1 Introduction

Ibibio, a Lower Cross Niger-Congo language from Nigeria, exhibits agreement on a subset of its embedding complementizers:¹

\[
\begin{align*}
(1) \ a. & \quad \text{M-mà ŋ-kòp (m̏-bó) (ń-ṫe) ké Kòkó á-mà á-dép ŋwèt.} \\
& \quad 1\text{SG-PST 1SG-hear 1SG-comp 1SG-COMP COMP Koko 3SG-PST 3SG-buy book \\
& \quad \text{‘I heard that Koko bought a book.’} \\

& \quad b. \quad \text{I-má i-dókkó ânyé (i-ṫe) ké á-sâk á-di.} \\
& \quad 1\text{PL-PST 1PL-tell 3SG 1PL-COMP COMP 2SG-PROG 2SG-come \\
& \quad \text{‘We told her/him that you were coming.’}
\end{align*}
\]

- C agreement is reported to be uncommon cross-linguistically (Baker 2008b)
- When it happens, the C often agrees downward, but upward agreeing complementizers are becoming increasingly documented
- Ibibio C agreement is upward & subject-oriented
- → How is this achieved?

We analyze Ibibio complementizer agreement in terms of Dierck’s (2013) INDIRECT AGREE relation:

- C agreement looks to be long-distance, but…
- C agreement is actually local agreement mediated by a subject-oriented anaphor/operator

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¹ Examples are rendered using a popular orthography, with the exception that we mark tone, which is usually not represented orthographically. Tone appears on vowels and syllabic nasals signaled with the following diacritics: Ŵ = high, ŵ = low, ų = falling. Abbreviations are as follows: APPL = applicative, COMP = complementizer, CON = contrastive, COND = conditional, F = feminine, FOC = focus, FUT = future, FV = final vowel, HAB = habitual, IPFV = imperfective, NEG = negation, PL = plural, PREP = preposition, PROG = progressive, PST = past, SG = singular, SUBJ = subject. Numbers indicate person when followed by SG or PL, and, in the Lubukusu examples, indicate noun class when not followed by such.

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* We are especially grateful to Mfon Udoinyang, our native speaker consultant and a fellow linguist, for his time and ceaseless patience in working with us.
(2) Indirect Agree (Diercks 2013: 359)

\[
\begin{array}{c}
\text{TP Subject}_1 \ldots [\text{CP OP}_1 [ \ldots \text{C} \ldots ] \ldots ] \ldots \\
\text{Binding} \quad \text{Agree}
\end{array}
\]

Goals for today’s talk:
- Lay out the basic properties of Ibibio complementizer agreement, building on previous descriptions & analyses (Essien 1990, Baker 2008b, Baker & Willie 2010)
- Discuss initial tests that motivate an analysis à la Diercks (2013)

2 Background on Ibibio

Ibibio is spoken in both Akwa Ibom and Cross River states in southeastern Nigeria. Closely related languages include Efik and Anaanje.

Ibibio is head-initial (VO, P-NP, N-Rel, etc.) with SVO order in declarative clauses. Embedded clauses follow their selecting predicate, & complementizers (e.g., ké in (3b)) always occur on the left edge of clauses:

(3) a. Ènò á-mà á-kóóm Kòkó.
    Eno 3SG-PST 3SG-greet Koko
    ‘Eno greeted Koko.’

b. Ènò á-mà á-kéré [CP ké Ímá á-mà á-yét áyín ádò ké úfök].
    Eno 3SG-PST 3SG-think COMP Ima 3SG-PST 3SG-wash child that PREP house
    ‘Eno thought that Ima bathed the child at home.’

Below is the inventory of complementizers in Ibibio, which embed a variety of clause types (except ndi, which surfaces in matrix clauses):

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ké</td>
<td>declarative</td>
<td></td>
</tr>
<tr>
<td>yàk</td>
<td>hortative, subjunctive</td>
<td></td>
</tr>
<tr>
<td>ìmì</td>
<td>interrogative, ‘whether’</td>
<td></td>
</tr>
<tr>
<td>ndì</td>
<td>interrogative (matrix)</td>
<td></td>
</tr>
<tr>
<td>ñtè</td>
<td>interrogative, ‘like’, ‘as’</td>
<td></td>
</tr>
<tr>
<td>náñà, dáñá</td>
<td>À-extraction (some), factive</td>
<td></td>
</tr>
<tr>
<td>AGR-bó</td>
<td>declarative, interrogative</td>
<td></td>
</tr>
<tr>
<td>AGR-tè</td>
<td>declarative, interrogative</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 1: Ibibio embedding complementizers.

Subject agreement in Ibibio can occur on multiple elements in a single clause (Essien 1990), & can occur all the way down (Baker & Willie 2010):
- S agreement obligatory on every element except the lowest verb
- O agreement can surface on the lowest verb, but never surfaces on higher elements
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- Vowel harmony, assimilation, and hiatus resolution can greatly alter the surface realization of S & O agreement markers

(4) a. À-kpa à-sàk à-nyóñ…
  2SG-COND 2SG-PROG 2SG-leave
  ‘You ought to leave…’

b. Ékpê á-mà á-ú-kóm (mièn).
  Ekpe 3SG-PST 3SG-1SG-greet me
  ‘Ekpe greeted me.’

c. Ì-kpa ì-ké ì-sé ì-nám
  1PL-COND 1PL-PST.FOC 1PL-HAB 1PL-do
  ‘We would have been doing it.’ (adapted from Baker & Willie 2010: 102)

Agreement calculus in Ibibio (Baker & Willie 2010):
- Subject agreement is upward agreement (Baker 2008a)
- Upward valuation + successive valuation → multiple instances of subject agreement

3  Complementizer agreement

3.1  General properties

Complementizer agreement (CA) is reported to be uncommon (Aikhenvald 2000, Baker 2008). CA is known to occur in various branches of Indo-European (French (Kayne 1975), Flemish (Haegeman 1992, De Vogelaer et al. 2002), Irish (McCloskey 2001, 2002)) and Semitic (colloquial Arabic dialects (Buell 2010, Torrence 2013, Lewis 2013)), for example.

(5) a. West Flemish (Haegeman 1992, as cited in Torrence 2013: 230)
  K-peinzen da-j (gie) morgen goan.
  I-think that-2SG you tomorrow go
  ‘I think that you’ll go tomorrow.’

b. Najdi Arabic (Lewis 2013: 77)
  Ta-sagd inna-ha hi ta-sawwii al-akil.
  2SG-mean.IPFV that-3SG.F she 3SG.F-make.IPFV the-food
  ‘You mean that she made the food.’

CA has also been attested across Niger-Congo and Bantu, including languages such as Buli (Hiraiwa 2005), Kinande (Schneider-Zioga 1995), Lubukusu (Diercks 2013), & Wolof (Torrence 2013).

- Kinande: C agreement with Ā-moved wh-element in Spec,CP (6a)
- Lubukusu: C agreement with matrix subject (6b-c)

(6) a. Kinande (Schneider-Zioga 1995: 71)
  Eklhlí kyO Mary’ a-ka-langIra xị?
  what(CL.7) that(CL.7) Mary SM-PRES-see
  ‘What does Mary see?’
b. Lubukusu (Diercks 2013: 358)
   Ba-ba-ndu ba-bol-el-a Alfredi ba-li a-kha-khil-e.
   2-2-people 2SUBJ-said-APPL-FV 1Alfred 2-that 1SUBJ-FUT-conquer
   ‘The people told Alfred that he will win.’

   c. Lubukusu (Diercks 2013: 358)
   Alfredi ka-bol-el-a ba-ba-ndu a-li ba-kha-khil-e.
   1Alfred 1SUBJ-said-APPL-FV 2-2-people 1-that 2SUBJ-FUT-conquer
   ‘Alfred told the people that they will win.’

3.2 Generalities of complementizer agreement in Ibibio

Ibibio complementizer agreement is subject-oriented: 2

   1PL-PST 2SG-tell 1PL-COMP COMP Koko 3SG-PST 3SG-leave
   ‘We told you that Koko left.’

b.*I-má ú-dókkó ú-bó ké Kókó á-má á-nyóñ.
   1PL-PST 2SG-tell 2SG-COMP COMP Koko 3SG-PST 3SG-leave
   (Intended: ‘We told you that Koko left.’)

c.*I-má ú-dókkó á-bó ké Kókó á-má á-nyóñ.
   1PL-PST 2SG-tell 3SG-COMP COMP Koko 3SG-PST 3SG-leave
   (Intended: ‘We told you that Koko left.’)

Agreement with the matrix subject is obligatory in (8), despite the presence of an intervening (object) argument.

(8) a. I-má ú-dókkó i-bó i-té ké ásén ówó á-má á-nyóñ.
   1PL-PST 2SG-tell 1PL-COMP COMP nonlocal person 3SG-PST 3SG-leave
   ‘We told you that the guest left.’

b.*I-má ú-dókkó ú-bó ú-té ké ásén ówó á-má á-nyóñ.
   1PL-PST 2SG-tell 2SG-COMP COMP nonlocal person 3SG-PST 3SG-leave
   (Intended: ‘We told you that the guest left.’)

---

2 Agreeing complementizers in Ibibio occur with a variety of verbs, such as verbs of thought, belief, speech, etc. While we have not attempted a full list of verbs that can occur with agreeing complementizers, ones that we have identified include the following, which are listed alphabetically: bàák ‘be afraid’, bář ‘reckon’, bëéñé ‘beg, ask for, hope’, bëk ‘anticipate’ (occurs with bó only), bèt ‘wait for’, bëéřé ‘decide’, bìp ‘ask’, bìiré ‘conclude’, bó ‘say’ (occurs with tè only), bò ‘accept’, convince ‘convince’, dìóñó ‘know’, dòkkó ‘tell’, dìáák ‘boast’, dìáái ‘shout at’, dìááñó ‘investigate’, fáàñì ‘argue with’ (poss. cannot occur with tè), fìéèn ‘overlook, forgive’, fìré ‘forget’, kéré ‘think’, kôp ‘hear’, kpàñ ‘rebuke’ (occurs with bó only), kpàì ‘urge, try to persuade’, kpé ‘plead with’, kpèèk ‘cajole’, kpèèp ‘teach’ (poss. cannot occur with tè in Ibibio; sounds like Efik according to our consultant when tè is used), nìm (kè àkpanikò) ‘believe’ (lit., ‘put at the truth’), sèghé ‘doubt’, sèmmé ‘complain’, sòóñò ‘confirm’ (poss. cannot occur with tè), tójò ‘remember’, yàáñ ‘decieve’.
The special agreement marker í- (instead of á-) surfaces in nonlocal person subject focus and subject wh-questions (Essien 1990, Baker 2008b, Baker & Willie 2010).

- If the matrix subject is wh-questioned or focused, the complementizer also bears this special agreement
- Mismatches are also not permitted

(9) a. Ìma á-kéré á-bó ké m-mà ñ-ǹwóñ úkótńșàñ.  
Ima 3SG-think 3SG-COMP COMP 1SG-PST 1SG-drink palmwine  
‘Ima thinks that I drank palmwine.’

b. Ànié i-kéré i-bó ké m-mà ñ-ǹwóñ úkótńșàñ?  
who 3SG.FOC-think 3SG.FOC-COMP COMP 1SG-PST 1SG-drink palmwine  
‘Who thinks that I drank palmwine?’

c. *Ànié á-kéré á-bó ké ñ-mà ñ-ǹwóñ úkótńșàñ.  
who 3SG-think 3SG-COMP COMP 1SG-PST 1SG-drink palmwine  
(Intended: ‘Who thinks that I drank palmwine?’)

Agreeing complementizers in Ibibio are always optional:

- When the agreeing C is present, there seems to be a pragmatic effect, contributing to some aspect of the speaker’s perspective
- E.g., in (10b), bó implies a known fact that Koko stole a book & that the speaker should have known this (≈“Wow! I didn’t know that.”)

(10) a. 1-ýà i-dókkó ânyé (i-tè) ké á-sâk á-di.  
1PL-FUT 1PL-tell 3SG 1PL-COMP COMP 2SG-PROG 2SG-come  
‘We’ll tell her/him you’re coming.’

b. Ì-mà á-kòp (rún-bó) ké Kòkó á-mà á-yip ñwèt.  
1SG-PST 3SG-hear 1SG-COMP COMP Koko 3SG-PST 3SG-steal book  
‘I heard that Koko stole a book.’

Agreeing complementizers in Ibibio are not solely declarative-embedding; they occur in the left periphery of embedded questions, too:

(11) I-mà i-bó (Ákpán) i-bó mmè Ékpé á-nyóñ.  
1PL-PST 1PL-ask (Akpan) 1PL-COMP COMP Ekpe 3SG-leave  
‘We asked whether Ekpe is leaving.’

CA in Ibibio does seem to be restricted to embedded contexts.

- Sentential subjects occur in the language
- Sentential subjects don’t bear overt C’s—agreeing or otherwise—inside the subject
- Note: AGR- in tier 1 below is a shorthand indicating that bó & tè are bad with or without an agreement exponent and regardless of what form it takes
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(12) [(\text{*AGR-\text{-bó}}) (\text{*AGR-tè}) (\text{*ké}) \text{ únyin } \text{i-di-ki-nyóññó}] \text{ á-má}
(\text{*AGR-COMP})(\text{*AGR-COMP})(\text{*COMP}) \text{ we } \text{1PL-di-PST.FOC.1PL-leave.PL} \text{ 3SG-PST}
á-kpá Kòkó ídèm.
\text{3SG-surprise} Koko \text{ body}
‘That we left surprised Koko.’

There appear to be lexical influences on what predicates agreeing complementizers can occur with.

- CA possible with \text{sèmmé} ‘complain’ (13a)
- CA impossible with \text{yààrà} \text{ ‘reveal’} (13b)

(13) a. \text{Ì-mà} \text{i-sèmmé} \text{i-bó} \text{ké} Kòkó \text{ á-má} \text{ á-yip} \text{ ñwèt.}
\text{1PL-PST} \text{1PL-complain} \text{1PL-COMP COMP} \text{Koko} \text{ 3SG-PST} \text{3SG-steal book}
‘We complained that Koko stole the book.’

b. \text{*Ì-mà} \text{i-yààrà} \text{i-bó} \text{ké} Kòkó \text{ á-má} \text{ á-yip} \text{ ñwèt}
\text{1PL-PST} \text{1PL-reveal} \text{1PL-COMP COMP} \text{Koko} \text{ 3SG-PST} \text{3SG-steal book}
\text{(Intended: ‘We revealed that Koko stole the book.’)}

It’s also possible for \text{bó} \text{ & tè} to co-occur, even with another non-agreeing complementizer, such as \text{ké} (the general declarative-embedding C).

- When 2+ co-occur, always a fixed order

(14) \text{Ì-mà} \text{ú-dókkó} \text{i-bó} \text{i-tè} \text{ké} Kòkó \text{ á-má} \text{ á-nyóñ.}
\text{1PL-PST} \text{2SG-tell} \text{1PL-COMP 1PL-COMP COMP} \text{Koko} \text{ 3SG-PST} \text{3SG-leave}
‘We told you that Koko left.’

4 Are these really complementizers?

Both agreeing complementizers \text{bó} \text{ and tè} are homophonous with verbs meaning ‘say’.

- Many functional elements in Ibibio are homophonous with verbs (e.g., -\text{má} ‘past tense & \text{má} ‘finish, complete’, -\text{tó} ‘from’ & -\text{tó} ‘originate, come from’)
- \text{Verba dicendi} (“verbs of saying”) are a common source for grammaticalization into complementizers (Lord 1976, Hopper & Traugott 1993)

(15) \text{Ì-bó/tè} \text{ké} \text{ i-yém} \text{ ádi-ñwóñ ñkótñsàn.}
\text{1PL-say COMP 1PL-want to-drink palmwine}
‘We’re saying that we want to drink palmwine.’

Agreeing complementizers clearly have \text{some} relation to ordinary verbs. One possibility, as suggested by Welmers (1968) for closely-related Efik, is that these actually are verbs in a serial verb construction (SVC). Kinyalolo (1993) argues similarly for the Kwa language Fon, as does Frajzingier (1996) for Chadic.

- If \text{bó} \text{ & tè} are verbs (or more verb-like than complementizer-like) they should exhibit verbal properties
Another possibility is that they aren’t verbs per se, but neither are they complementizers.

- If bó & tè are not quite complementizers, they shouldn’t distribute like such, nor should they bear properties indicative of complementizerhood

Ibibio exhibits head movement in a variety of contexts (Baker & Willie 2010; Duncan 2016; Duncan et al. to appear):

- V-to-Neg (verbal negation) → V-NEG
- V-to-T-to-C (relativization) → V-REL

In SVCs, negation & relativization exclusively target V₁ in a V₁Vₙ sequence (Major 2014).

- Note that the special agreement marker that surfaces with focused & questioned subjects also occurs in negation

(16) Serial verbs and negation (Major 2014: 139)

a. Ékpê á-mà á-dùó á-dák âdùbè.
Ékpe 3SG-PST 3SG-fall 3SG-fall pit
‘Ekpe fell into a pit.’

b. Ékpê i-ké i-duó-ghó (*i-ké) i-dák(*-kó)
Èkpe 3SG.FOC-PST.FOC 3SG.FOC-fall-NEG (*3SG.FOC-PST.FOC) 3SG.FOC-fall(*-NEG)
àdùbè.
pit
‘Ekpe didn’t fall into a pit.’

The things we call agreeing complementizers always follow the main verb, and are thus not susceptible to these processes (at least they’re not predicted to be). This is borne out.

(17) Ômmò i-ké i-kòp-pó i-bó(*-ghó) ké
they 3PL.FOC-PST.FOC 3PL.FOC-hear-NEG 3PL.FOC-COMP(*-NEG)COMP
mì-mà ŋ-dì.
1SG-PST 1SG-come
‘They didn’t hear that I came.’

- Seems to suggest serial-like properties

4.1 Evidence against verb status

4.1.1 Contrastive verb focus

Contrastive verb focus (CVF) is another construction that involves head movement, & one that serves as a diagnostic for location in the verbal domain (Duncan 2016, Duncan et al. to appear, under review). Unlike negation and relativization, any (or all) the Vs in a V₁Vₙ sequence can be probed (Duncan 2016):³

³ This pattern also emerges in SVCs without a shared object.
Verbal complementizers in Ibibio

- Low FocPs are vP-internal
- Iterated vPs → iterated FocPs
- Foc probes in an SVC operate independently of one another

(18) Contrastively focused serial verbs (Duncan 2016: 99-100)

a. Òkôn á-mà á-tèm ñdídiyá á-nyâm. SVC
   Okon 3SG-PST 3SG-cook food 3SG-sell
   ‘Okon cooked food and sold it.’

b. Òkôn á-mà á-téé-tèm ñdídiyá á-nyâm. V₁ focused
   Okon 3SG-PST 3SG-cook-cook food 3SG-sell
   ‘Okon COOKED food and sold it.’

c. Òkôn á-mà á-tèm ñdídiyá á-nyàa-nyâm. V₂ focused
   Okon 3SG-PST 3SG-cook food 3SG-sell
   ‘Okon cooked food and SOLD it.’

d. Òkôn á-mà á-téé-tèm ñdídiyá á-nyàa-nyâm. V₁ & V₂ focused
   Okon 3SG-PST 3SG-cook-cook food 3SG-sell
   ‘Okon COOKED food and SOLD it.’

When acting as a main verb, bó can be contrastively focused:

(19) Ñ-ké-bóó-bó…
   1SG-PST.FOC-say-say
   ‘I SAID it…’

If agreeing complementizers are really verbs in SVCs, they should participate in contrastive verb focus. This is not borne out.

   ‘I heard that Koko bought a book.’

   ‘I HEARD that Koko bought a book.’

c.*M-mà ń-kòp m-bóó-bó ké Kòkó á-mà á-dép ŋwèt. 1SG-PST 1SG-hear 1SG-COMP-COMP COMP Koko 3SG-PST 3SG-buy book
   (Intended: ‘I HEARD that Koko bought a book.’)

   (Intended: ‘I HEARD that Koko bought a book.’)

• Bó is not available for CVF
• Therefore, agreeing complementizers don’t seem to locatable be in the verbal domain

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4 Tè, on the other hand, does not have a CVF form.
4.1.2 Ellipsis

Ellipsis provides further evidence against seriality. In SVCs, the entire clause must be elided in response to a polar question.

(21) Q: Ñtè Ékpè á-mà á-fop ũnám á-tá?
    Q  Ekpe 3SG-PST 3SG-roast meat 3sg-eat
    ‘Did Ekpe roast meat and eat it?’

R1: Íí. OR (Íí,) Ńtódó.
    yes (yes) like.that
    ‘Yes.’ ‘Yes, he did.’

It is not possible to elide any subpart:

(22) R2:*Íí, Êkpe á-mà á-fop ũnám Ńtódó.
    yes Ekpe 3SG-PST 3SG-roast meat like.that
    (Intended: ‘Yes, Ekpe did.’)

*Íí , Êkpe á-mà á-fop Ńtódó.
*Íí, Êkpe á-mà Ńtódó.
*Íí, Êkpe Ňtódó.

• Prediction: If agreeing complementizers are part of SVCs, they should be unelidable

Agreeing complementizers, however, can be elided:

(23) Q: Ñtè è-mà è-kéré è-bó ké Êmá á-mà á-kót Ńwèt?
    Q  2PL-PST 2PL-think 2PL-COMP COMP Ima 3SG-PST 3SG-readbook
    ‘Do y’all think that Ima read the book?’

R: Íí, i-kéré Ńtódó.
    yes 1PL-think like.that
    ‘Yes, we think so.’

Íí, i-kéré Ńtódó.
Íí, i-kéré i-bó Ńtódó.
Íí, i-kéré i-bó ké Ńtódó.

• Since bó is available for ellipsis, it isn’t in an SVC
• It’s CP-ellipsis

4.2 Positive evidence for location in the C domain

Not being in the verbal domain doesn’t, however, guarantee location in the C domain. Further evidence for complementizerhood comes from the fact that agreeing complementizers only select for finite clauses:
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(24) a. Ì-mà mú-biérè àdít-kót ñwèt.
1SG-PST 1SG-decide to-read book
‘I decided to read a book.’

b.*Ì-mà mú-biérè m-bó/ù-tè [TP àdít-kót ñwèt ].
1SG-PST 1SG-decide 1SG-COMP/1SG-COMP to-read book
(Intended: ‘I decided to read a book.’)

c. Ì-mà mú-biérè m-bó/ù-tè [TP ñ-ya á-kót ñwèt ].
1SG-PST 1SG-decide 1SG-COMP/1SG-COMP 1SG-FUT 3SG-read book
‘I decided that I will read a book.’

- Presence of bó/tè determines whether the embedded clause is (non-)finite = expected property of a complementizer
- Ibibio nonfinite clauses lack C layer (which results in incompatibility)

4.3 Word order facts

As noted earlier, bó & tè can co-occur with each other as well as with ké (the general declarative-embedding C), as in (22a) (= (12), or yàk (the hortative/subjunctive C), as in (22b).
- Always a fixed order
- Agreeing complementizers linearly precede the non-agreeing one

1PL-PST 2SG-tell 1PL-COMP 1PL-COMP COMP 1SG 3SG-PST 3SG-leave
‘We told you that Koko left.’

b. Ì-bééñé m-bó yàk á-dó ké Ímá á-mà á-kót ñwèt.
1SG-beg 1SG-COMP COMP 3SG-be COMP 1SG-FUT 1SG-leave 3SG-read book
‘I hope that Ima read a book.’

- Suggests that agreeing complementizers are, in fact, in the C domain

5 Ibibio complementizer agreement as Indirect Agree

5.1 The proposal in a nutshell

Diercks (2013) argues that CA in Lubukusu is local agreement between a C and a higher subject mediated by a null operator (akin to a null long-distance anaphor).

(26) Lubukusu (Diercks 2013: 358) (repeated from (6b-c) above)

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

(27) Indirect Agree (Diercks 2013: 359)

\[
\begin{array}{c}
\text{TP Subject} \ldots \text{[CP OP} \ldots \text{C} \ldots \text{]} \ldots \text{]} \\
\text{Binding} \quad \text{Agree}
\end{array}
\]

Complementizer agreement is subject-oriented:

(28) Only subjects trigger complementizer agreement. (Diercks 2013: 367)

Complementizer agreement is local:

(29) *Lubukusu Complementizer Agreement Generalization:* (Diercks 2013: 362)

Complementizers agree only with the most local superordinate subject.

Evidence comes from an array of constructions, including:

- Negation
- Verbs of hearing
- Ditransitives
- Split-antecedence
- Periphrastic causatives
- Multiple embeddings

Below we show results from testing these constructions in Ibibio, along with some additional tests involving:

- Logophors
- Relative clauses

5.2 Negation

Matrix negation tests whether complementizer agreement is controlled by the logophoric center (= “the arguments whose thoughts, words, or ideas are reported in the embedded clause” (Diercks 2013: 366)).

- CA trigger could be source of reported info, making CA tied to evidentiary properties
- Negating the matrix verb might affect CA because the matrix subject is no longer the source of information

Matrix negation in Ibibio does not disrupt expected patterns of complementizer agreement:

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5 Diercks also investigates morphological causatives and passives. Ibibio, however, does not have morphological causatives or a true passive construction, so these tests do not apply.
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(30) Ọ̀mmọ̀ i-ké ú-dókkọ-ké i-tè ké n-má n-dì.
they 3PL-FOC-PST.FOC 3PL-FOC-tell-NEG 3PL-FOC-COMP COMP 1SG-PST 1SG-come
‘They didn’t tell you that I came.’

• Ibibio CA is not agreement with the logophoric center

5.3 Verbs of hearing

Verbs of hearing test for the syntactic nature of CA.

• Source of reported info intervenes (linearly) between C and matrix subject

Complementizers still agree with matrix subject, disregarding the source, which is in an oblique.

(31) M̀-mà á-kòp n-tó Kòkó mú-bó/í-tè ké é-mà
1SG-PST 3SG-hear 1SG-from Koko 1SG-COMP/1SG-COMP COMP 3PL-PST
é-kpákké àkpàkà.
3PL-cut maize
‘I heard from Koko that they harvested the maize.’

• Ibibio CA is structural (i.e., syntactically determined)

5.4 Ditransitives

Ditransitives furnish further evidence for a structural/syntactic account of CA, as well as its subject-orientation.

• The IO intervenes between the C and the matrix subject
• Tests whether matrix subject or object controls CA

With Ibibio ditransitives, the matrix subject always controls agreement (see also (8) above).

(32) a. Ì-mà i-convince Kòkó i-bó i-tè ké à-mà à-nyọ́n.6
1PL-PST 1PL-convince Koko 1PL-COMP 1PL-COMP COMP 2SG-PST 2SG-leave
‘We convinced Koko that you left.’

b.*Ì-mà i-convince Kòkó á-bó á-tè ké à-mà à-nyọ́n.
1PL-PST 1PL-convince Koko 3SG-COMP 3SG-COMP COMP 2SG-PST 2SG-leave
(Intended: ‘We convinced Koko that you left.’)

• Suggests that Ibibio CA is subject-oriented

5.5 Split-antecedence

Inherent symmetry in verbs like ‘agree (with)’ gives rise to split-antecedence.

6 Code-switching and English borrowings are both commonplace in Ibibio speech. The same result obtains if convince is switched with yáání ‘deceive’.
• Again, provides opportunity for an intervening argument to agree with the complementizer
• Tests subject-orientation & structural effects

In Ibibio, the complementizer(s) agree/s with the matrix subject, not the comitative phrase.

(33) a. Mfon á-má á-nyjmmé ñdò àmi á-bó á-tè ké
Mfon 3SG-PST 3SG-agree CONJ 1SG 3SG-COMP 3SG-COMP COMP
á-kpèná i-káá.
3SG-should 1PL-go.PL
‘Mfon agreed with me that we should go.’

b. Àmi má á-nyjmmé ñdò Mfon m-bó í-tè ké
1SG 1SG-PST 3SG-agree CONJ Mfon 1SG-COMP 1SG-COMP COMP
á-kpèná i-káá.
3SG-should 1PL-go.PL
‘I agreed with Mfon that we should go.’

c. Mfon ñdò àmi i-má í-nyjmmé i-bó i-tè ké
Mfon CONJ 1SG 1PL-PST 1PL-agree 1PL-COMP 1PL-COMP COMP
á-kpèná i-káá.
3SG-should 1PL-go.PL
‘Mfon and I agreed that we should go.’

• Further evidence that Ibibio CA is subject-oriented & structurally-determined

5.6 Periphrastic causatives

Periphrastic causatives provide further evidence for the syntactic nature of CA as well as its subject-orientation.

(34) a. Í-má í-ná m Kòkó á-kéré á-bó á-tè ké
1PL-PST 1PL-make Koko 3SG-think 3SG-COMP 3SG-COMP COMP
á-sâk á-di.
2SG-PROG 2SG-come
‘We made Koko think that you’re coming.’

b.*Í-má í-ná m Kòkó á-kéré i-bó i-tè ké
1PL-PST 1PL-make Koko 3SG-think 1PL-COMP 1PL-COMP COMP
á-sâk á-di.
2SG-PROG 2SG-come
(Intended: ‘We made Koko think that you’re coming.’)

• Suggests that the causee is a subject and is not “demoted” to object position

7 This is confirmed by the fact that object agreement never surfaces on the verb nâm ‘make’ in a causative.
• Ibibio CA agrees with the most local subject

5.7 Multiple embeddings

A final test from Diercks (2013) is that of multiple embeddings, which tests for locality in addition to subject-orientation.

• Potentially competing arguments for controlling agreement

(35) Ndítọ ádọ́ ẹ́-kérẹ́ ẹ́-bọ́ kẹ́ mí-mà́ ǹ-kọ́p ǹ/*é-bọ́ kẹ́
   children DEM 3PL-think 3PL-COMP COMP 1SG-PST 1SG-hear 1SG-COMP COMP

Ékpẹ́ á-mà́ á-yıp ǹwèt.
Ekpe 3SG-PST 3SG-steal book
‘Those children think that I heard that Ekpe stole a book.’

• Ibibio CA is always agreement with the most local superordinate subject

5.8 Logophors

Ibibio has logophors (Essien 1990, Newkirk 2014): pronominals that indicate the point of view being reported (Clements 1975, Huang 2000).

• Logophor, not the highest antecedent, controls agreement

(36) Á-kẹ́ á-bọ́ kẹ́ ọ́mọ́ i-mà́ i-kót ǹwèt.
3SG-PST.FOC 3SG-say COMP LOG LOG-PST log-read book
‘He said that he read a book.’ (adapted from Newkirk 2014: 112)

This also holds with CA in multiple embeddings.

(37) Kọkọ́ á-ǹ-dókkọ́ á-bọ́ kẹ́ ọ́mọ́ i-mà́ i-kérẹ́ i-bọ́ kẹ́
Koko 3SG-1SG-tell 3SG-COMP COMP LOG LOG-PST LOG-think LOG-COMP COMP

Ama á-mà́ á-yıp ǹwèt.
Ama 3SG-PST 3SG-steal book
‘Koko told me that he thought that Ama stole a book.’

• Further evidence that complementizers in Ibibio agree with the most local superordinate subject

5.9 Relative clauses

A final piece of evidence for C elements agreeing upwards comes from alternations in relative clauses and their effects on agreement. Ibibio relative clauses involve raising-to-C (Duncan 2014, 2016).

• Variant 1: Overt C_{+REL} head independent of verb (38a)
• Variant 2: C_{+REL} head appears as suffix on verb (38b)
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(38) a. Ímà á-mà á-diọ̀n ábáñ *(sé) àmi ū-ké-bòm(*-mó).
   Ima 3SG-PST 3SG-fix pot *(REL) I 1SG-PST.FOC-break(*-REL)
   ‘Ima fixed the pot that I broke.’

   b. Ímà á-mà á-diọ̀n ábáñ *(sé) àmi ū-ké-bòm*(-mó).
   Ima 3SG-PST 3SG-fix pot *(REL) I 1SG-PST.FOC-break*(-REL)
   ‘Ima fixed the pot that I broke.’

- The relativizer sé is in complementary distribution with the relative suffix on the verb

There is also a third variant, which provides potential further insight into CA. When àmi ‘I’ is removed, the verb complex has 2 agreement exponents.

(39) Ímà á-mà á-diọ̀n ábáñ *(ámì) á-ñ-ké-bòm-mó.
   Ima 3SG-PST 3SG-fix pot *(1SG) 3SG-1SG-PST.FOC-break-REL
   ‘Ima fixed the pot that I broke.’

- Unclear what the exact constituency is, but
- Could makes sense if agreement calculates (again) after raising-to-C
- In (38b), probe searches but no new exponent arises → form unaffected
- In (39), probe searches and finds ábáñ → multiple agreement exponents

Unclear at this point how this may or may not affect the “subject”-orientedness of CA in Ibibio.
- May suggest a general property of “upward-oriented complementizer agreement”
  (Diercks & Rao 2016)

6 Conclusion

Complementizer agreement in Ibibio—as in Lubukusu (Diercks 2013) and various Bantu languages (Kawasha 2007)—is subject-oriented.

(40) (S₁ …) S₂ … (XP₃ …) AGR₂/₁/₃/₄-C … XP₄ …

The Ibibio facts are consistent with Dierck’s (2013) formulation of Indirect Agree.
- Structurally-determined locality constraints limit which subject a complementizer can agree with
- CA can’t just be upward agree; if so, intervening DPs should control agreement
- The complementizer agreement relation in Ibibio is mediated by a bound operator

(41) (S₁ …) [TP S₂ … (XP₃ …) [CP… OP₂ … [AGR₂/₁/₃/₄-C … XP₄ …
   Binding Agree]

Lingering questions & issues raised:
- Mechanisms required for cases where both bó & té are present?
- Truly subject-oriented, or upward-oriented?
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Èsósóñó!
Thank you!

References

Buell, L. 2010. Pro-sensitive complementizers, case and the EPP in Egyptian Arabic. Ms.


