

Title: Indirect Agree in Lubukusu complementizer agreement

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Abstract:

This paper introduces a new complementizer agreement relation to the theoretical literature from Lubukusu (Bantu, Kenya), in which a declarative-embedding complementizer agrees in an upward orientation with the subject of its selecting clause. The agreement relation is extensively documented in a wide variety of syntactic contexts including ditransitives, causatives, passives, and multiple embeddings, establishing the empirical generalization that the complementizer agrees with the most local superordinate subject. The paper proposes that this agreement relation is not a direct Agree relation, but is instead the result of local agreement between the complementizer and a null subject-oriented anaphor (whose antecedent is necessarily the superordinate subject). This is termed an *Indirect Agree* relation, defined as instances of agreement between a head and an agreement trigger are mediated by a different syntactic element (a null anaphor, in this case). A variety of evidence is given in support of this conclusion, including mismatched agreements between the complementizer and matrix subject agreement, lack of split anaphora, the properties of raising constructions, (tensed) clause-boundedness, and the intervention of specified subjects. A number of issues for future research are noted as well, including various complementation patterns relating to evidentiality, factivity, and sentience as they intersect with the properties of the agreeing complementizer.

Keywords: Bantu, Lubukusu, complementizer agreement, Agree, Indirect Agree, long-distance anaphora

1 Introduction

Lubukusu (Bantu, J.30) is spoken in the Western province of Kenya,¹ one of a collection of language varieties that are described as “Luyia”; Luyia is termed a macrolanguage in (Lewis 2009), of which Lubukusu is one of its constituent languages.^{2,3} Lubukusu displays a typologically interesting and theoretically challenging form of complementizer agreement where a declarative-embedding complementizer shows full phi-feature agreement (gender, number, and person) with the subject of the matrix clause, as demonstrated in (1):⁴

- (1) a. baba-ndu ba-bol-el-a Alfredi **ba**-li a-kha-khil-e⁵
 2-people 2S-said-AP-FV 1Alfred 2-that 1S-FUT-conquer
 ‘The people told Alfred that he will win.’
- b. Alfredi ka-bol-el-a baba-ndu **a**-li ba-kha-khil-e
 1Alfred 1S-said-AP-FV 2-person 1-that 2S-FUT-conquer
 ‘Alfred told the people that they will win.’

The agreement relation between the complementizer and the matrix subject is evident in (1), as the subject of the lower clause (null in these cases) is coreferent with the objects in the matrix clauses, but the complementizer shows a different noun class agreement, which can only correspond to the matrix subjects.⁶

1.1 Theoretical Implications and Roadmap

This construction is particularly relevant in the present state of Minimalist syntactic theory, as it presents an agreement configuration that is highly problematic to explain. The most salient problematic property is the fact that the complementizer agrees with a structurally higher noun phrase. The Agree relation is generally assumed to hold between a head and a goal which is c-commanded by the head, as part of a derivational structure which builds syntactic structures from the bottom up (Chomsky 2000, 2001). While there is some work proposing so-called ‘upward’ probing (e.g. Baker 2008), as will be demonstrated in what follows, Lubukusu

¹ Lubukusu has been reclassified from its Guthrie classification of E31c to J30 in Lewis (2009), and JE31c in Maho (2008).

² It is often said that Lubukusu is a dialect of Luyia, but the Ethnologue’s terminology recognizes that there is no standard “Luyia” language, but rather, each Luyia speaker speaks one of its varieties. There are estimated to be 17-23 Luyia languages, all with varying degrees of mutual intelligibility (Lewis 2009, Marlo 2009).

³ For more on Lubukusu, see (Austen 1974a,b, Bell 2004, Bell and Wasike 2004, de Blois 1975, Diercks 2010, Marlo 2009, Marlo et.al. 2008, Wasike 2002, Wasike 2007).

⁴ Note that for the course of this paper, when discussing complementizer agreement I refer only to declarative-embedding complementizers, setting aside all discussion of relative and focus complementizers (which also bear agreement in a vast number of Bantu languages).

⁵ Every noun phrase in this paper is glossed for its noun class, for which I follow the Bantuist tradition of labeling by number, where odd numbers are singulars (e.g. 1) and the immediately ascendant even number is that noun class’ plural form (e.g. 2 is the plural of 1). S or O following a verbal noun class agreement indicate ‘subject’ or ‘object’ agreement. Person features are represented by the person together with the number, for example 1sg, 2pl. Additional notable glosses include FUT ‘future,’ PST ‘past,’ PRS ‘present,’ AP ‘applicative,’ FV ‘final vowel,’ PASS ‘passive,’ CAUS ‘causative,’ COMP ‘complementizer,’ SBJ ‘subjunctive.’

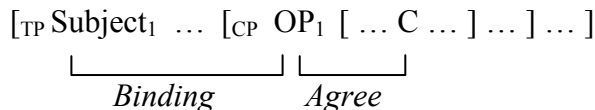
⁶ This issue has only been briefly noted by Wasike (2007) for Lubukusu, but has not been addressed in the broader theoretical literature, either for Lubukusu or for other languages, apart from a brief mention in Baker (2008). The limited typological work on this pattern is noted in what follows.

complementizer agreement diverges in important ways from the properties of Agree, even an upward-probing Agree. It is this core puzzle that occupies most of the focus of this paper.

There are, however, additional theoretical puzzles raised by this construction. First, the complementizer agreement relationship in Lubukusu intersects in critical ways with phase theory. Note that while the head of CP is argued to be the edge of the phase and accessible to higher operations (Chomsky 2000, 2001, 2008, among others), the verb in (1) is clearly a transitive verb which would necessarily possess a ν P projection, which is commonly thought to be a phase and which intervenes between the lower CP and the position of the matrix subject. Furthermore, in recent years the idea has taken hold that T° does not possess phi-features of its own, but rather inherits its phi-features from the C° head which selects it (Chomsky 2008, Richards 2007, Ouali 2008, among others). Complementizer agreement relations have in fact been drawn on as evidence of feature inheritance, as certain West Germanic varieties display complementizer agreement with an embedded subject.⁷ Lubukusu seems to provide direct counter-evidence for this claim, as instead of displaying a relationship between C and embedded T it displays what appears to be more likely a relationship between C and matrix T.

While the analysis provided in this paper is not specifically designed to argue against either of these current theoretical trends, it nonetheless provides important insight into addressing these issues. Specifically, section 3.7.2 articulates how the facts presented here refute a simplex-CP approach to a feature inheritance analysis, and present a large empirical challenge to the notion that phi features are introduced by phase heads in the syntax. This paper therefore has dual purposes: the first is to extensively document the Lubukusu complementizer agreement construction, and the second is to examine the theoretical impact of the analysis of the construction. The core analysis which I propose is that Lubukusu complementizer agreement is in fact not a long-distance agreement relation, but rather, is a local agreement relation between the complementizer and an empty category in its specifier (labeled OP in (2) below, as a cover term for an operator in the syntax).

(2) Indirect Agree Analysis of Complementizer agreement in Lubukusu



I term this means of agreement *Indirect Agree*, as the complementizer agreement with the subject is mediated by some other syntactic element, rather than resulting from a direct Probe-Goal relationship between the complementizer and the matrix subject. On this analysis of the Lubukusu CP the agreement relation is reduced to a local phenomenon, and the core question is shifted from the properties of agreement to the properties of the null operator, specifically, why it must be coreferential with the matrix subject. In this regard, I claim that this empty category mediating Lubukusu complementizer agreement is a (null) subject-oriented anaphor.

This paper proceeds in the following manner: §1.2 discusses the typology of complementizer agreement crosslinguistically before §2 lays out the core syntactic properties of complementizer agreement in Lubukusu, establishing the major empirical generalization that the complementizer agrees with the most local superordinate subject. §3 presents the Indirect Agree

⁷ Although see Haegeman and van Koppen (2011) for a strong argument against Feature Inheritance using data from these same West Germanic varieties.

analysis, laying out the theoretical mechanisms for complementizer agreement and discussing a variety of additional evidence supporting this proposal. §4 then reports a number of additional empirical patterns that are worthy of future research, but are beyond the scope of this particular paper.

1.2 Complementizer agreement cross-linguistically

Complementizer agreement is relatively rare: Baker's (2008: 182-184) survey reports that at most 9 languages out of the 100 examined exhibited complementizer agreement. Of that small minority of languages, the best-researched cases of complementizer agreement are the West Germanic complementizer agreement constructions where a complementizer agrees with the embedded subject (Carstens 2003, Fuß 2005, Haegeman 1992, Hoekstra and Smits 1998, Shlonsky 1994, Watanabe 2000, Zwart 1997, among others).

- (3) Kpeinzen *da-j* (gie) morgen goat [West Flemish]
 I-think that-you (you) tomorrow go
 'I think that you'll go tomorrow'
- (4) Kvinden *dan* die boeken te diere zyn
 I-find that-PL the books too expensive are
 'I find those books too expensive.' (Haegeman 1992, as cited in Carstens 2003: 393)

As is evident in (3) and (4), the complementizer bears agreement morphology that agrees with the embedded subject. A number of analyses for this phenomenon have been set forth in the literature cited above, but it is evident from comparing the West Flemish examples in (3) and (4) to the Lubukusu examples in (1) that the nature of the Lubukusu agreement is starkly different: whereas in West Flemish complementizer agreement there is a local relation between the complementizer and its agreement trigger, the embedded subject, the agreement in Lubukusu is (on the surface) a longer-distance relationship with the matrix subject. Lokaa (Benue-Congo) and Kinande (Bantu) have been reported by Baker (2008: 120) to have similar properties to Lubukusu.⁸

Kawasha (2007) reports on 4 additional languages which show this matrix subject-oriented complementizer agreement relation: Chokwe, Luchazi, Lunda, and Luvale, Bantu languages which are spoken in northwest Zambia and some adjacent parts of Angola and the Democratic Republic of Congo. As in the Lubukusu case, each of these languages shows agreement on a complementizer that is controlled by the matrix subject. An example from Lunda is given in (5) (Kawasha 2007: 182):

- (5) Mu-kwénzi w-e-eluk-ili níndi mpáta y-a-telela ku-himp-ew-a. [Lunda]
 1-youth 1S-TNS-know-RP COMP1 8.country 8S-TNS-ought INF-change-PASS-FV
 'The youth knew that the country ought to be changed.'

⁸ I should note that anecdotal evidence suggests to me that the agreement relation reported here for Lubukusu may be more widespread within the Bantu languages than our current knowledge reflects. It appears that some form of this agreement is present in related Luyia dialects (e.g. Luwanga), and may also occur in languages in Northwest and Southwest Tanzania (e.g. Kijita and Kikerewe), though this is unconfirmed. Obviously, much more work needs to be done to properly evaluate the relative rarity (or non-rarity) of these agreement patterns.

Based on the descriptive work by Kawasha (2007), these languages appear to have similar core properties to the Lubukusu agreement relation, though much more research is necessary to confirm the extent of their similarities.

An additional case where a similar agreement relation has been reported is in the Mande languages of West Africa. Idiatov (2009) reports that Jula of Samatiguila (Ivory Coast), Jowulu (Mali and Burkina Faso), the Yaba dialect of Southern San (Burkina Faso), Tura (Ivory Coast), and the Ko dialect of Mende (Sierra Leone) all display some degree of agreement between a complementizer and an argument in the matrix clause.⁹ An example from the Ko dialect of Mende is given in (6) (Idiatov 2009: 18).

- (6) Ngí ndé-ilò ngì má ngê í wá [Mende]
 1sg 3sg\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)

Idiatov notes that while in some languages the complementizer agreement targets the subject in the matrix clause, at least two of the reported languages show agreement with a non-subject in certain contexts. For example, in Jula of Samatiguila and Tura the agreement is semantics-/discourse-controlled, in that the controller must be the source of the reported discourse.

Idiatov’s study is mainly typological and historical in nature, demonstrating interesting historical relationships between the complementizers and verbs of speech (and their pronominal arguments). Similarly, (Kawasha 2007) is mainly a descriptive work, addressing the four Bantu languages mentioned above, and (Baker 2008) gives only a very limited theoretical treatment to complementizer agreement in Kinande and Lokaa. Wasike (2007) does include some minor discussion of the Lubukusu complementizer agreement construction, but with minimal evidence and space devoted to it. Therefore, the full nature of these complementizer agreement phenomena is still very much in question, and our knowledge of theoretically-relevant data relatively limited.

2 Properties of Lubukusu Complementizer Agreement

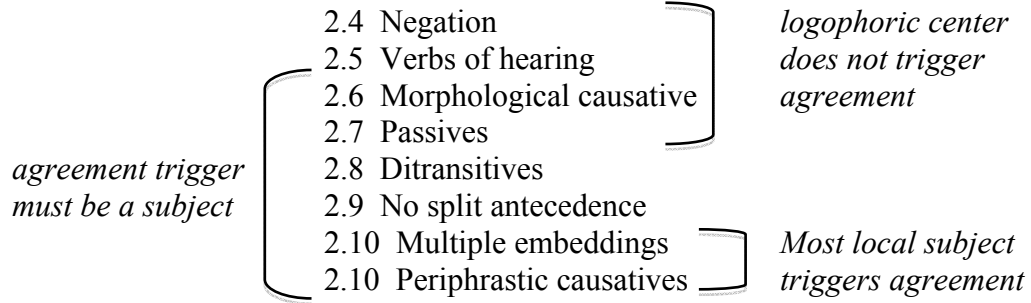
This section examines in depth the syntactic properties of the complementizer agreement relation. The main generalization that comes to light is that agreement on the complementizer is triggered by the subject in its selecting clause.

- (7) Lubukusu Complementizer Agreement Generalization:
 Complementizers agree only with the most local superordinate subject

The evidence that is employed in this section supports three distinct arguments in support of (7): first, complementizer agreement does not track with the logophoric center of the matrix clause, second, the trigger of agreement must be a subject, and third, that only the most local subject can trigger the agreement. The figure in (8) lists the diagnostics that are invoked in this section to establish the generalization in (7), while also noting the general analytical conclusions that are supported by each group of evidence.

⁹ For the works in the individual languages, see Braconnier (1987-88) on Jula, Carlson (1993) on Jowulu, Paré (1998) on the Yaba dialect of Southern San (Burkina Faso), Bearth (1971) on Tura (Ivory Coast), and Innes (1971) on the Ko dialect of Mende (Sierra Leone).

(8) Diagnostic Evidence in support of (7)



As is clear from (8), some diagnostics support multiple arguments in support of the overall generalization in (7) – for that reason a relatively flat organizational structure is utilized in this section, with the argumentation following the order delineated in (8). Before addressing these diagnostics, however, the next section briefly addresses some relevant background information on Lubukusu.

2.1 Lubukusu Complementizer Inventory

A summary of the inventory of complementizers in Lubukusu is given in (9). Note that these are all complementizers which embed declarative clauses; relative complementizers or focus-related complementizers are excluded (for some discussion of these other complementizers see Diercks 2010, Wasike 2007).

(9) Lubukusu (Declarative-Embedding) Complementizers

mbo	generic embedding complementizer
∅	Generic embedding complementizer similar to <i>mbo</i>
nga	‘because’, ‘as’, ‘that’
oli	Comparative: ‘like’, ‘as if’ (also appears with perception verbs)
bali	‘that’; reporting unreliable information
AGR-li	‘that’; agrees with main-clause subject

The complementizer *mbo* is a generic complementizer, with perhaps the least-restricted distribution of the embedding complementizers.¹⁰ The null complementizer is similar to *mbo*: in most basic embedding contexts an overt complementizer is not obligatory. The complementizers *nga* and *oli* are somewhat more restricted in their distributions. *Nga* tends to carry meanings of ‘because’ and ‘as’, but can also be used in more general contexts that might translate to the English *that*.¹¹ *Oli* tends to be used as a comparative complementizer akin to *like* and *as if* in English. It also appears with certain raising verbs, as reported in (Carstens and Diercks to appear).

¹⁰ Though it should be noted that speakers have mixed responses to *mbo*. Some speakers feel it is not originally Lubukusu and was perhaps borrowed from a neighboring language, but all speakers that I encountered used it productively.

¹¹ The use of *nga* requires the morpheme *ne-* to be prefixed to the verbal form embedded under *nga*. The exact nature of this *ne-* morpheme is still unknown, though it appears in a wide variety of contexts in Lubukusu (see Wasike 2007).

The table in (9) notes that the complementizer *bali* can occur in situations where it does not agree with the subject of the matrix clause (cf. the 3rd plural agreeing complementizer form *ba-li*). This non-agreeing *bali* has at least two different evidential-like readings, affecting the interpretation as to what is the source of the information that is reported in the embedded CP (see §4.1.1).

The agreeing complementizer agrees in person, number, and gender with the matrix subject: the different forms are given in (10):

(10) Forms of the Lubukusu Agreeing Complementizer¹²

	Singular	Plural
1 st person	n-di	khu-li
2 nd person	o-li	mu-li
3 rd person	a-li	ba-li
Noun class <i>N</i>	<i>N</i> -li	<i>N</i> -li

The agreement forms on the complementizer here are identical to the subject-agreement forms that appear on verbs (and the noun-class markers *N* are identical to the pre-prefix that occurs on nominals, which in most cases is identical to the subject agreement morphology).¹³

2.2 Complementizer Agreement is Productive

It is a relevant concern to demonstrate that the agreement relation on the complementizer is in fact productive, and that the forms that appear are not a restricted morphological set. In fact, the agreement forms that appear on the complementizer are identical to the agreement forms that appear as subject agreement on verbs, and are not morphologically or syntactically limited. An example of person agreement on the complementizer is given in (11).

- (11) Ni-nywe mu-mw-a-bol-el-a Nelsoni **mu-li** ba-keni ba-a-cha
 COMP-you(PL) 2pl-2pls-PST-say-AP-FV 1Nelson 2pl-that 2-guests 2S-PST-go
 ‘It is you (pl) who told Nelson that the guests left.’

In addition, in the event that a plausible situation can be constructed where a non-animate noun class may be used as a subject of a verb with a complement clause, the complementizer bears full noun class agreement with that subject. In the case of (12) it is the locative class 18 on ‘face’, and in the case of (13) it is the class 9 noun *ebarua* ‘letter’, triggering class 18 and class 9 agreements on the complementizers, respectively.¹⁴

¹² Note that 3rd person singular and plural in this chart are what are generally referred to in Bantu description as class 1 and class 2, terms which I use throughout the text.

¹³ Class 1 is the exception to this rule: the class 1 nominal pre-prefix is [o-], whereas class 1 subject agreement is [a-]. As noted in the chart, class 1 (3rd person singular) complementizer agreement patterns with subject agreement rather than the pre-prefix.

¹⁴ It is important to note that inclusion of the author of the letter and the person whose face/appearance are being reporting is important for complementizer agreement to be licit. This relates to the properties of complementizer agreement relating to sentience, as discussed in §4.2.

- (12) Mu-moni mw-a Nelson mw-ekesie **mu-li** o-mu-sangafu
 18-face 18-of 1Nelson 18S-showed 18-that 1-1-happy.person
 ‘Nelson’s face has shown that he is a happy person.’
- (13) e-barua y-a Nelsoni y-ekesie **e-li** ka-sangaala
 9-letter 9-of 1Nelson 9S-showed 9-that 1S-be.happy
 ‘Nelson’s letter showed that he is happy.’

In story-telling contexts it is possible to get non-human nouns (i.e. other than class 1 and 2) as subjects of verbs of speech. In (14) the class 9 *ekhutu* ‘tortoise’ triggers class 9 agreement on the complementizer (*e-li*). In (15) class 10 *chimbwa* ‘dogs’ triggers class 10 agreement on the complementizer.

- (14) Nyanga ndalae-khutu y-a-hinganya waasio **e-li** e-nyala y-akhila waasio chimbilo
 day one 9-tortoise 9S-PST-challenge 9eagle9-that 9-could 9-defeat 9eagle running
 ‘One day the tortoise challenged the eagle that he could run faster than the eagle.’
 (based on de Wolf and de Blois 2005: story #13, line 2)
- (15) chi-mbwa ch-a-loma **chi-li** chi-ngokho che-lukha
 10-dogs 10S-PST-say 10-that 10-chickens 10S-escaped
 ‘The dogs said that the chickens escaped.’

Other influences on normal agreements (e.g. subject agreement) also affect complementizer agreement. Example (16) has a conjoined subject, where the conjuncts are from different noun classes. As seen in the subject agreement form, this conflict of agreement features is resolved by inserting a default agreement form: Lubukusu uses class 8 subject agreement in this case, and the complementizer likewise bears class 8 agreement.

- (16) e-mbwa ne omu-ndu by-a-loma **bi-li** o-mu-keni k-ool-ile
 9-dog and 1-person 8S-PST-say 8-that 1-1-guest 1S-arrive-PST
 ‘the dog and the person said that the guest arrived.’

Not all cases of conjoined subjects trigger class 8 agreement, however. Some cases trigger closest-conjunct agreement, as can be seen in (17).¹⁵ As is evident in this case as well, the same agreement that is triggered on the verb is also triggered on the complementizer, in this case class 6 agreement:

- (17) ki-mi-rongoro nende ka-ma-ua ka-a-loma **ka-li** e-fula y-a-kwa¹⁶
 4-4-trees and 6-6-flowers 6S-PST-say 6-that 9-rain 9S-PST-fall
 ‘Trees and flowers said that the rain fell.’

¹⁵ I leave for future research the question of what principles govern agreement with conjoined phrases in Lubukusu.

¹⁶ A reviewer points out that the eventual theory adopted here (of an anaphoric agreement process) does not obviously address this closest-conjunct agreement, but Justine Sikuku (personal communication) reports that pronouns generally show the same anaphoric properties as subject agreement (agreeing with the closest conjunct – for (17) a coreferential pronoun in a following clause would be *niko*, class 6), so whatever explanation the general anaphoric processes must receive for conjoined agreements I assume will apply to the complementizer agreement cases as well.

I will allow these examples to suffice as evidence that the phi-feature agreement that appears in Lubukusu complementizer agreement is fully productive, free to bear agreement with any subject, and in many ways mimics the agreement properties of subject agreement (e.g. in resolution of conjoined subject feature-conflicts). Note however that the agreement form on the complementizer is not always identical to that on the main verb: mismatched agreements are taken up in §3.4.

2.3 Intermediate Hypothesis: CA Controlled by the Logophoric Center?

One of the reported patterns for West African complementizer agreement is that the complementizer agrees with the source of the information that is reported in the embedded clause. This pattern is found in Jula of Samatiguila and Tura (Idiatov 2009), illustrated by the example in (18) from Jula of Samatiguila, where the complementizer agrees with an argument in an oblique by-phrase.

- (18) Wô lé tén fõ-nin ǎn bòrò n-kò byè yè ná bí
 DEM FOC PST say-PTCP.PFV 1PL by 1-COMP all IPFV come today
 ‘It was asked by us that everybody comes today’ (Braconnier 1987-88: 55)

Given the surface similarities between the agreement relations in Lubukusu and Jula of Samatiguila, it is a reasonable null hypothesis for the Lubukusu case that complementizer agreement is controlled by the logophoric center of the matrix clause, that is, the argument whose thoughts, words, or ideas are reported in the embedded clause:

- (19) Hypothesis (to be rejected): The Lubukusu agreeing complementizer agrees with the logophoric center of its selecting clause.

The following sections show, however, that the agreement properties of the Lubukusu agreeing complementizer cannot be explained solely in terms of an analysis like that in (19). That is to say, the trigger of the complementizer agreement relation is not necessarily the source of the information or speech that is reported in the lower clause.

2.4 Negation does not Affect Complementizer Agreement

If the complementizer agreement was controlled by the logophoric center of the matrix clause, as hypothesized in (19), one might also expect some interaction with matrix negation. That is, if the matrix clause were negated so that the subject was in fact *not* the source of the reported information, complementizer agreement might be affected. As is shown below, however, the presence of negation does not affect the ability of the complementizer to agree with the subject.

- (20) a. n-a-bol-el-a Nelsoni n-di ba-keni ba-a-cha
 1sgS-PST-say-AP-FV 1Nelson 1sg-that 2-guests 2S-PST-go
 ‘I told Nelson that the guests left.’
- b. se-n-a-bol-el-a Nelsoni n-di ba-keni ba-a-cha ta
 NEG-1sgS-PST-say-AP-FV 1Nelson 1sg-that 2-guests 2S-PST-go NEG
 ‘I didn’t tell Nelson that the guests left.’

I take this fact as evidence that the evidentiary properties of a clause do not determine the agreement on the complementizer.

2.5 Verbs of Hearing

The next piece of evidence comes from verbs of hearing. As is shown in (21), the C complement of *-aula* ‘hear’ can agree with the subject of the matrix clause, despite the fact that the subject is not in any way the source of the reported information.

- (21) khw-a-ulila khukhwama khu Sammy khu-li (*ali) ba-limi ba-a-funa ka-ma-indi
 1pls-PST-hear from LOC 1Sammy 1pl-that 2-farmers 2S-PST-harvest 6-6-maize
 ‘We heard from Sammy that the farmers harvested the maize.’

The agreement form *ali* is a class 1 form agreeing with *Sammy*, but is unacceptable in (21) despite the fact that the source of the reported information is included in the main clause as an oblique. What this suggests is that agreement on the complementizer is triggered structurally, in a manner that appears to be syntactic in nature, a conclusion which is supported by additional diagnostic contexts, discussed in what follows.

2.6 Morphological Causatives

Morphological causative constructions pose an interesting challenge for the intermediate hypothesis in (19), as this is a case where the probable logophoric center of the clause is not in fact the subject. As (22) and (23) show, complementizer agreement in morphological causatives is with the subject of the sentence, and not with the ‘causee’ argument.

- (22) n-a-suubi-sya Alfredi n-di (*ali) ba-keni khe-be-echa
 1sgs-PST-believe-CAUS 1Alfred 1sg-that 2-guests PRG-2S-coming
 ‘I made Alfred believe that the guests are coming.’

- (23) John ka-sindu-sia ba-ba-ana a-li ba-keni b-ol-ile
 1John 1S-surprise-CAUS 2-2-children 1-that 2-guests 2S-arrive-PST
 ‘John caused the children to be surprised that guests arrived.’

Taking (22) as an example, *Alfredi* would necessarily be the logophoric center of the matrix clause, as *Alfredi* is the believer of the information reported in the embedded clause. Nonetheless, *Alfredi* does not trigger complementizer agreement, rather, the 1st person singular null pronominal subject does. The data in (21), (22) and (23) therefore all argue against the intermediate hypothesis in (19), but also begin to build an argument for a new intermediate hypothesis, namely, that only subjects can trigger complementizer agreement.

- (24) Revised Intermediate Hypothesis: Only subjects trigger complementizer agreement

As we will see in the various diagnostics that follow, there is significant support for the revised hypothesis in (24). The first evidence comes from passives.

2.7 Passivization

The role of configurational properties in the complementizer agreement relation is even more evident in the case of passivization. If the intermediate hypothesis in (19) held, that the logophoric center controls agreement on the complementizer, passive by-phrases would be predicted to control complementizer agreement. As shown in (25) and (26), however, the demoted agent in a passive by-phrase does not trigger complementizer agreement.

- (25) Nelson ka-bolel-wa nende ese mbo (*n-di) ba-keni ba-a-cha
 1Nelson 1S-told-PASS by me that (*1sg) 2-guests 2S-PST-go
 ‘Nelson was told by me that the guests left.’
- (26) ba-sasi ba-bol-el-wa nende Sammy mbo (*a-li) ba-keni ba-a-rekukha
 2-parents 2S-say-AP-PASS by 1Sammy that (*1-that) 2-guests 2S-PST-leave
 ‘The parents were told by Sammy that the guests left.’

This lack of agreement with the demoted subject in the by-phrase is despite the fact that in the non-passive versions of these sentences the matrix subject triggers complementizer agreement: compare (25) and (27).

- (27) (ese) n-a-bol-el-a Nelsoni **n-di** ba-keni ba-a-cha
 (I) 1sgS-PST-say-AP-FV 1Nelson 1sg-that 2-guests 2S-PST-go
 ‘I told Nelson that the guests left.’

Note that the generic non-agreeing complementizer *mbo* is used in both (25) and (26) – as will be discussed in more depth in §3.3.2, passive by-phrases disrupt the agreement relation between a complementizer and the subject, so that when a by-phrase is present, only a non-agreeing complementizer may be used. Setting aside the explanation of this intervention effect for the present, note that in the absence of a by-phrase, the derived subject of a passive can itself trigger complementizer agreement. This is shown in (28) - (30):

- (28) Alfred a-subisi-bwe **a-li** ba-keni khe-b-eecha
 1Alfred 1S-cause.believe-PASS 1-that 2-guests PRG-2S-come
 ‘Alfred was made to believe that the guests are coming.’ (very recently)
- (29) Sammy ka-bol-el-wa **a-li** ba-keni b-ola
 1Sammy 1S-say-AP-PASS 1-that 2-guests 2S-arrived
 ‘Sammy was told that the guests arrived.’
- (30) Mikaeli ka-a-subisi-bwa **a-li** o-mu-saale wewe a-li-kho k-echa
 1Michael 1S-PST-promise-PASS 1-that 1-1-friend 1his 1S-be-PRG 1S-come
 ‘Michael was promised that his friend was coming.’

The preceding evidence from passivization provides arguments both against the initial logophoric center analysis in (19), and in favor of the revised hypothesis in (24). Whereas the logophoric center in the by-phrase in (25) and (26) cannot trigger agreement, the derived subject in (28) - (30) is capable of triggering agreement on the complementizer in appropriate contexts

(e.g. constructions lacking *by*-phrases), even though the subjects in at least (29) and (30) cannot be considered to be logophoric centers in any way. This is even stronger evidence that complementizer agreement is in some way dependent on the phrase in structural subject position. It is important to note that there are at least two sorts of passive constructions which do not allow complementizer agreement: passive-raising constructions and passives of raising-to-object (RtO) verbs. These cases are discussed in §3.5.1 and §3.5.2 below as evidence for the Indirect Agree analysis in (2).

2.8 Ditransitive verbs

Whereas the evidence to this point argued in some way against the intermediate hypothesis in (19) (that agreement tracks with the logophoric center), the previous two sub-sections also argued in favor of the revised hypothesis in (24), that only subjects trigger complementizer agreement. All the subsequent evidence supports the revised hypothesis, building towards the final evidence and argumentation in favor of the generalization in (7).

The next piece of evidence in favor of the subject-orientation hypothesis in (24) is found in ditransitive verbs, where an indirect object intervenes between the complementizer and the subject. As is shown in the data below, objects in ditransitive verbs like *-bola* ‘tell’ and *-ombelesya* ‘convince’ do not allow their DP object to control complementizer agreement.

(31) *ewe w-a-bol-el-a Nelsoni o-li (*ali) ba-keni ba-rekukha*
 you 2sgS-PST-say-AP-FV 1Nelson 2sg-that 2-guests 2S-left
 ‘You told Nelson that the guests left.’

(32) *ba-ba-ana ba-a-ombelesya Sammy ba-li (*ali) ba-keni ba-a-rekukha*
 2-2-children 2S-PST-convince 1Sammy 2-that 2-guests 2S-PST-leave
 ‘The children convinced Sammy that the guests left.’

The indirect object noun phrase in the examples in (31)-(32) intervenes between the complementizer and the subject, but nonetheless, only the subject of the sentence may trigger agreement on the complementizer, and the indirect object never can. I interpret these data as further support for the revised hypothesis in (24), that only subjects can trigger complementizer agreement.

2.9 Split-antecedence

In anaphoric relations it is at times possible for a pronominal form to have a split antecedent, providing a potential diagnostic context to challenge the revised hypothesis in (24), but as is demonstrated in what follows, Lubukusu complementizers can only agree with the subject. The verb *-fukilisiana* ‘agree’ has a relatively symmetrical interpretation, where if X agrees with Y, X and Y are agreeing together. Therefore the English sentences in (33) are all roughly synonymous:

- (33) a. Alfred agreed with me that the guest arrived.
 b. I agreed with Alfred that the guest arrived.
 c. Alfred and I agreed that the guest arrived.

As the Lubukusu evidence shows, however, agreement on the complementizer is only possible with the element that is in subject position. In (34) and (35), therefore, this rules out agreement with the comitative phrase, and also rules out split-antecedence of the agreement by the comitative phrase and the subject, demonstrated by the unacceptability of the first person plural agreement in both (34) and (35):

(34) Alfredi ka-fukilisian-e ne-nase **a-li** o-mu-keni k-ool-ile (*khu-li / *n-di)
 1Alfred 1S-agreed-PST with-me 1-that 1-1-guest 1S-arrive-PST (*1pl-that /*1sg-that)
 ‘Alfred agreed with me that the guest arrived.’

(35) ese fukilisanie ne Alfredi **n-di** o-mu-keni k-ool-ile (*khu-li /*a-li)
 I 1sgS.agreed with 1Alfred 1sg-that 1-1-guest 1S-arrive-PST (*1pl-that /*1-that)
 ‘I agreed with Alfred that a guest arrived.’

The only case in this context where the first person plural agreement is possible is when both of the agreeing parties are expressed within the phrase in subject position, in this case the conjoined subject *Alfred ne nase* ‘Alfred and I’.

(36) Alfred ne nase khw-a-fukilisian-e **khu-li** o-mu-keni k-ool-ile
 1Alfred and I 1plS-PST-agree-PST 1pl-that 1-1-guest 1S-arrive-PST
 ‘Alfred and I agreed that the guest arrived.’

I interpret these facts as further evidence in support of the revised hypothesis in (24) that complementizer agreement is the result of a direct syntactic relationship with the subject. That is to say, elements that are not associated with subject position do not enter into the calculation of complementizer agreement. This same fact was in play with causatives, passive by-phrases, indirect objects, and sources of hearing verbs, all of which point to the conclusion that complementizers only agree with clausal subjects.

2.10 Complementizer Agreement Targets the Most Local Subject

This section adds the last piece to our puzzle, demonstrating that while the revised hypothesis in (24) was accurate, it is not sufficient, and an additional constraint on the generalization must be added: agreement on the complementizer cannot be triggered by any subject, but only the subject of the immediately superordinate clause.

As we saw above, despite the fact that the DP ‘causee’ of a causative verb is the AGENT or EXPERIENCER of the lexical verb (i.e. the subject of that verb in non-causative settings), the ‘causer’ argument that is the subject of the sentence triggers complementizer agreement, and the ‘causee’ cannot (see (22) and (23) also).

(37) ba-sasi ba-many-isya Sammy **ba-li** (*ali) ba-keni b-a-cha
 2-parents 2S-know-CAUS 1Sammy 2-that (*1-that) 2-guests 2S-PST-leave
 ‘The parents informed (made-know) Sammy that the guests left.’

As is evident in (38), however, when the causative is formed periphrastically, the ‘causee’ necessarily triggers complementizer agreement, and not the higher ‘causer’ argument. This is seen in the fact that *babaana* ‘children’ triggers class 2 agreement on the complementizer in the

example below, but the complementizer cannot bear class 1 agreement (with the matrix class 1 subject *Sammy*).

- (38) Sammy ka-ingil-ile baba-ana ba-búule **ba-li** ba-limi ba-funile ka-ma-indi
 1Sa. 1S-forced-PST 2-children 2S-reveal 2-that 2-farmers 2S-harvested 6-6-maize
 ‘Sammy forced the children to reveal that the farmers harvested the maize.’ (**a-li*, 1-that)

Comparing the morphological causative in (37) to the periphrastic causative in (38), the crucial difference is the subjecthood of the ‘causee’ argument. In (38) this argument is a subject, triggering subject agreement on the intermediate verb, whereas the ‘causee’ is a non-subject in the morphological causatives (e.g. (37)).

This same pattern is evident in cases of recursive embeddings. When there are multiple embedded clauses, a lower complementizer can only agree with the most local subject (i.e. the subject of the immediately superordinate clause), not the higher matrix subject.

- (39) Alfredi ka-a-loma a-li ba-ba-andu ba-mwekesia **bali** (*ali)o-mu-keni k-ola
 1Alfred 1S-PST-say 1-that 2-2-people 2S-revealed 2-that 1-1-guest 1S-arrived
 ‘Alfred said people revealed that the guest arrived.’

Crucially, in (39) the lower complementizer cannot appear as class 1 *ali*, meaning that agreement with the matrix subject *Alfredi* is ruled out. All of the facts discussed above support the generalization that was given above in (7), that the complementizer agrees with the subject of the clause that selects it. This generalization is repeated here in (40), and forms the basis of the analysis given in this paper.

- (40) Lubukusu Complementizer Agreement Generalization:
 Complementizers agree only with the most local superordinate subject

This generalization assumes a relatively standard conception of subject, mainly, the argument triggering subject agreement on the verb and appearing immediately preverbally (in canonical instances, Lubukusu being an SVO language). I assume here that this argument sits in Spec, TP in its surface position, which will become important in what follows in establishing the strict subject orientation of the agreeing complementizer.

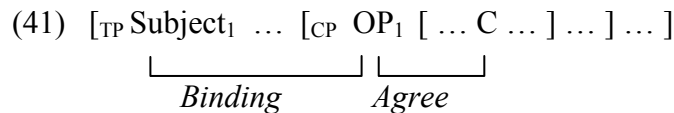
3 Indirect Agree and Supporting Evidence

This section develops the core analysis of this paper, namely, that the complementizer agreement relation is in fact an Indirect Agree relation mediated by an empty category. §3.1 presents this analysis, and §3.2 focuses on the properties of this null operator and the mechanism constraining its subject orientation. Sections 3.4 - 3.6 present a variety of diagnostic evidence in defense of the Indirect Agree proposal. Section 3.7 then addresses several alternative analyses, arguing that the proposal made below is both empirically and theoretically superior.

3.1 The Proposal: Indirect Agree

To account for the empirical generalization in (40), as noted above, this paper proposes that the complementizer agreement relation is an Indirect Agree relation, and there is not in fact a direct relationship between the C° head and the superordinate subject. I propose that in these

complementizer agreement contexts there is a null operator in Spec, CP, and it is this operator that triggers agreement on the complementizer.¹⁷ For the purposes of this paper, I assume that C° may in fact Agree upwards with a syntactic phrase in its specifier (cf. Baker 2008, Koopman 2006, Carstens 2005 and Collins 2004).¹⁸ In this way, the proposed analysis for Lubukusu complementizer agreement is that the agreement relation is not long-distance at all, but instead is a local relationship between a head and its specifier.¹⁹ While this explains the local agreement relation, it does not explain the heart of the generalization in (40), that the most local superordinate subject triggers complementizer agreement. To that end, I propose that the null operator is in fact a null subject-oriented anaphor, which is bound by the subject in the selecting clause.²⁰



In this way the agreement on the complementizer is subject to a binding relationship—the unvalued features on C° are valued by Agree, but the goal of that Agree relation is the null subject-oriented anaphor operator which is bound by the selecting clause’s subject.²¹ I propose the term *Indirect Agree* to describe such agreement configurations, where an apparent Agree relation is in fact mediated by some other syntactic element, null or otherwise:

- (42) **Indirect Agree**
- i. an unvalued feature (or feature bundle) F is valued by X(P)
 - ii. X(P)’s features are valued or controlled by some YP.

This definition is not mechanistic or architectural, that is to say, Indirect Agree is not necessarily implemented by a single theoretical operation. Thus, while an Indirect Agree relation in one instance may be mediated by another agreeing head, in this case it is mediated by an anaphor, whose agreement is controlled through a binding relationship with the subject.²² And while Indirect Agree relations may be openly apparent in some contexts, it is obviously the cases where the mediating X(P) is a null element that will prove most problematic for analysis. Not least of

¹⁷ Thanks to Mark Baker for encouraging me to pursue this analytical direction; see also Baker 2008.

¹⁸ There are alternative formulations of this ‘upward-oriented’ Agree relation, for example, positing that interpretable features on the operator can probe downwards and value uninterpretable features in their c-command domain, on C in this case (cf. Pesetsky and Torrego 2007). The formulation of the Agree relation itself is not critical to this paper, however, except that it allow for agreement between a head and a phrase in its specifier.

¹⁹ I follow Rizzi (1997) in assuming that CPs are simplex unless more articulated structures are necessitated by the constructions at hand. In principle this could be a more typical ‘downward’ Agree relation (Chomsky 2000), for example if the OP were in some CP projection below the AGR-li complementizer, but given that there is no empirical evidence to support of such a conclusion, I assume the operator is in Spec, CP for the purposes of this paper.

²⁰ My gratitude to an anonymous NLLT reviewer for their insightful comments on a clarified approach to the presentation of this analysis.

²¹ This agreement relation is reminiscent of anaphoric agreement in early proposals of Lexical Functional Grammar, cf. Bresnan and Mchombo 1987.

²² This approach finds some inspiration in the feature-sharing approaches to agreement of Frampton and Guttman 2000 and Pesetsky and Torrego 2007, though with certain difference (e.g. it is not limited to feature-sharing Agree contexts, such as the proposal in (41)).

those problems, considering the case at hand, is identifying the precise nature of the null element in question.

3.2 Developing the Analysis of a Null Reflexive Pronoun

Analyzing the empty category in (41) as a subject-oriented reflexive groups this element with a natural class of subject-oriented elements, accounting for the limited semantic/pragmatic effects on the trigger of complementizer agreement, the structural effects where subjects of passives and causative causers trigger agreement, and the lack of intervention effects from indirect objects and causees in morphological causative constructions. Furthermore, assuming a familiar Condition A constraint—that a reflexive must be bound within its governing category (which is the superordinate clause for the relevant cases here)—we are able to explain the boundedness of complementizer agreement – only the subject of the selecting clause is a candidate as an antecedent for complementizer agreement (Chomsky 1981 and much resultant work).

This account still requires significant defense: first, if the empty category in Lubukusu complementizer agreement is an anaphor, how is it licensed in Spec, CP, and second, how is the strict subject-orientation of the anaphor enforced?²³ I will respond to both of these questions in turn, with the latter consuming most of this section.

As for the licensing of the null anaphor in Spec, CP, it is clear that Spec, CP is a non-thematic position and the null anaphor plays no identifiable thematic role in the sentences in which it appears, instead serving as an intermediary to the realization of Agree on the complementizer. As the anaphor is therefore non-argumental, it is likely that it has no need to be Case-licensed. Even if one builds the argument that the null anaphor is an argument of some sort of CP-level functional projection related to speaker-orientation, evidentiality, or logophoricity (e.g. Speas 2004, Baker 2008, Zanuttini 2008, among others), there is substantial empirical evidence from Bantu languages (Lubukusu included) demonstrating that arguments may appear in what are traditionally considered non-Case-licensed positions. Diercks (to appear) argues based on a variety of evidence that there are no abstract Case features in Bantu languages, a result that intersects with the conclusions of Carstens (2010, 2011), Carstens and Diercks (to appear) and Harford (1985), among others. For the purposes of this paper I presume that the null anaphor need not be Case-licensed because it is non-argumental, but even if it were, it would simply fall into a much broader range of facts in Bantu languages where arguments appear in traditional non-Case-licensing positions. I refer the reader to the cited literature for a more in-depth exploration of argument-licensing in Bantu.

The second question proves more demanding: how is the strict subject-orientation of the null anaphor enforced? I tackle this question by grouping the Lubukusu subject-oriented anaphor with other long-distance anaphors cross-linguistically, which (as pointed out by Pica 1987 and Cole and Sung 1994) universally have a strict subject-orientation. I will demonstrate here that the Lubukusu null anaphor is amenable to the same sort of analysis as these elements are, relying mainly on the summation by Safir (2004) of a broad range of analyses of such phenomena.

First, it is worth pointing out some of the other languages (from diverse families) that display such subject-oriented phenomenon in anaphors. The first example comes from Icelandic (Cole and Sung 1994):²⁴

²³ Thanks to an anonymous NLLT reviewer for important criticisms and suggestions in this section.

²⁴ Cole and Sung cite Sigurðsson 1986 and Hyams and Sigurjónsdóttir 1990, among others, but don't directly attribute the example given here.

- (43) Jon_i sagði Maríu_j að þú elskaðir sig_{i/*j} [Icelandic]
 Jon told Maria that you loved-SUB self
 ‘Jon told Maria that you loved him.’

In the example above, the long-distance anaphor *sig* can only have the matrix subject as an antecedent; the matrix object is ruled out. A similar situation holds of the Italian example below, where the anaphor *propria* (in its service as a long-distance anaphor) may target only the subject *Gianni*, and not the object *Oswaldo*.

- (44) Gianni_j ha convinto Oswaldo_i del fatto che la propria_{i/j} casa [Italian]
 Gianni has convinced Oswaldo of the fact that the self house (Giorgi 1984)
 è la più bella del paese.
 is the most beautiful of the village
 ‘Gianni convinced Oswaldo that his own house is the nicest in the village.’

One final familiar example comes from Chinese, which demonstrates again a long-distance anaphor that may be antecedented by either of the subjects in the dominating clauses, but not by the indirect object *Lisi*.

- (45) Wangwu_i shuo Zhangsan_j zengsong gei Lisi_k yipian guanyu ziji_{i/j/*k} de wenzhang
 Wangwu say Zgansan give to Lisi one about self DE article
 ‘Wangwu says that Zhangsan gave an article about him/himself to Lisi.’
 [Chinese] (Cole and Sung 1994: 360)

All these examples, Icelandic, Italian, and Chinese, along with any other examples of subject-oriented anaphoric phenomena raise important syntactic questions, namely, how is subject-oriented anaphoric reference enforced in a theoretical framework that doesn’t recognize grammatical functions like ‘subject’ as theoretically primitive? The analysis that I adopt here is that presented in Safir (2004), which itself rests on a variety of preceding work on long-distance anaphora. The core of the analysis is that the anaphor undergoes covert movement to T° (or whatever the subject-housing Infl projection is), in which position its only possible antecedent is the subject in Spec, TP.

Safir (2004) builds a theory deriving subject-oriented anaphoric interpretations in non-local positions, arguing that covert (LF) movement of an anaphor into the local domain of its antecedent is the core explanation for subject-oriented non-local anaphors. Specifically, he holds to the universalist hypothesis that the domain for anaphoric reference is in fact strictly local and universal across all languages (Local Antecedent Licensing, see below), but that the domain that anaphors require is smaller than that allowed for chain links (movement). The result of such theoretical axioms is that surface non-local anaphors must in fact be brought into a local relationship with their antecedents at LF in order to derive the proper interpretation (cf. Lebeaux 1984, Pica 1987, and Chomsky 1986).²⁵ Specifically, Safir proposes that the anaphors are licensed by local antecedents in the manner defined below, where c-antecedent means that the antecedent c-commands the anaphor in question:

²⁵ I refer the reader to Safir (2004: chapter 5) for his full arguments against the notion that the domains of anaphoric reference and movement are coterminous.

- (52) [IP Jean_i [I' se_j+I [VP ti [V' présenterai t_j]]]]
 Jean SE will-introduce
 'Jean will introduce himself.'

Therefore, movement of the clitic to Inflection guarantees a strict subject-orientation of the anaphor, as the only available antecedent of the anaphor in its Infl-adjoined position is the subject.

Following Safir's proposals for subject-oriented anaphors such as German *sich* and Dutch *zich*, I claim that the Lubukusu null anaphor is a reflexive clitic akin to *se* in French.²⁶ The clitic movement of these anaphors is covert, LF-movement.²⁷ Therefore in Lubukusu at LF the null subject-oriented clitic (that originates in Spec, CP) adjoins to T^o, where it can only be anteceded by the subject in Spec, TP. This presents a serious question of cyclicity, as the phi-features on C^o are valued in the narrow syntax before this clitic-movement has taken place to ensure the strict subject-orientation of the null anaphor (and, consequently, of the agreement features on the complementizer). I am forced to assume that in principle the anaphor may bear the features of any potential antecedent in its base position, but that these features must be consistent with its antecedent once LF-movement has taken place.

This analysis makes several strong predictions, centered on the core prediction that the agreement between the complementizer and the subject should bear the hallmarks of anaphoric relations, rather than bearing similarities to agreements that result from proper Agree relations. Two traditionally recognized properties are the Specified Subject Condition and the Tensed Sentence Condition (Chomsky 1973), namely, that binding relations (and clitic movements, as we will see below) are constrained by the intervention of specified subjects and tensed clauses. We are already familiar with the clause-boundedness of Lubukusu complementizer agreement – an agreeing complementizer in Lubukusu only agrees with the *most local* superordinate subject. That is to say, if the null reflexive clitic raises to T, from that position it is incapable of being anteceded by anything other than the local subject in Spec, TP. This property of tensed-clause-boundedness in Lubukusu complementizer agreement is therefore exactly what we would expect if the agreement is not an Agree relation proper but is instead mediated by a null reflexive clitic.

Additionally, as pointed out by Safir, this covert clitic-movement analysis of a subject-oriented reflexive rules out the availability of split-anaphoric reference. If a reflexive clitic adjoins to T^o, its only possible antecedent is the subject in Spec, TP, and no other DP (no matter how plausible from a pre-theoretic standpoint). As pointed out above in §2.9, this is precisely the case in Lubukusu as well. Therefore we can see from the data already presented that there is good evidence in defense of an analysis of Lubukusu complementizer as an Indirect Agree relation—mediated by a null subject anaphor in Spec, CP—that is subject-oriented due to its nature as a reflexive clitic that undergoes covert clitic-movement to T^o.

The next three sections present additional empirical patterns of complementizer agreement in Lubukusu, all of which serve to support the Indirect Agree analysis presented to this point. The next section specifically continues to address the analysis of the null anaphor as a subject-oriented reflexive clitic; the two following sections provide additional evidence more

²⁶ Following Safir (2004), I abstract away from the question of whether clitic movement is head movement or phrasal movement, assuming that a comparable landing site adjoined to T is available if clitic movement is to be interpreted as phrasal movement.

²⁷ Admittedly, in the Lubukusu case the anaphor is a null operator in the first place, so it is not possible to evaluate whether the clitic movement is overt or covert at all.

generally for the Indirect Agree analysis, moving beyond the particular covert clitic-movement analysis.

3.3 Supporting Evidence: Intervention Effects

I noted above that there are two well-known constraints on anaphoric relations: the Tensed Sentence Condition and the Specified Subject Condition. While the former is addressed above, this section addresses the latter. Despite the clear empirical generalization that the agreeing complementizer agrees with the immediately superordinate subject, there are certain cases where complementizer agreement with a subject can be blocked by an intervening subject.

3.3.1 COMPLEMENTIZER AGREEMENT OUT OF NPs

As is shown in the examples that follow, complementizers heading clausal complements of nouns may bear agreement with the subject of the matrix clause.

- (53) n-a-ulila li-khuwa **n-di** Sammy ka-a-kula li-tunda
 1sgS-PST-hear 5-word 1sg-that 1Sammy 1s-PST-buy 5-fruit
 ‘I heard the rumor that Sammy bought the fruit.’
- (54) Sammy a-li nende li-manya **a-li** li-sna li-ewe bali ‘mzungu’
 1Sammy 1s-be with 5-belief 1-that 5-name 5-your be mzungu
 ‘Sammy has the belief that your name is ‘mzungu’.’
- (55) n-a-bon-e li-khendekha **n-di** Sammy k-eng-ile mu-nju
 1sgS-PRS-see-PRS 5-jealousy 1sg-that 1Sammy 1s-enter-PST 18-house
 ‘I am jealous that Sammy entered the house.’

The analysis presented here makes the basic prediction that the null operator cannot remain *in situ*, or it will be in violation of the LAL, outside the anaphoric domain. Therefore, the OP must move covertly into the matrix clause in order to license the anaphor. This makes the prediction, therefore, that this operation should be subject to familiar restrictions on movement, at least for similar syntactic elements.

This is in fact what we see, as complementizer agreement in these instances is not unrestricted. Example (56) shows that if a noun phrase has a subject, the sentence is acceptable with a non-agreeing complementizer, but not with an agreeing complementizer. Note that the complementizer may not agree with either the subject of the noun phrase or the main-clause subject.

- (56) M-bona bu-ng’ali bw-a Alfredi **mbo** ba-ba-ana b-ewe ba-kha-khil-e
 1sgS-PRS.see 14-certainty 14-ASS. 1Alfred that 2-2-children 2-his 2S-FUT-win-FUT
 ‘I see Alfred’s certainty that his children will win.’ (*a-li / *n-di)
 (*1-that/*1sg-that)

It could be argued, perhaps, that some property of either the verb *bona* ‘see’ or the noun *bung’ali* ‘certainty’ in some way prohibits complementizer agreement. The example in (57) shows that

this is not the case, however, as complementizer agreement is acceptable in the event that the logical subject of the noun phrase is expressed as a locative adjunct.²⁸

- (57) m-bona bu-ng'ali mu-Alfredi **n-di** ba-ba-ana b-ewe ba-kha-khil-e
 1sgS-see 14-certainty 18-Alfred 1sg-that 2-2-children 2-his 2S-FUT-win-FUT
 'I see Alfred's certainty that his children will win.' (lit. 'certainty in Alfred')

Intuitively, it seems that the locative phrase in (57) is not sufficiently "subject-like" in (57) to intervene in the agreement relation. Note, however, that (56) demonstrates that subject of the noun phrase is not capable of triggering complementizer agreement itself, and yet it disrupts the agreement relationship with the matrix subject. This is consistent with an analysis that the subject of the DP in (57) creates an island for movement of the null reflexive clitic from the embedded clause, out of the DP into the matrix clause.

These effects are in fact exactly what are predicted by the Indirect Agree analysis given in this paper. First, if the null subject-oriented reflexive clitic is attracted to T°, as Safir (2004) discusses for French *se*, then it immediately follows that agreement cannot be triggered by the subject of a DP, as there is no DP-internal tense to attract the clitic. As for the intervention of the DP subject, these are in fact effects that have been long-observed for anaphoric relations, captured by Chomsky (1973) as the Specified Subject Condition. And, in fact, looking again at French *se*, we see parallel effects with overt clitics. Note in (58)a that when there is no embedded subject, clitic-movement from the embedded clause to the matrix clause is natural, but this movement is blocked by the presence of a subject in the embedded clause in (58)c.

- (58) a. Paul la laissera manger les gâteaux. [French]
 Paul her-ACC let-FUT eat the cakes (Kayne 1975, via Safir 2004)
 'Paul will let her eat the cakes.'
- b. Paul laissera son fils se/te/la dénoncer.
 Paul let-FUT his son SE/you/him denounce
 'Paul will let his son denounce himself/you/him.'
- c. *Paul se/te/la laissera son fils dénoncer.

In the event, however, that the subject of the embedded clause can be expressed in some non-canonical fashion (here within a postverbal prepositional phrase), clitic movement to the matrix clause becomes acceptable again, as shown by both examples in (59)

- (59) a. Elle le fera manger à Jean [French]
 She it-ACC make-FUT eat to Jean (Kayne 1975)
 'She will make Jean eat it.'
- b. Jean se fera connaître à Marie
 Jean SE make-FUT to-know to Marie
 'Jean will make Marie know him.'

²⁸ Note that the logical subject has a very similar meaning whether expressed as a possessor or as a locative adjunct ('Alfred's certainty' vs. 'certainty in Alfred')

Safir notes therefore that independent morpho-syntactic properties (such as syntactic demotion of a subject) can affect the domain restrictions on anaphoric relations. It is my claim that the French pattern in (58) and (59) is the immediate analog of the Lubukusu pattern of complementizer agreement in DPs in (56) and (57): a structural subject causes an intervention effect, but when that structural subject is demoted by some available morpho-syntactic process (expression as a locative adjunct, in the Lubukusu case), the anaphoric process is perfectly acceptable. On the account presented here, (56) is ruled out because movement of the null reflexive clitic into the matrix clause is prohibited by the intervening subject. I interpret these facts as further evidence of the Indirect Agree analysis advocated for in this paper, that the Lubukusu null operator that triggers complementizer agreement is in fact a null reflexive clitic, and that subject-orientation is enforced by clitic-movement to T°. The presence of common constraints between these Lubukusu constructions and known anaphoric processes (and clitic movements) supports this Indirect Agree analysis.

3.3.2 FURTHER IMPLICATIONS OF PASSIVES

As was noted at various points above, the derived subject of a passive can trigger agreement on the complementizer. An example of this is given in (60)a where the complementizer appears as *ali*, agreeing with the class 1 subject *omwana* ‘child’. As mentioned above, this agreement relation with the subject is degraded when the by-phrase is included ((60)b).

(60) a. omw-ana ka-a-sitaki-bwa a-li k-eba chi-ngokho
 1-child 1S-PST-accuse-PASS1-that 1S-stole 10-chicken
 ‘The child was accused that he stole chickens.’

b. o-mw-ana ka-a-sitaki-bwa ne ba-bebusi mbo (*a-li) k-eba chi-ngokho
 1-1-child 1S-PST-accuse-PASS by 2-parents that (*1-that) 1S-stole 10-chicken
 ‘The child was accused by (the) parents that he stole chickens.’

This effect is very similar to the intervention effect noted in the previous section: as we saw in section 2.7, demoted agents in passive by-phrases are not themselves capable of triggering complementizer agreement, but we see here that they in fact serve as interveners for the agreement relationship between the complementizer and the subject. The data given in (61) is an additional example of the pattern described in (60)b above.

(61) Nelson ka-a-bol-el-wa nende ese mbo ba-keni b-a-acha
 1Nelson 1S-PST-say-AP-PASS by me that 2-guests 2S-PST-go
 ‘Nelson was told by me that the guests left.’
 *n-di 1sg-that (agrees with *ese* ‘me’)
 *a-li 1-that (agrees with *Nelson*)

There is an important observation to be made that arises out of the interview process with native speakers of Lubukusu. Despite the large number of times that complementizer agreement with derived subjects of passives was deemed acceptable, there are also a significant number of instances when speakers would not accept complementizer agreement with the derived subject, even in the absence of a by-phrase agent (with variation from case-to-case within individual speakers as well). On several occasions, however, speakers explicitly referred to the implicit

agent in a passive as the reason that they did not accept the complementizer agreement. I will include one example here as illustrative of this general pattern:

- (62) Alfred ka-a-bol-el-wa %a-li syakhulia sili tiyari
 1Alfred 1S-PST-say-AP-PASS 1-that 2-food 7-be ready
 ‘Alfred was told that the food was ready.’

The ‘%’ symbol in the example above notes variation between speakers. Whereas several speakers readily accepted this example, others strongly opposed the presence of the agreeing complementizer here, stating that since “Alfred was told” something, somebody had to have told him, and as such the class 1 *ali* agreement form was unacceptable, based on that fact that it seemed more appropriate in that case to agree with the unspoken agent (it should be noted that these same speakers accepted agreement with derived subjects of passives on many other occasions). Despite the intuition that the agreement should be with the agent in certain cases like (62), speakers nonetheless do not accept complementizer agreement with the implicit agent:

In the context where it is known that the speaker is the one who told Alfred the food was ready:

- (63) *Alfred ka-a-bol-el-wa n-di sy-akhulia si-li tiyari
 1Alfred 1S-PST-say-AP-PASS 1sg-that 7-food 7-be ready
 ‘Alfred was told (by me) that the food was ready.’

It seems, then, that the implicit agent of a passive is able to obstruct complementizer agreement in a manner similar to an overt by-phrase, but like a passive by-phrase cannot trigger its own agreement on the complementizer.²⁹

I will not devote much more space to an analysis of these effects, except to say that I interpret them in the same class of effects as the DP subject intervention effects above, and explainable as well under the Specified Subject Condition, on the assumption that passivized agents (overt or covert) serve to intervene as specified subjects. Such a proposal assumes an analysis of passive by-phrases and implicit agents as structural subjects that simply do not raise to final subject position, such as the analyses of passives proposed by Collins (2005) and Bowers (2010). The only added assumption necessary, therefore, is that the Lubukusu passive (minus a by-phrase) is ambiguous between a construction with an implicit agent, and one without. Complementizer agreement is therefore only possible in the event that there is no implicit agent, as there is nothing obstructing clitic movement of the null anaphor to T°.

3.4 Supporting Evidence: Mismatched Agreements

Additional evidence for the Indirect Agree analysis of Lubukusu complementizer agreement comes from cases where matrix subject agreement takes a different form than the complementizer agreement form; the first example is the lack of anti-agreement effects on complementizer agreement. When a subject in noun class 1 is extracted, it triggers an alternative

²⁹ It should be noted that I am unaware of any morphosyntactic differences in Lubukusu between a passive with an implicit agent, and one without it. This leads to a situation where there is simply variation as to whether speakers accept agreement with a derived subject in a passive. When presented with a large collection of sentences, such that speakers do not dwell on any single sentence, they readily accept agreement with the derived subject of the passive. The tendency, rather, was when speakers became consciously aware of the implicit agent in the passive construction that they rejected the complementizer agreement with the derived subject of the passive.

agreement effect (AAE) where subject agreement is deficient in person features and appears as [o-] instead of the normal declarative [a-]³⁰ (cf. Diercks 2009, 2010; Henderson 2009, 2011; Schneider-Zioga 2007).³¹

- (64) a. Naliaka a-li mu-nju (Wasike 2007)
 1Naliaka 1S-be 18-house
 ‘Naliaka is in the house.’
- b. Naanu o-o-li mu-nju?
 who 1C-1S-be 18-house
 ‘Who is in the house?’

In (Diercks 2010) I argued in a manner similar to Henderson (2009, 2011) that alternative agreement effects in Lubukusu are in fact realizations of agreement, but that this agreement is deficient in PERSON features. Both Henderson (2009, 2011) and Diercks (2010) claim that the nature of extracting from subject position triggers this alternative agreement, though with different theoretical implementations. For our purposes here these two analyses are equivalent, and given that the work in Diercks (2010) is at the time publication of this paper in progress of revision, I will rely on the basic analysis of Henderson (2011) for how the alternative agreement effect in (64)b arises.

At its core, Henderson’s (2011) proposal is that movement from Spec, TP to Spec, CP creates an illicit chain that must be repaired in some way. Richards (2001) proposes that movement chains may only contain one ‘strong’ feature, which instructs PF to pronounce the copy of the phrase that is merged to check the feature. This entails that any chain with multiple strong features will result in conflicting instructions to PF. Henderson’s proposal is that this is precisely the situation in subject extraction contexts, where the movement chain includes two strong positions, Spec, TP and Spec, CP.

- (65) [CP DP C^o_[φ] [TP ~~DP~~ T^o_[φ] [_{VP} ~~DP~~ v^o [...]]]] (Henderson 2011: 19)

While this ought to in principle rule out movement from Spec, TP to Spec, CP, Boeckx (2003) offers two ways in which strong chain violations such as these can be repaired: the first is to strand an element of the moved element in the lower position (resumption), and the second is to establish an agreement relation between the features that define the two positions. It is this latter repair strategy that Henderson claims occurs in Bantu AAEs like the one in (64)b – in this instance C^o and T^o have established an Agree relation between them, which essentially results in the C^o’s features ‘overwriting’ the features on T. On this issue, Henderson proposes that “phi in C^o and phi in T^o are sensitive to different values of this [person] feature ... that is, [person] in C^o can only express whether or not the agreed-with goal is referential or not. It is not sensitive to the speaker/hearer distinctions that differentiate traditional first, second, and third person distinctions” (36). The end result, of course, is that the Agree relation between the two strong

³⁰ Or sometimes [ka-] in Lubukusu.

³¹ Note that the term “alternative agreement effect” is adopted here, a slight modification of the more familiar term “anti-agreement effect” which is adopted in the general literature on such phenomena (see Diercks 2010). This is due to the fact that this effect is not a lack of agreement, but rather a feature-deficient agreement form (Diercks 2010, Henderson 2009, 2011).

positions (C° and T°) to repair the illicit chain created by subject extraction results in the traditional person distinctions on T° being leveled, yielding in the alternative agreement form of subject agreement. This is evident in various extractions of personal pronouns; (66) and (67) show such person-leveling in Lubukusu, where normal first and second person subject agreement is replaced with the generic class 1 agreement form (and, in fact, shows both the C-agreement and the T-agreement forms).

(66) Ni-se o-w-onak-e ku-mu-lyango ku-no (Diercks 2010: 133)
 COMP-I 1C-1S- damage-PST 3-3-door 3-DEM
 ‘It is I who damaged the door’

(67) Ni-we o-w-onak-e ku-mu-lyango ku-no
 COMP-you(sg) 1C-1S-damage-PST 3-3-door 3-DEM
 ‘It is you (sg) who damaged the door.’

The analyses in Henderson (2011) and Diercks (2010) both rely on a particular formulation of the subject agreement features of the languages in question, namely that there are different class 1 agreement forms for feature bundles with a person feature (*a-*) and without a person feature (*o-*); I refer the reader to those works for the full details. The end result, though, is that extraction from Spec, TP results in subject agreement being realized by a morphological form on T° (lacking person features) that is different from the form that occurs in non-extraction contexts.

This analysis makes an interesting prediction with respect to complementizer agreement, however. If complementizer agreement were in some way dependent on the matrix inflectional complex (i.e. subject agreement features as they arise on T°), we would expect to see alternative agreement effects arising on the complementizer in cases of subject extraction. On the Indirect Agree analysis of complementizer agreement proposed here, in contrast, the agreement relation is a local relation with an empty category, and therefore the processes of subject extraction should have no bearing on the form of the agreeing complementizer. As (68) shows, the prediction of the analysis in (41) is upheld, as subject extraction does not trigger alternative agreement effects on the complementizer, despite the alternative agreement effects on the matrix verb:

(68) naanu o-o-manyile a-li (*o-li) Alfred a-l-ola
 who 1C-1S-knows 1-that (*AAE-that) 1Alfred 1S-FUT-arrive
 ‘Who knows that Alfred will arrive?’

(69) Alfred ni-ye o-o-many-ile a-li (*o-li) ba-ba-ana ba-l-ola
 1Alfred COMP-1 1C-1S-know-PRS 1-that (*AAE-that) 2-2-children 2S-FUT-arrive
 ‘Alfred is the one who knows that children will arrive.’

I interpret these data as support for the Indirect Agree analysis, namely, that complementizer agreement consists of an agreement relation that occurs below the level of matrix-clause inflection. That is to say, in (68) the null reflexive clitic in Spec, CP triggers agreement on the complementizer, and at LF moves covertly to the matrix TP. In this position, the only available antecedent is the matrix subject, an intermediate copy of which is in Spec, TP. Note that the relationship between the matrix subject and the null reflexive clitic is one of antecedent licensing

(i.e. anaphoric reference) and not a feature-valuation operation like Agree. Therefore the anaphor is unaffected by the particular feature-valuation operations that resulted in the alternative agreement effect on T°.

This is certainly not the only analysis of complementizer agreement that is consistent with this lack of AAEs, but it does rule out alternative analyses where the complementizer agrees directly with matrix inflection. And while not as directly indicative as the previous argument, complementizer agreement in imperatives makes a similar (albeit superficial) point that the realization of complementizer agreement does not rely on the overt realization of subject agreement. Commands in Lubukusu (as in many languages) consist of the basic verb stem with no inflectional morphology. When an imperative form of a verb takes a CP as a complement, however, it is still possible for that embedded CP to take an agreeing complementizer, as shown in (70) and (71).

(70) Suubisye o-li o-kh-eche muchuli
 promise 2sg-that 2sgS-FUT-come tomorrow
 ‘Promise me that you (sg) will come tomorrow.’

(71) Loma mu-li orio muno
 say 2pl-that thank you very much
 ‘Say thank you very much.’ (pl)

While these data are not as definitive as the AAEs, they do also show that there may be mismatches in the realized agreement forms between subject agreement and complementizer agreement, consistent with the Indirect Agree analysis proposed here.

3.5 Supporting Evidence: Raising Constructions and Lethal Ambiguity

An additional area of supporting evidence for the Indirect Agree account comes from the interaction of raising constructions with complementizer agreement. The puzzle that arises at the intersection of these two phenomena is that complementizer agreement is ruled out in cases where a co-indexed argument has raised over the complementizer. An analysis to this puzzle is presented based on McGinnis’ (2004) Lethal Ambiguity, but critically, this analysis is dependent on the presence of the null operator in Spec, CP (the null subject-oriented anaphor discussed above that triggers complementizer agreement). In this way, this section presents a problem related to complementizer agreement—the raising puzzle—and demonstrates that the Indirect Agree analysis given in §3.1, together with the proposal in McGinnis (2004), can account for it.

The section proceeds as follows – the next sub-section presents the core data for subject-to-subject raising in Lubukusu, and introduces the complementizer agreement facts, though without solving the core puzzle. Section 3.5.2 then clarifies the empirical generalization with facts from raising-to-object constructions, and §3.5.3 presents the Lethal Ambiguity analysis and relates the conclusions to the Indirect Agree analysis of complementizer agreement in Lubukusu.

3.5.1 SUBJECT-TO-SUBJECT RAISING

The observations in this section rely heavily on (Carstens and Diercks to appear), which addresses the properties and theoretical implications of subject-to-subject raising constructions in Luyia languages, focusing on Lusaamia and Lubukusu (though I restrict my comments to Lubukusu here).

It is first necessary to review the basic facts of Lubukusu raising: as shown in (72)a, perception verbs in Lubukusu (like many languages) allow for a non-thematic expletive-type subject, with a finite complement clause. In (72)b we see a major contrast with English: both English and Lubukusu allow for the subject to raise to matrix subject position in these constructions, but the Lubukusu construction has a finite and agreeing embedded clause (potentially with an overt complementizer, though judgments vary between speakers).

(72) a. Ka-lolekhana (mbo) Joni ka-a-kwa [Lubukusu]
 6S-seems (that) 1John 1S-PST-fell
 ‘It seems that John fell.’

b. Joni a-lolekhana (mbo) ka-a-kwa
 1John 1S-seems (that) 1S-PST-fell
 ‘John seems like he fell/John seems to have fallen.’

Note that the Lubukusu in (72)b is the equivalent of the English **John seems that fell*, demonstrating a crucial contrast between the languages. Carstens and Diercks (to appear) provide a variety of interpretive diagnostics to demonstrate that these constructions are genuinely instances of subject-raising from the embedded clause to the matrix clause. I refer the reader to that paper for the details of the analysis, particularly related to the questions of Case and Activity that these constructions raise.

Though not accepted by all Lubukusu speakers, for some speakers it is possible for the non-raising (i.e. expletive) perception-verb construction to have complementizer agreement with the non-thematic subject, as shown in (73) and (74).³²

(73) Ka-lolekhana ka-li Tegani ka-a-kwa
 6S-seems 6-that 1Tegan 1S-PST-fell
 ‘It seems like Tegan fell.’

(74) Li-lolekhana li-li Sammy a-likho a-lwala
 5-seems 5-that 1Sammy 1S-PROG 1S-is.sick
 ‘It seems like Sammy is sick.’

Notable, however, is the fact that when the subject has raised to subject position, the presence of complementizer agreement is ruled out for all speakers, as is shown in (75) and (76):

(75) Sammy a-lolekhana mbo (*a-li) a-likho a-lwala
 1Sammy 1S-appears that (*1-that) 1S-PROG 1S-be.sick
 ‘Sammy appears to be sick.’ (lit. “Sammy seems that is sick”)

³² The precise nature of the empty category in these expletive constructions is very much an open question. Different verbs necessarily trigger different noun class agreement in these ‘expletive’ contexts, and speakers feel strongly that these constructions trigger an interpretation along the lines of ‘the evidence seems that ...’. So it is not clear that these are truly expletive constructions in the sense that their subjects have no role except fulfilling the EPP. That being said, they nonetheless demonstrate the raising properties relevant to our discussion here.

- (76) Michael a-lolekhana mbo (*ali) a-si-kona
 1Michael 1S-appears that (*1-that) 1S-PERS-sleep
 ‘Michael appears that he is still sleeping.’

A similar phenomenon shows up in passive-raising constructions. In certain cases where a verb with a complement clause is passivized, the subject of the embedded clause may raise to subject position.³³

- (77) Ekhaafu e-buli-khe mbo (*e-li) e-fw-ile.
 9cow 9S-reveal-STAT that (*9-that) 9S-die-PFV
 ‘A cow was revealed that it died.’
- (78) O-mu-keni ka-suubil-wa mbo (*a-li) k-ola.
 1-1-guest 1S-believe-PASS that (*1-that) 1S-arrived
 ‘The guest was believed to have arrived.’

Carstens and Diercks (to appear) argue that the reason behind this prohibition of the agreeing complementizer in raising constructions has to do with the phasal properties of different complementizer heads, assuming that the agreeing complementizer occurs in a higher position than the non-agreeing complementizer. The data introduced in (75) - (78) are consistent with the analysis that the agreeing complementizer is a phase head, whereas this is not the case for the other non-agreeing complementizers. This conclusion is brought into question in the next section, however, on account of the properties of Raising-to-Object verbs (RtO), which instead suggest that the restriction is related to raising to subject position, not simply raising over the C° head in general.

3.5.2 PASSIVES OF RAISING-TO-OBJECT VERBS

The agreeing complementizer also occurs with so-called Raising to Object (RtO) verbs, where there is a licensing relationship between the matrix verb and the embedded subject. This is realized in English by the presence of accusative case-marking on the embedded subject:

- (79) They wanted him to succeed (*he)

While there is not case-marking on noun phrases in Bantu languages, many languages display this licensing relationship between the verb and the embedded subject by allowing the embedded subject to be object-marked on the matrix verb, as shown in (80).

- (80) Ba-ba-andu ba-mw-enya a-ch-e
 2-2-people 2S-1O-want 1S-go-SBJ
 ‘People want him to leave.’

There is also evidence that overt NPs may raise to matrix object position, as evidenced by the possibility of producing the embedded subject to the left of the complementizer, presumably raised out of the embedded clause. Note that complementizer agreement is possible even in the case in (82) where Raising-to-Object has occurred.

³³ Here, as above, the embedded clause is tensed and agreeing, potentially headed by a complementizer (e.g. *mbo*).

(81) N-enya n-di Barack Obama a-khil-e
 1sgs-want 1sg-that 1Barack.Obama 1S-win-SBJ
 ‘I want Barack Obama to succeed.’

(82) N-enya Barack Obama n-di a-khil-e
 1sgs-want 1Barack.Obama 1sg-that 1S-win-SBJ
 ‘I want Barack Obama to succeed.’

I assume that the embedded subject has raised to the matrix object-licensing position in (80) and (82) (which I assume to be the Transitivity Phrase of Bowers 2002). These data are therefore problematic for the assumption in (Carstens and Diercks to appear) that raising out of the embedded clause is impossible with the agreeing complementizer because the complementizer is a phase head. Note, however, the data in (83) and (84), which show that when a RtO verb is passivized and the raised object becomes the subject, complementizer agreement with that derived subject is impossible.

(83) Barack Obama k-enyi-bwa (*ali) a-khil-e
 1Barack.Obama 1S-want-PASS (*1-that) 1S-win-SBJ
 ‘Barack Obama is wanted to succeed’

(84) Sammy k-enyi-bwa mbo (*ali) a-ch-e khu-soko
 1Sammy 1S-want-PASS that (*1-that) 1S-go-SBJ 17-market
 ‘Sammy is wanted to go to the market (now)’

It is important to note that these sentences are ruled out despite the fact that complementizer agreement is possible with derived subjects more generally, as evidenced by examples (29) - (30). The question arises, then, as to what restricts complementizer agreement in the passive constructions in (83) and (84), and in the raising-to-subject cases in the preceding section?

Together with the raising-to-subject constructions discussed in the preceding section, the empirical generalization is that complementizers can agree with a derived (matrix) subject only in the event that it originated in the matrix clause, not when it originates in the embedded clause.

(85) CA-Raising Puzzle: Complementizer agreement is only possible with a subject that originated in the superordinate clause.

3.5.3 LETHAL AMBIGUITY EXPLAINS THE RAISING PUZZLE

I propose that the reason for the restriction on complementizer agreement in (85) is rooted in the fact that the raising operation moves an argument over a coindexed operator in Spec, CP, as shown in (86) and schematized in (87):

(86) [TP Michael_k a-lolekhana [VP ~~lolekhana~~ [CP OP_k a-li [TP Michael_k a-si-kona
 Michael 1S-appears 1-that 1S-PERS-sleep
 ‘Michael appears that he is still sleeping.’

(87) * ... XP_k ... [OP_k ... [XP_k ...

It is well-documented, in fact, that such configurations where a phrase has moved over a co-indexed phrase are regularly unacceptable. Rizzi (1986) accounted for these restrictions with his Chain Condition, where ungrammaticality results if a co-indexed phrase intervenes in the chain that is formed between a phrase's Case position and its (c-commanded) theta-position.

(88) Chain Condition (Rizzi 1986)

* ... XP_i ... [YP_i ... e_i ...

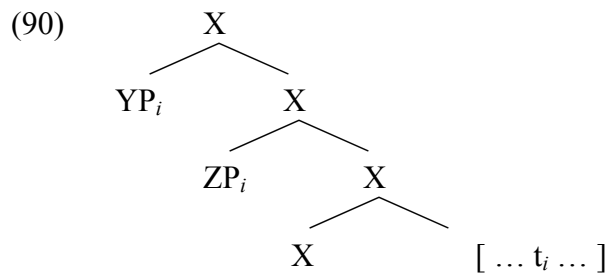
The Chain Condition accounts for data such as those presented in (89) which show a restriction on reflexive clitics. In (89)a, the direct object raises over the dative clitic to subject position, but this same movement is ruled out in the case of a reflexive clitic such as in (89)b. That is, when the clitic is co-indexed with the raised DP, the resulting configuration is ruled out by the Chain condition in (88).

(89) a. Gianni_i gli_j è stato affidato e_j e_i [Italian]
 Gianni him.DAT was been entrusted Rizzi (1986: 70)
 'Gianni_i was entrusted to him_j.'

b. *Gianni_i si_i è stato affidato e_j e_i
 Gianni self was been entrusted
 'Gianni_i was entrusted to himself_i.'

McGinnis (2004) sets forth a new analysis accounting for both the generalization captured by Rizzi's Chain Condition and various counter-examples. She claims that "a moved phrase must be unambiguously linked with its copy at LF," and that ambiguous linking is lethal, leading to unacceptability (2004: 47). Abstracting away from some of the details of her account, she claims that a moved element must be identified with its lower copies at LF, and that this identification is accomplished by assigning an address to a moved element that is derived from its syntactic position. That is to say, when movement occurs, "the address of the moved element is indexed onto its copy," and this information together with indexation allows a moved element to be linked with its lower copy (2004: 67). Following a suggestion by Chomsky (1995), McGinnis assumes that this "address" is identified by the sister of the moved element, and therefore two specifiers of the same head have the same address, whereas phrases in the specifiers of two different heads will have different addresses.

If this is the case, then, a lethal ambiguity arises in the case of a syntactic configuration such as that in (90), since YP cannot be unambiguously linked with its lower copy, as it shares an index and an address with ZP (McGinnis 2004: 47):



Lethal Ambiguity occurs when YP has raised through the specifier of XP, whereas if YP had raised past XP instead of landing in its specifier, it would have created no ambiguity in LF linking, and the sentence would be acceptable. McGinnis claims that these two options for raising correlate with whether XP is a phase – if it is a phase, long-distance raising necessitates that YP land in the phase edge in order to be accessible to the higher phase. If XP is not a phase, on the other hand, YP can raise past it, creating no ambiguity.³⁴

Returning to the point at hand—the restrictions on the agreeing complementizer in the Lubukusu raising constructions—it is apparent that McGinnis’ formulation of Lethal Ambiguity provides a natural explanation for why complementizer agreement is ruled out in cases when an argument is raised out of the embedded clause to subject position. If we are to assume that CP is a phase (Chomsky 2000, 2001, 2008), for the embedded subject to raise out it would be expected to be merged into the edge of the CP phase. This would yield a structure like (91) for the cases where the raised phrase ends up in subject position in the matrix clause.³⁵

(91) *_{[TP XP_k ... [CP ~~XP_k~~ [CP OP_k AGR-C [TP ~~XP_k~~ ...}

As is evident from comparing (91) with (90), this raising configuration is precisely the configuration which McGinnis claims creates a Lethal Ambiguity, and is therefore ungrammatical. This explains both of the problematic cases discussed in this section where complementizer agreement is ruled out: subject-to-subject raising and cases of raising-to-object where the matrix verb is passive, as the operator (as a subject-oriented anaphor) will necessarily be coreferential with the structural subject. And in fact, it also explains why complementizer agreement is *not* ruled out in standard cases of raising-to-object such as in example (82), repeated here as (92).

(92) N-enya Barack Obama n-di a-khil-e
 1sgS-want 1Barack.Obama 1sg-that 1S-win-SBJ
 ‘I want Barack Obama to succeed.’

In (91) the operator is coindexed with the raised object because it has raised to matrix subject and the operator is a subject-oriented anaphor. In the example in (92), in contrast, while the operator is still co-indexed with the matrix subject, the raised phrase is not the matrix subject and therefore the null operator is not co-indexed with the phrase that is merged in Spec, CP (i.e. the raised object). Therefore the resultant configuration is the one in (93):

(93) [_{TP ZP_i ... [_{VP} ... XP_k ... [CP ~~XP_k~~ [CP OP_i AGR-C [TP ~~XP_k~~ ...}

³⁴ On McGinnis’ (2004) analysis, this difference correlates with whether the movement in question is Case-driven or EPP-driven, a correlation which is borne out in the type of Applicative heads are realized in a particular (double object) construction. I approach this argumentation from the perspective of the phase-edge requirement, especially since the context of the ambiguity in the Lubukusu complementizer agreement cases is at the CP-level, not the ApplP-level. I refer the reader to McGinnis (2004) for the full details of her account.

³⁵ I set aside the problematic issue of whether this Spec, CP position is an A’-position (leading to an improper movement chain where A’-movement feeds A-movement to matrix subject position), though for discussion of this issue in a related language see (Obata and Epstein To appear).

It is clear that no ambiguity arises here because the raised phrase XP and the null operator have different indices. We therefore have a strong explanation for paradigms of raising constructions with respect to complementizer agreement in Lubukusu.

In terms of evaluating the current analysis of Lubukusu complementizer agreement, while this Lethal Ambiguity analysis is not direct evidence for the presence of the null operator in CP, it is nonetheless promising that the operator-based analysis of complementizer agreement can explain the restrictions on complementizer agreement in raising contexts, which are otherwise somewhat mysterious. Without reference to an operator in the embedded CP it is not clear how to explain the restriction of complementizer agreement in cases of raising out of the embedded clause to cases where there is raising-to-object, but not raising-to-subject.

3.6 Potential Counterevidence Addressed: Inversion Constructions

Another interesting commentary on the analysis set forward here is the presence of complementizer agreement in certain inversion contexts, as shown in (94) (Ken Safir and Justine Sikuku, p.c.).

- (94) Mu-sooko ba-a-lom-el-a-mo ba-saani ba-li o-mu-khoongo a-li-rura-yo
 18-market 2S-PST-say-AP-FV-18L 2-men 2-that 1-1-boss 1S-FUT-get.out-16L
 ‘In the market, the men said that the boss will leave the place.’
 Lit: In the market said the men that the boss will leave the place.

On the face of it, this raises important questions about the nature of the subject-complementizer relation, as in this case a subject in a non-canonical word order is nonetheless capable of triggering complementizer agreement. I have argued extensively in Diercks (2010, 2011), however, that this particular sort of inversion (disjoint agreement locative inversion) has a very specific syntactic structure, namely, that the subject in these cases is in fact in canonical subject position and the locative phrase is in a left-peripheral position:

- (95) Disjoint Agreement Locative Inversion³⁶
 [CP LOC C-V [TP SUBJ ... [vP ~~SUBJ~~ \forall LOC]]]

On the analysis of locative inversion in (95), then, the schematic structure of the inversion sentence in (94) will look like (96):

- (96) [CP in-market C-said [TP men_k T [vP ~~men~~ [~~in-market~~ said [CP OP_k AGR-that ...

What we see in (96), then, is that complementizer agreement proceeds in this case in exactly the same manner that it proceeds in any other case, enabled by the particular configuration of these Lubukusu inversion constructions. A more interesting challenge to the empirical generalizations established here would be to see whether a VP-internal subject could trigger complementizer agreement. I cannot conceive of a context where this would be possible, however, as any verb with a CP complement will have an external argument as well. A passive matrix verb selecting a CP might be the only alternative, but not a perfect one by any means. As we see in the

³⁶ Note that the canonical subject position is assumed to be SubjP in (Diercks 2010), but Spec, TP here (and in Diercks 2011). The particular label makes no substantive difference to the point being discussed here.

example in (97), in an impersonal passive a null expletive triggers subject agreement (class 5), and the same agreement is triggered on the complementizer.

- (97) Mu-sooko li-a-lom-w-a li-li o-mu-khoongo a-li-rura-yo
18-market 5S-PST-say-PASS-FV 5-that 1-1-boss 1S-FUT-get.out-16L
'In the market it was said that the boss will leave the place.'

Assuming with Bowers (2002) that expletives are merged in the specifier of the head which introduces external arguments (v^o here, Pr^o for Bowers), this agreement is unsurprising on the account set forth here (apart from the availability of expletive agreement, which is not a trivial issue but which is beyond the scope of this work). It is thus difficult to construct an example where a postverbal logical subject that was never in Spec, vP could be a possible antecedent for complementizer agreement. Whether or not this is a strength of the Indirect Agree analysis or just a lack of diagnostic contexts, it nonetheless stands that these inversion constructions, on the proper analysis of locative inversion, do not pose a problem to my analysis of complementizer agreement.

3.7 Addressing Alternative Analyses

This section briefly considers the most prominent alternative analyses, demonstrating that an analysis of the null operator as a subject-oriented anaphor achieves much better empirical coverage than the alternatives.

3.7.1 AGREE

On the surface, an approach to complementizer agreement based on a syntactic Agree relation along the lines of (Chomsky 2000, 2001) seems intuitive, given that this is an agreement phenomenon.³⁷ If Baker (2008) and Zeijlstra (2010) are on the right track, heads are capable of probing upwards to find a goal for Agree, which would at least in principle allow such an agreement relation where embedded C^o is the probe and the matrix subject is the goal.

That being said, beyond the question of allowing an 'upward' agreement relation, there are a number of problematic issues for a standard Agree approach to Lubukusu complementizer agreement. The predominant problem is the lack of intervention effects by non-subject DPs: complementizers agree with subjects even in the event that there is an intervening indirect object, or 'causee' in a causative verb. On most standard accounts of double object constructions and applicative constructions, the indirect object (i.e. applied object) is structurally higher than the second object, but structurally lower than the subject, and therefore should intervene in any Agree relation between embedded C^o and the matrix subject, an empirical roadblock that I consider fatal to an Agree approach to Lubukusu complementizer agreement. Beyond this, it is not clear how an Agree approach would deal with agreement out of DPs as well, further reason to abandon this approach.

3.7.2 A FEATURE INHERITANCE ACCOUNT

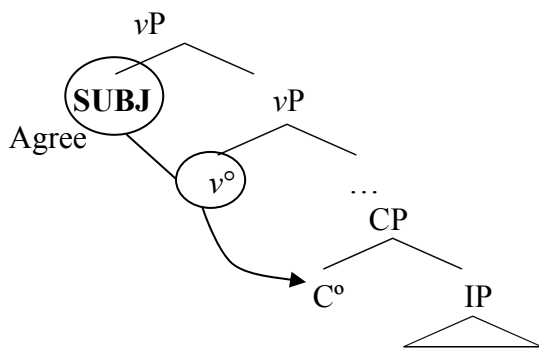
Another analytical alternative comes out of recent work by Chomsky (2008), Richards (2007), and Ouali (2008) (among others) which proposes that the phi-features on T^o realized in subject

³⁷ A much more extensive treatment of the benefits and drawbacks of an Agree approach to Lubukusu complementizer agreement is taken up in (Diercks 2010), to which I refer the reader.

agreement in fact originate on C° , and are passed down to T° in the course of the derivation. Specifically, after T° is merged C° itself is merged, and valuation of C° 's features and A-movement to Spec, TP happen simultaneously, along with Spellout of the CP phase. At that same point the features on C° are passed down to T° : T° inherits its phi-features from C° . Given this proposed relationship between C° and subject agreement features, it is natural to inquire whether some related analysis could be used to derive Lubukusu complementizer agreement.

Clearly, however, this feature inheritance relationship is not between a C° head and its complement, so at the very least we would need to posit that Feature Inheritance is also possible on other phase heads, e.g. v° . In Lubukusu complementizer agreement, then, v° would Agree with the subject that it introduces, which then would subsequently pass its features to C° .

(98) Rough Sketch of Feature Inheritance Analysis



Given the lack of intervention effects, it would be necessary to stipulate that v° passed its features to an embedded phase head, rather than being subject to the locality requirements of Agree. This approach to an analysis would explain the basic cases of complementizer agreement, and could be expanded relatively straightforwardly to account for agreement with a derived subject in passives. (98) also explains the lack of intervention effects of intervening DPs, but does so mainly by stipulating the relationship between v° and embedded C° . It manages to avoid problems with the AAEs as well, since the features on v° presumably would be valued before the AAE occurs in the course of extraction from out of Spec, TP.

A number of empirical and theoretical problems remain, the most prominent of which is the fact that (as noted in §3.3.1) CP complements of object nouns may have a complementizer which agrees with the matrix subject. Some additional examples are given in (99)-(100) (Justine Sikuku p.c.).

(99) Palin a-biyila e-nganakani a-li Obama a-kha-khile e-kuura.
 1Palin 1S-hates 9-idea 1-that 1Obama 1S-FUT-win 9-election
 ‘Palin hates the idea that Obama will win the election.’

(100) Tegan a-loba e-lomo a-li Guinness ka-li ka-ma-lwa ka-ma-layi.
 1Tegan 1s-disputed 9-statement 1-that 6Guinness 6-be 6-6-beer 6-6-good
 ‘Tegan disagreed with the statement that Guinness is the best beer.’

If v° were in fact to pass its phi-features to an embedded phase head, then certainly in cases like these the more local D° head of the DP should inherit the phi features (presumably itself a phase head), not the more deeply embedded CP.

Beyond this, the stipulation of an inheritance relationship between v° and C° is itself problematic, as there is not significant cross-linguistic evidence for this sort of long-distance feature-inheritance relationship, and it is not clear what would happen to these hypothesized phi-features on v° should a given verb lack a CP complement. The theoretical application is itself problematic as well, since Feature Inheritance should occur as soon as a phase head is merged: it's not clear how the features on v° could delay being transferred in order to be valued by the next-merged subject. On account of all of these problems, I reject any analysis of feature inheritance as an operation capable of explaining Lubukusu complementizer agreement.³⁸

Not only do the mechanisms of feature inheritance not suffice to explain how the agreeing complementizer comes to bear the features of the superordinate subject, the complementizer agreement construction itself poses a sizable empirical challenge to the claim that T° bears no phi features lexically and instead inherits them from C° in the course of the syntactic derivation. First, Lubukusu complementizer agreement refutes the standard conception of a simplex CP passing features to its T° complement (barring the unfalsifiable claim that C° bears multiple phi-feature sets that may have vastly different properties), as C° in Lubukusu clearly bears agreement features, but those agreement features are completed unrelated to the embedded T° . At the very least, this simplex-CP approach to FI must be reanalyzed. Second, it is clear from the evidence presented here that the connection between unvalued phi-features and phase heads cannot be one-to-one, that is to say, that unvalued phi-features need not enter the derivation on a phase head (and phase heads cannot receive their definition as those heads where phi-features originate). Assuming for the sake of argument the preceding claim that there cannot be a simplex CP under a FI analysis, we would therefore be forced to assume a complex CP, where a lower CP-level head (probably Fin°) introduces the phi features of the embedded clause and passes them to its T° complement. The agreeing complementizer in Lubukusu would then arise on some higher CP-level head (perhaps $Force^{\circ}$). This then entails that the source of the phi-features that arise on embedded T° is distinct from head where the agreeing complementizer arises. Together with the preceding argumentation against a feature inheritance account of how phi-features arise on the agreeing complementizer, this then clearly entails that it is not the case that all (unvalued) phi-features originate on the same phase head in the syntactic derivation, and therefore that unvalued phi-features cannot be the defining feature of a phase head.³⁹

While this does not rule out the presence of any feature inheritance operation in the syntax, it poses a significant challenge to commonly-assumed versions of feature inheritance (as cited above)—that T° inherits its phi-features from C° , and particularly that there is a relationship between unvalued phi-features and phase heads in the syntax. Space constraints restrict me from

³⁸ There are in fact other analytical possibilities, but space limitations prohibit a full discussion of them all. One particular analysis worth noting is that the null operator in Spec, CP is PRO, not an anaphor, whose reference is controlled by an obligatory control relationship with the subject. While I refer the reader to (Diercks 2010) for more argumentation against this analysis, I will let it suffice to note here that object-control verbs like *tell* (which control PRO in an embedded non-finite clause) nonetheless result in subject-controlled complementizer agreement, leading me to rule out control as a viable mechanism for constraining the subject-orientation of complementizer agreement in Lubukusu.

³⁹ See also Haegeman and van Koppen (2011) on an argument against feature inheritance, in that case from West Germanic complementizer agreement.

devoting more time to this argumentation, but at the very least the facts presented in this paper must affect our conception of the source of phi-features on various heads in the syntax.

4 Issues for Future Research

This final section outlines a variety of empirical patterns relating to the distribution of complementizer agreement in Lubukusu. Given that these issues step out into broader questions about complementation and don't impact directly on the core agreement analysis given above, and given space constraints, I will present the data here as issues for future research without providing extensive analysis of their theoretical import. Nonetheless, it will certainly be relevant as we develop a better understanding of complementizer agreement in Lubukusu (and other African languages with similar phenomena) to grasp the full range of facts associated with the construction, rather than explaining simply the agreement patterns themselves.

4.1 Distribution of the Agreeing Complementizer

This section looks at some of the more general distributional properties of the agreeing complementizer in Lubukusu. Both the evidential properties of the complementizer system in Lubukusu and the lexical distribution of the agreeing complementizer are considered in this section, but both of these sub-sections are only the first steps in analyzing these issues. §4.1.1 examines the pragmatic distribution of the agreeing complementizer, looking at its evidentiary properties, and §4.1.2 looks at the lexical distribution of the complementizer, with respect to its selecting verbs.

4.1.1 EVIDENTIAL PROPERTIES OF COMPLEMENTIZERS

This section gives a rudimentary description of contexts in which the agreeing complementizer is used, in contrast to the non-agreeing *bali* complementizer. All of the examples considered here have class 1 subjects, and so the agreeing complementizer in each of these cases is realized with class 1 agreement as *ali*.

Take the example of a verb of speech in (101), which presents three different situations and examines the non-agreeing *bali* as compared to the agreeing complementizer *ali* (agreeing with the class 1 subject *Mosesi*).

(101) Mosesi a-lom-ile _____ Sammy k-eb-ile chi-rupia.
 1Moses 1S-say-PRF COMP 1Sammy 1S-steal-PST 10-money
 'Moses has said that Sammy stole the money.'

- a. Moses saw the event, and the speaker believes him: **bali*/ ✓*ali*
- b. Moses did not see the event, but reported what people have said: ✓*bali*/**ali*
- c. Moses says he saw the event, but the speaker doesn't believe him: ✓*bali*/**ali*

As can be seen in (101)a, when the subject of the sentence is the source of the information reported in the embedded clause, the agreeing complementizer is used, and the non-agreeing *bali* is impossible. This is in contrast to (101)b, when the subject of the sentence is not the source of the information of the reported event, and as such *bali* is possible and *ali* is not. The non-agreeing *bali* is therefore an evidential-type complementizer, signaling that the source of the information reported in the embedded clause is less-than-reliable. There is an additional use of the non-agreeing *bali* in (101)c, however, as it may be used by a speaker to signal distrust in the subject of the sentence (who is reporting the information in the embedded clause). On this

reading, instead of signaling the source of evidence, the complementizer instead signals the credibility of the information reported in the embedded clause.

This interpretation of the data in (101) is supported by similar data with other clause-embedding verbs. Take (102), for example, with the verb ‘hear’, in the context of the speaker of the sentence telling a third party that Moses heard about Sammy stealing money:

- (102) Mosesi a-ul-ile ____ Sammy k-eba chi-rupia
 1Moses 1S-hear-PST COMP 1Sammy 1S-stole 10-money
 ‘Moses heard that Sammy stole the money.’
 a. If Moses does believe it: ✓*bali* / ✓*ali*
 b. If Moses doesn’t believe it, or if the speaker doubts it: ✓*bali*/**ali*

With the verb ‘hear’, even if the subject of the sentence is a reliable source of the information in the embedded clause, both the agreeing complementizer and non-agreeing *bali* are possible. It is notable, however, that if the veracity of the report is brought into question only the non-agreeing complementizer is possible.

This effect is also evident in the case of the verb ‘know’ – as above, the non-agreeing complementizer is only possible in the case that there is some amount of doubt about the reported information.

- (103) Mosesi a-many-ile ____ Sammy k-eba chi-rupia
 1Moses 1S-know-PRF COMP 1Sammy 1S-stole 10-money
 ‘Moses knows that Sammy stole the money.’
 a. If Moses is absolutely certain: ✓*ali* / **bali*
 b. If Moses is absolutely certain, but the speaker doubts: **ali* / ✓*bali*

The conclusion that can be drawn from these data is that the agreeing complementizer is used in cases where the veridicality of the embedded proposition is not being called into question, but the non-agreeing complementizer *bali* may be used if either the subject of the main clause or the speaker of the sentence is distanced from responsibility for the reported information.

In this way the Lubukusu complementizer system has a limited evidential system, where the use of the agreeing complementizer or the non-agreeing *bali* may be used to signal the reliability of the information reported in the embedded clause. When that information is reliable, the agreeing complementizer appears (and agrees with the matrix subject). When that information is not reliable, the non-agreeing *bali* is used, whether this non-reliability is the speaker’s judgment or the result of a less-reliable information source (e.g. hearsay).⁴⁰

⁴⁰ It is an important question whether non-agreeing *bali* is a distinct complementizer from the agreeing complementizer, or whether it is the same syntactic element, but is realized as a default form in certain contexts. As will be seen below, in *because*-phrases and *if*-clauses (§4.2) the non-agreeing *bali* can occur in a variety of contexts in which the agreeing complementizer is impossible, patterning with the generic complementizer *mbo*. I interpret these facts structurally, claiming that non-agreeing *bali* occurs in a different position from the agreeing complementizer, explaining their distinct distributions. As pointed out to me by Paul Portner, an alternative analysis could be that they in fact occur in the same structural positions, but agreement on the complementizer is ruled out in certain structural contexts and a default form results. I set aside these questions as matters for future research.

4.1.2 LEXICAL INFLUENCES ON THE AGREEING COMPLEMENTIZER

As demonstrated in the previous sections, there are both pragmatic and syntactic conditions on the complementizer agreement relation in Lubukusu. This section looks at the lexical influences on complementizer agreement, as there is variation between CP-selecting verbs as to whether they allow the agreeing complementizer to occur in their complement. As I will demonstrate, emotive factive verbs prohibit an agreeing complementizer heading their complement.

There are a large number of CP-selecting verbs in Lubukusu that allow complementizer agreement. Perhaps the most common cases of complementizer agreement come with verbs of speech, as shown in (104), but the agreeing complementizer also occurs naturally with verbs of knowledge/belief and verbs of desire, shown in (105) and (106), respectively:

(104) Verbs of speech/manner of speech

khuloma	‘to say’	khuboola	‘to tell’
khuombelesia	‘to convince’	khulaka	‘to promise’
khukhwelocha	‘to complain’	khumonya	‘to whisper’
khubiyisya	‘to accuse/admonish’	khusubisia	‘to promise’ (cause to believe)
khukalusya	‘to reply/to return’		

(105) Verbs of knowledge/belief

khumanya	‘to know’	khukanakana	‘to think’
khusuubila	‘to believe’	khufwanirisya	‘to guess/suppose’

(106) Verbs of desire⁴¹

khukhwenya	‘to want’	khukhwikoomba	‘to wish’
khuroora	‘to dream’		

There are also various other verbs which allow for complementizer agreement which don’t fit any of the above general categories, as shown below in (107) (see also Wasike 2007).

(107) Other verbs

khuulila	‘to hear’	khufukilila	‘to agree’
khubuula	‘to reveal’	khububa	‘to be jealous’
khukhweendekhelela	‘to worry’	khubona	‘to see’

In contrast to the preceding cases, there is also a group of verbs in Lubukusu which take complement clauses, but for which the agreeing complementizer is highly degraded, given in (108):

(108) Verbs Disallowing Complementizer Agreement

khubeelela	‘be sad, regret’	khukhwesindukha	‘be surprised’
khusangala	‘be happy’	khung’anya	‘to protest’
khusiima	‘to like/to be thankful’	khusulunya	‘to be sullen’
khukhwesonia	‘to be ashamed’	khuubila	‘to be angry’
khusinyikha	‘to be upset’	khuuka	‘to express shock’

⁴¹ For examples of sentences in these preceding categories, see (Diercks 2010).

In each of these cases, while the verbs don't allow the agreeing complementizer, other non-agreeing complementizers like *mbo* and *bali* are still appropriate, as illustrated in (109):

- (109) N-a-beelele mbo (*n-di) si-n-a-ch-ile Bungoma ta
 1sgS-PST-regret that (*1sg-that) NEG-1sgS-PST-go-PST Bungoma NEG
 'I regretted that I didn't go to Bungoma.'

It appears, therefore, that the agreeing complementizer does not occur with a specific sub-class of factive predicates, namely, emotive factive verbs. Building off of work from Kiparsky and Kiparsky (1971) and Karttunen (1971), Hooper and Thompson (1973) categorize clause-selecting verbs into 5 categories based on their syntactic and semantic properties, including whether or not the complement clauses are asserted. The factive categories are shown in (110):

- (110) Factive (Hooper and Thompson 1973: 474)
 D resent, regret, be sorry, be surprised, bother, be odd, be strange, be interesting
 E realize, learn, find out, discover, know, see, recognize

Of particular interest here are the Class D factive verbs, as the verbs which disallow the agreeing complementizer seem to fall into this class. Class D and E are all factive verbs, but Karttunen (1971) points out that class E verbs can lose their factivity in questions and conditionals, and Hooper and Thompson (1973) note that complements of class E verbs can be preposed, whereas complements of class D verbs cannot (a diagnostic of a main assertion).

This along with other evidence leads them to the conclusion that the class E verbs (so-called semifactives) in fact have readings in which the complement proposition is considered the main assertion. Therefore, according to Hooper and Thompson, "what these facts suggest ... is that the complements of these semifactive verbs of 'coming to know' have at least one reading on which they are in fact assertions" (482). This distinguishes the class E verbs from the emotive factives of class D, which (in contrast) *always* presuppose their complement clause.

Returning to Lubukusu, it would appear then that the class of verbs which disallow complementizer agreement are those which presuppose the truth of their complement CP.⁴² As the data in (111) illustrate, verbs from the group given in (108) in Lubukusu do in fact presuppose their complement clauses.⁴³

- (111)a. John asangalile mbo ba-keni b-olile
 John 1S-is.happy that 2-guests 2S-arrived
 'John is happy that the guests arrived.'

⁴² Apparent exceptions to this generalization are *khububu* 'to be jealous' and *khufukilila* 'to agree'. I leave it to future research to determine whether these are true counter-examples to the generalization, or if these verbs actually have different semantic properties than their direct English translations. Specifically, it needs to be tested whether they always presuppose the truth of their complement clause, or whether they may (at times) treat the content of their complement clause as an assertion rather than as a presupposition. This requires much more knowledge of the syntactic/semantic properties of complementation in Lubukusu and perhaps Bantu more broadly, an area which is largely unresearched to my knowledge.

⁴³ For more on factives and emotive factives, see Hooper and Thompson (1973), de Cuba (2007), Andersson (1975), Hegarty (1992), Heycock (2006), among others.

b. John se-a-sangalile mbo ba-keni b-olile ta
 John 1S-is.happy that 2-guests 2S-arrived NEG
 ‘John isn’t happy that the guests arrived.’

In both sentences speakers understand that it is true that guests arrived, in both the affirmative case and the negative case. This is consistent with the analysis of these verbs as presupposing their complement clause (as presuppositions are non-defeasible under negation), and therefore as being considered in Hooper and Thompson’s (1973) class D emotive factive verbs.⁴⁴

There are some surprising data that arise in light of the restriction on complementizer agreement to non-presuppositional verbs which lend some support to the notion that the presence of the agreeing complementizer eliminates the possibility of presupposing the complement clause. Note the sentence in (112), which contains an emotive-factive verb that (matching with the generalization noted above) rules out the presence of the agreeing complementizer.

(112) N-esindukha mbo (*ndi) ba-keni b-ol-ile
 1sgS-was.surprised that (*1sg-that) 2-guests 2S-arrive-PST
 ‘I was surprised that guests arrived.’

It turns out that some speakers in fact do accept the agreeing complementizer as a marginal structure with verbs like *sindukha* ‘be surprised’, but it triggers a very different interpretation of the verb.

(113) ??n-esindukha n-di ba-keni b-ol-ile
 1sgS-was.surprised 1sg-that 2-guests 2S-arrive-PST
 ‘I was surprised regarding the guests’ arrival’ (see comments below)

The interpretation in (113) is that the speaker of the sentence was expecting the guests to come, but they in fact did not come, to the speaker’s surprise. There is no added negation in the embedded clause in (113), but using the agreeing complementizer forces a reading where the embedded clause is no longer assumed to be true. This is consistent with an analysis that the CP-level structure that contains the agreeing complementizer in some way removes or prohibits the presuppositional reading of an embedded clause.⁴⁵ I must leave the full analytical and theoretical implications of these patterns for future research, however.

4.2 Sentience Constraints

In this section I address additional facts that are issues for future research on Lubukusu complementizer agreement. I point to a potential link to logophoric phenomena, but leave a full exploration and analysis for future research. As the generalization in (40) states, complementizers in Lubukusu may only agree with subjects, and never with non-subjects. As it turns out, however, there is an important caveat to be made, as not all subjects are capable of triggering complementizer agreement. Take the example in (114), for example, where agreement with a non-human subject is degraded:

⁴⁴ I must leave it for future research to establish a full picture of syntactic correlates of factivity in Lubukusu.

⁴⁵ See (Diercks 2010) for additional data in this same paradigm.

- (114) Chi-sale khu-mesa chy-a-subi-sya Alfred ___ chi-mbeba chi-li mu-nju
 10-mark 16-table 10-PST-believe-CAUS 1Alfred COMP 10-rat 10-be 18-house
 ‘The marks on the table made Alfred believe that rats were in the house’
 a. ✓ mbo that
 b. ??chi-li 10-that
 c. *a-li ‘1-that’

The example in (114) suggests several things: first, there is some sort of sentience requirement on complementizer agreement. Second, even when the matrix subject is not a good candidate for complementizer agreement, a non-subject is nonetheless incapable of triggering complementizer agreement. (114) therefore suggests that the subject which triggers complementizer agreement must also be capable of having a ‘point of view’, that is, it must have a mind to report (c.f. ‘logophoric center’ of Sells 1987, ‘seat of knowledge’ of Tenny and Speas 2003).

This raises an important question regarding some of the data that were introduced earlier. Recall examples (12) and (13) from section 2.2, which are repeated as (115) and (116) below:⁴⁶

- (115) Mu-moni mw-a Nelson mw-ekesie mu-li (*a-li) o-mu-sangafu⁴⁷
 18-face 18-of 1Nelson 18s-show 18-that (*1-that) 1-1-happy.person
 ‘Nelson’s face has shown that he is a happy person.’

- (116) e-barua y-a Nelsoni y-ekesie e-li (*a-li) ka-sangaala
 9-letter 9-of 1Nelson 9s-show 9-that (*1-that) 1s-be.happy
 ‘Nelson’s letter showed that he is happy.’

These examples seem at odds with the example in (114), as the complementizer agrees with non-sentient subjects in these cases (a locative ‘face’ in one case, and ‘letter’ in another). Taking the example in (116), however, note that the acceptable agreement from (116) is degraded in the event that the author of the letter is removed:

- (117) E-barua y-ekesya mbo (??e-li) Nelsoni a-sangaala
 9-letter 9s-showed that (??9-that) Nelson 1s-is.happy
 ‘The letter said that Nelson is happy.’

In (117) the generic non-agreeing complementizer *mbo* is preferred to the agreeing complementizer, a similar effect to what is seen in (114). In some way, then, the close association of the non-sentient subject with a person enables the complementizer agreement. In both (115) and (116), the presence of a human as a possessor of the noun phrase enables agreement with the head noun of the subject NP, despite the fact that neither a ‘face’ or a ‘letter’ is sentient on its own. I presume, however, that the ability to closely associate each of these elements with sentience enables them to be appropriate triggers of complementizer agreement (a

⁴⁶ Note the addition of some additional agreement forms not included in the previous examples.

⁴⁷ The *ali* agreement here is marked ungrammatical, whereas previous versions of this work (including Diercks 2010) marked it as grammatical. The reason was due to a mis-parsing, as there is an interpretable structure using *ali*, but in that case *ali* appears as a copula and is not a complementizer. My thanks to Justine Sikuku for clarifying this point for me.

person’s face/countenance displays their emotions, while writing is a means of communicating a person’s thoughts).

It therefore seems that there are two conditions that must be met in order for complementizer agreement to be licit. First, the controller of agreement must be a subject (as established in the first 3 sections), and second, the controller of agreement must be capable of establishing a “point of view”, that is, it must either be sentient (in the normal cases, human) or at least capable of reporting a mind—including a face displaying emotions, or a letter communicating language (of an identified person).

(118) Conditions to trigger complementizer agreement:

- a. Controller of agreement is a subject
- b. Controller of agreement can establish a “point of view”, i.e. has a mind to report⁴⁸

While not definitely so, these properties are reminiscent of the sorts of logophoric reference phenomena that have been reported mainly for West African languages. Culy (1994a: 1057) describes a logophoric domain as a “[stretch] of discourse in which a person’s words, thoughts, knowledge, or emotions are being reported,” and in a similar fashion logophoric pronouns are often described as coreferent with the matrix argument whose thoughts, knowledge, or emotions are being reported. For example, in (119) from Adesola (2006: 2069), the logophoric pronoun *oun* is obligatorily coreferent with the matrix subject.

(119) Olú_j ti kéde pé òun_j má a wá nî òla [Yoruba]
 Olu ASP announced that he will come at tomorrow
 ‘Olu has announced that he will come tomorrow.’

Similar effects have been described for a variety of African languages (and usually West African languages), including Ewe (Clements 1975), Abe (Koopman and Sportiche 1989), Donno Sɔ (Culy 1994b), Banda-linda (Cloarec-Heiss 1986), Aghem (Hyman 1979), and Gokana (Hyman and Comrie 1981), among many others (see Culy 1994a for an excellent typological overview).⁴⁹

A common analysis for such logophoric phenomena is that there is a null operator in Spec,CP of the embedded clause whose reference is controlled by a lexically specified argument in the matrix clause (see Adesola 2005,2006; Koopman and Sportiche 1989; Speas 2004).

(120) [SUBJ_k ... [CP OP_k C [IP ... LOG_k ...]]]

The analysis in (120) accounts for the apparently long-distance binding relationship that occurs between logophoric pronouns and their antecedents, as the binding relationship is actually more local, between the logophoric pronoun and the null operator in the embedded CP. Clearly the analysis in (120) is similar to the analysis of Lubukusu complementizer agreement that I propose

⁴⁸ Some speakers do allow agreement with what are apparently (null) expletive subjects, though a number of factors are unclear, including how widespread this phenomenon is (as a number of speakers outright reject it), the conditions under which it is possible, and the true nature of the empty category apparently playing the role of an expletive in those contexts. This is an important area for future research.

⁴⁹ Culy (1994a) distinguishes these pronouns from the sorts of ‘logophoric’ pronouns that occur in Japanese, Icelandic, and Italian (for example), which are reflexive pronouns that may be bound either inside their clause or outside of their clause (see Sells 1987, among others). Culy refers to these latter pronouns in their “logophoric” uses as non-clause-bounded reflexives (NCBRs), and refers to the former as “pure” logophoric pronouns.

in this paper, suggesting a potential link between these proposed CP operators. To what extent this analytical link will hold up in the face of more data is unclear, however, and at present I must simply leave a possible connection between complementizer agreement and logophoric phenomena at the level of speculation. At present, however, I simply present a few additional pieces of data that will contribute to future research on these issues.

First, there is at least one instance where the agreeing complementizer is largely preferred to any non-agreeing complementizers, namely, when the matrix verb is reflexive.

- (121) Joni a-e-bolela a-li a-li omu-kesi (??mbo/??bali)
 1John 1S-RFM-told 1-that 1s-be 1-intelligent (??that /??that)
 ‘John told himself that he’s intelligent.’

Speaking intuitively, it appears that by centering the entire action of the matrix predicate within the mind of the subject (by reflexivizing a verb of speech), a strong preference is created for the agreeing complementizer. While it remains unclear what the precise analysis should be here, such facts may well relate to the sentience requirements noted above.⁵⁰

Additional suggestive evidence relating Lubukusu complementizer agreement to logophoric phenomena is the lack of complementizer agreement in *because*-phrases. As observed by Culy (1994a), in many languages with logophoric pronouns causal clauses such as the embedded clause in (122) are not logophoric domains. As (122) demonstrates, the agreeing complementizer may not appear in *because*-phrases (despite the fact that non-agreeing complementizers are possible).

- (122) Mikaeli a-likho a-cha sikila mbo/bali/*a-li a-likho a-elekesia Tegani
 1Michael 1S-PRG 1S-go because that/that/*1-that 1S-PRG 1S-escort 1Tegan
 ‘Michael is leaving because he is escorting Tegan.’

A similar circumstance arises in conditional clauses, however, which would not typically be considered to be logophoric domains. As can be seen in (123), the complement clause begins with the sequence (*ne*) *kaba*, which roughly correlates to English *if*, after which a non-agreeing complementizer is possible, but the agreeing complementizer is ruled out.

- (123) Alfred ka-reba Sammy ne kaba mbo (*ali) bakeni ba-ache
 1Alfred 1S-asked 1Sammy if that 2-guests 2S-went
 ‘Alfred asked Sammy if the guests left.’

The fact that the agreeing complementizer is ruled out in this case as well may suggest that its distribution here has less to do with logophoric domains and more to do with its compatibility with constructions using multiple complementizers. This must necessarily remain a topic for future research, however.

⁵⁰As a reviewer points out, another strong possibility may have to do with the evidential properties of the various complementizers in Lubukusu: if non-agreeing complementizers are capable of triggering an interpretation where the matrix subject doubts the interpretation of the embedded clause, the unlikely nature of such a situation in a sentence like (121) might account for the unacceptability of the non-agreeing complementizers. As with all the facts in this section, this issue requires much further research.

An additional (significant) concern for any attempt to link the Lubukusu complementizer agreement operator with the logophoric operators of West African languages is the availability of complementizer agreement with expletives for some speakers of Lubukusu, with examples given above in (73), (74), and (97). As noted above, it is as of yet unclear the precise nature of these apparently non-thematic null subjects, but the data are troublesome either way. These facts, along with the more general considerations of connections with logophoric phenomena, all remain important issues for future research.

5 Conclusions, and some additional theoretical consequences

This paper has provided extensive documentation and analysis of an unfamiliar form of complementizer agreement from the Bantu language Lubukusu, where the complementizer agrees with the superordinate subject. Using a variety of diagnostic evidence, I demonstrated that complementizers may only agree with the subjects of their selecting clauses, which I analyzed as local agreement between the complementizer and a null operator in its specifier. My claim is that this null operator is a subject-oriented anaphor, explaining the subject-orientation of complementizer agreement. I therefore claim that this is an Indirect Agree relation: the agreement relation between the complementizer and the subject is in fact mediated by another syntactic element.

There are a number of issues that remain open, however. Empirically speaking, despite the fact that this paper documents a wide range of contexts for complementizer agreement, certainly there are many more syntactic contexts and syntactic, pragmatic, and semantic properties which are yet to be uncovered about this phenomenon. Theoretically-speaking, we are left with a large number of questions as well. The data introduced in the last section require significant analysis, and addressing broader issues of complementation in Lubukusu (and related languages) will go a long way towards clarifying the available left-peripheral structures that are affecting the complementation patterns attested here.

It is notable that the conclusions here about the nature of this complementizer agreement do not significantly alter our current conception of some core aspects of Minimalist theory, namely, cyclic spell-out and Agree, which seemed to face significant *prima facie* challenges from the Lubukusu complementizer agreement relation. As I have demonstrated, however, this agreement relation that (on the face of it) appears highly problematic for our notions of locality in syntactic derivational operations in fact turns out to not be problematic in the least. This conclusion in and of itself is a promising result.

Where Lubukusu complementizer agreement seems to remain a significant theoretical challenge is for theories of feature inheritance (Chomsky 2008, Richards 2007) which posit that the phi-features on T° does not originate on T° , but are instead inherited from C° , which may or may not retain copies of those features (Ouali 2008). Lubukusu complementizer agreement clearly demonstrates that the phi features that appear on C° may be unmistakably distinct from the phi-features that appear on the T° head that it selects. As argued in section 3.7.2, these facts entail that a simplex-CP approach to feature inheritance is untenable, and also that any approach seeking to define phase heads by the presence of unvalued phi-features will fail to explain the properties of Lubukusu complementizer agreement.

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