \ldots] \]

(21) a. \texttt{baba-ndu ba-bol-el-a Alfredi ba-li a-kha-khil-e}  
    \texttt{2-people 2S-said-AP-FV 1Alfred 1S-FUT-conquer}  
    `The people told Alfred that he will win.' \textit{Lubukusu (Diercks 2013:2)}

b. \texttt{Alfredi ka-bol-el-a baba-ndu a-li ba-kha-khil-e}  
    \texttt{1Alfred 1-said-AP-FV 2-person 1-that 2S-FUT-conquer}  
    `Alfred told the people that they will win.'

(22) \textit{Indirect agree (21a)}

\begin{tikzpicture}
  \node {TP} child {node {vP} child {node {\textit{baba-ndu}} child {node {\textit{ba-li}}} child {node {\textit{OP}}} child {node {\textit{C}}} child {node {\textit{C}_0}}} child {node {\textit{CP}} child {node {\textit{Subj.}}}}};
\end{tikzpicture}

\(\text{\textcircled{1}=Agree, \textcircled{2}=Binding}\)

The analysis presented in (22) follows from the assumption that agreement is strictly logophoric. Coupled with the lack of intervention effects, this agreement is not syntactic and cannot be formalized via direct Agree. Diercks therefore models it as a binding dependency.

The indirect agree account of Diercks (2013) has a couple of drawbacks especially when one considers CA in Limbum. As pointed out by Carstens (2015:05), one of the main reasons why Diercks (2013) does not pursue a standard Agree analysis of Lubukusu CA is because indirect objects (IOs) cannot value the \(\varphi\)-features of the agreeing C and their presence does not cause intervention effects neither (see (12)). As discussed already, Limbum CA is characterised by intervention effects. In (13) for example, when a matrix object occurs between the matrix subject and the probing C, its presence causes intervention effects. Since Diercks’ indirect agree analysis is not modelled to account for such instances of intervention effects, it cannot be adopted to analyse CA in Limbum. Put differently, Diercks’ model of indirect agree cannot be employed to account for CA in Limbum because it assumes that the Agree phenomenon is an obligatory operation that takes place in a Spec-Head configuration where the Spec,CP is subsequently bound by the matrix subject. If Agree is strictly between the C and its Spec, the question of why intervention effects arise cannot be easily explained since intervening object always c-commands C and is always c-commanded by the matrix subject but does not occur between Spec,CP and C. The facts about the phenomenon in Limbum suggest that a direct agree account is possible and desirable.

4.2 Delayed valuation (Carstens 2015)

Carstens (2015) proposes a delayed valuation analysis of CA with the goal of reaching a unitary account of the directionality difference between Lubukusu and West Germanic languages. Meanwhile the agreeing C agrees with the matrix subject in Lubukusu, it agrees with the embedded subject in West Germanic languages (see (23)).
The core features of Carstens approach include the idea that when a probe is merged and no match is found in its c-command domain, its valuation does not take place. Rather, when no matching goal is found in its c-command domain, it gets valued following one of the mechanics in (24).

(24) Mechanics of delayed valuation: Probe (uF) with no match in its c-command domain can be valued:

a. Ex-situ, by raising to c-command a matching feature in a higher phase, OR
b. In situ by a matching feature within the same phase.

Carstens considers that the Agreeing C in Lubukusu is a Force head whereas that in West Germanic languages is a lower C head, namely a Fin head. This argument is mainly based on the assumption that Agree has to be downwards. The second assumption that is crucial in the analysis is that a phase is made up of a FinP. So, the Lubukusu Force head is above the embedded phase (FinP), but the West Germanic Fin head is part of the embedded phase (i.e. the head of the FinP). Since, Fin is low enough, the merged C probes the embedded subject at first merge for West Germanic languages. However, the C head of Lubukusu is merged above the phase head (at Force$^0$) where it cannot probe its c-command domain due to the fact that the embedded (FinP) phase has been transferred to Spell Out. Therefore, in Lubukusu, the C head has to raise to a position higher than the matrix subject, so that it can probe downwards. In this way, the difference between the Lubukusu type CA is different from the West Germanic type. This analysis of Lubukusu CA is shown in (25) below.

(25) a. The uFs of Force$^0$ cannot probe the embedded subject since its clause has already been transferred (Carstens 2015).
b. $\text{[ForceP ForceF} ... \text{FinP Fin \{TP Subj...\]]}$
c. ForceP raises and its uF probes the matrix subject.
d. $\text{[vP ForceP} uφ ... \text{vP Subj. \{v vTP ... V ForceP\]]}$

Even though it is very clear that ForceP raises because it has to probe downwards, Carstens follows McGinnis (2001) to argue that the Applicative phrase (ApplP) (see (26)) in Lubukusu is a phase which has an edge feature which is like an EPP feature. The edge feature of the ApplP raises ForceP from its merged position into outer Spec, ApplP and the edge feature of vP further raises it to outer Spec, vP. These movements therefore brings ForceP in a local domain where it c-commands the subject (DP NOM) and probes downwards (see (26)).

(26) $\text{[vP ForceP} uφ \text{DP NOM } [v' v \text{[ApplP ForceP} uφ ... \text{ApplP IO } \text{[Appl'} \text{Appl}^0 \text{[vP V ForceP} uφ ... \text{ForceP} uφ \{\text{FinP} \}[\text{FinP} \}]\text{]]\text{]]\text{]]\text{]]\text{]}\text{]}\text{]}$]

An attempt to approach Limbum CA from Carsten’s perspective, faces a couple of problems although I discuss only the two major ones here. The first problem has to do with the claim about ForceP and FinP and where the C in the Lubukusu type CA is merged. As already stated,
mentioned, Carstens argues that Lubukusu C is merged at ForceP for independent reasons, and it raises to be valued ex-situ because its c-command domain FinP has been transferred to PF. The generalisation from this claim is that when the agreeing C is merged at FinP, it can probe its c-command domain; hence agreement with the embedded subject and if the agreeing C is merged at ForceP, its φ-features can only be valued the matrix subject after it raises. However, I show from the structure of the left periphery in Limbum that the C is merged at FinP instead and not at ForceP and so should probe it’s c-command domain (agree with embedded subject) if Carstens assumptions are to be strictly followed. As stated by Rizzi (1997), the left periphery of the clause is a structural zone defined by a system of functional heads and their projections. These functional heads and their projections must necessarily be in the order defined in (27).

(27) Force......Top*......Foc....Top*....Fin.....IP

If C is merged at ForceP in Lubukusu, it means that it must always occur before Top. and Foc. Considering the Limbum constructions in (28), the sentence initial Focus (Foc) marker is the head of FocP which according to the structure in (27) must only follow ForceP. However, C in Limbum only occurs in the post FocP positions shown in (28). Hence, C is merged in a position lower than FocP. Due to the fact that FocP only follows ForceP in Rizzi’s order of left peripheral structures, the C cannot be said to merge at ForceP. Besides other reasons, the only functional projection which is lower than ForceP and can be headed by a C is FinP. I therefore argue in line with Fransen (1995) that the C is merged at FinP in Limbum.

(28) a. á ndúr wà cine mè láā mé-ne i ṣé
   FOC brother my COMP I say 1Sg-COMP 3Sg. come
   ‘I said that my MY BROTHER has come.’

b. á wer Nfô à më këp i-ne à ṣé yèè
   FOC 1PL Nfor 3Sg.Agr PST2 call 3Sg.-COMP 2Sg. come see
   ‘We are the people that Nfor called you to come see.’

Limbum

Theoretically, this falls out with Carstens approach because if the agreeing C is merged at FinP, it should probe its c-command domain and agree with the subject of the embedded clause. However, this is not what holds in Limbum because the C rather agrees with the subject of the matrix clause.

The next problem that has to do with word order. Considering (29) for instance, the CP (ForceP according to Carstens) is spelled-out as the complement clause of the matrix subject.

(29) wer à më yô’ wer-ne Nfor à se’ ñgu
1PL 1PL.Agr PST2 hear 1PL-COMP Nfor 3PL.Agr. fetch wood
   ‘We heard that Nfor fetched firewood.’

Limbum

If one is to extend Carsten’s assumptions for Lubukusu CA to Limbum, the main question that arises is how the ForceP ends up in the c-command domain of the matrix subject. This is based on the assumption that ForceP raises to a position where it c-commands the matrix subject and probes downwards. It is unclear how Carstens’ approach will account for intervention effects in Limbum CA. Even though the analysis assumes that intervening indirect objects do not interrupt Agree because they are case-licensed datives which are inactive for probe-goal relation with the C, there is no instance where the model accounts for intervention effects. If the C probe (uφ) with no

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3Carstens also notices this problem but only highlights the fact that Lubukusu ForceP must surface at the right edge like English CPs (Carstens 2015:33). This therefore means that the mechanism of delayed valuation must employ another operation that ensures the correct ordering of the matrix subject and the C word order.
match in its c-command domain is valued ex-situ in Limbum by raising to c-command a matching feature as Carstens assumes for Lubukusu, $\varphi$-agreement would be realized by downwards probing of ForceP/Force from outer Spec, $vP$. The question that arises is how intervention effects (see Limbum data in (31)) can be explained given the configuration in (30); and the fact that the intervening DP is always merged in a position below $vP$ where it also gets spelled-out and does not occur between ForceP and the matrix subject.

\begin{equation}
(30) \quad \text{Delayed valuation can’t account for intervention in Limbum}
\end{equation}

\begin{equation}
\begin{tabular}{c}
\text{ForceP} \\
\text{DP}_{\text{NOM}} \\
\text{Intervener}
\end{tabular}
\end{equation}

\begin{equation}
(31) \quad \begin{array}{l}
a. \text{mù à bā sụụ wèr } (*f^*/wèr)-\text{ne } wè \text{ vù}
\text{child 3SG PST1 tell 1PL 3SG/1PL-COMP 2SG come}
\text{‘The child told us that you have come.’} \\
b. \text{wèr à bā sụụ mù } (*f^*/wèr)-\text{ne } wè \text{ vù}
\text{1PL 1PL PST1 tell child 3SG/1PL-COMP 2SG come}
\text{‘We told the child that you have come.’}
\end{array}
\end{equation}

As discussed so far, the previous accounts of the pattern of CA in Limbum and Lubukusu encounter a number of problems regarding Limbum data. I therefore present a direct agree analysis of the phenomenon which is elegant and most desirable in that it better captures the data; can account for the phenomenon in both Limbum and Lubukusu, is simpler and does not have to make a lot of unsupported stipulations.

5 Complementizer agreement in Bantu is direct upwards agree

5.1 Assumptions

Similar to Fransen (1995) and Becker & Nformi (2016), the following standard minimalist clause structure is considered for Limbum.

\begin{equation}
(32) \quad \begin{bmatrix}
\text{CP} & C[\text{TP}] & T[\text{vP}] & \text{DP}_{\text{ext}}[v^c \text{ v}[\text{VP} \text{ V DP}_{\text{int}}]]
\end{bmatrix}
\end{equation}

I assume a derivational model of syntax where all operations are feature-driven. In such a model, Agree is triggered by probe features $[\varphi F^*]$ and Merge is triggered by structure-building features $[\bullet F^*]$ (I follow the feature notations proposed in Sternefeld 2006 and Heck & Müller 2007). The $\varphi$-probe does not have a value and so is represented as $[\varphi:\square^*]$. It searches for the value of a DP which has $\varphi$-features and if it finds such a DP, its $\varphi$-features are assigned to the probe and the probe is discharged. If the $\varphi$-probe does not find a suitable goal, the derivation does not crash (Preminger 2013). Whenever the probing C does not find a closest superordinate subject to establish an agree relation with, the derivation still converges. The unvalued features of the probing C get deleted as soon as valuation fails and it simply gets spelled-out without $\varphi$-features. On the other hand, case probes have a value and are therefore represented as $[\varphi:\square^*]$. The value of the case probe needs to be assigned to a DP that does not have any value for case. Whenever it finds a matching DP, it assigns its case value to it and is discharged.
As already shown, the Agree operation takes place between the agreeing C (ϕ-probe) and the matrix subject (goal). Since the ϕ-probe (C) is generally c-commanded by the goal, I assume that C agreement in Limbum is an instance of upwards probing in the light of Zeijlstra (2012) which is defined in (33).

(33) *Upwards agree:* Probe(P) agrees with a Goal (G) if:

a. P bears at least one uninterpretable feature and G bears a matching interpretable feature.

b. G c-commands P

c. G is the closest goal to P

CA involves valuation of the uninterpretable ϕ-features of the C probe by the matching interpretable ϕ-features of the matrix subject DP. The Agree mechanism is therefore formalised as shown in (34).

(34) *Complementizer agreement*

\[
\begin{array}{c}
\text{DP}_\text{nom} \\
\quad [\star \phi^\star] \\
\quad V \\
\quad \text{CP} \\
\quad C^0. \\
\quad \text{TP} \\
\vdots \\
\end{array}
\]

Considering case assignment and its interaction with the Agree operation sketched above, it is worth explaining the fact that Agree obtains only with certain DPs (subjects) and not with others (objects and datives). To account for this, I adopt the idea of Carstens & Diercks (to appear), Carstens (2015) that Bantu languages have abstract case. In addition, I assume the work of Bobaljik (2008) which demonstrates that ϕ-agreement has a property of case discrimination. There is the tendency for ϕ-agreement to discriminate between possible goals based on their case. This can already offer an explanation for the fact that the features of the C probe can be valued by subjects and not by datives nor by direct and indirect objects. Dative case is assigned by functional heads such as Applicatives, Causatives and Prepositions to DPs with which they are in a local c-command relation (cf. Marantz 1991 and McFadden 2004). Due to the structural difference between ApplPs (following McGinnis 2001, and Carstens 2015) and the other functional phrases like PPs (following Rezac 2008a, Preminger 2014), two functional structures are possible for the internal structure of datives as shown in (35) and (36).

(35) *Dative (ApplP-type)*

\[
\begin{array}{c}
\text{AppIP} \\
\quad \text{DP} \\
\quad \text{AppI'} \\
\quad \text{AppI}_{\text{DAT}} \\
\quad \text{VP} \\
\quad V \\
\quad \text{CP} \\
\end{array}
\]

(36) *Dative (PP-type)*

\[
\begin{array}{c}
\text{PP} \\
\quad P_{\text{DAT}} \\
\quad \text{DP} \\
\end{array}
\]
5.2 Deriving complementizer agreement

5.2.1 Basic pattern

As discussed in section 2, the basic pattern of the Agree phenomenon is that the C agrees in \(\varphi\)-features with the subject of the matrix clause (see (37)).

\[
\begin{align*}
(37) & \quad \text{a. } \text{bì fọ ó là ó-ne sì vù} \\
& \quad \text{people DET 3PL.Agr say 3PL-COMP 1PL come} \\
& \quad \text{‘The people have said that we should come.’} \\
& \quad \text{b. } \text{sì à là sì-ne bì fọ ó vù} \\
& \quad \text{1PL 1PL.Agr. say 1PL-COMP people DET 3PL.Agr come} \\
& \quad \text{‘We have said that the people should come.’} \\
\end{align*}
\]

Considering the theoretical assumptions presented in the preceding subsection, the Agree relation in (37a) is analysed as a direct local relationship between the \(C^0\) and the superordinate subject as shown in (38). At first merge, the \(C^0\) bears uninterpretable \(\varphi\)-features (\([*\varphi; \Box\star]\)) which need to be valued by a goal which bears matching interpretable features and c-commands the probe. When more structures are merged, the \(C^0\) probes upwards (Zeijlstra 2012) in search for a goal. The only possible goal which has matching interpretable features and can value the unvalued features of \(C^0\) is the superordinate subject of the matrix clause. The embedded \(C^0\) is therefore the probe of the agree relation meanwhile the matrix subject is the goal.
So far, the operations that are involved in the valuation of the features of $C^0$ are MERGE and AGREE. For the feature valuation to be successful, the operations must be ordered such that MERGE applies before AGREE. MERGE has to apply before AGREE because when the probing C head is merged, it cannot find a goal to value its unvalued features since there is no DP c-commanding it. So, MERGE applies first and creates more structure higher than the probing C; which probes and subsequently finds a goal in the superordinate subject position.

5.2.2 Intervention effects

As earlier established, intervention effects arise when a DP which occurs between the agreeing C probe and the most local superordinate subject inhibits $\varphi$-agreement as shown again in (39).

(39) a. Paul à mú sügen mc (*i/*me)-ne we dò rjер
P. 3SG PST2 tell 1SG.ACC 3SG/1SG-COMP 2SG go journey
‘Paul told me that you have travelled.’

b. mc mú sügen Paul (*me/*i)-ne we dò rjер
I PST2 tell Paul 1SG/3SG-COMP you go journey
‘I told Paul that you have travelled.’

Limbum

Within the model assumed here, cases of intervention effects such as (39) are analysed as instances of failed agreement (Preminger 2014) which results from the structural conditions in (40) and the case discrimination of Bobaljik (2008). With respect to the structural conditions and in line with the Relativized minimality of Rizzi (1990), intervention effects are realised due to (40).

(40) $\langle X...Y...Z \rangle$: Y intervenes between X and Z if;
   a. Y is a potential Goal and is active
   b. Y c-commands Z and does not c-command X.

Considering (39a), when the structural conditions in (40) are met, agreement between the matrix subject DP and the C probe is inhibited. When the C head probes upwards in search for a goal, it finds DP$_{acc}$ which is a potential goal and so the search stops. However, since this DP is not a subject, it is not a proper goal and cannot value the features of the probing C.

The next question that arises is why the intervener also fails to value the unvalued features of the C probe. This follows clearly from the claim that $\varphi$-agreement holds only with subjects.
and can be argued to follow from Bobaljik’s (2008) case discrimination in (41).

(41) Case description
subject > direct object > indirect object > adverbs
nominative > accusative > dative > (other) obliques

Thus in Limbum CA, φ-agreement is case discriminatory and only subjects (nominatives) have the ability to value the unvalued features of the φ-probe. Since the intervener in (39a) is not a subject (nominative), the result is failed agreement (see (42)).

(42) Failed agreement

\[
\begin{array}{c}
\text{TP} \\
\text{DP}_{\text{nom}} \\
\text{T'} \\
\text{T} \\
\text{vP} \\
\text{DP} \\
\text{VP} \\
\text{DP}_{\text{acc}} \\
\text{VP} \\
\text{C}^	heta \\
\text{TP} \\
\text{[\phi:1SG]} \\
\text{[\phi:3SG]} \\
\end{array}
\]

It is worth noting that as shown in (39), failed agreement here is unique in that it gives rise to grammaticality without any default agreement morphology on the C probe and does not result to ungrammaticality. This is different from Preminger (2014) where failed agreement either gives rise to ‘default’ (3rd person singular) agreement morphology or results to ungrammaticality.

5.2.3 Datives, embeddedness and lack of intervention

As I have already shown, there are also cases in the language where intervening DPs do not block CA. The sentence in (39a) can also be expressed as (43) where there is a similar intervening DP. Contrarily, an agree relation is still established between C and the matrix subject in (43).

(43) a. Paul à mú la mì me i-ne we dò rjer
     P. 3SG PST2 say to 1SG.ACC 3SG-COMP 2SG go journey
     ‘Paul said to me that you have travelled.’

b. bì fo o wé-b-sí Nfor ó-ne ó bì sùŋ ni me
   People DET 3PL fear-CAUS Nfor 3PL-COMP 3PL FUT1 report to 1SG
   ‘The people frightened Nfor that they will report him to me.’ Limbum

This is also observed for Lubukusu by Diercks (2013) and the analysis I propose here is also in line with the analysis presented by Carstens (2015) for indirect objects and causees. I propose that the difference between the intervening DP in (39a) and the one in (43) for instance is that the latter is embedded within a PP whereas the former is not. This is similar to the
Lubukusu examples where intervening DPs actually occur within Applicative and Causative phrases (Carstens 2015). Following Carstens, the reasons why these DPs do not inhibit agreement and do not trigger agreement on the C probe is because they are case-licensed datives and are inactive to value probing features of C0. This claim is based on the Activity condition of Chomsky (2001) and it fits very well with the case discrimination feature of \( \varphi \)-agreement stated in (41).

(44) \textit{Datives and non-intervention}

\[
\begin{array}{c}
\text{TP} \\
\text{DP}_{\text{nom}} \\
\text{[\(\varphi:3\text{SG}\)]} \\
\text{T} \\
\text{T'} \\
\text{vP} \\
\text{DP} \\
\text{VP} \\
\text{PP} \\
\text{P} \\
\text{[\(\text{DAT}\)]} \\
\text{V} \\
\text{VP} \\
\text{CP} \\
\text{C}^0 \\
\text{TP} \\
\text{[\(\ast \varphi : \Box \ast\)]}
\end{array}
\]

The reason why the intervening DP in (43) does not block \( \varphi \)-agreement could also be because it is deeply embedded. As stated in (33), for Agree to take place between a probe and a goal, they must be in a c-command relationship, i.e the goal must c-command the probe. However, in (44) the intervening DP is deeply embedded within the PP\(^4\) and does not c-command the C\(^0\) probe. Since there is no c-command relationship between the intervening DP and the probe, it is not even a potential goal and cannot trigger nor block \( \varphi \)-agreement. The C\(^0\) therefore continuously probes upwards and its features are valued by the matrix subject.

6 Conclusion

This paper has provided an account of CA in Limbum and Lubukusu where an embedded C agrees with the subject of the matrix clause. What previous approaches have analysed as indirect agree (Diercks 2013) and delayed valuation (Carstens 2015) can be analysed as a case of direct Agree. Since previous approaches to the agreement phenomenon are based on Lubukusu data, this paper presents new data from Limbum which is very similar to Lubukusu CA in relevant respects. Having shown that these previous approaches are based on quite unclear assumptions, I show that they cannot effectively account for the Limbum data. The main feature that sets Limbum CA apart from Lubukusu is the fact that Limbum has intervention effects. The presence of intervention effects is employed as the main justification for direct Agree.

The analyses presupposes a strictly derivational model of syntax where the \( \varphi \)-probe searches upwards for a goal. Considering the basic pattern of CA, when this probing C finds the matrix

\(^4\)This also holds for Applicative, Causative and Benefactive phrases.
subject DP, its unvalued features are valued and the construction converges. In cases where there are intervention effects, the probing C probes upwards and encounters a potential goal which causes the probing to stop. Since, the intervening DP is always an object, it is not a proper goal because a proper goal is only a subject DP. The intervening DP therefore cannot value the unvalued features of the C probe and because it blocks CA and does not value the features of the C probe, this defective intervention is analysed as failed agreement (following Preminger 2014). Cases where datives intervene but do not inhibit nor trigger agreement on the probing C have been analysed from the perspectives of the Activity condition. Following from these restrictions, datives do not inhibit nor trigger ϕ-agreement because they are not potential goals. Coupled with a few assumptions, these mechanism provides a direct Agree account of CA in Limbum and can possibly be extended to Lubukusu.

References


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