AGREEMENT WITH SUBJECTS IN LUBUKUSU

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ABSTRACT

This dissertation examines three topics in the morphosyntax of Lubukusu (Bantu, Kenya), all of which are concerned with agreement with subjects: locative inversion, complementizer agreement, and alternative agreement effects in subject extraction. Each topic reports novel Lubukusu data which are both typologically interesting and theoretically relevant within the frameworks of the Minimalist Program and Distributed Morphology. Specifically, each of these topics addresses the question of directionality in probe-goal relations, entertaining the hypothesis that heads may probe 'upwards' in a structure (Baker 2008).

The first topic is the morphosyntax of subject extraction, in which it is argued that the Criterial Freezing framework of Rizzi and Shlonsky (2007) accounts for Lubukusu subject/non-subject extraction asymmetries. It is then demonstrated that this approach to subject extraction explains the alternative agreement effects (commonly referred to as anti-agreement effects: AAEs) that appear in Lubukusu and other Bantu languages, capturing facts which are unaccounted for by previous analyses. In the course of this discussion a variety of new data regarding anti-agreement effects in Lubukusu are introduced.

Second, it is demonstrated that there are two distinct locative inversion constructions in Lubukusu (termed *disjoint agreement* and *repeated agreement*), which differ in their subject agreement properties and possess different structures. The results add breadth and depth to the reported typology of locative inversion in Bantu languages (Buell 2007, Marten 2006) and other languages (e.g. Culicover and Levine 2001 for English). The discussion of these constructions also addresses at length the nature of locative morphology which appears on verbs in Lubukusu, proposing a locative licensing projection (Location Phrase) to account for these properties.

Finally, Lubukusu has a complementizer which agrees with the matrix subject in an embedding context (e.g. *John knows **agr-that** the boys left*). The empirical properties of this agreement relation are reported in depth, and it is proposed that there are two conditions on this construction: the complementizer may only agree with the the immediately superordinate subject, and that subject must be an appropriate logophoric antecedent. It is claimed that complementizer agreement is actually triggered locally by a null logophoric operator in the left periphery of the embedded clause, and that the reference of this operator is determined by an obligatory control relationship with the matrix subject. This phenomenon is critically relevant for many current issues within the Minimalist architecture, including theories of agreement, phases, logophoricity, and subjecthood.

To Vivian Lusweti, who made this dissertation possible

Acknowledgments

From early on in my graduate school career, I would read the acknowledgments of dissertations and dream about the day when I would write my own. I generally had two thoughts when I read others' acknowledgments: that I didn't even know as many people as the authors were thanking, and that it would surely be the apex of my graduate career to write such a thing, as it meant that my dissertation was complete. Now that this time has arrived, the moment is different than I would have expected. Putting finishing touches on a document I've worked on for 3 years is a more surreal experience than I had anticipated, as I have floated through the final weeks almost unaware of how the work was being completed. It has, however, been completed, and I have found (like the others before me) that I have only reached this point by the strength of the support I have received from those around me.

The first and greatest thanks are due to Vivian Lusweti, who generously met with me over the course of two years, introducing me to the basics of Lubukusu. Without her altruism and commitment to the success of the project, this dissertation would not exist. Though surely nothing I can do will ever adequately repay her, I dedicate this dissertation to her in recognition of her work and time given on my behalf, and as a demonstration of my gratitude.

I am quite fortunate to have benefited from an extraordinary committee. Mark Baker has been an inspiration to me since I first started working on syntax, and his contribution as a reader

on my committee was invaluable. In particular, his willingness to peruse and comment on my half-completed data collection and my incomplete analyses during my fieldwork trip made my data set incredibly richer and more interesting in the end. Paul Portner's assistance was critical, especially in the time periods when I found myself otherwise without an advisor on campus. His ability to poke holes in theories and to see the full consequences of an idea were critical to refining my work, and the end product that sits before you now would have been sadly ailing were it not for his contributions.

I consider myself wholly fortunate at Ruth Kramer's timely arrival at Georgetown. She was saddled with a disproportionate amount of my confused head-scratching over Lubukusu complementizer agreement in my final year, and I would have been suffering greatly were it not for her willingness to sit down and help me sort out the final half of my dissertation. I also owe her greatly for her assistance during my job search process, and it is clear that the current and future students at Georgetown should celebrate their good fortune at being able to study with her.

As my wife says, I would have quit long ago if it were not for my advisor Raffaella Zanuttini. I am grateful for an advisor who took an interest in me as a person as much as in my ideas about syntax and linguistic research. She has shaped my values as a researcher today— valuing empirical and theoretical contributions equally, appreciating the contribution of a piece of research alongside finding its weaknesses, and discovering the benefits of collaborative research. I've missed her since she left Georgetown, but I will miss her even more once she is no longer supervising my work.

I would not have come to the point that I am at now without Vicki Carstens. She is another person whose work inspired me early in my graduate studies, and then I later had the good fortune to collaborate with her on a project on Bantu syntax. She somehow managed to

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Glossing Conventions

Cardinal Numbers (1, 2, 3, etc…)   Noun class features
Ordinal Numbers (e.g. 1st, 2nd)   Person features

AAE	Alternative agreement effect (also Anti-agreement effect)
AGR	Agreement
ASP	Aspect
AP	Applicative
ASSOC	Associative marker (also ASS.)
C	Agreement on a CP-level head
CAUS	Causative
CL	Noun Class
COMP	Complementizer head
COP	Copula
CTN	Continuous
DEM	Demonstrative
FUT	Future tense
FV	Final Vowel (only glossed when it is morphologically separated from the verb root)
HAB	Habitual
IMPF	Imperfect
INF	Infinitive
L	Locative clitic (i.e. locative agreement)
LOC	Locative (phrase)
NEG	Negation
O	Object Marker
OBJ	Object
PASS	Passive
PERS	Persistive aspect
PL	Plural
POSS	Possessive
PP	Pre-prefix
PRED	Predicational head
PRF	Perfect
PRG	Progressive aspect
PRS	Present
PST	Past tense
REL	Relative marker
RFM	Reflexive marker
S	Subject marker
SBJ	Subjunctive
SG	Singular
SM	Subject marker (this gloss is retained from previous sources in some cases)

SUBJ	Subject
STAT	Stative
TAM	Tense/aspect marker
TNS	Tense (generic gloss for a tense morpheme)

A note on glossing Tense

The Lubukusu tense/aspect system is a complex interaction of segmental and autosegmental (tonal) morphology. Tense is glossed in this dissertation in accordance with the offered translations, and glosses are not meant to offer an analysis of the tense/aspect system.

Orthographic conventions
Common East African orthographic conventions are adopted in this work, representing how Lubukusu speakers tend to write their own language, though there is limited standardization. Tone markings are omitted.

kh	Digraph represents the voiceless velar fricative [x]
ng'	Trigraph represents the velar nasal [ŋ]

1 Introduction

1.1 Major Themes

This dissertation explores three topics within the morphosyntax of Lubukusu, all of which have to do with some form of agreement with subjects. The first two are non-canonical forms of subject agreement: the alternative agreement effects that occur with the extraction of a certain class of subjects (chapter 3) (related to what are referred to as anti-agreement effects in the literature), and the different subject agreement patterns that are possible with locative inversion constructions (chapter 4). Chapter 5 addresses another form of agreement with subjects, but which occurs on complementizers rather than on verbs. In this way the dissertation provides theoretical analyses and proposals concerning Lubukusu morphosyntax, but is structured based on a group of empirical phenomena having to do with agreement with subjects.

In this dissertation I seek to accomplish two related goals. The first is to document theoretically significant aspects of Lubukusu (an under-researched language, see §1.2). In this respect, at points in the dissertation data are included which are relevant in terms of documenting the full scope of the phenomena under consideration, without necessarily serving as direct evidence for or against a specific theoretical hypothesis. That being said, this dissertation also seeks to make strong theoretical contributions. Particularly, all of the topics which are considered here are included not only on account of their typological significance, but are also included due to the fact that they provide significant challenges or pose interesting questions for

current theoretical proposals regarding the relevant empirical phenomena. The analyses that I present are intended not only to account for the empirical puzzles in Lubukusu, but also to contribute to our understanding of such phenomena cross-linguistically and to contribute to the research program of the Minimalist Program by identifying what aspects of syntactic theory are necessary for a cross-lingusitically accurate theory of the human faculty of language.

I will briefly discuss the empirical phenomena and theoretical issues that are discussed in each chapter, though the discussion here is intended only to highlight the main themes of the dissertation, not to provide a full discussion of the empirical and theoretical topics that are covered. The second chapter explores some of the basic morphological elements in Lubukusu, mainly subject agreement and agreement with non-subjects (locatives and objects). I give some basic evidence about the subject marker and the object marker, and propose theoretical analyses of both. I pay particular attention to the locative agreement form that appears on verbs, as this is generally an under-researched area of Bantu languages, and chapter 2 makes a proposal to account for the distribution of the morpheme. Beyond documenting and discussing the Lubukusu morphology, this discussion also sheds light on the licensing of locations in argument structure.

Chapter 3 addresses two main themes, subject extraction and alternative agreement effects (AAEs).[1] Utilizing the Criterial Freezing framework of Rizzi and Shlonsky (2007), I propose that the subject extraction mechanism which is utilized in Bantu languages is responsible both for the particular morphology that appears in subject extraction as well as the particular alternative agreement effect that occurs in subject extraction. I then provide a large

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[1] See chapter 3 for a discussion of the term "alternative agreement effect," as opposed to the more familiar term "anti-agreement effect".

collection of instances of alternative agreement effects, showing how my analysis accounts for the wide variety of contexts in which these AAEs occur.

Chapter 4 deals with locative inversion, introducing two locative inversion constructions not previously discussed in the literature on Bantu locative inversion, and which differ from each other with respect to subject agreement. Based on a wide variety of diagnostics I propose two different structures for these constructions, discuss how they intersect with the discussion of locative clitics in the second chapter, and examine the relevance for theoretical approaches to agreement, particularly those dealing with Bantu languages.

Finally, the fifth chapter addresses complementizer agreement in Lubukusu, which displays the typologically rare property of agreeing with the matrix subject. This also raises a number of theoretical questions, as this long-distance 'upward' agreement relation is generally unpredicted by current syntactic theories of agreement. Again, the goals of this chapter are twofold: to sufficiently document the syntactic properties of the agreement relation, and to propose a theoretical analysis.

All of these topics in some way address recent proposals regarding the nature of agreement within Bantu languages. Collins (2004), Carstens (2005), and Baker (2008) all have set forth different theoretical implementations of the idea that heads in Bantu agree with structurally higher phrases: I refer to these proposals collectively as the Upward Agreement Hypothesis, and this hypothesis is addressed in various ways in each of the chapters mentioned above. My assumptions about Agree are clarified in §1.5, including clarification of the Upward Agreement Hypothesis as I adopt it in this work. Before moving on to that, though, I want to focus on Lubukusu and its role in syntactic research.

1.2 Lubukusu and Luyia Languages

1.2.1 **OVERVIEW**

Lubukusu is a Bantu language spoken in the Western province of Kenya by approximately 550,000-800,000 people (J.30).[2] Previous work on Lubukusu has mainly included phonological, morphological, and lexicographic work (Austen 1974a,b; De Blois 1975; Downing 2004; de Wolf 2005; Mutonyi 1996, 2000; Marlo 2009; Marlo et al 2008), though there has been some work on the syntax of Lubukusu (Austen 1974a; Wasike 2002, 2007; Bell 2004; Sikuku in progress). The previous syntactic research that is relevant to this dissertation is mainly (Wasike 2007), which I address at various points throughout the dissertation, though mainly in chapter 3 with respect to subject extraction.

Lubukusu belongs to the Luyia subgroup of Bantu languages, of which it has been estimated that there are at least 23 different dialects spoken in Western Kenya and Eastern Uganda (Marlo 2009). Lewis (2009) classifies Lubukusu as is shown in (1): a Niger-Congo, (Narrow) Bantu, Luyia language.

(1)   Classification of Lubukusu
        Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow
        Bantu, Central, J, Masaba-Luyia (J.30), Luyia

The most recent version of the Ethnologue (Lewis 2009) has reclassified Lubukusu as a "language" (along with the other Luyia 'dialects'), and 'Luyia' is identified as a superseding "macrolanguage". Marlo (2009) provides an excellent summary of the existing research on

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[2] Estimates vary widely as to the number of Lubukusu speakers: see Mutonyi (2000) and Lewis (2009) for a few. Lubukusu has also been reclassified from its Guthrie classification of E31c to J30 in Lewis (2009), and JE31c in Maho (2008).

Luyia languages, from which it is clear that though the amount of research on these languages is growing, there is still much work to be done both in terms of documentation and in terms of theoretical analysis, particularly with respect to morphology and syntax.

As is shown in the map below, the region where Lubukusu is spoken is far in the West, very close to the Ugandan border. In the map in (2) Lubukusu is region 25, the sole Bantu language reaching above the inset (shown as green), and also extending into the territory show in the inset box (the only un-numbered green region in the inset).

(2)　　Map of the Languages of Kenya (Lewis 2009)[3]

Language Families

KENYA

Bantu
Cushitic
Nilotic

0　50　100　150　200 km

------- Boundary in dispute

SUDAN

ETHIOPIA

National Park
Lake Turkana

UGANDA

SOMALIA

Ewaso Ngiro

see inset

Lake Victoria

Nairobi
★

National Park

Mara

TANZANIA

0　10　20　30 km

Tana

National Park

National Park

Indian Ocean

OFFICIAL LANGUAGES
English
Kiswahili

Notes:
1. White areas are sparsely populated or uninhabited.
2. Dashed lines show overlap of language areas.
3. Brackets show the number of times a language's number appears on map, if more than once.

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1 Aweer (3)
2 Borana (4)
3 Burji (2)
4 Chichonyi-
　- Chidzihana-Chikauma
5 Chidigo
6 Chiduruma (2)
7 Daasanach
8 Dahalo
9 Dawida
10 Dholuo
11 Ekegusii
12 Gichuka
13 Gikuyu
14 Kamba (2)
15 Keiyo
16 Kiembu
17 Kigiryama (3)
18 Kimííru (2)
19 Kipfokomo (2)

20 Kipsigis
21 Kiswahili (2)
22 Kitharaka
23 Kiwilwana
24 Kuria
25 Lubukusu
26 Luidakho-
　- Luisukha-
　- Lutirichi
27 Lukabaras
28 Lulogooli
29 Lutachoni
30 Maasai (2)
31 Markweeta

32 Mwimbi-
　- Muthambi
33 Nandi
34 Nyala (2)
35 Okiek (3)
36 Olukhayo
37 Olumarachi
38 Olumarama
39 Olunyole
40 Olusamia
41 Olushisa
42 Olutsotso
43 Oluwanga
44 Orma (5)

45 Pökoot (2)
46 Rendille (4)
47 Sabaot
48 Sagalla
49 Samburu (4)
50 Somali (4)
51 Suba (2)
52 Taveta
53 Terik
54 Teso
55 Tugen
56 Turkana (3)
57 Waata (3)
58 Yaaku (2)

1.2.2   WHY LUBUKUSU?

An important question that the reader may be asking is what merits the particular language choice of Lubukusu (besides the commitment that all languages deserve investigation and analysis, a belief which I hold strongly). There are strong reasons why Lubukusu in particular is an important object for theoretical syntactic research, as well as language documentation.

The first is that Bantu languages (and Niger-Congo languages more generally) represent a large percentage of the world's language diversity, and yet are woefully under-researched (compared to the languages and language families of more economically-developed regions). Based on the Ethnologue's current statistics (Lewis 2009), 1,532 of the world's 6,909 languages are in the Niger-Congo family, 522 of which are classified as Narrow Bantu. That is, 22% of the world's languages are Niger-Congo languages, and 7.5% of the world's languages are Bantu languages. In contrast, there are 439 Indo-European languages, with 48 Germanic languages and 41 Romance languages (0.7% and 0.6% of the world's languages, respectively, to nit-pick a few sub-families).

Without providing specific statistics, even a cursory overview of the linguistic literature (and, specifically, theoretical syntax literature) shows a strong bias for Indo-European languages. This is the natural result of the disparate economic conditions of Western nations compared to developing nations of Africa (and, consequently, the amount of resources available for linguistic research). That being said, it also provides a strong argument for fieldwork-based research to continue to explore the properties of Bantu languages (for example). This will help ensure that our theoretical work does not become fixated on parochial aspects of familiar languages as critical elements of the human language faculty, when a broader typological scope would easily disprove this.

In fact, Bantu languages are often referred to as a monolithic linguistic grouping ("Bantu does X"), while new research continually uncovers significant differences between these languages (as in any language family). This of course can only be remedied by in-depth research into specific Bantu languages, and as will be shown for different issues in chapters 2, 3, and 4 in this dissertation, constructions which on the face of things appear quite similar in related Bantu languages can in fact show very different syntactic properties. Luyia languages in particularly are under-researched with respect to their syntactic and morphological properties, and expanding the research on Lubukusu is an important start to filling that gap in addressing syntactic typologies of Bantu languages.

An additional reason for looking at Lubukusu is that it has constructions which have been previously unreported or under-reported, and which give us important insight into the nature of these constructions cross-linguistically (e.g. locative inversion and complementizer agreement, in this dissertation). And while in the end looking at diverse languages will arguably point us to what is the same between all languages, that is, the nature of Universal Grammar, linguists nonetheless continue to discover new aspects of the human language faculty when looking at previously unresearched languages that they may have never noticed if only looking at a more restricted set of languages. Researching Lubukusu is another means to that end, and as this dissertation will demonstrate, points us to some very interesting aspects of human language.

All of this is to say not only that Lubukusu is a legitimate object of syntactic research that demands further attention (along with other Bantu languages), but also that research on Lubukusu reveals some very interesting aspects of human language that are critical to address in consideration of a Universal Grammar.

1.3 Methodological Approach

1.3.1 SOURCES OF DATA

For the most part, the data discussed in this dissertation come from my own fieldwork, which includes interviews with a native speaker in Washington, DC, and interviews with native speakers in Kenya. Fieldwork in Kenya was mainly carried out in the town of Bungoma (with speakers from the surrounding area), as well as in the foothills of Mt. Elgon between Chwele and Sirisia, just east of the Ugandan border. Any examples which were collected during this fieldwork are simply unmarked as to their source in the text.

All data which were collected during fieldwork were recorded in an interview setting. The fieldwork in DC consisted of an interview between myself and the consultant, and fieldwork in Kenya consisted of interviews between myself and the consultants, with a research assistant present to facilitate the interviews and to translate (between Lubukusu, Swahili, and/or English, where necessary).

In addition, certain data were graciously provided to me by Justine Sikuku at Moi University, and these data are cited as such. Further data are also included from previously published linguistic research on Lubukusu, mainly Mutonyi (2000) and Wasike (2007), as well as select data which are included from a publication of Bukusu stories (de Wolf 2005), though these data were also confirmed with speakers in the course of fieldwork. Any data on languages other than Lubukusu come from previous publications, including theoretical work as well as descriptive grammars. All data from previously published sources (Lubukusu or otherwise) are cited as such in the text.

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1.3.2   **ACCEPTABILITY JUDGMENTS**

In line with a large amount of work on generative syntax, this dissertation gives analyses of

Lubukusu (and other Bantu languages) based largely on acceptability judgments by native

speakers of the language(s). That is to say, the analyses presented here are intended to reflect the

set of sentences that are acceptable in Lubukusu, and exclude those sentences which are

unacceptable, sets which are necessarily delimited by subjective judgments by native speakers as

to whether a sentence is acceptable or not.

As pointed out by Featherston (2007), the nature and source of this subjective sort of data

is an issue which must be carefully addressed. In order to avoid building a theory on completely

idiosyncratic judgments, Featherston (2007: 282) advocates a specific set of standards for

collection of linguistic data, which he divides into the Essentials (minimal standards), and the

Desirables (ideal standards).

(3)   *The Essentials*
            a.   multiple informants
            b.   multiple lexical variants of the structures
(4)   *The Desirables*
            a.   task: responding to input
            b.   scale: multiple degrees of well-formedness

These proposed standards are intended to provide a methodological framework, standardizing

data collection and bringing data collection under as rigorous scrutiny as the theoretical analysis.

In the same issue, den Dikken et. al. (2007) respond in part by emphasizing that the

object of study of generative linguistics is I-language (a cognitive structure), rather than E-

language (actual spoken language). The sociolinguistic notion of 'language' that we use every

day to refer to English or Lubukusu refers to a collection of individuals whose I-lanugages are

similar enough to allow them to communicate with one another, but den Dikken et. al. point out

that it is only in a social sense, rather than a cognitive sense, that a group of indivuals speak the same language. That is, their E-languages may be similar or near-identical, but each individual's I-language is their own idiolect, in their own mind, and this is the object of study of generative linguistics. Therefore,

> *Every speaker's grammar is, once again by hypothesis, a reflection of Universal Grammar, and, as a result, every speaker's grammar must meet the requirements imposed by the invariant principles and the particular parameter-settings allowed by UG. Given this, relying on the judgments of individual speakers certainly should not be incompatible with studying UG.* (Den Dikken et. al. 2007: 341)

Though I accept this argument in principle, I believe it is necessary in practice for linguists doing fieldwork on understudied languages to follow Featherston's minimal standards. While some speakers may be trained carefully to access their linguistic intuitions, this is not always possible, especially in fieldwork contexts. Given this restriction, it is often possible that speakers will report judgments based on criteria which were not intended at the time of asking (e.g. judging 'the bird sat on an avocado tree' unacceptable because that type of bird doesn't sit on that type of tree). Additionally, speakers will often fixate on a certain sort of response when answering interview questions to the detriment of other equally acceptable responses (*THIS is how it's said!*), or perhaps become unable to let go of a specific reading of a given sentence to realize that multiple readings are possible. All of these issues can be addressed by interviewing multiple speakers, as any of the idiosyncratic data may be identified as such (i.e. idiosyncratic data that arise in the research due to the nature of researching on a relatively unknown language which the researcher does not speak natively).

For these reasons, though, I also wholeheartedly endorse Den Dikken et. al.'s (2007) support for interview techniques. The authors note that speakers often volunteer data that the

researcher would not know to look for, or provide insight into the reason behind an unacceptable sentence that would be otherwise opaque in a questionnaire, for example. This was often the case in my own fieldwork that provided the data for this dissertation.

My methodology with respect to the collection of data on Lubukusu therefore attends to Featherston's (2007) *Essentials*, verifying attested data with multiple speakers, and eliciting multiple lexical variants of the relevant structure. I will clarify my application of these standards, however. All core data which were elicited from a single speaker were confirmed with at least two other speakers. To the extent that it is possible, this is also true of data that are cited from other sources or provided to me by other linguists, though this is not true in every single instance. In cases where there was significant disagreement or variation among speakers, this variation is noted in the text or in a footnote.

It is clear from the argumentation throughout the dissertation that multiple lexical variants of constructions were elicited, often revealing interesting points of variation which are described and analyzed in the chapters that follow. This is the case for core constructions and critical diagnostics, but is not necessarily the case for every peripheral piece of data or minor diagnostic. This is particularly relevant for researching understudied languages: because so little is known about a language like Lubukusu, many times the diagnostics which are utilized are themselves deserving of much deeper investigation in the language, perhaps meriting multiple lexical variants elicited for each core piece of data for the diagnostic constructions as well. That being said, it is obvious that this line of reasoning would quickly lead to an attempt to analyze the entire language, which is unfortunately impossible in any single work (or, for that matter, any individual's lifetime). For this reason minor diagnostics and peripheral issues were not subject to

the same scrutiny with respect to testing lexical variation that the core constructions and core diagnostics were.

In the end, therefore, the use of multiple speakers and multiple lexical contexts provides a rich and reliable data set. This also accords with my commitment to not only making theoretical contributions, but also thoroughly describing the constructions under investigation in an effort to contribute to the documentation of Lubukusu.

1.3.3 MICRO-VARIATION

As will be discussed in the next section, the theoretical approach in this dissertation is from the perspective of Universal Grammar, which includes examining how structures in varied languages inform the structure of a given language (here, Lubukusu), but also investigates how the structures that are found in a single language (here, Lubukusu) inform our conception of the (universal) human faculty of language.

In this way the study of syntactic micro-variation is relevant, that is, the study of small variations between languages that for the large part are very similar, but differ from each other in small (though not insignificant) ways. Perhaps the most prominent example of this work in the field of generative syntax is the large amount of work that has been done on Italian dialects (see, for example, Tortora 2003). These are languages that share a lot in common with each other, but display consistent differences in areas such as the properties and placement of clitics, specific aspects of negation, subject agreement, or other such issues. The fact that these languages are so closely related serves to control for the extremely large number of variables that come into play when comparing different languages. For example, knowing that word order, general agreement properties, and the morpho-syntax of clitics are for the most part consistent between two Italian dialects makes it easier to explain what differences DO appear between them. This provides a

linguistic laboratory, as it were, to discover syntactic properties of human language that might be obscured otherwise by the 'larger' differences between two languages.

Bantu languages provide another "linguistic laboratory", as Bantu languages share a lot of morpho-syntactic similarities, providing the tools to explore the structure of certain types of constructions. An example is the significant research on relative clauses (e.g. Keach 1980, Pak 2007, Walusimbi 1996) that makes possible work like Henderson (2006), which builds a typology of relative clauses across Bantu languages and uses the variation between them to clarify the structures of individual languages.

This work attempts to join this body of work in various ways. Most clearly, the locative inversion constructions of Lubukusu are considered in a cross-Bantu perspective in chapter 4, looking at how they contribute to the general typology of locative inversion, as well as considering their specific structures within Lubukusu. In addition, I consider some of the cross-linguistic properties of alternative agreement effects in Bantu languages, where data is available from other languages, seeking to establish both a knowledge base of the cross-linguistic variation, as well as a theoretical approach which is capable of incorporating these differences.[4]

1.4 Basic Theoretical Background

This section introduces my basic theoretical assumptions: as has been noted to this point, this dissertation is not only an extended investigation and documentation of particular syntactic constructions in Lubukusu, but is also a contribution to the broader theory of the human faculty of language. My work for the most part lies within the theoretical frameworks of the Minimalist

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[4] It might be more properly said that this sort of cross-linguistic comparative research is more akin to Romance comparative studies, rather than that of the Italian dialects, given the much more vast difference within the Bantu family than within the Italian languages. It will be many years, however, before our knowledge of individual (yet related) Bantu languages comes close to comparing to our level of knowledge of either Italian or Romance more generally.

Program (Chomsky 1995, 2000, 2001, 2004) and Distributed Morphology (see, among others, Halle 1990; Halle and Marantz 1993, 1994; Marantz 1997; Embick and Noyer 2001, 2007; Embick and Marantz 2008). In particular, theories of agreement and the realization of agreement morphology are crucial to the analyses pursued here, and my assumptions on these fronts are discussed in the next section.

These frameworks assume an architecture where most morphological operations occur post-syntactically, along the PF branch.

(5)   Syntactic derivation (narrow syntax)   (cf. Kramer 2009, Embick
                                                                            and Noyer 2007)

    Morphology
                        PF   LF
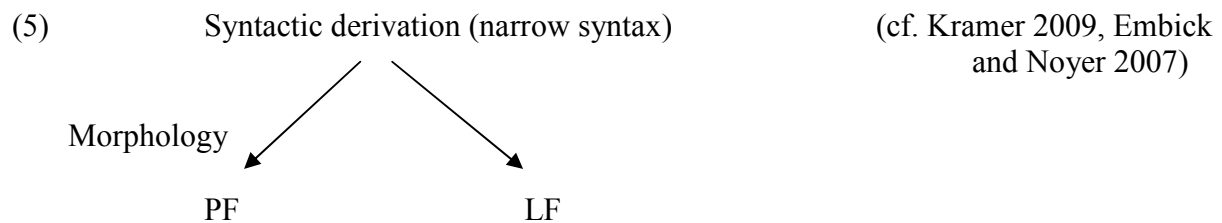
I will not be particularly concerned with detailing all of the relevant theoretical assumptions of both frameworks, rather, they will be reviewed at the points in the text which they become relevant. I will however discuss one major component of DM theory here, namely, the insertion of phonological forms at terminals (i.e. Vocabulary Insertion). According to DM, the basic terminal nodes on tree diagrams are either abstract morphemes (exclusively non-phonetic features like [future]), or they are root morphemes (complexes of phonological features) (Embick and Noyer 2007). Vocabulary Insertion is the mechanism which supplies phonological features to abstract morphemes, post-syntactically, as is shown in (5). The Vocabulary lists phonological exponents of abstract morphemes along with the conditions on insertion for each Vocabulary Item. As illustrated by Embick and Noyer (2007), /-z/ is the regular phonological form of the English plural, and is therefore listed as in (6):

(6)   z   ↔   [pl]

It will often arise, however, that more than one vocabulary item has features which would merit

its insertion onto a terminal node, and therefore at Vocabulary Insertion vocabulary items

compete for insertion at a given node. At this point the Subset Principle according to Halle

(1997) is taken to determine which vocabulary item 'wins' the competition for insertion:

(7)   <u>Subset Principle</u>

      i)   The phonological exponent of a Vocabulary Item is inserted into a position if
                the item matches all or a subset of the features specified in that position.
      ii)   Insertion does not take place if the Vocabulary Item contains features not
                present in the morpheme.
      iii)   Where several Vocabulary Items meet the condition for insertion, the item
                matching the greatest number of features specified in the terminal morpheme
                must be chosen.

                           (Halle 1997:428, as presented in Kramer 2009)

In this way, the vocabulary item that maximally matches the features on a terminal node will be

inserted at Vocabulary Insertion, but crucially, any morpheme which is overspecified, containing

features not present on that terminal node, may not be inserted (according to (7)ii). It is in those

cases that a lesser-specified vocabulary item which still matches in features with the morpheme

may be inserted. This formulation of the Subset Principle will be critical to the discussion of

alternative agreement effects in chapter 3. Specifically, the Subset Principle will determine

which agreement forms are inserted in the context of phi-feature agreement with subjects in

extraction contexts.

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The preceding is only a cursory summary of one particularly relevant component of Distributed Morphology theory. Further relevant aspects of Minimalist theory and DM theory are elucidated as they become relevant in the course of the dissertation. The following two sections address two additional areas of necessary theoretical background, however, which are discussed here because they are not (or at least, not yet) standardly assumed within syntactic theory. Section 1.5 addresses agreement and Minimalist theories of Agree, and §1.6 addresses the notion of Criterial positions, and specifically the notion of a specific structural subject position.

1.5 Agreement and the Agree Operation

1.5.1 A MACROPARAMETER APPROACH: BAKER (2008)

The framework for syntactic agreement within which I will operate is set forth in Baker (2008), who proposes a revised version of Chomsky's (2000, 2001) Agree relation with the goal of providing a unified theory of agreement which can account for the patterns of agreement found cross-linguistically across lexical categories. According to Chomsky (2000, 2001), the uninterpretable ϕ-features of a probe α seek a goal β with interpretable ϕ-features and an unchecked Case feature within its c-command domain.[5]

(8)   <u>Agree</u>
        [α [... β ...]]   —>   [α [... β ...]]
        [$u\phi$]   [ϕ, uCase]   [$u\phi$]   [ϕ, uCase]

Agree results when the probe's search is successful, resulting in the deletion (or valuation) of the uninterpretable features of the probe and the Case feature of the goal. Once its Case has been

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[5] Though read below for my specific assumptions regarding uninterpretability of features and valuation of features.

eliminated, the goal β is no longer a candidate for further Agree relations. Baker (2008)

summarizes Chomsky's (2000, 2001) Agree relation with the four conditions in (9):

(9)   A functional head F agrees with XP only if:
        (i)   **c-command condition**: F c-commands XP.
        (ii)   **intervention condition**: There is no YP such that F c-commands YP, YP c-commands XP, and YP has phi-features.
        (iii)   **phase condition:** F and XP are contained in all the same phases (e.g. full CPs).
        (iv)   **activity condition:** XP is made active for agreement by having an unchecked Case feature.

This formulation of Agree mandates that a head is able to enter an Agree relation with some XP

only in the event that that head c-commands that XP. Baker claims that this account is in fact

still too restrictive, and instead modifies the requirement of a c-command relation in a way that

expands the empirical coverage of the Agree operation.

(10)   F agrees with XP only if F c-commands XP *or XP c-commands F*.

In this way c-command is still a crucial relationship, but it is not necessary that the probe be the

c-commanding element; Baker (2008) motivates and applies this theory of Agree (coupled with

Baker's (2003b) theory of lexical categories) to analyze a large number of agreement patterns

cross-linguistically.

        To further broaden the scope of the analysis Baker proposes that this (revised) Agree

relation is also subject to two parameters, shown in (11) and (12), which he uses specifically to

compare Bantu languages and Indo-European languages.

		Bantu	Indo-European
(11)	Directionality Parameter: F agrees with DP only if DP asymmetrically c-commands F.	YES	NO
(12)	Case Parameter: F agrees with DP only if F values the Case feature of DP (or vice versa).	NO	YES

Baker's suggestion is that the parameters in (11) and (12) are macro-parameters, and as such they apply to each language as a whole and do not apply to individual functional heads on a case-by-case basis within a single language. He therefore argues that a given language will show the same agreement behavior (with respect to the parameters in (11) and (12)) for every head that shows agreement in the language.

Baker's claim is that Bantu languages systematically obey (11) and not (12), while Indo-European languages obey (12) and not (11). The prediction for a Bantu language like Lubukusu, therefore, is that a functional head may only agree with a DP that c-commands it: that is, agreeing heads in Lubukusu only probe upwards. Bantu scholars have long argued that agreement occurs in a spec-head relationship in Bantu (cf. Kinyalolo 1991, Koopman 2000, Demuth and Harford 1999, among others) and this parametric approach is a way of deriving this claim.

Carstens (2005) (and in much the same way, Collins 2004) seeks to explain the same facts with a similar analysis, though implemented differently. Instead of stating that agreement is upward in Bantu languages, she adopts Chomsky's Agree relation and instead claims that in Bantu languages probes are bundled with EPP features, so that Agree necessarily triggers movement. In this sense, the Spec-head (or otherwise 'upwards') configuration is not necessary for agreement, but rather is a consequence of Agree. In Indo-European languages, on the other

hand, uninterpretable phi-features are bundled with Case features (at least, generally), with the result that agreement in Indo-European is linked with Case. This feature-linking approach covers essentially the same empirical ground as the approach set forth in Baker (2008), though there are certain Bantu features (like complementizer agreement, see (17) and (18) below) which seem to favor the directionality approach over the feature-linking approach. For these reasons, I will base most of my argumentation on the directionality approach of Baker (2008). Section 1.5.3 explores a number of examples from Lubukusu which evidence typical Bantu agreement properties.

1.5.2 PHI-THEORY

An important aspect of the theory of Agree that is adopted in this work is that individual phi-features may be valued independently of each other (and, therefore, may probe independently of each other). This follows in part from Bejar (2008), who demonstrates based on evidence from Mordvinian, Karok, Basque, and Georgian that partial agreement of a phi-feature set with some goal is possible, and uses this conclusion to argue that features on a head may probe separately, unless there is an entailment relation between the two.

(13)   Entailment Condition on Probes

If [F] and [G] are probe features on a single head and if [F] entails [G], then [F G] probe together and may not by valued by different goals

On the other hand, if two features (such as person (π) and number (ω)) are not in an entailment relation, they need not probe together.[6] For my purposes in Lubukusu, where agreement is never

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[6] I adopt Bejar's symbols of π for person and ω for number, adding γ to stand for gender.

split between two arguments, it is not necessary that features probe separately, but what is crucial is that they may be valued separately/independently. Bejar does however claim that individual features such as π and ω may be entailed by a φ-bundle as a whole, [$_\varphi$ π ω], requiring that φ probe as a unit, though she says that this will only hold in select languages. I will in fact assume that φ bundles in Lubukusu do in fact probe as a unit, composed of person, number, and gender (γ):

(14)   Lubukusu φ bundle

[$_\varphi$ π ω γ]

The observation which I crucially take from Bejar's proposals is that there is a certain degree of independence to these phi-features, and that despite probing together, they may be valued (or, crucially, not valued) independently of each other. I follow Pesetsky and Torrego (2007) in departing from Chomsky's (2001) claim that uninterpretable features are necessarily unvalued, instead assuming that features' interpretability varies separately from their valuation. Therefore it is possible to have a valued, uninterpretable feature (as argued by Pesetsky and Torrego 2007 and Carstens 2010b). Additionally, I follow recent work such as Carstens (2010b) and Epstein, Kitahara and Seely (2008) in assuming that deletion of uninterpretable feature is not necessary. It is not that uninterpretable features cause a crash at the Conceptual-Intentional (CI) interface, but rather that the CI interface simply recognizes them as uninterpretable, and excludes them from interpretation (essentially, ignores them).

I would instead claim that it is unvalued features which can cause an interface crash, but this is a PF-crash and therefore a morphological problem, rather than a CI problem. But even

unvalued features may survive at PF in the event that there is still an acceptable vocabulary item (i.e. phonological form) which may be inserted at the terminal where those unvalued features are located. I will not discuss this in much more depth at this point, but will instead leave an in depth discussion of the empirical consequences of this approach for chapter 3 in the discussion of alternative agreement effects.

1.5.3 AGREEMENT IN LUBUKUSU

Though the predictions of the directionality parameter (11) and the Case parameter (12) can be demonstrated in many Bantu languages, Lubukusu in many ways is the quintessential example, displaying a large number of agreement relations that accord with Baker's prediction that agreement is upward: nominal, verbal, and left-peripheral in the complementizer field. For example, the complementizer-like element in the left periphery in (15) and (16) only agrees with a phrase that appears to its left.[7] Note that this complementizer-like element that appears in clefts is glossed here as PRED, following Wasike's (2007) intuitions and my own analysis, as I will discuss in §3.5.

(15) naanu ni-**ye**   ba-many-ile   o-kha-la-soma   si-i-tabu ta
      who   PRED-**1** 2S-know-PST   1C-NEG-FUT-read   7-7-book NEG
      Who do you know will not read the book?

(16) a. Ba-ba-ana **ni-bo**   ba-ba-a-fun-a   luu-saala   (Wasike 2007)
        2-2-child PRED-2   2C-2S-PST-break-FV 11-stick
        'It was children who broke the stick.'

    b. *ni-bo   ba-ba-ana ba-ba-a-fun-a   luu-saala
        PRED-2   2-2-child   2C-2S-PST-break-FV 11-stick
        'It was children who broke the stick.'

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[7] See §3.5 for specific discussion of this morpheme.

In addition, the typologically marked (but highly productive) complementizer agreement in

Lubukusu is another instance of upward agreement, with an embedding complementizer agreeing

with the matrix subject. (17) has a class two (plural) matrix subject, and the complementizer

bears class two agreement, not the class one (singular) agreement it would bear if it agreed with

John. With the noun classes of the embedded and matrix subjects switched, the complementizer

in (18) bears class one agreement with the singular matrix subject, clearly not agreeing with the

plural embedded subject. Agreement in this case is unambiguously 'upward':

(17) **ba-ba**-ndu ba-many-ile **ba**-li   John   a-la-soma   si-i-tabu
      2-2-person 2S-know-PST **2**-COMP 1John 1S-FUT-read 7-7-book
      '(The) people know that John will read the book.'

(18) **o-mu**-ndu a-many-ile   **a**-li   ba-ba-ndu ba-la-soma si-i-tabu
      1-1-person 1S-know-PST **1**-COMP 2-2-person 2S-FUT-read 7-7-book
      '(The) person knows that people will read the book.'

A further example comes from within the noun phrase, with the associative marker (most closely

translated as *of*). The associative marker necessarily agrees with the preceding phrase, rather

than the following phrase.

(19) a. Ba-ba-ana   ba-a   papa   [Lubukusu]
        2-2-child   2-ASSOC   father   (Mutonyi 2000)
        'father's children'

     b. si-sy-aangu   sy-a   papa
        7-7-sponge   7- ASSOC father
        'father's sponge'

The agreement properties of the locative clitic provide additional support for the 'upward

agreement' hypothesis. The locative clitic appears postverbally, but is impossible with an in-situ

locative phrase, as shown in (20). As (21) shows, however, if a locative phrase is left-dislocated,

it may co-occur with the locative clitic (similar to the clitic-left dislocation of Romance, see

Cinque 1990).[8]

(20)　　ku-mw-iti kw-a-kw-ile-**mo**　　(*mu-mu-siru)
　　　　3-3-tree　　3S-PST-fall-PST-**18L** 18-3-forest
　　　　'A tree fell in there.'

(21)　　mu-mu-siru ku-mw-iti kw-a-kw-ile-**mo**
　　　　18-3-forest 3-3-tree　　3S-PST-fall-PAST-**18L**
　　　　'In the forest a tree has fallen.'

It should be evident from the preceding examples, then, that Lubukusu heads show agreement

with a structurally higher phrase, similar to the more general pattern in Bantu languages.

　　　　Evidence from locative inversion and focus is relevant for Baker's (2008) argument, as in

many Bantu languages whatever phrase raises above the agreeing head (assumed to be T for

subject agreement on verbs) will trigger agreement, even if it is not the subject.[9] An example of

locative inversion is given in (22), from Kilega:

(22)　　**mu**-zízo nyumbá **mu**-á-nyám-é bána　 wálúbí　　　　　　　　[Kilega]
　　　　18-10that 10house **18S**-A-sleep-FV 2child one.day.period　　(Kinyalolo 1991)
　　　　'There will sleep children in those houses tomorrow.'

The specific settings of the directionality parameter in (11) and the Case parameter in (12) are

both crucial here – upward agreement guarantees that the raised locative phrase is the agreed-

with phrase, but the fact that Agreement is not dependent on Case feature valuation allows for a

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[8] The similarity here with clitics and the pronominal usage of the locative clitic in (20) raise the question of whether the class 18 clitic morpheme here can properly be considered "agreement". This discussion is taken up in depth in chapter 2.
[9] Subject-object inversion (or reversal) (Ndayiragije 1999, Keach 1980, Henderson 2006, Morimoto 2000) is another example of such a construction.

subject to appear postverbally while not triggering any form of agreement on the verb (as agreement in Bantu need not be linked to Case).

Lubukusu shows at least some initial support for this account from locative inversion, as is evident from the example in (23), where subject agreement is with the fronted locative phrase and not the postverbal logical subject:

(23) **mu**-mu-siiru **mw**-a-kwa-mo   ku-mu-saala
      18-3-forest   **18s**-PST-fall-18L 3-3-tree
      'In the forest fell a tree.'

As it turns out, however, Baker's account does not apply uncontroversially to Lubukusu, as locative inversion in Lubukusu may display apparently 'downward' agreement with the logical subject, in the case of disjoint agreement locative inversion.

(24) khu-si-kulu **kw**-a-biringila-kho **ku-m**-pira
      17-7-hill   3s-PST-roll-17L   3-3-ball
      'On/down the hill rolled the ball.'

The same 'downward' agreement pattern is true of "presentational constructions" in Lubukusu, as is shown below. This is in contrast to a prototypical Bantu presentational construction where the subject occurs postverbally and the verb bears a locative subject marker. An example from Setswana is given in (25):

(25) Gó-fith-ílé   rré   [Setswana]
      17s-arrive-PRF 1father   Demuth and Mmusi (1997)
      'There arrived father.'

Lubukusu presentational constructions depart from the prototypical Bantu pattern, displaying a structure similar to that of locative inversion, where the verb agrees with the postverbal subject and a locative clitic appears on the verb. The data in (26) - (30) demonstrate this agreement pattern.[10]

(26)   ola-mo   o-mu-sale wa-se   [Lubukusu]
       1S.arrive-18L 1-1-friend my
       'In there arrived my friend.'

(27)   b-echa-o   ba-ba-andu
       2S-came-16L 2-2-people
       'There came people.'

(28)   ba-a-kwa-mo   ba-ba-ana
       2S-PST-fall-18L 2-2-child
       'In there fell children.'

(29)   by-ola-o   bi-ndu   siina
       8S-arrived-16L 8-thing what
       'Which things arrived?' (lit. 'There arrived which things?')

(30)   b-ola-o   ba-ba-ana a-bo
       2S-arrived-16L 2-2-child   DEM-2
       'There arrived those children.'

What we find, therefore, is that despite the fact that Lubukusu displays prototypical Bantu 'upward' agreement properties—obeying (11) and not (12)—disjoint agreement locative inversion and presentational constructions show apparently 'downward' agreement with a postverbal subject. Note that I say that this agreement relation is "apparent" – that is to say, chapter 4 will demonstrate that in disjoint agreement locative inversion and presentational constructions there is more syntactic structure than is overtly realized, and it will be my claim

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[10] Note that chapter 4 discusses critical differences between these Lubukusu constructions and canonical Bantu presentational constructions.

that this extra structure results in these non-canonical agreement relations. I refer the reader to chapter 4 for a full description and discussion of the evidence for this claim.

1.6 Criterial Positions and Criterial Freezing

Rizzi (2006, 2007) and Rizzi and Shlonsky (2007) provide a framework within which to consider subject extraction, based upon the nature of movement in language and in particular the specific position of subjects. This section explains the motivations and essential elements of this framework, as it plays a central role in my analysis of subject extraction and alternative agreement effects in Chapter 3.

The (formal) motivation for movement in language has been a theoretical problem in recent manifestations of the Minimalist Program. This is not to say that there haven't been accounts set forward: Chomsky (1995) linked movement with (spec-head) agreement, but re-formulations of agreement as Agree served to divorce movement and agreement from each other (though see Baker 2008b and Carstens 2005 for discussions of instances where Agree may still be linked with movement). Richards (2001) links movement with strong (as opposed to weak) features, arguing that strong features carry instructions to PF that it is that specific copy in the chain which must be pronounced. Bošković (2007, 2008, to appear) claims that phrases move in order to check their own features—greedy movement, as it were—which in essence more clearly links movement with Case (or, whatever licensing feature on DPs must be checked). This is somewhat similar to the GB concept that NPs move to receive Case, though Bošković's account is expanded to explain successive-cyclic A'-movement as well. Despite these proposals, however, it has still been a pervasive assumption in the literature that movement is triggered by "EPP-features", a feature which requires that the head bearing it have a specifier, an explanation which is arbitrary at best.

Some recent work, however, argues that movement is motivated to fulfill an interpretive requirement (e.g. Fox 1999, Reinhart 2006). Rizzi (2006, 2007) adopts this basic tenet, arguing that chains typically terminate in positions that have specific interpretive properties, for example controlling the scope of an operator, or information structure properties (e.g. topic and focus). These 'scope-discourse' positions are assumed to be projections headed by the interpretationally relevant heads, for example, a topic position is a projection headed by a Top° head, which carries interface instructions along the lines of "my specifier is to be interpreted as a topic, my complement as the comment" (Rizzi 2007: 145).

Rizzi argues that these projections with scope-discourse properties are what he terms "criterial positions." A Criterion by his definition is "the requirement demanding the creation of a local Spec-head configuration which is then passed on to the interface systems where the relevant interpretive instruction is triggered" (Rizzi 2007: 146). This is in the exact spirit of the well-known "Wh-Criterion" in which (in Government and Binding Theory) a wh-feature on C° was argued to trigger movement of a wh-phrase to Spec, CP, because that wh-feature required a phrase with wh-features in its specifier. Rizzi takes the same reasoning here, applying the concept to all scope-discourse properties (not simply interrogatives), including topic, focus, heads of relative clauses, and so forth. Chains created by movement, then, consist of two different positions, both of which are relevant to the interpretive systems: the first is the position where an argument is introduced to a clause and which is responsible for its s-selectional properties (i.e. semantic selection), and the second is the scope-discourse criterial position where the chain terminates.

(31)   …… ____ X_{Crit} …… ____ $X_{s\text{-}sel}$ ……   (Rizzi 2007, #3)

Rizzi (2006) claims that the two positions specified in (31) each have two critical properties: they are unique, and they delimit the chain. That is to say, a chain will include no positions below where an argument is selected, and will include no position higher than the Criterial position (which triggered the movement in the first place). This upper delimitation is argued to be the result of "Criterial Freezing", by which a phrase which satisfies a Criterion is 'frozen' in place, unable to be subject to further movement operations.

(32) <u>Criterial Freezing</u> (Rizzi 2007: 149):

In a criterial configuration, the Criterial Goal is frozen in place.

By Rizzi's account, then, a Criterial Probe is a head possessing a criterial feature (e.g. Top°) which probes for a Criterial Goal with a matching feature (whether the phrase possesses the feature directly or via pied-piping). The Criterial Goal may then be internally merged as the specifier of the Criterial Probe, satisfying the Criterion. This goal is then frozen in that position, unable undergo further movement.[11] This ensures the restrictive form on chains shown in (31), which is evidenced in the contrast in (33) (Rizzi 2007: #7):

(33)   a. Bill wonders [which candidate Q [you voted for t]]

b. *Which candidate does Bill wonder [t' Q [you voted for t]]

In this case, it is not possible to extract the wh-phrase first to the wh-position in the embedded question, and then to the wh-position in the matrix clause. These sorts of freezing constructions

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[11] Under an approach adopting the Copy Theory of Movement, I understand this freezing effect to be the result of a restriction on copying a phrase in a Criterial configuration, rather than a restriction on movement. The end result, of course, is the same.

have been the focus of a fair amount of work, including Gallego and Uriagereka (2008) Boškovic (2008, to appear), and Chomsky (2008). In general, this accords with the observation in Wexler and Culicover (1982) that once a phrase has moved, it is not possible for that phrase to move again.

Boškovic (to appear) points out a number of additional cases where freezing effects seem to occur, a few of which I will overview here. For example, Lasnik and Uriagereka (1988) observe that it is not possible for *every problem* to have scope over *someone* in (34)b, despite the fact that some of those same speakers will allow for *someone* to have narrow scope in (34)a.

(34)   a. Someone thinks that Mary solved every problem.

         b. Someone thinks that every problem, Mary solved.

In a similar vein, Lasnik and Uriagereka (1998) show that NPIs are not licensed if they are topicalized. Based on the analysis that NPIs like *any* must raise to negation at LF, Boškovic includes these in the class of freezing effects.

(35)   a. I don't think that Mary solved any problems.

         b. *I don't think that any problems, Mary solved.

Likewise, Grohmann (2003) claims based on data like (36) that a wh-phrase cannot be topicalized after it has moved to the left periphery.

(36)   *Who, does Mary detest?

These examples give a sense of the sort of empirical data that may be included within the realm of 'freezing effects'. Whereas Boškovic (2007, 2008, to appear) attributes this effect to something akin to Chomsky's (2000) activation condition (once a feature is checked, it is unavailable for further feature-checking operations), Rizzi formulates this in terms of Criteria, and Criterial Freezing.

Where these freezing effects become relevant to our current question of Lubukusu subject extraction is that Rizzi expands his proposal beyond simply A'-chains (as we would expect for topic, focus, wh-questions, etc) to include A-chains terminating in subject position. Again, this parallels Boškovic's (2007, 2008, to appear) attempts to unify A'- and A-movement under the same feature-checking process. It has been assumed for a long time in generative theorizing that a subject (of some sort) is necessary in every clause; this is the classical Extended Projection Principle of GB:

(37) *Extended Projection Principle*   (as described by Rizzi 2006: #46)[12]

      Clauses must have subjects

The original evidence for the EPP comes from the existence of expletives—syntactic placeholders which fill the subject position despite having no referent and no antecedent.

(38) **It** is raining.

Providing reasoning by which it is at least arguable to consider the position mediating Case/agreement for subjects separate from the position in which the EPP is satisfied, including

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[12] See Chomsky 1981, Haegeman 1994 for discussion of the EPP in its earlier formulations.

the expanded 'middlefield' where multiple subject positions are possible (see Cardinaletti 2004, for example), Rizzi (2006, 2007) explores the idea that the position in which the EPP is satisfied is a criterial position, much like Topic in the left periphery is a criterial position. Noting that subjects are "topic-like" in at least some senses, and though not conflating subjects and topics, Rizzi proposes that they are similar in reflecting a sort of predication where an argument is selected as the "starting point" of a description of an event, and the event is set forth as involving that argument in some way. This property Rizzi refers to as *aboutness*, claiming that topics and subjects share this property but differ in that topics must be D(iscourse)-linked, whereas this is not true of subjects.

(39)   Topic: +aboutness   (Rizzi 2006: #56, 57)
                   +D-linking

       Subject: +aboutness
                   -D-linking

In this argumentation Rizzi (2006, 2007) and Rizzi and Shlonsky (2007) propose that there is a dedicated subject position which occurs above the highest projection of the inflectional field and below the lowest projection of the complementizer field. This projection, Subj(ect)P, is headed by the criterial head Subj°, which attracts a nominal to its Spec and "determines the subject-predicate articulation" (Rizzi and Shlonsky 2007: 118).

(40) [DP [Subj XP]]   (Rizzi and Shlonsky 2007: #8)

SubjP is determined in this way to be a scope-discourse position, similar in ways to the scope-discourse positions discussed above, carrying an interpretation along the lines of "About DP, I'm reporting event XP" (Rizzi and Shlonsky 2007: 118). This analysis allows for a re-interpretation

of the classical EPP as the Criterial quality of Subj°: Subj° requires a nominal specifier, and given the interpretive properties of Subj° this translates to: "clauses requires subjects".

This raises an important question regarding the nature of expletives, however. While the Criterial nature of the Subj° head explains the traditional EPP, one of the basic reasons for needing the EPP in the first place is the presence of overt expletives. While the presence of expletives accords with the notion of the Subj° head requiring a nominal element in its specifier (i.e. the Subject Criterion), it creates problems for the notion that the SubjP has a specific discourse interpretation, specifically, *aboutness*.[13] The very nature of expletives being dummy subjects precludes an analysis that the sentence is about the expletive in any way. Therefore, while it is an attractive notion that the SubjP is a scope-discourse position in the same sense that Focus and Topic are (i.e. triggering a specific discourse/information structure interpretation), I do not hold to that same assumption here.

That being said, there is no reason that specific syntactic positions are necessarily Criterial positions due only to their discourse properties. The Subject Criterion is already differentiated from other Criteria in some ways. For example, the Topic Criterion requires a phrase with Topic features in its specifier (or, the Wh-Criterion requires a phrase with wh-features). In contrast, the Subject Criterion with a putative *aboutness* discourse role does not require a phrase with *aboutness* features, but rather requires a nominal element in its specifer. So already according to its original formulation, the Subject Criterion is distinct from other Criteria. Given the questions about expletives and aboutness, therefore, I do not rely on any discourse notion of aboutness in my assumptions regarding the Subject Phrase and the Subject Criterion. Rather, I simply assume that the Subject Criterion is the requirement of the Subj° head to have a nominal element in its specifier.

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[13] Thanks to Ruth Kramer and Paul Portner for raising this question.

This is not meant to diminish the strength of a Subject Criterion analysis, however. A major benefit of this approach to subjecthood and the EPP derives from the Criterial Freezing effect. Remember from above that once a phrase has satisfied a Criterion, it is frozen in that position.

(41) SubjP   CRITERIAL FREEZING

SUBJ   SubjP

Subj°   TP
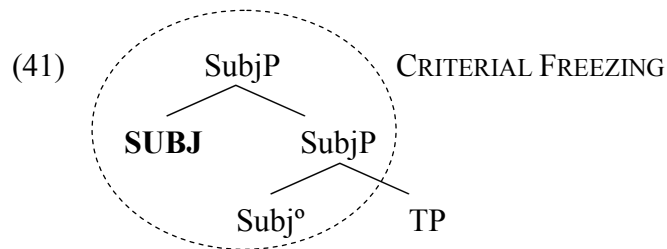
It is clear however that across languages it is possible to extract subjects in relative clauses, wh-questions, and cleft constructions. This fact appears to fly in the face of Criterial Freezing, which claims that once subjects have raised to SubjP to satisfy the Subject Criterion, due to Criterial Freezing they would be unable to be extracted, frozen in place in Spec, SubjP.

It is this seeming contradiction that Rizzi and Shlonsky (2007) exploit to analyze the asymmetries between subject and non-subject extraction cross-linguistically, observing that there are often different strategies for extracting subjects as opposed to non-subjects, such as different morphology, different pied-piping requirements, and different properties with respect to resumptive pronouns. Asymmetries between subject and non-subject extraction, on their account, are the result of various strategies for eluding the Criterial Freezing effect (in Spec, SubjP) which would otherwise preclude a subject DP from being extracted. These strategies fall into two main categories: fixed subject strategies and skipping strategies.

(42) Strategies for subject extraction
    A. Fixed subject strategies: The subject doesn't move, it remains in its freezing position in Spec/Subj and a well-formed A'-construction involving the subject is obtained
        i. with no movement at all (resumption), or
        ii. with movement of a larger constituent including the "frozen" subject (clausal pied-piping).

    B. Skipping strategies: The subject moves, but is allowed to skip the freezing position and is extracted directly from its thematic position or from some other predicate-internal position.

                                     (Rizzi and Shlonsky 2007: 119)

At this point I won't discuss in depth the examples that they offer of the fixed subject strategies. The examples that they give for these sorts of strategies are Hebrew relative clauses, which use resumptive pronouns (for both subjects and objects, but subject resumptive pronouns are more strictly constrained) and question formation in Imbabura Quechua, where embedded subjects may not be extracted, but instead the entire embedded clause is pied-piped, and the subject is extracted as part of this clausal constituent. Instead, I will focus on their discussion of skipping strategies, which will prove most immediately relevant to subject extraction in Lubukusu.

The most straightforward manifestation of the skipping strategy is when an overt expletive occurs in subject position, allowing a subject to skip the criterial Subj position and be extracted. Rizzi and Shlonsky (2007) provides this English example to illustrate:

(43) a. *What do you think that t_{what} is in the box?   (Rizzi and Shlonsky 2007: #21)
      b. What do you think that there is t_{what} in the box?

(43)a is deemed to be unacceptable due to the fact that *what* undergoes further movement after satisfying the Subject Criterion. The wh-phrase is able to move to the left periphery of the matrix clause in (43)b, however, because an expletive appears in subject position, satisfying the Subject Criterion, which frees the wh-subject of its obligation to raise to that position. That wh-subject is instead allowed to skip SubjP in raising to the left periphery, and thus no violation of

Criterial Freezing is incurred and the sentence is acceptable. This is illustrated in (44), where SC

is shorthand for some analysis of small clauses (the details are not important to this account).

(44)   …   CP

[Tree diagram:
CP branches to "that" and SubjP
SubjP (circled, labeled CRITERIAL FREEZING) branches to **there** and Subj
Subj branches to Subj° and TP
TP branches to T° (is) and AuxP
AuxP branches to Aux° (~~be~~) and SC
SC branches to "what" (circled) and SC
SC branches to SC° and PP
PP: in the box
An arrow moves from "what" up to the CP/that region]
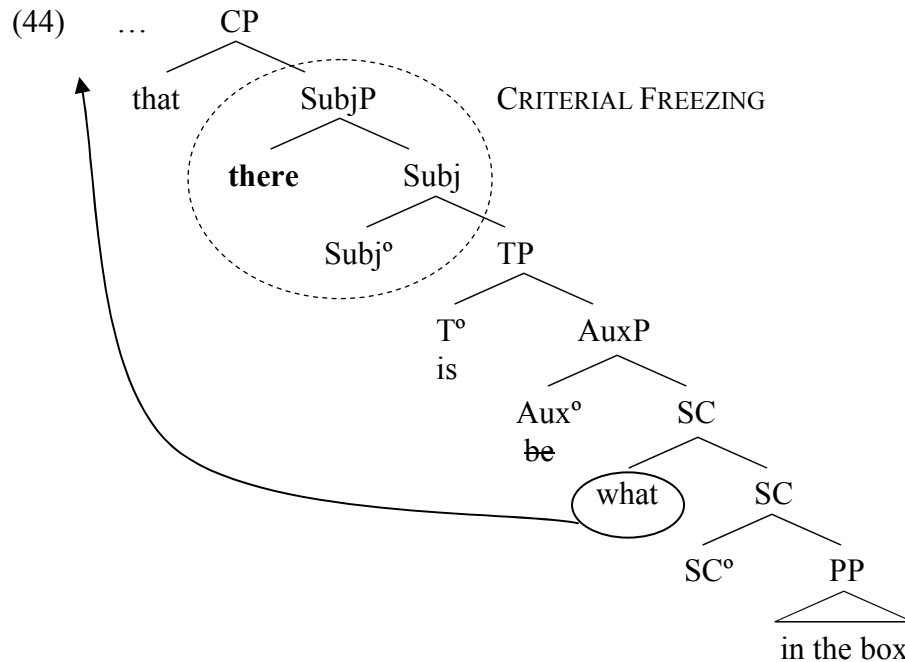
Rizzi and Shlonsky observe that this is in essence the strategy that has been argued to be used by

null languages to avoid so-called ECP violations in subject extraction (cf. Rizzi 1982, 1990,

Campos 1997, Brandi and Cordin 1981, 1989, Burzio 1986; see also Chomsky 2008 for

discussion of a related analysis of English). It has been argued that languages like Italian avoid

complementizer-trace effects in extraction from embedded clauses because they do not extract

subjects from the preverbal subject position. Rather, this position is filled by a non-referential

pro and wh-subjects are extracted from some postverbal position directly from their thematic

position, yielding a structure like (45):

(45)   Chi credi [che [*pro* Subj vincerà t*chi*]]   (Rizzi and Shlonsky 2007: #22b)
       'Who do you think that will win?'

In a similar manner, Rizzi and Shlonsky analyze the *que-qui* alternation in French relative clauses (and other extraction contexts, varying by dialect) as a consequence of a strategy to skip the criterial position for subjects. When a local subject is relativized in French, the complementizer necessarily takes the form *qui*, whereas this option is not available when objects are relativized. The data in (46) and (47) are taken from Rizzi and Shlonsky (2007: #28 and #29, respectively).

(46) a. *L'homme [Op que [t est venu]]   [French]
        "The man QUE has come"   *Subject relative clause*
      b. L'homme [Op qui [t est venu]]   *que, ✓qui*
        "The man QUI has come"

(47) a. L'homme [Op que [tu as vu t]]   *Object relative clause*
        "The man QUE you have seen"   *✓que, * qui*
      b. *L'homme [Op qui [tu as vu t]]
        "The man QUE you have seen"

In Rizzi (1990) this difference in complementizer has been attributed to the varying ability of the complementizer forms to govern the subject position: *qui* was taken to be the agreeing form of the complementizer, and this agreement on C makes C a proper governor which licenses the trace in subject position. The complementizer *que*, on the other hand, was considered to be unable to license this subject trace.

Rizzi and Shlonsky reanalyze the alternation in (46) and (47) under the present account of subject extraction based on the proposal in Taraldsen (2001) that *qui* is not an agreeing form of C, but rather that *qui* is better analyzed as *que + -i*, where the –*i* is "an expletive-like element akin to the standard French expletive *il*" (Rizzi and Shlonsky 2007: 132). They propose that –*i* is merged under Fin, the lowest head of the complementizer field (cf. Rizzi 1997), and that (at least) its number features are determined by the extracted subject wh-phrase. In this way the

Subject Criterion is satisfied by merging a nominal complementizer head, allowing the extracted subject to skip the Criterial Spec, SubjP.

(48)
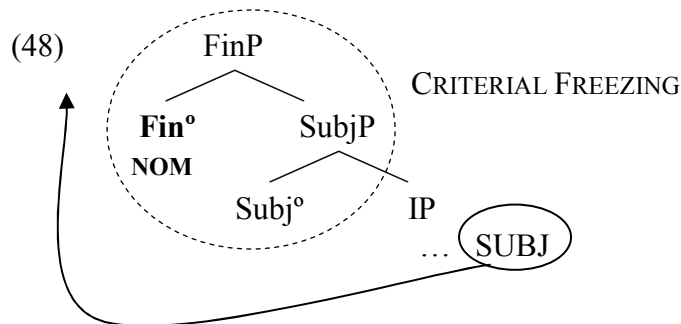
Based on this proposal, the structure of the French subject relative clause (49)a would be as shown in (49)b, where the relative complementizer *qui* is formed by a composite of Rel° and Fin°.

(49) a. L'homme qui va partir
           "The man QUI is going to leave"

       b. L'homme [Rel Op **que** [~~Op~~ [**Fin-i**] [Subj [~~Op~~ Agr [va [~~Op~~ partir ~~Op~~]]

They provide corroborating evidence for this analysis from various French dialects, as the *que-qui* alternation is observed in extraction from embedded clauses, and even in local subject extraction in matrix questions in some dialects. In order for this analysis to hold, however, they are required to slightly revise the requirements for satisfaction of a Criterion, as it is clear from (49)b that it is not a spec-head relationship that holds between Subj° and the nominal Fin° which satisfies the Subject Criterion. What this configuration does share in common with a spec-head relationship, though, is that there is no intervening material between the criterial head and the element which satisfies it. Based on this observation, then, they propose the revision shown in (50) (Rizzi and Shlonsky 2007: #54):

(50) For [+F] a criterial feature, X_{+F} is locally c-commanded by A_{+F}.

The heart of their claim, therefore, is that there is a Subject Criterion, and the criterial feature of the Subj head which sits atop the inflectional material in the clause must be satisfied by directly merging something nominal, whether it is a DP subject or a nominal Fin° head which in a sense serves an expletive function. This 'expletive' function is one of fulfilling the Subject Criterion, which allows a subject to skip the criterial position and be extracted to the left periphery. This analysis of subject extraction will be the basis for my analysis of subject extraction and alternative agreement effects in Chapter 3. First, however, the next chapter introduces the reader to core elements of Lubukusu morphosyntax that are relevant to the matters discussed in this dissertation. It is not intended to be a 'grammatical sketch' or an overview of Lubukusu morphology or syntax, but rather is meant to lay the groundwork for the following chapters.

2 Core Lubukusu morphosyntax

2.1 Introduction

This chapter addresses various issues in Lubukusu inflection that are relevant to this thesis. The focus is on the verbal form, though the next section briefly considers the basics of nominal inflection and the noun class system. The following sections then discuss (in turn) subject markers, object markers, and locative clitics, all of which appear on the verb. This chapter makes a variety of proposals regarding the morphosyntactic analysis of verbal morphology in Lubukusu, therefore serving both to introduce basic Lubukusu morphosyntax, and to give theoretical analyses of Lubukusu verbal morphology.

Some (though not all) of the data presented here come from previous work on Lubukusu. For those not familiar with Bantu languages, the information presented here will be relevant to understanding the inflectional patterns and terminology discussed throughout the dissertation. To those familiar with Bantu languages, much of the basic patterns will be familiar, though the data on object marking show that Lubukusu does not necessarily show the same properties as some other well-documented languages (e.g. Swahili, Sambaa, and Haya), and the data and theoretical conclusions regarding the locative clitic are novel, certainly for Lubukusu but to a more limited extent for Bantu more generally, as the locative agreement morphemes discussed here are understudied for Bantu languages.

Section 2.2 briefly addresses nominal inflection, and then the bulk of the chapter appears in §2.3, discussing inflection in the verbal domain. Section 2.3.1 explores the nature of subject agreement, and then §2.3.2 is a very in-depth look at agreement with non-subjects, mainly addressing the object marker and the locative clitic, providing extensive novel data for both morphemes in addition to providing a theoretical analysis for both. Section 2.4 then concludes.

2.2 Nominal Inflection

Lubukusu displays the same noun class system as is attested across Bantu languages, where every noun belongs to a specific noun class, equivalent to grammatical gender. Agreement forms that are triggered on other syntactic elements such as verbs, auxiliaries, adjectives, demonstratives, and complementizers therefore inflect for noun class as well.

Each noun class is defined by the prefixes which appear on nouns: whereas many Bantu languages have lost the double prefix structure (e.g. Swahili), or retain only an initial vowel or augment before the noun class prefix (e.g. Luganda), in most Lubukusu noun classes the nominal forms bear two noun class prefixes, which I refer to as the prefix and the pre-prefix, as shown in (1), where the pre-prefix is underlined and the prefix is in bold:

(1) ba-**ba**-andu
     2-2-people
     'people'

Note that the number '2' in the gloss above stands for noun class 2, not 2nd person. Throughout this dissertation, cardinal numbers represent noun class, whereas inflection for person features is glossed with an ordinal number (e.g. 1st, 2nd).

Mutonyi (2000: 6) offers the summary of Lubukusu noun classes which is recreated as

(2) here, revised slightly to reflect the orthographic conventions used in this dissertation.

(2)   Lubukusu noun class morphology

Class	Preprefix	Prefix	Example	Gloss
1	o-	mu-	omukhasi	'woman'
2	ba-	ba-	babaana	'children'
3	ku-	mu-	kumukhono	'arm/hand'
4	ki-	mi-	kimikhono	'arms/hands'
5	li-	li-	lilyaanda	'ember'
6	ka-	ma-	kamaanda	'embers'
7	si-	si-	sisyaangu	'sponge'
8	bi-	bi-	bibyaangu	'sponges'
9	e-	N-	eendubi	'basket'
10	chi-	N-	chiindubi	'baskets'
11	lu-	lu-	lulwiika	'horn'
12 (Diminutive)	kha-	kha-	khakhaana	'small child'
14	bu-	bu-	bubwiino	'ink'
15	khu-	khu-	khukhwanja	'to begin'
16 (Locative 'at')	a-		amulyaango	'at/near the door'
16a (Locative 'towards')	sya-		syamulyaango	'towards the door'
17 (Locative 'on')	khu-		khumulyaango	'on the door'
18 (Locative 'in')	mu-		mumulyaango	'in the door'
20 (Augmentative)	ku-	ku-	kukwaana	'big child'
/4	ki-	mi-	kimyaana	'big children'
23 (Locative 'in the Vicinity of')	e-		enaarobi	'at Nairobi'

Note that classes 16-18 and 23 are locative classes, and only specify a pre-prefix, and not a

prefix. This reflects the fact that only a small set of nouns are inherently locative noun classes,

but instead almost any noun can be brought into a locative noun class by replacing inherent noun

class pre-prefix of that noun with a locative pre-prefix.

(3) a. **ku**-mu-lyaango   'door'   (Mutonyi 2000: 25-27)
        3-3-door

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b. **a**-mu-lyaango   'near the door'
     16-3-door
c. **khu**-mu-lyaango   'on the door'
     17-3-door
d. **mu**-mu-lyaango   'in the door'
     18-3-door

Once a noun (phrase) is co-opted into a locative noun class, it is capable of triggering locative

agreement in the appropriate contexts. In what follows, then, noun phrases of class 16, 17, 18, or

23 will be referred to as locative phrases.

As mentioned above, the noun class of a given noun is reflected in agreement on other

syntactic elements. This is demonstrated for subject agreement in (4) and agreement on a

demonstrative in (5), offered here simply as illustrative examples:

(4)   e-nyuni   y-emba
        9-bird   9S-sang
        'A bird sang.'

(5)   o-mw-ana yu-no
        1-1-child   1-DEM
        'this child'

(6)   n-dine   bu-ng'ali   mbo   ba-keni b-olile[1]
        1ˢᵗSG-have 11-confidence   that   2-guests 2S-arrived
        'I have confidence that the guests arrived.'

Having reported the basic nominal paradigms, I will now turn to a discussion of various verbal

inflection, which is more directly relevant to the issues at hand.

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[1] As noted above, agreement forms are glossed with numbers representing the relevant noun class on the agreeing element. It is important to note that the cardinal numbers that appear in glosses do not represent person features, but rather represent noun class. Person features are instead realized with ordinal numbers, as shown in (6).

2.3 Inflection in the Verbal Domain

Along with their noun class systems, Bantu languages are perhaps most well known for the agglutinative verb structures and the complex agreement systems that arise on them. In this way Bantu languages are deceptively similar, in that on their surface appearances, they seem to have similar structures. It is this similarity that allows linguists to give general verbal templates for Bantu languages, like the one in (7) from Marten (2009) (cf. Meeusssen 1967):

(7)

1	2	3	4	5	6	7	8
Pre-Initial Neg	SM	Post-Initial Neg	Tense Marker	OM	Verbal Base	Final	Post-Final

I assume here that slot 6—the verbal base—consists both of the verb root and the postverbal extensions which may appear on the verb (including the applicative and the causative, but potentially including morphemes like the reversive and stative). This template is generally realized in Lubukusu, as shown by the examples below. (8)a and (8)b display the pre-initial negation and the post-initial negation, respectively, preceding and following the subject marker. These morphemes are followed by the tense marker and the stem. In (8)a the stem is the auxiliary verb –*ba* 'be', and in (8)b the verb stem is –*kat*- 'slaughter'. The final vowel position appears on both matrix verbs as –*a,* and as -*e* in the embedded verb in (8)b.

(8) a. Peter se-a-la-ba   a-kula si-tabu ta.
       Peter NEG-1S-FUT-be 1S-buy 7-book NEG
       'Peter will not be buying a book.' (Bell & Wasike 2004)   (Bell 2004: 72)

   b. Peter a-kula   engokho niyo maayi   a-kha-a-kat-il-e   omukeni ta.
       1Peter 1S-bought chicken which 1mother 1S-NEG-PST-slaughter-AP-FV guest   NEG
       'Peter bought the chicken which mother did not slaughter for the guest.'
                                                                        (Bell 2004: 78)

Again matching the general Bantu verbal template, the object marker in (9)b occurs in immediate pre-stem position.

(9) a. Tegani a-a-kula   ka-ma-tunda
         1Tegan 1S-PST-buy 6-6-fruit
         'Tegan bought fruit.'

     b. Tegani   a-a-ka-kul-a
         1Tegan   1-PST-6O-buy
         'Tegan bought it.'

The post-final position shows a lot of variation between languages, but in Lubukusu a locative clitic appears in that position, as shown in (10):

(10)   o-mu-sale   wa-se   o-la-mo
        1-1-friend   1-my   1S.arrives-18L
        'My friend arrived in there.'

While the morphological template is generally predictable, the morphosyntactic properties of the elements that appear on the verbal form vary widely between languages. It is for this reason that I stated above that Bantu languages are 'deceptively' similar: in each individual language morphemes which otherwise look very similar on the surface may show very different syntactic properties. It is for this reason that the rest of this chapter looks at some basic properties of the morphological elements that are relevant to the issues discussed in this dissertation, giving evidence for my assumptions regarding their syntactic nature. First I will consider subject agreement in §2.3.1, and in §2.3.2 I consider agreements with non-subjects, discussing the similarities and differences between the object marker and the locative clitic.

2.3.1 SUBJECT AGREEMENT IN LUBUKUSU

This section looks at some basic data from Lubukusu regarding subject markers and subject agreement in Lubukusu, but also previews some of the non-canonical verbal agreements that will be discussed in this thesis. As for canonical subject agreement, I take the fairly uncontroversial stance that the subject marker in Lubukusu is the realization of agreement with the subject NP on T°. Therefore a basic sentence like (11) will have a structure like (12) (only the relevant inflectional domain is included here: see §1.5.1 on 'upward' agreement).

(11) o-mu-seecha ka-a-bona   ba-ba-ana
      1-1-man   1S-PST-see 2-2-children
      'The man saw the children.'

(12)
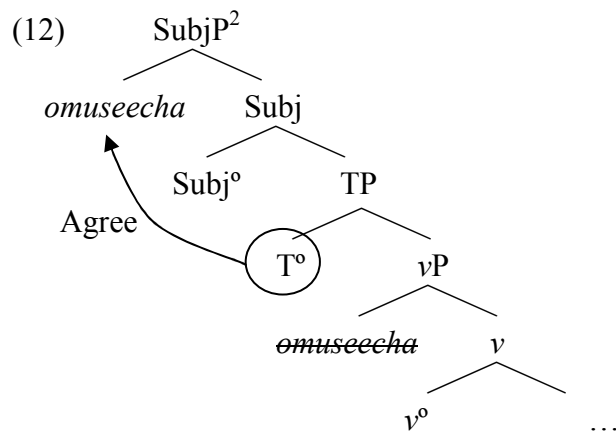
The chart which is given below in (13) which shows the standard subject agreement form that appears on verbs. As you can note from the parallel with the nominal forms, subject agreement morphology is generally identical to the pre-prefix that appears on nouns. A notable exception is

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[2] I assume here that no Spec, TP is projected, and the subject moves directly to Spec, SubjP. Baker (2008a) requires that a local (spec-head) structural relationship hold in order for agreement to occur in person features: the Structural Condition on Person Agreement (SCOPA). If this result holds, it is possible that subjects raise through Spec, TP to trigger this agreement. That being said, it is hard to defend the SCOPA on the account of complementizer agreement that is given in chapter 5 of this dissertation. Reconciling the SCOPA with the analyses of complementizer agreement is an issue for future research.

the [a-] subject agreement form for class 1, as compared to the [o-] morpheme that is the class 1 nominal pre-prefix.

(13) Lubukusu phi-feature agreement (adapted from Wasike 2007)

Class	Nominal	Declarative	
	PP-P-noun	SA-verb	
1	**o**-mu-aana	**a**-akwa	the child fell
2	**ba**-ba-aana	**ba**-akwa	children fell
3	**ku**-mu-saala	**kw**-akwa	the tree fell
4	**ki**-mi-saala	**ky**-akwa	trees fell
5	**li**-li-ino	**ly**-akwa	the tooth fell
6	**ka**-me-eno	**ka**-akwa	teeth fell
7	**si**-sy-uuma	**sy**-akwa	the bead fell
8	**bi**-bi-uuma	**by**-akwa	beads fell
9	e-n-dubi	**ya**-akwa	the basket fell
10	**chi**-n-dubi	**cha**-akwa	baskets fell
11	**lu**-lw-iki	**lw**-a-kw-a	the door fell
12	**kha**-kha-ana	**kha**-akwa	the small child fell
14	**bu**-bw-oongo	**bw**-a-kw-a	brains fell
15	**khu**-khu-iicha	**khw**-abia	the coming turned bad
16	**a**-mesa	**a**-a-bi-a	at the table turned bad
17	**khu**-mesa	**khw**-abia	on the table turned bad
18	**mu**-mu-siinga	**mw**-abia	inside the hive was bad
19	**ku**-ku-aana	**kw**-akwa	the big child fell
23	**e**-ekimilili	**ya**-ang'oona	at Kimilili was good

The subject agreement paradigm will become relevant in the discussion of the morphosyntax of alternative agreement effects, as is discussed at length in chapter 3.

There has traditionally been a debate within Bantu syntax as to the theoretical nature of the subject marker, that is, whether it is an agreement form, or a pronominal subject (related anaphorically to a dislocated antecedent). Bresnan and Mchombo (1987) present a significant argument for the subject marker in Chichewa bearing both of these properties (i.e. pronominal

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and inflectional), and this question is relevant to much subsequent work discussing object marking.[3]

Following arguments made by Buell (2005), Carstens (2001), Henderson (2007), and Corbett (2006), I take the fact that multiple subject markers may appear within a single clause as evidence that they are not pronominal, but are in fact realizations of agreement with the NP subject. These constructions are referred to as compound tense constructions, and usually consist of an auxiliary verb (bearing tense) and a main verb (often bearing aspect), both of which agree in full phi features with the subject.

(14) O-mu-limi a-la-ba   (n)-a-funa   ka-ma-indi
     1-1-farmer 1S-FUT-be (NE)-1S-harvesting 6-6-maize
     'the farmer will be harvesting maize.'

(15) Peter a-la-ba   (n)-a-kula   sii-tabu
     1Peter 1S-FUT-be (NE)-1S-buying 7-book
     'Peter will be buying a book.'

The fact that the subject marker can appear twice counterindicates a pronominal analysis, which would predict that the subject of the sentence, the pronominal argument, should only appear once. Some additional examples are given below, showing that compound tenses occur with any noun class.

(16) Ba-ba-andu ba-be-ele ba-soma   sii-tabu
     2-2-people   2S-be-PST 2S-reading   7-book
     'People were reading a book.'

---

[3] For works which assume/argue for a pronominal argument approach to object marking, see Byarushengo et al. (1976), Demuth and Johnson (1990); Letsholo (2002); Mchombo (2004); Rubanza (1988); van der Spuy (1993); Zerbian (2006). For a prominent counter-argument, see Riedel (2009), who claims that all object-marking in Bantu is the result of agreement.

(17) Mu-la-ba   mw-a-lim-ile
     2ndPL-FUT-be 2ndPL-PST-cultivate-PFV
     'You will have cultivated.'

As is seen in (18), the specific morphological forms in a compound tense are not required to be

identical morphologically.

(18) O-mu-somi k-a-ba   (n)-a-soma   sii-tabu
     1-1-student 1S-PST-be (NE)-1S-reading   7-book
     'The student was reading the book.'

The sentence in (18) is indicative of a broader fact in Lubukusu, that in certain past tenses in

certain dialects the class 1 subject marker appears as [ka-], whereas it appears as [a-] in present

and future tenses. There are many varieties of Lubukusu, however, where the class 1 subject

agreement form is [a-] in all tenses.[4] As far as I can ascertain, this is a purely morphological fact

that does not have broader syntactic consequences.[5]

As discussed in the first chapter, the focus of this dissertation will be on a variety of non-

canonical subject agreements. Two of these agreements are in fact non-canonical subject

agreement forms that appear on the verb (and the third is agreement with subjects on a

complementizer). As argued for above, I assume in the discussions of locative inversion and (so-

called) alternative agreement effects in chapters 4 and 3, respectively, that subject agreement is

the realization of agreement on T°, spelled out by a collection of morphological spell-out rules

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[4] This dissertation is not concerned with this morphological and dialectal variation. There are times when data will use the [ka-] in the past tense, and others where it will use [a-]. This does not reflect a syntactically or morphologically meaningful distinction, rather, it reflects the original source of that piece of data from a person who spoke that respective dialect.
[5] Additional instances of morphologically mismatched agreements in compound tenses are discussed in §3.4.1.1, though in that case the mismatched agreement forms have more syntactic significance.

based on the specific featural specification of T° in any derivation. This is handled in more depth in the analysis of alternative agreement effects in §3.3.

2.3.2   AGREEMENT WITH NON-SUBJECTS IN LUBUKUSU

This sub-section addresses two forms of verbal inflection agreeing with non-subjects in Lubukusu: object markers and locative clitics. Simply put, both of these verbal affixes serve to pronominalize non-subject arguments of the verb (objects and locative phrases, respectively). This is demonstrated for objects in (19) and locatives in (20):

(19)   Tegan   a-**ba**-a-p-ile   **Object Marker**
       1Tegan 1S-**2O**-PST-hit-PST
       'Tegan hit them.'

(20)   ku-mw-iti kw-a-kw-ile-**mo**   **Locative Clitic**
       3-3-tree   3S-PST-fall-PST-**18L**
       'A tree fell in there.'

I refer to the pronominal form in (19) as an object marker, in keeping with the general Bantuist tradition for agreement morphology on the verb. The morpheme in (20) I refer to as a clitic, recognizing its different morpho-phonological status. Relatively more attention will be paid to the locative clitic, mainly due to the fact that locative agreement morphemes are relatively understudied in the Bantu syntax literature, and also due to the fact that these agreement forms are particularly relevant to this dissertation due to their occurrence in locative inversion constructions (see chapter 4, along with following sections).

Returning to the question of terminology, in contrast to the subject and object marker, the locative clitic appears to be external to the verb form (to some extent), evidenced by its verb-final position as shown in (20) above and in (21) below:

(21) e-mbwa y-a-fw-il-a-**kho**   lii-fwo   livi sana
      9-dog   9S-PST-die-AP-FV-**17L** 11-death bad very
      'A dog died a horrible death there (i.e. at that place).'

As seen in (21), the locative clitic appears at the end of the verbal form, even after the final

vowel (other examples below show that it follows postverbal tense and aspect marking as well).

This is as opposed to the various derivational suffixes which appear on the verb, such as the

applicative morpheme in (21), which occur between the root and the final vowel. Additionally,

all other agreement morphology on the verb appears preverbally, including object and subject

markers, in contrast to the locative clitic. For these reasons, I refer to this morpheme as a

locative clitic and not a locative marker. It is important to note that all of these terms are pre-

theoretic – the following section will address their theoretical nature.

2.3.2.1   Comparing the Object Marker (OM) and the Locative Clitic (LC)

The object marker and the locative clitic are interesting elements for a comparative analysis, as

they both agree with non-subjects and they share certain morpho-syntactic properties, but they

also differ in others. While the different morphological position of the locative clitic as opposed

to the object marker may merit different pre-theoretic terminology for them, it does not require *a*

priori that they are different sorts of syntactic elements (that is, perhaps they merely have

different morpho-phonological properties). As I will demonstrate, however, there are significant

syntactic differences as well.

The first shared property of the object marker and the locative clitic is that they are

unacceptable when their respective object/locative phrases occur *in situ*.

(22) ku-mw-iti kw-a-kw-ile-**mo**   (*<u>mu-mu-siru</u>)   **Locative Clitic**
      3-3-tree   3S-PST-fall-PST-**18L** 18-3-forest
      'A tree fell in there.'

(23) Tegan   a-a-**ba**-p-ile   (*<u>babandu</u>)   **Object Marker**
      1Tegan   1S-PST-**2O**-hit-PST (*people)
      'Tegan hit them.'

As is evident in (20) the co-occurrence of the locative clitic with an in situ locative phrase is

ungrammatical, as is the co-occurrence of the object marker with an in situ object DP in and

(23). In addition to this property, another similarity between the two is that they both may occur

with an overt corresponding phrase, as long as that phrase is left-dislocated.

(24) mu-mu-siru, ku-mw-iti kw-a-kw-ile-**mo**   **Locative Clitic**
      18-3-forest   3-3-tree   3S-PST-fall-PAST-**18L**
      'In the forest a tree has fallen.'

(25) ba-ba-ndu, Tegan a-a-**ba**-p-ang-a   **Object Marker**
      2-2-people Tegan 1S-PST-**2O**-hit-HAB-FV
      'People, Tegan hits (them) (regularly).'

The example in (24) shows that the locative clitic may co-occur with an overt locative phrase

when that locative phrase is left-dislocated, and the same configuration is possible with objects

and the object marker, as shown in (25).

There are, however, points of contrast between the two morphemes. The first comes in

the context of extraction. Object markers in Lubukusu are illicit when an object is extracted, as

shown in the data in (27) and (29). The locative clitic, on the other hand, can co-occur with an

extracted locative phrase, demonstrated by the data in (26) and (28).[6]

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[6] The optionality of the locative clitic in these constructions (as opposed to its obligatoriness in locative inversion
constructions, for example) is an important question which I do not have a precise analysis for at present.

(26) mw-a-ba   mu-nju   ni-mwo ba-ba-ana ba-a-funa-**mo**   lu-u-saala   **Locative**
      18S-PST-be 18-house PRED-18 2-2-child 2S-PST-break-**18L** 11-11-stick   **Cleft**
      'It was in the house that the children broke the stick.'

(27) lw-a-ba   lu-u-saala ni-lwo ba-ba-ana ba-a-(***lu**)-funa   lw-a-kwa   **Object**
      11S-PST-be   11-11-stick PRED-11 2-2-child 2S-PST-(***7O**)-break 11-PST-fall   **Cleft**
      'The stick which the children broke fell.'

(28) Mu-nju   ni-mwo Peter a-la-bona-**mo**   ba-ba-andu   **Locative Relative Clause**
      18-house COMP-18 1Peter 1S-FUT-see-**18L** 2-2-people
      'the house in which Peter will see the people'

(29) ka-ma-tunda ni-ko   ba-ba-ndu ba-a-(***ka**)-kula likoloba   **Object Relative Clause**
      6-6-fruit   COMP-6 2-2-people 2S-PST-6O-buy   yesterday
      'the fruit that the people bought yesterday'

Finally, as will be discussed in depth in chapter 4, the locative clitic necessarily appears in

locative inversion constructions in Lubukusu. Lubukusu has two different locative inversion

constructions, non-canonical word orders where a locative phrase appears preverbally and the

logical subject occurs postverbally (cf. *down the hill rolled the ball*). As will be argued in

chapter 4, these two constructions realize different syntactic structures and as a result have

different agreement properties. In *repeated agreement* locative inversion in (30) the verb in

essence agrees twice with the fronted locative phrase (subject agreement and locative clitic). In

disjoint agreement locative inversion in (30), in contrast, subject agreement is with the

postverbal logical subject, and the locative clitic agrees with the preverbal locative phrase.

(30) a. **mu**-mu-siiru **mw**-a-kwa-**mo**   ku-mu-saala   **Repeated Agreement**
         18-3-forest   **18S**-PST-fall-**18L** 3-3-tree   **Locative Inversion**
         'In the forest fell a tree.'

     b. **khu**-si-kulu **khw**-a-biringila-**kho** ku-m-pira
         17-7-hill   **17S**-PST-roll-**17L**   5-5-ball
         'On the hill rolled the ball.'

(31) a. **khu**-si-kulu <u>kw</u>-a-biringila-**kho** <u>ku-m</u>-pira   **Disjoint Agreement**
       17-7-hill   3S-PST-roll-**17L**   3-3-ball   **Locative Inversion**
       'On/down the hill rolled the ball.'

   b. **mu**-mu-siiru <u>kw</u>-a-kwa-**mo**   <u>ku-mu</u>-saala
      18-3-forest   3S-PST-fall-**18L** 3-3-tree
      'In the forest fell a tree.'

While I reserve the argumentation and discussion of these constructions for chapter 4, the

conclusions of that chapter are relevant to the discussion of this locative clitic morpheme.

Specifically, the fronted locative phrase is in canonical subject position (assumed to be Spec,

SubjP) in the *repeated agreement* construction, but is in a left-peripheral position in the *disjoint*

agreement construction. This is sketched in (32), where V-LC stands for the verb with the

suffixed locative clitic:

(32) **Repeated agreement**   [$_{\text{SUBJP}}$ LOC … [$_{\text{VP}}$ V-LC   SUBJ]]
      Disjoint agreement   [$_{\text{XP}}$ LOC V-LC [$_{\text{SUBJP}}$ SUBJ …]]

This is relevant, of course, because it demonstrates that in the *repeated agreement* construction,

the locative clitic co-occurs with a local (non-dislocated) locative phrase, in this instance in

subject position. As an intermediate summary, the properties of the locative clitic (as established

to this point), are listed in (33):

(33)   <u>Properties of Bukusu Locative clitic</u>

     i.   Agrees only in locative noun class, with locative phrases

     ii.   Impossible with an *in situ* locative phrase

     iii.   Occurs with left-dislocated locative phrase

     iv.   Optionally possible with an extracted locative phrase

     v.   Obligatorily occurs in both locative inversion constructions

The data in (20) - (25) showed that the locative clitic is impossible with an in situ locative phrase, but acceptable with a left-dislocated locative phrase, properties that it shares with object marker and which are noted in (ii) and (iii) above. The parallel could suggest that the locative clitic and the object marker are the same syntactic entities, perhaps incorporated pronouns or resumptive pronouns (an analysis consistent with those two properties).

The fact that the locative phrase can occur in subject position in the repeated agreement construction is inconsistent, however, with an analysis of the locative clitic as an incorporated/resumptive pronoun, as we would not expect a resumptive pronoun to arise both in longer movements (e.g. left-dislocation) and shorter movements (e.g. VP-to-TP). Moreover, the bifurcation between the object marker and the locative clitic in extraction contexts in (26)-(27) further suggests that these are different morphosyntactic elements. This leads to the intermediate analysis given in (34), that the object marker is indeed an incorporated pronoun, and the locative clitic is instead an agreement morpheme.

(34)   **<u>Intermediate Analysis</u>:**
        Object marker = incorporated pronoun
        Locative clitic = agreement morpheme on a functional head (which is designated
                    for locatives)

This distinction is particularly useful in explaining the distinction between the locative clitic and the object marker in extraction contexts, which should leave a trace (copy) in the gap in the relevant clause. If the object marker is an incorporated pronoun (i.e. the actual argument of the verb), we would not expect it to co-occur with an overt (extracted) object, which would have been expected to occupy the gap that is occupied by the object marker (at one point in the derivation).[7]

An analysis of the locative clitic as an agreement morpheme, on the other hand, explains its co-occurrence with an extracted phrase, as well as its presence in locative inversion constructions. The incompatibility of the locative clitic with an *in situ* locative phrase is then explained on the Upward Agreement hypothesis (Baker 2008, Carstens 2005, Kinyalolo 1991, Collins 2004): a locative phrase can only trigger agreement with the locative clitic if the locative phrase raises above the functional head where the locative clitic arises. Therefore, the locative clitic cannot occur with an *in situ* locative phrase.

This raises the important question, however, of what functional head the locative phrase is located on. This question is fully addressed in section 2.3.2.4, but there is one prerequisite question which must be answered before we are prepared to offer the specific analysis, namely, whether the locative clitic is simply a morphophonologically distinct instantiation of the object marker, which is the topic of the next section.

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[7] This is precluding the possibility of a doubling construction for the object pronoun and the extracted object (Boeckx 2003), which would not predict the data given here. I assume that the object marker in Lubukusu is illicit with a "Big DP"-type doubling construction, which is supported by the fact that the object marker can't generally co-occur with a DP object (making a clitic-doubling analysis unlikely).

2.3.2.2   Is the Locative Clitic an Instantiation of the Object Marker

This sub-section establishes that the locative clitic is not an instantiation of the object marker, but instead seems to arise on a separate functional head.[8] A variety of diagnostics are employed, and though none of them are definitive on their own, they jointly build a picture of the locative clitic as a distinct morphosyntactic element from the object marker. That being said, §2.3.2.4.2 discusses certain cases where object-marking of locative objects may in fact be realized via the locative clitic. The analysis is offered, therefore, that the morphological realization of locative agreement in Lubukusu is a postverbal clitic, whether that agreement is with a locative direct object, or with a locative that is obligatorily selected by a verb which requires a location as one of its arguments.

2.3.2.2.1   Object Marker and Locative Clitic can Co-occur

The first observation that can be made towards the conclusion that the locative clitic is not an object marker is that an object marker may co-occur with the locative clitic. Two examples demonstrating this are given in (36) and (38). The examples in (35) and (36) are a statement and response, where the pronominalizations of the arguments in (36) are licensed by their occurrence in (35):

(35)   ba-soreeri khe-ba-enja   chi-ndemu mu-si-wanja   …
       2-boy   PRG-2S-look.for 10-snakes   18-7-field
       'The boys are looking for snakes in the field.'

(36)   … ba-a-**chi**-nyola-**mo**
           2S-PST-**10O**-find-**18L**
       'They found them (in) there.'

---

[8] That is to say, it is not necessarily an instance of the object marker. Locative objects also trigger the locative clitic (as opposed to a locative-class object marker), a fact which is discussed below.

Note that in (36) the object marker and the locative clitic both occur, pronominalizing the object

and the locative phrase, respectively. The same pattern is evidence in the question and answer in

(37) and (38):

(37) o-manya oriena oli   chi-ndubi ch-a-ba mu-nju ?
      2SG-know how   COMP 10-basket 10-PST-be 18-house
      'How do you know the baskets were in the house?'

(38) … n-a-**chi**-ra-**mo**
         1ST SG-PST-**10O**-put-**18L**
      'I put them there.'

As in the previous example, both the object marker and the locative clitic co-occur here,

suggesting they do not arise in the same syntactic projection. It could be argued, however, that

both elements are object markers, but one is realized postverbally. I present some initial

evidence against that conclusion in (39), with further evidence discussed below. As (39) shows,

in a basic ditransitive construction the applied object (i.e. the benefactive/recipient) is

obligatorily present. It may be an overt NP as in (39)a, or it may be realized as an object marker

in (39)b.

(39) a. Tegan a-rer-er-a   *(John) (si-tabu si-ange)
        1Tegan 1S-brought-AP-FV   1John   7-book 7-my
        'Tegan brought my book for John.'

    b. Tegan a-mu-rer-er-a   (si-tabu si-ange)
        1Tegan 1S-1O-bring-AP-FV   7-book 7-my
        'Tegan brought my book for John.'

    c. *Tegan a-si-rer-er-a   John
        1Tegan 1S-7O-bring-AP-FV 1John

Note, however, that the theme argument in these cases cannot be object marked on the verb, even as the sole object marker (as shown in (39)c). Rather, if both objects are salient in the discourse and both are eligible to be pronominalized, the theme (non-applied) object NP may simply be non-overt, as shown by the optionality of 'my book' in (39)a and (39)b. The initial conclusion from this data is that more than one object cannot be object-marked, even in the case of more canonical objects than the locative complements considered in (35) - (38).

2.3.2.2.2 Locative Clitic not a Postverbal Object Marker[9]

Another theoretical possibility, subtly different to that just considered, is that the postverbal clitic is simply an additional object marker that occurs in a different morphological position (or, perhaps more precisely, an additional non-subject marker). An interesting point of comparison comes from Kawasha's (2007) description of some similar locative morphology in the Bantu language Lunda (Zambia).[10] I will briefly discuss the relevant locative morphology in Lunda, and then turn to the question of postverbal object markers.

As is evident in (40)b, the locative phrase *ku-kalóña* 'river' may be pronominalized with a postverbal locative clitic in Lunda as in Lubukusu.

(40) a. chi-bínda   wu-a-y-a   ku-kalóña   [Lunda]
        1-hunter   1S-TNS-go-FV   LOC-river
        'The hunter went to the river.'

---

[9] Kimenyi (1980) describes a similar morphosyntactic element in Kinyarwanda, a verb-final suffix that bears locative phi-features. It shows different syntactic behaviors, however, appearing in cases where the locative phrase loses locative morphology and is promoted to direct object (position and properties) (on Kimenyi's interpretation, the locative clitic is a preposition that appears on the verb instead of the NP in those cases).

[10] Languages reported to have similar postverbal marking of objects include Otjiherero (Marten 2006). Also see Henderson (2006) for a discussion of resumptive pronouns which take a form similar to the postverbal clitics discussed here. Though there are many cases where these morphemes are in fact resumptive pronouns, it should be clear for Lubukusu at least that the locative clitic is not restricted in its distribution to resumptive contexts. This is of course yet another instance of morphological similar forms showing different syntactic properties across Bantu languages.

b. chi-bínda wu- a-y-a-**ku**   **Locative Clitic**
     1-hunter   1S-TNS-go-FV-**LOC**
     'The hunter went there.'   (Kawasha 2007: 43)

In Lunda, as in Lubukusu, a single verbal form can contain both an object marker and a locative

clitic; the example of this case given in (41)a is parallel to the Lubukusu examples in (36) and

(38) above.

(41) a. mu-mbanda wu-a-sh-a   ka-báka   mu-i-hébi   [Lunda]
          1-woman   1S-TNS-put-FV 12-corn   LOC-5-basket
          'The woman put the corn in the basket.'

     b. mu-mbanda   wu-a-**ki**-sh-a-**mu**
          1-woman   1S-TNS-**12O**-put-FV-**LOC**
          'The woman put it in it.'   (Kawasha 2007: 44)

Thus far, the Lubukusu and Lunda facts are largely parallel. There is an important difference

between them, however, as elucidated in (42). In this case we have a ditransitive verb with an

applicative morpheme, creating a four-argument predicate, as shown in (42)a. The example in

(42)b shows that both the recipient/beneficiary and the locative may be pronominalized on the

verb, as we saw in the cases above for both Lunda and Lubukusu.

(42) a. mu-mbanda wu-a-sh-il-a   ka-ánsi ka-báka mu-i-hébi   [Lunda]
          1-woman   1S-TNS-put-AP-FV 1-child 12-corn LOC-5-basket
          'The woman put the corn for the child in the basket.'   (Kawasha 2007: 43)

     b. mu-mbanda wu-a-**mu**-sh-il-a-**mu**   ka-báka   **Locative Clitic**
          1-woman   1S-TNS-**1O**-put-AP-FV-**LOC** 12-corn
          'The woman put the corn for the child in it.'

The crucial example is in (43), which shows that the postverbal clitic position is not reserved for locative phrases in Lunda. Rather, in (43), the two non-locative objects are pronominalized on the verb, one as a canonical object marker and one as the postverbal clitic morpheme.

(43)   mu-mbanda   wu-a-**mu**-sh-il-a-**ku**   mu-i- hébi   [Lunda]
        1-woman   1S-TNS-**1O**-put-AP-FV-**12O**   LOC-5-basket
        'The woman put it for the child in the basket.'

As can be seen from the data below from Lubukusu, however, the postverbal position where the locative clitic occurs is not available as an additional object marker. (44) gives the basic sentence, and (45) is the attempted parallel to the acceptable Lunda example in (43), which is unacceptable in Lubukusu.

(44)   o-mu-haasi a-a-il-il-a   o-mu-seecha wewe bi-lasi   mu-jikoni   [Lubukusu]
        1-1-woman 1S-PST-take-AP-FV 1-1-husband 1her   8-potatoes 18-kitchen
        'The woman took potatoes for/to her husband to the kitchen.'

(45)   o-mu-haasi   a-a-**mu**-il-il-a-(***bi/*byo**)   mu-jikoni
        1-1-woman   1S-PST-**1O**-take-AP-FV-**8O**   18-kitchen
        'The woman took them for him to the kitchen.'

It seems, then, that the postverbal clitic morpheme is solely a locative morpheme in Lubukusu. It is possible to pronominalize all three non-subject arguments from the Lubukusu sentence in (44), but in this case the applied object is object-marked, the locative is realized by the locative clitic, and the theme object is unexpressed (parallel to the examples in (39)):

(46)   o-mu-haasi   a-a-**mu**-il-il-a-**mo**
        1-1-woman   1S-PST-**1O**-take-AP-FV-**18L**
        'The woman took them for him to there.' (*second object unexpressed*)

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What this sub-section has shown, then, is that the postverbal clitic position is in fact only available for locative morphemes. Together with the observation of the previous section, that only a single object marker may appear on a verb, I take these facts as suggestive that the locative clitic is the realization of agreement on a functional head designated for locatives. Both this and the previous section have argued that this projection is a distinct element from the projection responsible for object marking. The next section discusses further properties of the locative clitic.

2.3.2.2.3 The Locative Must be Selected by the Verb

This section discusses evidence which I use to argue that there is must be a selectional relationship between the verb and a locative phrase in order for that phrase to trigger locative agreement on the verb. This selectional relationship may either be a thematic relationship directly with the (root) predicate, or introduced by an applicative morpheme, as is seen by the contrast below between (48) and (51).

The examples given in (47) and (48) are cases where the locative phrase is directly selected by the verb *–ra* 'put'. As can be seen from (48), it is possible to drop the overt noun phrase and instead realize the locative argument via an agreement morpheme on the verb, the locative clitic.

(47)   Joni   a-a-ra   sii-tabu khu-mesa
           1John 1S-PST-put 7-book 17-table
           'John put the book on the table.'

(48)   Joni   a-a-ra-**kho**   sii-tabu
           1John 1S-PST-put-**17L** 7-book
           'John put the book there.'

The availability of the locative clitic in (48) contrasts sharply with a very similar sentence in (49) which uses a simple transitive verb 'write' rather than the three-place predicate 'put'.

(49)   Joni   a-a-ndika   e-barua   khu-mesa
        1John   1S-PST-write   9-letter   17-table
        'John wrote a letter on the table.'

As is shown in the example in (50), it is in fact possible to use the locative clitic to pronominalize the locative argument from (49), but to do so requires the presence of the applicative morpheme, essentially turning the locative into an argument of the verb.

(50)   Joni   a-a-ndik-**il**-a-**kho**   e-barua
        1John   1S-PST-write-**AP**-FV-**17L** 9-letter
        'John wrote a letter (on) there.'

In the absence of the applicative morpheme, we find the sentence to be unacceptable on the reading that the –*kho* locative clitic in fact refers to a locative phrase. As the second translation offered in (51) shows, however, there is an acceptable reading of the sentence in (51), but one which makes no reference to the location from the original sentence in (49).

(51)   Joni   a-a-ndika-**kho**   e-barua
        1John   1S-PST-write-**17L** 9-letter
        * 'John wrote a letter (on) there.'
        ✓'John wrote a letter for a little while/at some point.'[11]

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[11] The availability of the locative clitic as a (partitive) temporal modifier is a matter for future investigation. The clitic may also be used in interrogatives as a means of making a question less direct, as a politeness strategy. Speakers report that frequent use of this class 17 clitic for politeness strategies is a distinctive characteristic of Bukusu discourse, and that Bukusu people who are L2/L3 Swahili speakers often carry over this feature into their Swahili discourse. While all of these properties are interesting issues for further research, they do not impact the main concern here, the locative uses of the morpheme. As (51) shows, despite their morphological similarities, the temporal –*kho* and the locative –*kho* have separate syntactic distributions. Therefore I conclude that these morphemes realize separate syntactic heads (ignoring the theoretical issue of whether they are two separate homophonous morphemes, or a single underspecified morpheme). For this reason, I set aside the other uses of –*kho*

This latter temporal reading of the class 17 locative clitic is an important issue for research, but bears a different distribution than the locative readings, and is not considered here.

These same facts are replicated in the examples below. With unergative verbs that carry some locative sense (and therefore can be taken to select a locative phrase in some way), the locative clitic is possible.[12] This is demonstrated for –*suna* 'jump' in (52)-(53).

(52)   o-mw-ana a-a-suna   (mu-si-wanja)   **Locative Unergative Verb**
         1-1-child 1S-PST-jump 18-7-field
         'A child jumped (into the field).'

(53)   o-mw-ana a-a-suna-**mo**
         1-1-child 1S-PST-jump-**18L**
         'A child jumped in(to) there.'

The notion of a selectional requirement for the locative clitic actually receives interesting commentary from the verb –*suna* 'jump'. As shown in the similar data set in (54), the verb 'jump' has two different possible meanings in Lubukusu, as it does in English. (54)a has a directed-motion reading of jumping from one location to another, but it also has a non-change-of-location reading of hopping up and down in place. In the case in (54)b, then, the locative phrase is either interpreted as a (selected) locative complement under the change-of-location reading, or as an adjunct modifying the jumping event in the case of the non-change-of-location reading.

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in this dissertation, focusing on the locative morpheme which is relevant to the locative inversion constructions discussed here.
[12]See the discussion of lexical varation in locative inversion in Chapter 4 for more discussion of locative unergatives.

(54) a. o-mw-ana a-a-suna
1-1-child   1S-PST-jump
'A child jumped (somewhere).'
'A child hopped up and down.'

b. o-mw-ana a-a-suna   mu-si-wanja
1-1-child   1S-PST-jump 18-7-field
✓ 'A child jumped into the field.'
✓ 'A child jumped in the field.' (while he was in the field, i.e. he was already in the field)

c. o-mw-ana a-a-sun-**il**-a   mu-si-wanja
1-1-child   1S-PST-jump-**AP**-FV 18-7-field
* 'A child jumped into the field.'
✓ 'A child jumped in the field.' (while he was in the field, i.e. he was already in the field)

The sentence in (54)c is interesting, then, because adding the applicative morpheme rules out the change-of-location meaning. This shows that the verb –*suna* 'jump' is ambiguous between a verbal structure that selects a locative phrase (the change-of-location reading), and one which does not (the 'hopping up and down' reading). Using an applicative to introduce the locative phrase as in (54)c means that the locative was not selected in the base form, therefore forcing out the change-of-location reading. The theoretical implications of this construction are considered in §4.4; at present I am concerned with the implications of these facts for the locative clitic, as shown in the data below:

(55)   o-mw-ana a-a-suna-mo
1-1-child   1S-PST-jump-18L
✓ 'A child jumped into there.'
* 'A child jumped there.' (up and down, while he was in that place)

(56)   o-mw-ana   a-a-sun-**il**-a-mo
1-1-child   1S-PST-jump-AP-FV-18L
* 'A child jumped into there.'
✓ 'A child jumped there.' (up and down, while he was in that place)

I interpret the data in (55) and (56) in the following way. As stated above, there are two (homophonous) verbs that mean 'jump' in Lubukusu. The first (in (55)) selects a locative phrase, due to its meaning as a change-of-location verb. The second (in (56)) does not select a locative phrase, and only means to hop up and down. Therefore any locative that appears with the second –*suna* 'jump' is only an adjunct modifier. The analysis of the locative clitic requiring a selectional relationship with the verb is lent support by these data, then, as when the locative clitic occurs with –*suna* in (55) it requires the change-of-location reading and excludes the hopping reading. The presence of the applicative morpheme then indicates, as above in (54)c, that the pronominalized locative was not underlyingly selected by the verb, and therefore the verb must be the 'hopping up and down' –*suna*. All this is to say that the selectional relationship between the verb and the locative argument is relevant to the acceptability of the locative clitic.

As was discussed for the non-change-of-location –*suna* 'jump' above, unergative verbs that carry no (inherent) sense of location only license the locative clitic in the event that an applicative morpheme is present. This is further evidenced by the contrast between (58) and (59).

(57)   e-nyuni   y-emb-(el)-a   khu-mu-saala   **Non-locative Unergative Verb**
        9-bird   9S-sang-AP-FV-17L   17-3-tree
        'A bird sang on/in a tree.'

(58)   khu-mu-saala, e-nyuni   y-emb-**el**-a-kho
        17-3-tree   9-bird   9S-sang-**AP**-FV-17L
        'On a tree, a bird sang.'

(59)   *[?]khu-mu-saala, e-nyuni   y-emb-a-kho
         17-3-tree   9-bird   9S-sang-FV-17L
         'On a tree, a bird sang.'

As we saw above, there is an available reading for the class 17 locative clitic when it is not pronominalizing a selected locative phrase. As is shown in (60), when using the locative clitic

without the applicative for –*emba* 'sing' it is impossible to get a locative reading, rather, the only

available reading is the non-locative temporal reading.

(60) e-nyuni y-emb-a-kho   lu-lw-imbo
      9-bird   9S-sang-FV-17L 11-11-song
      * 'A bird sang a song on there.'
      ✓ 'A bird sang a song for a little while.'

The generalization that arises, then, is that a locative phrase must be selected in order to be

pronominalized with a locative clitic in Lubukusu. This is the same pattern that has been found

to hold for locative inversion constructions as well, as shown in (61) (from §4.3.3), where

locative inversion is prohibited in non-locative unergatives without the applicative.

(61) Availability of Lubukusu Locative Inversion[13]

Verbal Thematic Structure	Unaccusative (e.g. fall, arrive)	Come/Go	LOC unergative (e.g. jump, enter)	Non-LOC Unergative with applic	w/o applic	Transitive unergative
Disjoint agreement	✓	✓	✓	✓	*	*
Repeated agreement	✓	*	*	*	*	*

This is perhaps not surprising, given that the locative clitic is obligatory in Lubukusu locative

inversion, but it provides further support for the locative-selection generalization. However,

despite the fact that a phrase must be selected by a verb in order to trigger agreement with the

locative clitic, not any selected locative phrase may do so. Specifically, locative subjects do not

necessarily trigger agreement with the locative clitic. As was discussed above, in repeated

agreement locative inversion constructions the locative clitic agrees with the grammatical subject

(i.e. a phrase triggering subject agreement):

---

[13] Examples of locative unergatives include *jump*, *enter*, and *stay*, and examples of non-locative unergatives include *sing* and *laugh*.

(30)   **mu**-mu-siiru   **mw**-a-kwa-**mo**   ku-mu-saala   **Repeated Agreement**
          18-3-forest   **18s**-PST-fall-**18L** 3-3-tree   **Locative Inversion**
          'In the forest fell a tree.'

When a locative phrase is both the logical subject and the grammatical subject, however, it

triggers subject agreement *without* the appearance of the locative clitic.

(62) a. **muu**-soongo **mu**-xa-malii-e   (Wasike 2007)
          18-pot   **18s**-FUT-black-FV
          'The inside of the pot will become dirty.'

     b. **khu**-luuchi   **khu**-kha-siimb-e
          17-river   **17s**-FUT-overgrow-FV
          'The riverside will become bushy.'

(63)   **khu**-ingila **khu**-li-(*kho) ne(nde) ba-ba-ndu   ba-bili   **Existential**
          17-path   **17s**-be   with   2-2-person 2-two   **Construction**
          'Two people are on the path (way).'   lit. 'the path has two people'

The fact that the subjects in (62) and (63) trigger subject agreement but not the locative clitic

suggests that the nature of the underlying thematic relationship between the locative phrase and

the verb is relevant to the appearance of the locative clitic. Though the locative clitic must agree

with a noun phrase with locative noun class features, it does not agree with ANY locative phrase

(particularly, not one which is introduced as an external argument). Section 2.3.2.4 presents an

analysis which incorporates these facts, as well as all of the facts discussed in §2.3.2.

2.3.2.2.4 Intermediate Conclusions

On the basis of this evidence, then, I conclude that the intermediate analysis reached above in

§2.3.2.1 is on the right track. The locative clitic is in fact not an object marker (in the contexts

discussed to this point), and the two have different morphosyntactic properties. The analyses in

(34) are repeated here in (64):

(64) Object marker = incorporated pronoun
      Locative clitic = agreement morpheme on a functional head
                     (which is designated for locatives)[14]

The two sections which follow formalize my analyses about these two non-subject markers. The

analysis of the object marker is admittedly underdeveloped as compared to that of the locative

clitic. This is a reflection of two factors: first, the relevance of the locative clitic to the locative

inversion constructions discussed at length in chapter 4, and two, the relatively under-studied

nature of the locative clitics in Bantu. An in-depth study of object marking in Lubukusu is still

in order, what I offer here are my basic assumptions regarding its theoretical nature, which I will

rely on throughout this dissertation.

2.3.2.3 A Brief Analysis of the Object Marker

This section gives a very brief sketch of an analysis of the object marker, assuming the phrase

structure proposed by Bowers (1993, 2002). In this framework predication is accomplished by a

Predication Phrase (PredP), one instantiation of which is *v*P (which introduces the external

argument). Likewise, the Transitivity Phrase is the licenser of accusative Case and the locus of

the semantic sense of transitivity, occurring below PrP/*v*P .[15] Bowers claims that objects (in

English) raise to Spec, TrP, in a manner similar to subjects raising to Spec, TP, and that

accusative case is licensed in this position. The specific nature of TrP is less crucial to the

analysis of the OM discussed here, but lays the groundwork for the analysis of the locative clitic

in the next section.

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[14] The requirement that the locative phrase be an argument for the locative clitic to be licit is addressed in the analysis which is given in §2.3.2.4.
[15] TrP is roughly equivalent to AgrO, but with a higher semantic load and positioned lower than is commonly assumed (though see Runner 2000). Bowers (2002) draws on evidence including short object movement creating postverbal VP adverbs, transitive impersonal constructions, and impersonal passives, as well as giving an analysis for *got*-passives and middle constructions.

I have claimed that the object marker is an incorporated pronoun above in (64), and I will illustrate here how I assume that incorporation to proceed. Essentially, I assume that the object marker will incorporate into the verb as soon as possible in the derivation. In the case that the verb has both an object and a locative phrase, like many of the sentences discussed above, a structure like (65) results, assuming that direct objects are merged into the specifier of VP.

(65) …

```
              TrP
            /     \
        Trº        VP
                 /    \
             OM        V
                     /   \
                  Vº       LOC
```
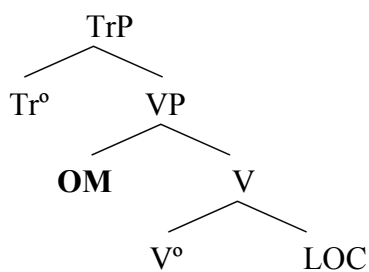
In this case, then, Vº raises to Trº, at which point the OM adjoins to the verbal structure, yielding a structure like that in (66):

(66)

```
              TrP
            /     \
        Trº         VP
        / \        /    \
    OM  Trº    OM        V
        / \             /   \
     Vº  Trº         Vº       LOC
```
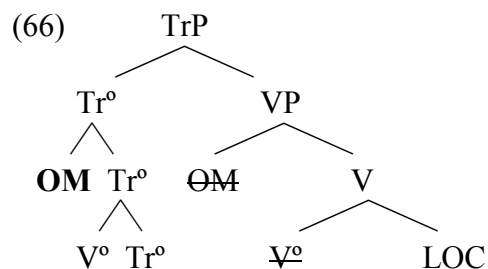
I assume that the licensing of the object marker is accomplished via this adjunction, as opposed to raising to Spec, TrP. This follows other work that holds that feature checking on a head(e.g. EPP) may be accomplished via two mechanisms, either by raising to the specifier of that head, or by head-movement to the head itself (Alexiadou and Anagnostopoulou 1998, Campos 2005).

In the event that there is no locative argument and the direct object is merged into the complement of V°, I assume that the OM incorporates directly to V°, at which point V° raises to Tr°, creating a slightly different head-adjunction structure (but which would not be realized differently morphologically).

(67)

```
                    TrP
                  /     \
              Tr°         V
             /  \        /  \
          V°   Tr°    V̶°̶      O̶M̶
         /  \        /  \
      OM   V°     O̶M̶  V̶°̶
```
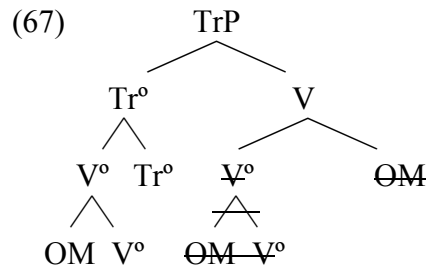
The result is that the object marker appears as a verbal prefix, the closest prefix to the stem, given that it adjoins to the base verb before that verb acquires any of the higher clausal inflection.[16] As will be seen in the next section, I take a very different approach to the analysis of the locative clitic.

2.3.2.4   An Analysis of the Locative Clitic

2.3.2.4.1   Syntacto-Semantic Analysis

Again relying on the general proposals of Bowers (2002) with respect to the role of the Transitivity Phrase in making a verb transitive, and licensing an object (i.e. objects move to Spec, TrP), my proposal is that the locative clitic which arises in Lubukusu is the product of agreement on the head of a Location Phrase (LocP), the locative-licensing equivalent of the Transitivity Phrase. The resultant phrase structure is illustrated in (68), locating the LocP between vP and and VP, similar in position to the low locative applicative proposed by Buell

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[16] I also assume that the OM can incorporate into the verb from Spec, TrP, which I take to be the case when an embedded subject in an RtO context is OMed on the matrix verb.

(2005).[17] Note that LOC in the tree below refers to a locative NP, which is licensed by the LocP projection.[18]

(68)

```
                vP
              /    \
           EA       v
                  /   \
                v°     TrP
                      /   \
                    DO     Tr
                          /   \
                        Tr°    LocP
                              /    \
                           LOC      Loc
                                   /    \
                                 Loc°    VP
                                        /  \
                                   … DO … LOC …
```
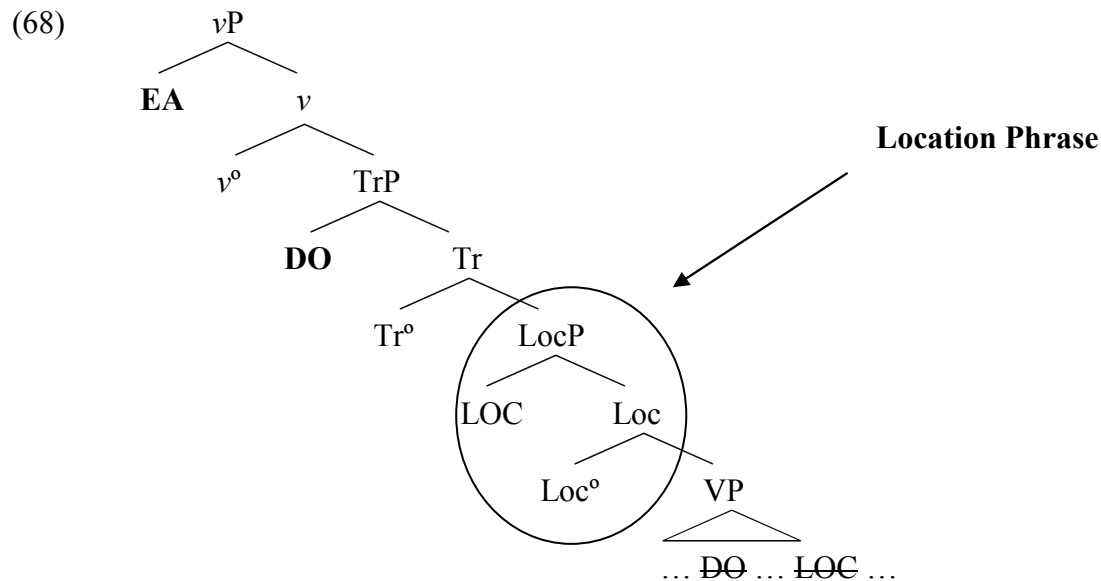
Location Phrase

On this account, LocP licenses locative phrases (e.g. GOALS) in the same manner that TrP

licenses direct objects (e.g. PATIENTS). Therefore in addition to its agreement properties, LocP

has the semantic function of contributing the locative meaning of a verb. I argue that LocP also

serves a syntactic function, mainly, licensing locative phrases. Given that Principles and

Parameters theorizing has long held that argument NPs must be licensed (e.g. Chomsky 1981,

2000), it is significant that locative phrases in (at least some) Bantu languages are noun phrases,

---

[17] I have positioned LocP below TrP, but as far as I can tell there is no evidence for or against any specific placement with respect to TrP in Lubukusu.

[18] An important point which I do not address here is the relationship between the LocP and a locative phrase in the event that a locative phrase remains *in situ* within the VP (presumably, this is possible given that there are cases where agreement on Loc° is not triggered, that is, where the locative clitic does not occur). One option is to assume that there is LF movement to LocP in these cases, but this is problematic if the copy theory of movement entails that all movement takes place in the narrow syntax. An alternative is to assume that there is overt movement, but only the lower copy is pronounced. If this is the case, there must be some requirement along the lines of the "Upward Agreement Hypothesis" that requires that a DP not only move over a head to be agreed with, but also that the higher copy is the pronounced copy in order for agreement to be realized on that head. This would align with Richards' (2001) connection between "strong" agreement features triggering movement, and serving as a signal PF to pronounce the DP in that position. I leave a careful explanation of these issues to future research.

not prepositional phrases.[19] By hypothesis, these NPs must be licensed in a manner similar to object NPs, in contrast to languages where locative phrases are introduced (and licensed) by prepositions.[20]

Bowers (2002) proposes that the Transitivity Phrase helps define the argument structure of a verb. Just as an unaccusative verb has been argued either to have no *v*P, or at least a non-thematic *v*P, Bowers claims that only transitive verbs (including impersonal transitives) have a TrP. Following this line of thinking, I propose that LocP is present only in verbs which license locative arguments, so that its presence/absence helps define the argument structure of a particular verb. Its licensing and Case-checking properties necessarily vary between languages, however, as some languages license goal phrases via prepositions, rather than by structural Case, or by some other means.

Some additional assumptions are necessary in order to account for the fact that the addition of the applicative morpheme licences the locative clitic. If (all) applicative morphemes are simply the realization of a specific syntactic projection (e.g. ApplP), it is unclear how the applicative facts fit in with the LocP analysis given here. What I assume is that the applicative morpheme appears on a verbal form in any case where that particular realization of the verbal structure and arguments does not match with the morphological spellout of the verb root. I hinted at this analysis above in the discussion of the verb –*suna* 'jump', when I stated that there are two verbs –*suna*, one of which is a change-of-location verb that selects a locative phrase, and the other of which does not bear any locative interpretation, and can only license such locative interpretations with the addition of the applicative morpheme (see §2.3.2.2.3). A rough analysis

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[19] While many people assume that locative phrases are simply NPs in locative noun classes, some people have argued that in specific languages, locative morphology is prepositional, rather than nominal (e.g. Bresnan and Mchombo 1987 for Chichewa, Kimenyi 1980 for Kinyarwanda, Marten 2009 for Setswana).

[20] I assume that a LocP exists even in languages with PPs for locative phrases, but does not check Case in the same manner that TrP does (as the location NPs in the locative phrase are licensed by their prepositions).

of these two forms of 'jump', then, would look like those given in the head-adjunction structures

shown in (69) and (70), which are spelled out homphonously, as *-suna*.

(69)   *v*° [Loc° [V° [√JUMP(to-place)   ↔   /-suna/

(70)   *v*° [V° [√JUMP(up&down)   ↔   /-suna/

The role of the applicative morpheme becomes relavent in the case that the non-change-of-

location 'jump' verb adds a locative-licensing LocP, as in (71):

(71)   *v*° [Loc° [V° [√JUMP(up&down)   ↔   /-sun-el-a/

I claim that in this instance, the applicative morpheme *–el-* realizes the Loc° head. Therefore,

applicative morphology is not the spellout of some specific functional head, but instead is the

realization of any additional argument-licensing heads which are not part of the spellout of rules

of the basic verb forms. This therefore allows for locative applicatives like those discussed

above to in fact be the realization of the addition of a LocP, rather than simply a generic Appl°

heading an Applicative Phrase (ApplP). This of course does not rule out the possibility of

argument-introducing head along the lines of the ApplPs proposed by Pylkkanen (2002, 2008):

these heads by their very nature add additional arguments which are not in the original spellout

forms of verbs, and therefore also trigger applicative morphology on the verb.

        This analysis of the applicative morpheme *–el-* is therefore very similar to the traditional

notion of applicative morphology as valence-changing morphology, simply adding an argument.

In line with DM's notion of post-syntactic spellout, however, rather than the morphology adding

arguments, I consider this morphology as the spellout of the addition of argument-licensing

heads, whether they be generic argument licensers (e.g. ApplP), or specific argument licensing

heads (e.g. LocP).

2.3.2.4.2 Morpho-Phonological Analysis

By hypothesis, the locative clitic is agreement on the Loc° head, arising as an (upward)

agreement relation between the Locº head and the locative phrase. The morphophonological

realization of locative agreement is a word-final clitic morpheme, however, so this agreement is

realized postverbally. As it turns out, all (non-subject) locative agreement forms are realized as

postverbal clitic morphemes, even when the locative agreement is with a direct object, rather

than a goal/source locative. This is shown in (72) and (73), where pronominalizing a locative

direct object on the verb yields the locative clitic, and not a locative noun class (preverbal) object

marker.

(72) a. Vivian a-a-siima   bii-tabu
         Vivian 1S-PRF-like 8-book
         'Vivian likes books.'

    b. Vivian a-a-**bi**-siima   **Non-locative object**
         Vivian 1S-PRF-**8O**-like
         'Vivian likes them.'   (i.e. books)

(73) a. ba-keni ba-a-siima   mu-nju   / khu-nju
         2-guests 2S-PRF-like 18-house / 17-house
         'The guests like the (inside of the/on top of the) house.'

    b. ba-keni ba-a-siima-**mo/kho**   **Locative Object**
         2-guests 2S-PRF-like-**18L/17L**
         'The guests like (inside of /on top) there.'   (i.e. locations concerning the house)

Here we see that locative NPs are licensed as objects of - *siima* 'like' in Lubukusu. What is

perhaps unexpected is that when they are pronominalized, they behave like other locative phrases

(e.g. GOALS), not like direct objects. It is possible that the locative clitic in (73)b is realized on

Loc° as in the other cases of locative clitics discussed above, implying that the LocP may be

used at times to license direct objects as well as selected locations (e.g. GOALS).[21] Recall

however that Bowers (2002) connects the Transitivity Phrase with transitive direct objects, and

that I proposed above that the LocP licences *selected* locations in argument structure. Claiming

that the LocP is present in (73)b therefore goes against some of the basic assumptions about both

of these licensing projections.

My claim, therefore, is that all (non-subject) locative agreement morphemes are realized

morpho-phonologically as postverbal clitics. That is to say, whether locative features appear

under TrP or under LocP, they are spelled out as the postverbal locative clitic. This is also seen

in cases of Raising-to-Object construction in Lubukusu. As demonstrated in (75), subjects of

Raising-to-Object verbs may be realized via object markers on the matrix verb.

(74) b-eny-ile   Joni   a-tekh-e   vya-khulia vy-e   e-koloba   likoloba
      2S-want-PST 1John 1S-cook-SBJ 8-food   8-ASSOC 9-evening yesterday
      'They want John to cook dinner yesterday.'

(75) ba-mw-enya a-tekh-e   vya-khulia vye   e-koloba
      2S-1O-want 1S-cook-SBJ 8-food   8-ASSOC 9-evening
      'They wanted him to cook dinner.'

In contrast to (75), however, when a locative inversion construction is embedded under a

Raising-to-Object predicate, the locative phrase can be pronominalized as a locative clitic on the

matrix verb, as shown in (77), and not as any form of locative OM as attempted in (78).

(76) b-enya   mu-mu-siiru mu-kw-e-mo   ku-mu-saala   **Locative inversion**
      2S-wanted 18-3-forest   18S-fall-SBJ-18L 3-3-tree   **and RtO**
      'They wanted in the forest to fall a tree.'

76

(77) b-enya-**mo** mu-kw-e-mo   ku-mu-saala
       2S-want-**18L** 18S-fall-SBJ-18L 3-3-tree
       'They wanted in there to fall a tree.'

(78) *ba-a-**mw**-enya mu-kw-e-mo   ku-mu-saala
       2S-PST-**18O**-want 18S-fall-SBJ-18L 3-3-tree

On account of these facts, I assume that the morphological spell-out of locative features on the verb may be formalized as in (79). In this way, whether these features occur in LocP or TrP, they are spelled out as a postverbal locative clitic.

(79) a. –(y)o ↔ [class 16] / {verb}
       b. –kho ↔ [class 17] / {verb}
       c. –mo ↔ [class 18] / {verb}

I set aside the question at present of how to define the locative agreements as a natural class, as it seems clear that classes 16/17/18 have joint properties in many ways. For example, it is unexpected that class 16 and 17 might have suffixal clitic properties, but that class 18 would behave like normal object markers, a possibility that the account given in (79) still allows. It seems probable to me that the locative noun classes in Lubukusu (and probably more broadly in Bantu) ought to be subsumed under some more general grammatical feature defining locatives. One reason this seems plausible is that, though listed as noun classes, they have a distinct property from other noun classes in that they are formed by a derivational process (replacing the pre-prefix on a non-locative noun), and that all three locative noun classes are formed by the same process. But I must set aside the issue as a matter for future research, as it is beyond the scope of the questions at hand.

2.3.2.4.3 Conclusions Regarding the Locative Clitic

The preceding sections discussed at length the properties of the locative clitic in Lubukusu, and the previous section proposed a locative-licensing Locative Phrase as the locus of the locative clitic in Lubukusu. The chart in (80) revisits the properties of the locative clitic introduced in (33), adding the properties which were discussed in §2.3.2.2 and §2.3.2.4. The left side of the chart lists an empirical property, and the right side of the chart discusses how the proposed analysis accounts for these properties.

(80) Evaluating the Location Phrase analysis

Properties of Lubukusu Locative Clitic	Location Phrase Analysis
a. Agrees only in locative noun class, with locative phrases	Locº in Lubukusu restricted to class 16-18 φ-features (i.e. locatives)[22]
b. Impossible with *in situ* locative phrase c. Occurs with left-dislocated locative phrase	Agree in Lubukusu targets a structurally higher phrase
d. Obligatorily occurs in locative inversion constructions	LocP is present to license the locative phrase, movement to subject position triggers agreement
e. Locative clitic only licit when the locative phrase is selected	LocP is only present in verbs licensing locative arguments
f. External argument locative phrases do not occur with locative clitic	LocP licenses internal locative arguments (e.g. goals)

Line (a) addresses the restriction of the locative clitic to locative agreements, which is explained on the plausible assumption that the Locº head of the Location Phrase in Lubukusu is restricted to locative phi-features. Lines (b) –(d) in (80) explicitly rely on a particular understanding of the nature of agreement in Bantu languages. As noted previously, a large line of research has

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[22] See Béjar and Rezac (2009).

proposed that heads in Bantu may only enter an Agree with a structurally higher phrase (though theorists differ as to which operation occurs first, movement or agreement: cf. Baker 2008, Carstens 2005, Collins 2004). The lack of agreement with an *in situ* locative phrase is therefore consistent with the Location Phrase analysis proposed here, as long as this 'Upward Agreement Hypothesis' is adopted for Bantu (and specifically, Lubukusu) agreement.

Lines (e) and (f), on the other hand, have to do with the restriction of agreed-with locatives to thematically selected locative phrases. As the right-column shows, the nature of the proposed Location Phrase accounts for these empirical properties. The definition of the Location Phrase as a locative-licensing projection similar to the Transitive Phrase therefore explains why adjoined locatives do not show the same properties, as those verbs do not require the presence of a Location Phrase.

There do remain many further areas of research, however. Within Lubukusu, there are additional properties of the locative clitic that must be explained. For example, the locative clitic is optionally possible with an extracted locative phrase, but the analysis proposed here does not address the source of that optionality. Furthermore, this proposal also raises the question of whether there are similar morphological realizations of the Location Phrase cross-linguistically, a question which is beyond the scope of this introductory chapter. A similar question is whether the Location Phrase can be motivated for those languages where it has is no overt (morphological) realization. In this respect, I would say that its main motivation rests in its promise for providing a more precise definition of the argument structure and licensing properties of relevant locative-licensing verbs. What this proposal does is shift the main responsibility for licensing location-related phrases from those location phrases themselves (including the role of prepositions) to the verb which selects them. I think there is promise in

this account for a re-interpretation of the theoretical status and licensing properties of prepositions, which is an issue for further research as well.

What Lubukusu points to, however, is a formalization of the role of location in argument structure and morphosyntactic processes. I have proposed a formalization in terms of a Location Phrase, a component of verbal structure which serves to license locative phrases, but which is also the source of the locative clitic that appears in a variety of locative-related constructions in Lubukusu.

2.4 Conclusions

This section has introduced various aspects of nominal and verbal inflection. This is by no means a comprehensive introduction to Lubukusu morphology, nor is it meant to be. Rather, this chapter is intended to lay the groundwork for the chapters that follow, introducing the relevant assumptions regarding different morphosyntactic elements that underlie the analyses discussed in the following chapters.

First I discussed the basics of Lubukusu noun classes, locative noun classes, and the sorts of basic agreement in noun class that happen within the Lubukusu sentence (but, which are also typical of Bantu more broadly). I then moved on to verbal morphosyntax, mainly discussing the agreement morphology that may appear on a Lubukusu verbal form. I began by discussing subject agreement, showing subject agreement forms and giving arguments for subject agreement as the realization of agreement on a functional head. I then discussed non-subject agreements, that is to say, object markers and the locative clitic. Given a wide variety of evidence regarding both morphemes, I concluded that object markers in Lubukusu are incorporated pronouns and the locative clitic in Lubukusu is an agreement morpheme on a functional head. As for that functional head, I proposed a Location Phrase projection which

occurs along with the Transitivity Phrase within the *v*P, licensing a locative phrase and giving the verb a sense of a (required) location.

The following chapters compose the main bulk of the new analyses offered in this dissertation, all theoretically interesting aspects of agreement with subjects. The first two consist of non-canonical subject agreement on verbs, chapter three dealing with alternative agreement effects that appear in cases of extraction of a class 1 subject, and chapter 4 dealing with two different subject agreement patterns that appear in locative inversion constructions. A final case of agreement with subjects is then dealt with in chapter 5, which addresses a complementizer form in Lubukusu which must agree with a subject.

3 Subject Extraction and Alternative Agreement Effects

3.1 Introduction: On the Extraction of Subjects

It is a well-documented fact that many languages display extraction asymmetries between

subjects and other sentential elements (i.e. objects and adjuncts).[1] Well-discussed examples of

these subject/non-subject asymmetries from English include that-trace effects in subject

extraction from embedded contexts (but not in object extraction) and the presence of do-support

in matrix object questions. (1)b shows that subject extraction is impossible when preceded by a

complementizer, though this is not the case in object extraction in (1)d. Example (2) shows that

object extraction in matrix clauses requires do-support, whereas it is unacceptable in matrix

subject extraction.

(1)   a. Who do you hope *t* likes Mary?
        b. *Who do you hope that *t* likes Mary?
        c. Who do you think John likes *t* ?
        d. Who do you think that John likes *t* ?

(2)   a. Who *t* likes Mary?
        b.*Who does like Mary?   (non-emphatic)
        c. Who *(**does**) Mary like *t* ?

---

[1] See Lasnik and Saito (1984, 1992), Rizzi 1990, Chomsky 1986, among many others on the ECP (Empty Category Principle); Stepanov 2001, 2007, Nunes and Uriagereka 2000, Davies and Dubinsky 2003, Huang 1982, Chomsky 1973, Cattell 1976, Takahashi 1994, among many others on the Subject Condition; Ouhalla 1993, 2005 on anti-agreement effects in subject extraction, among many others (see §3.3).

These issues have been the focus of much research over the years, including Lasnik and Saito (1984, 1992), Chomsky (1986), Rizzi (1990), Pesetsky and Torrego (2001; 2004), among many others. Recent work by Luigi Rizzi and Ur Shlonsky (Rizzi 2006, 2007; Rizzi and Shlonsky 2006, 2007) provides another approach to subject/non-subject asymmetries based in large part on the Criterial Freezing framework along with the idea that there is a structural position in the clause which is dedicated for subjects, as described in §1.6. This chapter will explore the merit of this account for subject extraction in light of Lubukusu extraction facts, finding that the Lubukusu data are very cleanly explained on this account. An additional benefit is that the alternative agreement effect which Lubukusu displays (along with many other Bantu languages) is explained within this same framework, as is explored in §3.3.

Lubukusu displays clear morphosyntactic differences between subject extraction and non-subject extraction, particularly, specific verbal morphology which is licit only in the event of subject extraction. These facts have been discussed in Wasike (2007) in an extensive (and data-rich) discussion detailing the structure of the left periphery and the status of islands for extraction in Lubukusu. The following discussion will focus on the mechanism for the extraction of subjects and the related morphological differences between subject extraction and other forms of extraction, explaining the extraction asymmetries in Lubukusu within the Criterial Freezing framework. The discussion is then expanded to look at how different structural positions of subjects affect the morpho-syntax of subject extraction, and more specifically, affect the alternative agreement effects that occur in certain cases of subject extraction. In the course of that argumentation, I introduce a number of previously unanalyzed constructions in Lubukusu within the realm of subject extraction, including raising constructions and compound tense constructions.

3.1.1 THE BASIC EXTRACTION ASYMMETRIES OF LUBUKUSU

Subject and object relative clauses in Lubukusu are formed in different ways, which is not

entirely surprising from a cross-linguistic perspective. Subject relative clauses have no

complementizer, and require what appears on the surface to be a doubling of the subject marker,

as seen in (3).

(3)   ba-ba-andu **ba**-ba-a-kula   ka-ma-tunda   likoloba   **SUBJ relative clause**
        2-2-people   2C-2S-PST-buy 5-5-fruit   yesterday
        "The people who bought the fruit yesterday"[2]

I adopt the term C-agreement for this morpheme, foreshadowing an analysis where the

morpheme arises due to agreement on a CP-level head. Wasike (2007) locates this agreement in

a similar position, though by a different mechanism, and instead uses the term *wh*-agreement for

this morphology. As will become clear in what follows, I avoid the term *wh*-agreement as on my

analysis the agreement is not necessarily triggered by a *wh*-operator. Ashton et al. (1954) adopts

a less theoretical analysis of Luganda, simply terming it the Initial Vowel (IV); due to the fact

that this C-agreement in Lubukusu often takes a CV form rather than a solely vocalic syllable, I

will refer to this agreement morpheme as C-agreement.

      In contrast to subject relative clauses, object relative clauses obligatorily have a free-

standing agreeing complementizer. As can be seen in (4), the complementizer is necessarily

present, agreeing in noun class with the relativized object. In cases of objection extraction as in

(4), C-agreement is impossible.

---

[2] The relative clause in (i) shows that this morphology varies based on tense, as the first consonant of the second agreement morpheme is omitted, giving the appearance that the relative clause is marked by a long vowel. This is a phonologically conditioned variation which also occurs in nominal cases where a noun is preceded by two identical prefixes (see Mutonyi 2000).

      (i)   ba-ba-ndu **ba**-a-kha-kula   ka-ma-tunda muchuli
            2-2-people 2C-2S-FUT-buy 5-5-fruit   tomorrow
            "The people who will buy fruit tomorrow"

(4) ka-ma-tunda *(ni-ko) ba-ba-andu ba-a-kula likoloba **OBJ relative clause**
6-6-fruit COMP-6 2-2-person 2S-PST-buy yesterday
'the fruit that people bought yesterday'

Despite a the presence of a complementizer like that in (4) being ruled out in subject relative

clauses like the one in (3), there are cases of subject extraction which allow both a

complementizer and C-agreement. In these cases, however, the addition of the complementizer

leads to a cleft-focus reading (e.g. *it is people who bought fruit yesterday*), and the construction

is not acceptable as a relative clause. These focus/cleft constructions are considered in more

depth in §3.5 below.

In contrast to the distribution of the complementizer, however, C-agreement is necessary in

subject extraction and is never possible in the case of object extraction.[3] The same asymmetry is

present in interrogative contexts. As is evident in (5), object questions may either occur with an

in situ wh-phrase, or an *ex situ* wh-phrase with an obligatory complementizer-like element

(glossed as PRED here, see §3.5).

(5) a. Nafula a-a-siim-a Wafula (Wasike 2007: 234)
1Nafula 1S-PRS-love-FV 1Wafula
'Nafula loves Wafula.'

b. Nafula a-a-siim-a naanu?
1Nafula 1S-PRS-love-FV who
'Who does Nafula love?'

c. *naanu Nafula a-a-siim-a?
who 1Nafula 1S-PRS-love-FV
'Who does Nafula love?'

---

[3] This is an overstatement, as in specific constructions subject extraction may occur without C-agreement . These are very specific cases with non-canonical subject positions, or compound tenses. A more nuanced (and more fully precise) statement would be that C-agreement is obligatory in all canonical cases of subject extraction. The point here, of course, is that C-agreement is solely a feature of subject extraction and never of non-subject extraction. The exceptions to this generalization are enumerated in the course of the discussion of alternative agreement effects in §3.3.

d. naanu ni-ye   Nafula   a-a-sim-a?
   who   PRED-1 1Nafula 1S-PRS-love-FV
   'Who is it that Nafula loves?'

Subject extraction differs distinctly from non-subject extraction. Whereas non-subject extraction

has no apparent morphological consequences in its *in situ* realization, subject extraction always

triggers C-agreement on the verbal form. This pattern is seen in the contrast between (6)a and

(6)b, and (7)a and (7)b, respectively.

(6) a. ba-ba-ana ba-a-tim-a   (Wasike 2007: 236)
        2-2-child   2S-PST-run-FV
        'Children ran.'

     b. naanu **ba**-ba-a-tim-a?
        2who **2C**-2S-PST-run-FV
         "Who ran?"

     c. *naanu ba-a-tim-a?
         2who 2S-PST-run-FV
        'Who ran?'

(7) a. si-i-tabu   si-a-tib-a
        7-7-book 7S-PST-lose-FV
        'The book got lost.'

     b. siina   **si**-sy-a-tib-a?
        7what **7C**-7S-PST-lose-FV
        'What got lost?'

     c. *siina   sy-a-tib-a?
         7what 7S-PST-lose-FV
        'What got lost?'[4]

The statement made above that C-agreement reduplicates the subject marker should be clarified,

however, to say that it reduplicates the subject marker that occurs in subject extraction cases (as

opposed to in declaratives). In subject extraction of class 1 NPs there is a non-canonical subject

---

[4] There is some dialectal variation with respect to the obligatory nature of C-agreement. Whereas some speakers require C-agreement (in the relevant context), for others it is always optional. This optionality is the result of a more general morphophonological rule which allows one of two consecutive identical agreement forms to be omitted.

agreement marker—[o-], as compared to the declarative [a-]—and it is this [o-] subject marker

which is reduplicated as the C-agreement morpheme. This process has been commonly grouped

with a class of phenomena known as anti-agreement effects (cf. Ouhalla 1993, 2005; Kinyalolo

1991; Henderson 2009a, 2009b; Schneider-Zioga 2007 for Bantu). As seen in (8) and (9), the

normal third-person singular (class 1) subject agreement form [a-] is unacceptable, and instead a

different morpheme [o-] is required, which is also the form of the C-agreement morpheme.

(8) a. Naliaka a-li   mu-nju   (Wasike 2007: 235)
         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?'

     c. *Naanu a-li   mu-nju?
         Who   1S-be 18-house
         'Who is in the house?'

(9) a. o-mw-ana a-a-tim-a   (Wasike 2007: 236)
         1-1-child   1S-PST-run-FV
         'The child ran.'

     b. naanu o-w-a-tim-a?
         who   1C-1S-PST-run-FV
         'Who ran?'

     c. *naanu a-a-tim-a?
          who   1S-PST-run-FV
         'Who ran?'

I want to take a moment to clarify the terminology which I adopt at this point. I adopt the term

"alternative agreement effects" for the Lubukusu (and other Bantu) patterns of agreement

alternations in the case of subject extraction. This term shares an acronym with the familiar term

anti-agreement effects (AAEs) that is used in the broader literature on agreement in subject

extraction. This acronym is rightly shared, as both the Bantu alternative agreement effects and the anti-agreement effects that occur in other languages are cases where subject agreement is altered in some way when a subject is extracted (see the references and discussion in §3.3 below for specific examples and details). The reason for adopting different terminology, however, is that I will analyze the AAEs in Bantu languages as not a lack of agreement, but rather an instance of agreement which is realized with a different phonological form due to the structural mechanism for subject extraction. Beyond this, it is (relatively) transparent that there is in fact phi-feature agreement in subject extraction in Bantu languages, and that it is specific morphosyntactic circumstances that result in alternative agreement forms in specific cases. It is for these reasons that I refer to the Lubukusu and Bantu cases as "alternative agreement effects" rather than "anti-agreement effects". The description and analyses of Lubukusu AAEs is contained in §3.3 and §3.4.

Thus there are very clear morpho-syntactic effects of the extraction of subjects, which contrasts in an identifiable manner with non-subject extraction with regard to the presence/absence of C-agreement, the presence/absence of alternative agreement effects, and the obligatory presence/absence of the agreeing complementizer. These morphosyntactic properties are summarized in the table in (10):

(10) The morphosyntactic exponents of Lubukusu extraction

	COMP?	C-agreement ?
Subject relative clause	* [5]	✓
Subject wh-question	*	✓
Object relative clause	✓	*
Object wh-question	✓	*

[5] On the intended reading. A subject relative clause with a complementizer is defined here as a subject cleft construction, as it creates the focus interpretation of a cleft. The same is true of subject wh-questions, which are interpreted as subject-wh-clefts with the complementizer. This compartmentalization of the data mirrors that in Wasike (2007).

The C-agreement morpheme will be more the focus of this investigation than the structure of the left periphery, though the properties of the complementizer will be considered briefly. Wasike (2007) has provided an analysis for both of these; that analysis is considered in §3.2.4.1, as well as Wasike's very detailed mapping of the structure of the left periphery, an issue which I do not address in depth here. Additionally, I will go to lengths to explain both the properties and distribution of alternative agreement effects, discussed mainly in §3.3 and §3.4 below.

3.1.2   THE CRITERIAL FREEZING FRAMEWORK

This section briefly revisits the theoretical framework of Criterial Freezing set forth by Rizzi (2006, 2007) and Rizzi and Shlonsky (2007), with the purpose of establishing the background for my analysis in the following sections. This framework is discussed in much more depth in §1.6, which I refer the reader to for more details (as well as the included references). This section will briefly revisit the major points of the framework, for clarity's sake in the course of the present discussion.

Various "freezing" effects have long been noted in the syntactic literature (dating at least to Wexler and Culicover 1982), under the general analysis that once a phrase has undergone syntactic movement it is generally prohibited from further syntactic movement operations. While there have been various approaches to explaining these freezing effects (again, see §1.6, and the references therein), Rizzi (2006, 2007) and Rizzi and Shlonsky (2007) identify the cause of this freezing as a result of "Criterial Freezing". A Criterion exists when a head bears a criterial feature (usually related to some scope-discourse interpretation) which requires a featurally-matching phrase in its specifier. This approach is familiar from the Wh-Criterion as proposed with Government and Binding Theory: a CP with a wh-feature requires a wh-phrase in its specifier.

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(11) <u>Proposed Criteria</u>
WH-Criterion   Subject Criterion
Topic Criterion   NEG Criterion
Relative Criterion
Focus Criterion

Freezing effects therefore arise as a consequence of Criterial Freezing: essentially, once a phrase

has satisfied a Criterion, it is finished moving and cannot undergo any further movements,

freezing it in that Criterial position and resulting in the various A'-freezing effects discussed in

§1.6.

(12) CRITERIAL FREEZING (Rizzi 2007: 149):

In a criterial configuration, the Criterial Goal is frozen in place.

The large theoretical step taken in Rizzi and Shlonsky (2007) is the claim that there is a

dedicated structural position—called the Subject Phrase—which is the landing site for subjects.

Crucially, this position is also a Criterial position (and therefore subject to Criterial Freezing).

(13)

```
         SubjP            CRITERIAL FREEZING
        /     \
  SUBJ      Subj
           /    \
      Subj°      TP
```

CRITERIAL FREEZING
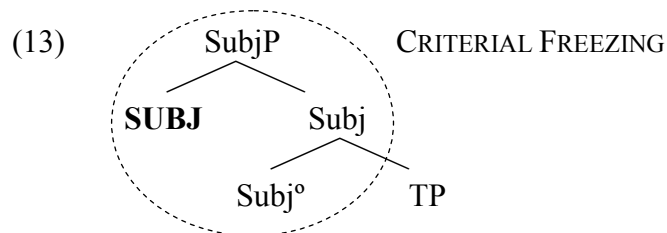
Though this phrase is referred to as a "Subject Phrase", the criterial feature on the Subj° is not

specified for the grammatical function of subject, and the Subject Criterion may be satisfied by

various means (as is discussed in what follows). Crucially, however, that criterial feature

requires something nominal merged directly above it. This therefore explains the classical EPP,

that clauses must always have subjects, as evidenced by languages with overt expletives in subject position (e.g. **it** *is raining)*.

Rizzi and Shlonsky (2007) exploit the claim that the Subject Phrase is subject to Criterial Freezing to derive the subject/non-subject asymmetries that appear cross-linguistically, particularly in extraction contexts. It creates an apparent theoretical problem to claim that subjects undergo Criterial Freezing, because (as is abundantly evident) it is possible to extract subjects cross-linguistically. But because Criterial Freezing affects subjects and not non-subjects (because there is no Object Phrase, or Adjunct Phrase, in the relevant sense), there exists a syntactic asymmetry which can therefore explain the extraction asymmetries evident in language. Specifically, Rizzi and Shlonsky (2007) claims that there are two types of strategies available for extracting subjects, which are basically methods of circumventing the freezing effect on subjects in their canonical position in Spec, Subject Phrase: fixed subject strategies and skipping strategies. Skipping stragies are the cases where some element other than the subject satisfied the Subject Criterion, allowing the subject to skip that position and be moved higher in the clause.[6]

I analyze C-agreement in subject extraction cases as the result of a skipping strategy for subject extraction. Notably, Rizzi and Shlonsky claim that if a nominal complementizer head (and it must crucially be nominal in nature) is merged directly atop the Subj° head, this is sufficient to satisfy the Criterial requirements of Subj°.

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[6] Again, I refer the reader to Chapter 1 for a more specific discussion of these strategies, and a more in-depth review of Rizzi and Shlosky (2007).

(14) … FinP[7]

```
         FinP⁷
        /    \
     Finᵒ    SubjP
     NOM    /     \
         Subjᵒ     IP
                  … SUBJ
```
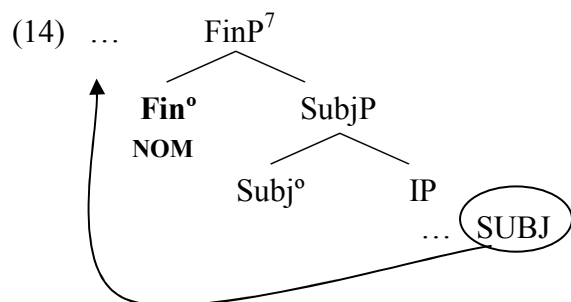
In this way Rizzi and Shlonsky bring into their account cases where subject/non-subject extraction asymmetries surface in the complementizer domain, such as the that-*t* effects of English and the que-qui alternation in French. At this point we are prepared to examine how a Criterial Freezing approach explains the Lubukusu facts, the focus of the next section.

3.2 The Morphosyntax of Subject Extraction in Lubukusu

This section establishes the bulk of my analysis of Lubukusu subject extraction, setting forth the core cases and the basic analysis. The first section revisits the basic Criterial Freezing analysis of Rizzi and Shlonsky (2007), specifically that a nominal morpheme allows for subject extraction, and §3.2.2 explores the nature of the nominal pre-prefix and its presence in subject extraction contexts. §3.2.3 then lays out the full analysis of Lubukusu subject extraction in a Criterial Freezing framework. §3.2.4 then discusses some initial evidence for this approach, though a full discussion of the impacts of this analysis are left for the discussion of alternative agreement effects in §3.3 and §3.4.

3.2.1 THE SUBJECT CRITERION IN LUBUKUSU SUBJECT EXTRACTION

As shown above, Rizzi and Shlonsky (2007) propose that a complementizer head, if sufficiently nominal in nature, may be merged atop Subj° to satisfy the Subject Criterion. This section will

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[7]See Rizzi (1997) and much related work on the structure of the left periphery, where the CP-domain is argued to be made up of a collection of specific functional heads. A general approximation of the left periphery *à la* Rizzi (1997): [Forceᵒ [… Top/Foc …[Finᵒ [IP … .

show how their proposal immediately captures the basic extraction asymmetries described in

§3.1.1, and in fact that the Lubukusu data show even more direct morpho-syntactic support for

their claims than does their argumentation for the French que-qui alternation as a reflex of a

skipping strategy for subject extraction.

My claim is that the C-agreement morpheme which appears in Lubukusu subject

extraction is the morphological realization of a nominal Finº head, which is merged directly after

Subj° is merged, simultaneously satisfying the Subject Criterion and allowing the extracted

subject to avoid the Criterial Freezing effect and raise to the left periphery.[8] This is illustrated in

(15), where CA stands for C-agreement, and SM stands for the subject marker.

(15) …   FinP
         /\
      Finº   SubjP
      CA   /\
          Subjº   TP
                  /\
                Tº
                SM   …(SUBJ)
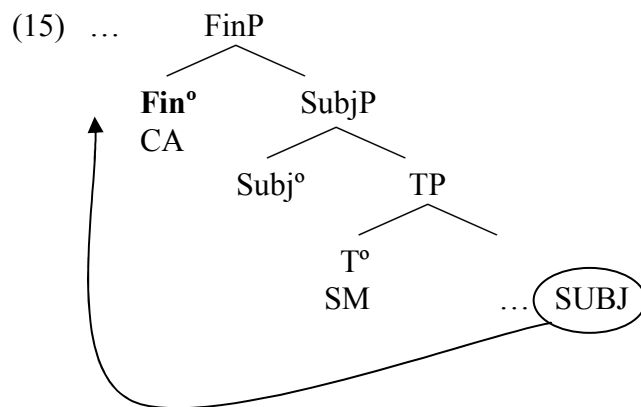
This analysis produces some immediate benefits with regard to the problem of Lubukusu

extraction asymmetries. First, it explains why C-agreement appears only in the case of subject

extraction, and never in the case of object extraction. Second, it explains the cross-linguistic

tendency within Bantu languages for C-agreement of this sort to be related to morphological

paradigms from the nominal domains.   Third, it provides a new approach to explaining the

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[8] It is an important question to address what exactly makes a syntactic element "nominal". In this chapter, I will argue for the nominal nature of C-agreement based on its correlation with paradigms of inflection on nouns. I will not make a theoretical claim as to the nature of nominality, however. Possibilities include a 'nominal' feature, or perhaps D-features in the spirit of Chomsky (1995), or some combination of categorical features (in the spirit of Haeberli 2003).

alternative agreement effect that arises in Lubukusu (which is similar to those which have been reported thus far for other Bantu languages). First I discuss the morphological parallels between C-agreement and the nominal domain, after which I describe the analysis of C-agreement in further depth in §3.2.3. The alternative agreement effect that appears in certain contexts is discussed in §3.3.

3.2.2 THE NOMINAL NATURE OF C-AGREEMENT

This section addresses the featural content of the C-agreement morpheme, particularly noting its cross-Bantu correlation with nominal morphology. Previous work addressing subject extraction in Bantu languages observes that there is a correlation between the morphology associated with subject extraction and the nominal pre-prefix that occurs on noun stems. Henderson (2009a, 2009b) makes this generalization based on alternative agreement effects for Luganda and Bemba, and the correlation between the pre-prefix and subject extraction more generally was noted even earlier for Luganda in Ashton et al. (1954).

Regarding Lubukusu specifically, Wasike (2007) notes that there is a strict correlation between the form of C-agreement and the form of the nominal pre-prefix in Lubukusu. In some Bantu languages nominals are marked for noun class by a single prefix, but in many Bantu languages they are marked by two prefixes, which are generally referred to as the prefix, adjacent to the root, and the pre-prefix located to the left of the prefix. Sometimes these prefixes are morphologically identical, as in (16)a, but sometimes they are not, as in (16)b.

(16) a. ba-baa-ndu
       2-2-person
       'people'

b. o-muu-ndu
   1-1-person
   'person'

Considering the entire paradigm (i.e. including all noun classes) of nominal pre-prefixes together with the entire paradigm of C-agreement morphemes, it is clear that in all cases C-agreement is identical to the pre-prefix. This is shown in (17), with the relevant morphemes in bold.

(17) Nominal prefixes and C-agreement   (adapted from Wasike 2007: 34)

Class	PP-PRF-nominal stem		CA-SA-verb stem
1	**o**-muu-ndu	'person'	**o**-w-akwa 'who fell'
2	**ba**-baa-ndu	'people'	**ba**-ba-akwa 'who fell'
3	**ku**-mu-saala	'tree'	**ku**-kw-akwa 'which fell'
4	**ki**-mi-saala	'trees'	**ki**-ky-akwa 'which fell'
5	**li**-li-no	'tooth'	**li**-ly-akwa 'which fell'
6	**ka**-ma-kaanda	'beans'	**ka**-ka-akwa 'which fell'
7	**si**-sii-ndu	'thing'	**si**-sy-akwa 'which fell'
8	**bi**-bii-ndu	'things'	**bi**-by-akwa 'which fell'
9	**e**-m-busi	'goat'	**e**-y-akwa 'which fell'
10	**chii**-mbusi	'goats'	**chi**-cha-akwa 'which fell'
11	**lu**-luu-chi	'river'	**lu**-lw-eechula 'which flooded'
12	**kha**-kha-ana	'child dimunitive'	**kha**-kha-akwa 'who fell'
14	**bu**-bu-ukhi	'honey'	**bu**-bw-achichukha 'which spilled'
15	**khu**-khuu-pa	'hitting'	**khu**-khw-aumisya 'which hurt'
16	**a**-musaala	'by the tree'	**a**-a-amalia 'which darkened'
17	**khu**-musaala	'on the tree'	**khu**-u-malia 'which darkens'
18	**mu**-mu-saala	'inside the tree'	**mu**-mw-amalia 'which darkened'

Morphologically speaking, the paradigm is not completely transparent because it happens to be the case in Lubukusu that verbal subject agreement *also* patterns with the nominal pre-prefix in almost all cases. This is not the case in all Bantu languages: in many languages subject agreement shows more similarities with the nominal prefix, as opposed to the nominal pre-prefix (as will be shown for Luganda below).[9] It would seem plausible, therefore, to claim that C-

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[9]It seems plausible to me that this connection may be due to the fact that Lubukusu retains the full CV structure of pre-prefixes (and, therefore, a more diverse set of contrasts between pre-prefix morphemes, as opposed to many

agreement is simply a reduplication of the subject agreement morpheme, rather than drawing a less obvious correlation with the nominal domain.

With the purpose of clarifying this issue, then, the key piece of data is in class 1, in which subject agreement is normally the morpheme *a-* but in the case of subject extraction C-agreement takes the form *o-* which corresponds to the nominal pre-prefix, as in all other cases of C-agreement. The reason this is significant is that it further demonstrates the connection with the pre-prefix, because C-agreement in every case is identical to the nominal pre-prefix, but is only in most cases an (apparent) reduplication of the declarative subject agreement morpheme. [10]

The connection between the nominal pre-prefix and C-agreement is perhaps more strongly evident in the morphological paradigms of related Bantu languages; I explore Luganda here as an example. The table in (18) lays out examples of the noun class markers as they appear on nominal forms (including pre-prefix, and prefix) and subject agreement forms, which are bolded in the right-hand column of the table.

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languages where the sole V of the pre-prefix is limited to at most 5 different vowels). This makes Lubukusu pre-prefixes morpho-phonologically plausible candidates for subject agreement morphology, capable of representing all the noun class contrasts.

[10] It should be noted that even in class 1, C-agreement and subject agreement are the same, in this case o-o (more accurately, u-u-, where the initial vowel is lowered to o- by phonological rule and u- becomes a glide to resolve the vowel hiatus with the following vowel which marks tense). My claim (which is covered in depth in §3.3) is that the alternative agreement effects in Lubukusu (and more broadly in Bantu) are the result of phi-feature agreement on the verb that results from agreement with nominal Fin° rather than with the subject NP itself. That is to say, I view the patterning of C-agreement with subject agreement in the case of class 1 nouns not as a result of reduplication of the subject agreement morpheme, but rather the inverse, as the result of the subject marker agreeing with C-agreement morpheme (realized on Fin°).

(18) Luganda nominal prefixes and subject agreement

Class	PP-PRF-noun stem	Gloss	Subj SA-verb stem
1	(o)-mu-ntu (o)-mw-ana	'person' 'child'	omuntu **a**-somye a person has read"
2	(a)-ba-ntu (a)-ba-ana	'people' 'children'	abantu **ba**-somye "people have read"
3	(o)-mu-ti (o)-mw-aka	'tree' 'year'	omufaliso **gu**-yulise "the mattress is torn"
4	(e)-mi-ti (e)-my-aka	'trees' 'years'	emicungwa **gi**-vunze "the oranges are rotten"
5	(e)-ggi (e)-ri-nnya (e)-ry-ato	'egg' 'name' 'boat'	eggi **li**-atise (lyatise) "the egg is cracked" (SA = ri- or li-)
6	(a)-ma-gi (a)-ma-nnya (a)-ma-ato	'eggs' 'names' 'boats'	amagi **ga**-atise "the eggs are cracked"
7	(e)-ki-ntu (e)-ki-bbo	'thing' 'basket'	ekintu **ki**-tuuse "the/a book has arrived"
8	(e)-bi-ntu (e)-bi-bbo	'things' 'baskets'	ebintu **bi**-tuuse "the/some books have arrived"
9	(e)-mbwa (e)-nnyonyi	'dog' 'bird'	embwa **e**-yagala ennyama "the dog wants meat"
10	(e)-mbwa (e)-nnyonyi	'dogs' 'birds'	embwa **za**-agala ennyama "the dogs want meat"

(data compiled from Ashton et al. 1954)

As is evident from the above table, the morphological paradigms do not show as consistent

correlations as those in Lubukusu. As can be seen from (18), in the cases that subject agreement

in Luganda does correspond to one of the nominal prefixes, it generally corresponds to the prefix

and not the pre-prefix. Class 9 is an exception to this generalization, but it does hold true for

classes 2, 5, 7, and 8. There are also cases where there is no (exhaustive) correspondence, but

where certain phonological characteristics (mainly, vowel quality) are shared between the

nominal prefix and the subject agreement prefix: included here are classes 3, 4, and 6. No matter

what the historical connection between nominal prefix noun class morphology and subject noun

class agreement forms (as it is obviously not a direct connection like in Lubukusu), it is

overwhelmingly clear that the pre-prefix (or the initial vowel, as referred to by Ashton et al.

1954) does not correspond to subject agreement morphology as it does in Lubukusu.

The crucial point is that despite this fact, Luganda still maintains very clear

correspondences between the pre-prefix and (what I would analyze as) C-agreement in the cases

of extraction. This is evident both in interrogatives and relatives, where the pre-prefix is

attached pre-verbally (as in Lubukusu) for subject extraction. Object extraction in Luganda

consists of an *in situ* wh-object, with no morpho-syntactic consequences for the verbal form, but

subject extraction shows a form similar to Lubukusu, with the nominal pre-prefix appearing

preverbally. I use glossing conventions here consistent with the rest of this work, rather than the

original source (Ashton et al. 1954).

(19) baani   a-ba-a-yogera?   [Luganda]
      2who   2C-2S-PST-speak
      'Who (all) spoke?'

(20) baani a-ba-na-azannya o-mu-piira leero?
      2who 2C-2S-FUT-play   3-3-ball   today
      'Who will play football today?'

(21) Ki-tabo ki   e-ki-buze?
      7-book what C-7S-is.lost[11]
      'what book is lost?'

(22) Mu-dumu ki   o-gw-atise?
      3-jug   what C-3S-is.cracked
      'what jug is cracked?'

The same general pattern holds true for relative clauses in Luganda as well. Object relatives

have a complementizer-type element, as is shown in the examples in (23), whereas subject

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[11] Note that a noun class specification is not glossed for C-agreement. As is evident from the chart of the Luganda nominal paradigms in (18), the pre-prefix paradigm is deficient in Luganda as compared to Lubukusu, and the [e] pre-prefix appears in a variety of noun classes. At present, I leave it simply glossed as C-agreement, though the featural specifications of Luganda C-agreement (and pre-prefixes) is taken up in §3.3.3.2.

relatives have no complementizer and instead have a C-agreement morpheme similar to

Lubukusu, as shown in (24)-(26) (see Ashton et al. 1954: 136ff).[12]

(23) a. e-ki-kopo **kye** **n-guze** ky-atise [Luganda]
     PP-7-cup 7COMP 1st SG-bought 7S-is.broken **Object Relative Clause**
     'The cup *which I've bought* is broken.'

   b. **e-mi-keeka gye** **tw-aluka** te-gi-gasa **Object Relative Clause**
     PP-4-mats 4COMP 1st PL-plaited NEG-4S-are.suitable
     '*The mats we plaited* are not suitable.'

(24) a. e-ki-kopo ki-gudde
     PP-7-cup 7S-has.fallen
     'The cup has fallen down.'

   b. e-ki-kopo e-ki-gudde ky-aise? **Subject Relative Clause**
     PP-7-cup C-7S-has.fallen 7s-is.broken
     'The cup which fell down is broken.'

(25) a. o-mu-faliso gu-yulise
     PP-3-mattress 3S-is.torn
     'The mattress is torn.'

   b. o-mu-faliso o-gu-yulise gw-ange
     PP-3-mattress C-3S-is.torn 3-mine **Subject Relative Clause**
     'The mattress which is torn is mine.'

(26) a. e-mbwa y-agenda
     9-dog 9s-went
     'The dog went.'

   b. e-mbwa e-y-agenda **Subject Relative Clause**
     9-dog C-9s-went
     'The dog which went.'

---

[12] It should be noted that while the Luganda facts are parallel to the Lubukusu facts in certain ways, they also differ in others (as is commonly found in comparative work in Bantu). For one, object relative clauses with an overt NP subject have an unexpected subject position, preceding the complementizer-type element. Secondly, the alternative agreement effects that occur in Luganda have a somewhat different morphological correspondences than those in Lubukusu: see §3.3.3.2 for a more detailed discussion.

This parallel between C-agreement and pre-prefix morphemes (on nouns) in and of itself would seem to suggest that this morphology has some sort of nominal quality to it. Beyond this morphological similarity, however, there are even more reasons to believe that C-agreement has a nominal quality, largely due to the specific nature of the pre-prefix augment in Bantu languages.

It is often assumed that the Bantu pre-prefix, in those languages which have it, brings with it some sense of definiteness or specificity (Henderson 2009a, Mould 1974). Supporting this conclusion is the fact that it in some languages which have the pre-prefix, noun phrases lacking the pre-prefix (i.e. non-augmented forms) can only occur in situations where they are licensed by specific syntactic operators. For example, Progovac (1993) and Hyman and Katamba (1993) claim that non-augmented forms are only licensed in the context of negation and focus (in Kinande and Luganda). Ferrari-Bridgers (2008) claims that this morpheme in Luganda directly encodes referentiality, licensed by a Referential Phrase (which interacts with other scopal material like Focus and Negation).

Additionally, Bokamba (1976) notes that Dzamba, Likila, and Lingala all use the pre-prefix essentially akin to definite articles in English, so that the presence of the pre-prefix incurs a highly specific/definite reading, and its absence results in an indefinite reading.

(27) a. Pɔsɔ   a-tom-áki   mw-ɛnzi   (Bokamba 1976: 64, #80)
        Pɔsɔ   AGR-send-IMPF a message
        (Some Pɔsɔ sent a message)

  b. o-Pɔsɔ   a-tom-áki   i-mw-ɛnzi
     def-Pɔsɔ AGR-send-IMPF the message
     (A specific Pɔsɔ (that is known or assumed to be known to both the speaker and
       hearer) sent the message)

These facts suggest, then, that pre-prefix contributes some sense of specificity or referentiality, so that when the augment is missing in Dzamba, Likila, and Lingala, the NP is indefinite, and when it is missing in Luganda and Kinande, the un-augmented NPs must be licensed by a construction in which an operator can license the NPin some structural manner (like a focus/cleft construction, or negation), or they must be decidedly non-referential contexts (cf. Ferrari-Bridgers 2008).

Wasike (2007) provides some interesting support from Lubukusu for this conception of the pre-prefix in Bantu, noting that when a complex wh-phrase is formed, the pre-prefix is disallowed.

(28) (**ba**)-ba-ana siina ba-ba-a-kw-a?
      2-2-child   which 2C-2S-PST-fall-FV
      'Which children fell?'

(29) (**ku**)-mu-saala siina   ku-kw-a-kw-a?[13]
      3-3-tree   which   3C-3S-PST-fall-FV
      'Which tree fell down?'

In Lubukusu the presence and absence of the pre-prefix is not completely governed by semantic notions like referentiality, in contrast to the languages discussed by Bokamba (1976) and shown in (27). But it does appear that in certain (clearly non-referential) contexts like a complex wh-phrase, the pre-prefix is banned from appearing. While this issue necessitates further investigation, it is at least clear that there is a connection between the pre-prefix morpheme in Bantu languages and nominal qualities like specificity, definiteness, and referentiality, which makes its appearance as C-agreement even more striking.

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[13]Some speakers consulted on this pattern found the presence of the pre-prefix in this case to be optional.

Again, many of the C-agreement forms look identical to general Lubukusu phi-feature agreement (including subject agreement on verbs and agreement forms on adjectives) which might suggest that C-agreement corresponds to the declarative subject agreement morpheme, rather than the nominal pre-prefix. It is the fact that the class 1 C-agreement form does not appear as the verbal class 1 subject agreement *a-*, but rather as the pre-prefix form *o-*, which strengthens this connection of C-agreement with the pre-prefix, along with the more general pattern that occurs in other Bantu languages.[14]

In my own investigation, judgments vary with regard to whether the pre-prefix is obligatory absent or not in complex wh-phrases like (28) and (29) based on noun class – the animate classes (class 1 and 2) cannot have the pre-prefix, whereas in other noun classes the pre-prefix is optionally absent. This contrasts with other contexts including nominal modifiers like adjectives and numerals, where the pre-prefix on the noun is nonetheless obligatorily present.[15] It is unclear whether the prohibition of class 1 and 2 pre-prefixes from appearing in complex wh-phrases has to do with a synchronic featural specification, or some historical holdover from a period where the entire pre-prefix paradigm behaved more uniformly, as it has been shown to do so in some other Bantu languages (cf. Hyman and Katamba 1993, Bokamba 1976).

Stepping back, there are a number of ways to interpret the data in (28) and (29). Clearly in this context it is impossible for the NP *babaana* 'children' or *kumusaala* 'tree' to be definite or referential, and so the impossibility of the pre-prefix in these cases would seem to suggest that those functions are part of those played by the pre-prefix. One implementation of this approach

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[14] The entire paradigm is laid out in in Chapter 4, (6).
[15] That is, it is obligatory except in cases where the pre-prefix is identical to the prefix, in which case the pre-prefix may be dropped; I interpret this fact to be a phonological or morphological manifestation of some version of the OCP, Obligatory Contour Principle, disallowing adjacent like objects. The optionality here offers the same difficulties here that it does to most generative accounts, but as the DP is not the focus of this present research, I am forced to set it aside for future consideration.

would be a Kayne-ian explanation where *siina* 'which' in these cases is actually a realization of D°, and the fact that it is in complementary distribution with the pre-prefix would then suggest that the pre-prefix augment is itself a D° head (Kayne 1994). This is less likely for Lubukusu, as the variation between noun classes (along with the lack of direct correlation with referentiality and/or definiteness) makes it unlikely that the pre-prefix is properly a D° head.

A full investigation of the Lubukusu pre-prefix is beyond the scope of this section. Critical to the analysis here it that the C-agreement morpheme be nominal in nature, which I have argued to be so based on its correlation to the pre-prefix morphology that appears on nouns. Regarding the pre-prefix, I have argued that it centrally plays a role in referentiality (a distinctly nominal characteristic, see Baker 2003), an argument which I based on limited evidence in Lubukusu and more extensively the properties of the correlate morphology in related Bantu languages.

3.2.3 LUBUKUSU C-AGREEMENT AS A SKIPPING STRATEGY

Having established the nominal nature of the C-agreement morpheme, we are now in a place to examine the subject/non-subject extraction asymmetries in light of Rizzi and Shlonsky's (2007) Criterial Freezing framework for subject extraction. As I have stated before, I analyze the Lubukusu facts as the realization of a skipping strategy, where C-agreement is a nominal Fin° head which satisfies the Subject Criterion, allowing a subject to be extracted. The data given in (3) and (4) are repeated here for convenience, illustrating the differences between subject extraction and object extraction.

(3)   ba-ba-andu **ba**-ba-a-kula   ka-ma-tunda likoloba   **Subj Relative Clause**
        2-2-people 2C-2S-PST-buy 5-5-fruit   yesterday
        'the people who bought the fruit yesterday'

(4) kama-tunda *(ni-ko) ba-ba-andu ba-a-kula   likoloba   **Obj Relative Clause**
     6-fruit   COMP-6 2-2-person 2S-PST-buy yesterday
     'the fruit that people bought yesterday'

In object extraction like in (4), the Subject Criterion is satisfied by the DP subject *babaandu*

'people', so there is no need for an expletive-like nominal Fin° to satisfy the requirements of

Subj°. In order for a subject to be extracted, however, something other than the DP subject

babaandu 'people' must satisfy the Subject Criterion or else the DP subject would be frozen in

that position, and moving it further would yield an unacceptable result. As such the nominal

Fin° head (C-agreement) is merged, allowing the subject to skip the Criterial position.[16] The

structure of (3) is set forth in (30), abstracting away from the inflectional structure of the

Lubukusu clause. I assume for now that the relativized phrase raises to the general position for

relativized phrases/wh-phrases, the details of which are not crucial here.

(30) [$_{XP}$ babaandu X° [$_{FinP}$ ~~babaandu~~ **[Fin-ba** [Subj° [$_{IP}$ baakula ~~babaandu~~ kamatunda]]]]
      people   ~~people~~   buy   ~~people~~   fruit

CRITERIAL FREEZING
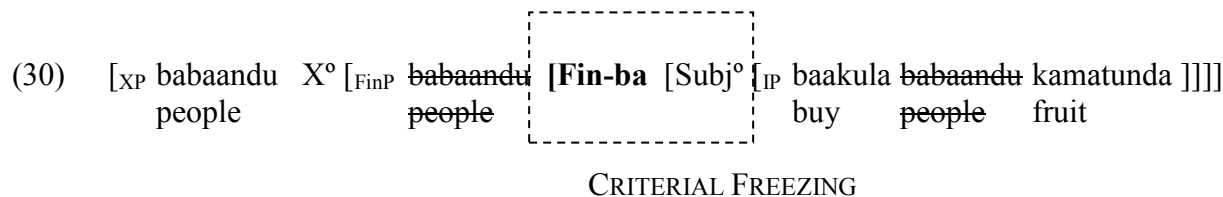
In this case the nominal Fin° is merged immediately after Subj°, after which the subject

babaandu raises past FinP, to the relevant position for relativized phrases. At this point it

triggers agreement on the nominal Fin° head (see Baker 2008b on upward agreement, also cf.

Henderson 2006 on "closest Match" agreement). It should be noted that this account bears some

similarities with the account set forth in Wasike (2007), specifically the idea that C-agreement

(*wh*-agreement, in his terminology) arises on Fin°, though our accounts propose different

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[16] Here I am assuming a raising analysis of relative clauses (cf. Kayne 1994, Vergnaud 1974), though there is no
reason that this must be true for the analysis to hold. It may well be an operator and not the noun phrase itself which
is raising in these cases – it makes no difference for the account given here.

mechanisms: these similarities and the important distinctions are considered in §3.2.4.1 and §3.2.4.2 below.

This extraction mechanism therefore qualifies as a skipping strategy according to Rizzi and Shlonsky (2007): the Subj° head is a Criterial head, and therefore there is a Subject Criterion which must be satisfied by immediately merging a nominal element (either as a specifier, or as another head). In order for the subject noun phrase to be extracted, the Subject Criterion must be satisfied by some element other than the subject (C-agreement in Lubukusu).

We can see a direct parallel between this proposal for Lubukusu and that of Rizzi and Shlonsky for the que-qui alternation in French. As is well-known, when a local subject is relativized in French, the complementizer takes a different form (*qui*) than it does when a non-subject is relativized (*que*) (see §1.6 for more extensive discussion of their analysis).

(31) a. *L'homme [Op que [t est venu]]   [French]
        'The man QUE has come'   **Subject Relative Clause**
   b. L'homme [Op qui [t est venu]]   **que, ✓qui*
        'The man QUI has come'

(32) a. L'homme [Op que [tu as vu t]]   **Object Relative Clause**
        'The man QUE you have seen'   ✓*que*, * *qui*
   b. *L'homme [Op qui [tu as vu t]]
        'The man QUE you have seen'

                       (Rizzi and Shlonsky 2007: #28 and #29)

Following Taraldsen (2001), they claim that the subject-relative complementizer *qui* is better analyzed as a composite of *que* plus *–i*, where the latter is an expletive-like element (morphologically similar to the expletive *il*). Rizzi and Shlonsky claim that *–i* is merged under Fin°, and as an expletive (i.e. nominal) element satisfies the Subject Criterion. Because the

Subject Criterion is satisfied by the expletive element –i, the subject is able to raise past the SubjP into the left periphery, avoiding being frozen in Spec, SubjP.

The parallels between Rizzi and Shlonsky's (2007) analysis of French que-qui and my analysis of Lubukusu C-agreement should be apparent at this point. In both cases, subject extraction requires the (seemingly 'extra') presence of a nominal element that emerges in some left-peripheral position, whether as a first prefix on the verb, or attached to complementizer material. Morpho-phonological parallels in both cases suggest that these morphemes have a nominal quality to them, understood in this analysis to be capable of satisfying the Criterial nature of Subj°. In the framework adopted here, subject extraction strategies in both French and Lubukusu (and Luganda, for that matter) are examples of skipping strategies, where some sort of nominal element serves to satisfy the Subject Criterion, allowing the NP subject to be extracting without be frozen in Spec, SubjP.

3.2.4 PRELIMINARY ARGUMENTS FOR C-AGREEMENT AS NOMINAL FIN°

This section briefly addresses the previous analysis of Lubukusu subject/non-subject extraction asymmetries, making a preliminary argument for the account presented here, though more evidence is presented in sections 3.3 and 3.4 below.

3.2.4.1   The Previous Analysis: Wasike (2007)

The only previous analysis for the Lubukusu subject/non-subject asymmetries is offered by Wasike (2007). This section outlines and evaluates that analysis in brief. Similar to the analysis given here, Wasike claims that the different properties associated with subject extraction as opposed to non-subject extraction are rooted in the "special status of subjects" (p. 26). The major difference is that Wasike roots these differences in the properties of the left periphery

rather than in the canonical positions of subjects, as proposed here. Wasike claims that the complementizer system is structured differently for subject extraction as opposed to non-subject extraction. To this effect, he proposes that there are two different types of wh-complementizers in Lubukusu: the null complementizer which is used in relativization and clefting of subjects, and the overt complementizer (*ni*-AGR) used in relativization and clefting of non-subjects.

Specifically, Wasike proposes that this subject-oriented null complementizer is generated in the lowest complementizer head (Fin, according with Rizzi's 1997 structure of the left periphery). He assumes that the null complementizer on the Fin head bears a "strong subject-wh feature", which can be checked only by the subject; it is this feature bundling which necessarily links the lack of a complementizer to subject extraction. When a subject is extracted, the null Fin head and the subject enter into an Agree relation, and the subject then moves to Spec, FinP. The additional agreement morpheme that appears on the verb is the realization of this Agree relation. Wasike sketches out this derivation in the structure given in (33)b, with the assumption that the verb raises to Cº (i.e. Finº) in these cases.

(33) a. ba-ba-ana **ba**-ba-a-kw-a   (Wasike 2007: 29)
      2-2-child   **2**C-2S-PST-fall-FV
      'children who fell'

  b. FinP

ba-ba-ana   Fin'
'children'

       Fin   IP
       ba-baa-kwa
       WH-S-fell   <ba-ba-ana>   I'

                   <ba-kwa>   *v*P
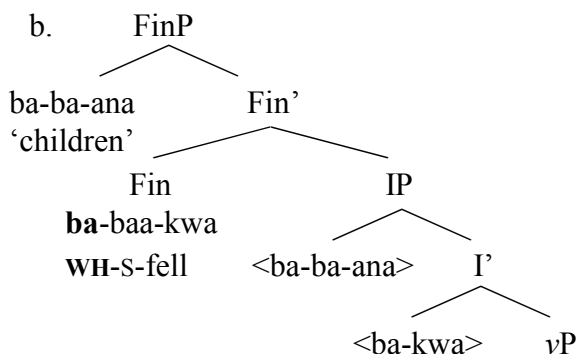
Wasike argues that this is the extent of the structure in subject relative clauses (and, I presume from his argumentation, subject wh-questions as well), citing as evidence the fact that in double object constructions, topicalization is acceptable of the other object in an object relative clauses, whereas subject relative clauses disallow object topicalization (these data are discussed in §3.5). Wasike uses this evidence to claim that the C-field is truncated in the case of subject extraction, but not object extraction, arguing that the overt complementizer realizes a higher head in the complementizer field (which he postulates is a composite of a predicational projection PredP and a pronominal projection PronP), and that objects in object relative clauses are extracted to this higher position.[17]

In this way the difference between subjects and non-subjects in extraction contexts is based on the different left-peripheral structures for subject and object extraction, and on the different featural make-ups of their respective landing sites—specifically, the higher position attracts objects, and the lower position attracts subjects. For this reason, I will refer to this approach to the Lubukusu asymmetries as a "landing-site approach". In the next section I will contrast this landing-site approach with the "launching-site approach" adopted in this chapter, where the asymmetries are rooted in the Criterial nature of the SubjP canonical subject position.

3.2.4.2 Subjects Identified by Launching Site, not Landing Site

First, an analysis based on the distinction in features between the two landing sites for subject and non-subject extraction, respectively, is undesirable on the simple grounds that it posits different landing sites for subjects and objects when the discourse functions of these separate landing sites are essentially identical (whether it be focus for wh-phrases, or relativization for

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[17] Henderson 2006 claims that relative features across Bantu languages may occur in either Forceº or Finº; Wasike here is claiming that Lubukusu has both, differentiated for object and subject extraction. As shown in what follows, he claims that both may appear in the same construction, mainly, in subject cleft constructions.

heads/Ops of relative clauses). That is to say, a wh-phrase has the same discourse function regardless of whether its grammatical function within its clause is that of a subject or not. It is therefore curious that there should be positions differentiated in the left periphery by grammatical function, when they are performing the same discourse function (e.g. FocP-Subject, and FocP-Object).

In addition, on a landing-site approach, the mechanism which attracts subjects and objects to their 'correct' left-peripheral positions is stipulative (in a generative account): Wasike claims that "strong subject features" in Spec, FinP attract the subject. The Minimalist Program (and its other Principles and Parameters precursors) makes no allowance for grammatical functions as primitive features in the language faculty, which is particularly useful for explaining constructions such as locative inversion, particularly in Bantu languages, where the 'logical' subject and the grammatical subject are not the same element. As such it is unclear what it means within a Minimalist framework for an element to bear "subject features", as there is no definition of what those features are, or how a phrase comes to possess them.

While Rizzi's notion of a Subject Phrase does formalize the idea of a subject within P&P more than has been done in the past, the difference here is that DPs are not identified as subjects by some features which are somehow assigned to a phrase in the course of a derivation. Instead the notion of 'subject' is incorporated into the phrase structure in a manner that is directly comparable to how discourse notions like topic and focus are incorporated into the phrase structure.[18] Adopting grammatical subjecthood to be contingent upon a phrase's presence in this structural position then allows for the launching-site approach to extraction asymmetries proposed above, which is forced neither to posit different landing sites, nor to incorporate

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[18] Though note that nothing in my argumentation depends on SubjP being linked with a specific interpretation. It is sufficient that it mark the canonical subject position, and be a Criterial position, without also triggering a specific grammatical function (recognizing the theoretical problem of expletives).

grammatical functions into the system of features and movement in a way in which allows grammatical functions themselves to trigger syntactic processes. Instead, a much more restrictive account is adopted where subjecthood is linked with a specific scope-discourse position.

While these are more concerns of theoretical coherence than arguments of any empirical significance, there is in fact an empirical argument for the launching site approach and against the landing-site approach. The data are presented in (34) and (35). These data show that a postverbal logical subject may be questioned in locative inversion constructions, and in these cases we do not find the normal subject-extraction effects. Example (34) is a case where alternative agreement effects would occur, but when the subject is postverbal, do not, and (35) is a case where a locative phrase is the grammatical subject, and the logical subject occurs postverbally.

(34) mu-mu-siiru a-a-kwa-mo   naanu   (*o-w-a-kwa-mo)
      18-3-forest   1S-PST-fall-18L 1who   *1C-1S-PST-fall-18L
      'In the forest fell who?'

(35) Mu-mu-siiru (*si-)mw-a-kwa-mo   siina ?
      18-3-forest   (*7C)-18S-PST-fall-18L 7what
      'In the forest fell what?'

This of course contrasts starkly to cases of subject extraction where the wh-subject is in preverbal position, as in these cases C-agreement and alternative agreement effects (for class 1 subjects) are obligatory. This of course follows from the analysis adopted here: if the wh-subject is extracted from a postverbal position, it is not being extracted from Spec, SubjP, and therefore

is not extracted from a Criterial position and does not require the nominal Fin° extraction strategy to avoid Criterial Freezing.[19]

An approach based on the landing-site of subjects in extraction predicts that there should be no difference in the launching-site of extraction.[20] The data in (34) and (35) clearly show that this is not the case, however, arguing that an approach such as this one, where the specific position of subjects is what requires specific extraction mechanisms. This of course does not distinguish this account from other accounts where the position of subjects is relevant for subject/non-subject asymmetries (Boeckx 2003, 2008; Richards 2001), but it does distinguish it from accounts based on the landing site of movement, like the previous account for Lubukusu (Wasike 2007), as well as from accounts based on case/agreement issues (Pesetsky and Torrego 2001, 2004), which arguably should not be affected by the specific position of the subject. More independent evidence for this account is found in the discussion of empirical distribution of alternative agreement effects below in sections 3.3 and 3.4, and all of chapter 4 is devoted to issues relating to locative inversion.

3.2.5 THE COMPLEMENTIZER IN OBJECT RELATIVES

We are still left to explain, however, why it is that object extraction requires the presence of a complementizer, while this complementizer is ruled out in the case of non-cleft subject extraction. Recall the distributions of the complementizer and C-agreement, as given in (10):

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[19]As it turns out, while this argument holds straightforwardly for example (35), the locative inversion construction in (34) actually has a much more complex structure, within which I will end up claiming that the subject is in fact in subject position, and the locative is in a left-peripheral topic position and the verb has raised over it (see chapter 4). I claim that the head-to-head movement of the verb to Fin° (and above) precludes merging the nominal Fin° head, and and therefore the wh-subject must necessarily remain *in situ*. It is the lack of the skipping mechanism which eliminates alternative agreement effects in this case – this argument will become more clear in §3.3 and §3.4.
[20] Except perhaps by stipulating that postverbal subjects lack a "subject feature", but it is unclear what would motivate such a claim, and what notion of 'subjecthood' that subject features encode.

(10) The morphosyntactic exponents of Lubukusu extraction

	COMP?	C-agreement ?
Subject relative clause	* [21]	✓
Subject wh-question	*	✓
Object relative clause	✓	*
Object wh-question	✓	*

This pattern of complementary distribution can be straightforwardly captured if the agreeing

complementizer is merged under Fin°, with its agreement with the extracted object resulting

either if the object passes through Spec, FinP, or if that object raises directly to Spec, RelP

(either way, there would be no intervening material between Spec, RelP and Fin°, so an Agree

relation can be straightforwardly captured as Fin° probes upward for a DP to agree with).

(36) [kamatunda$_i$ Rel° [$_{FinP}$ t$_i$ **Fin°-ni-ko**   [$_{SubjP}$ babaandu$_k$ [Subj° [$_{IP}$ baakula t$_k$ t$_i$]]]]
        fruit   COMP-AGR   buy

CRITERIAL FREEZING

The fact that subject relative clauses and subject questions prohibit the presence of the

complementizer, then, is due to the simple fact that the C-agreement morpheme which allows

the subject to skip Criterial Freezing in Spec, SubjP originate under the same structural head—

Fin°—as the complementizer.

   While this explains why the nominal Fin° does not appear on the verb in cases of object

extraction with a complementizer, it is an important question why the nominal Fin°

complementizer cannot simply be used instead of the full *ni-AGR* complementizer in object

relative clauses. I assume that this is a problem of the intervention of the NP subject between the

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[21] On the intended reading. A subject relative clause with a complementizer is defined here as a subject cleft construction, as it creates the focus interpretation of a cleft. The same is true of subject wh-questions, which are interpreted as subject-wh-clefts with the complementizer. This compartmentalization of the data mirrors that in Wasike (2007).

nominal Fin° and the verb. Nominal Fin° is an prefix that must be affixed to some other elemtn, and the subject is not a viable candidate, either because the subject already has a pre-prefix morpheme, or because the nominal Fin° is specified as a verbal affix in some way. This therefore rules out the nominal Fin° extraction strategy for object relative clauses.[22]

Before moving on to further empirical benefits for this analysis, I want to briefly overview how this approach accounts for the core Lubukusu extraction data as they were set forth in (10). As has been described in the previous sections, C-agreement is the realization of phi-feature agreement on the nominal Fin° head which satisfies the Subject Criterion, allowing a subject to skip the Criterial Freezing in Spec, SubjP. It follows directly, then, that C-agreement should only occur in cases of subject extraction, and not in cases of object extraction, as in object extraction cases the Subject Criterion is satisfied by the subject itself. I claim that the reason that the complementizer then does not occur in cases of subject extraction, but does in the event of object extraction, is because it is a Fin° head, and therefore can only occur in cases of object extraction, as the nominal Fin° head which is necessary for subject extraction precludes the presence of the complementizer in subject extraction. Again, it is important to note that the properties of cleft constructions are more complex than the basic story as it is set forth in (10) – these constructions are dealt with in §3.5.

3.3 On the Alternative Agreement Effect[23]

The approach to subject extraction which has been adopted in this work—based on a Subject Phrase functional projection which induces Criterial Freezing—provides an interesting approach to alternative agreement effects (AAEs) in Bantu languages. As I noted above, I do not analyze

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[22] An alternative explanation is that the nominal Fin° extraction strategy is a "Last Resort" type strategy, and is only employed in the event that extraction would otherwise be impossible.
[23] A previous version of these analyses is laid out in Diercks (to appear).

these effects as non-agreement, but rather as a modified agreement relation, restricted in the set

of features in which it agrees. It is for this reason that I adopt the term "alternative agreement

effect, rather than the more familiar term "anti-agreement effect" from the literature. Given that

this phenomenon is rightly grouped with other cases where subject extraction leads to altered

subject agreement on the verb, however, the acronym AAE is shared between them, though as an

empirically descriptive term rather than a signal of any theoretical analysis.

This discussion will focus mainly on Lubukusu, but in §3.3.3 AAEs in related languages

are considered as well. Therefore, this section discusses Lubukusu alternative agreement effects

in their own right, but also as evidence for a Criterial Freezing approach, claiming to capture the

entire constellation of subject extraction facts better than previous approaches to similar

phenomenon in related languages, including both alternative agreement effects and the

subject/non-subject asymmetries discussed in the previous section.

3.3.1 DESCRIBING LUBUKUSU ALTERNATIVE AGREEMENT EFFECTS

Remember from §3.1.1 that when a class 1 subject is extracted, the normal declarative subject

agreement morpheme *a-* is not possible, the morpheme *o-* appearing in its stead.

(37) a. Naliaka   a-li   mu-nju   [Lubukusu]
      1Naliaka 1s-be 18-house   (Wasike 2007: 235)
      'Naliaka is in the house.'

   b. naanu o-o-li   mu-nju?
      who   1C-1s-be 18-house
      'Who is in the house?'

   c. *Naanu a-li   mu-nju?
       1who   1s-be   18-house
      'Who is in the house?'

(38) a. o-mwa-ana   a-a-tim-a   [Lubukusu]
         1-1-child   1S-PST-run-FV   (Wasike 2007: 236)
         'The child ran.'

   b. naanu   o-w-a-tim-a?
       1who   1C-1S-PST-run-FV
       'Who ran?'

   c. *naanu   a-a-tim-a?
        1who   1S-PST-run-FV
        'Who ran?'

Similar effects can be seen in relative clauses and clefts, as is evident in (39) and (40):

(39)   n-a-bona   o-mu-seecha o-w-eba   e-ndika
        1stSG-PST-see 1-1-man   1C-1S-stole 9-bicycle
        'I saw the man who stole the bicycle.'

(40)   o-mu-ndu   o-mu-silu ni-ye   o-w-a-kwa[24]
        1-1-person 1-1-stupid PRED-1 1C-1S-PST-fall
        'It is a stupid person that fell.'

This alternative agreement effect in Bantu languages has been the subject of various recent

research including Schneider-Zioga (2007) for Kinande, Henderson (2009a,b) for Luganda,

Bemba, and Dzamba, and Cheng (2006) for relative clause constructions in Bemba, Chishona,

and Sesotho. There is, however, a much broader base of literature on anti-agreement effects in a

large number of areally and typologically diverse languages. Campos (1997), Ouhalla (1993),

and Brandi and Cordin (1989) (among others) discuss anti-agreement effects in Romance

languages, where a default form of subject agreement (often 3rd singular) appears on the verb

when a subject is extracted, even when the extracted subject is plural (see Burzio 1986):

---

[24] Note the co-occurrence of the complementizer and C-agreement in clefts: this issue is taken up in §3.5.

(41) a. *Vaire   pere   a   sun rubath?   [Piedmontese]
        how-many stones SCL **are** fallen   (Campos 1997)
        'How many stones have fallen?'

    b. Vaire   pere   a-l-e   rubataye?
       how-many stones SCL-**is** fallen

Ouhalla (1993, 2005) discusses anti-agreement effects in Berber, where verbs appear in a non-agreeing participial form when subjects are extracted, rather than normal tensed form which appears in declaratives:

(42) a. man   tamghart ay   yzrin   Mohand?   [Berber]
        which woman   COMP see (PART) Mohand   (Ouhalla 1993)
        'Which woman saw Mohand?'
    b. *man   tamghart ay   t-zra   Mohand?
        which woman   COMP 3fs-saw Mohand

(43) a. tamghart nni   yzrin   Mohand
        woman   COMP saw (PART) Mohand
        'the woman who saw Mohand'
    b. *tamghart nni   t-zra   Mohand
        woman   COMP 3fs-saw Mohand

Similar effects have been documented in Chamorro (Chung 1982, 1998; Schneider-Zioga 2002), Palauan (Georgopoulos 1985), Celtic (McCloskey 1990, Hendrick 1988), Halkomelem (Gerdts 1980), Yimas (Phillips 1996, 1998), Turkish (Ouhalla 1993; Kornfilt 1991, 1997), and Ibibio (Baker 2008). It should be clear, therefore, that it is cross-linguistically common to have variation in the subject agreement paradigm in the case of subject extraction, so the presence of AAEs in Lubukusu and other Bantu languages is not surprising in and of itself. But the nature of the alternative agreement effects in Bantu languages differs in that rather than a default verbal form appearing which fails to agree with all other NP subjects, alternative agreement only has an effect on a single noun class, namely, class 1 (singular third person animate), and in all other

noun classes you find normal phi-feature subject agreement with no alternative agreement effect in cases of subject extraction. The (a) examples below show normal declarative agreement, and the (b) examples demonstrate that the same subject agreement form shows up in extraction contexts.

(44) a. ba-ba-andu   **ba**-a-tim-a?
         2-2-people   **2s**-PST-run-FV
         '(The) people ran.'

    b. naanu   ba-**ba**-a-tim-a?
         2who   2C-**2s**-PST-run-FV
         'Who ran?'

(45) a. si-si-indu   **sy**-a-kwa
         7-7-thing   **7s**-PST-fall
         'The thing fell.'

    b. si-si-indu   si-**sy**-a-kwa
         7-7-thing   7C-**7s**-PST-fall
         'the thing which fell'

In Romance AAEs subject agreement in extraction cases is always 3rd person singular, even in the event that there is a non-3rd-singular wh-subject. This 3rd person singular agreement has therefore often been analyzed as "default" agreement that appears no matter what the phi-features of the wh-subject in the event of subject extraction. This is precisely the opposite morphological pattern than what surfaces in Lubukusu (and Kinande, and other Bantu languages), where the alternative agreement effect surfaces *only* in 3rd person singular, and not in 3rd person plural (and only in class 1, not in any other noun class).

    Thus in Lubukusu interrogatives, relatives, and clefts, it is only extraction of class 1 (singular, animate) noun phrases that results in an alternative agreement effect (or, more accurately, the appearance of a non-standard agreement form). This would seem to make this a

morphological irregularity relating specifically to class 1 wh-phrases, or perhaps class 1

operators more generally. When we expand the context of our analysis to include consideration

of morphological parallel nominal forms and declarative verb forms as is shown in (46),

however, it becomes evident that there is a consistent paradigm across morpho-syntactic contexts

that leads to the conclusion that the alternative agreement form is the more 'regular'

morphology, and the declarative subject agreement morphology is the more 'irregular'

morphology.

(46)   Lubukusu phi-feature agreement (adapted from Wasike 2007: Table 3)

Class	Nominal	Relative Clause	Declarative	
	PP-P-noun	CA-SA-verb	SA-verb	
1	**o**-mu-aana	**o**-<u>w</u>-akwa	**a**-akwa	the child (who) fell
2	**ba**-ba-aana	**ba**-<u>ba</u>-akwa	**ba**-akwa	children (who) fell
3	**ku**-mu-saala	**ku**-<u>kw</u>-akwa	**kw**-akwa	the tree (which) fell
4	**ki**-mi-saala	**ki**-<u>ky</u>-akwa	**ky**-akwa	trees (which) fell
5	**li**-li-ino	**li**-<u>ly</u>-akwa	**ly**-akwa	the tooth (which) fell
6	**ka**-me-eno	**ka**-<u>ka</u>-a-kw-a	**ka**-akwa	teeth (which) fell
7	**si**-sy-uuma	**si**-<u>sy</u>-akwa	**sy**-akwa	the bead (which) fell
8	**bi**-bi-uuma	**bi**-<u>by</u>-akwa	**by**-akwa	beads (which) fell
9	e-n-dubi	e-<u>ya</u>-a-kw-a	**ya**-akwa	the basket (which) fell
10	**chi**-n-dubi	**chi**-<u>cha</u>-akwa	**cha**-akwa	baskets (which) fell
11	**lu**-lw-iki	**lu**-<u>lw</u>-a-kw-a	**lw**-a-kw-a	the door (which) fell
12	**kha**-kha-ana	**kha**-<u>kha</u>-akwa	**kha**-akwa	the small child (who) fell
14	**bu**-bw-oongo	**bu**-<u>bw</u>-a-kw-a	**bw**-a-kw-a	brains (which) fell
15	**khu**-khu-iicha	**khu**-<u>khw</u>-abia	**khw**-abia	the coming (which) turned bad
16	**a**-mesa	**a**-<u>a</u>-abia	**a**-a-bi-a	at the table (which) turned bad
17	**khu**-mesa	**khu**-<u>khw</u>-abia	**khw**-abia	on the table (which) turned bad
18	**mu**-mu-siinga	**mu**-<u>mw</u>-abia	**mw**-abia	inside hive (which) was bad
19	**ku**-ku-aana	**ku**-<u>kw</u>-akwa	**kw**-akwa	the big child (which) fell
23	**e**-ekimilili	**e**-<u>ya</u>-a-ng'oona	**ya**-ang'oona	at kimilili (which) was good

As was discussed in §2, the nominal pre-prefix and C-agreement morpheme are morphologically

identical. The table in (46) shows that this parallelism extends to the subject agreement

paradigm as well – the nominal pre-prefix, C-agreement morpheme, and subject agreement morpheme are all identical across the board, with one significant exception—class 1 declarative subject agreement, which is [a-] instead of the expected [o-].[25] That is to say, when you consider patterns of morphological identity across syntactic contexts, it is actually unsurprising to find the [-o-] morpheme for class 1 either as subject agreement in extraction contexts, or as C-agreement itself, considering the more general parallels across all noun classes with the pre-prefix forms on nominals.

From this perspective, the morphological form which is paradigmatically irregular is the class 1 verbal subject agreement [a-] in declarative contexts, *not* the subject agreement morpheme in interrogative contexts. This suggests to me that it is a mistake to identify subject-agreement in interrogatives as the non-basic (i.e. properly alternative agreement) form, and instead we should consider subject agreement in declaratives as the non-basic agreement form. The next section will provide an analysis which clarifies the featural specifications of both the class 1 declarative subject agreement [a-] and the alternative agreement form [o-], and which gives an analysis for why they appear where they do.

3.3.2 A "CRITERIAL FREEZING" ANALYSIS OF LUBUKUSU AAES

I propose that the [o-] morpheme which occurs together with C-agreement in extraction contexts (supposedly realizing an alternative agreement effect) is actually agreement in class 1 phi-features, that is, agreement in [GENDER], or noun class (γ) and [NUMBER] (ω). The [a-] morpheme in declarative contexts, on the other hand, is a more highly specified verbal agreement form (including an additional feature) which is precluded from occurring in extraction contexts

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[25] Note that the appearance of [-w-] as subject agreement in the class 1 relative clause form in (13) results from the phonological processes regarding vowel hiatus: in contexts where the subject agreement morpheme is followed by a consonant, this morpheme is realized as [-o-]

because the structural configuration of subject extraction limits the features which it can receive via Agree. This is sketched very roughly in (47); because Fin° is restricted in the feature set which it bears, it limits the features which may appear on T°, resulting in an alternative agreement effect.

(47)
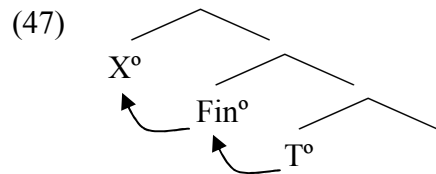
As roughly illustrated in (47), the Criterial Freezing analysis of subject extraction there is a head (nominal Fin°) which intervenes between T° and the subject DP and which bears agreement features in subject extraction contexts, which I will claim are restricted in many cases to a subset of phi-features, mainly, to γ and ω.[26] Agreement on the verb in those cases, therefore, is actually agreement with the intervening nominal Fin° and not directly with the subject DP. I attribute the alternative agreement effect, therefore, to an intervention effect where nominal Fin° intervenes between the NP subject and the subject-agreeing head.

In setting forth this account I rely on the notion of Late Insertion, that is, that phonological forms of abstract morphemes are inserted into syntactic terminals late in the derivation (cf. Beard 1995, Halle 1997, Embick and Noyer 2007, among others). As was discussed in §1.4, in Distributed Morphology vocabulary items compete for insertion late in the derivation, and that the determination of which phonological form is inserted is based on which vocabulary item maximally satisfies the feature specification of the heads at which they are inserted. In this way Vocabulary items compete to be inserted into the syntactic structure based

---

[26] This is my claim for Lubukusu - as will be discussed in 3.3.3, there is variation between Bantu languages in this respect.

on the degree to which their features match the features of the syntactic terminals. As noted in §1.4, this follows the Subset Principle of Halle (1997):

(48) Subset Principle

    i)   The phonological exponent of a Vocabulary Item is inserted into a position if the item matches all or a subset of the features specified in that position.

    ii)   Insertion does not take place if the Vocabulary Item contains features not present in the morpheme.

    iii)   Where several Vocabulary Items meet the condition for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.   (Halle 1997:428, as structured in Kramer 2009)

My claim for Lubukusu is that the less-specified agreement morpheme (i.e. agreement solely in γ and ω) is [o-] for class 1, which appears in the pre-prefix, C-agreement, and as subject agreement in subject extraction contexts.[27] On this view it is the declarative agreement [a-] in class 1 which is 'special' in some way—I propose that this morpheme is more highly specified (featurally-speaking) than the [o-] morpheme. The Subset Principle precludes the [a-] form from being inserted in cases where T° lacks any of the feature values for which it is specified, and also precludes the [o-] morpheme from appearing except for in cases where T° does not receive the full feature specification that it does in normal declarative contexts.[28]

(49) i. a- ↔ [π[3rd], ω[SG], γ[CL1]] / {verb}   (first approximation)
     ii. o- ↔ [ω[SG], γ[CL1]]

---

[27] More precisely, this morpheme is underlyingly /u-/, which is realized as [o-] in most cases due to a phonological rule with lowers /u/ to [o] word-initially (see Mutonyi 2000). Evidence of /u/ is seen in extraction of a class 1 NP in a tense that is marked with a vowel-initial morpheme. The result in this case is the sequence *o-w-*, where the glide –*w-* is formed from the underlying subject agreement morpheme *u-*.

[28] A keen Bantuist observer will note that there is redundancy written into these Vocabulary items, as "Class 1" as generally understood by Bantuists automatically includes the notion 'singular' (if not '3rd' person' as well). For clarity these are separated out in these Vocabulary entries, but I recognize that a more concise formulation of these features is readily available given the traditional morphological analyses of noun classes in the Bantu literature.

Here we can see that [a-] is specified as verbal agreement, and has all the same features as [o-], with the additional [PERSON] (π) feature valued as [3rd person]. The core intuition is that the vocabulary entry for [a-] shares some feature with class 1 NPs that the [o-] morpheme does not, and it is the structural context of subject extraction that restricts T^o from receiving any specification for π, and therefore which results in the insertion of [o-] as a more general agreement form in those contexts. In those cases [a-] is overspecified, and the Subset Principle requires that overspecified vocabulary items cannot be inserted, leaving only those items which either match in features, or are underspecified. There is a strong empirical support and a good amount of previous research backing this analysis of Bantu alternative agreement effects as a restriction in π features, including Kinyalolo (1991) and Henderson (2009a, 2009b). I will discuss the relevant empirical evidence and previous analyses in what follows, providing support for the relevance of π features.

3.3.2.1 The Structural Triggers of AAEs

The question to explain alternative agreement effects, then, is why in declarative clauses verbal subject agreement acquires a value for the feature π, but in subject extraction cases it does not. I propose that this is in fact due to the subject-extraction mechanism adopted and argued for in section 3.2, which is sketched in (50):

(50) <u>Nominal Fin^o Skipping Strategy for Subject Extraction</u> (repeated here from §3.2)
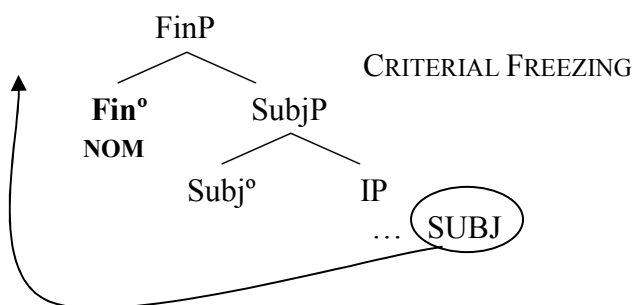
Given its status as a nominal pre-prefix, I assume that this nominal Fin° morpheme is identified by a subset of the full array of phi-features. Specifically, I claim that this element does not bear person features, and is only specified for γ (i.e. noun class) and ω. In essence, it is only available to agree with a noun phrase in those specific features, and as such in the case of extraction of a class 1 DP is valued for γ and ω, but crucially cannot be valued for π, as it does not bear this feature (but see §3.3.3.1 for an important exception to this claim).

Given that agreement in Bantu languages is 'upward' (Baker 2008b), this nominal Fin° morpheme intervenes between the head triggering subject agreement and the subject NP and therefore the subject agreeing head agrees with nominal Fin°, and not with the subject NP itself.[29]

(51)   Configuration for alternative agreement effects

```
                    XP
                   /  \
              SUBJ     XP
              [φ]     /  \
                     X°    …
                              FinP
                             /    \
                          Fin°    SubjP
                          [γ ω]   /    \
                               Subj°    TP
                                       /  \
                                      T°   …   S̶U̶B̶J̶
                               [π[ ] γ ω]      [̶φ̶]̶
```
Agree (SUBJ [φ] ← Fin° [γ ω])
Agree (Fin° [γ ω] ← T° [π[ ] γ ω])
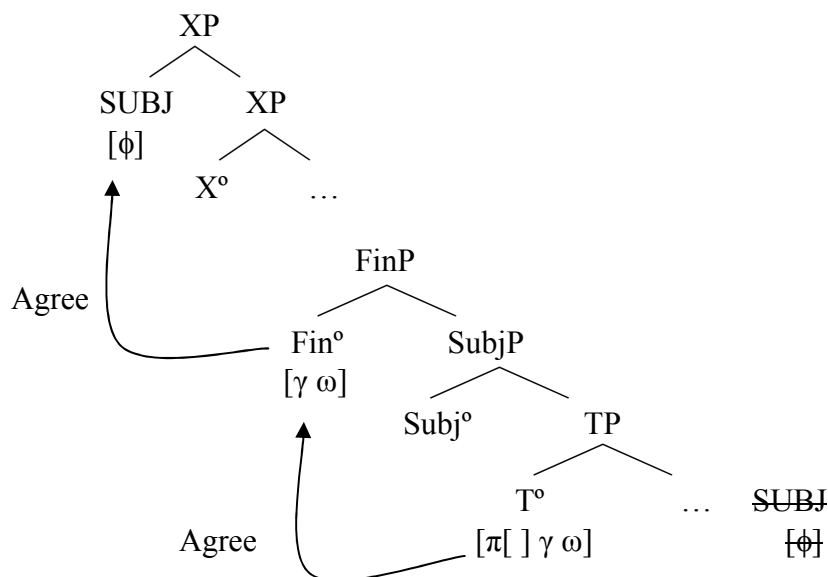
In the case of subject extraction, then, subject agreement is mediated by this intervening head, and since the nominal Fin° only bears γ and ω features, T° is able to be valued for these features

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[29] Crucially, this analysis relies on a notion of agreement that is not feature sharing (cf. Frampton and Gutmann 2000, Pesetsky and Torrego 2001, 2004).

and no more. In this way T° is left with a valued gender feature, a valued number feature, and an unvalued person feature. Recall from §1.4 that I claimed that unvalued features may persist at PF in the event that there remain appropriate vocabulary items for insertion (which I argue to be the case here).[30]

The tree in (51) illustrates this extraction configuration (and feature valuation), where XP is the final landing site of the NP subject, whatever that specific position might be in any given case of subject extraction. Again, Rizzi and Shlonsky (2007) analyze the subject as necessarily moving through Spec, FinP, but given the particular analysis of 'upward' agreement adopted here, this intermediate landing site is not necessary.

This analysis admittedly has a decidedly counter-cyclic flavor to it, which is perhaps undesirable to the strict derivationalist. Analyses such as Baker's (2008b) upward agreement analysis are forced to accept this counter-cyclicity as a matter of fact, however, and this analysis is positioned amidst that broader family of analyses. As we will see in chapter 5, it turns out that this counter-cyclicity plays a major role in certain complementizer agreement constructions in Lubukusu, and is in fact supported even in apparent counter-examples in locative inversion constructions, as discussed in chapter 4. Therefore, though not trivial, I set aside this matter of theoretical concern at present in order to consider the empirical strength of the broader family of counter-cyclic "upward agreement" analyses.

The result of the analysis sketched in (51), therefore, is that though the subject-agreeing head is capable of being valued for all the features of a NP in Agree, it is not valued for the π feature in the case of subject extraction due to the intervening nominal Fin°. This compares to

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[30] This proposal is at odds with one aspect of Bejar's (2008) proposals regarding partial agreement, namely, that a agreement is not possible when a head with more feature agrees with a goal with fewer features. The opposite Bejar claims is possible (as when Fin° agrees with the subject in (51)), but Bejar's system would preclude T° from entering into an agreement relation with Fin°. On my assumption that unvalued features are not problematic *a priori*, but rather only when they prevent Vocabulary Insertion, I claim that this sort of agreement relation is in fact possible.

constructions like declaratives where the subject occurs in Spec, SubjP, where there is no

intervening head and the agreeing head is valued for the full array of phi features:

$[_\varphi \, \pi \, \omega \, \gamma]$.

(52)   Configuration for declarative (full φ) subject agreement

```
            SubjP
          /       \
       DP          Subj
       [φ]        /     \
         ↑    Subj°       TP
         |            /        \
         |         T°      …   D̶P̶SUBJ
         |        [φ]            [̶φ̶]̶
         |_____|
```
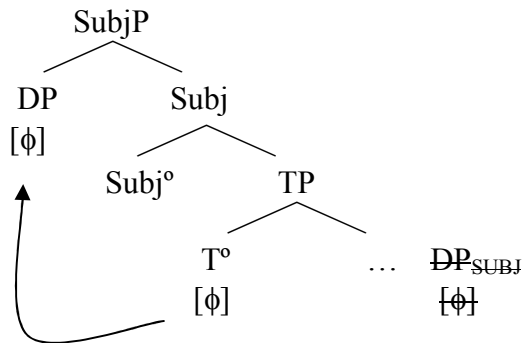
This analysis simultaneously explains then why alternative agreement effects arise only in

subject extraction, and why it only affects class 1 NPs. As shown in (13), class 1 subject

agreement is the only subject agreement morpheme which departs from the more generalized

form of phi-feature spell-out within the agreement paradigm.   As will be discussed in §3.3.3.1.2,

I will argue that this is because only class 1 subject agreement is specified for person features

meaning that the person-bleaching effects of nominal Fin° are irrelevant in other noun classes

(but importantly, see §3.3.3.1.2 for a discussion of alternative agreement effects with personal

pronouns).   In this way, I have argued that the Bantu pattern is the consequence of two separate

sets of circumstances:

i. The nominal Finº "skipping" strategy for Lubukusu subject extraction (and, arguably, employed in other Bantu languages which show this alternative agreement effect)

ii. The 'special' class 1 agreement form *a-* which has been adopted in Lubukusu declaratives, which ends up being too highly specified to be inserted in extraction contexts.

The question becomes, then, why is there an a-paradigmatic form for class 1 declarative agreement? I have no solid answer to this question, though it is likely that any plausible answer will need to come from the historical perspective, addressing the issue of why it is that this [a-] agreement morpheme developed in so many Bantu languages. Despite this remaining question, though, the indisputable fact is that in Lubukusu class 1 declarative subject agreement is the paradigmatically irregular form, and the analysis that I have given exploits this empirical fact to provide an analysis for alternative agreement effects.

3.3.2.2 Henderson (2009b)

This analysis bears a resemblance to that of Henderson (2009a, 2009b), who observes that the extra agreement morpheme appearing on the verb in subject relative clauses in Luganda and Bemba (called C-agreement in this dissertation, termed a relative marker in Henderson 2009a) co-varies with the pre-prefix in those languages. Given the referential qualities of the pre-prefix, Henderson proposes that there is an agreement relation between the extracted NP, the C head, and T, where subject agreement is valued with a referential value of the person feature (see below).

(53) CP   AGREE ——— (Henderson 2009b: 34)

NP [+φ_{ref}] C° [-φ_{ref}] TP

t_{NP} T° [-φ]
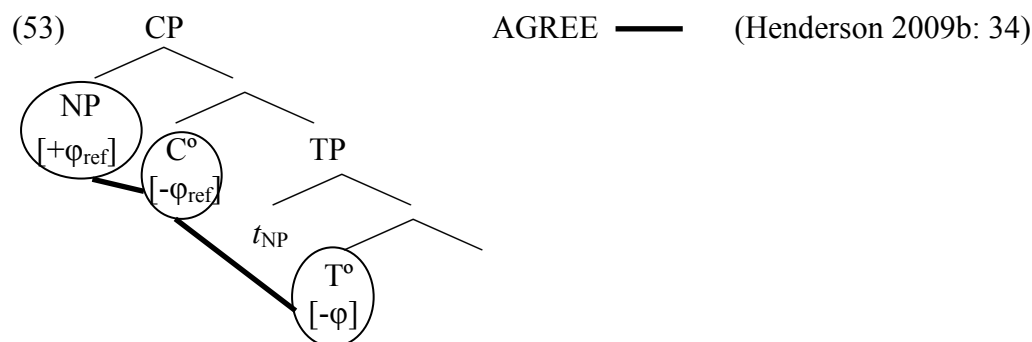
Specifically, Henderson (2009b) builds on the idea from Richards (2001) that any movement chain may contain only one one 'strong' feature, that is, a feature requiring a local relation between itself and its checker, and which instructs PF to pronounce the copy of the chain with which it is in a checking relationship (2001: 105). Chains with more than one strong feature are therefore ruled out in Richards' account. Boeckx (2003) proposes that these chains may be rescued, however, either via resumption or by establishing an Agree relation between the features that define the (two) strong positions in a chain. Henderson claims that this is exactly what motivates the C-T agreement relation shown in (53) for cases of subject extraction.

Crucial to this agree relation is the referential nature of the phi-features in C. Henderson's claim is that alternative agreement effects (which he refers to as anti-agreement effects) are in fact anti-PERSON in a sense, a generalization which is well-motivated cross-linguistically. As I will discuss in below in §3.3.3, there is significant evidence that Bantu AAEs affect the PERSON feature from the agreement relation. This is seen in the Bemba data from Henderson (2009b) given in (54)-(56), where extraction of a first and second person subject in (55) and (56) is shown to create the same alternative agreement effect as appears in (54).[31] As you will note, Henderson's glosses are mainly preserved here, including the AAE gloss for the

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[31] Note that what Henderson glosses as REL corresponds to nominal Fin° in the Criterial Freezing system that I propose here.

alternate class 1 agreement. Note in (56) that an alternative agreement effect still holds, but is simply realized as the normal 3rd person plural agreement in the case of a plural 1st or 2nd person subject.

(54) a. umulumendo **a**-ka-belenga   ibuku
      1boy   **3SG**-FUT-read 5book
      'The boy will read the book.'

    b. umulumendo ú-**u**-ka-belenga   ibuku
       1boy   1REL-**AAE**-FUT-read 5book
       'the boy who will read the book'

(55) a. Ni-ne   **ú-u-**ka-belenga   ibuku
      Cop-1sg REL-AAE-FUT-read 5book
      'It is I who will read the book.'

    b. Ni-we   **ú-u-**kabelenga   ibuku
       Cop-2sg REL-AAE-FUT-read 5book
       'It is you who will read the book'

(56) a. Ni-few   **á-ba**-ka-belenga   ibuku
      Cop-1pl REL-3PL-FUT-read 5book
      'It is we who will read the book.'

    b. Ni-mwe **á-ba**-kabelenga   ibuku
       Cop-2pl REL-3PL-FUT-read 5book
       'It is you all who will read the book.'   (Henderson 2009b: 38)

To explain this Henderson relies on Longobardi (2008, 2005) to explain the connection between referentiality and PERSON: Longobardi claims that the PERSON feature is responsible for the individual-denoting properties of noun phrases, in fact claiming the D is a person head (Longobardi 2008). Relying on the feature hierarchy proposed by Harley and Ritter (2002), Henderson claims that the feature [REF] is in fact a more general value for PERSON features, with the result that the agreement relation in (53) results in T bearing gender, number, and a generic

[REF] value of the person feature. The result is insertion of the default agreement morpheme in class 1 contexts, what has been referred to here as an alternative agreement morpheme. Henderson's specific featural analysis for agreement in Bemba is laid out in (57):

(57) Bemba subject agreement morphology (Henderson 2009b)[32]

PN/NR	SG	PL
1st	/n-/ ↔ [1]	/tú-/ ↔ [1], [PL]
2nd	/u-/ ↔ [2]	/mu-/ ↔ [2], [PL]
3rd	/a-/ ↔ [3]	/ba-/ ↔ [PL]
NC 3/4	/ú-/ ↔ [CL3]	/í-/ ↔ [cl3], [PL]
NC 5/6	/lí-/ ↔ [CL5]	/y'á-/ ↔ [CL5], [PL]

As can be seen in (57), the agreement forms for 1st, 2nd, and 3rd person are all specified for some value of person, except for 3rd plural agreement. This ensures that 3rd plural agreement is inserted in plural contexts (such as in (56)), whereas none of the singular agreement forms may appear, hence the alternative agreement effects in all singular cases (excluding other noun classes). The alternative agreement morphology is a result of the spellout rule in (58), where the referential value of person triggers insertion of the vowels (that via the same spell-out rule are also inserted as nominal pre-prefixes).

(58) V ↔ [REF]   (Henderson 2009b: 39)

Looking at the relationship between Henderson's proposal and my own, the intuition behind the two is clearly that an agreement relation accounts for the identity requirement between the 'relative marker' and the subject prefix, and that the alternative agreement effect is

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[32] Rather than adopting the gender system of Carstens (1991), Henderson simply abolishes even-numbered (plural) classes in his featural specifications, instead referring to them as a combination of class 3 and plural, for example, The end result is merely a terminological difference. I adopt Carstens lettered genders, Henderson adopts the odd-numbered classes as identifying the genders.

in fact a result of a productive agreement relation between the subject and the subject-agreeing head, but one which is mediated by C°. The mechanisms behind this proposed agreement relation are different, however. Henderson claims that this is a repair strategy for moving between two 'strong' positions, as defined by Richards (2001, Boeckx 2003), and that this agreement between C° and T° critically affects the person feature on T°, given that person is valued differently on C° that it is on T°. My account here relies on Rizzi and Shlonsky's (2007) analysis of subject extraction, which was demonstrated above to be independently motivated in its value to explain the subject/non-subject extraction asymmetries in Lubukusu, and which may affect person features, but not necessarily so. A crucial difference between the accounts, then, is their predictions with respect to the effects of alternative agreement effects on person agreement, and the next section looks at these questions, both in Lubukusu and in related languages.

3.3.3 IS ALTERNATIVE AGREEMENT NECESSARILY ANTI-PERSON?

As mentioned in the previous section, and as adopted in my own analysis of Lubukusu AAEs, Henderson (2009a,b) claims that the alternative agreement effect is essentially an anti-PERSON effect, where the referential value of PERSON (π) agreement in the agreement relation between C and T results in the 'default' referential agreement form being inserted. This is similar to the analysis of Kinyalolo (1991) of alternative agreement effects in Kilega, who claimed that there was a restriction related to π in alternative agreement contexts.

First I will discuss the Lubukusu facts and my analysis of these facts in §3.3.3.1, after which I will look at other languages and how the analysis set forth here can accommodate the variation between Lubukusu, Kilega, Luganda, and the Bemba facts from Henderson (2009b) which were discussed above. As I will demonstrate, the critical strength of my analysis is that though it allows an analysis based on π features being affected (on my account, the elimination

of π features) in the agreement relation, it does not *require* that subject extraction affect π features.

3.3.3.1 The Role of PERSON in Lubukusu AAEs

3.3.3.1.1 Two Agreement Paradigms in Lubukusu Subject Extraction

As I will demonstrate in this section, Lubukusu does show anti-π effects in subject extraction, but is not straightforwardly amenable to a completely 'anti-PERSON analysis' in the sense that Luganda, Bemba, and Kilega are (as discussed below). As the data in (59) through (66) show, all persons show show alternative agreement effects in the singular, but not in the plural. These data are then summarized in (74).

The first set of sentences come in a discourse context where the speaker is saying that some person or persons didn't buy any books at the market despite the fact that their brother (who doesn't read), bought 5 books at the market. This requires a non-restrictive relative clause in apposition, where a pronoun is the head of the relative clause. It is evident here that the singular cases show alternative agreement effects, but the plural do not.

(59) ese, o-w-a-siima   khu-soma, se-n-gul-ile-kho   bii-tabu khu-soko luno ta.
     I   1C-1S-TNS-love INF-read   NEG-1stSG-buy-PST-17L 8-book 17-market today NEG
     'I, who love reading, didn't buy any books at the market today.'

(60) ewe, o-w-a-siima   khu-soma, se-w-a-kula-kho bii-tabu khu-soko luno ta.
     You 2ndC-2ndS-TNS-love INF-read   NEG-2ndS-buy-17L 8-book 17-market today NEG
     'You (sg), who love reading, didn't buy any books at the market today.'[33]

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[33] All of these 2nd person agreements and pronominal forms are singular in these cases, but the singular glosses are omitted for the sake of space in this example.

(61) <u>efwe, khu-khw-a-siima khu-soma</u>, se-khu-kul-ile-kho   bii-tabu khu-soko luno ta
      we   1stC-1stS-TNS-love INF-read, NEG-1stS-buy-PST-17L 8-books 17-market todayNEG
      'We, who love reading, didn't buy any books at the market today.'[34]

(62) <u>enywe, mu-mw-a-siima   khu-soma</u>, se-mu-kul-ile-kho   bii-tabu khu-soko luno ta.
      You   2ndC-2ndS-TNS-love INF-read   NEG-2ndS-buy-pst-17L 8-book 17-market today NEG
      'You (pl), who love reading, didn't buy any books at the market today.'[35]

Additional examples from a different context are given in (63) - (66) below, this time with the
relative clause in object position. This is in a context where the speaker(s) are comparing
themselves to other ill-behaved guests who do not make themselves welcome, and therefore in
this case a non-restrictive relative clause appears in apposition to the personal pronoun which
occurs in object position:

(63) ba-khu-siima <u>efwe, khu-khw-a-rer-a   bi-anwa</u>
      2S-1STPL.O-like us   1STPL.C-1STPL.S-PST-bring   8-gift
      'They like us, who brought gifts.' (distant past)

(64) ba-mu-siima   <u>enywe, mu-mw-a-rer-a   bi-anwa</u>
      2S-2NDPL.O-like   you(pl)   2NDPL.C-2NDPL.S-PST-bring 8-gift
      'They like you (pl), who brought gifts.' (distant past)

(65) ba-i-siima   <u>ese, o-w-a-rera   bi-anywa</u>
      2S-1STSG.O-like me 1C-1S-PST-bring   8-gift
      'They like me, who brought gifts.' (distant past)

(66) ba-khu-siima   <u>ewe,   o-w-a-rera   bi-anwa</u>
      2S-2ndSG.O-like you (sg) 1C-1S-PST-bring 8-gift
      'They like you (sg), who brought gifts.' (distant past)

---

[34] All of these 1st person agreements and pronominal forms are plural in these cases, but the plural glosses are
omitted for the sake of space
[35] All of these 2nd person agreements and pronominal forms are plural in these cases, but the plural glosses are
omitted for the sake of space in this example.

These same facts are replicated in cleft constructions, as shown below in (68) - (73). In this case the context is one in which the door to the house was damaged, and a parent asks the group of children outside who damaged the door:

(67) naanu o-w-onak-e   ku-mu-lyango ku-no
      1who   1C-1S-PST-damage-PST 3-3-door   3-DEM
      'Who damaged this door?'

In this context the speaker(s) of the sentences below distinguish(es) themselves from other potential children who might be responsible, taking responsibility for the damage to the door, and therefore using a cleft construction to put focus on the personal pronoun. [36]

(68) Nise o-w-onak-e   kumulyango kuno
      me   1C-1S- damage-PST   3-3-door   3-DEM
      'It is I who damaged the door'

(69) niwe   o-w-onak-e   ku-mu-lyango ku-no
      you (sg) 1C-1S-damage-PST   3-3-door   3-DEM
      'It is you (sg) who damaged the door.'

(70) niye o-w-onak-e   ku-mu-lyango ku-no
      him   1C-1S-damage-PST   3-3-door   3-DEM
      'It is him who damaged the door.'

(71) nifwe khu-khw-onak-e   ku-mu-lyango ku-no
      we   1STPL.C-1STPL.S-damage-PST   3-3-door   3-DEM
      'It is we who damaged the door.'

(72) ninywe mu-mw-onak-e   ku-mu-lyango ku-no
      you (pl) 2NDPL.C-2NDPL.S-damage-PST 3-3-door   3-DEM
      'It is you (pl) who damaged the door.'

(73) nibo ba-b-onak-e   ku-mu-lyango ku-no
      them 2C-2S-PST-damage-PST   3-3-door   3-DEM
      'It is them who damaged the door.'

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[36] I assume here that the identity between the pronoun and the predicational marker in the cleft allow one to be elided here. As discussed in §3.5, I assume that the 'complementizer' that appears in clefts is in fact a Predº head.

The Lubukusu agreement paradigms in subject extraction contexts and non-subject extraction contexts are summarized in the table in (74), where the C-agreement and subject agreement forms in extraction contexts are not in parentheses, and the subject agreement forms in non-extraction contexts are in parentheses.

(74) Lubukusu Alternative Agreement Effect (Subject Agreement), Paradigm A

PN/NR	SG		PL	
1st	o-w-	(n-)	khu-khu-	(khu-)
2nd	o-w-	(o-)	mu-mu	(mu-)
3rd	o-w-	(a-)	ba-ba-	(ba-)

As can be seen from the summary table in (74), there is no alternative agreement effect in Lubukusu in the plural side of the paradigm (the shaded cells signify an alternative agreement effect). This is evident by the fact that both C-agreement and subject agreement in the right-hand column of (74) agrees in person with the extracted NP. This contrasts, however, with the singular cases, as can be seen in the left-hand column of (74). There is clearly an alternative agreement effect in 1st person and 3rd person, with the same agreement morphology appearing in both instances.

What is happening in 2nd person is less transparent; though the agreement morphology appears the same as the 1st and 3rd person cases, it is not altogether clear that this is an alternative agreement effect because the regular (declarative) agreement for 2nd person singular is [o-], so that we would expect the extraction morphology to be [o-w-], even if there is no alternative agreement effect. I assume, however, that the alternative agreement process affects all cases of extraction of a singular subject, and excludes cases of plural subjects. It is highly questionable that a process affects 2nd person singular and 1st, 2nd, and 3rd person plural forms, as those

elements do not form a natural class in any way. It is much more highly plausible that all

singular forms are affected, and all plural forms are not, which is the analysis that (74) reflects.

Though the examples above illustrate the most natural response that speakers give, they

also find a full leveling of person features in these extraction contexts to be acceptable, as shown

for the clefts of first and second person plural subjects in (75) and (76):

(75) nifwe ba-b-onak-e   ku-mu-lyango ku-no
      we   2C-2S-PST-damage-PST 3-3-door   3-DEM
      'It is us who damaged the door.'

(76) ninywe ba-bo-nak-e   ku-mu-lyango ku-no
      you(pl) 2C-2S-PST-damage-PST 3-3-door   3-DEM
      'It is you (pl) who damaged the door.'

Therefore we see that Lubukusu has a second extraction paradigm, one in which all π distinctions

are leveled, similar to the effects which will be discussed below for Kilega and Bemba. I label

this Paradigm B, as opposed to Paradigm A which was given in (74) above, which shows

PERSON-leveling only in the singular. Again, note that the shaded cells indicate where an

alternative agreement effect has occurred.

(77) Lubukusu Alternative Agreement Effect (Subject Agreement), Paradigm B

PN/NR	SG		PL	
1st	o-w-	(n-)	ba-ba-	(khu-)
2nd	o-w-	(o-)	ba-ba-	(mu-)
3rd	o-w-	(a-)	ba-ba-	(ba-)

The Lubukusu alternative agreement effect therefore is problematic on a number of counts.

First, there is an optionality that must be explained, between Paradigm B and Paradigm A.

Second, the fact that Paradigm A—which is perhaps the preferred paradigm for speakers, though

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both are fully acceptable—allows π features to be preserved in cases of subject extraction of 1st and 2nd plural means that subject extraction cannot obligatorily require the elimination of person features from the agreement paradigm, (as is claimed by Henderson 2009a, Kinyalolo 1991), nor can it require a more general value for PERSON (referential), superseding 1st, 2nd, and 3rd person (as argued by Henderson 2009b). The availability of π agreement in Paradigm A (both on the C-agreement and the subject agreement) requires that π features be unaffected by extraction in some contexts. Therefore, I find this as support for my argument that the core cause of alternative agreement is an intervention effect created by the more general mechanism for subject extraction, whereby the nominal Finº which satisfies the Subject Criterion intervenes between Tº and the subject NP. I will claim that the variation between Paradigm A and Paradigm B results in an optionality as to what morphology may serve as a nominal Finº, therefore creating variation in the nature of the intervention effect depending on which nominal Finº is selected.

3.3.3.1.2 Analysis: Lubukusu Agreement Features and AAEs

As noted before, my analysis here relies on the notion of Vocabulary Insertion in Distributed Morphology, where phonological forms (i.e. Vocabulary Items) are inserted late in the derivation, competing for insertion with other Vocabulary Items based on their feature specifications. In order to properly underspecify the feature specifications of the agreement morphology, it is necessary to briefly clarify my conception of Bantu noun class. As was described in chapter 2, GENDER (γ) in Lubukusu (and most Bantu languages) is realized in its set of noun classes, which are numbered in consecutive pairings where the odd numbers (1, 3, 5, etc) represent the singular of a noun class, and the even numbers (2, 4, 6, etc) represent that corresponding plurals. The result, however, is that number and gender are often bundled into a

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single descriptive term: for example, noun class 1 is the animate gender, singular. I follow

Carstens (1991, 1997, 2010) in assuming that γ features in Bantu are distinct from number, at

least on a formal level, not linked together as the traditional noun class labeling system suggests.

Carstens (1991) labels these genders with letters, as shown in (78):

(78) <u>Bantu Genders for classes 1-10</u> (Carstens 1991)

      Gender A: stems of classes 1/2
      Gender B: stems of classes 3/4
      Gender C: stems of classes 5/6
      Gender D: stems of classes 7/8
      Gender E: stems of classes 9/10

This analysis properly distinguishes γ and ω, and in the feature specifications below I utilize the

letter-system for γ features. In descriptive prose elsewhere, however, I continue to use the

numbering system for noun classes as it is useful for comparison across languages, and is the

standard descriptive mechanism in Bantu. Therefore, I analyze Lubukusu agreement as

morphemes as realizing the features specified in (79).

(79) Lubukusu Subject Agreement Morphology[37]

P_N/N_R	SG		PL	
1st	/ n-/	↔ [1st], [A], [SG]	/khu-/	↔ [1st], [A], [PL]
2nd	/o-/	↔ [A], [SG]	/mu-/	↔ [2nd], [A], [PL]
3rd	/a-/	↔ [3rd], [A], [SG]	/ba-/	↔ [A], [PL]
NC 3/4	/ku-/	↔ [B], [SG]	/ki-/	↔ [B], [PL]
NC 5/6	/li-/	↔ [C], [SG]	/ka-/	↔ [C], [PL]

The crucial elements of this analysis, following Henderson's (2009a, 2009b) proposal, are that

3rd person singular agreement [a-] is specified for PERSON [3RD], but 3rd person plural agreement

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[37] Note that I assume that 1st, 2nd, and 3rd person are all gender A, whereas Henderson (2009b) simply assumes that
these forms are not specified for noun class.

is not specified for π, in line with all other (descriptively) 3rd person agreements in different noun classes, which are also solely specified for GENDER and NUMBER.[38] The 2nd singular agreement morpheme is merely specified as gender A, singular, as this is in fact the same [o-] phonological form which is inserted in alternative agreement effects and as the class 1 pre-prefix, and no additional person specification is necessary in that case. Recall that I stated that pre-prefix morphemes, which also appear as nominal Finº in extraction contexts, are only specified for gender and number:

(80)   Feature Inventory of Pre-prefixes (and nominal Finº)
       [γ ω]

As stated above, I analyze alternative agreement effects as the result of an intervention effect of the nominal Finº between the NP subject and Tº. This was illustrated in (51), which I repeat here for convenience:

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[38] For discussion of the validity of 3rd person as a primitive feature I refer the reader to Henderson (2009b), Kayne (2000), Nevins (2007), and references therein.

(51) Configuration for alternative agreement effects[39]

XP
   SUBJ   X
   [φ]
        X° …

Agree

            FinP
        Fin°   SubjP
        [γ ω]
            Subj°   TP
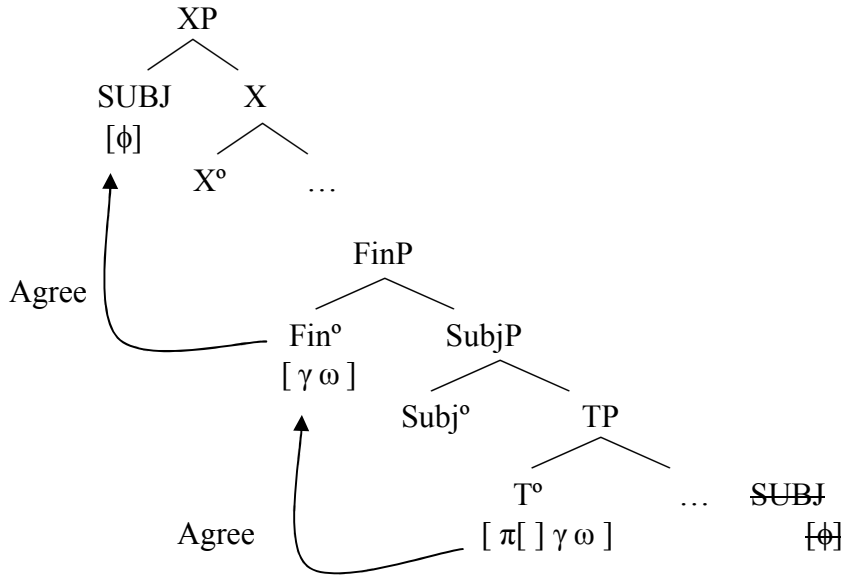
Agree
                T°   … ~~SUBJ~~
                [π[ ] γ ω]   ~~[φ]~~

The result of this intervention effect in most cases (excluding Paradigm A from above, which is discussed below), is that T° does not receive any value for π. In the case of class 1 alternative agreement effects, therefore, T° is only valued for gender A, singular, as shown in (82).

(81)   NP[π[3rd] γ[A] ω[SG]]   ← Fin°[γ[A] ω[SG]]   ← T°[π[ ] γ[A] ω[SG]]

(82)   i.   a-   ↔   [π[3rd] ω[SG] γ[A]]   /   {verb}   (final version)
     ii. o-   ↔   [ω[SG] γ[A]]

As the analysis in (79) shows, and given again in a morphological spell-out rule in (82), the [a-] agreement morpheme does not qualify for insertion because it is overly specific, also specified for π. Instead, the [o-] morpheme is inserted, as it is sufficiently underspecified to be inserted at Fin° and T° in this case, resulting in the alternative agreement effect. The same holds for 1st

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[39] The empty brackets alongside the π feature indicates that it is unvalued. The other features are valued, though no values are marked in this illustration as it is an abstraction over all cases of subject extraction.

person subjects, as the lack of a person feature on T will leave the normal (declarative)

agreement morpheme over-specified, and therefore unqualified for Vocabulary Insertion:

(83) NP[π[1st] γ[A] ω[SG]] ← Finº[γ[A] ω[SG]] ← Tº[π[ ] γ[A] ω[SG]]

(84) i. n- ↔ [π [1st] γ[A] ω[SG]] / {verb}
      ii. o- ↔ [γ[A] ω[SG]]

Therefore, when a first person singular subject is extracted an alternative agreement effect

occurs, as was shown in the examples in (59), (65), and (68) above.

    Looking at the plurals, we see a similar story. Again, emphasizing that this analysis

addresses Paradigm B from the preceding section, recall that extracting a first or second person

plural subject results in what is normally 3rd plural C- and T-agreement appearing on the verb,

[ba-ba-]. The agreement relations for cases such as these are sketched in (85) (see (75) and (76)

for Lubukusu examples).

(85) NP[π[1st] γ[A] ω[PL]] ← Finº[γ[A] ω[PL]] ← Tº[π[ ] γ[A] ω[PL]]

(86) i. khu- ↔ [π[1st] γ[A] ω[PL]]
      ii. ba-   ↔ [γ[A] ω[PL]]

Because the person feature is bleached from the agreement relation in (85), [khu-] is over-

specified for insertion in Finº and Tº, leaving only the underspecified [ba-] agreement form to be

inserted. In this way the featural analysis given in (79) derives the Paradigm B alternative

agreement effects for Lubukusu (together with the mechanism for subject extraction argued for

in §3.2).

(77) Lubukusu Alternative Agreement Effect (Subject Agreement), Paradigm B

P_N/N_R	SG		PL	
1st	o-w-	(n-)	ba-ba-	(khu-)
2nd	o-w-	(o-)	ba-ba-	(mu-)
3rd	o-w-	(a-)	ba-ba-	(ba-)

This is nonetheless problematic, because as stated above, there is another robust paradigm of extraction agreement where there are only alternative agreement effects in the singular, and not in the plural, which I referred to as Paradigm A (repeated here from (74)).

(74) Lubukusu Alternative Agreement Effect (Subject Agreement), Paradigm A

P_N/N_R	SG		PL	
1st	o-w-	(n-)	khu-khu-	(khu-)
2nd	o-w-	(o-)	mu-mu	(mu-)
3rd	o-w-	(a-)	ba-ba-	(ba-)

The account which I have given to this point crucially rules out the full person agreement which is seen in (74) for 1st and 2nd person plural in order to account for the facts in Paradigm B, raising the question of how it is possible to get full person agreement in these cases. What I will assume here is that the agreement morphemes [khu-] and [mu-] have been reanalyzed in Lubukusu as pre-prefix morphemes, despite the lack of actual nominal pre-prefixes in personal pronouns.

My claim is that this reanalysis is analogical in nature, and occurs as a result of two particular (inter-related) morphological characteristics of Lubukusu, both of which are evident in that table given in (13). First, most Lubukusu pre-prefixes have a full CV structure, as opposed to many Bantu languages in which the pre-prefix has been reduced to a single vowel (see the following sections for examples from Luganda and Kilega). Second, subject agreement forms correspond directly to pre-prefix forms, a direct one-to-one morphological match with the sole exception of class 1 (where the alternative agreement effect occurs). At some point in the

development of modern Lubukusu, then, speakers re-analyzed the CV structure of 1st and 2nd person agreement as pre-prefix morphemes, on analogy to all the other (non-class 1) subject agreement forms which were also pre-prefixes. I assume that the phonologically lighter agreement forms in the singular agreements make them less direct analogues to the predominant pre-prefix structures, and for this reason they were never reanalyzed as potential pre-prefixes.[40] It is this reanalysis, therefore, that resulted in these two specific forms –[khu-] and [mu-]— coming to bear a nominal feature, and belonging to the set of pre-prefixes. Therefore there are in fact two pre-prefixes which do in fact bear π features – [khu-] and [mu-].

(87) <u>Person-marked pre-prefixes</u>
    i. π[1st] γ[A] ω[PL]   (khu-)
    ii. π[2nd] γ[A] ω[PL]   (mu-)

As a result, when a 1st or 2nd person plural subject is being extracted, there are two different strategies for extraction. The first is to insert the generic pre-prefix/nominal Fin° morpheme, and the second is to use the person-marked pre-prefix/nominal Fin° morpheme. The question of competition of Vocabulary Items does not come into play at this point, as it is not a question of which phonological forms to insert, but rather which Fin° to merge in the syntax (before Vocabulary Insertion).   Because both the person-marked form and the generic form are nominal, both function to satisfy the Subject Criterion and enable the subject to skip Spec, SubjP and be raised into the left periphery. The difference is that when a person-marked nominal Fin° is used,

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[40] Again, these correspondences are not perfect, especially given that the class 1 pre-prefix is a single V, *not* a CV structure (which, being the animate class, might be considered most closely related to the singular person agreement forms). That being said, I assume that this historical analogical change was paradigmatic in nature, and that this is what allowed the reanalysis of the plural person agreement forms. Future research (both in Lubukusu and in other Bantu languages) on the optional availability of person agreement in subject extraction will be important to more accurately identify the source of person agreement in these cases.

it is capable of being valued for π, allowing T° to then be valued for π as well.[41] This is

illustrated in (88), with the feature specifications of the relevant morphemes repeated in (89)

from (86) (compare (88) to the agreement derivation in (85)).

(88) Person-marked nominal Fin°
NP[π[1st] γ[A] ω[PL]] ⟵ Fin°[π[1st] γ[A] ω[PL]] ⟵ T°[π[1st] γ[A] ω[PL]]

(89) i. khu- ↔ [π[1st] γ[A] ω[PL]]
    ii. ba- ↔ [γ[A] ω[PL]]

While the generic nominal Fin° in (85) resulted in T° being valued for only γ and ω, T° is valued

in (88) for γ, ω, and π, the same as in cases of declarative agreement. The result, of course, is

that the most highly specified Vocabulary Item is inserted—in this case [khu-], rather than [ba-]

(as was the case in (85)).[42]

    What I have shown, therefore, is that the Criterial Freezing approach to subject extraction

(and consequently for alternative agreement effects) is capable of explaining both paradigms of

alternative agreement effects in Lubukusu. The analysis for the Paradigm A effects crucially

relies on the re-analysis of the 1st and 2nd plural subject agreement markers as pre-prefixes, which

I argued to be plausible on morphological-paradigmatic grounds. It is important to note that

while the approach of Henderson (2009b) can readily account for the lack of person agreement in

Paradigm B for Lubukusu, it is not capable of explaining how person agreement is possible. I

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[41] Therefore, the account I am setting forth here is not that 1st and 2nd person singular forms are explicitly ruled out, here, but rather that, in general, person-marked forms are not included in the set of acceptable nominal Fin° morphemes. A historical change has allowed the plural forms into the set of acceptable nominal Fin° morphemes, a process which I have defended on analogical grounds, with respect to morphological similarity to the predominant paradigm of pre-prefixes. Therefore, it is my claim that there are no pre-prefixes with person features in the singular, and that this explains the obligatory nature of alternative agreement effects in the singular.

[42] Note that the agreement between NP and Fin° in this case is necessarily anaphoric in nature, at least with respect to π features, as Fin's features are determined by its root in these cases. This is necessary (rather than having an unvalued PERSON features in these cases), as it is necessary to restrict the agreement in PERSON features to 1st and 2nd plural.

will consider other previous approaches to Bantu AAEs in §0. In the following sections,

however, I will consider the person-related properties of AAEs in Kilega and Luganda,

demonstrated how the Criterial Freezing approach can capture the variation that occurs between

Bantu languages.

3.3.3.2 Luganda and Anti-PERSON

Another interesting case is in Luganda, particularly because alternative agreement effects do not

appear in the stereotypical cases—specifically, with class 1 NPs, i.e. 3rd person singular

animate—but alternative agreement effects nonetheless appear with extracted 1st and 2nd person

pronouns. These data are spelled out in (90), and laid out in chart format in (91), with data taken

from Ashton et al. (1954).

(90) a. nze   e-y-akola   [Luganda]
            I   1C-1S-worked
            'I who worked'

    b. ggwe e-y-a-kola
            you   1C-1S-worked
            'you who worked'

    c. (ye) e-y-a-kola
            he   1C-1S-worked
            'he who worked'

    d. ffe   a-ba-kola
            we   2C-2S-worked
            'we who work'

    e. mmwe   a-ba-kola
            you (pl) 2C-2S-worked
            'you (pl) who work'

    f. (bo)   a-ba-kola
            they   2C-2S-worked
            'they who work'

(91) Luganda AAEs with respect to PERSON (Ashton et al. 1954: 142)

Subject pronoun	Indicative "I (etc) went"	Relative "I (etc) who went"
1st SG: nze 2nd SG: ggwe 3rd SG: (ye)	nn-a-genda w-a-genda **y**-a-genda	e-**y**-a-genda
1st PL: ffe 2nd PL:mmwe 3rd PL: (bo)	tw-a-genda mw-a-genda **ba**-a-genda	a-**ba**-a-genda

For Luganda there is no difference in subject agreement morphology between the indicative and

the relative in the third person singular—the signal for a relative clause is in the presence of the

pre-prefix (the initial vowel, in Ashton et. al's terminology).[43] What (91) shows is that while

Luganda has an alternative agreement effect in that person distinctions are leveled in extraction

cases, there is no alternative agreement effect in class 1 (3rd person singular animate) like there is

in Kilega, and like has been reported for Bemba, Kinande, and in this chapter for Lubukusu.

Rather, subject agreement in cases of extraction of a 3rd person singular (class 1) pronoun (or

NP) is the same as in declaratives. The alternative agreement effects in Luganda are summarized

in (92)

(92) Luganda Alternative Agreement Effect (Subject Agreement) (see Ashton et al. 1954: 142)

PN/NR	SG		PL	
1st	y-	(nn-)	ba-	(tu-)
2nd	y-	(o-)	ba-	(mu-)
3rd	y-	(y-)	ba-	(ba-)

Therefore, we see that alternative agreement, even when it is clearly anti-PERSON, does not

manifest in the same way across languages. (92) therefore shows that alternative agreement

---

[43] Note that the structure of relative clauses at times takes on different forms, for example, taking a tonal morpheme rather than the pre-prefix in certain contexts. See Walusiimbi (1996) and Pak (2007).

effects in Luganda arise in 1st and 2nd person, but not 3rd person. This suggests two things – first, the Nominal Fin° head which facilitates subject extraction in Luganda is not specified for person (solely gender and number), and second, neither of the third person agreement forms are themselves specified for person. Each of the rules would take the full form show in (93) with the first singular used as an illustration, but the full paradigm is given in abbreviated form in (94):

(93) /nn-/ ↔ [π[1st] ω[SG]]   /   {verb}

(94) Luganda Subject Agreement Morphology

PN/NR	SG		PL	
1st	/nn-/ ↔	[1st], [A], [SG]	/tu-/ ↔	[1st], [A], [PL]
2nd	/o-/ ↔	[2nd], [A], [SG]	/mu-/ ↔	[2nd], [A], [PL]
3rd	/y-/ ↔	[A], [SG]	/ba-/ ↔	[A], [PL]
NC 3/4	/ki-/ ↔	[B], [SG]	/í-/ ↔	[B], [PL]
NC 5/6	/lí-/ ↔	[B], [SG]	/y'á-/ ↔	[B], [PL]

As you can see, when the person feature is suppressed in alternative agreement contexts, the agreement forms available for spell-out of the number features are the two 3rd person forms (crucially, because they are not marked for 3rd person). There has been much debate about the theoretical status of 3rd person as a feature and whether or not it is theoretically 3rd person or merely the absence of person (cf. Harley and Ritter 2002, for example). The absence of 3rd person here is not a theoretical argument in that vein, but rather a case of underspecification of the agreement morpheme. In contrast, the necessity of 3rd person in Lubukusu above and as will be shown in Kilega below is a much stronger argument for the necessity of reference to 3rd person in featural specifications (cf. Kayne 2000, Nevins 2007, and references therein).

An analysis of the nominal Fin° head in Luganda does not appear to be directly transferrable from the Lubukusu analysis presented previously. Recall that for Lubukusu, I

claimed that the nominal Fin° head in the canonical class 1 alternative agreement effect bears the features singular and class 1 (i.e. gender A), as shown in (49), repeated here.

(49) /o-/ ↔ [γ[A] ω[SG]]   [Lubukusu]

This sort of featural specification cannot be the case in Luganda, because the pre-prefix on class 1 NPs in Luganda is [o-], but the nominal Fin° head appears as [e-], for extraction of class 1 NPs. For this reason, I claim that the [e-] morpheme that appears in Luganda class 1 extraction is simply the spellout of the NOMINAL feature, but that nominal Fin° is in fact specified for ω and γ (but crucially not π) in Luganda. The spellouts of the other pre-prefixes are included in (96) to clarify what the distinctions are.

(95) Luganda Nominal Fin°
       [ω γ]

(96) i.   /o-/ ↔   [ω[SG] γ[A]]   / {noun}
      ii. /o-/ ↔   [ω[SG] γ[B]]
      iii. /a-/ ↔   [ω[PL] γ[A]]
      iv. /a-/ ↔   [ω[PL] γ[C]]
      v.   /e-/ ↔   elsewhere

In (97) I present an illustration of the analysis for agreement in extraction contexts for the sake clarity, with further discussion below regarding the Vocabulary Insertion rules given in (96).

(97) a. nze   nn-a-genda   [Luganda]
         I   1STS-PST-go
         'I went.'
      b. nze e-y-a-genda
         I   1C-1S-PST-go
         'I who went'

c.

```
                XP
              /    \
          SUBJ      X
        [1ˢᵀ SG A]  / \
                  X°   …

Agree ↑ (to SUBJ)

                    FinP
                  /      \
              Fin°        SubjP
            [SG A]       /     \
              e-      Subj°      TP
                              /      \
                            T°        …    S̶U̶B̶J̶
                         [π[ ] SG A]       [̶1̶ˢ̶ᵀ̶ ̶S̶G̶ ̶A̶]̶
                            y-

Agree ↑ (to Fin°)
```
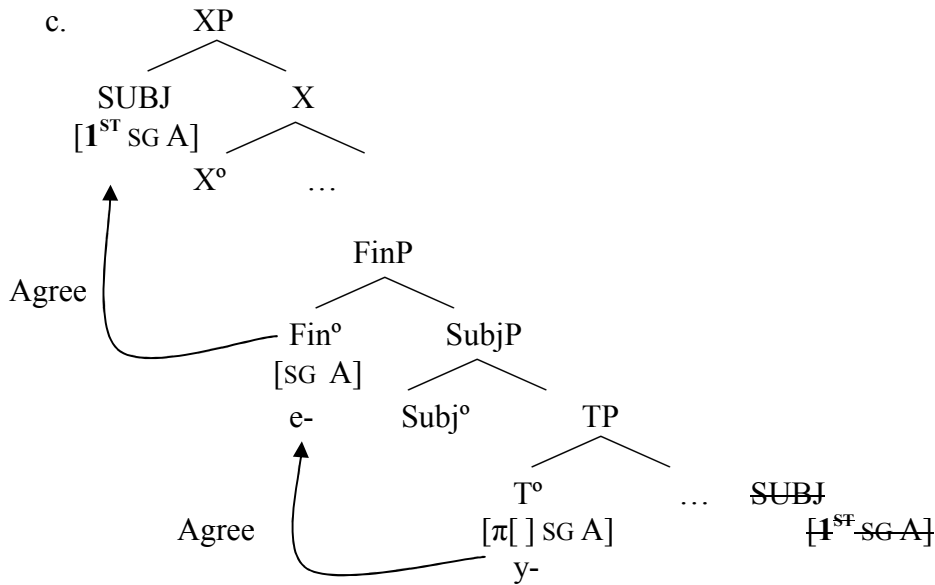
As can be seen by the pre-prefix morphological spell-out rules given in (96), none of the more highly specified agreement forms match the feature specification of Fin° in (97), with the result that the basic pre-prefix form [e-] is inserted. The y- agreement form is then inserted in T°, as the other forms either do not match, or are over-specified.

The reason that /e-/ is specified for so few features is because, as can be seen from the morphological paradigms in (18), repeated below, /e-/ appears as a pre-prefix for various noun classes, both singular and plural, specifically class 4, 8, and 10 in the plural and class 5, 7, and 9 in the singular.

(18) Luganda nominal prefixes and subject agreement

Class	PP-PRF-noun stem	Gloss	Subj SA-verb stem
1	(o)-mu-ntu (o)-mw-ana	'person' 'child'	omuntu **a**-somye a person has read''
2	(a)-ba-ntu (a)-ba-ana	'people' 'children'	abantu **ba**-somye "people have read"
3	(o)-mu-ti (o)-mw-aka	'tree' 'year'	omufaliso **gu**-yulise "the mattress is torn"
4	(e)-mi-ti (e)-my-aka	'trees' 'years'	emicungwa **gi**-vunze "the oranges are rotten"
5	(e)-ggi (e)-ri-nnya (e)-ry-ato	'egg' 'name' 'boat'	eggi **li**-atise (lyatise) "the egg is cracked" (SA = ri- or li-)
6	(a)-ma-gi (a)-ma-nnya (a)-ma-ato	'eggs' 'names' 'boats'	amagi **ga**-atise "the eggs are cracked"
7	(e)-ki-ntu (e)-ki-bbo	'thing' 'basket'	ekintu **ki**-tuuse "the/a book has arrived"
8	(e)-bi-ntu (e)-bi-bbo	'things' 'baskets'	ebintu **bi**-tuuse "the/some books have arrived"
9	(e)-mbwa (e)-nnyonyi	'dog' 'bird'	embwa **e**-yagala ennyama "the dog wants meat"
10	(e)-mbwa (e)-nnyonyi	'dogs' 'birds'	embwa **za**-agala ennyama "the dogs want meat"

(data compiled from Ashton et al. 1954)

Beyond the fact that [e-] appears in various classes and numbers, another reason for having such

a sparse featural specification is that it also appears as the nominal Fin° head in cases of subject

extraction of a class 1 subject noun phrase, even though the corresponding pre-prefix in class 1 is

[o-]. Evidence for this is seen in the two examples of subject wh-questions given below, where

the C-agreement morpheme is /e-/:

(98)   ani   **e**-y-ayogera?
        1who 1C-1S-spoke
        'Who spoke?'

(99) ani   **e**-y-akukuba?
      1who 1C-1S-struck-you
      'Who struck you?'

It is important to note here that, contrary to the more general pattern that has been reported in

other languages, Luganda shows no alternative agreement effect in extraction of class 1 subjects.

This is captured by the lack of specification of a person feature for class 1 subject agreement, so

that the same form is inserted whether or not T° receives third person features from the NP

subject.

I have argued throughout this chapter for a very direct correspondence between pre-

prefixes and C-agreement in Bantu languages which have both (though this will be qualified

somewhat in the discussion of Kilega below). It is clear that this breaks down somewhat in

considering class 1 in Luganda, but it is notable that it is only in class 1, and that class 1 in

Luganda does not have an alternative agreement effect (along with all the other noun classes,

which also display no alternative agreement effects). For these reasons, I am forced to claim as

shown above in (96) that the Nominal Fin° head bears the features ω and γ, and it is only the

spell-out of those features which is defective. That the morpheme that appears is [e-] is not

altogether surprising, though, given its high frequency appearing as a pre-prefix.

3.3.3.3   Kilega and Anti-PERSON

Next to be considered are Kinyalolo's (1991) data from Kilega. Kinyalolo shows that whether a

subject is first or second person, when it is extracted, it triggers an alternative agreement effect

such that the singular cases are realized by the alternative agreement marker [u-], and the plural

cases are realized with the third person plural (class 2) agreement morpheme [ba-], the same

pattern as the Paradigm B alternative agreement effects in Lubukusu. Kinyalolo's illustrative

examples are given in (100) and (101), summarized in (102).

(100) t-á-li   kikóngóló ang-ine **ú**-á-kít-il-e   búbo   (*n-akitile)   [Kilega]
       NEG-1S-be 7stupid   as me   **AAE**-ASP-do-AP-FV 14that (*1SG-done)
       'S/he is not as stupid as I who have done that.'

(101) t-bá-li   bikóngóló anga biswé **b**-á-kít-il-e   bubo   (*tu-akitile)
       NEG-2S-be 8stupid   as   us   **3PL**-ASP-do-AP-FV 14that (*1PL-done)
       'S/he is not as stupid as we who have done that.'

(102) Kilega Alternative Agreement Effect (Subject Agreement) (see Kinyalolo 1991)

PN/NR	SG		PL	
1st	u-	(ni-)	bá-	(tu-)
2nd	u-	(u-)	bá-	(mu-)
3rd	u-	(a-)	bá-	(bá-)

As can be seen from (102), person distinctions are leveled in subject agreement in cases of

subject extraction. Therefore, no matter what the person designation of the extracted subject,

subject agreement on the verb is always the same: [u-] in the case of singular, and [bá-] in the

case of plurals. On account of this, Kinyalolo proposes that wh-operators (overt or null) are not

specified for person, and therefore in any case of subject extraction, agreement on the verb will

lack person specification, because the target of its agreement lacks person. He clarifies the

feature specification as shown in (103), where '0' symbolizes underspecification for a feature.

(103) Feature specification of agreement morphemes in Kilega (Kinyalolo 1991: 49)

PN	AGR	[wh-]	[person]	[number]	[class]
	u-	+	-	SG	1
1st	ni-	-	+	SG	1
2nd	u-	-	+	SG	1
3rd	á-	-	-	SG	1
1st	tu-	-	+	PL	2
2nd	mu-	-	+	PL	2
3rd	bá-	0	-	PL	2

As is evident from Kinyalolo's analysis given in the table in (103), the third person agreement

morphemes and the alternative agreement morpheme [u-], all lack a person specification. Given

that wh-operators lack a person specification, this (together with the specifications of the [wh]

feature) explains why [u-] and [bá-] appear in extraction contexts with wh-operators – only [u-]

and [bá-] are compatible with [-person] wh-operators (singular and plural, respectively).

For Kilega there is not much to say regarding the relationship between the pre-prefix and

the C-agreement morpheme, as neither appear overtly. As is common practice in generative

theorizing regarding Universal Grammar, however, I take the presence of both morphemes in

related languages like Luganda and Lubukusu to be evidence of their covert presence in Kilega,

particularly given the related alternative agreement properties that link the two languages to the

same mechanism for subject extraction.   And it is suggestive that both the pre-prefix and C-

agreement are covert in Kilega, though the account set forth here does not necessarily predict

that they necessarily co-vary, only that both Luganda and Lubukusu borrow from their pre-prefix

inventory for syntactic material which may serve as a nominal Fin° head.

Notice that as in Lubukusu and has been reported for Bemba and Kinande, among other

languages, in Kilega an alternative agreement effect occurs in 3rd person singular (and only in

class 1, not other noun classes). Again, I assume the nominal Fin° morpheme in Kilega to bear

the features γ and ω, but crucially not π. This should be unsurprising, given that it is the same

claim that I made above for Lubukusu and Luganda, and it gives the correct results in the case of

Kilega as well. Where the difference lies with Kilega is in the feature specifications of the

agreement features. Specifically, I propose that Kilega differs from Luganda (but is the same as

Lubukusu) in that it bears the 3rd person singular declarative subject agreement morpheme /a-/ is

specified for 3rd person, as compared to Luganda, where 3rd person singular agreement forms are

not specified for the feature π at all.

(104) Kilega Nominal Fin°
        [γ ω]

(105) Kilega Subject Agreement Morphology

PN/NR	SG	PL
1st	/ ni-/ ↔ [1st], [A], [SG]	/khu-/ ↔ [1st], [A], [PL]
2nd	/u-/ ↔ [A], [SG]	/mu-/ ↔ [2nd], [A], [PL]
3rd	/a-/ ↔ [3rd], [A], [SG]	/bá-/ ↔ [A], [PL]
NC 7/8	/ki-/ ↔ [D], [SG]	/bí-/ ↔ [D], [PL]

You'll notice that, parallel to Lubukusu 2nd person, /u-/ here is specified only for singular, and no

other features. This means that in any case that a head bears only the feature singular, /u-/ will

be inserted, but also that 2nd person singular forms have no more highly specified form, and

therefore when T° bears the features 2nd singular, /u-/ is inserted as well. An illustration of a

derivation yielding alternative agreement effects is given in (106) for the example in (100),

repeated here for convenience:

(100) t-á-li   kikóngóló ang-ine **ú**-á-kít-il-e   búbo   (*n-akitile)   [Kilega]
        NEG-1S-be 7stupid   as me   **AAE**-ASP-do-AP-FV 14that (*1SG-done)
        'S/he is not as stupid as I who have done that.'

(106)

```
                    XP
              _____
            SUBJ          X
         [1ST,SG, A]    _____
            -ine      Xº      …

   Agree ↑

                        FinP
                    _____
                  Finº         SubjP
                 [SG,A]      _____
                   Ø-    Subjº        TP
                                   _____
                                  Tº   …   SUBJ
                   Agree         [SG,A]   [GN, PN, NR]
                                   u-
```
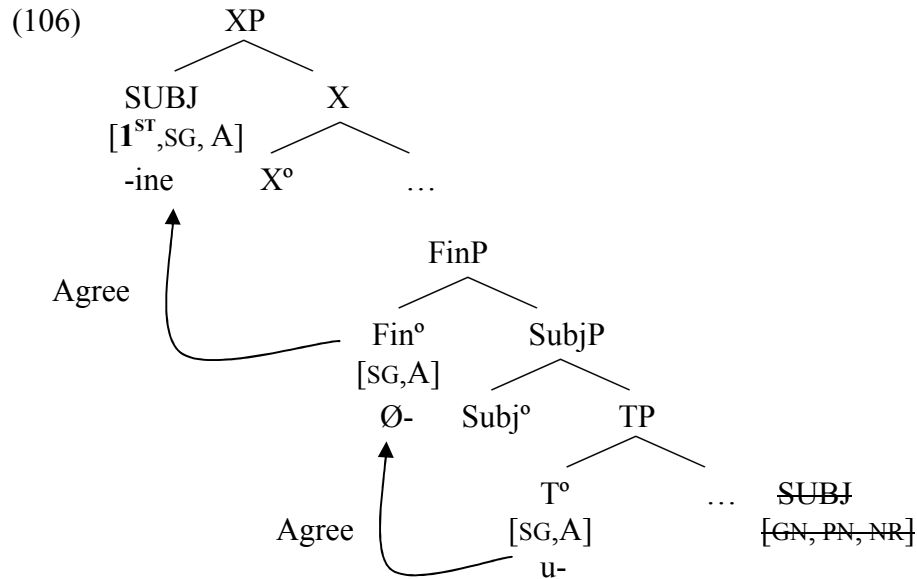
To bring in an additional language, the alternative agreement paradigm in Bemba reported in

Henderson (2009b) is identical to the Kilega alternative agreement paradigm (paradigmatically,

though not morphologically: Henderson 2009b), and therefore identical to the Lubukusu

Paradigm B as well. The featural analysis adopted here for Kilega and Lubukusu relied heavily

on that proposed by Henderson (2009b), and the analysis proposed here for Kilega and Lubukusu

would apply fairly straightforwardly to the Bemba facts. (57) is repeated here as (107):

(107) Bemba subject agreement morphology (Henderson 2009b)[44]

PN/NR	SG	PL
1st	/n-/ ↔ [1]	/tú-/ ↔ [1], [PL]
2nd	/u-/ ↔ [2]	/mu-/↔ [2], [PL]
3rd	/a-/ ↔ [3]	/ba-/ ↔ [PL]
NC 3/4	/ú-/ ↔ [CL3]	/í-/ ↔ [cl3], [PL]
NC 5/6	/lí-/ ↔ [CL5]	/y'á-/↔ [CL5], [PL]

---

[44] As noted before, rather than adopting the gender system of Carstens (1991), Henderson simply abolishes even-numbered (plural) classes in his featural specifications, instead referring to them as a combination of class 3 and plural, for example, The end result is merely a terminological difference. I adopt Carstens lettered genders, Henderson adopts the odd-numbered classes as identifying the genders.

Note the similarities between our accounts, particularly in that for Lubukusu and Kilega I have followed Henderson in his analysis of 3rd person featural distributions. One difference between our accounts is that I assume that the entire person-paradigm is specified as gender A (noun class 1), which corresponds to my analysis of alternative agreement corresponding morphologically (and therefore featurally) to the nominal pre-prefixes. Henderson adopts a much less specific account of that correlation, instead claiming that the alternative agreement morphology is a result of the spellout rule in (108) (repeated here from (58)):

(108) V ↔ [REF]   (Henderson 2009b: 39)

Critically, the mechanism implementing the alternative agreement effect is different in this work than that offered by Henderson, allowing for an accommodation of the Lubukusu Paradigm A facts, which cannot be straightforwardly adopted within Henderson's (2009b) system, if at all.

3.3.4   CONCLUSIONS: CRITERIAL FREEZING AND ALTERNATIVE AGREEMENT

This section has presented an analysis of the alternative agreement effects that appear in Lubukusu on the basis of the Criterial Freezing analysis of subject extraction presented in §3.2. I have claimed that alternative agreement effects arise as a result of an intervention effect on the Agree relation; the nominal Fin° morpheme intervenes between T° and the DP subject, and therefore subject agreement is limited to the features for which nominal Fin° can be valued. At times this results in an alternative agreement effect (for example, in the case of class 1 subjects in Lubukusu), but at others it does not create an alternative agreement effect due to the already-underspecified subject agreement features (e.g. Luganda 3rd singular, or 3rd plural in each of the languages).

In the end, then, I argue that the nature of the Bantu alternative agreement effect is three-fold: first, it is conditioned by the subject extraction mechanisms in a given language, second, it depends on the parametric settings of Agree in Bantu ('upward'-focused), and third, it is conditioned by the featural makeup of agreement morphology in a given language. It is this confluence of theoretical factors that explains the variety of alternative agreement effects that occur across Bantu languages, as evidenced by the discussion of Luganda, Kilega, Bemba, and Lubukusu in the preceding section.

In the following section I will address a number of further contexts in which alternative agreement effects occur (and don't occur) in Lubukusu. Section 3.5 then tackles the the issue of cleft constructions, showing that they have slightly different properties than the other extraction contexts discussed to this point. Finally, Section 6 will examine alternative analyses of Bantu alternative agreement effects, discussing the strengths of the Criterial Freezing approach.

3.4 Criterial Freezing in Additional Contexts for AAEs

The analysis offered in this chapter is that constructions displaying so-called alternative agreement effects in Bantu languages actually still display agreement in phi features, as in any other case, except that in alternative agreement contexts the agreement relation is bleached of specific features. In the case of Lubukusu Paradigm B, the intermediary nominal Fin° head restricts the subject agreeing head from being valued by the π feature of the subject in cases of subject extraction, resulting in the more general [o-] agreement form appearing en lieu of the more specific [a-] which appears in declarative class 1 subject agreement. It was also discussed above how Paradigm A in Lubukusu may be derived via the same subject extraction mechanism. This account makes some interesting predictions both about where this so-called alternative agreement effect should and should not appear, which are enumerated in (109):

156

(109) <u>Empirical Predictions of the Criterial Freezing Analysis of AAEs</u>

    i.   Alternative agreement effects should only occur when C-agreement is present.

    ii. If a wh-subject is in a position such that there is no intervention effect created by the C-agreement morpheme, there is predicted to be no AAE.

    iii. If an instance of subject extraction could be argued to *not* be a product of movement, we would expect to find no AAE

    iv. AAEs should appear in *any* case where subject extraction is facilitated by the nominal Fin° C-agreement, even if it is not a case of A'-movement.

The first prediction is a fairly trivial one: C-agreement and alternative agreement effects only occur in tandem. It is trivial in the sense that it is confirmed in all the evidence which I have gathered; every case in which an alternative agreement effect occurs, C-agreement is also present. This is not necessarily striking evidence, however, as this is the empirical problem I set out to explain in the first place. It is important to note this prediction, though, because if it could be demonstrated that there is an instance of alternative agreement effects without the C-agreement morpheme in Lubukusu, it would be evidence against the Criterial Freezing approach to AAEs that is set forth in this chapter. This is not to say that all Bantu languages showing the same AAEs would necessarily have overt C-agreement, as we saw in the case of Kilega above. Rather, in languages which DO have overt C-agreement, it should co-occur with alternative agreement effects.

The rest of this chapter considers the other three predictions noted in (109), and in doing so examines a variety of empirical contexts in which (so-called) alternative agreement effects appear in Lubukusu. The goal of the chapter is two-fold, empirical and theoretical: empirically, the objective is to introduce and discuss additional alternative agreement contexts and to clarify the contexts in which alternative agreement effects cannot occur. Theoretically, it is a question of evaluating the Criterial Freezing analysis in the context of multiple subject extraction contexts.

This sub-section addresses the second prediction in (109), that if a wh-subject is in a position such that there is no intervention effect created by the C-agreement morpheme, there should not be an alternative agreement effect. This can be tested in two different empirical contexts in Lubukusu: compound tense constructions and locative inversion constructions, and I also argue that subjunctive complements belong in this grouping. Each of these are considered in turn in what follows.

3.4.1.1 Compound Tense Constructions

Compound tense constructions provide interesting support for the Criterial Freezing approach to alternative agreement effects. Compound tenses in Bantu are those cases where there is an auxiliary and a main verb, both of which agree fully with the subject, as shown in (110).

(110) a. Juma **a**-li-kuwa **a**-me-pika chakula   [Swahili]
        Juma   1s-PST –be   1s-PRF-cook 7.food
        'Juma had cooked food.'

   b. *pro* **ni**-li-kuwa **ni**-ngali **ni**-ki-fanya kazi.
           1s-PST-be   1s-still   1s-PRF-do   9work
        'I was still working.'

There are several generative analyses of this construction: Carstens (2001) (following Carstens and Kinyalolo 1989) claims that these constructions arise when aspect-bearing verbs fail to raise to T, and a 'dummy' verb is inserted to support the tense morpheme (a similar concept to do-support in English). The subject is analyzed as raising spec-to-spec, and agreement is triggered by local Agree relations between Asp° and the subject, followed by an Agree relation between T°

and the subject (Spec-head agreement in Carstens and Kinyalolo 1989, Agree in Carstens 2001).

This analysis is illustrated in (111):

(111) [$_{T''}$ Juma$_i$ [$_{T'}$ a-li-kuwa [$_{ASP''}$ **t**$_i$ [$_{ASP'}$ a-me-pika$_v$ [$_{vP}$ t$_i$ [$_{VP}$ t$_v$ chakula]]]]]]   [Swahili]
　　　　Juma　　1S-PST -be　　　　　1S-PRF-cook　　　　7.food

Based on evidence from inversion contstructions, however, Henderson 2006 argues against

Carstens' analysis, claiming that there are in fact two different agreement processes which occur,

an Agree relation between Tº and the subject, and a concord relation between the lower aspectual

head and Tº.[45] This is illustrated in (112):

(112) Juma　a-li-kuwa　<Juma>　a-me-pika　<Juma>　chakula　　　　[Swahili]
　　　　Juma　1S-PST-be　　　　　**1S**-PRF-cook　　　　7.food
　　　　　　　　　(iii) Concord　　　　　　　　　(Henderson 2006: 61)
　　　　　　(ii) Move
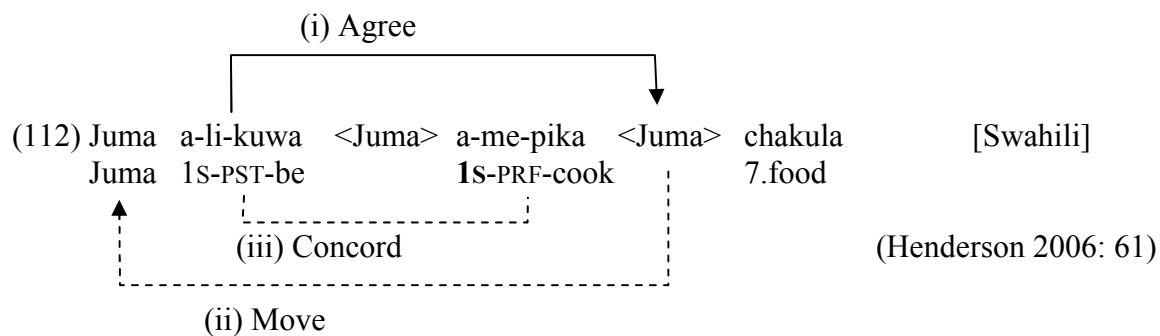
The analysis that Henderson proposes (which is described in (112)) explains the inversion

properties of Swahili, namely, that the auxiliary and the verb invert together, so that the subject

is only licit clause-finally, as shown in (113):

(113) a. chakula　a-li-cho-kuwa　a-me-pika　Juma　　　　　　　[Swahili]
　　　　　7food　　1S-PST-7REL-be 1S-PRF-cook　Juma
　　　　　'the food which Juma had cooked'

---

[45] As Brent Henderson (pc) points out, different Bantu languages may have different underlying structures for compound tense constructions, despite similar appearances, as is common in cross-linguistic studies among languages within a language family.

b.*chakula a-li-cho-kuwa Juma a-me-pika
7food 1S-PST-7REL-be Juma 1S-PRF-cook (Henderson 2006: 62)

Henderson claims that this is explained by the concord relation between the auxiliary and the verb. If T° and Asp° participated in two separate Agree relations, it is problematic to explain why inversion of only the auxiliary and the subject is not possible. But if agreement between the verb and the auxiliary depends on a concord relation, an adjacency requirement on the concord relation would then be responsible for the unacceptability of (113)b.

Both of these accounts make interesting predictions with respect to the presence of alternative agreement effects in Lubukusu compound tenses. If we accept that there is an intermediary landing site like in Spec, Asp" in (111) as argued for in Carstens (2001) and Carstens and Kinyalolo (1989), we should find that in compound tenses with wh-subjects, the initial auxiliary bears the C-agreement and alternative agreement morphology, but the lower main verb should bear normal 'declarative' agreement morphology. This is because even if there are two heads which can bear subject agreement in a clause, there is still only one Subject Phrase atop all of the inflectional material, and therefore C-agreement should only occur on the higher verbal form. That is because C-agreement, nominal Fin° on this analysis, is only necessary to elude Criterial Freezing in Spec, SubjP. Beyond this, if there is an intermediate landing site between the auxiliary and the main verb, there is no intervening head between the wh-subject and the lower agreeing head. If the Asp° agrees directly with the subject, with no intervening Fin° head, there should be no alternative agreement effect on the lower verb.

In contrast, if Henderson's account is accurate, we should find a different result. If agreement on the lower verb in a compound tense is the result of a concord relationship with the auxiliary verb (or, with T°), we should find in compound tenses where the subject is extracted

that alternative agreement effects arise on both the auxiliary and the verb. Whatever features have been valued on Tº are the only features which will be able to be acquired by the Aspº head.

In fact, what we find is that the predictions of both accounts are carried out. As (114) shows, in Lubukusu compound tense constructions C-agreement may only appear on the auxiliary and not on the main verb. (115) shows the same, additionally demonstrating that alternative agreement morphology can only affect the auxiliary as well in this case, and not on the lower verb.

(114) efwe **khu**-khw-a-ba   ne-khw-a-kula   ka-ma-tunda   [Lubukusu]
       we   **1ˢᵗC**-1ˢᵀPL.S-PST-be NE-1ˢᵀPL-PST-buy 6-6-fruit
       'we who had bought fruit'

(115) naanu **o-o**-la-ba   ne-**a**-kula   ka-ma-tunda   (*ne-**o**-kula)
       1who   **1C-1S**-fut-be   NE-**1S**.PST-buy   6-6-fruit
       'Who will be buying fruit?'

Example (115) is consistent with the Criterial Freezing analysis of alternative agreement effects, on the analysis of Carstens (2001) that there is an intermediary landing site between the verb and the auxiliary, so that there may be a direct Agree relation between the Aspº head and the subject (recall that I assume an analysis of 'upward'-oriented Agree, in contrast to Carstens 2001 and Henderson 2006).

As the data set in (116) - (118) shows, however, the pattern in (115) is not the only one. Example (117) accords with (115), but it is apparent in (118) that it is in fact possible to have both the auxiliary and the verb bear the alternative agreement effect.

(116) O-mu-limi a-la-ba   (n)-a-funa   ka-ma-indi?
       1-1-farmer 1S-FUT-be (NE)-CTN-harvest 6-6-maize
       'The farmer will be harvesting maize.'

(117)　Naanu　o-o-laba　　　　*(n)-a-funa　　　　ka-ma-indi?
　　　　1who　1C-1S-FUT-be　*(NE)-CTN-harvest　6-6-maize
　　　　'Who will be harvesting maize?'

(118)　Naanu　o-o-la-ba　　　(*n)-o-funa　　　　　ka-ma-indi?
　　　　1who　1C-1S-FUT-be　(*NE)-1S-CTN-harvest　6-6-maize
　　　　'Who will be harvesting maize?'

There is one difference between (117) and (118) apart from the alternative agreement effects,

however, and that is the presence of the 'ne-' prefix on the main verb. We see the same pattern

in examples (119) - (121):

(119)　O-mu-somi　k-a-ba　　　(n)-a-soma　　　　sii-tabu
　　　　1-1-student　1S-PST-be　(NE)-1S.CTN-read　7-book
　　　　'The student was reading the book.'

(120)　naanu　o-w-a-ba　　　*(n)-a-soma　　　sii-tabu?
　　　　1who　1C-1S-PST-be　*(NE)-1S.CTN-read　7-book
　　　　'Who was reading the book?'

(121)　naanu　o-w-a-ba　　　(*n)-o-soma　　　sii-tabu?
　　　　1who　1C-1S-PST-be　(*NE)-1S.CTN-read　7-book
　　　　'Who was reading the book?'

What I would propose is that there are in fact (at least) two distinct structures for compound

tense constructions in Bantu, one realizing Carstens' (2001) analysis akin to the structure in

(111), and the other realizing Henderson's (2006) analysis, as illustrated in (112). I claim that

cases like (118) and (121) where both the auxiliary and the main verb show an alternative

agremeent effect are cases with a structure as in (112), where the lower verb agrees with the

upper auxiliary (Henderson's Concord relation) rather than with the subject DP itself.

　　　In contrast, cases like (115), (117), and (120) are the result of a structure similar to that in

(111), where the subject has raised through an intermediate position above Asp° but below T°,

and from this position has triggered agreement on Aspº. Because Aspº agrees directly with the

subject DP in such a structure (i.e. there is no intervention effect created by Nominal Finº), no

alternative agreement effect results. It is clear from the examples in (116) - (121) that there is a

morphosyntactic variable that is influenced by the different agreement facts, as mentioned above:

[ne-] appears optionally in declaratives, and in cases of subject extraction, it obligatorily appears

in the constructions with mismatched agreements, and is obligatorily absent when both verbs

display an alternative agreement effect. This raises an important question – what is the nature of

[ne-]?

Wasike (2007: 335-352) demonstrates that the morpheme [ne-] appears in many different

contexts, particularly discussing clefts of reason questions, but also noting that it appears

prefixed to the main verb in a conditional clause. My own research shows that it also appears in

reason-clauses which are introduced by the complementizer *nga* 'because'. Wasike concludes

that [ne-] in the case of clefts is a case of operator-agreement, but also notes that an analysis of

[ne-] as a marker of successive-cyclic movement is a strong possibility. It is clearly not the case

that all instances of [ne-] can be operator-agreement. First, it appears in conditionals and reason-

clauses, and furthermore, it optionally appears in compound tense constructions such as (116)

and (119), in which there is no operator movement at all.[46] While this issue requires much

further research, I conclude that there is a connection between the use of [ne-] in cases of

subordination, and its usage in instances of successive-cyclic movement.

It is my claim for the compound tense constructions given above, therefore, that the

presence of [ne-] indicates the presence of additional structure which serves as an intermediate

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[46] Though, as pointed out to me by Paul Portner, conditionals and reason clauses could potentially include operators, and an aspectual projection might also contain an aspectual operator. I assume for the sake of argument that this is not the case, but an in-depth analysis of these constructions is necessary to substantiate this assumption. This, however, is beyond the scope of this current work.

landing site for the subject as it raises to Spec, SubjP (or, beyond). At present I remain agnostic

about the precise nature of this intermediate landing site, calling it XP. This structure is given in

(122) for the sentence above in (117):

(122)   [$_{XP}$ naanu [$_{FinP}$ Fin°-o [$_{TP}$ o-la-ba [$_{XP}$ ~~naanu~~ ne- [$_{AspP}$ Asp°-a-[$_{VP}$ -funa kamaindi]
         1who   1s-FUT-be   ~~who~~   NE   harvest maize
         'Who will be harvesting maize?'

In the case of a construction such as (118), however, where there are alternative agreement

effects on both the auxiliary and the main verb, the structure introduced by [ne-] is not present,

and the result is an agreement relation directly between Asp° and T°, as shown in (123)

(123)   [$_{XP}$ naanu [$_{FinP}$ Fin°-o [$_{TP}$ o-la-ba [$_{AspP}$ Asp°-o-[$_{VP}$ -funa   kamaindi]
         Who   1s-FUT-be   1s   harvest maize
         'Who will be harvesting maize?'

The fact that the [ne-] morpheme is optional in standard declarative compound tense

constructions like (116) and (119) is a consequence of both structures being available to derive a

declarative compound tense construction. Because there is no restricted agreement in a

declarative sentence in the same way that there is in cases of subject extraction with the

alternative agreement effects, there is no way to distinguish the two different structures for

compound tenses in declaratives, apart from the presence of [ne-].

The Criterial Freezing approach the alternative agreement effects correctly predicts the

data which were discussed in this section, with the understanding that there are two different

structures yielding two different agreement patterns (and realizing the two previous proposals for

compound tense constructions in Bantu).   In the next section I discuss another instance where

non-canonical subject positions affect AAEs, in this case in the context of locative inversion constructions.

3.4.1.2 Locative Inversion

As will be discussed in much more depth in chapter 4, there are two different types of locative inversion constructions in Lubukusu: repeated agreement locative inversion and disjoint agreement locative inversion. These two locative inversion appear similar, with a postverbal locative clitic and an inverted word order (LOC-VERB-SUBJECT), with a key difference: the subject agreement morpheme on the verb agrees with the fronted locative phrase in the repeated agreement construction, but agrees with the postverbal subject in the disjoint agreement construction. Examples of these two constructions are given in (124) and (125).

(124) **khu**-si-kulu k̲w̲-̲a̲-biringila-**kho** ku-m-pira   **Disjoint Agreement**
      17-7-hill   3S-PST-roll-**17L**   3-3-ball
      'On/down the hill rolled the ball.'

(125) **mu**-mu-siiru **mw**-a-kwa-**mo** ku-mu-saala   **Repeated Agreement**
      18-3-forest   18S-PST-fall-**18L** 3-3-tree
      'In the forest fell a tree.'

Locative inversion is relevant to our concerns here because wh-subjects in locative inversion constructions trigger different verbal morphology than do wh-subjects in non-inversion contexts. We saw above in section 3.2.4 that C-agreement is impossible with a postverbal subject in repeated agreement locative inversion, but the repeated agreement construction is not in the end helpful for our discussion of alternative agreement effects, as in this case the verb agrees with the fronted locative phrase, rather than with the postverbal subject. Therefore my concern here will be with disjoint agreement locative inversion, for which section 3.2.4 showed that alternative

agreement effects are impossible in the event of a postverbal wh-subject. This is replicated in

in (126) and (127) (with (128) repeated from (34)), showing that alternative agreement effects

that are possible in standard interrogatives which extract the subject from a preverbal position

(i.e. the (b) examples) are impossible in a disjoint agreement locative inversion construction (as

shown in the (c) examples).

(126) a. o-mu-ndu **e**ngila   mu-nju
     1-1-person **1s**.entered   18-house
     'A person entered the house.'

    b. naanu o-**w**-engila   mu-nju ?
      1who   1C-**1s**-entered 18-house
      'A person entered the house.'

    c. mu-nju   **e**ngila-mo   naanu ?   **Locative Inversion**
     18-house **1s**.entered-18L   1who
     'In the house entered a person.'

(127) a. o-mu-haasi **a**-kwa   mu-nju
     1-1-woman **1s**-fell   18-house
     'A woman fell in the house.'

    b. naanu o-**w**-a-kwa   mu-nju ?
      1who   1C-**1s**-PST-fall 18-house
       'Who fell in the house?'

    c. mu-nju   **a**-kwa-mo   naanu ?   **Locative Inversion**
     18-house **1s**-fell-18L   1who
     'In the house fell a woman.'

(128)   mu-mu-siiru **a**-kwa-mo   naanu (***o**-**w**-a-kwa-mo   / ***o**-kwamo)
      18-3-forest **1s**-fell-18L   1who   ***1C**-**1s**-PST-fall-18L / ***1C.s**-fall-18L
      'In the forest fell who?'

The analysis of alternative agreement effects proposed in this chapter is that alternative

agreement effects are the consequence of C-agreement (nominal Fin°) intervening between the

NP subject and the subject-agreeing head. This analysis predicts that if a subject were to be

extracted from some position other than the canonical subject position, we would find no

alternative agreement effects, precisely what happens in (126)c, (127)c, and (128).

As it turns out, however, the answer is not so simple. Previewing the conclusions of the

next chapter, I conclude based on a variety of evidence that the structure of disjoint agreement

locative inversion constructions in Lubukusu is as is shown in (129):

(129) Disjoint agreement Locative Inversion[47]

[XP LOC V-X [SUBJP SUBJ … [vP ~~SUBJ~~ ~~V~~ ~~LOC~~]]]

The structure given for disjoint agreement locative inversion in (129) raises an important

question regarding the alternative agreement effects shown in (126) - (128). If the wh-subject is

in fact in canonical subject position in these cases, why does extraction of that subject not create

alternative agreement effects in these cases?

I propose that the lack of alternative agreement effects in these locative inversion

constructions therefore is not a consequence of extraction from some position other than Spec,

SubjP, but is instead a case where the subject has not moved from Spec, SubjP. In this case the

locative phrase has already moved to the left periphery (assumed here to be Spec, XP), and in the

process has attracted the verb to X°, creating the inverted word order. I claim that the verb has

moved head-to-head to this CP-level head, but the verb's movement through Fin° precludes the

standard extraction mechanism (nominal Fin°) from being merged in that same position, with the

result that the subject must remain in Spec, SubjP, satisfying the Subject Criterion and therefore

being frozen in that position. Rizzi and Shlonsky (2007) in fact claim that this subject-*in situ*

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[47] For an extended discussion and multiple diagnostics arguing for this structure for disjoint agreement locative
inversion, I refer the reader to Chapter 4.

strategy is an acceptable subject "extraction" strategy, which is realized in cases like resumption, for example.[48]

That being said, the analysis I offer here does not straightforwardly follow from theirs, as it is not clear in these cases what element checks the features of the normal target of wh-movement in the left periphery (I will assume it is a Focus Phrase here, for the sake of discussion). Presumably this FocP has wh-features which are Criterial features, and which are normally checked by the wh-phrase's movement to Spec, FocP. For these constructions, therefore, I am forced to assume that a null operator is merged which satisfied the wh-Criterion, and binds the wh-phrase in subject position.[49] This analysis is sketched in (130):

(130)

```
        FocP
       /    \
    OP_k     Foc
            /    \
         Foc°     XP
         [wh]    /  \
              LOC    X
                    /  \
                  X°    FinP
                 verb   /   \
                     Fin°    SubjP
                     v̶e̶r̶b̶   /     \
                      wh-SUBJ_k   Subj
                               /      \
                            Subj°      TP
                            v̶e̶r̶b̶     /   \
                                    T°     …
                                   v̶e̶r̶b̶
```

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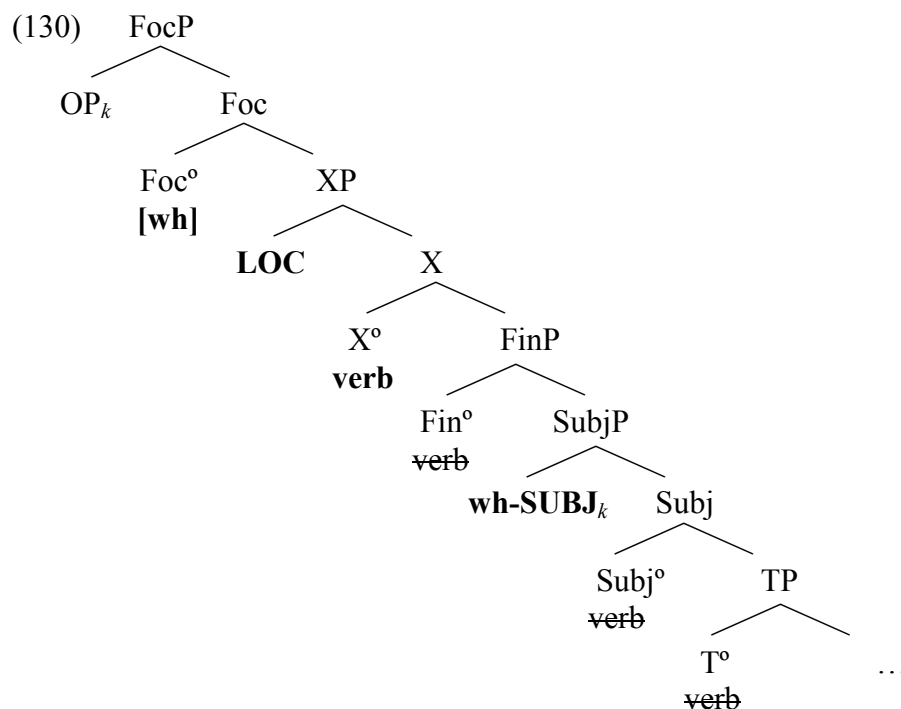
[48]Note that the subjects in these cases are not truly *in situ*, as they have moved from their base position to canonical subject position. The notion that they are *in situ* comes from the fact that they don't A'-move in these cases.

[49] It is important to specify how this operation is restricted, that is, why this strategy for extraction is not employed in all cases. I assume that this strategy is a last resort strategy which is employed only in the event that canonical extraction is impossible. In this way it is similar to so-called 'intrusive' resumptive pronouns in English (see Boeckx 2003), which are employed only in the event that an extraction is otherwise unacceptable.

These data provide an interesting argument against an approach (for Lubukusu, at least) that the alternative agreement effect arises because wh-phrases are bleached of their phi-features and therefore are incapable of triggering the 'normal' declarative sort of agreement (cf. Baker 2008a). Rather, the alternative agreement effect here seems to be correlated with a specific structural configuration, consistent with the analysis adopted here that C-agreement is necessary to skip the preverbal Spec, SubjP position, and that the intervention of the C-agreement morpheme (a nominal Fin°) between the extracted subject and T° is what triggers the alternative agreement effect.

3.4.1.3 Subjunctive Complements

There is an additional context which I will propose lacks the intervention effect created by the nominal Fin° morpheme, and therefore lacks alternative agreement effects—in subjunctive complements. As shown in (131), the complement of a verb like 'want' that is standardly assumed to be a restructuring verb takes a subjunctive complement.[50]

(131) Baa-sasi b-eny-e   (ba-li)   Sammy a-sut-e   ka-m-eji
       2-parents 2S-want-PST (2-COMP) Sammy 1S-carry-SBJ 6-6-water
       'Parents want Sammy to carry water.'

Complements of verbs like 'want' are often assumed to have less structure than full CP complements, which allows the matrix verb to license the embedded subject in some way. This is the traditional analysis of Exceptional-Case-Marking contexts like the English sentence given in (132), where the lack of a full CP complement is taken to explain how the matrix verb is capable of checking accusative Case on the embedded subject.

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[50] Also referred to as exceptional Case-marking (ECM), or Raising-to-Object (RtO), the term which I adopt in §5.6.6.2.

(132) She wants him to be happy

The presence of an overt complementizer in (131) raises questions for this analysis of –*enya* 'want' in Lubukusu, which suggests that there is in fact a full CP present. I claim that the embedded subjunctive clause in these cases is nonetheless truncated, just not in a simplistic fashion. Though a CP may be present, I claim that a SubjP is not present in subjunctive clauses. Note that in (133) the embedded subject may be object-marked on the verb, even with the presence of the complementizer (see also §5.6.6.2).

(133) Baa-sasi ba-mw-eny-ile (b-ali) _____ a-sut-e ka-m-eji
       2-parents 2S-1O-want-PST (2-COMP) 1S-carry-SBJ 6-6-water
       'Parents want him to carry water.'

Recall from chapter 2 that I take the object marker in Lubukusu to be a pronominal argument which has incorporated into the verb (and I refer the reader to §2.3.2.3 for supporting argumentation). On this analysis, then, the object marker has moved from embedded subject position to Spec, TrP in the matrix clause (the licensing position for objects), at which point it can incorporate into the verb.   For this analysis to hold, however, it is crucial that there is no Subject Phrase in the lower clause, as otherwise the embedded subject ought to have been frozen in that position.

    In fact, this conclusion is supported by the facts in cases of a wh-embedded subject. As is evident in (134), when the subject of the embedded clause is a wh-word, it is impossible to have an alternative agreement effect on the embedded (subjunctive) verb (note that this contrasts with the properties of embedded non-subjunctives, as discussed in §3.4.4 below).

(134) Baa-sasi   b-enya   naanu a-sut-e   ka-m-eji   (*o-sut-e)
       2-parents 2S-want   1who 1S-carry-SBJ   6-6-water (*AAE-carry-SBJ)
       'Who do the parents want to carry water?'

Again, this is consistent with an analysis that subjunctives lack a SubjP, and therefore no
nominal Finº extraction strategy is necessary to facilitate extraction of the subject of the
embedded subjunctive in these cases. The same pattern is shown in another subjunctive
complement in (135):

(135) a. Baa-sasi   b-eyikina   Alfred   a-fun-e   ka-ma-indi
         2-parents 2S-PRS.expect 1Alfred 1S-harvest-SBJ 6-6-maize
         'The parents expect/rely on Sammy to harvest maize.'

      b. Baa-sasi ba-mw-eyikina (*Alfred) a-fun-e   ka-ma-indi
         2-parents 2S-PRS.expect   1S-harvest-SBJ 6-6-maize
         'The parents expect/rely on him to harvest maize.'

      c. Baa-sasi   b-eyikina   naanu a-fun-e   ka-ma-indi?
         2-parents 2S-PRS.expect 1who   1S-harvest-SBJ 6-6-maize
         'Who do the parents expect/rely on to harvest maize?'

This section has therefore looked at 3 different contexts in which I claim that an intervention
effect has not been created by the nominal Finº extraction strategy, and therefore alternative
agreement effects do not appear. This was argued to be the case for the lower verb in (certain)
compound tense constructions, for disjoint agreement locative inversion constructions, and in
this section for subjunctive complements. The next section looks further contexts where
alternative agreement effects are limited in their distribution, namely, in islands for movement.

3.4.2 RESUMPTION IN ISLANDS FOR MOVEMENT

This sub-section deals with the third prediction enumerated in (109): if an instance of subject
extraction could be argued to *not* be a product of movement, we would expect to find no AAE.

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Along the same lines, if there were to be a situation where a wh-subject was forced to remain *in situ*, the analysis offered here predicts that the alternative agreement effect would not be possible: we would find normal declarative agreement as opposed to the alternative agreement form which normally appears in extraction contexts.

Both of these situations occur in cases of islands for extraction, where it can be argued based on the fairly widely accepted assumption that movement is impossible out of certain island contexts (Ross 1967, Cinque 1990, along with many others, though see Boeckx 2003, 2008 for an alternative account). Islands for movement include relative clauses, clauses with extracted wh-elements, adjuncts, and conjoined phrases.

The types of islands considered here are relative clauses, wh-islands, complex NPs, and adjuncts. I assume that in the cases of an overtly displaced wh-phrase out of an island for movement, it is a case of resumption by a null pronoun, rather than actual syntactic movement. That the resumptive pronoun is null would be unsurprising for a pro-drop Bantu language like Lubukusu, as overt pronouns trigger focused interpretations (usually contrastive focus). The prediction for a Criterial Freezing account, then, is that gaps within islands (or *in situ* wh-subjects within islands) will not coincide with C-agreement and alternative agreement effects, but rather than in these cases (as opposed to matrix cases of subject extraction) we will find declarative-type agreement. What follows will demonstrate that this prediction is largely confirmed, though the picture is not without complexity.

3.4.2.1 Where C-agreement and AAEs do not Occur

The example in (136) shows a displaced wh-phrase, with a gap in subject position of an object relative clause. The verb in the relative clause, however, shows declarative-type agreement, and crucially cannot have C-agreement (or display an alternative agreement effect).

(136) naanu*k* ni-ye   Joni   a-a-bona [si-i-tabu*j* ni-syo __*k* **a-a**-soma __*j*] (*o-w-a-soma)
     1who   PRED-1 1John 1S-PST-see 7-7-book COMP-7   **1S-PST**-read   (1C-1S-PST-read)
     'Who is it that John saw the book which s/he read (it)?'

I analyze this as a case where there is a resumptive *pro* in subject position of the relative clause, on the assumption that the since relative clauses are islands for movement, overt movement out of the relative clause is ruled out. Because this *pro* is not forced to move out of SubjP, there is no need for a nominal Fin° to facilitate extraction, and therefore there is no C-agreement, and consequently no alternative agreement effect, either.

Perhaps more clear for our point, however, is the same construction but with an *in situ* wh-phrase. Again, common assumptions suggest that movement out of a relative clause should be impossible, arguing that a wh-phrase inside of a relative clause should remain *in situ*. Leaving aside for the moment how the relationship is established between CP and the wh-word in these cases, consider the agreement facts; as is evident in (137), when a wh-subject occurs inside a relative clause, both C-agreement and the alternative agreement effect are absent, with normal declarative agreement showing up.

(137) Joni   a-a-bona [si-i-tabu ni-syo naanu **a-a**-soma __]   (*o-w-a-soma)
     1John 1S-PST-see 7-7-book COMP-7 1who **1S-PST**-read   (1C-1S-PST-read)
     'John saw the book which who read?' (non-echo question)

(138) e-m-bwa ya-a-luma o-mw-aana ni-ye   naanu **a-a**-ruma?   (Wasike 2007: 252, #54a)
     9-9-dog   9-PST-bite 1-1-child   COMP-1 1who **1S-PST**-send
     'The dog bit the child that who sent?'

These sentences are interpreted as matrix questions, suggesting that there is some relationship between the matrix CP and the wh-phrase. We can see again that precisely in the event that it is not possible for syntactic movement to take place, subject agreement with the wh-subject takes

the form of normal declarative agreement, does not show the alternative agreement effect, and does not trigger C-agreement or an alternative agreement effect. Again, this is precisely what is predicted by the Criterial Freezing approach: if C-agreement (and the subsequent alternative agreement effect) is the result of a mechanism for moving out of (or more technically, past) the Spec, SubjP position, then if the construction under consideration does not require movement, it will not require C-agreement and an AAE.

This puts aside the question of how the relationship is established between the *in situ* wh-word and the wh-features on the Foc° head in the left periphery of the matrix clause. Though there may be cases of wh- *in situ* in Lubukusu which can be analyzed as instances where the lower copy of a movement chain is pronounced, such as matrix object questions, the fact that there are clear morpho-syntactic differences between these cases and cases of extraction from non-islands is good reason to believe that syntactic movement does not actually occur in these cases (see Reintges, LeSourd, and Chung 2006, Bobaljik 2002, Nunes 2004, Kandybowicz 2008). The precise nature of the relationship between CP and the wh-phrase is a standing question, though a possible answer may be found in the work done on the dual derivation and representational natures of linguistic expressions as they relate to wh-extraction (cf. Adger and Ramchand 2005, Aoun and Li 2003). This sort of approach is what I adopted above for the locative inversion cases, claiming that there is a null operator in Spec, FocP which satisfies the wh-Criterion, and binds the *in situ* wh-phrase. I will assume that the same operation is at work here (and in corresponding examples below).[51]

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[51] This satisfaction of the wh-Criterion by means of a null operator which binds a lower wh-phrase necessarily must be a Last Resort operation, as can be seen from the examples discussed thus far, it only occurs in cases where overt movement is impossible. For the locative inversion constructions discussed in §3.4.1.2 this was due to Criterial Freezing of the subject in Spec, SubjP, and it is due to the fact that a relative clause is an island for movement in the preceding examples (and the following examples of wh-islands, as well). It is a serious question to sufficiently limit the distribution of the null operator "extraction" strategy to account for the cases where it occurs and rule out cases where it doesn't, but a precise investigation of this matter is beyond the scope of this dissertation.

An additional piece of evidence comes from wh-islands as well. Wasike (2007) observes that wh- *in situ* is possible in certain wh-island constructions: note that in these cases, as in the case of object relative clauses noted above, declarative subject agreement appears rather than C-agreement and alternative agreement morphology. Example (139)a shows a 'how'-type embedded question, and (139)b shows the *in situ* embedded wh-subject. The sentences in (140) show that ex-situ wh-phrases show the same properties as wh- *in situ*, the same pattern observed for extraction out of object relative clauses above.

(139) a. Wafula   a-many-ile   nga Nafula ne-**a**-a-ar-a   si-kombe
       1Wafula 1S-know-ASP how 1Nafula NE-**1S**-PST-break 7-cup
       'Wafula knows how Nafula broke the cup.' (Wasike 2007: 280, #70a)

  b. Wafula a-many-ile   nga naanu ne-**a**-ara   si-kombe?
     1Wafula 1S-know-ASP how 1who   NE -**1S**-PST-break 7-cup
     'Who does Wafula know how t broke the cup?' (Wasike 2007: 282, #72a)[52]

(140) a. naanu ni-ye   Wafula a-many-ile   nga (ne)-a-a-ra   sii-kombe
       1who PRED-1 Wafula 1S-know-ASP how (NE)-1S-PST-break 7-cup
       'Who$_i$ is it such that Wafula knows how he$_i$ broke the cup.'

  b. *naanu ni-ye   Wafula a-many-ile   nga o-w-a-ra   sii-kombe
     1who   PRED-1 Wafula 1S-know-ASP how 1C-1S-PST-break 7-cup
     'Who$_i$ is it such that Wafula knows how s/he$_i$ broke the cup.'[53]

Once again, then, it is exactly those cases in which we predict that movement will not be possible that we find declarative agreement with wh-phrases, and we find C-agreement and the alternative agreement effect to be ruled out. These facts are consistent with the Criterial Freezing analysis set forth here, as in cases where movement is ruled out for independent reasons

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[52] The nature of the NE morpheme is discussed briefly in §3.4.1.1, and the examples here show one of the properties that were mentioned there, namely, the use of [ne-] under the complementizer *nga* (though here it has a different reading than the 'because' reading noted above). I refer the reader to Wasike (2007) for additional data and commentary, but the issue of the role of [ne-] is one that requires much further research.

[53] These are ungrammatical on the intended reading. They are OK on the reading with an embedded relative clause, "Who is it that Wafula knows as the one who broke the cup?"

there are no alternative agreement effects. It is important to note, however, that while the

Criterial Freezing framework is consistent with these data, the empirical patterns here do not

provide support for the Criterial Freezing approach to AAEs as opposed to other approaches. In

fact, any approach that links movement of the subject from subject position to the left periphery

will predict these results (on the assumption that a resumption analysis is adopted). My intention

here is simply to report the full scope of the alternative agreement facts in Lubukusu, and to

demonstrate that these data are in fact consistent with a Criterial Freezing analysis.

3.4.2.2 Complicating the Issue: AAEs in Islands

There are some more complicated issues, however, when it comes to other sorts of islands for

movement. In particular, there are cases of islands for movement where there is not such a clear

distinction between where declarative-type agreement occurs and where alternative agreement

effects occur. As has been argued in much previous work, adjuncts are islands for extraction,

like the relative clauses and wh-islands discussed above. The following examples are taken from

Wasike (2007: 79a and 81a); (141) is a case of an adjunct-interpretation triggered by the

presence of the 'ne-' morpheme preverbally on the verb of the subordinate clause, and (142) is a

case of an *in situ* wh-subject in that adjunct clause.

(141)   Nasike   a-a-rekukha   Wafula n-a-kha-kula   chii-ngubo
        1Nasike 1S-PST-leave   1Wafula NE-1S-PRG-buy 9-cloth
        'Nasike left when Wafula was buying clothes.'

(142)   Nasike   a-a-rekukha   naanu n-**a**-kha-kula   chii-ngubo?
        1Nasike 1S-PST-leave   1who NE-**1S**-PRG-buy 9-cloth
        'Who did Nasike leave when who was buying clothes?'

As can be seen from (142), the wh-subject in an adjunct clause doesn't result in C-agreement and an alternative agreement effect, in contrast to matrix subject extraction but consistent with what we saw for object relative clauses and wh-islands above. The same facts are replicated in similar sentences (this time with compound tenses) in (143) and (144)

(143) Nasike a-a-rekukha nga   Wafula a-a-ba   n-a-kula   chi-ngubo
       1Nasike 1S-PST-leave as/while 1Wafula 1S-PST-be NE-1S-PST-buy 10-clothes
       'Nasike left while Wafula was buying clothes.'

(144) Nasike a-a-rekukha nga   naanu **a**-a-ba   n-a-kula   chi-ngubo
       1Nasike 1S-PST-leave as/while 1who **1S**-PST-be NE-1S-PST-buy 10-clothes
       'Nasike left while who was buying clothes.' (matrix question)

But while the absence of C-agreement and alternative agreement effects was obligatory in object relative clauses and wh-islands, in adjunct islands it is possible for extraction morphology to appear with a wh-subject, as is shown in (145):

(145) Nasike a-a-rekukha nga   naanu o-w-a-ba   n-a-kula   chi-ngubo
       1Nasike 1S-PST-leave as/while 1who 1C-1S-PST-be NE-1S-PST-buy 10-clothes
       'Nasike left while who was buying clothes.' (matrix question)

This would seem to be problematic for my account here, which predicts that C-agreement (and alternative agreement effects) should only occur in cases of the subject moving out of (or, technically, past) subject position. Adjunct clauses have not only long been argued to be islands for movement, but have been argued to be among the strongest islands for movement (see Cinque 1990). I am left to claim, therefore, that in cases like (145) where C-agreement and alternative agreement effects occur within an adjunct island there is short movement within the

adjunct clause. While it is difficult to demonstrate this beyond a reasonable doubt, the facts in

(146) and (147) are at least consistent with this sort of short-movement analysis.

(146) *Nasike a-a-rekukha nga   naanu **ni-ye** a-a-ba   n-a-kula   chi-ngubo
        1Nasike 1S-PST-leave as/while 1who PRED-1   1S-PST-be NE-1S-PST-buy 10-clothes
        'Nasike left while who was buying clothes.' (matrix question)

(147) Nasike a-a-rekukha nga   naanu **ni-ye** o-w-a-ba   n-a-kula   chi-ngubo
        1Nasike 1S-PST-leave as/while 1who PRED-1   1C-1S-PST-be NE-1S-PST-buy 10-clothes
        'Nasike left while who was buying clothes.' (matrix question)

As (147) shows, embedded cleft-like constructions are possible within an adjunct clause. This

example is judged to be somewhat less preferable in comparison with (145), it is still fully

acceptable. While this does not demonstrate syntactic movement of the wh-phrase *per se*

(depending on one's analysis of clefts), it does at least demonstrate that the left periphery is

available in adjunct clauses. This is consistent, therefore, with an analysis of (145) based on

short movement of the wh-phrase. Therefore the adjunct is still considered to be an island as

movement is not possible out of it, but short movement is possible. I assume that the embedded

CPs in matrix questions may optionally bear wh-features, and therefore optionally trigger this

short movement. The fact that the adjunct is an island for movement, however, explains why the

wh-phrase may stay in situ in the constructions in (142) and (144), resulting in declarative-type

agreement and not extraction morphology.

Therefore, though there is some explaining to be done to explain why C-agreement and

alternative agreement effects can occur for wh-subjects within adjunct islands, it is highly

significant that it is also possible for these constructions to occur *without* C-agreement and

alternative agreement effects. It is not coincidental that this happens in the case of an adjunct

island, an island for movement, as in other islands for movement the same thing occurs, as discussed above in §3.4.2.1.

Another notable exception to the analysis of islands and alternative agreement effects is that non-relative clause complex noun phrases can have C-agreement and the alternative agreement effect when they have a wh-subject. I see two possible explanations here: either non-relative clause complex DPs are not islands for movement in Lubukusu (and the wh-*in situ* in (148) is the result of pronouncing a lower copy in the chain), or as in the cases of adjunct relative clauses, short movement is possible within the CP complement of a noun.

(148)   Maayi   a-li   ne   li-suubila   a-li   naanu o-o-la-kula   sii-tabu?
        1mother 1S-be with 5-belief/faith 1-COMP 1who 1C-1S-FUT-buy 7-book
        'Mother has faith/belief that who will buy the book?'
                                                                (Wasike 2007: 252 #35a)

While a full investigation of these issues is beyond the scope of this work here, I would argue that in these cases, as in the case of adjunct extraction, the presence of C-agreement and alternative agreement effects indicates short-movement of the wh-subject, within the embedded CP. I leave a more in-depth investigation of both adjunct clauses and CP complements of nouns to future research.

3.4.3   NON-A'-EXTRACTION FROM SUBJECT POSITION

The final prediction of (109) is that C-agreement and AAEs should not be solely linked to wh-extraction, as the mechanism for extracting from subject position (as argued for here) does not have any explicit link to wh-features in any way. Rather, I have argued that morphology that occurs in cases of extraction is the result of a strategy for allowing the extracted subject to skip the Spec, SubjP position. The prediction, then, is that C-agreement and alternative agreement

effects should occur in any case of (what would be) movement out of Spec, SubjP, and not simply wh-movement.

Raising constructions in Lubukusu (and other Bantu languages) provide an excellent grounds to test this prediction, as the embedded clauses in raising constructions in Bantu languages which have them are finite, rather than the non-finite complements of raising verbs in the canonical cases in English (see Zeller 2006, Harford Perez 1985, Carstens and Diercks to appear). The presence of finite morphology in the embedded clause also suggests that there should be a Subject Phrase in these lower clauses, therefore giving us a context in which to test the empirical prediction in (109)iv.

The English example in (149)a shows that an NP subject may occur in situ in the lower clause and an expletive (*it*) may occur in the higher clause, or the NP subject may raise to the matrix clause out of a non-finite embedded clause, as in (149)b. As (149)c makes clear, however, this raising is impossible if the embedded clause is finite.

(149) a. It seemed that Tegan fell
    b. Tegan seemed ___ to fall
    c. *Tegan seemed that ___ fell

Lubukusu, like many Bantu languages, has a verb meaning "seem" or "appear" that behaves like a raising verb by either allowing an *in situ* subject with a (null) expletive in subject position as in (150)a, or by raising the lower NP to subject position as in (150)b. Interesting for our point here, however, is that in these constructions in Lubukusu the embedded verb is fully finite, with a

tense marker and subject agreement, and additionally that they may appear with C-agreement and alternative agreement effects.[54]

(150) a. e-fwana oli   Tegani a-kwa   [Lubukusu]
        9-seem COMP 1Tegan 1S-PST-fall
        'It seems as if Tegan fell.'

     b. Tegani a-fwana *(oli) ___   **o-w-a**-kwa
        1Tegan 1S-seem COMP   **1C-1S-PST**-fall
        'Tegan seems (as if/like) she fell.'

(151) a. a-fwana oli   o-w-a-kwa
        1S-seem COMP 1C-1S-PST-fall
         'He$_i$ seems like he$_i$ fell.'

     b. si-fwana oli   si-sy-a-kwa
        7S-seem COMP 7C-7S-PST-fall
        'It$_i$ seems like it$_i$ fell.'

Note, however, the subject agreement morphology on the embedded verb in (151)a, which demonstrates that it is possible to have C-agreement and an alternative agreement effect in the event of subject-to-subject raising in these *–fwana* constructions. The discussion to this point has generally assumed that "C-agreement" morphology is linked purely with subject wh-movement, but as (150)c shows, this morphology seems to be linked directly with movement out of subject position more generally, whether or not it is wh-movement. This would be very difficult to explain under a theory linking alternative agreement effects to the featural makeup of wh-phrases, or to factors dependent upon A'-dependencies (cf. Ouhalla 1993). But the theory of subject extraction presented here can easily account for these facts, because C-agreement and

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[54] Note that this Lubukusu construction seems to be similar to (an as such is translated as) the copy-raising construction that is the lesser-known part of the paradigm in (149): *Tegan seems like she fell*.

alternative agreement effects are not linked directly with wh-movement, but rather as a mechanism specifically for movement out of subject position.

It is therefore critical to the analysis of these raising constructions that they are in fact analyzed as subject-to-subject raising, and not copy-raising constructions like 'Mary seems like she is happy', or headless relative clauses like 'Mary seems like (someone) who is happy'. Both of these potential alternative analyses can be ruled out, however, by data which argues that the putatively raised subject may in fact be interpreted in the lower clause, which I interpret as evidence that the raised DP in fact originated in the lower clause. This task was taken up by Carstens and Diercks (to appear), some of the results of which are reported in what follows.

Carstens and Diercks (to appear) show that Lubukusu and Lusaamia, both belonging to the Luyia subgroup of Bantu, have similar subject-to-subject raising constructions in which an embedded subject may be raised to matrix subject position. Only the Lubukusu constructions are reported here – I refer to the reader to (Carstens and Diercks to appear) for the Lusaamia constructions. That paper reports on two sorts of raising constructions, given in (152)b and (152)c below, where constructions with and without an overt complementizer occur, with full tense and agreement with the raised subject in the lower clause.

(152) a. ka-lolekhana mbo   Michael a-si-kona
     6S-appears   COMP   Michael 1S-PERS-sleep
     'It appears that Michael is still sleeping.'

   b. Michael   a-lolekhana   a-si-kona
     1Michael 1S-appears   1S-PERS-sleep
     'Michael appears that he is still sleeping.'

   c. Michael   a-lolekhana   mbo   a-si-kona
     1Michael 1S-appears   COMP   1S-PERS-sleep
     'Michael appears that he is still sleeping.'

d. Michael   a-lolekhana oli   o-o-sikona
  1Michael 1S-appears COMP 1C-1S-PERS-sleep
  'Michael appears that he is still sleeping.'

In that paper Carstens and Diercks do not address the construction which is my main concern here, that is, the case of raising out of the lower clause where C-agreement and alternative agreement effects occur, as shown above in (152)d. The main concern of that paper is to address the Case-theoretic and Activity-theoretic issues that arise as a result of these raising constructions: this is not my concern in the discussion here. Rather, the crucial information for my present purposes is the fact that in each raising construction in (152) (b-d), it is possible for the raised DP to be interpreted in the lower clause. That is, all of the sentences in (152) are possible in a context where the speaker has not come into direct contact with Michael. That is to say, if the speaker approached Michael's house in the morning and did not see or hear Michael, but instead only observed that the curtains were drawn and the house was quiet, she could still acceptably produce any of the sentences in (152). I will refer to this interpretation of the subject in the lower clause as a 'low scope' reading. [55]

As pointed out in Carstens and Diercks (to appear), this availability of low scope readings contrasts with copy-raising constructions in English, where sentences like 'Mary seems like she is happy' are only possible if Mary is directly predicated of seems, that is, if the sentence describes the speaker's perception of Mary. This observation by Potsdam & Runner (2000) led them to use these high scope readings as a diagnostic for raising, where if the matrix subject is necessarily the perceptual source for the perceptual event which is reported, that subject originated in the matrix clause. These properties are demonstrated in (153). These sentences are

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[55] It is important to note that the terms 'low scope' and 'high scope' are in these instances used to refer to what might be more precisely termed "the position of interpretation", rather than reflecting quantificational properties.

envisioned in a context where the speaker looks in the refrigerator for something to eat, only to find that it is empty (see Carstens and Diercks to appear).

(153) a. It seems like somebody has eaten all the food!
     b. Somebody seems to have eaten all the food!
     c. #Somebody seems like s/he has eaten all the food!

The infelicity of (153)c is due to the fact that English copy-raising constructions are not properly raising constructions, and that the matrix subject is in fact a thematic argument of the matrix verb, only interpretable in the matrix clause as a perceptual source. This is the critical comparison with the Lubukusu facts in (152), which allow the low scope reading in all cases, providing evidence that these constructions are in fact derived by raising of the subject from embedded subject position to matrix subject position.

      The same pattern is replicated in the facts in (154) - (156). These data refer to a situation where the speaker happens upon a bicycle which he recognizes as Tegan's, and finds all the evidence of a bad bicycle crash – the bike is damaged, the ground is scuffed up, perhaps there is blood on the ground. In this context, it is possible to produce a raising construction as in (155) or (156), here in a situation where it is impossible that Tegan is the perceptual source, as the speaker has not at any point encountered Tegan.

(154)   Ka-fwana (oli) Tegani ka-a-kwa
         6S-looks   (like) Tegan 1S-PST-fall
         'It looks like Tegan fell.'

(155)   Tegani a-fwana ka-a-kwa
         Tegan   1S-looks 1S-PST-fall
         'Tegan looks like she fell.'

(156) Tegani a-fwana   oli   o-w-a-kwa
       Tegan   1S-looks like 1C-1S-PST-fall
       'Tegan looks like she fell.'

Again, I interpret this as evidence that the subject *Tegan* has raised out of embedded subject position into matrix subject position. I refer the reader to Carstens and Diercks (to appear) for a more direct structural and theoretical discussion of these raising constructions. More generally, my main concern here is the cases which display alternative agreement effects, examples of which were given in (150)b, (151)a, (152)d, and (156). The concern was that these constructions were not truly instances of raising from embedded subject position to matrix subject position, but were instead perhaps copy raising constructions or headless relative clauses. The scope-related phenomena reported in (152) and (154) - (156) speak directly to this issue, providing evidence that they are in fact subject-to-subject raising constructions.

The general derivation of (156) would look like (157), where CP is used as a cover term for complementizer material, and setting aside the question of the exact nature of the complementizer in these constructions (although presumably it must not constitute a strong phase, or there is some mechanism for the subject to raise out of it). As would be expected for an embedded finite clause, there is a Subject Phrase with a Criterial Subj° head. In order for the subject to raise to the matrix clause, a nominal Fin° head (so called C-agreement) must be merged atop Subj° to satisfy the Subject Criterion, thus allowing the subject to raise out of the lower clause. The alternative agreement effect in class 1 follows from the intervention effect of the nominal Fin°, as set forth previously.

(157)

```
              SubjP
             /     \
         SUBJ       Subj
         [φ]       /    \
                Subjº      TP
            agr-TNS -fwana  /  \
                         Tº    VP
                     TNS-fwana /  \
                              V    …CP…
                            fwana   oli
                                      FinP
                                     /    \
                                  SUBJ     Fin
                                  [φ]     /    \
                         Agree ↰      Finº    SubjP
                                    [A, SG]   /    \
                                         Subjº      TP
                              Agree ↰   [A, SG]   …  SUBJ
```
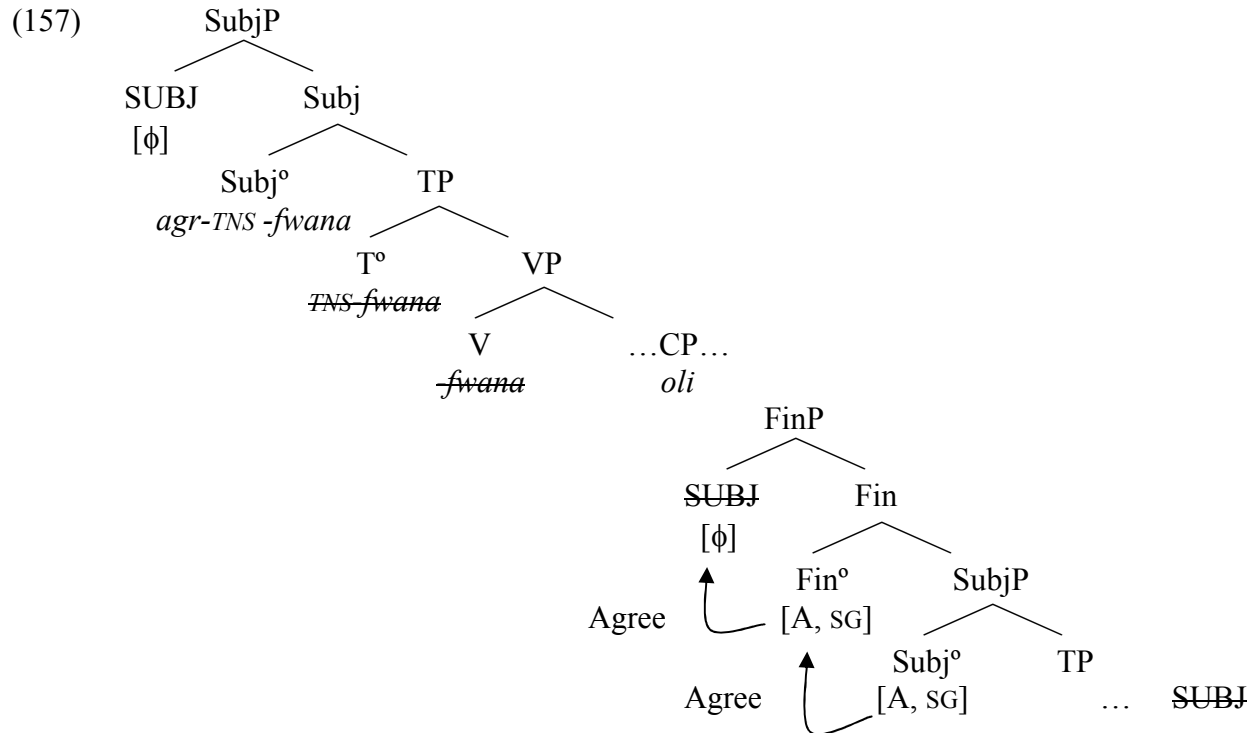
In the event that there is a wh-subject in *–fwana* raising constructions, we would therefore expect that C-agreement to be able to appear twice in raising constructions, once on the matrix verb *–fwana* and once on the embedded verb (together with the concomitant alternative agreement effect morphology with class 1 NPs). As (158) and (159) show, this is in fact the case.

(158) e-fwana oli   naanu **o-w**-a-kwa?
       9S-seem COMP 1who   **1C-1S**-PST-fall
       'Who seems like (s/he) fell?' (matrix question)

(159) naanu **o-o**-fwana   oli   **o-w**-akwa?
       1who **1C-1S**-seem COMP **1C-1S**-PST-fall
       'Who seems like s/he fell?'

We see a difference here between the compound tense constructions discussed above, and the raising construction described here – in compound tense constructions, it was impossible to get multiple occurrences of C-agreement and alternative agreement morphology in cases of

successive-cyclic movement because they are monoclausal, with only one Subject Phrase. That is, C-agreement (and, consequently, alternative subject agreement) only occur as a strategy to escape Criterial Freezing in Spec, SubjP (and in compound tenses with [ne-] only one such Criterial position exists). Raising constructions are clearly bi-clausal, bearing a complementizer heading its embedded clause, and as such there are two SubjPs, matrix and embedded. When the DP undergoing subject-to-subject raising is also a wh-phrase which must be extracted from matrix subject position, the result is C-agreement and alternative agreement on both verbs.

These constructions raise a number of serious questions about Case checking and common assumptions about A-movement, questions which are beyond the scope of this small discussion (see Carstens and Diercks to appear). Sufficient for the argument here, however, is to note that "C-agreement" appears even in non-wh-constructions like subject-to-subject raising, as do alternative agreement effects, providing support both for the Criterial Freezing analysis of C-agreement as nominal Fin°, and as alternative agreement effects as a dual consequence of upward agreement and the nominal Fin° extraction strategy.

3.4.4 EXTRACTION FROM EMBEDDED SUBJECT POSITION

Subject/non-subject asymmetries have been discussed as often, if not more often, for embedded contexts as they have been for matrix contexts. This is due in no small to discussions of such asymmetries with regard to that-trace effects, exemplified in (160):

(160) a. Who do you hope (*that) ___ likes Mary?
      b. Who do you hope (that) Mary likes ___ ?

This basic contrast has been well-discussed (Pesetsky and Torrego 2001, 2004; Rizzi 1990; Chomsky 1986; Lasnik and Saito 1982, 1984; among many others). Anti-agreement effects have

also been discussed at length for several Romance languages for embedded subject position (cf. Brandi and Cordin 1989, Ouhalla 1993, Campos 1997), and there is in fact a fair amount of variation across languages as to whether subject/non-subject asymmetries (and AAEs) arise in embedded subject extraction.

Long-distance extraction of subjects in Lubukusu certainly interacts with the complementizer system, but not in ways that would be automatically expected. As is evident in (161) and (162), C-agreement and alternative agreement morphology are possible when a wh-subject is extracted from an embedded clause, but are incompatible with the embedding complementizer, as seen in (162).

(161)   naanu ni-ye   ba-many-ile   **o-w**-a-kula   ka-ma-tunda
        1who PRED-1 2S-know-PST **1C-1S**-PST-buy 6-6-fruit
        'Who do they know bought fruit?'

(162)   naanu ni-ye   ba-many-ile (*ba-li) **o-o**-la-soma   sii-tabu   (*a-la-soma)
        1who PRED-1 2S-know-PST (*2-that) **1C-1S**-FUT-read 7-book   (*1S-FUT-read)
        'Who do they know will read the book?'

(163)   naanu ni-ye   Wafula a-suubila (*a-li)   **o-o**-l-ola   bwangu
        1who PRED-1 1Wafula 1S-believe (*1-that) 1C-1S-FUT-arrive   soon
        'Who does Wafula hope will arrive soon?'

It is however possible to extract from subject position in an embedded clause when there is a complementizer: in these cases, in contrast, normal declarative agreement is required on the verb and C-agreement (and the alternative agreement effect) is impossible. In these cases, as (164) shows, the complementizer is clearly preferred to be present, resulting in marginality otherwise.

(164)   naanu ni-ye   ba-many-ile ^?(ba-li) a-a-kula   ka-ma-tunda
        1who PRED-1 2S-know-PRF 2-COMP   1S-PST-buy   6-6-fruit
        'Who do they know (that) bought fruit?'

These data raise some interesting questions about the nature of C-agreement and subject extraction. If C-agreement is diagnostic of movement out of subject position,[56] as I have argued fairly extensively in this chapter, this would suggest that the long-distance dependencies created in the example in (161) - (163) are the result of movement (or copy+merge, or internal merge, depending on the particular theoretical formulation). The long-distance dependency in (164), on the other hand, would have to be created by some other means, most likely a (null) resumptive pronoun in embedded subject position which is bound by the clefted wh-phrase (cf. Adger and Ramchand 2005). We saw above in that this sort of non-movement dependency also seems to arise in subject extraction out of wh-islands and (object) relative clauses, and (at times) adjunct clauses. What we have not seen, however, is confirmation outside of C-agreement and alternative agreement facts that these long-distance dependencies may be created both by movement and by some other non-movement relationship; such evidence comes from negation.

In many languages there is interaction between negation and anti-agreement effects (Ouhalla 1993): some languages maintain anti-agreement effects in long-distance dependencies with embedded negation, while in others the two are incompatible. Looking at these questions in Lubukusu, however, is complicated somewhat by the fact that there are two different negation markers in Lubukusu. The preverbal negation marker *se-* is used in declarative contexts, whereas in interrogatives, relative clauses, and imperatives the negation marker *–kha-* is used, a verbal prefix which appears between the subject marker and tense-marking (I refer the reader to Bell 2004, Bell and Wasike 2004, and Wasike 2002 for a more in depth discussion of Lubukusu negation).

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[56] or, more accurately, diagnostic of a phrase that *would* have been in subject position, but skipped that position.

(165) Peter **se**-a-le-icha   bwangu **ta**.
      1Peter   NEG-1S-FUT-come quickly   NEG
      'Peter will not come quickly.'

(166) Peter a-kula e-ngokho niyo   maayi   a-**xa**-a-kat-il-e   o-mu-keni **ta**.
      Peter 1S-buy 9-chicken COMP-9 1mother 1S-NEG-PST-slaughter-AP-FV 1-1-guest   NEG
      'Peter bought the chicken which mother did not slaughter for the guest.'

The generalization seems to be that –*kha*- is used in extraction contexts, and *se*- is used in non-extraction contexts.[57] Based on this generalization, we find a very interesting contrast between the two types of long-distance dependencies noted above in (161) - (164). When C-agreement appears, as expected we find that the 'extraction-negation' –*kha*- is used to negate the embedded clause.

(167) naanu ni-ye   ba-many-ile o-o-**kha**-la-soma   sii-tabu ta
      1who PRED-1   2S-know-PRF 1C-1S-**NEG**-FUT-read 7-book   NEG
      'Who do you know will not read the book?'

In contrast, in the event that the embedding complementizer is used and there is no C-agreement, together with declarative agreement, we find the non-extraction negation form being used:

(168) naanu ni-ye   ba-many-ile ba-li **se**-a-la-soma   sii-tabu ta
      1who PRED-1 2S-know-PRF 2-that **NEG**-1S-FUT-read 7-book NEG
      'Who do they know that will not read the book?'

I take this difference as confirmation of the two different strategies for long-distance dependencies for subject extraction in Lubukusu: there is a movement operation, facilitated by C-agreement (triggering alternative agreement effects) and requiring extraction-negation, and

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[57] For my purposes here I will set aside the question of why the extraction negation occurs in imperatives. See Wasike (2002) for some discussion of negative imperatives.

there is a non-movement operation in which normal declarative subject agreement appears and the non-extraction negative form is used. I take this bifurcation of results as further evidence that C-agreement facilitates movement out of subject position, and alternative agreement effects occur only as a result of this subject extraction strategy.

The situation is even more complicated, however. As shown in (162) and (163), and also in (169), the presence of the complementizer is ruled out in instances where the lower clause shows alternative agreement effects, but is preferred when there are no alternative agreement effects in the lower clause.[58]

(169) a. naanu ni-ye   ba-ba-ana   ba-ulile $^?$(ba-li)   k-eng-ile   mu-nju?
     1who PRED-1 2-2-children 2S-hear $^?$(2- that) 1S-enter-PST 18-house
     'Who did the children hear entered the house?'

   b. naanu ni-ye   ba-ba-ana   ba-ulile (*ba-li)   o-w-eng-ile   mu-nju?
     1who PRED-1 2-2-children 2S-hear (*2-that) 1C-1S-enter-PST 18-house
     'Who did the children hear entered the house?'

I simply assume here that the presence of the complementizer signals the presence of structure which obstructs movement out of the embedded CP, perhaps because the agreeing complementizer is a phase head (see discussion in chapter 5). When the complementizer is present, syntactic movement is impossible and a resumptive strategy is adopted, which is the case above in (169)a. When alternative agreement effects are present, signaling overt syntactic movement from the lower clause to the left periphery, the complementizer (and its accompanying CP-level structure) is not possible, as it would otherwise obstruct this

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[58] It should be noted that Henderson's (2009b) theory of alternative agreement effects predicts this result, as Henderson claims that the presence of intervening material obstructs the Subj-C-T agreement relation, so that alternative agreement results do not result. This is a point where the Criterial Freezing analysis does not address the facts as directly as Henderson's approach does.

movement.[59] This issue requires much further research, however. Note as well that when an *in situ* wh-phrase occurs, it may occur either with or without alternative agreement effects.

(170) a. ba-ba-ana   ba-ulile ba-li   naanu k-eng-ile   munju?
      2-2-children 2S-hear 2-that 1who 1S-enter-PST 18-house
      'The children heard that who entered the house'

   b. ba-ba-ana   ba-ulile ba-li   naanu o-w-eng-ile mu-nju?
      2-2-children 2S-hear 2-that 1who 1S-enter-PST 18-house
      'The children heard that who entered the house'

In this case I assume that in the case of normal declarative agreement as in (170)a, the wh-phrase remains in canonical subject position and the wh-dependency is accomplished via a binding relationship with a null operator in Spec, FocP (as assumed in §3.4.2 for similar cases in island contexts). When alternative agreement effects *do* occur, as in (170)b, I assume here that there is short movement of the subject to an intermediate position in the embedded CP, and from this intermediate position it is bound by the operator in matrix Spec, FocP.[60] Again, these are issues which require much further research.

3.4.5 SUMMARY

This section has considered a wide variety of empirical contexts in which alternative agreement effect occur, or at times, where they might be expected to occur but in fact do not. These empirical contexts included compound tense constructions, locative inversion constructions, raising constructions, subjunctive complements and indicative complements, and extraction out

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[59] I assume that this overt movement is in fact movement of a null operator, rather than movement of the clefted wh-phrase itself, in line with my analysis of clefts as will be laid out in §3.5 below.

[60] It is an important question of why this short movement should take place, as a theory of global economy would require that the 'simpler' derivation with the *in situ* subject be required. One possibility is that the intermediate CP (FocP) may optionally bear a wh-feature or an EPP-feature which must be checked, which yields the alternative agreement cases, whereas when the intermediate FocP does not bear this feature, the wh-subject remains in situ. I set this concern aside as a matter of future research.

of islands. The purpose of this section was two-fold: to report the broad variety of contexts

which are relevant to alternative agreement effects, and to provide arguments for the Criterial

Freezing approach in each of these contexts. Although not all of the empirical contexts which

were discussed in this section are direct evidence for the account set forth in this in this chapter,

some of them are (e.g. raising constructions), and the ones which are not have been argued to at

least be consistent with the approach that is adopted here. The next section addresses an

outstanding issue to this point in this chapter, namely, the structure of cleft constructions.

3.5 Complementizers in Clefts are Different

To this point I have been operating on the assumption that the complementizer that appears in

extraction contexts is in complementary distribution with C-agreement, given that object relative

clauses and object questions occur with a complementizer and not C-agreement, but subject

questions and subject relative clauses occur with C-agreement and not the complementizer. The

summary table in (10) is repeated from above:

(10)   The morphosyntactic exponents of Lubukusu extraction

	COMP?	C-agreement ?
Subject relative clause	* [61]	✓
Subject wh-question	*	✓
Object relative clause	✓	*
Object wh-question	✓	*

This presentation of the facts is somewhat oversimplified, however, as the data in (171)-(174)

show. While the facts for object clefting remain similar to those noted for the other forms of

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[61] On the intended reading. A subject relative clause with a complementizer is defined here as a subject cleft construction, as it creates the focus interpretation of a cleft. The same is true of subject wh-questions, which are interpreted as subject-wh-clefts with the complementizer.

object extraction (see (171)and (172)), observe that it is in fact possible for a complementizer to

occur with C-agreement in the subject clefts in (173) and (174). The data in (171)-(174) are

adapted from Wasike (2007: 117-119):

(171) Lw-a-ba   lu-u-saala ni-lwo   Wamalwa a-a-funa[62]   Object cleft
       11S-PST-be 11-11-stick PRED-11   1Wamalwa 1S-PST-break
       'It was a stick that Wamalwa broke.'

(172) (Si-a-ba) siina   ni-syo Wamalwa a-a-funa?   WH-object cleft
       7S-PST-be 7what PRED-7 1Wamalwa 1S-PST-break
       'What was it that Wamalwa broke?'

(173) (Ba-a-ba) ba-ba-ana ni-bo   ba-ba-a-funa   lu-u-saala   Subject cleft
       2S-PST-be 2-2-child PRED-2 2C-2S-PST-break 11-11-stick
       'It was children who broke the stick.'

(174) (Ba-a-ba) naanu ni-bo   ba-ba-a-funa   lu-u-saala?   WH-subject cleft
       2S-PST-be 2who PRED-2 2C-2S-PST-break 11-11-stick
       'Who were they that broke the stick?'

As noted above, (171) and (172) are object clefts and (173) and (174) are subject clefts.

Important here is the obligatory nature of the complementizer in (173); if the complementizer is

absent, in a construction like (175) for example, this can only be interpreted as a relative clause

and not as a cleft.[63]

(175) ba-ba-ana ba-ba-a-funa   lu-u-saala
       2-2-child 2C-2S-PST-break 11-11-stick
       'the children who broke the stick' (not possible: "it is the children that broke the stick")

---

[62] The copula is required in this construction – any formulation without it is interpreted as a relative clause, not as a cleft.

[63] This is contrary to what is reported in Wasike (2007), who instead claims that phrases like the one in (175) may be interpreted as clefts and therefore may stand as matrix clauses. This difference may be due to dialect differences, though I won't speculate on those here. The facts that I report here mainly reflect the version of Bukusu spoken around Bungoma, Chwele, and Sirisia.

These additional facts give a more comprehensive understanding of the extraction asymmetries between subjects and non-subjects. These facts are summarized in (176), along with the facts discussed above for relative clauses and wh-questions, with the newly introduced facts about clefts shaded.

(176) The morphosyntactic exponents of Lubukusu extraction (including clefts)

	COMP?	C-agreement ?	Copula? (clefts)
Subject relative clause	* [64]	✓	
Subject wh-question	*	✓	
Subject cleft	✓	✓	optional
Subject wh-cleft	✓	✓	optional
Object relative clause	✓	*	
Object wh-question	✓	*	
Object cleft	✓	*	✓[65]
Object wh-cleft	✓	*	optional

The fact that the complementizer may co-occur with C-agreement in subject clefts (wh- and non-wh-) may seem immediately problematic for the account that I proposed earlier, mainly, that the complementizer is in complementary distribution with C-agreement in core cases (relative clauses and wh-questions) because they arise in the same position (Fin°). The complication which I am forced to introduce here is that the complementizer that occurs in cleft constructions is in a different position than that which occurs in object relative clauses.

Wasike (2007) gives a much more precise account of the structure of clefts, which I will discuss here briefly, largely to justify my analysis of the complementizer appearing in clefts occurring in a different position than that which occurs in object relative clauses. Wasike (2007)

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[64] On the intended reading. A subject relative clause with a complementizer is defined here as a subject cleft construction, as it creates the focus interpretation of a cleft. The same is true of subject wh-questions, which are interpreted as subject-wh-clefts with the complementizer.

[65] On the intended reading. An object cleft construction without the copula is simply interpreted as an object relative clause.

notes that the ni-AGR-o composite which forms the complementizer occurs in other places in the language, mainly, in copula constructions:

(177) si-no si-a-ba sii-tabu ni-sy-o   (Wasike 2007: 93)
       7-DEM 7S-PST-be 7-book PRED-7
       'This was a book.'

(178) ba-no ni-bo [*pro* ba-ba-a-ba ba-ba-ana]
       2-DEM PRED-2   2C-2S-PST-be 2-2-child
       'These were the ones who were children.'

Wasike concludes that given the connection between copular constructions, clefts, and the ni-AGR-o complementizer, the *ni-* portion of the complementizer should be analyzed as a Pred° head. The -*AGR-o* portion of the complementizer is then analyzed as a Pron° head, because of the identity between the *AGR-o* complex in the complementizer and in demonstratives. Wasike therefore claims that the structure of the left periphery in clefts and object relative clauses appears as is shown in (179):

(179)   ForceP   (Wasike 2007: 91)

196
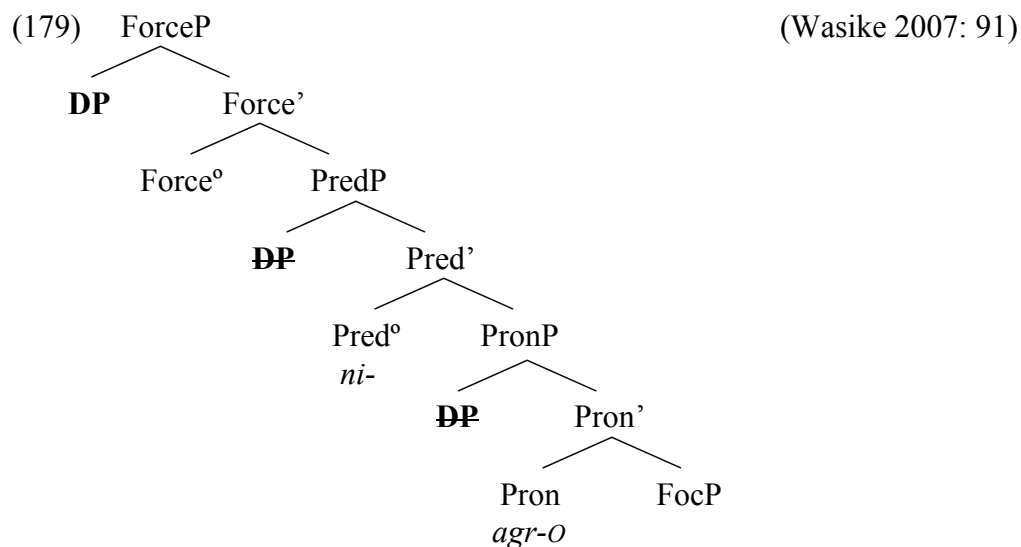
Subject relative clauses, on the other hand, are assumed to have a truncated structure so that none of this higher CP material exists – instead, the relativized subject sits in Spec, FinP. As support for this claim, Wasike (2007: 30) cites evidence from topicalization within relative clauses, showing that topicalizing an object within an object relative clause is slightly more acceptable than doing so in a subject relative clause.

(180) a. O-mw-aana o-w-a-a   mw-aliimu sii-tabu …   **Subject RC**
    1-1-child   1C-1S-PST-give 1-teacher   7-book
    'the child who gave the teacher a book…'

  b. *O-mw-aana mwa-aliimu o-w-a-mu-a   sii-tabu …   **Topic in Subject RC**
    1-1-child   1-teacher   1C-1S-PST-1-give 7-book
    'the child the teacher who gave him/her a book…'

  c. *O-mw-aana sii-tabu o-w-a-si-a   mw-aalimu …   **Topic in Subject RC**
    1-1-child   7-book   1C-1-PST-7O-give 1-teacher
    'the child the book who gave him/her …'

(181) a. Mw-aalimu ni-ye   Wekesa a-a-a   sii-tabu …   **Object RC**
    1-teacher   COMP-1 1Wekesa 1S-PST-give 7-book
    'the teacher that Wekesa gave a book…'

  b. ?Mw-aalimu ni-ye   sii-tabu Wekesa   a-a-mu-a …   **Topic in Object RC**
    1-teacher   COMP-1 7-book 1Wekesa 1S-PST-1O-give
    'The teacher who the book Wekesa gave him …'

I should note that while my consultants confirm that (180)b and (180)c are worse than (181)b, (181)b is still considered to be fairly marginal. And though the structure in (179) can account for the facts, it is questionable that there exists a predicational phrase and a pronominal phrase in the left periphery (as neither relate to discourse functions/interpretations, which projections of CP are thought to trigger). Beyond this, it is curious to me why object DPs in object relative clauses would raise through a predicational position but subject DPs would not. Though the details of this account go beyond the scope of the present investigation, I presume that if indeed the

complementizer *ni-AGR-o* is amenable to an analysis as a Pred° head, that it would be preferable

to further join together the cleft constructions with the copular constructions and rather than

claiming that the predicational head is in the left periphery of the lower clause in a cleft, instead

hold that it is in the higher clause, along the lines of what is shown in (182) (where CopulaP is

used as shorthand for whatever phrasal material is present to form a copula construction beyond

the simple predication relationship).[66]

(182)

```
        CopulaP
         /\
          Copula
           /\
     Copula°   PredP
              /\
           DP      Pred
                   /\
              Pred°    CP
             ni-agr-O    …
```
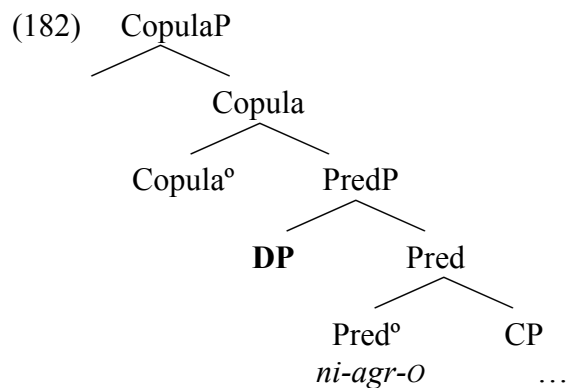
I assume that the clefted DP is base generated in the higher clause and a null operator does the

work of the clefted DP in the lower clause. My central argument here, however, is that it is

justifiable to argue that the complementizer in object relative clauses has a distinct point of

origin than the complementizer in clefts.   This approach to clefts would help explain the

binding facts in (183) and (184), where an illicit binding relation in an object relative clause

construction in (183) is acceptable in the object cleft in (184):

(183)   sii-tabu sy-ewe$_{*i/j}$ ni-syo   Tegani$_i$ a-a-nyola
   7-book   7-her   COMP-7 1Tegan 1S-PST-find
   'her$_{*i/j}$ book which Tegan$_i$ found'

---

[66] Cf. Sabel and Zeller (2006), who assume clefts to be the result of the clefted DP moving to a FocP in the left periphery.

(184) sy-a-ba   sii-tabu sy-ewe$_{i/j}$ ni-syo   Tegani$_i$ a-a-nyola
       7S-PST-be 7-book 7-her   PRED-7   1Tegan 1S-PST-find
       'It was her$_{i/j}$ book that Tegan$_i$ found.'

Without providing a specific analysis, it is clear that if the two structures were structurally identical, we wouldn't expect the addition of a copula to alter the binding relationships. Therefore, both for empirical reasons and conceptual reasons, I consider the structure in (182) preferable to that in (179) for cleft constructions, which also gives more reason to think that the "complementizer" that occurs in cleft constructions (assumed here to be a Pred° head) is syntactically differentiated from the complementizer which occurs in object relative clauses.

    The phonological identity between the complementizer in object relatives and the "complementizer" in clefts could arise for different reasons. It could be that they are simply homophonous, or that the Vocabulary Item (i.e. phonological material) is underspecified for which head it can be inserted at, so it is inserted both into Fin° in relatives (where possible, i.e. only in object relatives), and into Pred° in the case of clefts. It is not uncommon crosslinguistically, however, for a single morpheme to show up in unrelated syntactic contexts, which Aronoff (1994) attributes to a morphological level of representation separate from both syntax and phonology (citing most prominently the co-occurence of the English past participle in both past participle and passive constructions). This is in fact a common occurrence for Bantu relative clauses, as the relative complementizer is often homophonous with a demonstrative form (see Cheng's 2006 discussion of Bemba below). And in fact, Wasike (2007: 78) points out that that complementizer and predicational head (as I analyze it) that appear in object relative clauses and clefts in fact bear many similarities to the distal demonstratives in Lubukusu, as the AGR-*o* suffixes that appear on the complementizer occur in the demonstratives as well.

Without empirical evidence to distinguish the potential accounts for the phonological identity of the different complementizers, I will let it suffice to say that there are feasible explanations for the identity of the complementizers in these cases, and in fact a fair argument (both conceptual and empirical, based on the binding evidence) that object relative clauses don't have the same structure as clefts.[67] The end point, of course, is to demonstrate that the account of C-agreement as nominal Finº as proposed in §3.2.1 is amenable to the full paradigm of extraction contexts in Lubukusu.

In fact, though Wasike (2007) adopts a non-base-generation account of clefted DPs, he notes that the evidence is divided as to distinguishing whether clefted DPs are base generated in their high positions or not. He claims that due to the presence of apparent condition C reconstruction facts (along with other theory-internal reasons), the clefted DP must have raised from its gap position in the lower clause. However, he also notes that there is a lack of weak crossover effects in Lubukusu clefts, and clefted objects of VP idioms lose their idiomatic meaning, both of which are suggestive that clefted DPs are *not* in fact raised out of the lower clause, but are instead base-generated in a predicational relationship with the clefted clause. The extraction properties of the embedded clause are therefore evidence of a null operator raising from the gap position into the left periphery of the embedded clause.

While Wasike sides with a movement-based approach, along with the analysis that the complementizer material in clefts is in a left-peripheral Predº head, I have suggested here that the Predº head is actually in a higher clause, and that the clefted DP is base-generated in that higher clause. In this way it is unsurprising the find the 'complementizer' and C-agreement co-occuring in subject clefts, as the putative 'complementizer' is in fact a predicational head which occurs in

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[67] The topicalization data in (180) and (181) could prove potentially problematic, but I think it is notable that all of the topicalization constructions are marginal at best, and therefore the relative acceptability and marginality might be attributed to some factor other than available structural positions.

a higher clause. In this way the original analyses as argued for in §3.2 are preserved, while also explaining the presence of C-agreement in subject clefts. This analysis is illustrated for subject cleft in (186)

(185) (ba-a-ba) ba-ba-ana ni-bo   ba-ba-a-funa   lu-u-saala   **Subject cleft**
       2S-PST-be 2-2-child PRED-2   2C-2S-PST-break   11-11-stick
       'It was children who broke the stick.'

(186)   …

CopulaP
   Copula
       Copulaº   PredP
       -ba
           babaana   Pred
                   Predº   …
                   nibo   FinP
                           OP   Fin
                               Finº   SubjP
                               ba-
                                    Subjº   TP
                                    baafuna
                                            Tº   *v*P
                                                OP -funa luusaala
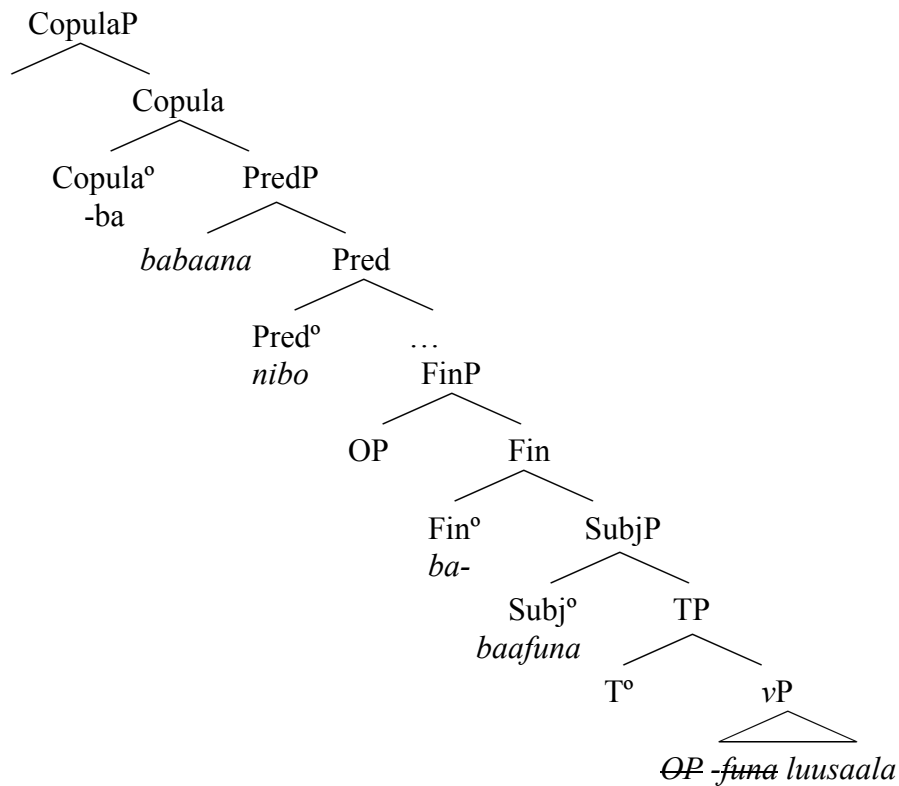
3.6 Alternative Analyses of Bantu AAEs

Before concluding, it is important at this point to consider some of the alternative analyses that have been proposed for anti-agreement effects (and specifically to deal with Bantu-type

alternative agreement effects), to examine both their advantages and their shortcomings. What this section will demonstrate is that though there are previous approaches which can account for much of the data discussed above, the Criterial Freezing account set forth here is more desirable on theoretical grounds, and also has a larger empirical coverage.

3.6.1 ANTI-LOCALITY AND MULTIPLE COPY SPELL-OUT: CHENG (2006)

Cheng (2006) gives an analysis of Bantu relative clauses based on the theory of Anti-Locality set forth by Grohmann (2003), wherein movement that is too local is banned, and may only be rescued by spelling out both copies of the movement. The details of Anti-Locality are not overly important, but I will summarize the main ideas very briefly here, as they are also relevant to Schneider-Zioga's analysis of alternative agreement effects (which is discussed below). Grohmann (2003) claims that the phrase structure is divided into three different *Prolific Domains*, corresponding to the CP domain, the IP domain, and the VP domain. The basic claim of Anti-locality is that, just as movement cannot be too long (bounded by islands, or phases), movement also cannot be too short. That is to say, movement within a single Prolific Domain is disallowed. Therefore syntactic movement must be from the VP domain to the IP domain, or from the IP domain to the CP domain, but not, say, from the complement of V to Spec,VP. Grohmann does claim, however, that violations of Anti-locality may be rescued by spelling out the lower copy of the movement, in addition to the higher copy. It is this component of the analysis that is exploited by Cheng (2006).

Cheng's (2006) Anti-Locality analysis addresses both the question of alternative agreement, in addition to the presence of demonstratives in the left periphery in relative clauses (in many Bantu languages). Her analysis for the Bemba subject relative clause in (187) is given

in (188); note that in (187) the subject marker is spelled out as [u-] instead of the declarative

class 1 agreement morpheme [a-]:

(187) umulumendo ú-**u**-ka-belenga   ibuku   [Bemba]
       1boy   1REL-1SM-FUT-read 5book
       'the boy who will read the book'

(188) [DP [CP boy [CP boy [IP boy ...V ...]]

Cheng (2006) notes that both movements shown in (188) involve movement that is very local

(defined by Cheng as within a phase).[68] According to Anti-Locality, these movements are illicit,

and must be rescued by spelling out the lower copies of movement. It is Cheng's claim that the

alternative agreement morpheme that shows up in subject extraction cases is spell-out of the

copy of the subject in subject position. The intermediate copy is spelled out as a demonstrative,

which in the case of subject extraction is phonologically reduced to the [u-] form which is

present in (187).[69]

(189) [DP [CP boy [CP boy [IP boy ...V ...]]
                        DEM   AGR

Cheng (2006) expands this account beyond the D(emonstrative)-strategy relative clauses

exhibited by Bemba and Sesotho to the P(ossessive)-strategy relatives of Chishona and

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[68] This relies on the assumption that edges of phases are accessible to both the higher phase and the lower phase.
[69] Note that this must apply cyclically – the lowest copy and the highest copy are not too local, and if this spell-out occurred post-cyclically, spelling out the intermediate copy as the demonstrative would resolve all of the Anti-Locality violations. Therefore the lower copy is spelled out as the subject agreement form when the subject DP moves to Spec, CP, and then the intermediate copy is spelled out as the demonstrative after the subsequent CP-internal movement.

Makonde. As is shown in (190), subject relative clauses are expressed as possessive structures, with a possessive marker followed by an infinitive verb form:

(190)   múunú   w-a   ku-húúva   [Makonde]
        1person 1-POSS 15-have.problems.INF   (Kraal 2005)
        'a person (who is) in trouble'

Cheng offers a unified analysis of the P-strategy and the D-strategy relative clauses, giving the simplified analysis in (191):

(191)   [$_{XP}$ -a [$_{TP}$ SUBJ T [$_{VP}$ V ...]]]

Again, Cheng claims that this movement is too local, except that in these cases the lower copy is spelled out as the infinitival marker rather than as an alternative agreement marker.

Cheng's (2006) account has several strengths. First, it deals fairly well with the subject/object asymmetries that appear in Bantu extraction contexts, and a particular strength is that it provides a unified analysis for both the D-strategy and P-strategy for Bantu relative clauses. There are still a number of questions that this raises, particularly for its application to Lubukusu.

First of all, this account doesn't explain why the alternative agreement effect is limited to class 1 noun phrases, and does not occur with any other noun class. Second, there is a question of morphological plausibility: why is it that there is a different form of multiple copy spell-out for the intermediate copy and the lower IP-internal copy? And in the case of the P-strategy, this same question holds, as it is unclear why a copy of a noun phrase should spell out as an infinitival marker. The last and perhaps strongest critique (as pointed out by Henderson 2009a)

is the fact that 'normal' subject agreement does not appear in cases where alternative agreement effects arise. If the source of the non-canonical subject agreement marker in subject extraction is multiple copy spell-out, we would expect, in addition to the multiple copy spell-out, that the normal subject agreement should also appear – that is, we should find the pronominalized copy of the subject alongside subject agreement. It is unclear why subject agreement should be suppressed in these cases, which proves problematic for the multiple copy spell-out/Anti-Locality approach.

In contrast, a Criterial Freezing approach like that set forth in this chapter is able to explain the restriction to class 1, together with an analysis of declarative class 1 subject agreement as animacy agreement, based on its aberration from the more general paradigm in Lubukusu. This still relies on an 'exceptional' agreement form, but the declarative [a-] agreement form already required explanation based on the entire subject agreement paradigm, and such an analysis leaves us with that single exceptional form, rather than two separate ones. Likewise, Criterial Freezing has no problem explaining 'suppressed' subject agreement, because the alternative agreement morpheme is still the expression of subject agreement, just featurally deficient compared to the declarative agreement form (i.e. lacking the feature [PERSON]).

Finally, Criterial Freezing offers an approach to explaining the P-strategy relative clause, though not based on the 'skipping' strategy used by Lubukusu. It is often assumed that infinitives are truncated forms, lacking a complete clausal structure (see Wurmbrand 2001). If this is so, it is highly plausible that the Subject Phrase is included in the truncated material in these cases. Choosing a truncated infinitival form is therefore a strategy for eluding Criterial Freezing of subjects: using a clause structure that lacks a Subject Phrase means there is no Subject Criterion to restrict subject extraction. In this way Rizzi and Shlonsky's (2007)

suggestion that there are two basic strategies for subject extraction must be expanded: in addition

to fixed subject strategies and skipping strategies, there is a third—truncation strategies (cf. (42)

of §1.6).

3.6.2 ANTI-LOCALITY AND LEFT-EDGE AGREEMENT: SCHNEIDER-ZIOGA (2007)

Schneider-Zioga (2007), like Cheng (2006), offers an account of alternative agreement effects

based on Anti-Locality. While Cheng's account relied on multiple copy spell-out, however,

Schneider-Zioga (2007) claims that the grammar conspires to avoid Anti-locality violations,

leading to a situation where the necessary structural configuration for subject agreement cannot

be met, and agreement is instead spelled out as a non-canonical form. This section will examine

Schneider-Zioga's analysis, discussing the advantages that a Criterial Freezing approach offers.

Schneider-Zioga (2007) discusses several diagnostics which suggest that subjects in

Kinande (Bantu, Democratic Republic of Congo) are left-dislocated, including the distribution of

specific and non-specific DPs and NPIs.   Schneider-Zioga connects this with what she terms the

Kinande Left Edge Condition, given in (192):

(192)   <u>Kinande Left Edge Condition</u>   (S-Z 2007: #6)
        The left edge in Kinande must always be occupied. This is an EPP
        requirement, satisfied through an agreement relation on the left edge.

Schneider-Zioga claims it is this position that is normally occupied by the subject, and that

subject agreement on the verb is satisfied through an identification relationship between

inflection and this left peripheral position. This higher position is essentially a clitic projection,

claimed to bear a connection with a lower clitic whereby a dislocated phrase is pronominalized

within the IP (see Zubizarreta 1999). Therefore subject agreement arises as illustrated in (193),

where the DP in TopicPhrase (with a clitic-phrase head) is related to a *pro* which sits in 'canonical' subject position (cf. Baker 1996, Baker 2003a, Jelinek 1984):

(193)   [_topicP_ DP [CL _{+EPP, -int φ-features}_ [_IP_ *pro* [[clitic *agr* + V]]]]]   (S-Z 2007: #41)

```
            |_____|        |_____|
```
          EPP satisfied   Morphological identification
                                     via AGREE; φ-features checked
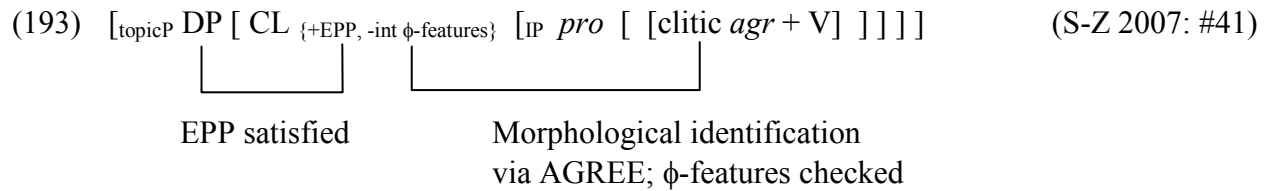
Schneider-Zioga argues that the movement to this left edge position is restricted to one element, and as such if a wh-object moves to it, the DP subject must remain *in situ*. There are various exceptions to this claim based on different permutations of base generation and movement of dislocated elements, but the point is that there is a verb-second effect, where agreement is always "second-position", triggered by the clitic/topic projection where DP subjects sit.

Kinande, like Lubukusu and other Bantu languages, shows an alternative agreement effect for class 1 NPs (and notice that the alternative agreement morphology appears similar to the /u-/ alternative agreement morpheme of Kilega and the /u-/ > [o-] alternative agreement morphology of Lubukusu).

(194)   Kambale   **a**-alangira   Marya   [Kinande]
        1Kambale **agr**-saw   1Mary   (S-Z 2007: #42, 43)
        'Kambale saw Mary.'

(195)   iyondi yo   **u**-alangira   Marya
        1who   that*focus* **anti.agr**-saw 1Mary
        'Who saw Mary?'

Glossing over some of the details of focus constructions that she discusses, I focus here on her analysis of the alternative agreement effect shown in (195). Drawing on the same Anti-Locality

mechanisms discussed in the previous section, Schneider-Zioga claims that movement from the dislocated subject position to an operator position in the left periphery is illicit; (196) is example (66) from Schneider-Zioga (2007):

(196) *[$_{FP}$ iyondi [$_{F'}$ yo [$_{topic\ phrase}$ ~~iyondi~~ [~~yo~~ [$_{IP}$ *pro* [$_{vP}$ a-alangira Marya]]

In order to avoid this violation of Anti-Locality, subject extraction takes a different approach to subject positions than occurs in declaratives: in extraction cases, wh-subjects are merged lower in the clause, and raise to the left periphery via more 'standard' mechanisms.

(197) [$_{FP}$ WH$_j$ [$_{F'}$ +F$_j$ [$_{topicP}$ [$_{topic'}$ CL$_j$ [$_{IP}$ ~~WH~~$_j$ [$_{vP}$ ~~WH~~$_j$ …]]]]]]]   (S-Z 2007: #73)

Schneider-Zioga's argument is that the alternative agreement morpheme that appears in subject extraction in (195) suppresses structural Case to *pro*, and therefore prevents the morphological identification process which links the left-peripheral clitic head to the subject agreement clitic. This makes the presence of *pro* impossible, which in turn allows the wh-subject to be merged lower down in the structure, as shown in (197) (assuming that Case does not need to be assigned to wh- elements). In this way alternative agreement effects are basically a conspiracy in the grammar of Kinande to create conditions in which a wh-subject is merged in thematic position in the clause, raises into the inflectional field, and then licitly raises to the appropriate functional projection in the left periphery, avoiding any violations of Anti-Locality. This is schematicized in (198) below:

(198)　[$_{FP}$ WH [$_F$ CL $_{\{+EPP, -int \phi\text{-features}\}}$ +F] [~~CL~~ [$_{IP}$ ~~WH~~ [[anti-agr $_{\{lacks\ \phi\text{-features}\}}$ + V]]]]]

(S-Z 2007: #85)

EPP satisfied　　　　(Phonological lexicalization)

ϕ-features checked
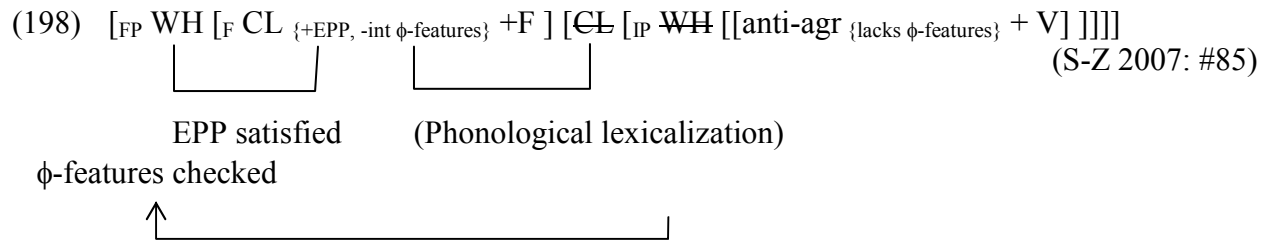
Therefore, while this is an Anti-Locality account in that Anti-Locality considerations are the crucial restrictions forcing alternative agreement in extraction contexts, this account centers on avoidance of Anti-Locality violations, rather than strategies for rescuing violations (i.e. multiple copy spell-out, as in Cheng 2006). For this reason, then, I will refer to this as an Anti-Locality avoidance analysis.

Anti-Locality avoidance accounts for a variety of facts, most notably, incorporating various forms of evidence that subjects are left-dislocated (in Kinande, at least). In addition, it adequately accounts for the alternative agreement effects, though not unproblematically (as will be discussed below). Schneider-Zioga also discusses how the link between movement and alternative agreement effects can account for the fact that extraction out of islands is possible, but only in the event that there is resumption: object clitics for object extraction, and canonical subject agreement (crucially *not* alternative agreement effects) for subject extraction.

This latter observation is actually important to note, as Lubukusu likewise allows for subject extraction out of islands, and likewise requires canonical subject agreement, not C-agreement and alternative agreement effects. Again, if these contexts are analyzed as cases of resumption (as Schneider-Zioga 2007 suggests, and which I contend is the case in Lubukusu as well), any theory that links alternative agreement effects with movement predicts that extraction (+resumption) out of island contexts should lack alternative agreement effects.

There are, however a number of weakness to an Anti-Locality avoidance account of

Bantu alternative agreement effects. First of all, it does not explain why these alternative

agreement effects are restricted to class 1 noun phrases. The theory presented here is purely

syntactic in nature, with no reliance on morphological features. In addition, this approach

requires that subject agreement is triggered at the left edge, despite the fact that subjects can

occur *in situ*, with full subject agreement, as is the case with the subject *mukali* 'woman' in

(199)b:

(199) a. Ekihi kyo   ndi   a-alangira?   (S-Z 2007: #92)
         what   that who   agr-saw
         'Who saw what?'

    b. ekihi kyo   mukali sy-a-ngahuka?
         what   that woman not-agr-cook
         'What didn't any woman cook?'

Finally, in an argument articulated in Henderson (2009a), compounded on the problem of a non-

left dislocated subject triggering subject agreement is Schneider-Zioga's argument that noun

phrases can only appear in canonical subject position if licensed by the non-Case-assigning

alternative agreement subject agreement morphology. It was this lack of Case assignment that

allowed a wh-phrase to be merged in thematic position, and licitly raise into the left periphery.

In the cases shown in (199), however, Schneider-Zioga analyzes the subject as non-left-

dislocated (therefore allowing the un-augmented NPI form of the DP in (199)b), raising the

question of what Case-licenses the subjects in these cases.

To review again briefly, in contrast, we have seen that a Criterial Freezing analysis of

alternative agreement effects explains their restriction to class 1 NPs, and also explains the

normal agreement pattern for in situ wh-subject (though it may not have much to say, one way or

another, for Kinande NPI facts). We can therefore see that the Criterial Freezing analysis holds up well against previous accounts.

3.6.3 AAEs AS THE RESULT OF C-T AGREEMENT: HENDERSON (2009A,B)

Perhaps the most significant previous analyses in terms of their contribution to the approach advocated in this work are those from Henderson (2009a,b), specifically, the SUBJ-C-T agreement relationship, and the empirical observation regarding the cross-linguistic Bantu connection between alternative agreement morphology and the nominal pre-prefix. As I have discussed these analyses at length in §3.3, I won't revisit them here. The main thing that I will note is that Henderson's (2009a, 2009b) account undergenerates with respect to the alternative agreement effects that are found cross-linguistically in Bantu. Specifically, it cannot account for Paradigm A effects in Lubukusu, where person features are sustained in subject extraction of 1st and 2nd person plural pronouns. Additionally, I hold that an additional advantage of the Criterial Freezing account is its ability to explain subject/non-subject asymmetries in addition to alternative agreement effects. That is to say, this single mechanism is responsible for multiple morphosyntactic effects related to extraction contexts. It is significant, however, that many of the main claims between the accounts remain parallel to those in Henderson 2009 (a,b), however, though implemented differently.

3.7 Conclusions

3.7.1 FOR FUTURE RESEARCH

While this chapter has dealt with a broad range of empirical contexts and claimed that the Criterial Freezing model is sufficient in most contexts and superior to others in some, there are

still some areas that require future research. As noted when discussing cleft constructions, Wasike (2007) notes apparently contradictory properties of clefts supporting both a base-generation analysis and a raising analysis of the clefted DP. This chapter did not contribute any new data which will resolve these questions, however, and therefore the issue requires much further research.

Furthermore, it is clear from the comparisons between Lubukusu, Kilega, Luganda, and Bemba in this chapter that alternative agreement effects in different Bantu languages, though largely similar, still show subtle differences which inform us of the exact nature of subject extraction and alternative agreement effects. In this way, it is critical to study many more Bantu languages for these same properties to find the points of similarity and the points of variation. As more is learned about related languages, it will reveal more to us about the nature of these phenomena in general.

An additional area that requires future research is the nature of resumption as a means of extraction in Lubukusu, including island contexts as well as extraction of emdedded subjects. The resumption analysis is not completely transparent, of course, as the resumptive pronouns which I have proposed in those cases are null. I offered negation as a diagnostic of overt movement, but further diagnostics are necessary, as well as a much deeper understanding of the extent of contexts in which resumption is licit. Wasike's (2007) extensive study of A'-extraction, the left periphery, and island contexts in Lubukusu is a fruitftul beginning, but much work remains to be done.

3.7.2 SUMMARY OF CLAIMS

What we have seen, therefore, is that Criterial Freezing analysis of subject extraction as set forth by Rizzi and Shlonsky (2007) has a very promising outlook when it comes to explaining

subject/non-subject asymmetries in the Lubukusu extraction paradigm. Accepting the hypothesis that there is a Subject Phrase, and the Subject Criterion (i.e. the EPP) induces freezing in that position (like any other Criterial position), we find an explanation for the extraction asymmetries that occur in Lubukusu. Specifically, in cases of subject extraction a nominal Finº head is merged atop the Subjº head to prevent the subject from being frozen in Spec, SubjP. Analyzing C-agreement as this nominal Fin° straightforwardly explains its distribution.

Furthermore, adopting this analysis of subject extraction provides an interesting approach to the alternative agreement effect that occurs in cases of subject extraction. Assuming that Agree in Bantu languages probes upwards (see Baker 2008b, and §1.5), we find that subject extraction creates a structural context in which subject agreement is mediated by a morpheme distinct from the extracted subject: nominal Fin°. I claim, therefore, that this head bleaches the subject-agreement relation of relevant features in some languages, resulting in an alternative agreement effect.

The claim is that the alternative agreement effect that arises in Lubukusu and similar languages is therefore the result of a confluence of factors: the particular strategy for subject extraction, the nature of agreement in Bantu, and the particular featural specifications of agreement morphology in a given language. Because the analysis of alternative agreement effects is tied to a particular structural configuration rather than the agreement features themselves, it is possible to explain both the Paradigm A alternative agreement effects (with person agreement in plurals) and the paradigm B alternative agreement effects (with no person agreement anywhere) in Lubukusu subject extraction. I claimed that this is an advantage over alternative analyses.

Additionally, §3.4 discussed the properties of alternative agreement effects in a variety of different contexts, including locative inversion, compound tenses, subjunctive complement clauses and indicative complement clauses, islands for movement, and raising constructions. In each case I argued that the Criterial Freezing analysis of alternative agreement effects successfully predicts the attested patterns. In this way this chapter sought to explore every context in which alternative agreement effects occur (or, are predicted to occur, but do not), and in the process both reported the state of the facts in Lubukusu and proposed and defended the Criterial Freezing analysis of subject extraction and alternative agreement effects.

4   Locative Inversion in Lubukusu

4.1 Introduction

Locative inversion has long been a subject of investigation in Bantu languages, largely because of the cross-linguistically atypical agreement properties which it displays. Locative inversion in Lubukusu, however, displays different agreement patterns than have been reported more broadly for Bantu. Lubukusu proves interesting on multiple levels; it contributes to our typological knowledge in that it has locative inversion constructions which are not widely discussed in the literature (if at all), but is additionally interesting due to the fact that it has two distinct locative inversion constructions with different structures, evidenced by their differentiated agreement properties and different behavior in relative clauses, interrogatives, and raising constructions.

Lubukusu's two distinct locative inversion constructions are discussed in depth in section 4.2.2 below; both (to my knowledge) having not been discussed in the theoretical syntactic literature, except for (Diercks to appear), in which I present many (though not all) of the data and arguments reported in this chapter. I refer to these constructions as *disjoint agreement* locative inversion and *repeated agreement* locative inversion.

(1)   **khu**-si-kulu <u>kw</u>-a-biringila-**kho** <u>ku-m</u>-pira   **Disjoint agreement**
       17-7-hill   3S-PST-roll-**17L**   3-3-ball   [Lubukusu]
       'On/down the hill rolled the ball.'

(2)   **mu**-mu-siiru **mw**-a-kwa-**mo**   ku-mu-saala   **Repeated Agreement**
       18-3-forest   **18S**-PST-fall-**18L** 3-3-tree   [Lubukusu]
       'In the forest fell a tree.'

The repeated agreement construction in (2) bears perhaps the most familiar feature of Bantu locative inversion, with the verbal subject agreement morpheme agreeing with the fronted locative phrase, rather than the postverbal logical subject. What distinguishes the Lubukusu case is the second locative agreement morpheme, the obligatory postverbal locative clitic (glossed 18L in (2)). Disjoint agreement locative inversion is so-named because the verb in essence agrees with both the fronted locative phrase and the postverbal logical subject. The subject agreement marker agrees with the postverbal subject, whereas the locative clitic agrees with the fronted locative phrase.

These constructions will be investigated in depth in this chapter, and will be shown to display a variety of distinguishing properties with regard to extraction and argument structure which serve to elucidate their respective structures. These different structures provide an interesting contribution both to our conception of the variation possible within locative inversion constructions, but also provide insight into the nature of agreement.

This chapter also considers the claim set forth in Baker (2008) that the Agree operation (Chomsky 2000, 2001) is necessarily parameterized to account for different agreement patterns in different languages and language families (e.g. Bantu vs. Indo-European). As discussed in §1.5, Baker proposes that Agree probes both upwards and downwards in Indo-European languages, but only upwards in Bantu languages. This analysis is challenged by the Lubukusu disjoint agreement locative inversion. If agreement in Bantu is 'upward', what is the source of

this apparently 'downward' agreement relationship between the verb and the subject, or, is Baker's approach simply not correct? In the end, I claim that Baker's approach to Bantu agreement can in fact be maintained given a detailed investigation of the structure of these disjoint agreement locative inversion constructions. Specifically, I will demonstrate that the postverbal logical subject is actually in canonical subject position in these cases, a fact that is obscured by verb-movement over that position.

Therefore this chapter has 2 main goals – to thoroughly describe the properties locative inversion in Lubukusu and to examine the theoretical implications of these constructions. The theoretical implications fall into several realms, including the correlation between argument structure and locative inversion, the parameterization of Agree, and the structural possibilities for locative inversion constructions cross-linguistically.

Section 4.2 introduces the general characteristics of locative inversion constructions in Bantu languages, surveying the literature on Bantu locative inversion and introducing the two locative inversion constructions in Lubukusu. Section 4.3 then examines a number of diagnostics—mostly based on extraction contexts like interrogatives and relative clauses—which manifest the different underlying structures of these two locative inversion constructions. In this same section structures for each construction are proposed, which crucially differ both in the position of the logical subject, and in the position of the fronted locative phrase. §4.4.1 considers the implications for theories of agreement, §4.4.2 addresses previous theories of locative inversion and how the proposed structures relate to previous analyses, and §4.5 concludes.

4.2 Locative Inversion in Bantu

This section gives an overview of the typology of locative inversion in Bantu languages in order to clarify the typological and theoretical significance of the Lubukusu locative inversion

constructions. §4.2.1 discusses the Bantu locative inversion, and §4.2.2 introduces the novel

data from Lubukusu which add to the Bantu typology.[1]

4.2.1 TYPOLOGY OF BANTU LOCATIVE INVERSION

Locative inversion is a non-canonical word order that fronts a locative phrase and positions the

subject postverbally (in canonically S-V-O languages). The verb in English agrees with the

'logical' subject (i.e. the thematic subject of the verb), despite that subject's non-canonical

position.

(3) a. Down the hill <u>roll</u> **the balls**.
     b. Down the hill <u>rolls</u> **the ball**.

Bantu languages share many basic word order patterns with English, including canonical S-V-O

word order and similarly ordered locative inversion constructions (LOC-V-S). The verb in

locative inversion in many Bantu languages, however, agrees with the fronted locative phrase

rather than with the postverbal logical subject. (4)a is a declarative sentence in Chichewa, where

the verb agrees in noun class with the preverbal logical (and grammatical) subject. (4)b is a

locative inversion construction where the subject agreement marker on the verb shows class 18

agreement form, which agrees with the fronted class 18 locative phrase. The verb in this case

shows no agreement whatsoever with the postverbal logical subject.

(4) a. **a**-nyani **a**-a-khal-a   m-mi-tengo   [Chichewa]
         2-baboon **2S**-PERF-sit-IND 18-4-tree   Bresnan and Kanerva (1989)
         'Baboons are sitting in the trees.'

---

[1] I refer the reader to §2.2 for discussion of the formation of locative phrases in Lubukusu.

b. **m**-mi-tengo **mw-**a-khal-a   a-nyani
   18-4-tree   **18S**-PERF-sit-IND 2-baboon
   'In the trees are sitting baboons'

It has been demonstrated that a variety of verbal thematic structures allow locative inversion (cf.

Bresnan 1994, Levin and Rappaport Hovav 1994, Culicover and Levine 2001, Doggett 2005 for

discussion of English, in addition to Bresnan and Kanerva 1989, Demuth and Mmusi 1997, and

Marten 2006 for Bantu). Bresnan and Kanerva (1989) and Bresnan (1994) claimed that locative

inversion is restricted to verbs whose highest thematic role was a theme (generally,

unaccusatives), based on data from Chichewa and English (cf. (4)). Demuth and Mmusi (1997)

contested this claim, however, demonstrating that in some languages locative inversion is also

possible with unergative verbs (i.e. agentive verbs):

(5)   Tsaka-**ni** **ku**-na-imba   atu.   [Digo] (Steve Nicolle, pc)
        forest-**LOC** **17S**-CONT-sing 2people
        'People are singing in the forest.'

(6)   **Mo**-le-fatshe-ng **go**-fula   di-kgomo   [Setswana]
        18-5-country   **17S**-graze 10-cattle   (Demuth and Mmusi 1997)
        'In the country are grazing the cattle.'

Marten (2006) showed that there are also Bantu languages which allow locative inversion with

active transitive verbs; he discusses the example of Otjiherero, though the examples I include

here are from Digo.

(7) a. Tsaka-**ni** **ku**-na-imba   atu   mawira.   [Digo]
       forest-**LOC** **17S**-CONT-sing 2.people 6song   (Steve Nicolle, pc)
       'People are singing songs in the forest.'
   b. Mo   chumba-**ni** **mu**-na-andika mutu   baruwa.
       18.DEM room-**LOC** **18S**-CONT-write 1person 9letter
       'Someone is writing a letter in the room.'

As Marten (2006) demonstrates, locative inversion constructions occur in an implicational hierarchy across the Bantu language family, which is shown in (8). At the left side of the chart are the more restrictive languages, and at the right are the less restrictive languages. Thus we see that locative inversion in Chichewa is possible with unaccusative verbs, but not with unergative verbs or transitive verbs. Setswana allows locative inversion with unergatives and unaccusatives, but not with transitives. Otjiherero and Digo, on the other hand, allow locative inversion with unaccusatives, unergatives, and transitives.

(8)   Availability of locative inversion (Marten 2006)

	non- agentive		agentive		active		active
unaccusatives	>	unergatives	>	unergatives	>	transitives	> ditransitives
Chichewa		Chishona		Setswana		Otjiherero	*

In addition to expanding our knowledge of the sorts of thematic structures with which locative inversion is compatible, recent literature like Demuth (1990), Demuth and Mmusi (1997), Marten (2006), and Buell (2007) unveils a fair degree of variation between languages with regard to both the nominal and verbal (i.e. subject-marking) morphology which is associated with locative inversion. In particular, they have observed that the use of 'locative' morphology as the subject agreement form on the verb may perform different functions, either carrying a fully locative interpretation (where the speaker understands the locative morpheme to be referring to a location of some sort), or at times simply serving an expletive function, where no location is implied by the morphology and instead a more purely "existential" interpretation arises.

As a result of this sort of variation, Buell (2007) proposes that there are in fact two different basic structures of locative inversion constructions, which he terms 'agreement

constructions' and 'non-agreeing constructions'. "Agreement constructions" are those in which a direct or indirect agreement relation is established between the fronted locative phrase and the verb, which Buell takes to arise via one of three different possible configurations:

(9) a. [AgrSP locative [AgrS SM-V   (Buell 2007: (5))
    b. [TopP locative$_i$ [AgrSP t$_i$ [AgrS SM-V
    c. [TopP locative$_i$ [AgrSP pro$_i$ [AgrS SM-V

In each of the possibilities given in (9), the subject marker on the verb agrees with the fronted locative either directly (in the case of (9)a and (9)b), or indirectly in the case of (9)c, where the verb agrees with a null pronominal which is bound by a topicalized locative phrase. In each case the phi-features of the locative phrase control the phi-features which are realized on the subject agreement marker on the verb.

"Non-agreeing constructions," on the other hand, are typified by a structure where a non-referential locative *pro* or an expletive *pro* occupy subject position but are not formally linked to the fronted locative phrase.

(10) a. [TopP locative$_i$ [AgrSP pro$_{loc}$ [AgrS SM-V   (Buell 2007: (6))
     b. [TopP locative$_i$ [AgrSP pro$_{expl}$ [AgrS SM-V

In these cases, the verb agrees with the null pronominal in subject position (whether it is a locative *pro* or an expletive), rather than agreeing with the locative phrase.

All of the examples of locative inversion discussed in (4)-(8) have been of so-called 'agreement constructions', but even more specifically have been examples of what Buell (2007) refers to as 'formal' locative inversion, where subject agreement markers on the verb agree with the locative noun class of the fronted locative phrase. Buell notes, however, that certain

languages (e.g. Zulu and Tharaka) allow for another form of locative inversion which he refers to as 'semantic' locative inversion (contrasting with 'formal' locative inversion). Semantic locative inversion displays similar syntactic behaviors as formal locative inversion, but differs morphologically in that a noun phrase which could denote a place (e.g. *school*) appears in its inherent noun class form rather than a locative form, and the agreement triggered on the verb is with that NP's inherent noun class. The locative phrase *esikoleni* 'at school' in (11)a bears the locative suffix *-ni* (and locative phrases in Bantu typically trigger class 16, 17, or 18 agreement forms). The fronted NP *isikole* 'school' in (11)b lacks this locative suffix, however, and the verb bears a non-locative class 7 subject agreement marker, agreeing with the inherent (non-locative) noun class of the fronted NP *isikole*.

(11) a. a-bantwana   ba-fund-el-a   e-sikole-**ni**   (Buell 2007)
         2-child   2S-study-AP-FV   LOC.7-7.school-**LOC**   [Zulu]
         'The children study at the school.'

   b. **i**-sikole   **si**-fund-el-a   a-bantwana
       7-7.school   **7S**-study-AP-FV   2-child
       Lit: The school studies at the children (≈ "The children study at school.")

So while the construction in (11)b is not formal locative inversion, it is nonetheless an 'agreement construction', as there is productive agreement between the verb and the fronted locative phrase. According to Buell, semantic locative inversion is simply an agreeing locative inversion construction (possessing as structure along the lines of those offered in (9)) without the concomitant locative morphology which typifies formal locative inversion.

To contrast, Zulu also possesses a non-agreeing locative inversion construction, shown in (12), where an invariant class 17 subject marker appears on the verb and the fronted locative appears in a locative form:

(12) ku-lezi   zindlu   ku-hlala (khona) abantu abadala
      at-10.these 10houses 17s-stay (there) 2people 2old
      'In these houses live old people.'

Buell assumes that a case like this adopts a structure something along the lines of what is
sketched out in (10), where a null locative pronoun or null expletive occurs in subject position
and triggers a class 17 subject agreement form on the verb, and the locative phrase is in the left
periphery.

4.2.2 ADDING TO THE TYPOLOGY: LOCATIVE INVERSION IN LUBUKUSU

Lubukusu displays neither the formal locative inversion constructions illustrated in (4)-(7), nor
the semantic locative inversion of Zulu in (11), nor the non-agreeing locative inversion
constructions like that identified for Zulu in (12) . Lubukusu is like Zulu in several ways,
however; like Zulu it has two different types of locative inversion constructions, which may
(roughly) be analyzed as falling into Buell's broader categories identified in (9) and (10) for
'agreeing' and 'non-agreeing' locative inversion (though on the surface these labels do not seem
to directly apply).

Locative inversion in Lubukusu has several features which contrast with the familiar Bantu
properties that have been discussed to this point. First, these constructions obligatorily have a
locative clitic at the end of the verbal form which agrees with the fronted locative phrase.
Additionally, in one of the locative inversion constructions the verb displays a surprising subject
agreement pattern (given the broader Bantu agreement patterns), with the verb agreeing with a
postverbal subject. I refer to this construction as 'disjoint agreement' locative inversion: the
agreement pattern here is similar to English in that the subject marker on the verb agrees with the

postverbal logical subject. Given the presence of the agreeing locative clitic, the verb here in

effect agrees with both the fronted locative and the postverbal subject.

(13)   **khu**-si-kulu <u>kw</u>-a-biringila-**kho** <u>ku-m</u>-pira   **Disjoint Agreement LI**
           17-7-hill   3S-PST-roll-**17L**   3-3-ball   [Lubukusu]
           'On/down the hill rolled the ball.'

(14)   **mu**-mu-siiru <u>kw</u>-a-kwa-**mo**   <u>ku-mu</u>-saala
           18-3-forest   3S-PST-fall-**18L** 3-3-tree
           'In the forest fell a tree.'

(15)   **mu**-mu-siiru <u>a</u>-kwa-**mo**   <u>o-mu</u>-ndu
           18-3-forest   1S-fell-**18L**   1-1-person
           'In the forest fell a person.'

(16)   **mu**-kanisa <u>b</u>-engila-**mo**   <u>ba-ba</u>-andu
           18-church   2S-entered-**18L**   2-2-person
           'In the church entered people.'

The second locative inversion construction in Lubukusu looks more like the formal locative

inversion constructions discussed above in §4.2.1 above, with the exception that in the Lubukusu

case this construction requires the presence of the agreeing locative clitic. Due to the fact that in

this type of locative inversion both the subject marker and the locative clitic agree with the

fronted locative, I refer to the construction as 'repeated agreement' locative inversion.

(17)   **mu**-mu-siiru **mw**-a-kwa-**mo**   ku-mu-saala   **Repeated Agreement**
           18-3-forest   **18S**-PST-fall-**18L** 3-3-tree   **Locative Inversion**
           'In the forest fell a tree.'

(18)   **khu**-si-kulu **khw**-a-biringila-**kho** ku-m-pira
           17-7-hill   **17S**-PST-roll-**17L**   5-5-ball
           'On the hill rolled the ball.'

These two constructions display a number of different properties (discussed in section 4.3) which

help to differentiate the structure of the two constructions. Specifically, I will argue that

repeated agreement locative inversion is a consequence of the phrase structure in (9)a (Buell's 'agreement construction') whereas disjoint agreement locative inversion results from a structure that is similar in ways to (10)b, which Buell suggests holds for 'non-agreeing' locative inversion. Clearly there is productive subject agreement in Lubukusu disjoint agreement locative inversion, so the Buell's term "non-agreeing" does not directly apply, and I will in fact argue that though in disjoint agreement constructions the locative phrase is not in subject position, there is not an expletive in subject position, but rather the logical subject itself.

As noted above, though disjoint agreement locative inversion shows an agreement pattern similar to English, it departs in significant ways from typical Bantu agreement patterns, raising important questions about the nature of the Agree relation as it holds for Lubukusu; these issues are addressed in §4.4. First, however, §4.3 clarifies the structure of locative inversion in Lubukusu for both the disjoint agreement constructions and the repeated agreement construction.

4.3 The Structure of Lubukusu Locative Inversion

This section addresses the structure of locative inversion constructions, employing a variety of diagnostics to establish the structural positions of both the fronted locative phrase and the postverbal logical subject for both disjoint agreement locative inversion and repeated agreement locative inversion. These analyses rely on a variety of structural diagnostics, including adverb positions, properties of subject extraction, reflexives, argument structure, and the interpretation of presentational constructions. Section 4.3.1 addresses the position of the fronted locative phrase, and §4.3.2 addresses the position of the logical subject. Section 4.3.3 then discusses how the conclusions reached in the preceding sections are substantiated by the availability of each locative inversion construction with verbs of different argument structures.

4.3.1 THE POSITION OF THE FRONTED LOCATIVE PHRASE

This section addresses the position of the fronted locative phrase in the two locative inversion constructions of Lubukusu. As will be shown, there is variation between these two constructions in terms of the properties of the fronted locative phrase, particularly with regard to extraction contexts. Chapter 3 extensively discusses the properties of subject extraction in Lubukusu, but I will briefly overview the basic facts again here to clarify their relevance as a diagnostic context. In Lubukusu object relative clauses there is no C-agreement, and the agreeing complementizer is obligatory, as shown in (19). All non-subjects are relativized in this way.

(19)　kama-tunda　*(ni-ko)　ba-ba-ndu　ba-a-kula　likoloba　　**Object Relative Clause**
　　　6-fruit　　　COMP-6　　2-2-people　2S-PST-buy　yesterday
　　　'the fruit that the people bought yesterday'

Example (20), on the other hand, demonstrates that relativization of subjects requires C-agreement on the verb, and rules out the possibility of the complementizer.

(20)　baba-ndu　(*ni-bo)　**ba**-ba-a-kula　ka-ma-tunda　likoloba　　**Subject Relative Clause**
　　　2-people　　COMP-2　2C-2S-buy　　6-6-fruit　　　yesterday
　　　'The people who bought the fruit yesterday'

As mentioned above, the facts surrounding subject extraction were discussed in much more depth in chapter 3, but let it suffice for now to say that I analyze C-agreement as evidence of extraction from a structural subject position (SubjP), and therefore as evidence of a phrase occurring in canonical subject position. Whatever the analysis, it is clear that C-agreement is only possible in subject extraction and is never possible with non-subject extraction, thus proving a sufficient diagnostic for the (grammatical) subjecthood of a particular phrase.

As is evident in (21) and (23), locative inversion constructions are relativized differently

based on whether it is a disjoint agreement construction or a repeated agreement construction. In

the disjoint agreement construction, the subject marker on the verb agrees with the logical

subject, and the complementizer necessarily appears following the relativized locative. As (22)

demonstrates, disjoint agreement locative inversion is incompatible with C-agreement with the

extracted locative phrase in a relative clause.

(21)　　mu-mu-siiru　ni-mwo　kw-a-kwa-mo　ku-mu-saala　　　　**Disjoint Agreement**
　　　　18-3-forest　COMP-18　3S-PST-fall-18L　3-3-tree
　　　　'the forest in which fell a tree'

(22)　　*mu-mu-siiru　mu-kw-a-kwa-(mo)　ku-mu-saala
　　　　　18-3-forest　3C-3S-PST-fall-18L　3-3-tree

It should be noted that the style of relativization in (21) is exactly that associated with

relativization of non-subjects, as is evident by comparing (21) with (19). As stated above, I

assume that the appearance of C-agreement on the verb is a result of extraction out of the

structural subject position. This suggests, therefore, that the locative does not occur in subject

position in disjoint agreement locative inversion constructions like (21); I will return to a specific

analysis of its position below.

The repeated agreement locative inversion construction, however, shows precisely the

opposite behavior under relativization; the complementizer does not appear, and instead there is

C-agreement on the verb agreeing with the fronted locative.

(23)　　mu-mu-siiru　**mu**-mw-a-kwa-mo　ku-mu-saala　　　**Repeated Agreement**
　　　　18-3-forest　　**18**C-18S-pst-fall-18L　3-3-tree
　　　　'the forest in which fell a tree'

I interpret these facts to demonstrate that in the case of repeated agreement locative inversion, the inverted locative occurs in the structural subject position, and as a result triggers subject agreement in declaratives, and both subject agreement and C-agreement in the relative clauses.

This analysis is further supported by similar properties in raising constructions. The precise structure and derivation of raising constructions in Bantu languages is a serious question given that the embedded clause is fully finite bearing normal tense and agreement morphemes and is headed by the normal finite embedding complementizer. This contrasts of course with the 'defective' nature of clauses embedded under raising verbs in languages like English, which lack tense and agreement: *Tegan seems (*for/*that/*if)* *to like War and Peace*). While a full analysis of this construction is beyond the scope of the present argument, the presence of C-agreement in Lubukusu raising constructions allows it to serve likewise as a diagnostic of movement out of subject position (see §5.6.6.1 an expanded discussion of raising constructions).[2]

(24) e-fwana oli   ba-ba-andu ba-a-soma   sii-tabu
      9S-seem COMP 2-2-person 2S-PST-read 7-book
      'It seems that the people read the book.'

(25) ba-ba-ndu ba-fwana oli   **ba**-ba-a-soma   sii-tabu
      2-2-people 2S-seem COMP **2C**-2S-PST-read 7-book
      'The people seem like they read the book.'

As (24) shows, the verb *-fwana* 'seem' is a stereotypical raising verb in that it does not select an external argument, and instead a null expletive may occur in its subject position, evident by the class 9 expletive-agreement which appears on the verb. As (25) shows, however, the embedded subject *babaandu* 'people' may raise to matrix subject position, triggering subject agreement on

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[2] Also see Carstens and Diercks (to appear) on raising in Luyia languages, and Zeller (2006) for raising constructions in southern Bantu.

the matrix verb *fwana* 'seem'. In addition, however, it may trigger subject agreement and C-agreement on the embedded verb, the class 2 C-agreement being evidence that the embedded subject position has been vacated by a class 2 NP, which in this case can only be the raised subject *babaandu* 'people'.

Looking back at locative inversion, then, we can see that when the disjoint agreement construction in (26) is embedded under the raising verb it requires agreement with the inverted logical subject (and C-agreement is impossible); in the case of the repeated agreement construction in (27), however, C-agreement is possible.

(26) mu-mu-siiru mu-fwana oli   (**mu-**)kw-a-kwa-mo   ku-mu-saala   **Disjoint**
      18-3-forest   18S-seem COMP (*18C)-3S-PST-fall-18L 3-3-tree   **Agreement**
      'In the forest it seems that fell a tree.'

(27) mu-mu-siiru mu-fwana oli   **mu**-mw-a-kwa-mo   ku-mu-saala   **Repeated**
      18-3-forest   18S-seem COMP **18**C-18S-PST-live-18L 3-3-tree   **Agreement**
      'In the forest it seems like there fell a tree.'

These data suggest once again that the preposed locative in disjoint agreement locative inversion is not in subject position, but the preposed locative in repeated agreement is in fact in subject position, and as such displays subject-like properties.

Similar evidence can be found in matrix subject questions in locative inversion constructions. In (28) we can see that in a repeated agreement construction, if the inverted locative is questioned it triggers C-agreement on the verb, as is typical of subject extraction. (29), on the other hand, shows that it is impossible to question an inverted locative phrase (with the 'where' wh-word) in the disjoint agreement locative inversion construction.[3]

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[3] I do not currently have an analysis for why exactly examples like (29) are unacceptable. Though it would be understandable why the wh-word could not be extracted from topic position, I have no explanation for why extraction could not occur from its original merge position, as I presume is what happens in cases like (21). For the

(28) wae (ni-o)   **mu**-mw-a-kwa-mo   ku-mu-saala?   **Repeated Agreement**
      where (PRED-16L) **18**C-18S-PST-fall-18L 3-3-tree
      'Where (is it that) fell a tree?'

(29) *wae (ni-o)   (mu)-kw-a-kwa-mo ku-mu-saala   **Disjoint Agreement**
      Where (PRED-16L) 18C-3s-PST-fall-18L 3-3-tree
      'Where (is it that) a tree fell?'

The complementizer in (28) is optional – when it is present, it triggers a cleft interpretation,

when it is not, it is interpreted as a simple matrix question. The example in (29), on the other

hand, is ungrammatical with any combination of the complementizer and C-agreement. I do not

have an explanation for why the form in (29) is unacceptable, but the contrast does show us that

the fronted locative phrases in disjoint agreement locative inversion and repeated agreement

locative inversion have different properties with respect to extraction.

Again, I take the presence of C-agreement as a licit extraction method in (28) as evidence

that the fronted locative is in subject position in repeated agreement locative inversion, whereas

the same subject-associated mechanisms are not available in extraction of the locative in disjoint

agreement constructions, suggesting that there is a structural difference between the two

constructions with regard to the status of the fronted locative phrase.

This is more clearly demonstrated in the event that the locative phrase is a complex wh-

phrase, (rather than a simple wh-phrase, as shown in the examples in (30)-(32). In this case,

demonstrated in (32), extraction of the fronted locative in disjoint agreement locative inversion

correlates directly with extraction of non-subjects, with the obligatory presence of the

complementizer.

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purposes of this argumentation, however, it suffices to note that C-agreement is not possible in these cases,
bolstering the argument that preposed locatives have different properties in the disjoint agreement and repeated
agreement constructions.

(30) mu-mu-siiru siina **mu**-mw-a-kwa-mo   ku-mu-saala   **Repeated Agreement**
      18-3-forest   what **18C**-18S-pst-fall-18L 3-3-tree
      'In which forest fell a tree?'

(31) *mu-mu-siiru siina (**mu**-)kw-a-kwa-mo ku-mu-saala   **Disjoint Agreement**
      18-3-forest   what **18C**-3S-pst-fall-18L 3-3-tree
      'In which forest fell a tree?'

(32) mu-mu-siiru siina *(**ni-mwo**) kw-a-kwa-mo ku-mu-saala   **Disjoint Agreement**
      18-3-forest   what   PRED-18 3S-pst-fall-18L 3-3-tree
      'In which forest fell a tree?'

Again we see that in an interrogative context, the fronted locative phrase in repeated agreement

locative inversion triggers C-agreement on the verb in (30), whereas C-agreement is impossible

in the case of an interrogative disjoint agreement construction in (31). Instead, as stated above,

question formation in disjoint agreement in (32) requires the agreeing complementizer.   All of

the evidence presented here shows that despite the apparent similarities between disjoint

agreement locative inversion and repeated agreement locative inversion, there are important

structural differences: fronted locatives in the repeated agreement locative inversion construction

behave like subjects, whereas fronted locatives in disjoint agreement locative inversion behave

like non-subjects.

Based on this observation that the properties of extraction of the locative phrase in repeated

agreement locative inversion pattern with the morpho-syntax of subject extraction, I claim that in

repeated agreement locative inversion the inverted locative occurs in the structural subject

position, as shown in (33) (this position is labeled Subject Phrase, in accordance with the

proposals of Rizzi 2006, Rizzi and Shlonsky 2006, Rizzi and Shlonsky 2007, see chapter 3 for

in-depth exploration of the properties of the SubjP with respect to subject extraction):

(33) [SUBJP LOC … [VP V SUBJ]]   **Repeated Agreement**

This structure is one of the options proposed by Buell (2007) as a potential structure for the 'agreeing' locative inversion constructions (cf. (9)a), and it is not difficult to classify Lubukusu repeated agreeing locative inversion as an "agreeing construction" by Buell's standards.

In contrast, disjoint agreement locative inversion in Lubukusu consistently displays non-subject extraction properties. As a result, I claim that the locative phrase instead occurs in a left peripheral position, and that some other element is in subject position, yielding the structure in (34):

(34) [$_{XP}$ LOC ... [$_{SUBJP}$ YP ... [$_{VP}$ V ...]]]   **Disjoint Agreement**

At present I simply label the position of the locative phrase as XP, though I will have some comments on this below. The question of what element it is that is in subject position in disjoint agreement locative inversion is an important one. I will consider two competing analyses here: first, that there is a null expletive in subject position (and the logical subject remains within the VP), and second, that the logical subject itself is in subject position. As the next section will discuss, I claim that the latter analysis is the more defensible claim, that is, that the logical subject has raised to subject position, and the verb has then raised over that position to create the locative-verb-subject word order. These issues are taken up in the next section.

The structure in (34) is similar in ways to that proposed by Buell (2007) for the 'non-agreeing' locative inversion constructions, in that the locative in these cases is not itself in subject position, and some other element is. My analysis differs from the structure that Buell offers, of course, because I claim that in this Lubukusu construction the subject is in fact in subject position, whereas Buell claims that the non-agreeing constructions in Sesotho, Tharaka,

and Zulu (for example) have a null expletive in subject position. I will claim that this crucial difference is what accounts for that fact that the non-agreeing constructions which Buell discusses clearly display an invariant subject agreement morpheme (assumed to be agreement with the null expletive that recurs in these constructions), whereas the disjoint agreement locative inversion construction of Lubukusu exhibits productive agreement with the postverbal logical subject.

This section has addressed the position of the fronted locative phrase for both of the locative inversion constructions in Lubukusu. The presence of C-agreement in extraction of subjects in Lubukusu was utilized as a diagnostic to demonstrate that there is a structural difference between the locative phrase in repeated agreement locative inversion, and the locative phrase in disjoint agreement locative inversion. There is further evidence, however, of the structural differences between disjoint agreement locative inversion and repeated agreement locative inversion in Lubukusu, specifically, how the different constructions interact with the argument structure of their component verbs. This issue is take up in §4.3.3. First, however, I turn to the position of the logical subject in these constructions.

4.3.2 THE POSITION OF THE LOGICAL SUBJECT

This sub-section addresses the question of the position of the logical subject in the two Lubukusu locative inversion constructions. Though the evidence on this issue is not as definitive as that discussed in the previous section for the position of the fronted locative phrase, there is nonetheless a collection of diagnostics and arguments which lead me to conclude that the logical subject is in a different position in repeated agreement locative inversion than it is in disjoint agreement locative inversion.

Given the analysis in the previous section that the fronted locative in the repeated agreement construction is in subject position, it follows that the logical subject in those cases must be within the VP, as it could not have raised to subject position (which is filled by the locative phrase). There remains the logical possibility, of course, that the logical subject is in fact right dislocated, and not within the VP (see Culicover and Levine 2001 for this sort of approach to certain English locative inversions). As will be discussed below, however, this analysis is contraindicated by evidence from adverb positions and argument structure, in §4.3.2.1 and §4.3.3, respectively. The focus of this discussion, however, will be on the position of the logical subject in disjoint agreement locative inversion, with the conclusions about repeated agreement coming in the comparison.

As mentioned above, there are two different analytical approaches to the question of what syntactic element occupies subject position in disjoint agreement locative inversion, or conversely, what the position of the logical subject is in these constructions. The first is that there is a null expletive in subject position, and the verb remains in T. The null expletive in this case would have agreement properties similar to the English expletive *there*, in some way facilitating subject agreement between the verb and the postverbal subject.[4] The second is that the logical subject is actually in subject position (assumed to be Spec, SubjP in this work), and the verb has raised over that position to a CP-level head.[5]

The evidence is not completely unambiguous, but tends to point towards a V-raising analysis. First I discuss evidence of adverb placement, followed by extraction of the logical subject, then some basic data from reflexives, and finally what I tentatively refer to as

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[4] This is in contrast to expletives like *it*, which apparently trigger their own verbal subject agreement. For discussions of these differences see Bobaljik (2002), Chomsky (1986, 1991, 1995, 2000, 2001, 2004), Groat (1995), and McCloskey (1991).
[5] Thanks to an anonymous *Lingua* reviewer for their comments on this analytical option.

"presentational constructions", though their precise nature is drawn into question in the discussion below.

4.3.2.1 Adverb Evidence

The properties of the adverb *bwangu* 'quickly' provide a good testing ground for the position of the subject in Lubukusu locative inversion. As can be seen in (35), *bwangu* may occur clause-finally or postverbally between the verb and its complement, but cannot occur preverbally.

(35)   Ku-mu-saala (*) kw-a-kwa (✓) mu-mu-siiru o-mwo   (bwangu)[6]
     3-3-tree   3S-PST-fall   18-3-forest DEM-18 (quickly)
     'A tree fell in this forest quickly.'

I interpret this data to mean that *bwangu* 'quickly' is a *v*P-level adverb, which can occur either right adjoined or left adjoined (cf. Bowers 2002), and V-to-T movement accounts for the position of the adverb between the verb and its complement (in the case of a left-adjoined adverb). The adverb cannot occur preverbally, because it does not adjoin to T.

This analysis makes an interesting prediction regarding the two analytical options noted in the previous section. If the element in the subject position of the disjoint agreement locative inversion in Lubukusu is a null expletive and the logical subject is in situ within the *v*P/VP, we would expect the same adverb distribution in locative inversion as in the declarative in (35): clause-final and postverbal, but not preverbal. If, on the other hand, the subject raises to Spec, TP, we would expect that the immediate postverbal adverb position would be ruled out, and instead only the clause-final position would be licit. As (36) demonstrates, it is the latter that is the case:

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[6] [✓] and [*] mark where the adverb can and cannot occur, respectively.

(36) mu-mu-siiru o-mwo (*) kw-a-kwa-mo (*) ku-mu-saala (bwangu)
      18-3-forest DEM-18 3S-PST-fall-18L 3-3-tree   (quickly)
      'In the forest fell a tree quickly.'

This therefore supports the analysis that the subject has actually raised to subject position in disjoint agreement locative inversion, as opposed to remaining *in situ* with an expletive in subject position. This analysis receives further (albeit indirect) support on comparison with the repeated agreement construction, in which the postverbal adverb is acceptable, as shown in (37):

(37) Mu-mu-siiru o-mwo (*) mw-a-kwa-mo (✓) ku-mu-saala (bwangu)
      18-3-forest DEM-18 18S-PST-fall-18L 3-3-tree   (quickly)
      'In the forest fell a tree quickly.'

This is consistent with the analysis proposed above, that in repeated agreement locative inversion the locative phrase is in Spec, SubjP and the logical subject is *in situ* within the VP.[7] It also highlights the contrast with disjoint agreement, reinforcing the hypothesis that the logical subjects in these constructions are in different positions. This is represented in the structures below: the structure of repeated agreement locative inversion in (33) is repeated as (38) below, and (39) updates the preliminary structure that was given in (34), based on the adverb evidence discussed in this sub-section.

(38) [SUBJP LOC … [VP V SUBJ]]   **Repeated Agreement**

(39) [XP LOC V-X [SUBJP SUBJ … [vP ~~SUBJ~~ ~~V~~ ~~LOC~~]]]   **Disjoint Agreement**

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[7] Ruth Kramer raises the question of how Case is checked on the subject in these constructions. First, let me note that this problem of Case-checking in locative inversion is shared across the Bantu family for languages allowing locative inversion with the subject marker agreeing with the fronted locative phrase. This fact (among many other pieces of evidence) led me to conclude in Diercks (to appear) that DPs in Bantu languages in fact do not have Case features, and therefore do not need to have their Case checked.

4.3.2.2 Extracting the Logical Subject

Another relevant piece of data for disjoint agreement locative inversion concerns cases where there is a postverbal wh-subject. As discussed above, when a subject is extracted C-agreement appears on the verb, argued to be the result of extraction from a structural subject position. The prediction, then, is that if the logical subject does not occur in subject position, it should not trigger C-agreement, but if it does, it should trigger C-agreement. What we find is actually somewhat complicated however, as C-agreement is optional in these cases:

(40) Mu-mu-siiru (si)-sy-a-kwa-mo   siina?   **Disjoint Agreement**
      18-3-forest   7C-7S-PST-fall-18L 7what
      'What (is it that) in the forest fell?'

The optionality in itself is not overly surprising, as many speakers will drop the C-agreement morpheme in speech due to a more general phonological effect where one of two consecutive identical prefixes can be unpronounced.[8] But even speakers who generally prefer to pronounce both agreement prefixes in extraction contexts will allow C-agreement to be dropped in this case. And for all speakers, when C-agreement *does* appear, it triggers a cleft-like interpretation (which is not necessarily the case when C-agreement appears in canonical subject extraction). So the facts do not straightforwardly align with other cases of subject extraction, but I interpret it in the following way.

    If the subject were actually never in subject position, it would be difficult to explain how the C-agreement morpheme ever occurs, given the analysis that it results from extraction from subject position. On the other hand, if the logical subject is actually in Spec, SubjP, we can explain why the C-agreement can possibly arise. What this still does not explain, however, is the

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[8] This is true in the nominal domain as well, as pre-prefixes on nouns are optional when they are morphologically identical to the prefix, but pre-prefixes which are distinct from the prefix are obligatorily present.

obligatory cleft interpretation with the C-agreement, along with the (sometimes preferred)

absence of the C-agreement altogether for certain speakers. I will simply have to attribute these

properties to the non-canonical nature of the construction – perhaps the postverbal subject

position creates unusual focal effects, as it is in fact common in Bantu for the immediate

postverbal position to be a focal position. As for some speakers preferring the absence of C-

agreement, it could be that analogy to other postverbal elements creates a preference among

speakers for the absence of C-agreement. These specific issues remain topics for future research.

Looking at this same issue for repeated agreement locative inversion, however, it is evident

in (35) that C-agreement with the in situ wh-phrase is impossible when questioning the logical

subject.

(41)   Mu-mu-siiru (***si**-)mw-a-kwa-mo   siina ?   **Repeated Agreement**
        18-3-forest   (**7C**)-18S-PST-fall-18L 7what
        'In the forest fell what?'

In this case there is much clearer evidence that the logical wh-subject cannot does not move to

subject position, again supporting the analysis for repeated agreement locative inversion in (38).

The contrast that is evident between (40)and (41) again suggests that there is a structural

difference in the position of the subject between the repeated agreement and disjoint agreement

locative inversion constructions, though this is admittedly less clear evidence than that offered by

the adverb positions.

4.3.2.3 Reflexives

Some additional potential support for the notion that the subject in disjoint agreement locative

inversion is in structural subject position comes from reflexive verbs. The relatively standard

diagnostic assumption regarding the referential properties of reflexives dates to Chomsky's

(1981) Binding Theory (Principle A), stating that anaphors must be bound within their governing category. The crucial element of this proposal for our concerns here are that anaphors must be bound (i.e. coindexed and c-commanded) by their antecedent (within the appropriate local domain). Reflexives in Bantu languages are often realized as prefixes on the verbal structure, around the same position that object markers occur. Reflexives in Lubukusu are realized as a simple vowel prefix [e-]:

(42)   Yohana a-**e**-bona   (Sikuku 2009: 39)
         1John   1S-RFM-saw
         'John saw himself.'

(43)   ba-khaana ba-**e**-siing-ang-a
       2-girls   2S-RFM-wash-HAB-FV
       'The girls wash themselves.'

Operating on the base assumption of Chomsky's Principle A, the examples in (42) and (43) are acceptable because the subjects in both cases (which are the antecedents of the reflexive morphemes appearing as *e-* on the verbs) are structurally higher than the reflexive morphemes, c-commanding them (on any standard structural conception of the sentences in (42) and (43)).

When we look at locative inversion constructions, we find some interesting results. Take for example (44), which like the examples above has a reflexive morpheme on the verb, but unlike the examples above features a postverbal subject.

(44)   mu-si-kiyo   b-e-e-bona-mo   ba-ba-ana
       18-7-mirror 2S-PST-RFM-see-18L 2-2-children
       'In the mirror the children saw themselves.'(lit.'in the mirror saw themselves the children')

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At first glance this sentence seems to support the notion that the logical subject is in subject position, and it is in support of that notion that I present this sentence here. It is important to note, however, that the analysis of this sentence is not straightforward, depending on one's assumption as to the origin of the reflexive morpheme. If the reflexive marker is assumed to originate low in the structure, for example in object position, after which it incorporates into the verb (see Storoshenko 2009 for an analysis of the Shona reflexive along these lines), then the presence of the reflexive in (44) would not necessarily be indicative of the particular position of the subject. That is to say, the subject would c-command the reflexive whether it is in Spec, SubjP or in Spec, *v*P. This concern is amplified by the fact that the reflexive-antecedent relationship is clearly not dependent on final structural positions, as the verb on the analysis being pursued here nonetheless raises over the subject position in the end.

There are reasons to believe that the analysis of the reflexive marker as a direct object which has incorporated into the verb may not be accurate, however. Mainly, as will be noted in §4.3.3, both sorts of locative inversion constructions are impossible with transitive verbs. If this is in case the fact, it is questionable that the reflexive construction in (44) is truly a transitive verb in the same way that the non-reflexive verb *bona* 'see' is. Additionally, while Lubukusu has a general restriction that only one object marker may appear in a sentence, it is in fact possible for an object marker to co-occur with the reflexive marker (Justine Sikuku, p.c.), suggesting that Storoshenko's (2009) analysis for Shona may not extend to Lubukusu.[9] This of course does not clarify the question of the position of the reflexive marker, but it does open the door to an analysis that the reflexive marker is never structurally lower than the *in situ* subject, because it is not itself an argument of the verb (at least, not in the same way that a DP object is).

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[9] Marlo (2010) cites Aggrey Wasike (p.c.) as confirming this fact regarding Lubukusu object markers.

This also opens the door to the argument that in (44) the reflexive marker is licensed by the subject in subject position.

There is clearly a difference in the properties of reflexivization with respect to repeated agreement locative inversion, as compared to the disjoint agreement construction considered above. As shown in (45), the reflexive construction is impossible with repeated agreement locative inversion.

(45)   *Mu-si-kiyo mw-e-e-bona-mo   ba-ba-ana
          18-7-mirror 2S-PST-RFM-see-18L 2-2-children

It is not necessarily straightforward to interpret these data as well. First, as will be seen in §4.3.3 below, (45) is likely unacceptable due to its (necessary) occurrence with a verb with an external argument (whether reflexivized 'see' is interpreted as a transitive or an unergative syntactically), rather than due to some problem having to do with the reflexivization and the position of the subject.

Given all of the questions surrounding the structure of reflexives in Lubukusu and Bantu more broadly, it is difficult to say what exactly these data tell us, but there are several things that I take away from them. First, they further confirm the notion that there are serious structural differences between the two locative inversion constructions. A second, much more indirect and tentative conclusion is that if reflexives are taken to have subject-oriented properties, there is an argument that the logical subject in disjoint agreement locative inversion has raised to subject position. Given the major questions about the structure of reflexives, though, this conclusion is tentative at best, at least until more is known about the Lubukusu reflexive. That being said, though perhaps not considered definitive diagnostic evidence, the availability of the reflexive in

a disjoint agreement locative inversion construction like (44) and the impossibility of the reflexive construction in repeated agreement locative inversion in (45) are both well-explained under the analysis presented in the structures in (38) and (39). That is to say, in disjoint agreement locative inversion the subject raises Spec, SubjP, and the locative phrase is dislocated, therefore providing a licit structure for the reflexive in (44), whereas in (45) it is impossible for the locative to move to Spec, SubjP and to trigger subject agreement (when the structure requires that the (external argument) logical subject do so as well).

I will return to these questions in §4.3.3, revisiting the argument-structure questions that are raised by the contrast in the sentences in (44) and (45), as well as discussing again the question of the transitivity restriction on locative inversion as it applies to the licit reflexive in (44). The next section deals with one last bit of evidence for the position of the logical subject in Lubukusu locative inversion, this time from apparent presentational constructions.

4.3.2.4 "Presentational Constructions"

The final evidence I want to consider in this section come from the equivalent of so-called presentational constructions in Lubukusu. The term "presentational constructions" refers to what is essentially an expletive construction, with a null element in subject position, an invariant (normally locative) agreement form for subject agreement, and the subject appearing postverbally. An example from Setswana is given in (46):

(46)   *pro* **Gó**-fith-ílé   rré.   [Setswana]
               17s-arrive-PRF 1father   (Demuth and Mmusi, 1997: (12))
            'There arrived father.'

Lubukusu does not display the sort of presentational constructions shown in (46), like many Bantu languages have, but in certain contexts it has a slightly similar looking construction, with a postverbal subject, as shown in (47) and (48):

(47)　Ba-kwa-mo　　ba-ba-ana.
　　　2s-fell-18L　　2-2-child
　　　'In there fell children.'

(48)　B-ola-o　　　　ba-ba-ana　a-bo
　　　2s-arrived-16L　2-2-child　DEM-2
　　　'There arrived those children.'

(49)　ola-mo　　　　o-mu-sale　wase
　　　1S.arrived-18L 1-1-friend　1my
　　　'In there arrived my friend.'

(50)　b-echa-o　　　ba-ba-andu
　　　2s-came-16L 2-2-people
　　　'There came people.'

(51)　by-ola-o　　　　bi-ndu　siina
　　　8s-arrived-16L　8-thing　what
　　　'Which things arrived?' (lit. "there arrived which things?)

These constructions actually provide an interesting commentary (though again not direct evidence) on the evaluation of the two analytical options for the logical subject position of disjoint agreement locative inversion—that is, whether there is a an expletive in subject position, or whether the logical subject is in subject position, and the verb has raised over that position. .

If an expletive is in subject position in disjoint agreement locative inversion, it is plausible to think that it would also occur in presentational constructions, resulting in something looking fairly similar to (47) - (51).

There are two reasons, however, for doubting this expletive analysis for the constructions in (47) and (48).　First, the locative clitic necessarily appears in these constructions, which

would presumably not be necessary if this were simply an EXPL-V-SUBJ construction.[10]

Secondly, these constructions are only licit in contexts where a specific locative referent (translated *there* in the constructions above) is extremely salient in the discourse. That is, the *there* in the translations of (47) and (48) is not an expletive, but a locative pronoun. This suggests to me, therefore, that these apparent presentational constructions are actually cases of covert locative inversion, where the null locative phrase is in CP and triggers agreement with the locative clitic and T-to-C movement, creating the V-S word order. Again, this is indirect evidence of the specific position of the subject, but given the two competing analysis, the analysis that the logical subject is in subject position most adequately accounts for these data.

The evidence offered in this section (adverb positions, subject extraction, reflexives, and "presentational constructions") therefore argues for a further specification of the disjoint agreement analysis offered in (39), as shown in (53), where the logical subject is in Spec, SubjP and the inverted word order is created by T-to-C movement.

(52) Repeated Agreement Locative Inversion (final)

[$_{SUBJP}$ LOC T-V [$_{VP}$ SUBJ ~~V~~ ~~LOC~~]]

(53) Disjoint Agreement Locative Inversion (final)

[$_{XP}$ LOC V-X [$_{SUBJP}$ SUBJ … [$_{vP}$ ~~SUBJ~~ ~~V~~ ~~LOC~~]]]

It has been noted before that apart from the adverb position evidence, most of the diagnostics utilized here do not argue directly for a specific position of the subject. Taken as an amalgam however, and considering the alternative analyses for disjoint agreement locative inversion, there

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[10] Potentially the expletive itself could trigger locative agreement, but it would therefore be difficult to explain why the same expletive that in some way triggers/facilitates agreement with the postverbal logical subject simultaneously triggers locative agreement in a different noun class with the locative clitic.

is considerable reason to adopt the account given in (53). As will be discussed in depth in §4.3.3, the analyses for Lubukusu locative inversion constructions offered in (52) and (53) are lent additional support from the properties of these two constructions with respect to verbs of different argument structures, as the analyses presented predict different distributions of licit locative inversion constructions with respect to different lexical verbs.

4.3.3   INTERACTIONS BETWEEN ARGUMENT STRUCTURE AND LOCATIVE INVERSION

As will be thoroughly examined in this section, the two different locative inversion constructions in Lubukusu show variation with regard to what sorts of verbs they may occur with. Interestingly, the pattern that emerges mirrors the implicational hierarchy that was first described by Marten (2006) for how locative inversion constructions interact with argument structure across Bantu languages. This hierarchy is repeated here, from example (8) above:

(8)   Availability of locative inversion (Marten 2006)

		non- agentive		agentive		active		active
unaccusatives	>	unergatives	>	unergatives	>	transitives	>	ditransitives
Chichewa		Chishona		Setswana		Otjiherero		*

Without repeating the previous discussion too much, the pattern observed by Marten (2006) is that in some languages (e.g. Chichewa) locative inversion is only licensed with unaccusative verbs. This is not true of all languages, as some allow locative inversion with unergative verbs (e.g. Setswana), and others even with transitives (e.g. Otjiherero). The hierarchy is implicational in nature, so that if a language allows locative inversion with a more complex argument structure, it will also allow it with a less complex argument structure.

A similar pattern arises when looking at locative inversion with verbs of different argument structures in Lubukusu. The pattern that emerges is schematized in (54), where [✓]

represents the availability of locative inversion, and [*] indicates that locative inversion is unacceptable.

(54) Availability of Lubukusu Locative Inversion

Verbal Thematic Structure	Unaccusative (e.g. fall, arrive)	Come/Go	LOC unergative (e.g. jump, enter)	Non-LOC Unergative with applic	w/o applic	Transitive unergative
Disjoint agreement	✓	✓	✓	✓	*	*
Repeated agreement	✓	*	*	*	*	*

This table will not be discussed at great length immediately, rather, first I will systematically lay out the relevant data, after which I will revisit the pattern which is shown in the table above. The point to be noted is that disjoint agreement locative inversion and repeated agreement locative inversion both accord with the reported hierarchy, though they fall at different points in the hierarchy. The following sections will lay out the arguments that this is in fact the case.

4.3.3.1 Unaccusatives

First to be considered are the unaccusative verbs, that is, intransitive verbs whose sole argument is an internal argument, such as a THEME. This is as opposed to unergative verbs—intransitive verbs with an external (agentive) argument. The examples of unaccusative verbs discussed here are *fall*, *roll*, *arrive*, and *sleep*. As is evident in (55), the verb –*kwa* 'fall' is compatible with both disjoint agreement locative inversion in (55)b and with repeated agreement locative inversion in (55)c. The subject agreement morpheme and the nominal class marker it agrees with are in bold, with the target of the agreement depending on which sort of locative inversion construction it is (i.e. the fronted locative or the postverbal logical subject).

(55) –KWA 'FALL'

    a. ku-mu-saala kw-a-kwa   mu-mu-siiru   **Declarative**
       3-3-tree   1S-PST-fall 18-3-forest
       'A tree fell in the forest.'

    b. mu-mu-siiru **kw**-a-kwa-**mo** **ku**-mu-saala   ✓ **Disjoint agreement**
       18-3-forest   **3S**-PST-fall-**18** **3**-3-tree
       'In the forest fell a tree.'

    c. **mu**-mu-siiru **mw**-a-kwa-mo ku-mu-saala   ✓ **Repeated agreement**
       18-3-forest   **18S**-PST-fall-18 3-3-tree
       'In the forest fell a tree.'

Thus we see in (55) that –*kwa* 'fall' can occur with both types of locative inversion

constructions. This is also true of other unaccusative verbs, illustrated here with –*biringila* 'roll'

in (56), -*ola* 'arrive' in (57), and –*kona* 'sleep' in (58):

(56) –BIRINGILA 'ROLL'

    a. ku-m-pira kw-a-biringila khu-si-kulu   **Declarative**
       3-3-ball   3S-PST-roll   17-7-hill
       'The ball rolled on/down the hill.'

    b. **khu**-si-kulu kw-a-biringila-**kho** ku-m-pira   ✓ **Disjoint agreement**
       17-7-hill   3S-PST-roll-**17L**   3-3-ball
       'On/down the hill rolled the ball.'

    c. khu-si-kulu **khw**-a-biringila-kho ku-m-pira ✓ **Repeated agreement**
       17-7-hill   **17S**-PST-roll-17   5-5-ball
       'On the hill rolled the ball.'

(57) –OLA 'ARRIVE'

    a. ba-ba-ana b-ola   e-ngo   **Declarative**
       2-2-child 2S-arrived 9-home
       'The children arrived home.'

b. e-ngo   b-ola-o   ba-ba-ana   ✓ **Disjoint agreement**
   16-house   2S-arrived-16L   2-2-child
   'At home arrived the children.'

c. mu-nju   b-ola-mo   ba-ba-ana   ✓ **Disjoint agreement**
   18-home   2S-arrived-18L   2-2-child
   'Inside/at home arrived the children.'

d. mu-nju   mw-ola-mo   ba-ba-ana   ✓ **Repeated agreement**
   18-home   18S-arrived-18L   2-2-child
   'Inside/at home arrived the children.'

(58) –KONA 'SLEEP'

a. ba-ba-ana   ba-a-kona   e-ngo   **Declarative**
   2-2-child   2S-PST-sleep   16-house
   'The children slept at home

b. e-ngo   ba-a-kona-o   ba-ba-ana   ✓ **Disjoint agreement**
   16-house   2S-PST-sleep-16L   2-2-child
   'At home slept the children.'

c. e-ngo   e-kona-o   ba-ba-ana   ✓ **Repeated agreement**
   16-house   16S.PST-sleep-16L   2-2-child
   'At home slept the children.'

Therefore it is apparent that both forms of locative inversion in Lubukusu—disjoint agreement

and repeated agreement—are available with unaccusative verbs. The next section entertains

some verbs that might be assumed to fall in with the unaccusative verbs, but do not do so in

Lubukusu.

4.3.3.2 Come and Go

As can be seen in (59) and (60), the verbs *–echa* 'come' and *–cha* 'go' show different properties

than the unaccusative verbs that were reported in the previous sub-section do.

(59) –ECHA 'COME'

    a. papa   e-echa   mu-si-wanja   **Declarative**
       1father 1S-came   18-7-field
       'Father came (in)to the field.'

    b. mu-si-wanja **e**-echa-mo   papa   ✓ **Disjoint Agreement**
       18-7-field   1S-came-18L 1father
       'Into the field came father.'

    c. ***mu**-si-wanja **mw**-echa-mo   papa   * **Repeated Agreement**
        18-7-field   18S-came-18L 1father
       'Into the field came father.'

(60) '-CHA' GO

    a. mayi   wa-bwe a-a-cha   mw-i-duka   **Declarative**
       1mother POSS-2   1S-PST-go   18-9-store
       'Their mother went (in)to the store.'

    b. [?]mw-i-duka a-a-cha-mo   mayi   wa-bwe[11]   ✓ **Disjoint Agreement**
        18-9-store   1S-PST-go-18L 1mother POSS-2
       'Into the store went their mother.'

    c. *mw-i-duka mw-a-cha-mo   mayi   wa-bwe   * **Repeated Agreement**
        18-9-store   18S-PST-go-18L 1mother POSS-2
       'Into the store went their mother.'

The fact that repeated agreement locative inversion is impossible with the verbs for 'come' and

'go' in Lubukusu means that they do not pattern with unaccusatives, but rather pattern with

unergatives (as is clear by comparing the results of the following section). This result is

potentially unexpected, as the single argument of *come* and *go* is a theme—undergoing a change

of state—and not straightforwardly agentive, suggesting that it should pattern with

unaccusatives. Additionally, *come* and *go* participate in locative inversion constructions in

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[11] Though this was slightly marginal, the speaker felt that it could be acceptable, given the appropriate contexts. It certainly contrasted sharply with the repeated agreement construction in (c).

English, standardly taken to be a property of unaccusative verbs in English (Levin and
Rappaport-Hovav 1995).

(61) a. Into the room came three big gorillas.
    b. Out the door went all of our plans.

What I am forced to say here is simply that it appears that the verbs *–echa* 'come' and *–cha* 'go'
in Lubukusu have unergative-like argument structure, rather than unaccusative-like argument
structure. It is difficult to provide independent evidence of this, however, because (as Lubukusu
is still a largely under-researched language) I am unaware of any independent diagnostics
available to differentiate between sorts of intransitive verbs. Therefore I am forced to leave the
question of the specific argument structure of 'come' and 'go' to future research, though as will
become clear from the following sections, with respect to locative inversion these verbs have
properties like unergatives rather than unaccusatives.

4.3.3.3   Locative Unergatives

The verbs that I consider in this section are unergative verbs in the sense that they have a single
required argument, which is an external argument, usually agentive. The verbs in this section,
however, also select for a locative phrase, and for that reason I refer to them as *locative
unergatives*. As can be seen for   –engila 'enter' in (62) and –khala 'stay' in (63), with these
locative unergative-type verbs, disjoint agreement locative inversion is possible (see (62)b,
(63)b, and (63)c), but repeated agreement locative inversion is impossible with verbs of this
argument structure, as (62)c and (63)d show.

(62) –ENGILA 'ENTER'

    a. ba-ba-ndu b-engila   mu-kanisa   **Declarative**
       2-2-person 2s-entered 19-church
       'People entered the church.'

    b. mu-kanisa b-engila-mo   ba-ba-andu   ✓ **Disjoint Agreement**
       18-church 2s-entered-18L 2-2-person
       'In the church entered people.'

    c. *mu-kanisa mw-engila-mo   ba-ba-andu   * **Repeated Agreement**
        18-church 18s-entered-18L 2-2-person
       'In the church entered people.'

(63) –KHALA 'STAY'

    a. ba-ba-ana b-ekhala e-ngo   **Declarative**
       2-2-child   2s-stayed 16-house
       'Children stayed at home.'

    b. e-ngo   b-ekhala-o   ba-ba-ana   ✓ **Disjoint Agreement**
       16-house 2s-stayed-16L 2-2-child
       'At home stayed the children.'

    c. mu-nju   b-ekhala-mo ba-ba-ana   ✓ **Disjoint Agreement**
       18-house 2s-stayed-18L 2-2-child
       'In the house stayed the children.'

    d. *mu-nju   mw-ekhala-mo ba-ba-ana   * **Repeated Agreement**
        18-house 18s-stayed-18L 2-2-child
       'At home stayed the children.'

As the data in (64) show, the verb –suna 'jump' patterns with these locative unergatives.

(64) –SUNA 'JUMP'

    a. o-mw-ana a-a-suna   mu-si-wanja   **Declarative**
       1-1-child 1s-PST-jump 18-7-field
       'A child jumped into the field.'

    b. mu-si-wanja **a**-a-suna-mo   o-mw-ana   ✓ **Disjoint Agreement**
       18-7-field   1s-PST-jump-18L 1-1-child
       'Into the field jumped a child.'

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c. *mu-si-wanja **mw**-a-suna-mo   o-mw-ana   * **Repeated Agreement**
    18-7-field   18S-PST-jump-18L 1-1-child
    'Into the field jumped a child.'

I refer the reader to §2.3.2.2.3 for more discussion of the properties of *–suna* 'jump'. To
summarize briefly what this discussion on argument structure has established to this point,
unaccusative verbs allow both forms of locative inversion, but place-oriented unergative verbs
rule out repeated agreement locative inversion, only allowing disjoint agreement locative
inversion. The verbs 'come' and 'go' proved to pattern with the unergative verbs, rather than the
unaccusative verbs. The next section will examine non-locative unergatives.

4.3.3.4 Non-Locative Unergatives

Non-locative unergatives pattern differently than locative unergatives, disallowing either form of
locative inversion. This is exemplified in (65) for the verb *–chakha* 'laugh', where both disjoint
agreement locative inversion and repeated agreement locative inversion are both unacceptable.

(65) –CHAKHA 'LAUGH'

    a. Joni   a-a-chakha   mw-i-duka   **Declarative**
       1John   1S-PST-laugh 18-9-store
       'John laughed in the store.'

    b. *mw-i-duka a-a-chakha-mo   John   * **Disjoint Agreement**
        18-9-store   1S-PST-laugh-18L 1John
       'Inside the store laughed John"

    c. *mw-i-duka mw-a-chakha-mo John   * **Repeated Agreement**
        18-9-store   18S-PST-laugh-18L 1John
       'Inside the store laughed John.'

This is not the end of the story, however, as the data in (66) show. When an applicative morpheme appears on the verb, disjoint agreement locative inversion is possible, but the repeated agreement construction is still impossible.

(66) –CHAKHA 'LAUGH' (WITH APPLICATIVE)

    a. mw-i-duka a-a-chakh-**el**-a-mo   John   ✓ **Disjoint Agreement**
       18-9-store 1S-PST-laugh-**AP**-FV-18L 1John
       'Inside the store laughed John.'

    b. *mw-i-duka mw-a-chakh-el-a-mo   John   * **Repeated Agreement**
       18-9-store   18S-PST-laugh-AP-FV-18L 1John
       'Inside the store laughed John.'

This suggests some sort of relationship between selection of the locative phrase by the verbal form (as opposed to adjoined locative phrases) and the availability of locative inversion. This was explored above in §2.3.2, and an explanation for its interaction with the availability of locative inversion is addressed in §4.3.5. Let it suffice for the moment, however, to observe the empirical pattern, that (disjoint agreement) locative inversion with non-locative unergative verbs is licensed by the presence of an applicative morpheme on the verb.

Once the argument structure is made even more complex by adding an object, however, all forms of locative inversion are impossible, even with applicative morphology on the verb. Cognate objects are used in this case, to maintain a consistent paradigm with the unergative examples above. A locative phrase may occur with the verb *–chakha* 'laugh' (e.g. in example (67)a) and may in fact be pronominalized by a locative clitic, as in (67)b, though this does require the presence of the applicative. Nonetheless, both forms of locative inversion are ruled out with these transitive verbs, as shown in (67)c and (67)d.

(67) –CHAKHA SIICHEKHO 'LAUGH A LAUGH' (TRANSITIVE)

    a. John   a-a-chakha   sii-chekho (mw-iduka)
       1John 1S-PST-laugh 7-laugh   (18-store)
       'John laughed a laugh (inside the store).'

    b. John   a-a-chakh-**el**-a-mo   sii-chekho
       1John 1S-PST-laugh-AP-FV-18L 7-laugh
       'John laughed a laugh in there.'

    c. *mw-iduka a-a-chakh-**el**-a-mo   Joni sii-chekho   *** Disjoint Agreement**
        18-store   1S-PST-laugh-AP-FV-18L 1John 7-laugh
       'John laughed a laugh in there.'

    d. *mw-iduka mw-a-chakh-**el**-a-mo   Joni   sii-chekho   *** Repeated Agreement**
        18-store   1S-PST-laugh-AP-FV-18L 1John 7-laugh
       'John laughed a laugh in there.'

This pattern is repeated for the verb phrase 'sing a song', as seen in (68). Despite licensing a

postverbal locative phrase (with and without the applicative morpheme, (68)a and (68)b

respectively), the locative inversion constructions are both impossible.

(68) –EMBA LULWIMBO 'SING A SONG'

    a. e-nyuni y-emba lu-lw-imbo (khu-mu-saala)
       9-bird   9S-sang 11-11-song (17-3-tree)
       'A bird sang a song on the tree.'

    b. e-nyuni y-emb-el-a   lu-lw-imbo khu-mu-saala
       9-bird   9S-sang-AP-FV 11-11-song 17-3-tree
       'A bird sang a song on the tree.'

    c. *khu-mu-saala y-emb-el-a-kho   e-nyuni lu-lw-imbo[12]   *** Disjoint Agreement**
        17-3-tree   9S-sang-AP-FV-17L 9-bird 11-11-song
       'On the tree sang a bird a song"

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[12] This gets a vague interpretation where there are two birds, and one is singing the song to the other. It is largely unacceptable anyway, but even the best interpretation is not the interpretation expected for a locative inversion construction.

d. *khu-mu-saala khw-emb-el-a-kho   e-nyuni lu-lw-imbo   *** Repeated Agreement**
   17-3-tree   17S-PST.sing-AP-FV-17L 9-bird 11-11-song
   'On the tree sang a bird a song.'

This is despite the fact that locative inversion is possible with the same verb (-*emba*) in the event

that there is no object of the verb. This is shown in (69), though note that the repeated agreement

construction is still ruled out in (69)b (which is consistent with the other non-location unergative

verbs):

(69) –EMBA 'SING'

   a. khu-mu-saala y-emb-el-a-kho   e-nyuni   ✓ **Disjoint Agreement**
      17-3-tree   9S-sang-AP-FV-17L 9-bird
      'On the tree sang a bird.'

   b. *khu-mu-saala khw-emb-el-a-kho e-nyuni   ***Repeated Agreement**
      17-3-tree   17S-sang-AP-FV-17L 9-bird
      'On the tree sang a bird a song"

The same pattern is replicated with the phrase 'die a death', as shown by the data in (70) and

(71). The examples in (70) show again the requirement of the applicative for the locative clitic

for these non-locative unergative verbs, and (71) shows that, as in the previous cases, locative

inversion is impossible with a transitive verb.

(70) –FWA LIIFWO 'DIE A DEATH'

   a. e-mbwa y-a-fwa   lii-fwo   livi sana khu-ngila   **Declarative**
      9-dog   9S-PST-die 11-death bad very 17-path
      'A dog died a horrible death on the path.'

   b. e-mbwa y-a-fw-il-a-kho   lii-fwo   livi   sana   **Appl + Locative Clitic**
      9-dog   9S-PST-die-AP-FV-17L 11-death bad   very
      'A dog died a horrible death there.'

c. *e-mbwa y-a-fw-a-kho   lii-fwo   livi   sana[13]   **Locative Clitic (No Appl)**
     9-dog   9S-PST-die-FV-17L 11-death bad   very
     'A dog died a horrible death there.'

(71) a. *khu-ngila   y-a-fw-il-a-kho   e-mbwa lii-fwo   livi sana   *** Disjoint Agreement**
     17-path   9S-PST-die-AP-FV-17L 9-dog   11-death bad   very
     'On the path died a dog a horrible death.'

b. *khu-ngila   khw-a-fw-il-a-kho   e-mbwa lii-fwo   *** Repeated Agreement**
     17-path   17S-PST-die-AP-FV-17L 9-dog   11-death
     'On the path died a dog death.'

Again, in contrast, locative inversion is possible with the same verb –*fwa* 'die' when it occurs as

an intransitive verb, without a cognate object (but, crucially, with the applicative morpheme). As

might be expected for a verb like 'die', where the subject of the intransitive verb is a THEME,

both the disjoint agreement construction and the repeated agreement construction are possible.

(72) a. khu-ngila   y-a-fw-il-a-kho   e-mbwa   ✓ **Disjoint agreement**
     17-path   9S-PST-die-AP-FV-17L 9-dog
     'On the path died a dog.'

b. khu-ngila   khw-a-fw-il-a-kho   e-mbwa   ✓ **Repeated agreement**
     17-path   17S-PST-die-AP-FV-17L 9-dog
     'On the path died a dog.'

I therefore assume that the verb –*fwa* 'die' at the very least has an unaccusative argument

structure in its intransitive usage, allowing for the repeated agreement construction.[14] The

overall patterns described in the data above are summarized in the chart in (54), which is

repeated here from above.

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[13] On the intended reading. Acceptable on the reading, "a dog died a horrible death for a little while" (i.e. the dog fainted).

[14] The transitive usage of –*fwa* die is a more complex issue. For the sake of this discussion, I assume that the subject is merged as a non-agentive external argument in these cases.

(54) Availability of Lubukusu Locative Inversion

Verbal Thematic Structure	Unaccusative (e.g. fall, arrive)	Come/Go	LOC unergative (e.g. jump, enter)	Non-LOC with applic	Unergative w/o applic	Transitive unergative
Disjoint agreement	✓	✓	✓	✓	*	*
Repeated agreement	✓	*	*	*	*	*

As is evident in (54), repeated agreement locative inversion is licensed in only one context: with

unaccusative verbs. In contrast, disjoint agreement locative inversion is possible with both

unergative verbs (including 'come'/'go') and unaccusative verbs, with the caveat that the

locative phrase must be selected by the verb, whether lexically or via the applicative. Both forms

of locative inversion are ruled out with transitive verbs.

It is interesting that the two different locative inversion constructions would seem to fall

in two different categories in Marten's (2006) implicational hierarchy of locative inversion in

Bantu. This hierarchy is repeated here from (8), with the Lubukusu constructions added in.

(73) Availability of locative inversion (Marten 2006)

		non- agentive		agentive		active		Active
unaccusatives	>	unergatives	>	unergatives	>	transitives	>	ditransitives
Chichewa		Chishona		Setswana		Otjiherero		*
Lubukusu				**Lubukusu**				
(Rep. Agr.)				**(Disj. Agr.)**				

In Lubukusu, repeated agreement locative inversion falls in with Chichewa, only being available

with unaccusative verbs. Disjoint agreement locative inversion, in contrast, falls in with

Setswana, being available with both unergatives and unaccusatives, but not with transitives. The

observations about the obligatory selection of the locative provides us with some new insight

into locative inversion constructions, enhanced by the interaction with the locative clitic, namely,

that the locative clitic shows the same requirements with respect to the argument status of a

locative phrase as do locative inversion constructions: they both can only occur when a locative phrase is selected by a verb. Based on this initial observation, then, the next section reviews the conclusions from §2.3.2 regarding the properties of the locative clitic in Lubukusu, with the purpose of clarifying its syntactic functions and, more expressly, the goal of explaining its presence in locative inversion constructions in Lubukusu.

A relevant side point having to do with the restriction of locative inversion with transitive verbs goes back to the reflexive constructions that were considered in §4.3.2.3 above. That section was considering the question of the position of the logical subject, considering the presence of the reflexive in (44) (repeated here as (74)) and its impossibility in (45) (repeated here as (75)).

(74) Mu-si-kiyo b-e-e-bona-mo   ba-ba-ana
      18-7-mirror 2S-PST-RFM-see-18L 2-2-children
      'In the mirror the children saw themselves' (lit.'in the mirror saw themselves the children')

(75) *Mu-si-kiyo mw-e-e-bona-mo   ba-ba-ana
      18-7-mirror   2S-PST-RFM-see-18L 2-2-children

Given the lexical differences discussed in this section, it is unsurprising that the repeated agreement construction is ruled out with reflexives like (75), as a reflexive requires an external argument, which is incompatible with repeated agreement locative inversion. The more interesting question regards (74), which is acceptable. We have seen that locative inversion with transitive verbs is ruled out, but in this case it would not be. It raises the question of whether the problem with the transitive constructions is the presence of a second postverbal NP, or perhaps whether the structure of reflexives is significantly different from the structure of transitives in some way. A full investigation of the relationship between transitives and reflexives is beyond

the scope of this dissertation, but one possibly avenue for investigation would be to see if replacing the overt object of a transitive with an object marker has any influence on acceptability. As I said before, however, I will leave this issue to future research.

4.3.4 PROPERTIES OF THE LOCATIVE CLITIC

What I have omitted from the discussion to this point is addressing the nature of the postverbal locative clitic that appears in these constructions. This is a highly significant aspect from a typological perspective, as it is what sets the Lubukusu locative inversion constructions apart from similar constructions in different languages. §2.3.2 looked at the locative clitic in some depth, determining that it is the morphological realization of agreement on a location-oriented functional head (LocationP) which serves to give a verb its sense of requiring a location. The figure in (76) is repeated from example (68) from §2.3.2:

(76)
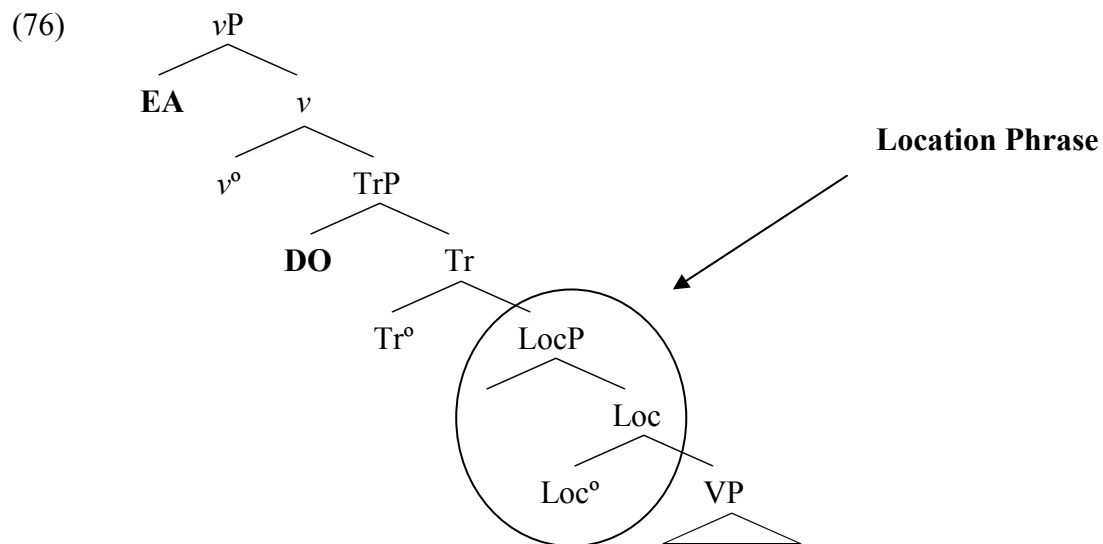
Given the Upward Agreement Hypothesis (Baker 2008, Carstens 2005, Collins 2004), it was argued in §2.3.2.4.3 and §1.5 that agreement is only triggered on Loc° when a locative phrase

has raised above it, at which point it is capable of triggering agreement (realized as the locative clitic).

§2.3.2 discussed a wide variety of contexts in which the locative clitic occurs, and the empirical and theoretical arguments for the analysis in (76), and I won't revisit them here. What is important to recall for our purposes here, however, is that the locative clitic that appears in locative inversion constructions in fact appears in a wide variety of constructions that involve a verb selecting for a locative phrase, and as such the proposal of a Location Phrase here is not an idiosyncratic proposal to account solely for locative inversion constructions.

4.3.5 ANALYSIS: THE STRUCTURE OF LUBUKUSU LOCATIVE INVERSION

To this point I have introduced two locative inversion constructions in Lubukusu, discussing their novel aspects and offering basic structural analyses of each of them in (52) and (53). I then went on to describe how repeated agreement locative inversion is only available with unaccusative verbs, whereas disjoint agreement locative inversion is also available with unergatives, providing that the locative phrase is selected by the verb. This section will illustrate how the structural analyses offered in (52) and (53) account for the distinctions with respect to argument structure that were discussed in §4.3.3.

To start off, I look at the structure of repeated agreement locative inversion, which as noted before is only licit with unaccusative verbs. The structure in (77) gives my analysis for these constructions:

(77) Repeated Agreement Locative Inversion with Unaccusatives[15]

```
            SubjP
           /     \
        LOC       Subj
                 /    \
             Subjº     TP
                      /    \
                    Tº      vP
                           /   \
                        L̶O̶C̶    v
                              /   \
                            vº     LocP
                                  /    \
                               L̶O̶C̶    Loc
                                      /    \
                                   Locº     VP
                                   -LC     /   \
                                        SUBJ    V
                                               /   \
                                             Vº    (L̶O̶C̶)
```
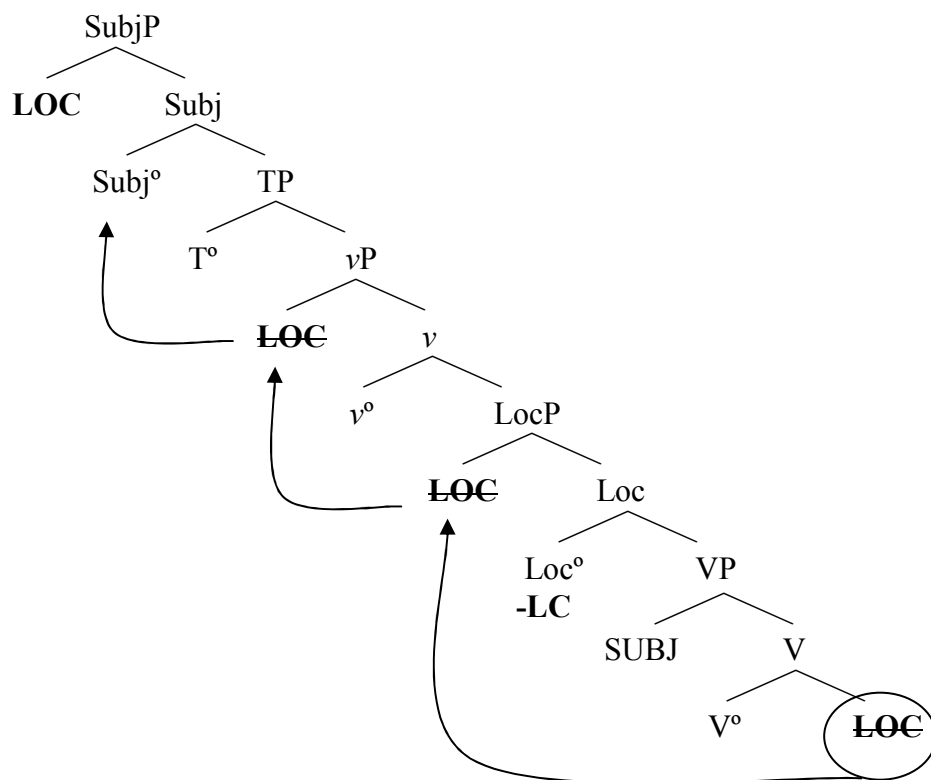
Several assumptions are crucial to explaining this relationship. First, I assume that it is as a

result of a local relationship with the verb that verbal arguments are rendered equidistant

equidistant from a higher target of movement (Collins 1997; Bowers 2002; Chomsky 1995).

Head-to-head movement of the verb to Tº is what creates the V SUBJ word order, though this is

not represented in the tree in (77). Finally, though these assumptions are not crucial, I assume

that Spec, vP is non-thematic in unaccusatives and that the locative phrase moves through that

position. Likewise, I assume that the locative phrase moves through Spec, LocP, triggering

agreement at that point.[16]

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[15] For the following structures, I assume that the projection labelled vP corresponds to PrP of Bowers (1993, 2002).
[16] This assumption makes this analysis consistent with any instantiation of the Upward Agreement Hypothesis: Baker (2008), Carstens (2005), and Collins (2004). It would be possible to assume that the fronted locative phrase moves either directly to Spec, vP or directly to Spec, SubjP, but in that case the only compatible agreement analysis would be Baker (2008). I don't have any (empirical) arguments for or against either analysis – the crucial point for me is that the locative ends up in Spec, SubjP.

As was pointed out in the chart in (54) and throughout §4.3.3, repeated agreement locative inversion is impossible with verbs of any argument structure apart from unaccusatives. In particular, it is impossible with unergative verbs despite disjoint agreement locative inversion being possible with them. The figure in (78) sketches the ungrammatical repeated agreement construction with an unergative verb.

(78) Repeated Agreement Locative Inversion with Unergatives
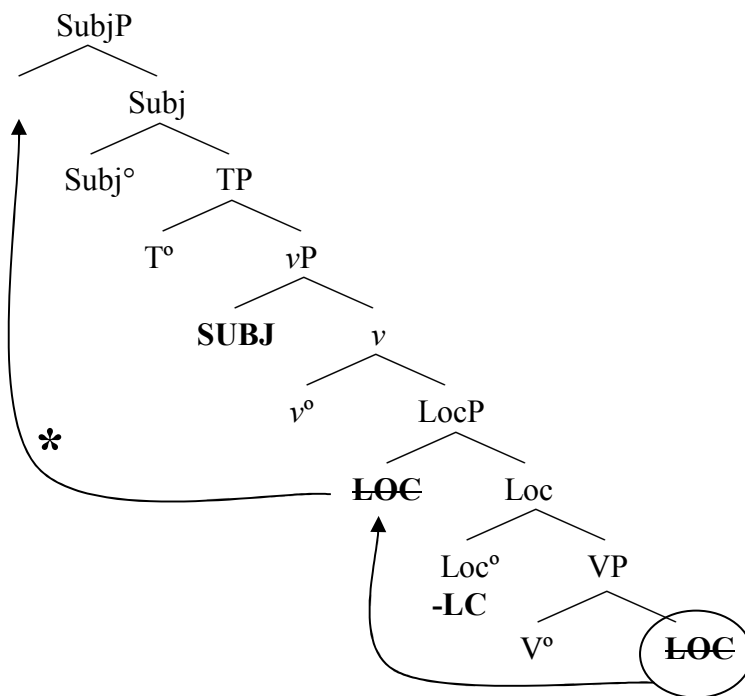
As can be seen from the illustration above, the movement of the locative phrase from within the *v*P to subject position is illicit due to a basic locality violation – the external argument subject which is in Spec, *v*P is a closer candidate for movement, therefore disallowing A-movement of the more distant locative phrase. Thus we see that the structural analysis for repeated agreement locative inversion which was given in (52) in fact accounts straightforwardly for the restriction of repeated agreement locative inversion to unaccusative verbs.

Moving our attention to disjoint agreement locative inversion, again we will see that the analysis given above in (53) in fact directly predicts its distribution with respect to unergative verbs. An illustration of disjoint agreement locative inversion with an unergative verb is given in (79):

(79) Disjoint Agreement Locative Inversion with Unergatives

```
          XP
         /  \
      LOC     X
             /  \
           X°    …
                SubjP
               /     \
            SUBJ      Subj
                     /    \
                  Subj°    TP
                          /   \
                        T°     vP
                              /   \
                           SUBJ    v
                                  /  \
                                v°    LocP
                                     /    \
                                   LOC    Loc
                                         /    \
                                      Loc°     VP
                                      -LC     /  \
                                            V°    LOC
```
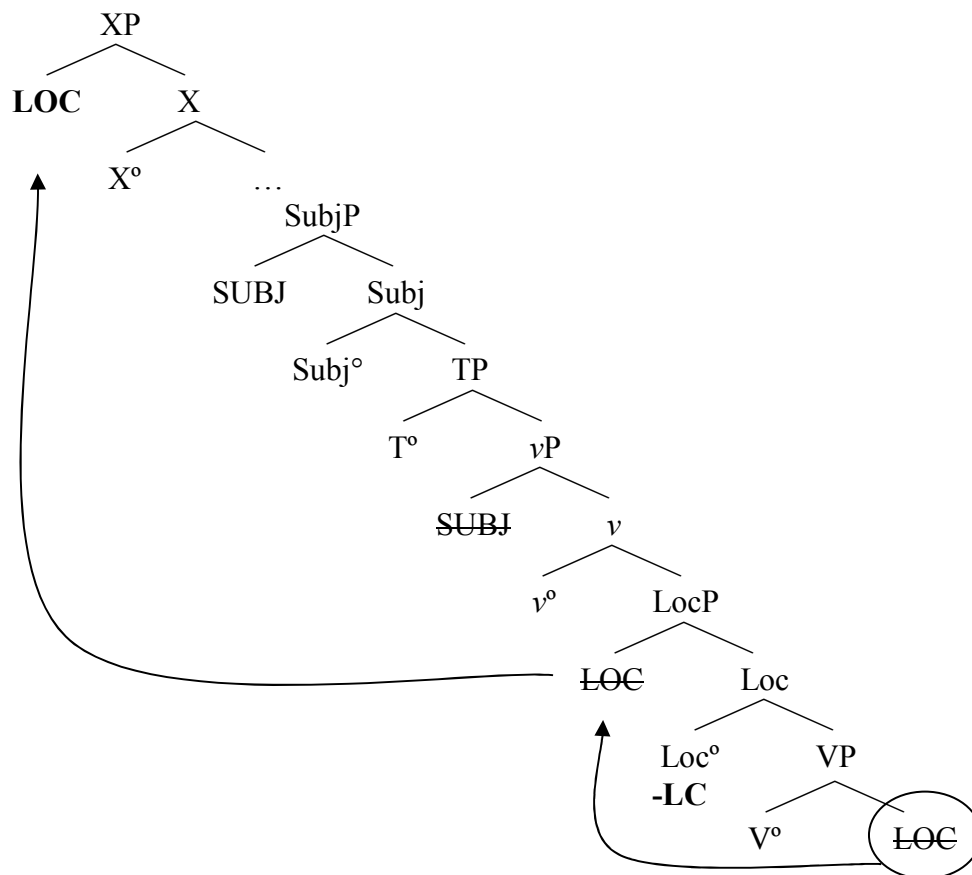
The crucial difference between disjoint agreement locative inversion and repeated agreement locative inversion is that in disjoint agreement, the landing site of the locative movement is a left-peripheral, CP-level position, making this movement an A'-movement. As is well known, A'-movement is not restricted to the same sort of strict locality conditions that A-movement is subject to, and as a result there is no problem with the movement of the locative phrase over the

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subject in Spec, *v*P (or, ultimately, Spec, SubjP).[17] Again, I assume that verb-movement in this

case produces the correct word order, with the exception that in this case it is verb movement to

Xº, rather than simply V-to-T movement. This is necessary, of course, because in the case of

disjoint agreement the subject has raised to Spec, SubjP, requiring that the verb raise higher to

create the correct word order.

The question of the motivation for this higher verb movement in disjoint agreement

locative inversion is an important one. I assume that whatever features (F) are present on (for

example, Tº) to trigger verbal movement are present on the Xº that attracts the left-dislocated

locative phrase in disjoint agreement locative inversion. When F is present, verb-movement is

triggered, producing a disjoint agreement locative inversion construction. These movement-

triggering features are not present in other left-peripheral heads, however, as shown by (80),

repeated from chapter 1.

(80)   mu-mu-siru ku-mw-iti kw-a-kw-ile-**mo**
        18-3-forest   3-3-tree   3S-PST-fall-PAST-**18L**
        'In the forest a tree has fallen.'

In this case, Topº attracts a (therefore topicalized) locative phrase, but does not trigger T-to-C

(or, T-to-Top) movement, and rather Subj-verb word order is maintained, yielding a simple

topicalization construction. The exact nature of the landing site of the locative phrase in disjoint

agreement locative inversion is still a question, of course, but one which I leave for future

research. Given the lack of T-to-C movement in topicalizations (whether locatives, as in (80) or

object topicalizations), however, it is plausible that whatever the landing site of the locative

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[17] Though there may be concerns relevant to the phasal properties of *v*P in these cases, I would simply assume that whatever operation allows normal topicalization (e.g. successive-cyclic movement through Spec, *v*P) would also allow the locative to escape *v*P here.

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phrase in disjoint agreement locative inversion, it is different from the landing site of left-dislocated topic phrases. For this reason I simply maintain the label XP for the present, leaving the precise identification of this position for future research.[18]

Disjoint agreement locative inversion is also possible with unaccusatives, which is unsurprising given the structures proposed here. In these cases we find a similar structure to that shown in (79), with the exception that the subject originates within the VP rather than as an external argument in Spec, *v*P. In both cases, though, the subject raises to subject position in Spec, SubjP, and the locative moves to a left-peripheral position.

4.3.6   SUMMARY: THE LUBUKUSU LOCATIVE INVERSION CONSTRUCTIONS

This section has laid out in a fair degree of depth the specific structure of the Lubukusu locative inversion constructions. I have shown that there are in fact two different locative inversion constructions in Lubukusu, which I termed repeated agreement locative inversion and disjoint agreement locative inversion based on their respective agreement properties. I have also demonstrated that these two constructions realize different syntactic structures. In the repeated agreement construction, the fronted locative phrase is in subject position, and the logical subject is within the VP. In contrast, in the disjoint agreement construction the logical subject itself was argued to be in syntactic subject position, and the fronted locative to be in a left-dislocated, CP-level position.

I then went on to lay out how the two locative inversion constructions in Lubukusu interact with verbs of different argument structures, showing that repeated agreement is only possible with unaccusatives, but that disjoint agreement is possible with both unaccusatives and unergatives. This is precisely the distribution predicted by the analyses for these two

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[18] This is a different position than was taken in Diercks (to appear), which assumed that the locative was in a topic position.

constructions that were offered in (52) and (53). The following sections will now consider the implications of these results both for theories of agreement and for theories of locative inversion more generally.

4.4 Theoretical Implications

4.4.1 IMPLICATIONS FOR THEORIES OF AGREE

As was noted in §4.1, disjoint agreement locative inversion potentially raises a challenge for the Upward Agreement Hypothesis. Reviewing from the first chapter, I use the term "Upward Agreement Hypothesis" to refer to a group of recent proposals regarding agreement in Bantu languages, which claim that a head only agrees with a phrase which is structurally higher than it (Baker 2008, Carstens 2005, Collins 2004). The implementations of this hypothesis vary. Carstens and Collins claim essentially that Agree is linked with movement, so that an Agree relation proceeds in a fairly familiar fashion to English where a head probes its c-command domain and agrees with a goal. Crucially, parametric conditions require that the goal then be raised into the specifier of the agreeing head, with the result that goals always c-command the heads that agree with them.

Baker (2008) takes a different approach, instead claiming that Agree in principle operates such that a head may probe either its c-command domain, or upwards on a syntactic tree for any element that c-commands it. Baker then claims that two parameters crucially control the agreement properties of a language, which were given in Chapter 1 but which I repeat here:

(81) Directionality Parameter: F agrees with DP only if DP asymmetrically c-commands F.

(82) Case Parameter: F agrees with DP only if F values the Case feature of DP (or vice versa).

Baker's claim is that for Bantu languages, the Directionality Parameter is set to 'yes' and the Case Parameter is set to 'no'. The result is that heads in Bantu may only agree with DPs that c-command them, another implementation of the Upward Agreement Hypothesis.

In the first chapter, I discussed a variety of Lubukusu constructions that show that generally Lubukusu seems to accord with the predictions of the Upward Agreement Hypothesis. These data included repeated agreement locative inversion, but as was noted previously, the apparently 'downward' agreement relation of disjoint agreement locative in version in Lubukusu potentially challenges this notion of 'upward' agreement. That is to say, if it were the case the structure of disjoint agreement locative inversion mirrored that of repeated agreement locative inversion (or, stereotypical English locative inversion), there would be a strong argument that the subject-agreeing head (presumably Tº) would need to probe downwards in order to agree with the logical subject.

What has been argued in this chapter, however, is that there is actually a fair degree of evidence that the locative phrase in disjoint agreement locative inversion is not in subject position, but rather some other element is. And in fact, I reviewed a collection of evidence including adverb positions, reflexives, subject extraction, and the lack of true presentational constructions, which collectively pointed to an analysis that the logical subject is in fact in subject position in disjoint agreement locative inversion.

This has very direct consequences on the discussion of the theories of agreement entertained in this work. Specifically, the potentially contradictory evidence of disjoint agreement locative inversion turns out in fact to be another instance that falls directly within the scope of the Upward Agreement Hypothesis. This is not to say that the results of this research are direct evidence for the Upward Agreement Hypothesis, as agreement with a preverbal subject

even in English is assumed to occur before the subject raises to subject position (Chomsky 2000, among many others). Rather, what this shows is that this particular instance of potential counterevidence to the Upward Agreement Hypothesis in the end turns out to be consistent with it.

This is not to say that there are no other challenges to the Upward Agreement Hypothesis for Bantu languages. As emphasized to me by Jenneke Van der Wal and Kristina Reidel (pc), one of those challenges is the presence of object agreement with an *in situ* object for languages like Swahili, Makhua, and Sambaa, among many others.

(83) Mama   yangu a-li-wa-ona   wa-toto.   [Swahili]
      1mother my   1S-PST-2O-see 2-children
      'My mother saw the children.'

Both Baker (2008) and Diercks (2006) provide potential analyses for these sorts of languages in accordance with the Upward Agreement Hypothesis, discussing interpretational evidence that object-raising actually occurs in cases of object agreement, but is obscured by verb-raising to T, a similar analysis to the one proposed here for Lubukusu locative inversion. This is still a standing issue, however, and the Upward Agreement Hypothesis must still be tested in many constructions in many languages.

Regarding Lubukusu, however, I conclude that the Upward Agreement Hypothesis for Bantu languages is at least not disproven by disjoint agreement locative inversion, if not actually supported by the claim that an apparently 'downward' agreement relation is in fact syntactically an 'upward' relation.

4.4.2 IMPLICATIONS FOR THEORIES OF LOCATIVE INVERSION

I also want to address the broader question of what this analysis says for locative inversion

constructions cross-linguistically. In the course of the discussion above I addressed how my

analyses in (52) and (53) corresponded to previous analyses of Bantu locative inversion,

specifically referencing Buell (2007). Looking beyond Bantu languages, however, there is a

significant amount of work on English locative inversion as well.

Culicover and Levine (2001) propose that English in fact has two distinct locative

inversion constructions, which they term light inversion and heavy inversion. Light inversion is

the equivalent of repeated agreement locative inversion in Lubukusu (and Buell's "agreement

construction") – it consists of a locative phrase moving to subject position, and the logical

subject remaining within the VP:

(84)   Light Inversion: locative in subject position   [English]

      [$_{IP}$ LOC I [$_{VP}$ V SUBJ t$_{LOC}$

Culicover and Levine argue that light inversion is restricted to unaccusative predicates, as raising

to subject position is prohibited when an external argument intervenes. Therefore the examples

in (85) and (86) are examples of light inversion:

(85)   Down the hill rolled the ball

(86)   In the forest fell a tree

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Light inversion is what might therefore be considered the canonical form of locative inversion in English, involving movement of the locative phrase to subject position with unaccusative predicates (though see also Bresnan 1994, Collins 1997, Levin and Rappaport-Hovav 1995, Rizzi and Shlonsky 2006). What Culicover and Levine note, however, is that locative inversion is indeed possible with unergative verbs in English, in particular contexts. Specifically, they argue that locative inversion is only possible with unergative verbs in the event that the postverbal subject is phonologically heavy.

(87) a. *In the room slept Robin.   (C&L 2001: 293)

    b. In the room slept fitfully the students in the class who had heard about the social psych experiment that we were about to perpetrate.

They conclude, therefore, that this is a different sort of locative inversion, one in which the subject only comes to a postverbal position via heavy-NP shift, not by remaining *in situ* within the verb phrase. Based on evidence including a variety of binding effects, they propose the structure in (88):

(88)   <u>Heavy Inversion</u>:

      [$_{IP}$ LOC [$_{IP}$ t_{SUBJ} I [VP t_{SUBJ} V t_{LOC} …] SUBJ]]

Note that the locative phrase is not in subject position, but is instead adjoined to IP, and that the subject has raised to canonical subject position in Spec, IP, before it has been right-dislocated via heavy-NP shift. The similarities are striking between Culicover and Levine's proposed 'Heavy Inversion' and the structure for disjoint agreement locative inversion that I argued for above in

(53). Both of these constructions consist of the logical subject raising to subject position, and the locative phrase in a peripheral non-subject position (the details about the specific landing site of the locative aside). Both of these characteristics account for their occurrence with unergative verbs, as the adjunction and A'-movement are not subject to the same locality constraints as A-movement is.

It is important to note that I proposed no right-dislocation in my account, which is crucial to account for the adverb placement facts discussed in §4.3.2.1 (the immediately-postverbal adverb position should be allowed in disjoint agreement locative inversion, were it the case that the logical subject left-dislocated). It is plausible that this difference would exist between the languages, however, as English does not have V-to-T raising, making movement of the verb to a CP-level projection impossible to create the inverted word order. On the other hand, Bantu languages are usually assumed to have V-to-T movement, making T-to-C movement a much more plausible analysis for Lubukusu, or other Bantu languages.[19]

Looking back at the hierarchy that Marten (2006) described for locative inversion in Bantu languages, it does raise questions about the specific structures of the locative inversion constructions in each language. Perhaps it is the case that unaccusatives are the only constructions that are compatible with Culicover and Levine's so-called 'light inversion' (where the locative moves to subject position). If this is the true, different languages may realize different structures to enable them to realize the locative inversion constructions that are higher

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[19] It is important to ask here what the motivation is (either for English or Lubukusu) to require the V-S inverted word order. I discussed an analysis based on a head-movement-triggering feature on the Topº head in §4.3.5, but given the English facts, it is plausible to me that the non-canonical postverbal position creates the intended focal effects, and therefore various strategies have developed to create the proper word order. This of course attributes the motivation for syntactic movement to a post-syntactic question like linear order, which is an architectural problem, unless the movements here are post-syntactic movements (see Downing and Cheng 2009 for another proposal along these lines). For now, I leave a discussion of this issue in its entirety for future research.

up on the hierarchy, as is the case for disjoint agreement locative inversion in Lubukusu (the chart is repeated here from (73)).

(89) <u>Availability of locative inversion</u> (Marten 2006)

		non- agentive		agentive		active		active
unaccusatives	>	unergatives	>	unergatives	>	transitives	>	ditransitives
<u>Chichewa</u>		Chishona		<u>Setswana</u>		Otjiherero		*
Lubukusu				**Lubukusu**				
(Rep. Agr.)				**(Disj. Agr.)**				

The precise nature of the locative inversion constructions in these different languages is a matter for continuing research, but this research on Lubukusu implies that for those languages with locative inversion with non-unaccusatives, those locative inversion constructions ought to have some sort of structure that does not include the locative phrase raising to subject position. Thus, in any locative inversion construction with a verb of a non-unaccusative argument structure, we would expect the fronted locative phrase to show non-subject properties. This is not a direct prediction of the account set forward here, of course, as there may yet be other means of bringing a locative into subject position in unergative verbs. But given the bifurcation between the two locative inversion constructions in Lubukusu with respect to verbal argument structures, it could at least be a reflection of a more general phenomenon.

Looking at the previous literature on locative inversion, however, this prediction is not unambiguously supported. Demuth and Mmusi (1997) identify Sesotho with Setswana in the hierarchy described in (89), allowing locative inversion with unergatives. In accordance with the above prediction, Demuth (1990), Baker (1992), and Zerbian (2006) conclude that fronted locatives in Sesotho locative inversion are not in subject position, but rather are topicalized, and

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the agreement form that appears on the verb agrees with a subject expletive.[20] This is consistent with the fact that subject agreement with fronted locatives in Sesotho is restricted to a single locative form (rather than agreeing in multiple locative noun classes, and in concordance with the analysis that the presence of an external argument creates a locality problem for movement of the locative phrase to subject position.

The literature does not straightforwardly support this conclusion, however. Demuth and Mmusi (1997) argue that Setswana, despite allowing locative inversion and presentational constructions with unergatives, also shows subject-properties of fronted locatives. Furthermore, Marten (2006) argues that in Otjiherero locative inversion with transitive verbs, the fronted locatives also show subject properties. Accepting the subjecthood diagnostics for the sake of argument, this raises questions for the Lubukusu analysis of locality considerations ruling out movement of a locative phrase to subject position when there is an intervening external argument (therefore ruling out repeated agreement locative inversion with all but unaccusatives). There are several options available for addressing the Setswana and Otjiherero facts which would preserve the locality analysis for Lubukusu.

First, more in-depth examination of the subjecthood of the fronted locative may be in order. Both Marten (2006) and Demuth and Mmusi (1997) rely on the availability of subject-raising as a subjecthood diagnostic, but the nature of raising constructions are still very much a standing question in Bantu (see Carstens and Diercks to appear and Zeller 2006). For example, we saw in (26) and (27) in Lubukusu that both disjoint agreement and repeated agreement locative inversion were compatible with raising verbs, but that only in the case of repeated agreement locative inversion did the raised locative show subject properties in the lower clause.

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[20] Demuth (1990) frames this by stating that the subject marker is the expletive itself, but in the framework adopted here it would be analyzed as agreement with a null expletive. The specific analysis of the expletive is not crucial, but rather the fact that the inverted locative is not in subject position.

Additionally, Leston Buell (p.c.) points out that though the resumption/extraction diagnostics for Sesotho in Demuth and Mmusi (1997) are suggestive, they rely on the preference of speakers for the absence of resumption in extraction of fronted relatives, whereas the mere presence of resumption at all might lead one to conclude that the fronted relatives are in fact non-subjects.

This is not to say that the subjecthood diagnostics used in the literature are not in fact reliable (especially as this chapter relies on relatively similar diagnostics). And while subject agreement in locative inversion in Setswana is in fact defective, perhaps suggesting it is expletive-agreement as in Sesotho, the fact that there is productive locative agreement in all three locative noun classes in Ojtiherero locative inversion would seem to suggest that the fronted locatives in those cases are straightforwardly grammatical subjects.

An alternative approach, then, would be that in languages where locative inversion is possible with unergatives and transitives, and where the fronted locatives also show subject properties, the subject position is in fact an A'-position. That is to say, in these languages, subjects are in fact syntactically left-peripheral topics in the CP domain. This has been proposed by multiple researchers for various Bantu languages, including (among others) Schneider-Zioga (2007) for Kinande, Letsholo (2002) for Ikalanga, and Henderson (2006) for Kinyarwanda, and would explain why locative movement over an external argument to subject position is possible in Otjiherero. It is, however, a matter for future research to establish whether subjects in these relevant languages do in fact display A'-properties.

Thus, while I have offered some comments here, I will leave it to future research to determine how the apparent locality violations are nonetheless acceptable in Setswana and Otjiherero locative inversion. Given the evidence from Lubukusu, however, it is clear that structural locality constraints factor in significantly to what locative inversion constructions are

allowable or not. The question that remains is what is it about languages like Setswana and Otjiherero that allows for these locality constraints to be circumvented.[21]

4.5 Conclusions

This chapter has tackled various empirical and theoretical challenges. It introduces new constructions to the theoretical literature—repeated agreement locative inversion and disjoint agreement locative inversion—and demonstrates based on their different extraction properties that in the repeated agreement construction the fronted locative is in subject position, whereas this is not the case for disjoint agreement locative inversion. Additionally, I addressed a variety of diagnostics for the position of the postverbal logical subject in both constructions, concluding that it was within the VP in repeated agreement locative inversion, but in the disjoint agreement construction it is in fact in a higher position, which I argued to be the structural subject position. These structures were then shown to correctly predict the distribution of each locative inversion construction with respect to verbs of different argument structures, though the analyses proposed here did not account for every restriction (for example, the lack of disjoint agreement locative inversion with transitives in Lubukusu).

Finally, I discussed the implications of these analyses for theories of agreement and locative inversion. Though the agreement relation in disjoint agreement locative inversion runs counter to the well-defined generalizations of Bantu agreement (which Lubukusu exemplifies in many contexts, as discussed in §1.5.3), it was shown that the structural analyses provided in fact explain the apparently divergent agreement. In addition, I discussed the relationship of the

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[21] We are well-familiar with circumvention of locality constraints in Bantu, for example in subject-object inversion constructions, but even in those cases, that inversion is only possible in a select group of languages due to particular structural conditioning factors (see Ndayiragije 1999, Keach 1980, Henderson 2006, Morimoto 2000, among others). I assume that the Setswana and Otjiherero locative inversion facts fall in with this broader set of locality problems.

proposed analyses to previous theories of locative inversion, both for other Bantu languages and for English.

I do want to comment further on one potential diagnostic which is also in need of future research, namely, compound tense constructions.[22] Recall from chapter 3 that compound tense are Auxiliary-verb constructions, where the auxiliary is assumed to be in T°, and the main verb is assumed to occur in a lower position (either *in situ*, or in an aspectual head). This makes an interesting prediction for my account here – if V-SUBJ word order in disjoint agreement locative inversion is created by T-to-C movement of the verb over the subject in Spec, SubjP, then a compound tense construction should create a bifurcation between the two types of locative inversion constructions: disjoint agreement should allow the LOC-AUX-SUBJ-V word order (as the subject is in Spec, SubjP), whereas repeated agreement should only allow LOC-AUX-V-SUBJ word order (as the subject is within the VP). As is evident in the data below, however, this prediction is not in fact borne out. (90) shows that, as expected, the subject in repeated agreement locative inversion appears following the main verb, and cannot occur between the auxiliary and the main verb.

(90) a. Mu-mu-siru mw-a-ba   mu-kwa-mo ku-mu-saala.
      18-3-forest 18S-PST-be 18S-fall-18L 3-3-tree
      'In the forest was falling a tree.'

  b. *Mu-mu-siiru mw-a-ba   ku-mu-saala mu-kwa-mo
      18-3-forest 18S-PST-be 3-3-tree   18S-fall-18L

As the example in (91) demonstrates, however, disjoint agreement locative inversion shows the same properties as repeated agreement locative inversion in this respect: the logical subject may

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[22] Thanks to Mark Baker for this suggestion.

only occur postverbally, and may not occur between the auxiliary and the verb, as my account might predict.

(91) a. Mu-mu-siiru kw-a-ba   ku-kwa-mo ku-mu-saala.
     18-3-forest   3S-PST-be 3S-fall-18L   3-3-tree
     'In the forest was falling a tree.'

  b. *Mu-mu-siru kw-a-ba   ku-mu-saala ku-kwa-mo.
     18-3-forest   3S-PST-be 3-3-tree   3S-fall-18L

Additionally, note that the addition of the *ne-* morpheme in the examples in (92) does not make any difference in the acceptability of a subject intervening between the auxiliary and the main verb.

(92) a. *Mu-mu-siru mw-a-ba   ku-mu-saala ne-mu-kwa-mo.
     18-3-forest   18S-PST-be 3-3-tree   NE-18S-fall-18L

  b. *Mu-mu-siru kw-a-ba   ku-mu-saala ne-ku-kwa-mo.
     18-3-forest   3S-PST-be 3-3-tree   NE-3S-fall-18L

As the data above show, it is not possible for the subject to intervene between the auxiliary and the verb. One interpretation of these data are as counter-evidence against the approach which is adopted here, but there is another interpretation, that is to say, that there is an adjacency requirement between the verb and the auxiliary in Bantu locative inversion constructions. This is precisely the analysis set forth by Henderson (2007), in fact. The reader will note, however, that I claimed in chapter 3 that Henderson's analysis can only account for the Lubukusu CTs without the *ne-* morpheme, and that those with the *ne-* morpheme do not require direct adjacency in the same way. Presumably, then, the CTs with the *ne-* morpheme should allow for T-to-C movement of the auxiliary, yielding an LOC-AUX-SUBJ-V word order. As can be seen in (92),

though, there is no differentiation with respect to the inversion of the verbs and the subject, whether or not *ne-* is present. While a full investigation of these issues is beyond the scope of this dissertation, I assume for the present that there is in fact an adjacency requirement in Lubukusu compound tenses, whether or not the *ne-* is present, and that it is this adjacency requirement that is responsible for the lack of an intervening subject in any of the examples above. That being said, an in-depth investigation of Lubukusu compound tenses is necessary to clarify the implications of the data in (90)-(92).

There may in fact be a number of further diagnostics which could prove helpful for identifying the left-peripheral of fronted locatives in disjoint agreement locative inversion, for example, whether locative inversion is possible in restructuring complements, which are regularly truncated with respect to their left periphery (see Stowell 1981, Rizzi and Shlonsky 2006, Culicover and Levine 2001, Doggett 2005, Bresnan 1977, among others). Additionally, if there are VP-ellipsis constructions in Lubukusu, it would be possible to test the hypothesis that the logical subject in disjoint agreement locative inversion constructions has vacated the VP.[23] It is a complicated manner applying many of these diagnostics to Lubukusu/Bantu, however. For example, much more research must be done on VP-ellipsis in Bantu (and Lubukusu specifically) to establish its basic properties, in order to clarify its possibilities for diagnostic uses with locative inversion constructions. Thus, identifying clear diagnostics for the structure of the left periphery in Lubukusu, and Bantu more broadly, is an important line of research which will ultimately critique and refine the conclusions arrived at in this work.

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[23] Thanks to Ruth Kramer for this suggestion.

5 Complementizer Agreement

5.1 Introduction

5.1.1 COMPLEMENTIZER AGREEMENT

This dissertation deals with various forms of non-stereotypical agreement with subjects. I use

the term "agreement with subjects" rather than "subject agreement" because of the bias towards

verbal subject agreement in using the latter. To this point, much of the dissertation has in fact

focused on various (non-canonical) verbal subject agreement forms, including alternative

agreement effects and agreement in locative inversion constructions.

As this chapter demonstrates, however, there is a complementizer in Lubukusu that agrees

with the subject, bringing this construction into the collection of empirical facts addressed under

the rubric of "agreement with subjects". This is a typologically and theoretically interesting

form of complementizer agreement where the complementizer shows full phi-feature agreement

(gender, number, and person) with the subject of the matrix clause, as demonstrated in (1):

(1) a. **ba**-bol-el-a   Alfredi **ba-li**   a-kha-khil-e
        2S-said-AP-FV 1Alfred **2-that** 1S-FUT-conquer
        'They 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 this case) is coreferent with the object in the matrix clause in both cases, but the complementizer shows a different noun class agreement, which can only correspond to the subject of the matrix clause. The agreement forms on the complementizer are different in (1)a and (1)b to show that there is a productive agreement relationship between the subject and the complementizer. To my knowledge, this issue has only been briefly addressed by Wasike (2007) for Lubukusu, but only in the course of his analysis of A'-movement, not as a central focus of investigation, and it has not been addressed in the broader theoretical literature.[1]

5.1.2   TYPOLOGICAL AND THEORETICAL IMPLICATIONS

5.1.2.1 Typology

Complementizer agreement is relatively rare: Baker's (2008) survey reports that at most 9 languages out of the 100 examined exhibited complementizer agreement (182-184). Of that small minority of languages, the best-reported case of complementizer agreement is 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).

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[1] The next section will address several other cases of similar agreements in other languages, but again which have received very little (if any) attention in the theoretical literature.

(2)   Kpeinzen ***da-j***   (gie) morgen   goat   [West Flemish]
       I-think   that-you (you) tomorrow go
       'I think that you'll go tomorrow'

(3)   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 (2) and (3), the complementizer bears agreement morphology that agrees with

the embedded subject: 2nd person agreement in (2) and plural agreement in (3). 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 (2) and (3) 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 much more local relation between the complementizer and

the embedded subject, the agreement in Lubukusu is a longer-distance relationship. These

agreements are also structurally distinct, displaying agreement with the matrix subject instead of

the embedded subject. Lok<u>aa</u> (Benue-Congo) and Kinande (Bantu) have been reported to have

similar properties by Baker (2008: 120), though the construction is given only limited treatment

in (Baker 2008).[2]

       Kawasha (2007) reports on 4 additional languages which show this matrix subject-

oriented complementizer agreement relation: Chokwe, Luchazi, Lunda, and Luvale, 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

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[2] I should note that anecdotal evidence suggests to me that the agreement relation reported here for Lubukusu may be much more widespread within the Bantu languages, at least the eastern Bantu languages. It appears that some form of this agreement is present in related Luyia dialects, and may also appear in languages in Western Tanzania. Obviously, much more work needs to be done to properly evaluate the relative rarity (or non-rarity) of these agreement patterns.

complementizer that is controlled by the matrix subject. An example from Chokwe is given in (4):

(4)   Ka-na-amb-e   ngwenyi   mw-angana h-a-f-w-a
         1S-TAM-say-FV COMP1   1-chief   TAM-1S-die-FV
         'He said that the chief is dead.'

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

One 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 Lione) all display some degree of agreement between a complementizer and an argument in the matrix clause.[3] An example from the Ko dialect of Mende is given in (5) (Idiatov 2009: 18).

(5)   Ngí   ndé-ìlɔ̀   ngì   má ngê̂   í   wá
         1stSG   3rdSG\say-PST   3RDSG.POSS   on   1stSG.COMP 3rdSG.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 an argument 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 semantically controlled, and the controller must be the source of the reported discourse. Idiatov's study is

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[3] 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 Lione)

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 (2008a) gives a very limited theoretical treatment to complementizer agreement in Kinande and Lok<u>aa</u>. Therefore, the theoretical nature of these complementizer agreement phenomena is still very much in question, and our knowledge of theoretically-relevant data is still relatively limited.

As noted by Corbett (2006: 49-51), Baker (2008), and Idiatov (2009), agreement on complementizers is very rare. This is perhaps a contributing factor to the fact that the sort of agreement relation that is realized in Lubukusu is typologically and theoretically under-studied. As more research is done on African languages (and other understudied languages) it may in fact become apparent that the phenomena is more widespread than previously thought, but this remains to be seen. Compared to the relatively extensive work on West-Germanic complementizer agreement, however, there is very little theoretical work done on the nature of the complementizer agreement phenomena that arise in African languages.

5.1.2.2 Theoretical Implications

This construction is particularly relevant in the present state of Minimalist syntactic theory. The first problematic property which comes to mind is the most apparent, the fact that the complementizer agrees with a structurally higher 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). Much work such as Epstein, Seely, and Kitahara (2009) propose that the Search (i.e. probing) operation within a head's c-command is a central component of Minimalist architecture

and the derivational process. The Lubukusu complementizer agreement relation is therefore relevant to a formulation of the theoretical mechanism of Agree that is relevant cross-linguistically.

In chapter 1 I discussed recent work by Baker (2008) which argues that this 'downward'-looking Agree relation is only parametrically available in the architecture of UG, and that instead it is in fact unproblematic for a head to agree with a goal which is merged into the structure at a later point in the derivation (see also Henderson 2006 for a independent proposal that such agreement is possible). The analysis of agreement relationships like Lubukusu complementizer agreement are highly relevant to evaluating proposals such as these: Baker (2008) makes reference to an apparently similar agreement relation in Lokaa (Niger- Congo, Nigeria), but does not look at this particular relation in depth. The analysis presented in this chapter will address this question of agreement with a structurally higher goal.

There are additional theoretical issues that have been raised in recent work for which Lubukusu complementizer agreement is relevant. First is the idea that T does not possess phi-features of its own, but rather inherits its phi-features from C (Chomsky 2008, Ouali 2008, among others, though see Haegeman and van Koppen 2009, and Carstens and Diercks to appear for arguments against this). Complementizer agreement relations have in fact been drawn on as evidence of this fact, as certain West Germanic varieties display complementizer agreement with an embedded subject. At least on a simplistic view of CP as a single projection Lubukusu provides counter-evidence for this claim, as instead of displaying a relationship between C and embedded T it displays what appears to be more akin to a relationship between C and matrix T. A precise analysis is of course necessary to clarify the precise conclusions, but the Lubukusu construction is clearly relevant to clarifying the precise nature of the C-T relationship, whether

the conclusion is that such a relationship does not exist (or, at least, is not universal), or that a CP has complex structures which allow for C-T relationships for both matrix T and embedded T.

Finally, the complementizer agreement relationship in Lubukusu is relevant to explorations of the properties of phases. Note that while the head of CP is argued to be the edge of the phase and accessible to higher operations (Chomsky 2008, among others), the verb in (1) is clearly a transitive verb which would necessarily possess a *v*P projection, which is commonly thought to be a phase, and which intervenes between the lower CP and the position of the matrix subject. It therefore becomes problematic to explain this agreement relationship across phasal boundaries. The analysis that is offered in this chapter addresses all of these theoretical questions; the next section summarizes this analysis, though I will set aside full discussion of the theoretical implications of Lubukusu complementizer agreement in §5.6 and §5.7. These present comments suffice as an introduction to the theoretical relevance of the Lubukusu complementizer agreement relation.

5.1.3 CHAPTER OVERVIEW

This chapter examines various aspects of this complementizer agreement phenomenon. Section 5.2.1 discusses the general complementizer inventory in Lubukusu, and §5.2.2 examines some basic semantic and pragmatic contexts in which the agreeing complementizer occurs, exploring also the evidential properties of the agreeing complementizer, particularly in contrast to a specific non-agreeing complementizer. Section 5.2.3 demonstrates that the agreement relation is not determined solely by semantic factors and demonstrates that syntactic mechanisms are involved. The following sections then look at various syntactic properties of the agreeing complementizer: §5.3.1 shows that this is a productive agreement relationship, and §5.3.2 and §5.3.3 argue for the generalization that complementizers agree with the most local

(superordinate) subject. Section 5.3.4 then addresses some particularly interesting intervention effects, suggesting that they are a processing effect. Section 5.4 looks at various correlations between logophoricity and complementizer agreement, and proposes a structural analysis of complementizer agreement based on previous approaches to logophoric phenomena. Specifically, I claim that complementizer agreement is the result of a local agreement with a null logophoric operator. Section 5.5 then demonstrates that the logophoric analysis makes the correct predictions with respect to the sorts of verbs that the agreeing complementizer is licit with. Section 5.6 then examines the question of the relationship of the subject and the complementizer, considering a variety of different potential analyses and in the end claiming that the reference of the null logophoric operator is determined via an obligatory control relationship between the matrix subject and the operator. Section 5.7 concludes.

5.2 Reporting Speech in Lubukusu

This section looks at the more general properties of the complementizer system in Lubukusu, before the next section moves on to the specific properties of the agreeing complementizer.

5.2.1 LUBUKUSU COMPLEMENTIZER INVENTORY

A summary of the inventory of complementizers in Lubukusu is given in (6), with discussion following. Note that these are all embedding complementizers which embed declarative clauses, and do not include relative complementizers or focus-related complementizers.

(6)   Lubukusu (Embedding) Complementizers

mbo	generic embedding complementizer
Ø	Generic embedding complementizer similar to *mbo*
nga	'because', 'as', 'that'
oli	Comparative: 'like', 'as if' (also appears with certain raising verbs)
bali	'that'; reporting hearsay
AGR-li	'that'; agrees with main-clause subject

The discussion here is cursory, and meant as a summary only – the facts that demonstrate these

conclusions are reported throughout this chapter. The complementizer *mbo* is possibly the most

generic complementizer in Lubukusu – as the various evidence discussed below will explain, it

has the least-restricted distribution of the embedding complementizers.[4] The null

complementizer is similar to *mbo*, so that an overt complementizer is not necessary in most basic

embedding contexts.

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*. *Nga* also carries with it the corresponding morpheme *ne-*

which is prefixed to the verbal form embedded under *nga*.[5] *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).

The last two complementizers discussed in (6) are the focus of the discussion in the next

section and as such I only briefly overview their properties here. The agreeing complementizer

agrees in person, number, and gender with the matrix subject: the different forms are given in

(7):

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[4] 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.
[5] For further discussion of the nature of *ne-* and its role as a marker of subordination, see §3.4.1.1.

(7)   Forms of the Lubukusu Agreeing Complementizer[6]

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

It is perhaps relevant to note that the agreement forms on the complementizer here are identical

to the subject-agreement forms which appear on verbs (and the noun-class markers *N* are

identical to the pre-prefix that occurs on nominals, which is identical to the subject-agreement

marker for each noun class as well). The specific distribution and licensing of this

complementizer and its agreement relation is the main topic of this chapter.

To finish the summary of the complementizers in (6), it is noted 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. The next section gives the data showing this pattern.

5.2.2   EVIDENTIAL PROPERTIES OF COMPLEMENTIZERS

This section gives a description of the agreeing complementizer in contrast to the non-agreeing

bali complementizer, as they realize very different evidential properties.   The main intent of this

sub-section is to clarify the selectional properties of the agreeing complementizer, though the

comparison with non-agreeing *bali* will highlight the properties of both. 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*.

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[6] Note that 3rd person singular and plural in this chart are what are generally referred to (descriptively) as class 1 and class 2, terms which I use throughout the text.

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Take the example of a verb of speech in (8), 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*).

(8)   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 (8)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 (8)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 hearsay. Therefore in the case of (8), though Moses says that Sammy stole the money, Moses only knows of this from other people, and he himself did not witness the theft. There is an additional use of the non-agreeing *bali* in (8)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 (8) is supported by similar data with other clause embedding verbs. Take (9), 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:

(9) 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 in good faith is the source of the information in the embedded clause, both the agreeing complementizer and non-agreeing *bali* are possible. This is consistent with the conclusions from (8), as even in the default case, the source of Moses' information is hearsay (necessarily, given the meaning of 'hear'). It is notable, however, that using the agreeing complementizer is inconsistent if there is a component of doubt in the context regarding the veridicality of the reported event, as shown by (9)b: if the veracity of the reported even is brought into question (whether the speaker is doubting, or is projecting that doubt onto the subject of the sentence), 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. In the context of the verb *manya* 'know', however, the doubt is not plausibly on the part of the subject of the sentence, whose knowledge is being reported. Rather, again we see that doubt on the part of the speaker of the sentence can trigger use of the non-agreeing *bali* complementizer, rather than the agreeing complementizer.

(10)   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

As we look at a progressively less inherently 'doubtful' predicates, we see that this does not

preclude the use of *bali*, only that it takes on more of a pragmatic effect of injecting speaker's

doubt.   In (11), despite Moses's certainty, the non-agreeing *bali* can still be used, again bringing

a sense of doubt about the veracity of the reported information, that Sammy stole the money.

(11)   Mosesi a-li   na   ng'ali   ___   Sammy   k-eba   chi-rupia
        1Moses 1S-be with certainty 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 (*ali* in this

case) is used the subject takes some ownership over the reported event, but *bali* may be used if

the either 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). As will be seen in §5.5 below, these facts intersect with the restriction of the agreeing complementizer to emotive factive verbs. For the moment, however, I will let this discussion suffice as an introduction to the properties of these complementizers more generally.

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. I won't offer the evidence here, but as will be seen in the discussion of emotive factive verbs (§5.5), *because*-phrases and *if*-clauses (§5.4.3), 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.[7]

5.2.3   COMPLEMENTIZER AGREEMENT IS NOT (WHOLLY) SEMANTICALLY CONTROLLED

The previous section examined how semantic and pragmatic concerns relate to the use of the agreeing complementizer, concluding that there is a connection between the use of the agreeing complementizer and the reliability of the reported information. In determining the trigger of agreement on the complementizer, based on the preceding evidence it is a reasonable hypothesis that the complementizer agrees with the source of the information reported in the embedded clause. This is in fact the one of the reported patterns in Idiatov (2009). This section shows,

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[7] 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. It is unclear to me at this point what empirical evidence would distinguish these two accounts, though both are plausible.

however, that the agreement properties of the Lubukusu agreeing complementizer cannot be explained solely in terms of its semantic properties. That is to say, despite the fact that semantic and pragmatic concerns do influence the selection of the agreeing complementizer, it does not appear that complementizer agreement relation is controlled solely by semantic/pragmatic concerns, that is, the trigger of the agreement is not necessarily the source of the information that is reported in the lower clause.

5.2.3.1 Verbs of Hearing

The first piece of evidence comes from verbs of hearing. As is shown in (12) and (13), 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.

(12) ba-sasi   ba-aul-ile   **ba-li**   omu-keni k-ol-ile
      2-parents 2S-hear-PST **2-that** 1-guest   1S-arrive-PST
      'The parents heard that the guest had arrived.'

(13) khw-aulile khu-li   ba-limi   ba-funa   ka-ma-indi
      1st PL-heard 1st PL-that 2-farmers 2S-harvested 6-6-maize
      'We heard that the farmers harvested the maize.'

When the source of the reported information is included in the main clause as an oblique, however, it is evident that agreement does not track the source, but rather tracks the subject of the sentence (as in (12) and (13)).

(14) ba-sasi   ba-ul-ile   khukhwama khu Sammy   **ba-li** (*ali) omu-keni k-ol-ile[8]
      2-parents 2S-hear-PRF from   LOC 1Sammy **2-that**   1-guest   1S-arrive-PST
      'The parents heard from Sammy that the guest had arrived'

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[8] Note that in this case, the class 2 *bali* is interpreted as agreeing with the class 2 subject, rather than indicating reliability of evidence.

(15)   khw-a-ulile   khukhwama khu Sammy khu-li (*ali) ba-limi   ba-a-funa   ka-ma-indi
1[st]PL-PST-hearfrom   LOC 1Sammy 1[st]PL-that   2-farmers 2S-PST-harvest 6-6-maize
'We heard from Sammy that the farmers harvested the maize.'

What this suggests is that despite the semantic and pragmatic effects on complementizer

selection, agreement on the complementizer is triggered structurally, in a manner that appears to

be syntactic in nature. That is to say, the agreeing complementizer has a dual nature: its presence

triggers a specific evidential interpretation, but the agreement relation is governed syntactically,

distinct from evidential interpretations. This conclusion is supported by the following data.

5.2.3.2 Negation does not Affect Complementizer Agreement

If the complementizer agreement was controlled by the source of information, one might also

expect some interaction with matrix negation. That is, if that the matrix clause were negated so

that the subject was in fact *not* the source of the reported information, complementizer agreement

would be affected. As is shown below, however, this is not the case, as the presence of negation

never affects the ability of the complementizer to agree with the subject. In each case, the

complementizer agrees with the matrix subject with and without negation.

(16) a. Alfredi   a-many-ile   a-li   o-mu-zungu   a-l-ola
1Alfred 1S-know-PRF 1-that 1-1-white.person 1S-FUT-arrive
'Alfred knows that a white person will arrive.'

  b. Alfredi   s-a-many-ile   a-li   o-mu-zungu   a-l-oola   ta
1Alfred NEG-1S-know-PRF 1-that 1-1-white.person 1S-FUT-arrive NEG
'Alfred doesn't know that a white person will arrive.'

(17) a. n-a-bol-el-a   Nelsoni n-di   ba-keni   ba-a-cha
1[st]SG-PST-say-AP-FV   1Nelson 1[st]SG-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-1st SG-PST-say-AP-FV   1Nelson 1st SG-that 2-guests 2S-PST-go NEG
   'I didn't tell Nelson that the guests left.'

(18) a. Alfredi   ka-buul-ile   ba-ba-andu a-li   o-mu-zungu   k-ol-ile
      1Alfred   1S-reveal-PST 2-2-people 1-that 1-1-white.person 1S-arrive-PST
      'Alfred revealed to the people that a white person arrived.'

    b. Alfredi se-ka-buul-ile   ba-ba-andu ali   o-mu-zungu   k-ol-ile   ta
      1Alfred NEG-1S-reveal-PST 2-2-people 1-that 1-1-white.person 1S-arrive-PST NEG
      'Alfred didn't reveal to the people that a white person arrived.'

As above, I take this as further evidence that evidential properties of a clause do not determine the agreement on the complementizer.

5.2.3.3 Passive By-Phrases

The role of syntax in the complementizer agreement relation is even more evident in the case of passivization. If the agreement relation were controlled by the source of the report, passive by-phrases would be predicted to control complementizer agreement. As shown in (19), however, the demoted agent in a passive by-phrase does not trigger complementizer agreement (note that the generic non-agreeing complementizer *mbo* is used in this case).

(19)   Nelson   ka-bolel-wa nende ese **mbo (*ndi)** ba-keni ba-a-cha
       1Nelson 1S-told-PASS by   me   that 1st SG   2-guests 2S-PST-go
       'Nelson was told by me 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 version of the sentence in (19), given below in (20), the first person singular subject triggers complementizer agreement.

(20) (ese) n-a-bol-el-a   Nelsoni **nd-i**   ba-keni   ba-a-cha
      (I)   1st SG-PST-say-AP-FV 1Nelson 1st SG-that 2-guests 2S-PST-go
      'I told Nelson that the guests left.'

(21) ba-sasi   ba-bol-el-wa   nende Sammy   mbo (*ali) ba-keni ba-a-rekukha
      2-parents 2S-say-AP-PASS by   1Sammy that   2-guests 2S-PST-leave
      'The parents were told by Sammy that the guests left.'

(22) (ese) n-a-biyisi-bwe   nende Sammy mbo (*ali) a-fun-ile   lu-u-sala
      (I)   1ST SG-PST-blame-PASS by   1Sammy that   1S-break-PST 11-11-stick
      'I was blamed by Sammy for breaking the stick.'

An additional point relevant to the discussion at this point is that (in the absence of a by-phrase)

the derived subject of a passive can trigger complementizer agreement. This is shown in (23):

(23) 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)

This fact is discussed further below in §5.3.2.3 and §5.3.4, but let it suffice for the moment to

note that the possibility of agreement with a derived subject in a passive tends to support a

structural approach to the trigger of agreement (i.e. that subjects trigger agreement) rather than a

semantic approach.

The facts discussed in this section lead me to the conclusion that while semantics and

pragmatics do play a role in selection of the agreeing complementizer, the trigger of

complementizer agreement cannot be completely explained by an evidentially-motivated

semantic analysis. The last fact noted in (23), that derived subjects in passives can trigger

complementizer agreement, instead suggests that some sort of syntactic analysis is in order. The next section addresses a large amount of data concerning the role of syntactic conditions in this complementizer agreement relation.

5.3 Syntactic Properties of Complementizer Agreement

This section examines the syntactic properties of complementizer agreement, arguing for the generalization that the complementizer agrees with the subject of its selecting clause, that is, the most local subject (excluding the clause which the complementizer embeds). The next subsection looks at some evidence to show that complementizer agreement is a productive relation, section 5.3.2 shows that agreement is only with subjects, and section 5.3.3 addresses the question of locality. Section 5.3.4 then looks at a collection of intervention effects.

5.3.1 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 which 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. This is given in chart form in (24), with illustrative data following.

(24)   Comparing subject agreement and complementizer agreement[9]

Features	Subject agreement on –*akwa* 'fell'	Complementizer Agreement
1st person, singular	n-akwa	n-di
1st person, plural	khw-akwa	khu-li
2nd person, singular	o-(w)akwa	o-li
2nd person, plural	mw-akwa	mu-li
3rd person, singular (class 1)	a-akwa	a-li
3rd person, plural (class 2)	ba-akwa	ba-li
Class 3	kw-akwa	ku-li
Class 4	ky-akwa	ki-li
Class 5	ly-akwa	li-li
Class 6	ka-akwa	ka-li
Class 7	sy-akwa	si-li
Class 8	by-akwa	bi-li
Class 9	y-akwa	e-li
Class 10	cha-akwa	chi-li

Some examples of this productive full phi-feature agreement on complementizers are shown

below. First are cases where the complementizer bears person agreement, as shown below in

(25) - (28) for first and second person, singular and plural:

(25)   Alfredi ne nasi khw-a-loma   khu-li   ba-keni b-ool-ile   **1st Plural**
       1Alfred and I   1stPL-PST-say 1stPL-that 2-guests 2S-arrive-PST
       'Alfred and I said that the guests arrived.'

(26)   n-a-bol-el-a   Nelsoni n-di   ba-keni ba-a-rekukha   **1st Singular**
       1stSG-PST-say-AP-FV 1Nelson 1stSG-that 2-guests 2S-PST-leave
       'I told Nelson that the guests left.'

(27)   Ninywe mu-mw-a-bol-el-a   Nelsoni mu-li   ba-keni ba-a-cha   **2nd Plural**
       you(PL) 2ndPL-2ndPL-PST-say-AP-FV 1Nelson 2ndPL-that 2-guests 2S-PST-go
       'It is you (pl) who told Nelson that the guests left.'

(28)   ebwe w-a-bol-el-a   Nelsoni oli   ba-keni ba-a-rekukha   **2nd Singular**
       you   2ndSG-PST-say-AP-FV 1Nelson 2ndSG-that 2-guests 2S-PST-leave
       'You told Nelson that the guests left.'

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[9]The resolution of vowel hiatus in various subject agreement forms often results in either epenthesis of a glide, or in pronunciation of the high back vowel [u] as the glide [w].

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 (29) it is the locative class 18 on 'face', and in the case of (30) it is the class 9 noun *ebarua* 'letter', triggering class 18 and class 9 agreements on the complementizers, respectively.[10]

(29) Mu-moni mw-a Nelson mw-ekesie **mu-li** o-mu-sangafu
      18-face 18-of 1Nelson 18S-show **18**-that 1-1-happy.person
      'Nelson's face has shown that he is a happy person.'

(30) e-barua y-a Nelsoni y-ekesie **e-li** (*ali) 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 common to get nouns from noun classes other than class 1 and class 2 as subjects of verbs of speech. In (31) the class 9 *ekhutu* 'tortoise' triggers class 9 agreement on the complementizer (*e-li*). In (32) class 10 *chimbwa* 'dogs' triggers class 10 agreement on the complementizer.

(31) Nyanga ndala e-khutu y-a-hingania waasio **e-li** e-nyala y-akhila waasio chimbilo
      day one 9-tortoise 9S-PST-challenge eagle 9-that 9-could 9-defeat eagle running
      'One day the tortoise challenged the eagle that he could run faster than the eagle.'
      (de Wolf 2005: story #13, line 2)

(32) 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.'

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[10] 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 logophoric properties of complementizer agreement, as discussed in §5.4.

Other influences on normal agreements (like subject agreement) also affect complementizer agreement. In (33) there is 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 agreement in this case. As is evident in this example, the complementizer likewise bears class 8 agreement in this context.

(33)   e-mbwa ne   omu-ndu by-a-loma **bi-li**   omu-keni k-ool-ile
        9-dog   and 1-person 8S-PST-say **8-that** 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 (34).[11] 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:

(34)   ki-mi-rongoro nende ka-ma-ua   ka-a-loma **ka-li**   e-fula y-a-kwa
        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.'

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).[12]

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[11] I leave for future research the question of what principles govern agreement with conjoined phrases in Lubukusu. At first glance, it seems that when a human animate phrase (i.e. class 1 or 2) is conjoined with a non-animate (i.e. any other noun class), the default class 8 agreement is used. In other cases, then, closest conjunct agreement is used. This analysis is based on very little evidence, though, and the issue requires further research in the future.
[12] See §5.4.4 for data demonstrating that though complementizer agreement agrees in a similar fashion to T, it is not dependent on T for agreement.

5.3.2 COMPLEMENTIZER AGREEMENT TARGETS SUBJECTS ONLY

This section begins to address the generalization that the complementizer can only agree with subjects, and cannot agree with a non-subject. Some of the evidence for this conclusion was already discussed above, which I will summarize here for clarity. As we saw in (19) above (repeated here as (35)), the complementizer cannot agree with an agent in a passive by-phrase (and instead, as shown above, can only agree with the agent when it is also the subject).

(35) Nelson   ka-bolel-wa   nende ese   **mbo (*ndi)** ba-keni   ba-a-cha
      1Nelson 1S-told-PASS by   me that 1stSG   2-guests 2S-PST-go
      'Nelson was told by me that the guests left.'

In addition, the complementizer cannot agree with the non-subject "source" of information in a verb of hearing, as we saw in (14) and (15). These data support the conclusion that complementizer agreement is only possible with subjects, and that non-subjects cannot trigger complementizer agreement. This generalization needs to be much more solidly established, however, which is the goal of this section.

5.3.2.1 Ditransitives

The first piece of evidence for this conclusion is found in ditransitive verbs, where an indirect object (plausibly) intervenes between the complementizer and the subject.[13]
As is shown in the data below, objects in ditransitive verbs like *-bola* 'tell' and *-ombelesya* 'convince' do not allow their object to control complementizer agreement.

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[13] See §5.6.4 for a more specific discussion of the structure of ditransitives themselves.

(36) ewe w-abol-el-a   Nelsoni **o-li** (*ali)   ba-keni ba-rekukha
     you 2ndSG.S-say-AP-FV 1Nelson 2ndSG-that   2-guests 2S-left
     'you told Nelson that the guests left.'

(37) ba-sasi   ba-bol-il-e   o-mw-ana ba-li (*ali) o-mu-zungu   k-ol-ile
     2-parents 2S-say-AP-PST 1-1-child 2-that   1-1-white.person 1S-arrive-PRF
     'The parents told the child that the white person had arrived.'

(38) 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.'

Both linearly and structurally, the indirect object noun phrase in the examples in (36)-(38)

intervenes between the complementizer and the subject. Nonetheless, only the subject of the

sentence may trigger agreement on the complementizer, and the indirect object never can. This

points towards a generalization that only subjects can trigger agreement on the complementizer.

5.3.2.2 Causatives

Causative forms are a case similar to ditransitives, as the 'causee' noun phrase intervenes

between the subject and the complementizer. As (39) and (40) show, even in these cases,

agreement is with the subject of the sentence, and not with the 'causee' argument.

(39) n-a-suubi-sya   Alfredi **n-di** (*ali) ba-keni khe-b-eecha
     1stSG-PST-believe-CAUS 1Alfred 1stSG-that   2-guests PRG-2S-coming
     'I made Alfred believe that the guests are coming.'

(40) John   ka-sindu-sia   ba-baana **a-li**   bakeni b-ol-ile
     1John 1S-surprise-CAUS 2-children 1-that   guests 2S-arrive-PST
     'John surprised the children that guests arrived.'

The example of causatives, as in (39), is especially interesting given that the intervening 'causee'

noun phrase in this case is plausibly the argument that takes some sense of ownership over the

reported speech in the embedded clause (e.g. Alfred is the believer of the reported information in

(39)), yet the subject of the sentence still triggers complementizer agreement. More causative

data is examined shortly, in section 5.3.3.1, considering some subtly different implications of

causative constructions. The structure of Lubukusu causatives is examined in §5.6.4.4.2.

5.3.2.3 Derived Subjects in Passive Verbs

As was mentioned in §5.2.3.3, the derived subject of a passive verb is capable of triggering

complementizer agreement. This piece of evidence is central to any analysis of Lubukusu

complementizer agreement, as it demonstrates that the agreement is either structurally

determined, or at least that structural position is an integral component of the determination of

complementizer agreement. As this is a particularly crucial sort of evidence, I provide a number

of examples in (41) - (44) which demonstrate this point. In each case below, the complementizer

agrees with the derived subject of the passive.

(41)   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.'

(42)   Alfredi ka-a-ombelesi-bwa   **a-li**   omu-limi ka-a-funa   ka-ma-indi
        1Alfred 1S-PST-convince-PASS 1-that   1-farmer 1S-PST-harvest 6-6-maize
        'Alfred was convinced that the farmer harvested maize.'

(43)   Sammy a-a-biyis-we   **a-li**   a-fun-ile   lu-u-sala
        1Sammy 1S-PST-blame-PASS 1-that   1S-break-PST   11-11-stick
        'Sammy was blamed for breaking the stick.'

(44)   Mikaeli ka-a-subisi-bwa   **a-li**   o-mu-saale   wewe a-likho k-echa
        1Michael 1S-PST-promise-PASS 1-that 1-1-friend   1his   1S-PRG 1S-come
        'Michael was promised that his friend was coming.'

All of these sentences provide further evidence that it is the subject of the clause which triggers

complementizer agreement. Whereas previous evidence relied strongly on how non-subjects

which might plausibly trigger complementizer agreement in fact did not, the fact that the complementizer agrees with the subject of a passive provides positive evidence for a generalization for complementizer agreement which relies on some structural notion of the agreement trigger.

It is important to note, however, 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 (or, exceptional Case-marking (ECM) verbs). Both of these cases are discussed in §5.6.6.1 and §5.6.6.2 below. Additional passive-related evidence is also discussed in §5.3.4 below, in reference to a collection of intervention effects. It is sufficient at present, however, to note that the structural subject position is relevant for the trigger of complementizer agreement, evidenced by the presence of complementizer agreement with the derived subject of a passive verb.

5.3.2.4 No Split-Antecedence

Some further evidence comes from the lack of split-antecedence with complementizer agreement. In anaphoric relations it is often possible for a pronominal form to have a split antecedent, but this is not possible in Lubukusu complementizer agreement, which 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 (45) are all roughly synonymous, whether or not the two parties involved are both in the phrase in subject position, or one is a comitative adjunct and the other in subject position:

(45) 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 (46) and (47), therefore, this rules out agreement with the comitative phrase, and also rules out split-antecedence with the comitative phrase and the subject, demonstrated by the unacceptability of the first person plural agreement in both (46) and (47):

(46)   Alfredi ka-fukilisian-e   ne-nase **a-li**   omu-keni k-ool-ile
        1Alfred 1S-agreed-PST   with-me **1-that** 1-guest   1S-arrive-PST
        'Alfred agreed with me that the guest arrived.'
                *khu-li   1st PL-that
                *n-di   1st SG-that

(47)   ese fukilisanie   ne   Alfredi **n-di**   omu-keni k-ool-ile
        I   1st SG.agreed with 1Alfred **1st SG-that** 1-guest   1S-arrive-PST
        'I agreed with Alfred that a guest arrived.'
                *khu-li   1st PL-that
                *a-li   1-that

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'.

(48)   Alfred ne nase khw-a-fukilisian-e   **khu-li**   omu-keni k-ool-ile
        1Alfred and I   1st PL.S-PST-agree-PST **1st PL-that** 1-guest   1S-arrive-PST
        'Alfred and I agreed that the guest arrived.'

I interpret these facts as further evidence that complementizer agreement is the result of some sort of 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. We saw this same fact with causatives, passive by-phrases, indirect objects, and sources of

hearing verbs, all of which point me to the conclusion that complementizers only agree with subjects of clauses.

5.3.3   COMPLEMENTIZER AGREEMENT TARGETS THE MOST LOCAL SUBJECT

While the previous section demonstrated that the agreeing complementizer only agrees with subjects, and not non-subjects, this section shows evidence that complementizer agreement must be with the most local subject. I interpret locality here relatively: whereas in a strict sense the embedded subject is the most local subject, the agreement relation is with a structurally higher element, not a structurally lower one (as is typical for Bantu languages; see Baker 2008, Carstens 2005, and Collins 2004). The analysis presented in §5.6 will address this issue. At present, it suffices to say that by "most local subject", I refer to the most local subject in the relevant domain, i.e. structurally higher subjects.

5.3.3.1 Morphological Causatives vs. Periphrastic Causatives

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 (39) and (40) also).

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

As is evident in (50), 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*.

(50) 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 (49) to the periphrastic causative in (50), the crucial difference is the subjecthood of the 'causee' argument. In (50) this argument is a subject, triggering subject agreement, whereas the 'causee' is a non-subject in the morphological causatives (e.g. (49)).

5.3.3.2 Multiple Embeddings

One additional case emphasizes the issue of locality—multiple 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.

(51) 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.'

(52) Alfred ka-a-loma a-li   ba-ba-andu ba-mu-subisia   mbo (*ali) ba-l-echa   bwangu
      1Alfred 1S-PST-said 1-that 2-people   2S-1O-promised that   2S-FUT-arrive early
      'Alfred said that people promised (him) that they will arrive early.'

Note in (51) that the complementizers in both embedded clauses bear agreement. In each case, the complementizer agrees with the subject of the immediately superordinate clause. Crucially, the lower complementizer can only bear class 2 agreement with the class 2 subject *babaandu*

'people', and 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 the complementizer agrees with the subject of the clause that selects it. This generalization is given in (53):

(53)   Complementizer Agreement Generalization:

Complementizers agree only with the most local (superordinate) subject

5.3.4   'RELATIVIZED MINIMALITY' EFFECTS (OR, 'DEFECTIVE INTERVENTION' EFFECTS)

The previous sections have laid out the basic conditions under which complementizer agreement is possible, coming to the generalization provided in (53). There are, however, certain cases where complementizer agreement with a subject can be blocked by an intervening subject-like element. I refer to these as 'relativized minimality' effects (cf. Rizzi 1990), or 'defective intervention' effects (cf. Chomsky 2000). Neither of these theoretical notions directly capture the effects to be discussed in this section, but both have to do with a long-distance syntactic relation being disrupted in the case that a sufficiently similar syntactic element intervenes. This is precisely the intuition behind the analysis of the effects described below, though in neither of the cases described below do the labels 'relativized minimality' or 'defective intervention' apply in their true formal senses.

5.3.4.1 Complementizer Agreement out of NPs

One context for complementizer agreement which has not been discussed to this point is the noun phrase. As is shown in the examples that follow, complementizers heading clausal

complements of nouns may show complementizer agreement. In these cases, the

complementizer agrees with the subject of the matrix clause, as shown in (54) - (57).

(54) n-a-ulila   li-khuwa **nd-i**   Sammy ka-a-kula li-tunda
      1st SG.S-PST-hear 5-word **1st SG-that** 1Sammy 1s-PST-buy 5-fruit
      'I heard the rumor that Sammy bought the fruit.'

(55) Sammy a-li   nende li-manya **a-li**   li-sna   lyewe bali 'mzungu'
      1Sammy 1S-be with 5-belief **1-that** 5-name 5your be   mzungu
      'Sammy has the belief that your name is 'mzungu'.'

(56) Alfred ka-a-ulile   kembeo a-li   bakeni   bolile
      1Alfred 1s-PST-hear wind   1-that 2-guests 2S-arrive-PST
      'Alfred heard the rumor that guests arrived.'

(57) n-a-bon-e   li-khendekha n-di   Sammy   k-eng-ile   mu-nju
      1st SG-PRS-see-PRS 5-jealousy   1st SG-that 1Sammy 1S-enter-PST 18-house
      'I am jealous that Sammy entered the house.'

In the case that a noun phrase has a plausible subject, however, this agreement is degraded, as

shown in the examples below. Example (58) shows that the complementizer cannot agree with

the matrix subject when the noun phrase has a subject, and (59) shows that agreement is also not

possible with the subject of the noun phrase. (60) shows that the sentence is acceptable with a

non-agreeing complementizer, however.

(58) *M-bona bu-ng'ali   bw-a   Alfredi **n-di**   ba-ba-ana   b-ewe ba-kha-khil-e
       1st-PRS.see 14-certainty 14-ASS. 1Alfred **1st-that** 2-2-children 2-his   2S-FUT-win-FUT
      'I see Alfred's certainty that his children will win.'

(59) *M-bona   bu-ng'ali   bw-a   Alfredi **a-li**   ba-ba-ana   b-ewe ba-kha-khil-e
       1st-PRS.see 14-certainty 14-ASS. 1Alfred **1-that** 2-2-children 2-his   2S-FUT-win-FUT
      'I see Alfred's certainty that his children will win.'

(60) M-bona   bu-ng'ali   bw-a   Alfredi **mbo** ba-ba-ana   b-ewe ba-kha-khil-e
      1st-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.'

It is plausible, at least for the cases in (58) and (59), that either the verb *bona* 'see' or the noun *bung'ali* 'certainty' in some way prohibit complementizer agreement. The example in (61) shows that this is not the case, however. In the following example, the logical subject of the noun phrase is not expressed via the associative marker as in the example above, but is instead expressed as a locative adjunct, though with a very similar meaning ('Alfred's certainty' vs. 'certainty in Alfred').

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

As is evident above, complementizer agreement in this case becomes completely acceptable. This appears to be an effect similar to 'relativized minimality' effects: when a subject-like element intervenes, as in (58) and (59), the complementizer agreement is prohibited, but when that nearly-semantically-identical element is present as a locative adjunct rather than a subject of the noun phrase, there is no intervention effect. Intuitively, it seems that the locative phrase in (61) is not sufficiently "subject-like" in (61) to intervene in the agreement relation.

Note, however, that (59) demonstrates that the complementizer nonetheless cannot agree with the subject of the noun phrase. This is where the notion of 'defective intervention' comes in. The subject of the noun phrase is not capable of triggering agreement itself, and yet it disrupts the agreement relationship with the matrix subject. The intuition in this case is that the

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subject of the noun phrase is sufficiently subject-like to intervene, but is a defective intervener because it is not sufficiently 'subject-like' to trigger agreement itself.

5.3.4.2 Further Implications of Passives

As was noted above in section 5.3.2.3, the derived subject of a passive can trigger agreement on the complementizer. An example of this is given in (62)a where the complementizer appears as *ali*, agreeing with the class 1 subject *omwana* 'child'. All of the examples given in §5.3.2.3 lacked by-phrases, however. When a by-phrase is included, as in (62)b, this agreement relation with the subject is degraded.

(62) a. omw-ana ka-a-sitaki-bwa   **a-li**   k-eba   chi-ngokho
       1-child   1S-PST-accuse-PASS**1-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 (*ali) k-eba   chi-ngokho
       1-1-child   1S-PST-accuse-PASS by 2-parents 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 5.2.3.3, 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 (63) and (64) provide further examples of the pattern described in (62)b above.

(63)   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   1^{st}SG-that   (agrees with *ese* 'me')
             *a-li   1-that   (agrees with *Nelson*)

(64)　Sammy　ka-a-bol-el-wa　　　ne　ba-sasi　　mbo (*ali)　ba-keni　ba-a-rekukha
　　　　1Sammy 1S-PST-say-AP-PASS by 2-parents　that　　　　2-guests 2S-PST-leave
　　　　'Sammy was told by (his) parents that the guests left.'

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 was also a significant number of times when speakers would not accept complementizer agreement with the derived subject, even in the absence of a by-phrase agent. 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:

(65)　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 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 (65), speakers nonetheless do not accept complementizer agreement with the implicit agent:

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

(66) *Alfred ka-a-bol-el-wa   n-di   sy-akhulia si-li tiyari
       1Alfred 1S-PST-say-AP-PASS 1[st]SG-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.[14] The next sub-section offers an explanation for these effects based on processing-related factors.

5.3.4.3 Production Effects

As I noted in the two preceding sections, the intervention of a plausible subject can interfere with the complementizer agreement relation. As suggested to me by Robert Thornton, these facts may fall in with research on the processing of language that suggests that both semantic features and degrees of plausibility have an effect on the processing of agreement relations, including both production and comprehension (cf. Garnsey et al. 1997, Pickering & Traxler 1998, Thornton and MacDonald 2003, Hupet, Fayol, and Schelstraete 1998, Pittman and Smyth 2005, Greenslit and Badecker 2001, and Barker et al. 2001 on plausibility effects; see Vigliocco et al. 1996, Eberhard 1999, Barker, Nicol, & Garrett 2001; Bock, Loebell, & Morey 1992 on intrinsic semantic features influencing production). I will report briefly on Thornton and MacDonald (2003), and discuss the insight that this may offer for the Lubukusu intervention effects.

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[14] 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.

It is well known that local NPs may induce production errors in subject-verb agreement, for example, *the key to the cabinets *are lost* as opposed to *the key to the cabinets is lost*. Thornton and MacDonald (2003) build on these previous observations, testing whether the plausibility of the local NP as a subject of the predicate can have an effect on both production and comprehension. The sample item in their testing consists of pairing such as those shown in (67):

(67) a. Both NPs plausible: <u>the album(s) by the classical composer(s)</u> was/were **praised**
    b. Head Only plausible: <u>the album(s) by the classical composer(s)</u> was/were **played**

As is readily apparent, the local NP is not a plausible subject for the predicate *played* (in this context), whereas it is an equally plausible subject as the head noun *album(s)* with the predicate *praised*. In two separate production experiments and a comprehension experiment, Thornton and MacDonald demonstrate that plausibility has a significant effect on both production and comprehension, so that the (linear) intervention of a plausible NP subject produced a greater error rate in the production tasks and longer reading times in the comprehension task than did the non-plausible NP subject.

The notion of plausibility that is adopted in Thornton and MacDonald (2003) has much to do with semantic plausibility, which is not identical to how I used the term 'plausibility' in the preceding sections. In passives our uses of the term were fairly similar, though the idea of plausibility in those cases related to a semantic notion of agentivity (which was present whether or not the overt agent by-phrase was present). I use the term "plausible subject" in cases of agreement out of noun phrases as well, however, which has more to do with grammatical categories and syntactic relationships than with semantic plausibility, as complementizer

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agreement was affected by the alternation of a semantically similar phrase between a non-adjunct and an adjunct in (59) and (61), respectively.

Provided that we can accept a complex definition of what makes an element a plausible target for agreement (including both syntactic and semantic factors), it is clear that the the plausibility of an element as a subject can have a significant impact on processing of subject-verb agreement. It would seem, then, that the facts discussed in §5.3.4.1 and §5.3.4.2 would fall in with this broader set of plausibility effects, and therefore it may be possible that the intervention effects noted in this section are in fact processing effects rather than any impact on the syntactic agreement relationship itself.[15] That being said, it may be possible to explain these effects as a syntactic intervention effect depending on the particular analysis adopted for the subject-complementizer relationship, but this dissertation chapter does not attempt to provide such an analysis for them.

5.4 Correlations with Logophoricity

As this section demonstrates, there are a number of facts regarding complementizer agreement which correlate with the properties of logophoric predicates and logophoric pronouns, particularly in West African languages. I will demonstrate these properties, and based on previous approaches to logophoricity, will propose a structure for complementizer agreement in Lubukusu.

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[15] An important contribution of Thornton and MacDonald (2003) that I ignore for the most part here is the impact of these plausibility effects on theories of the processing of grammatical agreement, e.g. constraint-based models as opposed to what they term the encapsulated model (with distinct modules for different sorts of processing). I set aside this important question for now, contenting myself to locate the effects on agreement here with a broader family of intervention effects based on plausibility of a NP as a subject.

5.4.1 BEING A SUBJECT IS NOT ENOUGH

As the generalization in (53) 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 (68), for example, where agreement with a non-human subject is degraded:

(68)   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 (68) is consistent with the previous examples of causatives, in that complementizer agreement with the class 1 'causee' is completely unacceptable. Notable here, however, is that the 'causer' argument in this case is a non-human, non-sentient thing, 'marks on the table', and agreement with that subject is degraded in this case. Despite this fact, agreement is still ruled out with the non-subject causee, Alfred.

The example in (68) therefore suggests several things to me. First, there is some sort of sentience requirement on complementizer agreement (more on this below). Second, even when the matrix subject is not a good candidate for complementizer agreement, a non-subject is nonetheless incapable of triggering complementizer agreement, despite that non-subject's plausible candidacy to trigger the agreement (i.e *Alfred* is the 'believer'). This reinforces the generalization from above, that only subjects may trigger complementizer agreement. It is apparent from (68), however, that being a subject is not solely sufficient for triggering complementizer agreement. Rather, it seems that the subject which triggers complementizer

agreement must 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 (29) and (30) from section 5.3.1, which are repeated as (69) and (70) below:[16]

(69)   Mu-moni mw-a Nelson   mw-ekesie **mu-li** / **a-li**   o-mu-sangafu
        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.'

(70)   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 (68), 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 (70), however, note, that the agreement is degraded in the event that the author of the letter is removed:

(71)   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.'

As is clear from (71), the generic non-agreeing complementizer *mbo* is preferred to the agreeing complementizer in this case, a similar effect to what is seen in (68). In some way, then, the close association of the non-sentient subject with a person enables the complementizer agreement. This influence of a vaguely defined "association" is seen also in the alternative agreements that are shown in (69) and (70). The example in (69) with the subject *mumwoni mwa Nelson* 'face of Nelson' allows for class 1 agreement (apparently with the 'possessor' in the subject NP), and

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[16] Note the addition of some alternative agreement forms, however, from the previous examples.

speakers report this acceptability due to the intuition that it refers to all of Nelson—his whole body. On the other hand, the same sort of agreement with the possessor in (70) is unacceptable, perhaps because a letter is wholly distinct from a person, whereas a person's face is in fact a part of their body. In both cases, however, the presence of a person 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 person's face displays their emotions, while writing is a means of communicating a person's thoughts).

There are therefore two conditions which must be met in order for complementizer agreement to be licit. First, the controller of agreement must be a subject (as agreement with non-subjects is never licit), 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).

(72) 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 report[17]

As will be discussed in the next section, both of the properties in (72) are reminiscent of logophoric phenomena, and analyses of logophoric phenomena offer a precedent for the analysis which I will offer for complementizer agreement.

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[17] 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, 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.

5.4.2 A LOGOPHORIC ANALYSIS

The subject-oriented properties of complementizer agreement in Lubukusu are similar to another

(often) subject-oriented phenomenon, logophoricity. 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 (73) from Adesola (2005: 2069), the logophoric pronoun *oun* is obligatorily

coreferent with the matrix subject.

(73) 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 1985), 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).

The core characteristic of logophoric pronouns is that their reference is necessarily determined

by an argument in a higher clause. Culy (1994a) distinguishes these pronouns from the sorts of

'logophoric' pronouns that occur in Japanese, Icelandic, and Italian (for example), which are

reflexive pronouns which 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.

The relevant comparison for our concerns are the 'pure' logophoric languages, as they are

restricted to clause-level operations, rather than the the NCBRs, which may pick up discourse referents.

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 Koopman and Sportiche 1989; Speas 2004; Adesola 2005, 2006; among others). I won't review the various analyses here, but rather schematize the analyses generally in (74):

(74)   [SUBJ$_k$ ... [$_{CP}$ OP$_k$ C [$_{IP}$ ... LOG$_k$ ...]]]

The analysis in (74) 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. It is in the spirit that I propose that there is a null logophoric operator in the left periphery of embedded clauses in Lubukusu that triggers agreement with the complementizer (see Baker 2008 for a similar analysis of Lok<u>aa</u>).

(75)   <u>Complementizer agreement in Lubukusu</u> (first approximation)
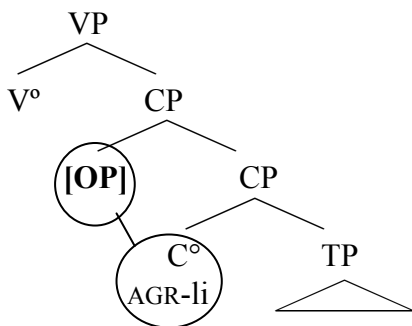
I assume, in fact, that this operator that triggers complementizer agreement in Lubukusu is the same sort of operator that occurs in West African languages and binds logophoric pronouns. The difference (I claim) is that Lubukusu has an agreeing complementizer which agrees with the null operator, and does not have any logophoric pronouns (at least, to my knowledge, and I am not aware of any narrow Bantu languages with logophoric pronouns). Presumably, if Lubukusu did in fact have logophoric pronouns, a logophoric pronoun would always be coreferent with the controller of agreement on the complementizer. The next two sections discuss some potential evidence in favor of a logophoric analysis of this sort.

5.4.3 POTENTIAL SUPPORT: NON-LOGOPHORIC DOMAINS

One piece of potential support for a logophoric analysis of Lubukusu complementizer agreement is the lack of complementizer agreement in *because*-phrases. As observed by Culy (1994a), in many languages with logophoric pronouns causal clauses such as those in (78) and (80) are not logophoric domains. As (77) and (79) demonstrate, the agreeing complementizer may not appear in *because*-phrases (despite the fact that non-agreeing complementizers are possible, as shown in (78)).

(76) Sina sikila Mikaeli   n-a-rekukha?
      what reason 1Michael NE-1S-leaving
      'Why is Michael leaving?'

(77) … sikila mbo (*ali) a-likho   a-elekesia Tegani
      reason that   1S-PRG   1S-escort 1Tegan
      '…because he is escorting Tegan.'

(78) Mikaeli a-likho a-cha sikila   mbo/bali a-likho   a-elekesia Tegani
      1Michael 1S-PRG 1S-go because that   1S-PRG   1S-escort 1Tegan
      'Michael is leaving because he is escorting Tegan.'

(79)   *Mikaeli a-likho a-cha sikila   a-li   a-likho   a-elekesia Tegani
         1Michael 1s-PRG 1s-go because 2-that 1S-PRG   1S-escort   1Tegan
         'Michael is leaving because he is escorting Tegan.'

Another example of the prohibition of the agreeing complementizer in *because*-phrases is given

in (80), where (as above) *mbo* and the non-agreeing *bali* are acceptable, but the agreeing

complementizer *ali* is unacceptable.

(80)   Mikaeli   a-likho   a-tekha sy-akhulia sikila mbo/bali (*a-li)   a-likho   a-ulila e-njela
         1Michael 1S-PRG   1S-cook 7-food   reasonthat   (*1-that) 1s-PRG   1s-hear 9-food
         'Michael is cooking because he is hungry.'

The lack of complementizer agreement in *because*-phrases in Lubukusu is consistent with

logophoric domains in other languages, which again is supportive of an analysis of Lubukusu

complementizer agreement as essentially a logophoric phenomenon.

There is a similar sort of circumstance of multiple complementizer-like elements where

the agreeing complementizer is ruled out, but the non-agreeing complementizers are acceptable.

It is not clear to me whether these would be classified as non-logophoric domains or not, but are

included here for the sake of thorough documentation. As can be seen in the example in (81), the

complement clause begins with the sequence *(ne) kaba*, which roughly correlates to English *if*,

after which a non-agreeing complementizer is possible. Example (81) gives a case with the non-

agreeing *bali*, while (82) shows that the same facts hold for *mbo* as well.

(81)   Mosesi s-a-li   na   ng'ali (ne) kaba bali (*ali) Sammy eeba   chi-ropia   ta
         1Moses NEG-1S-be with confidence if   that   1Sammy 1S.stole 10-money NEG
         'Moses is not sure if Sammy stole the money.'

(82) 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.'

As can be seen in (81) and (82), the agreeing complementizer is ruled out in each case. As I

stated above, it is unclear whether these *if*-clauses fall into a natural class of non-logophoric

domains or not, and this remains an issue for future research.

5.4.4 POTENTIAL SUPPORT: NO ALTERNATIVE AGREEMENT EFFECTS

Another potential source of evidence for the preliminary analysis set forth in (75) is the lack of

anti-agreement effects on complementizer agreement. As was examined at length in chapter 3,

when a subject in noun class 1 is extracted, it triggers an alternative agreement effect (AAE)

where subject agreement is deficient in features and appears as [o-] instead of the normal

declarative [a-][18] (Diercks 2009; Henderson 2009a,b; Schneider-Zioga 2007).

(83) a. Naliaka **a**-li   mu-nju   (Wasike 2007)
         1Naliaka **1s**-be 18-house
         'Naliaka is in the house.'

      b. Naanu **o**-li   mu-nju?
         who   **1s**-be 18-house
         'Who is in the house?'

In chapter 3, I argued in a manner similar to Henderson (2009a,b) that alternative agreement

effects are in fact realizations of agreement, but that this agreement is deficient in PERSON

features. Both Henderson (2009a,b) and chapter 3 of this dissertation claim that the nature of

extracting from subject position triggers this alternative agreement effect – my analysis depends

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[18] Or sometimes [ka-] in Lubukusu.

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on an intervention effect by which a complementizer head bleaches the relevant features from the agreement relation between T° and the subject (I refer the reader to chapter 3 for further details).

This analysis makes an interesting prediction with respect to complementizer agreement, however. If agreement were in some way dependent on the matrix inflectional complex (i.e. subject agreement), we would expect to see alternative agreement effects arising on the complementizer in cases of subject extraction. On the analysis proposed here, in contrast, the agreement relation is a local relation with a null logophoric operator, and therefore the processes of subject extraction should have no bearing on the form of the agreeing complementizer. As (84) shows, the prediction of the analysis in (75) is upheld, as subject extraction does not trigger alternative agreement effects on the complementizer, despite the alternative agreement effects on the matrix verb:

(84) naanu **o**-manyile **a**-li   (*o-li)   Alfred a-l-ola
      who   **1s**-knows **1**-that (*AAE-that) 1Alfred 1s-FUT-arrive
      'Who knows that Alfred will arrive?'

(85) Alfred   ni-ye   **o**-many-ile **a**-li   (*o-li)   ba-ba-ana   ba-l-ola
      1Alfred PRED-1 **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 analysis proposed in (75), namely, that complementizer agreement consists of an agreement relation that occurs below the level of matrix-clause inflection. This is of course not the only analysis which is consistent with this lack of AAEs, but it does rule out alternative analyses where the complementizer agrees directly with matrix inflection (which would be a desirable approach given the subject-oriented properties of the complementizer agreement relation) and offers confidence that the agreement relation between the complementizer and its agreement trigger is relatively local.

5.4.5 POTENTIAL SUPPORT: COMPLEMENTIZER AGREEMENT WITH IMPERATIVES

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. As can be seen in the basic imperatives in (86), commands in Lubukusu (as with many Bantu languages) consist of the basic verb stem with no tense/aspect morphology and no subject agreement (which normally appear as prefixes on the verb root that appears in the imperative).

(86) Kula!   (Wasike 2007: 11)
      buy
      'Buy!'

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. This is seen in (87) and (88), where the 2nd person singular form of the complementizer agrees with the 2nd person singular addressee of the imperative.

(87) Loma o-li   orio   muno
      say   2ndSG-that thank you   very much
      'Say thank you very much.' (sg)

(88) Suubisye o-li   o-kh-eche   muchuli
      promise 2ndSG-that   2ndSG-FUT-come   tomorrow
      'Promise me that you (sg) will come tomorrow.'

An alternative agreement form is evident in the examples in (89) and (90), where 2nd person plural agreement on the complementizer agrees with the 2nd person plural addressee of the imperative.

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(89) Loma mu-li orio muno
say 2nd PL-that thank you very much
'say thank you very much.' (pl)

(90) Suubisye mu-li mu-kh-eche muchuli
promise 2nd PL-that 2nd PL-FUT-come tomorrow
'Promise me that you (pl) will come tomorrow.'

Again, while not as critically relevant to the analysis at hand as the data sets in the two previous sections, this data does at least show that complementizer agreement is not dependent on (overt) subject agreement in Lubukusu. The question of whether there is in fact covert subject agreement in these cases will rely on a specific analysis of imperatives, but I will set that issue aside as a matter for future research and let the surface-level observation stand for now.

5.4.6 THE CARTOGRAPHY OF POINT-OF-VIEW

There are a number of recent works proposing integrating pragmatic projections relating to point of view into the left periphery (Bianchi 2003; Speas 2004; Baker 2008; Tenny and Speas 2003; Haegeman 2006, among others). I will adopt the particular approach of Speas (2004), who integrates observations about logophoricity, evidentiality, and the functional typology of adverbials (from Cinque 1999) to build an argument about the nature of the syntactic encoding of point of view.

Addressing the nature of logophoricity first, Culy (1994a) notes that there is a cross-linguistic hierarchy with respect to the predicates that license their complements as logophoric domains (i.e. the types of verbs that occur with logophoric pronouns in their embedded clauses). That is to say, languages vary with respect to what sorts of predicates license logophoricity: speech verbs most commonly license logophoric domains, whereas direct perception verbs are least likely to do so.

(91) <u>Logophoric Predicate Hierarchy</u> (Culy 1994a: 1062)

speech >> thought >> knowledge >> direct perception

The hierarchy in (91) is implicational, so that in the event that a language allows logophoric complements with a less-common sort of predicate, it also allows them with the more-common sorts of predicate. For example, if direct perception verbs trigger logophoric domains in a given language, predicates of speech, thought, and knowledge will also do so in that language.

Speas (2004) also notes that there is a correlation between the hierarchy of logophoric predicates and the different types of evidential morphemes that occur cross-linguistically. Relying on previous work by Oswalt (1986) and Willett (1988), Speas notes that there is a hierarchy with respect to the different sorts of evidence which are grammaticized in evidential morphology cross-linguistically.

(92) <u>Evidential Hierarchy</u> (Speas 2004, Oswalt 1986, Willett 1988)

personal experience >> direct (e.g. sensory) experience >> indirect evidence >> hearsay

This hierarchy is taken to express the probability of the use of evidential morphemes, so that speakers will not use redundant forms. That is, if they have direct experience of some event, they will use the form which represents direct evidence, rather than using some less specific form. Speas derives this from a series of binding relationships in the structures for the pragmatic point of view projections she posits, as shown in (96) and (98) below, but I will not go into any depth in the properties of evidentials and how they are explained under her account as it is peripheral to my concerns regarding logophoricity. Rather, I will let it suffice to note that her account is based on a wide range of syntactic/pragmatic phenomena, including evidentiality.

In particular, Speas notes that there is an inverse correlation between the logophoric hierarchy and the evidential hierarchy with respect to the degree of evidence which is involved in each step of the hierarchies. For the logophoric hierarchy, verbs of speech are the most common and verbs of direct perception are the least common, whereas for the evidential hierarchy, "hearsay" is the least specific, used only in the case that some more direct experience is not available, and "experiential evidence" is the most specific sort of evidence. This inverse correlation serves as an important cue towards the structure of pragmatic projections in the syntax.

In proposing a structure to account for the logophoric and evidential hierarchies in (91) and (92), Speas draws a connection with Cinque's (1999) proposal for a universal structure of functional projections based on positions of adverbs cross-linguistically.

(93) Cinque's (1999) four highest projections:
      [Speech Act Mood [Evaluative Mood [Evidential Mood [Epistemological Mode

(94) <u>Speech Act Mood</u>:   indicates the type of speech act (declarative, interrogative, etc.)
      <u>Evaluative Mood</u>:   indicates speaker's evaluation of the reported event or state as
                                good, lucky, bad, surprising, etc.)
      <u>Evidential Mood</u>:   indicates the nature of speaker's evidence for truth of proposition
      <u>Epistemological Mode</u>: indicates speaker's degree of certainty about the proposition

As stated above, Cinque arrived at this analysis on the basis of adverb positions, arguing that adverbs only occur at their corresponding functional projections. Representative adverbs are given in (95):

(95) <u>Representative Adverbs</u> (Speas 2004: 259)
      Speech Act Mood   frankly, confidentially
      Evaluative Mood   unfortunately, luckily, surprisingly
      Evidential Mood   allegedly, reportedly,
      Epistemological Mode   obviously, apparently

Speas relates the hierarchies of logophoricity and evidentiality to Cinque's hierarchy of functional projections, claiming that the evidential and logophoric properties of language are rooted in these functional projections. Note that the evidential hierarchy is inverted in in (96), showing the correspondences between the functional structure, the logophoric predicates, and the degree of evidence in evidential contexts:

(96) Cinque's projections   Logophoric Hierarchy   Evidental Hierarchy
      Speech Act   say   hearsay
      Evaluative   think   indirect/less valuable evidence
      Evidential   know   direct evidence
      Epistemological   perceive   experiential/unquestionable evidence
                                                                  (Speas 2004: 264)

Without examining the claims with respect to evidentiality here, Speas proposes that different predicates select for a smaller subset of the point-of-view (POV) heads (the term which Speas uses to refer to Cinque's highest projections). Note that each type of verb is associated with the (highest) functional projection which is appropriate to its meaning.

(97) a. say   [$_{SAP}$ SA [$_{EvalP}$ Eval [$_{EvidP}$ Evid [$_{EpisP}$ Epis [
      b. think   [$_{EvalP}$ Eval [$_{EvidP}$ Evid [$_{EpisP}$ Epis [
      c. know   [$_{EvidP}$ Evid [$_{EpisP}$ Epis [
      d. perceive   [$_{EpisP}$ Epis [

Speas then applies this analysis to the logophoric hierarchy, claiming that that any of these left-peripheral positions may bear a strong POV (point of view) feature, and when this is the case, it is a logophoric language, licensing a logophoric operator. Languages may vary as to in which position they license a POV feature (and a logophoric operator), as is outlined in (98), where each of (a)-(d) represent a different possible language. [19]

_____

[19] I use "CP" here to represent a generic CP-level head.

(98) a. say   [$_\text{SAP}$ OP$_k$ SA$_\text{[POV]}$ [$_\text{EvalP}$ Eval   [$_\text{EvidP}$ Evid   [$_\text{EpisP}$ Epis   [$_\text{CP}$ C … LOG$_k$ …
     b. think   [$_\text{EvalP}$ OP$_k$ Eval$_\text{[POV]}$ [$_\text{EvidP}$ Evid   [$_\text{EpisP}$ Epis   [$_\text{CP}$ C … LOG$_k$ …
     c. know   [$_\text{EvidP}$ OP$_k$ Evid$_\text{[POV]}$ [$_\text{EpisP}$ Epis   [$_\text{CP}$ C … LOG$_k$ …
     d. perceive   [$_\text{EpisP}$ OP$_k$ Epis$_\text{[POV]}$ [$_\text{CP}$ C … LOG$_k$ …

This analysis explains the logophoric hierarchy that occurs cross-linguistically. Logophoric

languages that that have a POV feature in the Speech Act Phrase (such as in (98)a) license

logophoric domains under verbs of saying, but not under any other verbs, because verbs of

thought (for example) do not have a Speech Act projection, and therefore do not have the

logophoric operator to bind an embedded logophoric pronoun. The implicational nature of the

hierarchy is captured by the ordering of the projections. Take the potential language in (98)d for

example—the POV feature and the logophoric operator as in EpisP, and therefore verbs of direct

perception trigger logophoric domains, but all the verbs higher on the hierarchy (verbs of speech,

thought, and knowledge) also have an EpisP projection, and therefore also license logophoric

domains. The presence of POV features on any of these point of view projections explains the

logophoric hierarchy, as a POV feature on each POV projection accounts for each level of the

hierarchy.

     Adopting the basic approach of Speas (2004) towards logophoricity, I propose that the

logophoric operator in Lubukusu occurs in EpistP, and the agreeing complementizer occurs in

Epistº. Agreement is triggered locally between the complementizer and the null operator.

(99) Proposal: The Lubukusu agreeing complementizer occurs in Epistº, agreeing with the
               operator in Spec, EpistP

(100)

SA°
    Eval°
        Evid°
           (OP
           Epis°   CP²⁰
           AGR-li)

This approach is promising for a variety of reasons. First, the agreeing complementizer is acceptable with all the logophoric predicates noted in Culy's (1994a) logophoric hierarchy, as predicted by the structures given in (98)d and (100). An additional benefit of the account is that it addresses the tendency of the presence and/or absence of the agreeing complementizer to communicate some sense of the speaker's attitudes towards the veracity of the reported event. This was addressed in §5.2.2, but perhaps is seen most clearly in the data in (101) and (103), where the presence of complementizer agreement (as opposed to the use of the non-agreeing complementizer) relates more to the reliability of the reported event itself than it does to forms of evidence (and the reliability of that evidence) for that proposition.

(101)   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.'

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[20] Two notes are important here. I assume that non-logophoric complementizers like non-agreeing *bali* and *mbo* occur in a lower CP-level head, labeled here simply as CP (but perhaps corresponding to Fin°, as proposed by Haegeman 2006). This raises an important question, however, as to why "stacked" complementizers never occur (e.g. … *ali mbo* …). To my knowledge this does not in fact occur, though there is nothing in the analysis here to rule it out. I will not attempt to fully address this here, but instead offer a couple of thoughts. First, some notion of a doubly-filled comp filter could be invoked, though this is questionable given the occurrence of multiple complementizer-like elements in cases like because-phrases. A more likely suggestion is that the two morphemes of the AGR-*li* complementizer actually occur on different heads: *-li* occurs in the same position as other non-agreeing complementizers (generically labeled CP in (100)), and the agreement form on the complementizer arises on Epis°. I am not aware of any evidence for against either of these accounts, however.

There are (at least) two separate circumstances in which speakers accept the sort of example in (101). These situations were presented to speakers as is given in (102):

(102) Situation A   *I am talking to you. We are waiting for Sammy to join us, because we are supposed to meet the guests, but he is late. You wonder whether perhaps Sammy didn't know that the guests arrived, and that's why he's not there. But earlier that day, Sammy had informed me that his parents told him about the guests' arrival. So I tell you (the sentence in (101)).*

         Situation B   *I am talking to you. We are waiting for Sammy to join us, because we are supposed to meet the guests, but he is late. You wonder whether Sammy perhaps didn't know that the guests arrived, and that's why he's not there. But earlier that day, Sammy's parents had informed me that they told Sammy about the guests' arrival. So I tell you (the sentence in (101)).*

Therefore the example in (101) may be used whether the speaker received this information from Sammy, or from someone else (e.g. if Sammy's parents informed the speaker that the guests arrived). It seems, then, that the source (or, evidence) of the information does not play a role in triggering complementizer agreement, as was noted previously. Instead, complementizer agreement is possible with the derived subject, even if the speaker has no contact with the person referred to by that derived subject (as as in the case of (101)). This does not imply, however, that the non-agreeing complementizer cannot be used, as is evident in (103):

(103)   Sammy ka-bol-el-wa   **bali**   ba-keni b-ola
       1Sammy 1S-say-AP-PASS **that**   2-guests 2S-arrived
       'Sammy was told that the guests arrived.'

As described by speakers, (103) is licit in the context that the speaker and the addressee are waiting for the guests in order to meet with them, but the guests have not showed up for the meeting, so that the reliability of the reported situation is in question (i.e. that the guests arrived).

Evidence like this suggests that rooting the agreeing complementizer in the EpisP is on the right track, given Cinque's argument that the Epistemological Mode indicates speaker's degree of certainty about the proposition. Thus the apparent "evidential" nature of the agreeing complementizer would seem to have more to do with the the speaker's certainty than with degrees of evidence. As noted above, this analysis predicts that complementizer agreement should be possible with the full range of levels on Culy's (1994a) logophoric hierarchy. This question is taken up in the next section, which demonstrates that this is in fact the case.

5.5 Lexical Influences on the Agreeing Complementizer

As demonstrated in the previous sections, there are both semantic, 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. That is to say, some verbs which select complement clauses allow the agreeing complementizer, whereas some verbs which select complement clauses require a complementizer of the non-agreeing sort. As I will demonstrate, the unifying thread between all verbs disallowing the agreeing complementizer is that they are emotive factive verbs. I will also demonstrate that verbs that allow complementizer agreement include verbs of speech, thought, knowledge, and direct perception, consistent with the analysis in (99) that the logophoric operator in Lubukusu is in Spec, EpisP.

5.5.1 VERBS THAT ALLOW COMPLEMENTIZER AGREEMENT

This sub-section reports the Lubukusu verbs which allow complementizer agreement, including novel data as well as data previously reported in Wasike (2007), as noted below. For each group of verbs a summary list is given, after which are provided individual examples illustrating the

summary. Perhaps the most common cases of complementizer agreement come with verbs of

speech, as shown in (104):

(104) <u>Verbs of speech/manner of speech</u>
     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'

Examples from some of these verbs of speech are included below: 'say' in (105), 'complain' in

(106), and 'reply' in (107).

(105) Om-w-aana a-lomile a-li   o-mu-zungu   k-ol-ile
     1-person   1-said   1-that 1-1-white.person 1S-arrive-PST
     'The child said that the white person had arrived.'

(106) Mikaeli k-eloch-ile   a-li   ki-mi-limo ky-ab-ele ki-mi-kali
     1Michael 1S-complain-PST 1-that 4-4-word 4S-be-PST 4-4-fierce
     'Michael complained that the work was too much (or, too hard).'

(107) Alfred   ka-ngalusye a-li   a-kh-echa   li-chuma li-li-cha
     1Alfred 1S-replied 1-that 1S-FUT-come 5-week   5C-5S-go
     'Alfred replied that he is coming next week.'

(108) Sammy   a-biiyisye ba-ba-ana   a-li   ba-fun-ile   luu-sala
     1Sammy 1S-accused 2-2-children 1-that 2S-break-PST 11-stick
     'Sammy accused the children of breaking the stick.'

(109) <u>Verbs of desire</u>
     khukhwenya   'to want'   khukhwikoomba   'to wish'
     khuroora   'to dream'

Examples of verbs of desire are given in (110) ('want') and (111) ('dream'), the latter from

Wasike (2007):[21]

(110) n-enya   (nd-i)   Sammy   a-ch-e
       1stSG-want (1stSG-that) 1Sammy 1S-leave-SBJ
       'I want Sammy to leave.'

(111) Wanjala   a-a-roor-ire   a-li   …   (Wasike 2007: 159)
       1Wanjala 1S-PST-dream-PRF   1-that
       'Wanjala dreamt that …'

As shown in (112), complementizer agreement also occurs with verbs of knowledge/belief:

(112) Verbs of knowledge/belief
       khumanya   'to know'   khukanakana   'to think'
       khusuubila   'to believe'   khufwanirisya   'to guess/suppose'

(113) Na-many-ile   n-di   o-mu-zungu   a-l-ola
       1stSG-know-PRS 1stSG-that 1-1-white.person 1S-FUT-arrive
       'I know that the white person will arrive.'

(114) Fwanirisya n-di   ba-keni   b-ol-ile
       1stSG.think 1stSG-that 2-guests 2S-arrive-PRF
       'I suppose that the guests have arrived.'

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 (115). Examples of 'hear' and 'agree'

have already been given in the preceding sections, so examples of 'be jealous' and 'worry' are

given below:

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[21] Note that the glosses given for Wasike's examples are modified to fit the glossing conventions use in this dissertation.

(115) Other verbs
       khuulila   'to hear'   khufukilila   'to agree'
       khubuula   'to reveal'   khububa   'to be jealous'
       khukhweendekhelela 'to worry'   khubona   'to see'
                                                        (see also Wasike 2007)

(116) Sammy   a-buba   a-li   khu-li   mu-nju
       1Sammy 1S-is.jealous 1stPL-that 1stPL-are 18-house
       'Sammy is jealous that we are inside the house.'

(117) N-eendekhelela   n-di   li-toka   ly-akwa
       1stSG.S-worried   1stSG-that 5-car   5S-crashed
       'I worried that the car crashed'

(118) m-bona n-di   e-fulu   y-akalukhe
       1stS-see 1st-that 9-rain 9S-returned
       'I see that the rains have returned.

5.5.2 VERBS THAT DON'T ALLOW COMPLEMENTIZER AGREEMENT

As is demonstrated in the examples that follow, there are a group of verbs in Lubukusu which

take complement clauses, but for which the agreeing complementizer is either unacceptable or

highly degraded. A list of such verbs is given in (119), with examples following:

(119) 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'

Each of the examples given below demonstrate that for the verbs that don't allow the agreeing

complementizer, other non-agreeing complementizers like *mbo* and *bali* are still appropriate

(given the appropriate pragmatic contexts for *bali*).

(120) N-a-beelele   mbo (*ndi) si-n-a-ch-ile   Bungoma   ta
       1stSG-PST-regret   that   NEG-1stSG-PST-go-PST Bungoma   NEG
       'I regretted that I didn't go to Bungoma.'

(121) Alfredi   k-esindukha   mbo (*ali) Tegani   se-ka-mu-khesia   ta
       1Alfred 1S-is.surprised   that   1Tegan NEG-1S-1O-greet   NEG
       'Alfred is surprised that Tegan didn't greet him.'

(122) N-a-sangala   mbo (*ndi) ba-keni   b-ol-ile
       1stSG-PST-be.happy that   2-guests   1S-arrive-PST
       'I was happy that guests arrived.'

(123) Alfredi   ka-ng'any-ile   mbo (*ali) Tegani   se-k-ekhesia   ta
       1Alfred 1S-protest-PST that   1Tegan NEG-1S-greet.him NEG
       'Alfred protested that Tegan didn't greet him.'   (i.e. walked out in protest)

(124) Alfredi   ka-siim-ile   mbo (*?ali) Tegani   ka-mu-khesisie
       1Alfred 1S-be.thankful-PST that   1Tegan 1S-1O-greet
       'Alfred was thankful that Tegan greeted him.'

(125) Ni-sonisye   mbo (*ndi) Sammy   a-bon-e   Alfred
       1stSG-am.ashamed that   1Sammy   1S-see-PST 1Alfred
       'I am ashamed because Sammy saw Alfred.'

(126) N-dire   mbo ba-keni   ba-ch-ile
       1stSG-fear   that   2-guests   2S-go-PST
       'I fear that the guests left.' (i.e. am upset that)

(127) Alfred   ka-sinyakha mbo (*ali) Tegani   se-ka-mu-khesia ta
       1Alfred 1S-is.angry   that   1Tegan NEG-1S-1O-greet   NEG
       'Alfred is angry that Tegan didn't greet him.'

(128) Ka-uka   bali (*ali) Barack Obama   kabira   e-kura
       1S-was.amazed that   1Barack.Obama 1S-won 9-election
       'He was amazed that Barack Obama won the election.'

There are several potential analyses for the breakdown between verbs which allow

complementizer agreement, and those which do not. Many of the verbs which disallow

complementizer agreement are psychological verbs whose subject is an experiencer rather than

an agent, suggesting a generalization divided psychological predicates as opposed to verbs with

more canonical external arguments (e.g. agents). There are several pieces of data that lead me away from this analysis, however: note that the Lubukusu verbs for 'protest' disallows complementizer agreement, whereas verbs that are more likely analyzed as psych-verbs like 'hear' (examples (12) and (13)) and 'worry' (example (117)) do allow complementizer agreement.

I would suggest that a better analysis is 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, as shown in (129) and (130), with these properties including whether or not the complement clauses show main-clause phenomena, and whether or not the complement clauses are asserted.

(129)   <u>Nonfactive</u>   (Hooper and Thompson 1973: 473)

A	B	C
say	suppose	be (un)likely
report	believe	be (im)possible
exclaim	think	be (im)probable
assert	expect	doubt
claim	guess	deny
vow	imagine	
be true	it seems	
be certain	it happens	
be sure	it appears	

(130)   Factive (Hooper and Thompson 1973: 474)

D	E
resent	realize
regret	learn
be sorry	find out
be surprised	discover
bother	know
be odd	see
be strange	recognize
be interesting	

Of particular interest here are the Class D factive verbs, as the verbs which disallow the agreeing

complementizer seem to fall into this class. The question is what exactly distinguishes class D

verbs from class E verbs – both are factives, in that their complement clauses are presupposed,

but as both Kartunnen (1971) and Hooper and Thompson (1973) note, there are a number of

differences between them. First, Karttunen pointed out that class E verbs (which he refers to as

semifactives) can lose their factivity in questions and conditionals. Hooper and Thompson then

note a number of additional differences. For example, complements of class E verbs can be

preposed, whereas complements of class D verbs cannot (a diagnostic of a main assertion).

(131)   Santa has lost a lot of weight, $\left\{ \begin{array}{l} \text{*I regret} \\ \text{I notice} \end{array} \right\}$ (Hooper and Thompson 1973: 482)

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. This is further confirmed by tag questions, which they argue are a process which only

applies to main assertions as well.

(132) a. I see that Harry drank all the beer, didn't he?

b. *I am sorry that Suzanne isn't here, isn't she?

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 of course 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. This of course raises an important question for this generalization – beyond externally imposed categories for verbal meanings, what evidence is there for the Lubukusu examples given in these sections 5.5.1and 5.5.2 as to whether the verbs are actually factive or not? As the data in show, it appears that this class of verbs in Lubukusu does in fact presuppose its complement clauses.[22]

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

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 (133)a and (133)b, 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, and therefore as being considered emotive factives.

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[22] For more on factives and emotive factives, see Hooper and Thompson 1973, de Cuba 2007, Andersson 1975, Hegarty 1992, Heycock 2000, among others.

There are a variety of syntactic correlates of factivity (and non-factivity), including extraction of manner adjuncts across different predicates and variability of NPI licensing between factive and non-factive verbs. It is beyond the scope of this dissertation to establish the semantic properties of factivity and its syntactic correlates in Lubukusu, and therefore at present I will rely on the data in (133) to justify the inclusion of the Lubukusu verbs in (119) in Hooper and Thompson's (1973) class D emotive factive verbs. This classification is the most natural explanation for the pattern that emerges with respect to lexical restrictions on complementizer agreement, and therefore I will let this analysis stand, relying on future research to establish the classes of factivity in Lubukusu (and Bantu more broadly), if they differ from previously established classes in any way.

5.5.3 WHY EMOTIVE FACTIVES HAVE NO AGREEING COMPLEMENTIZER

A critical question at this juncture is why the agreeing complementizer is dispreferred in complements of emotive factive verbs, as opposed to other clause-selecting verbs. As it turns out, there is a growing collection of research that argues that the complements of factive verbs have less structure than non-factives do, though this is counter to the traditional analysis (cf. Kiparsky and Kiparsky 1971; de Cuba 2006, 2007; Nichols 2001, Haegeman 2006, de Villiers 1998, McCloskey 2005, Grewendorf 2002).

Specifically, Haegeman (2006) claims that factive verbs (along with adjuncts and conditionals) lack a speaker deixis (SD) projection and consequently lacks topic and focus projections as well. Haegeman proposes the following structures of the left peripheral in different clausal contexts, where Sub refers to a general subordination morpheme (Haegeman 2006: 1663ff):

(134)   Central adverbial clause:
        Subj   Fin

        Peripheral adverbial clause:
        Subj   Top   Focus SD   Fin

        Root Clause:
                Top   Focus SD   Fin

        Factive complement:
        that   *Mod   Fin

Haegeman claims that it is this lack of left-peripheral structure that restricts adjuncts, conditionals, and factives from displaying main-clause phenomena like speaker-oriented adverbs (see also various restrictions on "root transformations" in factives as discussed in Hooper and Thompson 1973). Haegeman claims that "speaker deixis" corresponds to the "point of view" zone of Cinque's hierarchy, the highest projections discussed above (see Tenny 2000: 319), also equating it with Speas' (2004) POV heads (see (98)).

Based on these precendents and the evidence from Lubukusu, I therefore suggest that emotive factives lack all point of view heads (speaker deixis heads, in Haegeman's terminology), and therefore lack a logophoric operator and (consequently) the ability to trigger complementizer agreement. This is consistent with Speas' intuition that the degree of reliability of a matrix predicate is inversely related to the amount of structure there is in the point of view domain, so that the more reliable the report, the less structure there is in the point of view domain. Complements of emotive factives are always presupposed, and never asserted (Heycock 2000; Hooper and Thompson 1973), and therefore there is no influence on the embedded proposition of the senses of reliability or non-reliability introduced by the matrix predicate, degree/sufficiency

of evidence, or point of view. This is encoded in the syntax by that lack of point of view heads (SAP, EvalP, EvidP, EpisP) in the left periphery.

This does raise an important question for Hooper and Thompson's (1973) class E verbs, however, those verbs that are factive but which at times allow for their complement clause to be asserted rather than presupposed. In Lubukusu, these sorts of verbs (including verbs for 'know' and 'realize') allow the agreeing complementizer, suggesting that they must in fact have point of view heads (or, at least, EpisP), in order to allow a logophoric operator which can in turn trigger the complementizer agreement. This is problematic, however, as these verbs nonetheless presuppose the truth of their complement clause.

As pointed out by Karttunen (1971) and Hooper and Thompson (1973) (and discussed briefly in §5.4 above), this class of verbs at times allows for the sorts of main-clause phenomena associated with main assertions, and can in fact lose their factivity in questions and conditionals (de Cuba 2007, Heycock 2000) whereas the complements of emotive factives always presuppose their complement clauses. I would suggest that the source of the presuppositions in non-emotive factives is not the lack of POV heads, but some other component of the syntax or semantics. This would explain why main clause phenomena are allowed at times in class E verbs, and help to differentiate between the emotive factives and the non-emotive factives. A full investigation of these matters is beyond the scope of this dissertation, however, and as such I leave it for future research.

5.5.4 DE-FACTIVE CONSTRUCTIONS

There is some surprising data that arises in light of the restriction on complementizer agreement to non-presuppositional verbs that lends some support to the notion that the presence of the agreeing complementizer also means that POV heads are present, and the content of a

complement clause is therefore no longer presupposed. Note the sentence in (135), an emotive-factive verb that, matching with the generalization noted above, rules out the presence of the agreeing complementizer.

(135)   N-esindukha   mbo (*ndi) ba-keni   b-ol-ile
        1stSG-was.surprised that   2-guests 2S-arrive-PST
        'I was surprised that guests arrived.'

It turns out that some speakers in fact do marginally allow the complementizer with the verb *sindukha* 'be surprised', but it triggers a very different interpretation of the verb.

(136) $^?$n-esindukha   n-di   ba-keni   b-ol-ile
        1stSG-was.surprised 1stSG-that 2-guests 2S-arrive-PST
        'I was surprised regarding the guests' arrival' (see comments below)

The translation offered in (136) is a best attempt to offer a one-sentence translation for the following interpretation: in (136), the speaker of the sentence was expecting the guests to come, but they in fact did not come, to the speaker's surprise. Note that there is no added negation in the embedded clause in (136), but rather, using the agreeing complementizer here seems to force a reading where the embedded clause is no longer assumed to be true. This is consistent with an analysis that the structure that contains the logophoric operator and the agreeing complementizer are the POV heads which remove the presuppositional reading of an embedded clause. The availability of a marginal construction such as that in (136) not surprisingly varies between speakers, but the correlation with the factivity generalization is notable.

Similar facts arise with the predicate 'be happy'. As shown in (137), on the standard reading the agreeing complementizer is impossible in the complement of *sangala* 'be happy':

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(137) N-asangala   mbo (*ndi) ba-keni   b-ol-ile
       1st SG-was.happy that   2-guests 2S-arrive-PST
       'I was happy that guests arrived.'

Again, as above, the marginal sentence in (138) is possible using the agreeing complementizer, but giving a very different interpretation.

(138) ?N-asangala   n-di   ba-keni   b-eecha
       1st SG-was.happy 1st SG-that 2-guests 2S-left

Without even offering a specific translation here, speakers report that there is a sense that the guests in this case did not actually come, and which has in fact has impinged upon the speaker's happiness, and as a result the speaker may in fact *not* be happy. Again, there is no overt negation in the lower clause, but the truth of that lower clause has been brought into question. Given the link between the speaker's happiness and the guests' arrival, it is not surprising that the matrix veracity of the matrix predicate itself is brought into question in these cases.

While these are marginal sentences and certainly not irrefutable evidence for the generalizations argued for above regarding the connection between complementizer agreement and presuppositional verbs, it is nonetheless striking that these non-canonical interpretations that arise are directly in line with the predictions that the analysis in (75) makes, that is, that the presence of the agreeing complementizer should be incompatible with a reading of an embedded clause where that embedded proposition is presupposed to be true.

5.6 On the Relationship with Subjects

While I have argued that complementizer agreement in fact occurs locally between the complementizer a null logophoric operator, I have not discussed how the null logophoric

operator comes to be coreferent with the subject. This is an important and difficult question, and in this section I will examine several possible approaches, in the end proposing a control analysis that necessarily remains somewhat informal at present. As the discussion will reveal, however, there are significant problems with all of the analyses that are available within the framework of the Minimalist Program, and as such the Lubukusu complementizer agreement relation will remain an important area of research in the future. First, however, I will review the general properties of Lubukusu complementizer agreement that have been discussed to this point to clarify what needs to be accounted for in an analysis of the subject-operator relationship.

By means of summary, the chart in (139) describes the generalizations regarding complementizer agreement that have been established to this point in the chapter, along with the relevant supporting evidence.

(139) <u>Properties of the Complementizer Agreement relation</u>

	CA Generalization	**Supporting evidence**
a.	CA not controlled by the semantic 'source'	▪ Passive by-phrases can't control CA (§5.2.3.3) ▪ The 'source' in verbs of hearing doesn't control CA (§5.2.3.1)
b.	Agreement trigger is structurally controlled, not lexically controlled	▪ Subjects of passives trigger CA (§5.3.2.3) ▪ Subjects of causatives trigger CA (§5.3.2.2)
c.	The availability of CA is lexically and structurally influenced	▪ Emotive factive verbs are unacceptable with the agreeing complementizer (§5.5) ▪ If-clauses and because-phrases don't allow an agreeing complementizer (§5.4.3)
d.	CA is not strictly local (i.e. not the closest DP)	▪ Indirect objects don't trigger CA (§5.3.2.1) ▪ 'causee' in causatives doesn't trigger CA (§5.3.2.2)
e.	CA is not unbounded (closest subject triggers CA)	▪ Multiple embeddings (§5.3.3.2) ▪ Periphrastic causatives (§5.3.3.1)
f.	Intervening subject-like elements can degrade the acceptability of the agreement relation	▪ Passive by-phrases do so (§5.3.4.2) ▪ Subjects of NPs do so (§5.3.4.1) ▪ Implicit agents in passives do so (§5.3.4.2)
g.	The controller of CA must have a 'mind' or 'point of view' to report (i.e. must be an appropriate logophoric antecedent)	▪ Non-animate subjects yield degraded CA (§5.4.1

Without belaboring the summary which is already provided in the chart in (139), at this point I

will consider how different potential analyses account (and don't account) for various properties

the complementizer agreement relation. The purpose of looking at these alternative analyses is

not only to rule them out, but to clarify the virtues of the account adopted here.

The Minimalist Program already allows for a restricted set of long-distance syntactic relations, and presumably the relationship between the subject and the operator/complementizer can be accounted for under the rubric of one of these predetermined relationships. With this in mind, I consider the following analyses here: a purely semantically-controlled relation, an anaphoric relationship, an Agree relation, a feature-inheritance process, and a control relationship.[23] None will prove to be completely sufficient, but I will argue that the relationship between the complementizer and the null logophoric operator is best explained on a control analysis. Despite this final analysis, I nonetheless devote significant space to evaluating an agreement-based analysis (both Agree and feature inheritance) given that as an agreement phenomenon some kind of direct feature transfer/valuation is a natural analytical route to consider.

5.6.1 SEMANTICALLY-CONTROLLED AGREEMENT

The first potential approach to the complementizer agreement relation is a semantic explanation, that is, that the agreement tracks a specific semantic role, or thematic argument (perhaps, as noted in §5.2.2 above, that the complementizer agrees with the source of the information reported in the embedded clause). This could provide a straightforward explanation of the generalization that the complementizer agrees with the subject (i.e. the external argument), and perhaps even an analysis of the evidential properties of the agreeing complementizer as opposed to the non-agreeing complementizer *bali*.

This is a potentially appealing analysis in light of the fact that in some West African languages the antecedent of logophoric pronouns is in fact determined by specific semantic roles. For example, Hyman and Comrie (1981) report that the objects in Gokana control the reference

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[23] Though note that control phenomena have been argued to reduce to one or other of two different long-distance relationship (movement and Agree, see Hornstein 1999 and Landau 2004).

of an embedded logophoric pronoun in the case that that object is the source of the information reported in the embedded clause.

As pointed out in §5.2.3, however, there are various empirical problems for this proposal. As row (a) in (139) indicates, NPs indicating a 'source' in passive by-phrases and verbs of hearing don't trigger agreement, rather, subjects do. In addition, the fact that derived subjects in passives are capable of triggering complementizer agreement (row b) is very problematic to a (purely) semantic approach, which should be blind to such syntactic derivational issues. The subjects of causative triggering agreement (row b) is also problematic for precisely the same reason. For these reasons, then, an approach based on semantic roles does not seem to be able to explain this agreement relation, and we instead need to look for an approach to this issue which is at least partially syntactically-based.[24]

5.6.2 **ANAPHORIC AGREEMENT**

The approach which was adopted in previous presentations of this work was that the complementizer agreement relation is a result of an anaphoric agreement between a null operator in the CP of the embedded clause and the subject of the clause. In this way the complementizer agrees directly with the local operator, as in the analysis adopted in this chapter, but the operator must be bound by the matrix subject.

One potential avenue for an analysis along these lines is that the subject of the clause becomes an operator by virtue of moving to the structural subject position (one analysis would be that this position is a Subject Phrase, see Rizzi 2006, 2007; Rizzi and Shlonsky 2007: see the extended discussion in §1.6 on this issue). The subject phrase and the operator in in the embedded CP in this case would have to be argued to share some crucial feature which makes

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[24] This does not immediately preclude some sort of semantic approach to the control relation posited in §5.6.5, though such an approach would face similar difficulties to those enumerated here.

the subject a possible binder of the operator. Rizzi (2006) suggests that subjects in the Subject Phrase bear the discourse feature of *aboutness* by virtue of appearing in that position, in which case the null operator would be considered to be an *aboutness* operator. The result is that the complementizer necessarily agrees with any element that raises to the structural subject position.

There are certain benefits to these sorts of approaches. First, they account for agreement with derived subjects in passives, and for the subjects of causative verbs. Additionally, it accounts for the "local but not too local" nature of the agreement, as summarized in rows (d) and (e) of the chart in (139), where the closest clausal subject triggers complementizer agreement, but not other DPs. That is, because it is anaphoric agreement and not an Agree relation between the operator and the subject, it is unsurprising that intervening DPs do not interfere with the complementizer agreement relation. But provided that the relevant binding relation is a "closest binding" relationship, the locality effects of row (e) are accounted for.

There are weaknesses to this approach, however, both theoretical and empirical. A major empirical issue is this approach does not adequately account for alternative agreement effects, which were addressed in §5.4.4 (if the subject never occupies Spec, SubjP in subject extraction contexts, it should not be capable of binding the operator). There are theoretical concerns as well, however. Mainly, this analysis of the complementizer agreement relation depends on a rather parochial assumption that the operator in the embedded CP is an *aboutness* operator which must be bound by an *aboutness* phrase. There doesn't seem to be any independent empirical or theoretical motivation for this assumption, and the account does not make any clear predictions about the place of complementizer agreement typologically and architecturally within the Minimalist Program.

An alternative approach would be that the null operator in CP is essentially a reflexive pronoun, which like many reflexive pronouns cross-linguistically has a subject-orientation. While this is plausible, it is unclear what the exact nature of this sort of reflexive pronoun is, as it would essentially be a non-thematic, non-argumental reflexive pronoun, whereas reflexive pronouns are always, to my knowledge, either arguments of a verb or selected by prepositions. That being said, there may be some crucial property shared between logophoric operators and reflexive pronouns (perhaps with respect to their specification of referential features), and I will return to this idea in what follows.

5.6.3 AGREE

This section addresses various potential approaches to complementizer agreement in terms of an Agree relation. This approach is not adopted in the end, but a thorough treatment of this style of analysis is given here due to its potential promise (as the phenomenon under agreement is in fact an agreement relation), and because in the exercise of demonstrating what the analysis consists of, it is a clear demonstration that such an analysis in the end is not ideal. That being said, it may turn out that some variation on a syntactic Agree relation may in the end find favor in the eyes of syntacticians, making the discussions here more relevant (for example, a post-syntactic, morphological, relatively unbounded Agree relation).

Given the empirical generalization that the agreeing complementizer is in an agreement relation (whether direct or indirect) with the most local superordinate subject, it is natural to consider the analysis that this as an instatiation of Chomsky's (2000, 2001) Agree operation, which is the standard mechanism for agreement within the Minimalist Program. For this to be the case, at least one assumption would be necessary at this point, that is, that heads are capable of probing upwards to find a goal for Agree. Given the previous discussion of these issues in

§1.5.3 and §4.4.1, I will simply assume for the sake of argument that upward-probing agreement is in fact possible.

That being said, there are additional problems for a standard Agree approach; first to be considered is the lack of intervention effects. As row (d) of (139) summarizes, 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. For the sake of argument I assume Pylkkannen's (2002, 2008) analysis of high applicatives, that the head introducing the indirect object in examples like (172)b above lies below Voice° (or, v°, depending on the labeling convention) and above VP.[25]

(140) <u>Pylkkanen's (2002) High Applicative</u>

```
        /\
       /  \
      /   /\
     /   /  \
 Voice°  /\
        /  \
     Appl   VP
```
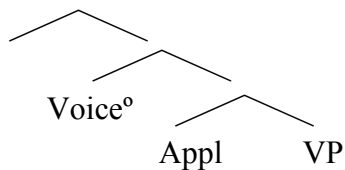
In (140), if a head of the embedded CP probed upwards for any DP goal for agreement (either as the complement of V°, or as the specifier of VP), it should find the intervening applied object in Spec, ApplP, and therefore the indirect object should trigger complementizer agreement, not the

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[25] Note that Pyllkanen distinguishes the Voice head (as proposed by Kratzer 1996) from the functional head v which creates a syntactic verb from what is otherwise a category-neutral verb. What I have referred to as v° to this point in this dissertation actually accords more closely with Kratzer's Voice, responsible for introducing the external argument. From this point forward, I adopt the label Voice° for this external-argument-introducing head, for clarity, as Pylkkanen's general system is adopted here. See (Pyllanen 2002, 2008) for the details of her proposal.

subject.[26] Therefore a simplistic Agree account itself is insufficient to account for this

agreement. Rather, as I will discuss in the next section, an Agree approach to complementizer

agreement would necessarily be a more systematic relationship between the matrix verbal

structure and selected CPs.

5.6.4 VOICE-C AGREEMENT: FEATURE INHERITANCE

5.6.4.1 The Basic Analysis

Given that a direct Agree relation cannot account for the intervention of noun phrases between

the subject and the agreeing complementizer, an Agree-based approach necessarily requires

some stipulations along the lines of what are included in the hypothesis in (141), namely, that the

agreement relation occurs between two pre-established heads.

(141) Hypothesis:
       The head which introduces the external argument (Voice°) necessarily agrees with an
       embedded C° which it selects.[27]

Note that I use the label "Voice" here in the sense of Kratzer (1996) and Pylkkanen (2002,

2008), as the external-argument-introducing head. In most common theoretical parlance this is

accomplished by the $v°$ head, but as is discussed below, Pylkkanen's account crucially

distinguishes between the external-argument-introducing head (Voice°) and the verbal head

which defines a root as a verb ($v°$), which will prove to be an important distinction for causative

constructions.

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[26] The question of causatives—which pose a similar intervention problem—is considered in §5.6.4.4 below, again relying on Pylkkanen (2002, 2008) for an analysis of the structure of the Lubukusu causative.
[27] The proposal as it is currently phrased does not make direct reference to a logophoric operator, but it is not necessary to do so in such an account, and as such I do not address the logophoric operator in the course of this discussion of the Agree alternative analysis. An account where the agreeing complementizer is introduced by a logophoric projection does not in principle require that the agreement operation involve a logophoric operator.

The agreement relation described in (141) is very similar to that proposed by Richards and Rackowski (2005) (Agree between $v°$ and C°), though their proposed agreement relation relates more directly to extraction out of embedded CP. As apparent from the data reported to this point, this agreement relation would necessarily occur in all cases where a verb selects a complement clause.

In Lubukusu complementizer agreement, then, Voice° agrees with the subject, and then Voice° subsequently agrees with C°.

(142) Rough Sketch of Feature Inheritance Analysis
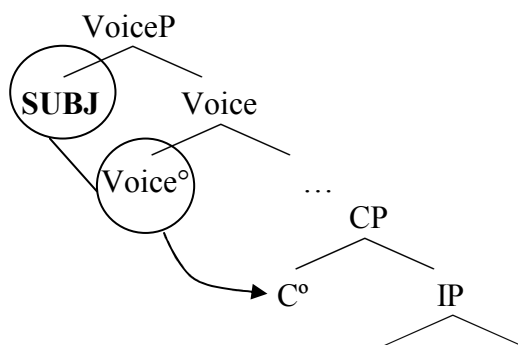
An analysis based on Chomsky's Agree would require a feature-sharing approach to Agree (Pesetsky and Torrego 2007, Frampton and Gutmann 2000), but note that this sort of approach would cause significant problems for my approach to alternative agreement effects in chapter 3. There are other approaches to this Voice-C relationship which might a better approach than feature-sharing Agree, however, especially given the stipulation that this agreement must occur between Voice° and C°. In particular, accounts which bear some promise are a feature-percolation relationship between Voice° and C°, or a feature-inheritance account where Voice bears phi-features and Agrees with the argument in its specifier, and then passes these features down to the complement CP (cf. Chomsky 2008, Ouali 2008, among others on feature
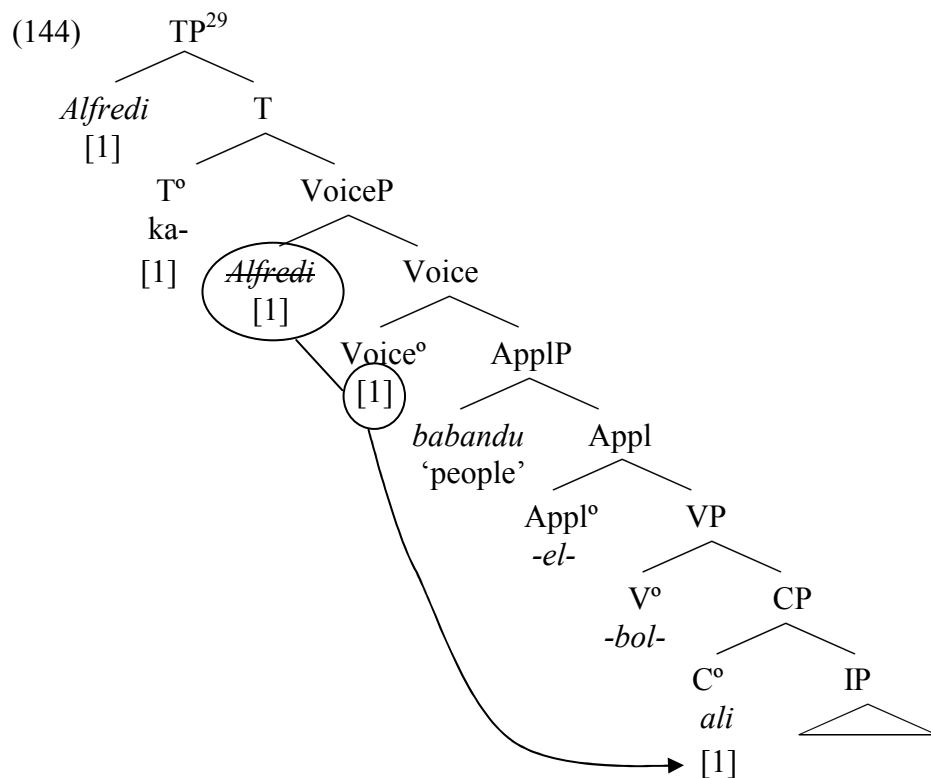
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inheritance). In fact, a feature inheritance approach would most directly capture the facts here: 2 functional heads (Voice° and C°) bear a close relationship, such that the lower head must bear the features of the higher one. I will not discuss the specific implementation here at length, except to say that Voice° presumably would bear uninterpretable phi-features which would be valued by the matrix subject, and then passed down to C°.

The sketch of the analysis in (142) straightforwardly explains the basic cases of complementizer agreement. Take for example (1)b, repeated here as (143):

(143)   Alfredi k**a**-a-bol-el-a   ba-ba-ndu **a-li**   ba-kha-khil-e
        1Alfred 1S-PST-say-AP-FV   2-2-person **1-that** 2S-FUT-conquer-FUT
        'Alfred told the people that they will win.'

Adopting Pyllkanen's analysis of high applicatives (see (140)), we get a structure like that given in (144):[28]

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[28] Note that I have omitted the Subject Phrase in these structures, for the sake of simplicity, given that its specific properties don't affect the analysis in this case. Following the assumptions and arguments from the other sections of this dissertation, however, I assume that it is present here.

(144)

```
              TP²⁹
            /      \
      Alfredi        T
        [1]        /    \
               Tº        VoiceP
               ka-      /      \
               [1]  (Alfredi)      Voice
                      [1]         /      \
                            Voiceº        ApplP
                             [1]         /      \
                                    babandu      Appl
                                    'people'    /      \
                                            Applº        VP
                                            -el-        /    \
                                                     Vº        CP
                                                    -bol-     /    \
                                                           Cº        IP
                                                           ali      /\
                                                           [1]     /__\
```

Note that the bracketed [1] represents the agreement features relevant to this sentence,

particularly, the class 1 agreement that appears on the complementizer. Given the Upward

Agreement Hypothesis (Baker 2008), heads in Lubukusu probe upwards, and therefore Voiceº

probes upwards for a goal to Agree with, finding the subject in its specifier. At this point Voiceº

is valued with class 1 features, and Voiceº passes its features to Cº by a feature inheritance

process.

5.6.4.2 Questions Raised by Voice-C agreement

Some important questions are raised by this sort of approach to agreement. First, arguing that

Voiceº bears subject features contradicts the common assumption that the head that introduces

the external argument (usually labeled vº) is the locus of object agreement and accusative case-

marking. As discussed in the introduction, however, I follow Bowers (2002) and assume that

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[29] Though not depicted here, I assume V-to-T movement which results in the single verb form, and the verb in a final position in Tº.
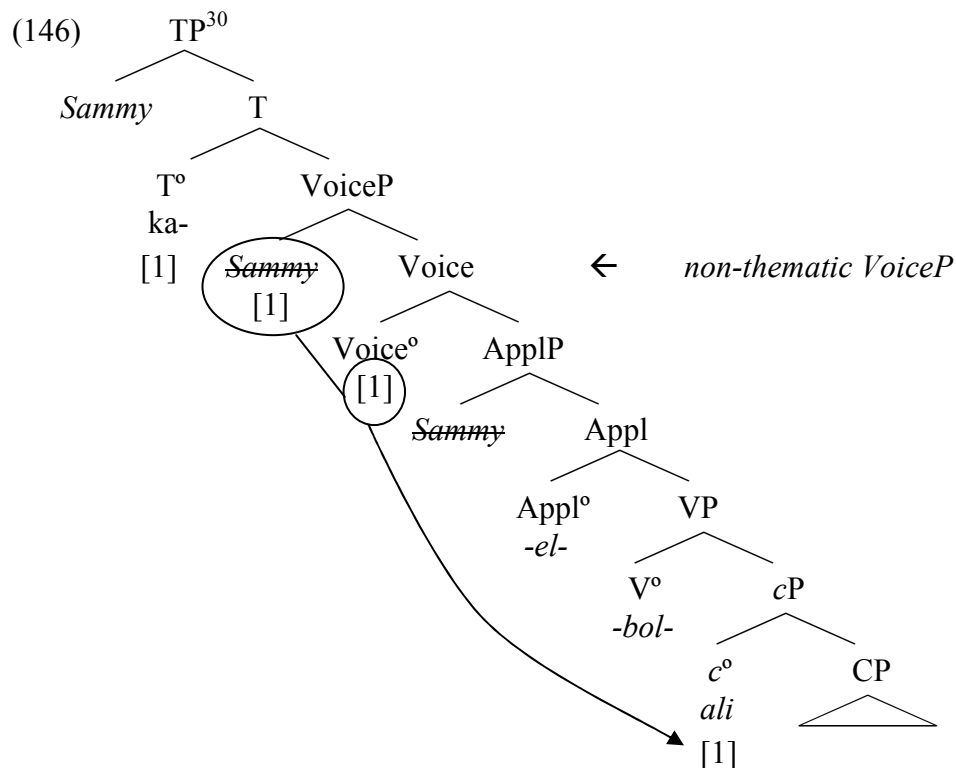
these operations are associated with a Transitivity Phrase, which is a critical component of the functional structure of transitive verbs, (Case-) licensing objects. I also assume that this position realizes object marking in the relevant languages, whether that object marking is agreement on Tr° or a pronominal argument incorporating into the verb from Spec, TrP (as I have argued for Lubukusu in §2.3.2.3). In this way, the Voice° head is basically responsible for predication, and does not bear the syntactic responsibilities of licensing objects, and therefore an analysis claiming that Voice° agrees with the subject in its specifier avoids the potentially problematic issue of the object-oriented nature of Voice°.

That being said, the proposal that Voice° agrees with the subject does raise another important question, that is, why is this agreement not overtly realized? For example, what prevents a normal transitive verb from bearing two subject agreements, one on T° and one on Voice°? There are several approaches that seem plausible on this issue. First, it could be there is simply no agreement forms specified for agreement on Voice° (at least, not in Lubukusu), so that the lack of realization of the agreement is merely a morphological accident. Alternatively, it could be that there is a a morphological spell-out constraint which disallows a single word from bearing two separate agreement forms with the same element (cf. Kinyalolo 1991; Carstens 2005; Kramer 2009: 237-238). This analysis is problematic, however, given the fact that subject extraction in Lubukusu licenses two agreements with the subject on the verb (not to mention a similar sort of problem with repeated agreement locative inversion constructions). For these reasons, a more plausible approach to this problem is to define the feature-inheritance relation such that when Voice° in fact passes its phi-features to C° there is no trace of those feature left on Voice° (a feature inheritance process termed DONATE in Ouali 2008).

5.6.4.3 Voice-C Agreement in Passives

The influence of syntactic structure in determining the agreement trigger is especially apparent in passives, which allow for agreement between a derived subject and the complementizer. The passivization data is handled well by a Voice-C feature inheritance account, as this is accomplished by assuming the same process as described for the active sentence in (144), except in this case rather than being first-merged into Spec, VoiceP, the agreement-triggering noun phrase raises from a lower position to the non-thematic Spec, VoiceP position, at which point it values the phi-features of Voice° (which are then passed down to the complementizer). This is illustrated for the passive sentence in (41), repeated here as (145), and sketched in (146):

(145) Sammy ka-a-bol-el-wa   **a-li**   ba-keni b-ola
       1Sammy 1S-PST-say-AP-PASS **1-that** 2-guests 2S-arrived
       'Sammy was told that the guests arrived.'

(146) TP[30]
```
            TP[30]
           /    \
        Sammy     T
                /   \
              T°      VoiceP
              ka-    /    \
           [1]   (Sammy)   Voice
                  [1]      /    \
                       Voice°   ApplP
                        [1]    /    \
                          (Sammy)   Appl
                                   /    \
                                Appl°    VP
                                -el-    /   \
                                      V°     cP
                                     -bol-  /   \
                                          c°     CP
                                          ali    /\
                                         [1]
```
← *non-thematic VoiceP*

---

[30] Though not depicted here, I assume V-to-T movement which results in the single verb form, and the verb in a final position in T°.

This sort of approach to complementizer agreement also can handle the "local but not too local" effects of complementizer agreement. Intervening DPs are irrelevant if the features of Voice° are necessarily inherited by the embedded complementizer, as presumably the features of Voice° must be passed down to an appropriate functional head, irrespective of intervening DPs.

Crucially, while agreement doesn't target the most local DP (e.g. indirect objects can't trigger agreement), it is not unbounded, always targeting the most local subject. This approach captures both of these facts. Any DP that is not in Spec, VoiceP will not trigger complementizer agreement, hence the irrelevance of indirect objects to complementizer agreement. But in cases of multiple embeddings or periphrastic causatives, the agreement is triggered by the closest subject rather than the subject of the matrix clause, because the intermediate Voice° head is more local. The next two subsections address some of the more problematic cases, mainly, causatives and agreement out of noun phrases.

5.6.4.4 Addressing Causatives

As noted above, causatives raise important questions for the analysis complementizer agreement in Lubukusu. Intuitively, complementizer agreement in most cases seems to target the argument that is in a sense responsible for the information reported in the embedded clause. Causatives offer a *prima facie* challenge to this notion, however.

(147) n-a-suubi-sya   Alfredi **n-di** (*ali) ba-keni khe-b-eecha
       1st SG-PST-believe-CAUS 1Alfred **1st SG-that** 2-guests PRG-2S-coming
       'I made Alfred believe that the guests are coming.'

As noted previously, *Alfredi* is indeed the 'believer' in this sentence, but nonetheless it is the causer argument (the speaker, first person singular) that triggers complementizer agreement. The

problem for a Voice-C feature-inheritance analysis, is to explain why it is that the highest

argument, the grammatical subject, triggers complementizer agreement, and not the lower causee

that nonetheless may be an agentive argument itself (and presumably might be introduced by a

Voiceº head).

As will be shown in the course of this discussion, despite their apparent challenge to a

Voice-C agreement analysis, causatives are in fact amenable to this sort of approach (though, as

we will see below in §5.6.5, this evidence will be equally relevant to a control analysis). As with

the applicative above, I appeal to Pylkkanen's (2002, 2008) proposals for causatives. In the next

sub-section I summarize the relevant portions of Pylkkanen's analysis, and then in the following

section I address the Lubukusu evidence.

5.6.4.4.1 Pylkkanen (2008): Causatives

Pylkkanen (2002, 2008) argues that there is a universal CAUSE head which introduces a causing

event into the semantics of non-causative verbs. This CAUSE head is represented as is shown in

(148) (2008: 79)

(148)   UNIVERSAL CAUSATIVE ELEMENT (Pylkkanen 2008)

$\quad$ CAUSE: $\lambda P.\lambda e.[(\exists e') P(e') \& CAUSE 9e,e')]$

Pyllkanen claims that crosslinguistic variation has two different sources. First, the CAUSE head

in certain languages may be bundled with the external-argument-introducing head in some

languages, whereas it is a distinct head in others, which is illustrated in (149) (2008: 79)

(149) Variation: Voice-Bundling

    a. Non-Voice-bundling causative   b. Voice-bundling causative
       (e.g. Japanese, Finnish)   (e.g. English)

```
        /\                              /\
   x   /  \                        x   /  \
      /    \                          /    \
  Voice    /\                  [Voice, CAUSE]  /\
         /    \
    CAUSE    /\
           /    \
```
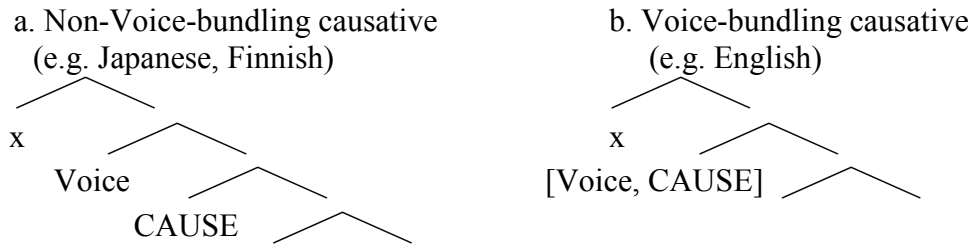
Crucially for her account, as mentioned above, Pylkkanen assumes the head that introduces the external argument to be distinct from the category-defining head that merges atop a category-less root (see Marantz 1997, and the literature on Distributed Morphology more generally). Following Kratzer's (1996) terminology, Pylkkanen refers to the head which introduces the external argument as Voice, and the head which defines a root as a verb as *v*, yielding the structure in (150) (2008: 80):

(150) THE KRATZER-MARANTZIAN VERBAL ARCHITECTURE

```
        /\
   x   /  \
      /    \
  Voice   /\
        /    \
       v   √Root
```
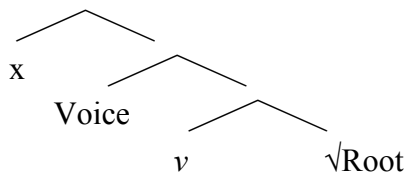
This decomposition of heads is important to Pyllkanen's analysis, as the second way that she argues that causatives vary across languages has to do with the structure that CAUSE selects in each language. Specifically, Pylkkanen argues that there are three different possible causative structures, root-selecting CAUSE, Verb-selecting CAUSE, and Phase-selecting CAUSE, as shown in (151) (2008: 80):

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(151) Variation: Selection

a. Root-selecting CAUSE   b. Verb-selecting CAUSE   c. Phase-selecting CAUSE

CAUSE   √Root   CAUSE   CAUSE

                                  v √Root   θEXT
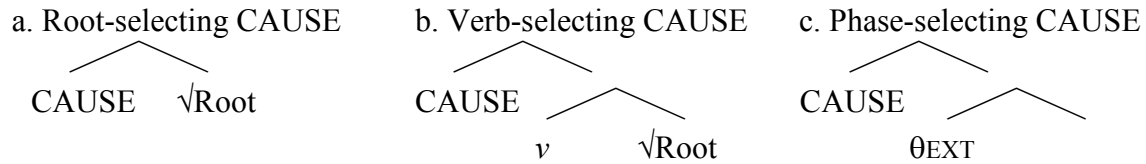
Given that root-selecting CAUSE is so closely related to the root, it yields constructions where causative structures appear to be lexically governed, for example, the lexical causatives of Japanese. In contrast, Verb-selecting CAUSE may show verbal morphology between the causative morphology and the root, given that the root has been verbalized before the CAUSE head is merged. Given that CAUSE is still merged generally low, however, verb-selecting causatives disallow a high applicative between the causative morphology and the verb (see (140)). In phase-selecting causatives, on the other hand, CAUSE selects a phase head, whether an external-argument-introducing Voice head, or a high applicative (see McGinnis 2000, 2001a, 2001b on the applicative as a phase).

These structures make different predictions with respect to adverbial modification, which is well-known to show certain ambiguities in causative constructions. Root-selecting causatives are predicted to show no scope ambiguities for VP- modifiers, as the CAUSE event has already been merged with the root before the root becomes a verb (with the addition of a v^{o} head). Verbal modifiers do show scope ambiguities for verb-selecting Cause: since the root has been verbalized before CAUSE is merged, there are multiple (verbal) attachment sites for a modifier, above and below CAUSE. Verb-selecting CAUSE is not predicted to allow multiple scopes for agent-oriented modification, however, as external arguments are only introduced by Voice^{o}, and not by v^{o}. This is a contrast between verb-selecting CAUSE and phase-selecting CAUSE, therefore, as phase-selecting CAUSE may have a VoiceP complement, and therefore shows

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ambiguities with respect to adverbials with agent-oriented scope. That is to say, in phase-selecting causatives agent-oriented modifiers may modify either the causer or the cause, because both are introduced by a Voiceº head.

Altogether, then, Pylkkanen makes the following predictions based on the classifications in (151) (2008: 99). Pylkkanen notes that properties (i) and (ii) are expected to correlate, as are properties (iii) and (iv).

(152)	ROOT-SELECTING	VERB-SELECTING	PHASE-SELECTING
(i) VP-modification of caused event possible?	NO	YES	YES
(ii) Verbal morphology between root and CAUSE possible?	NO	YES	YES
(iii) Agent-oriented modification of caused event possible?	NO	NO	YES
(iv) High applicative morphology between root and CAUSE possible?	NO	NO	YES

What is necessary, then, is to evaluate the nature of Lubukusu causatives and their intersection with complementizer agreement, to see whether the feature-inheritance account of complementizer agreement can indeed be upheld.

5.6.4.4.2 Causatives and Complementizer Agreement in Lubukusu

This section takes the account of causatives set forth in the preceding question, addressing the potential analytical pitfall that causatives cause for a theory of Voice-C feature inheritance as I have been discussing. The main question for my analysis is why the causee in the causative verb is incapable of triggering complementizer agreement. As seen in (153), repeated here from (49):

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

Here the causee is an agent-like argument that in a non-causative sentence would be presumed to be introduced by Voice, yet here cannot trigger complementizer agreement. It must be demonstrated that the Lubukusu causative is crucially *not* a phase-selecting causative construction, as a phase-selecting causative would introduce the causee via a lower Voice head, which presumably then would be targeted by complementizer agreement. Utilizing Pylkkanen's diagnostics shown in (152), though, it is apparent that Lubukusu causatives are in fact *not* phase-selecting.

The data that are given in (154) - (159) build an argument for that Lubukusu causatives are verb-selecting and not phase-selecting. Example (155) demonstrates that Lubukusu has a high applicative of the structure given in (140), as the applicative is available with an unergative verb (see Pylkkanen 2002, 2008 for detailed analyses of applicatives).

(154) Anangwe a-a-tima   (Justine Sikuku, pc)
      1Anangwe 1S-PST-run
      'Anangwe ran.'

(155) Anangwe a-a-tim-il-a   ekholo
      1Anangwe 1S-PST-run-AP-FV 9clan
      'Anangwe ran for his family.'

Crucial for the causative analysis, the applicative morphology cannot appear inside of the causative morphology, instead only occurring outside of it. This is demonstrated by the acceptable (157), and the unacceptable (158):

(156) N-a-tim-y-a   Anangwe   (Justine Sikuku p.c.)
       1stSG-PST-run-CAUS-FV 1Anangwe
       'I made Anangwe run'

(157) N-a-tim-is-il-a   Anangwe   e-kholo
       1stSG-PST-run-CAUS-AP-FV 1Anangwe 9-clan
       'I made Anangwe run for his family'

(158) *N-a-tim-il-is-a   Anangwe   ekholo
        1stSG-PST-run-AP-CAUS-FV 1Anangwe 9-clan

According to diagnostic (iv) in (152), then, the causative in Lubukusu cannot be phase-selecting.

Likewise, agent-oriented verbal modification can only modify the causing event, rather than the

caused event. This is shown in (159) and (160):

(159) Na-a-tim-y-a   Alfred   ne   kamani   (Justine Sikuku p.c.)
       1stSG-PST-run-CAUS-FV 1Anangwe with energy
       'I energetically made Alfred run.'
              ✓ Speaker's action was energetic
              * Alfred's running was energetic

(160) N-a-some-sy-a   Alfred   bii-tabu byewe ne   sinani
       1stSG-PST-read-CAUS-FV 1Alfred 8-book 8POSS with 7dedication
       'I diligently made Alfred read his book.'
              ✓ Speaker's action was diligent
              * Alfred's reading was diligent

Again, this accords with Pylkkanen's analysis of verb-selecting causatives, as they only have one

Voice head, and therefore only one external argument to be targeted by agent-oriented

adverbials. The only way to have the adverbials modify the caused event is to form a

periphrastic causative, where there is a true biclausal structure so that the lower verb belongs to

its own clause (and, therefore, its external argument is introduced by a separate Voice head).

(161) N-a-khola   Alfred a-tima ne   kamani   (Justine Sikuku p.c.)
       1st SG-PST-force 1Alfred 1s-run with energy
       'I made Alfred run energetically.'
              ✓ Speaker's action was energetic
              ✓ Alfred's running was energetic

(162) N-a-khola   Alfred   a-soma bii-tabu byewe ne   sinani
       1st SG-PST-force 1Alfred 1s-read 8-books 8POSS with 7dedication
       'I made Alfred read diligently.'
              ✓ Speaker's action was diligent
              ✓ Alfred's reading was diligent

What all of these facts demonstrate, again, is that Lubukusu causatives are verb-selecting

causatives, sharing properties with Bemba (as described in Pylkkanen 2008), and that they are

not phase-selecting causatives like those in Venda and Luganda.[31] Crucially, verb-selecting

causatives do not embed a second Voice head, and therefore in complementizer agreement

configurations with causative verbs, the single Voice head in the matrix clause (under this

hypothesis) passes its features to the embedded CP via a feature-inheritance process.

       This still leaves the very important question of what head *does* in fact introduce causee

external arguments in causative constructions in verb-selecting causatives. Pylkkanen simply

assumes that some element other than Voice is responsible for this, and I will join her in that

assumption. Clearly, however, Lubukusu causatives pattern with the set of languages where

causative constructions behave more monoclausally (i.e. with only one argument displaying

agentive properties), as opposed to patterning with those languages with more biclausal

properties, where more than one argument may show agentive properties. In this way, then, the

complementizer agreement facts are consistent with the other aspects of causative constructions,

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[31] The regular (productive) morphology of the causatives suggests that they are verb-selecting and not root-selecting. That being said, I do not have the diagnostic evidence Pyllkanen offers in (i) and (ii) of (152)to demonstrate this, but for my purposes here it is not relevant whether the Lubukusu causative is verb-selecting or root-selecting. The crucial component of the analysis is that the Lubukusu CAUSE does not embed a Voice head, and therefore Voice-C agreement can only target the head introducing the causer argument in a Lubukusu causative.

lending credence to the notion that the controller of agreement on the complementizer is the agentive argument in the selecting clause. This is consistent with the hypothesis that I have considered here, that the embedded C° inherits its features from the external-argument-introducing head (Voice°) and that the close structural relationship between Voice and the external argument is what allows the features of the subject to end up on the complementizer. On the other hand, this result is also consistent with any analysis that relies on the 'subjecthood' of an argument to establish its relationship with the complementizer, so it is not a definitive piece of evidence for a feature-inheritance analysis. Furthermore, the next sections consider some of the more problematic aspects of a feature-inheritance account of complementizer agreement.

5.6.4.5 Agreement out of Noun Phrases

The question of complementizer agreement out of noun phrases proves to be a much more difficult problem for a feature-inheritance-based theory of complementizer agreement (and for an Agree-based account as well). As was pointed out in §5.3.4.1, CP complements of object nouns may have a complementizer which agrees with the matrix subject. The examples in (163) and (164) are repeated here from (54) and (55), respectively.

(163) n-a-ulila   li-khuwa **nd-i**   Sammy   ka-a-kula li-tunda
       1st SG.S-PST-hear 5-word   1st SG-that 1Sammy 1S-PST-buy 5-fruit
       'I heard the rumor that Sammy bought the fruit.'

(164) Sammy   a-li   nende li-manya **a-li**   li-sna   lyewe   bali 'mzungu'
       1Sammy   1S-be with   5-belief **1-that** 5-name   5your   be   mzungu
       'Sammy has the belief that your name is 'mzungu'.'

Both of these examples are cases where there is either a 'light' verb (the copula in (164)) or what is essentially a cognate object, as in (163). It is clear, however, that this is a robust agreement

relation that can occur in almost any context in which a complement clause of an object noun is possible. Some further examples are given in (165)-(166) (Jastine Sikuku p.c.). Note that the subject is not the source of the information reported in the embedded clause in any way in these examples.

(165) 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.'

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

Assuming that Voice-C agreement (or feature inheritance) were to apply directly in cases like (163) and (164), the structure of such examples would look like that given in (167) (irrelevant details omitted):

(167) CA out of Object DP (problematic structure)
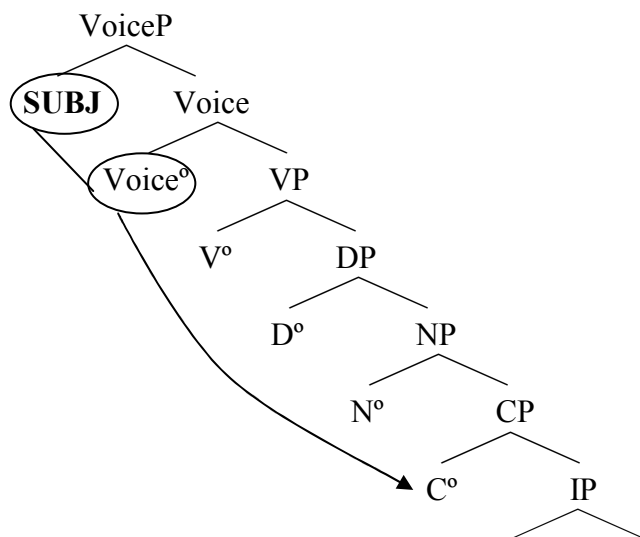
This relation is clearly problematic, either for feature inheritance or for Agree, as there is in fact no selectional relationship between the matrix verb and the embedded clause in this structure. Additionally, by most accounts the phase head Dº should obstruct any relationship between Voiceº and Cº. It is plausible that perhaps in these contexts noun phrases in Lubukusu lack Dº, as there are no overt determiners in Lubukusu. Even so, the selection issue is problematic with respect to how to motivate agreement between the matrix verb and the complementizer when the complementizer heads is the head of the complement of an object noun.

5.6.4.6   Casting Further Doubt on Feature-Inheritance

There are additional reasons to doubt an approach to Lubukusu complementizer agreement that relies on a direct transfer/valuation of features between Voiceº and Cº, whether by feature inheritance or by Agree. First, if this is a readily available operation cross-linguistically, it is unclear why there is not more cross-linguistic evidence of a co-variation in features between matrix predicational heads and embedded complementizers. Presumably this sort of relationship would find a morphological realization in a variety of languages, but yet instead we find it only in a small set of African languages (see Kawasha 2007b, Idiatov 2009). Beyond this, it is also unclear why this feature-inheritance relationship should be specified to solely be between matrix Voiceº and embedded Cº. On a similar note, this sort of analysis raises the important question of what happens to these features on Voiceº when there is *not* an embedded clause. Presumably we should find the phi-features of subjects (apart from normal subject agreement) appearing on verbal forms in the event that there is no embedded clause, but this is not the case.

Furthermore, the question as to what the nature of feature inheritance is at all is a serious one. To my knowledge this has mainly been discussed as a clause-level phenomenon, explaining

the relationship between tense/agreement and the phasal properties of the CP. While it would be promising for this approach to phi-on-T if feature inheritance were generalizable to cases like Lubukusu complementizer agreement, it does raise the question of why this sort of agreement is not seen cross-linguistically much more often. All of these arguments are sufficient enough to give us pause when considering a direct Agree analysis, or a feature-inheritance analysis, between Voiceº and Cº, and for this reason I consider the control analysis discussed in the following section.

5.6.5   A CONTROL ANALYSIS OF COMPLEMENTIZER AGREEMENT

Setting aside the potential analyses which were considered in the preceding sections and discarded, in this section adopts the analysis that the null logophoric operator is coreferent with the matrix subject via a subject-control relationship. As will be discussed in what follows, this analysis as well is not without its drawbacks, which will be discussed. That being said, I will show that a control analysis can plausibly account for the most problematic data from the previous analyses, though the specific implementation of control in these cases is left as a matter for future research.

5.6.5.1   The Basic Control Approach

It has already been established in §5.4 that there is a correlation between complementizer agreement and logophoricity in Lubukusu, and therefore it is highly plausible to root the agreement relation in the relationship between the complementizer and the null logophoric operator, as suggested in §5.4.2. This is especially appealing given the amount of empirical and theoretical problems with the preceding analytical possibilities, and as such I propose that the

relationship between the matrix subject and the logophoric operator is in fact an obligatory control relationship.[32]

(168)   The null logophoric operator in Lubukusu locative inversion identifies its referent via an obligatory control relationship with the matrix subject.

There are a number of reasons why an approach based on control is appealing. First, it is intuitively similar to the puzzle under consideration here, as in each an argument in the matrix clause determines the reference of a null element in an embedded clause: PRO in control, and a null logophoric operator in Lubukusu complementizer agreement. Second, it is apparent that in other logophoric languages there is a control relationship between matrix arguments and the logophoric operator, as the choice of the matrix predicate influences which argument controls the logophoric operator. That is to say, subject-control verbs yield subject-controlled logophoric pronouns, and object-control verbs yield object-controlled logophoric pronouns. As a manner of illustration, I will discuss the case of Yoruba as reported by Adesola (2005, 2006), who describes the logophoric pronoun *oun*, which he analyzes as bound by a null logophoric operator in Spec, CP:

(169)   Olú$_j$ ti   kéde   pé **òun$_j$** má a wá   nî òla   [Yoruba]
        Olu ASP announced that he   will come at tomorrow   (Adesola 2006: 2069)
        'Olu has announced that he will come tomorrow.'

As shown in (170), this logophoric reference is altered depending on the matrix predicate: (170)a is an instance of a subject-controlled logophoric operator, for example, and (170)b an instance of an object-controlled logophoric operator (Adesola 2006: 2083):

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[32] This is similar to the analysis adopted by Baker (2008) for a similar agreement relation in Lokaa (a Niger-Congo language of Nigeria)

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(170) a. Olú$_i$ sèlérî   fún Adé pé òun$_i$ ń   bò   [Yoruba]
       Olu promise for Ade that he   PROG come
       'Olu promised Ade that he is coming.'   *(subject control)*

     b. Adé so fún Olú$_i$ pé kí   òun$_i$ lo kî   bàbá Òjó
        Ade say to Olu that that he   go greet father Ojo
        'Ade told Olu that he should visit Ojo's father.'   *(object control)*

     c. Olú$_i$ gbà   fún Adé$_j$ pé kí   òun$_{i/j}$ lo kí   bàbá Òjó
        Olu accept for Ade that that he   go greet father Ojo
        'Olu agreed with Ade that he should visit Ojo's father   *(subj/obj. control)*

As can be seen in the examples above, for a subject-control verb like 'promise' the logophoric

pronoun *oun* in the embedded clause is obligatorily coreferent with the subject. In the case of an

object-control verb like 'tell', however, the logophoric pronoun is obligatorily coreferent with

the object of the matrix clause, as shown in (170)b. Example (170)c then shows that some verbs

allow for either the subject or the object to be the antecedent of the logophoric pronoun. These

properties are expected, of course, on the analysis proposed by Adesola, that there is a null

operator in the specifier of the embedded CP that is necessarily controlled by an argument in the

matrix clause.

As is clear from the the generalizations reached about Lubukusu, however, it is not

possible for non-subjects in Lubukusu to control the reference of the logophoric operator, even

with object-control predicates. (171)a and (172)a are cases of object control, whereas the

corresponding data in the (b) examples show the same predicates with finite complements and an

agreeing complementizer. As in all other cases, complementizer agreement is with the subject,

not with the object.

(171) a. mb-ombelesie   Alfredi$_k$ [PRO$_k$ khubola a-li   ka-ch-ile Nairobi
        1stSG-persuaded 1Alfred   INF-say 1-that 1S-go-PST Nairobi
        'I persuaded Alfred to say that he went to Nairobi.'

b. n$_k$-aombelesia   Alfredi   [OP$_k$ n-di   Sammy   ka-a-cha
   1stSG-persuaded 1Alfred   1stSG-that 1Sammy 1S-PST-go
   'I convinced Alfred that Sammy left.'

(172) a. n-a-bol-el-e   Alfredi$_k$ [PRO$_k$ khu-bola a-li   ka-ch-ile   Nairobi
       1STSG-PST-tell-AP-PST 1Alfred   INF-say   1-that 1S-go-PST Nairobi
       'I told Alfred to say that he went to Nairobi.'

   b. n$_k$-a-b-ol-el-a   Nelsoni [OP$_k$ n-di   ba-keni ba-rekukha
      1STSG-PST-tell-AP-PST 1Nelson   1stSG-that 2-guests 2S-left
      'I told Nelson that the guests left.'

So while the role of control in Yoruba logophoricity demonstrates that in some languages logophoric operators may be controlled in the same manner that PRO may be controlled, it is clear that the two control processes are not identical in Lubukusu. That is to say, whatever control process it is that determines the reference of PRO in (171)a and (172)a cannot be the same sort of control process that determines the reference of OP in (171)b and (172)b, or else we would expect that the objects could control complementizer agreement in these (b) examples.

That being said, there are still good reasons to think that the reference of the logophoric operator is determined via a control relationship as opposed to the other relationships discussed previously (semantics, Agree, anaphoric binding, feature inheritance). First, the problems of the other approaches in the end seem to be insurmountable (incorrect predictions of the logophoric antecedents for semantics, locality problems for agreement, "new" sorts of reflexive pronouns posited for an anaphoric approach). Second, there are a number of empirical parallels between cases of control and Lubukusu complementizer agreement, suggesting that whatever analysis of control accounts for these may also be capable of accounting for control of the null logophoric operator in complementizer agreement. These parallels are considered in the next section, with some speculations as to a theoretical implementation of this subject-operator relationship.

5.6.5.2 Empirical Parallels between Complementizer Agreement and Control

As noted above, a significant empirical hurdle to an analysis of Lubukusu complementizer

agreement is the robust presence of complementizer agreement with the subject of the matrix

clause out of the complement of an object noun phrase. A number of examples were given in

§5.3.4.1 and §5.6.4.5, with two examples given below.

(173) 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.'

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

As noted above, these sorts of data are particularly troublesome for a theory of Agree, and even

for a theory of feature inheritance between matrix functional projections and CP. It is well-

known, however, that control is possible into the complement of an object noun (see Sichel 2009,

Chomsky 1970). Examples of this sort of control are given in (175) and (176):

(175) John$_k$ made an attempt PRO$_k$ to go

(176) LeBron$_k$ has the desire PRO$_k$ to win

Despite the extensive work that has been undertaken on control constructions (see, for examples

and review of the literature, volume 9 issue 2 of *Syntax*, including Boeckx and Hornstein 2006,

Culicover and Jackendoff 2006, and Landau 2006, among others), there is still relatively little

work done on control in the complements of DPs. Sichel (2009) proposes that control in these

cases is in fact accomplished by an implicit agent, equating them with cases where an object NP

has an agent in English (realized as a possessor):

(177)   I admire John's$_k$ attempt PRO$_k$ to finish the race.

(178)   I appreciate Mary's$_k$ desire PRO$_k$ to do a good job.

In each of these cases, PRO can only be controlled by the possessor. In this way, Sichel

considers examples like (175) and (176) to in fact have an implicit agent within the DP, so the

control relationships are in fact local in all cases—that is, control between the matrix subject and

the lowest-embedded PRO is mediated by the intermediate PRO, and this intermediate PRO

controls the lower PRO.

(175)' John$_k$ made PRO$_k$ an attempt PRO$_k$ to go

(176)' LeBron$_k$ has PRO$_k$ the desire PRO$_k$ to win

This sort of approach bears promise for the complementizer agreement relation, because as was

seen for Lubukusu in §5.3.4, intervention of a subject within the DP does in fact disrupt the

agreement relation between the complementizer and the matrix subject. (179) is repeated here

from (58):

(179)   *M-bona   bu-ng'ali   bw-a   Alfredi **n-di**   ba-ba-ana   b-ewe   ba-kha-khil-e
         1stSG-see   14-certainty 14-ASS. 1Alfred **1st-that** 2-2-children 2-his   2S-FUT-win-FUT
         'I see Alfred's certainty that his children will win.'

Recall, however, that agreement with the subject of the DP (*ali ~ Alfredi*) is nonetheless unacceptable (see (59)), in contrast to the English control-in-DP cases such as (177) and (178), where the possessor necessarily controls PRO. This would suggest, therefore, that the control relationship between the matrix subject and the null logophoric operator in Lubukusu is dependent on more than simply thematic appropriateness of the controller, but rather that the controller is necessarily a clausal subject. Landau's (2000, 2004) analysis of obligatory control in fact involves an Agree relation with matrix T (or v^o) and the embedded clause, and on the basis of this sort of approach, it may be possible to stipulate for certain control relationships in certain languages that they are in fact solely related to arguments in the matrix clause. I will return to these questions briefly below.

There is in fact a correlation within the realm of control for the subject-focused nature of the control of the logophoric operator in Lubukusu, namely, adjunct control. As described by Adler (2006), "for VP-level adjuncts such as *without*, *before*, *after*, and *while*, adult English speakers demonstrate an overwhelming preference for choosing the (c-commanding) main clause subject to be the controller" (65). This is demonstrated by the English examples of adjunct control in (180) and (181) (Adler 2006: 66).

(180) *Bill talked to Mary$_k$ before/after/while PRO$_k$ buying herself$_k$ lunch.

(181) Bill$_k$ talked to Mary before/after/while PRO$_k$ buying himself$_k$ lunch.

The strong subject-bias of adjunct control seems to be similar to the strong subject-bias of Lubukusu complementizer agreement, potentially suggesting a correlation between the two of them. Adler (2006) argues based on a variety of diagnostics that adjunct control is in fact a case

of obligatory control, and provides an analysis based on Landau's (2000, 2004) proposals

regarding obligatory control in nonfinite complements. Therefore, Adler claims that matrix T

enters into an Agree relation with PRO in adjunct control, resulting in an obligatory control (see

Landau 2000, 2004).

(182)   John hugged Mary while PRO cutting the cake.   (Adler 2006: 84)
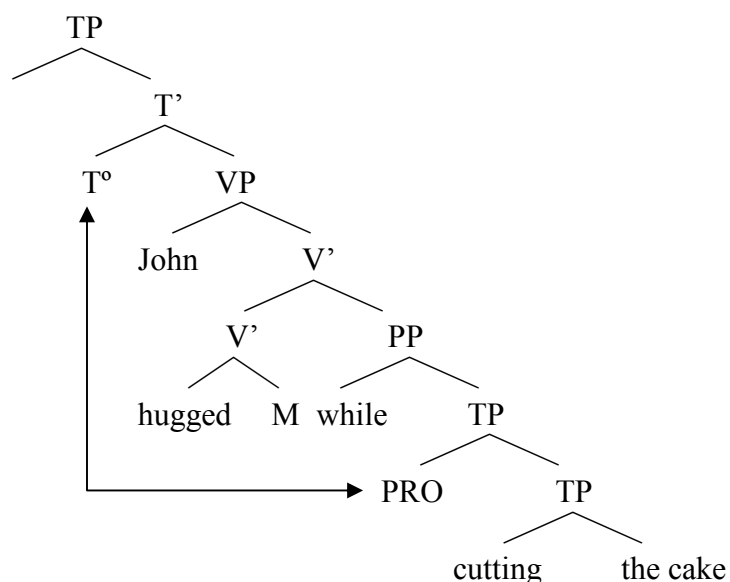
There is of course an important difference between adjunct control and Lubukusu

complementizer agreement, as Lubukusu CPs are complements of V°, whereas adjuncts are

adjoined in a higher position (Adler illustrates these as V' level adjuncts, though presumably

they may be analyzed as VP adjuncts, below the *v*P-level where the external argument is

merged). In this way, there are clearly no intervening elements between the PRO in the adjunct

and the matrix inflection, whereas this is not the case for a complementizer, which is in the

complement of a verb and likely has objects and applied objects merged above it, in Spec, VP or

in Spec, ApplP. That being said, it is well-known that subject-control relationships may in fact

'skip' over intervening DPs (e.g. *John promised Mary PRO to leave*). Again, there are a variety

of analyses that have been presented for such constructions, and I do not intend to overview them all here. Rather, I simply intend to show that there are a number of suggestive empirical parallels between well-known control relationships and the relationship between the matrix subject and the logophoric operator in complementizer agreement.[33]

Looking towards the future, if in fact the relationship between the matrix subject and the null logophoric operator is one of obligatory subject control, we would expect that this relationship be demonstrated in certain control diagnostics as well. For example, obligatory control and non-obligatory control have been argued to be distinguishable based on *de se* vs. *de re* readings, as well as to whether they allow both strict and sloppy readings under ellipsis. That being said, applying control diagnostics directly is difficult, as the controlled logophoric operator is non-argumental in complementizer agreement (and therefore does not have the same interpretive properties). Nonetheless, looking at diagnostics such as these may provide some evidence with respect to the credibility of a control analysis.

5.6.5.3   Speculations on Logophoricity and Control

There may in fact be some additional benefits to equating the mechanism for control with the mechanism that defines the reference of null logophoric pronouns. Culy (1994a) observed that logophoric domains and control domains are mutually exclusive, so that predicates which select for a controlled complement cannot also license those complements as logophoric domains. Speas (2004) suggests that this is related to the subcategorization properties of the predicate, so that predicates licensing a controlled complement must select directly for a non-finite clause, that is, they must select a lower CP-level projection. In contrast, a logophoric predicate licensing its complement as a logophoric domain necessarily selects for the higher pragmatic (POV)

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[33] Obviously, empirical parallels between two constructions do not entail that those constructions are formally identical. I believe that the parallels are suggestive nonetheless.

projections, and is not in a position to select for the finiteness/non-finiteness of the embedded clause.

The account set forth here makes available some more ideas along these lines. As discussed above, it is plausible that the same sort of relationship that identifies PRO in a control construction is responsible for identifying the logophoric operator in logophoric constructions (including Lubukusu complementizer agreement). Along these lines, it may be that the non-intersection of control and logophoric domains reduces to an intervention effect in the control relation, that the "control" operation identifies the logophoric operator when it is present, and therefore cannot identify PRO, as the logophoric operator intervenes. Cases where the "control" operation is able to license PRO in an embedded clause are those where the higher pragmatic functional heads are not present, and therefore where there is no intervening logophoric operator. This predicts that the agreeing complementizer should be impossible in all control contexts in Lubukusu, which is an issue for future research in Lubukusu.[34]

5.6.5.4 For Future Research

As is clear from this section, there is much further research necessary to establish the exact nature of the control relationship between the matrix subject and the logophoric operator, and in fact it may turn out that there are obstacles for a control account that are problematic on the same scale as the obstacles encountered by other approaches. That being said, control relations regularly show the sorts of long-distance relationships that appear with complementizer agreement: they are local, but not too local, they can be disrupted by intervening controllers, and they show a mix of syntactic and semantic/pragmatic licensing factors. The most critical issue

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[34] Though again, this cannot be tested as clearly as with logophoric pronouns, as I am unaware of any cases of an agreeing complementizer occurring with a non-finite complement (excluding subjunctive complements). So it is possible that the co-occurrence of the agreeing complementizer and control constructions may be ruled out on independent grounds.

for continuing research on this phenomena is to implement the control relation in a way which generalizes to other control constructions, but is sufficiently constrained to predict the Lubukusu complementizer agreement patterns. A fully detailed implementation of this control analysis is unfortunately beyond the scope of this dissertation, however.

5.6.6 COMPLEMENTIZER AGREEMENT AND PREDICATION IN RAISING CONTEXTS

This section further addresses some additional restrictions on the presence of complementizer agreement, specifically relating to issues having to do with predication. This section provides an argument that the nature of that matrix predicational relationship is in fact crucial to which complementizer agreement relationships are possible.

5.6.6.1 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. I only consider the Lubukusu data here, and in particular, those data which are relevant to the complementizer agreement problem at hand. I refer the reader to Carstens and Diercks (to appear) for a fuller consideration of raising in Bantu.

For our purposes here, however, it is necessary to review the basic facts of Lubukusu raising, and to examine its interaction with complementizer agreement constructions. As shown in (183)a, perception verbs in Lubukusu (like many languages) allow for a non-referential expletive subject, with a finite complement clause. In (183)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).

(183) 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 (183)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 scope-related diagnostics to demonstrate that these constructions are genuinely instances of 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 which these constructions raise.

      Relevant for our concerns here, however, is the role of complementizer agreement in these constructions. Though not accepted by all speakers, for some it is possible for the non-raising (i.e. expletive) perception-verb construction to have complementizer agreement with the expletive subject, as shown in (184) and (185):

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

(185)   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 (186) and (187):

(186)   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")

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

We see a similar phenomenon 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, again a case where the embedded clause is tensed and agreeing, potentially bearing a complementizer (*mbo* in (188)).

(188)   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.'

(189)   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.'

(190)   O-mw-ana ka-buli-khane   mbo (*a-li)   ka-rura e-si-somelo.
        1-1-child 1S-revealed-STAT that (*1-that) 1S-left 23-7-school
        'A child was revealed to have left school.'

(191)   O-mw-ana ka-sitaki-bwa   mbo (*ali)   k-eba   chi-ngokho.
        1-1-child 1S-accused-PASS that (*1-that) 1S-stole 10-chickens
        'The child was accused that he stole chickens.'

In that paper I argued with Carstens that the reason behind this prohibition of the agreeing complementizer in raising constructions had 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 (186) - (190) 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. Therefore, EpisP is a phase, but the CP projections which occur below it are not, and therefore A-raising is possible out of CP, but not EpisP, explaining the lack of the agreeing complementizer in raising constructions.

This conclusion is brought into question in the next section, however, on account of the properties of Raising-to-Object verbs (RtO). I propose some tentative solutions to this question at the end of the next section, which point to a connection between predication and selection. The paradigms of subject-to-subject raising are critical to those conclusions, and therefore I put off my observations regarding the significance of these data until considering the data in the next section.

5.6.6.2 Passives of Raising-to-Object Verbs

An additional context in which the agreeing complementizer may occur is in the complement of a so-called RtO-type verb, where there is a licensing relationship between the matrix verb and the embedded subject. This realized in English by the presence of accusative case-marking on the embedded subject:

(192) They wanted him (*he) to succeed

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 (193).

(193) 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 even some 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 even in these cases in (195) and (197) where Raising-to-Object has putatively occurred, complementizer agreement is still possible.

(194) Ba-ba-andu b-enya   ba-li   Barack Obama   a-khil-e
       2-2-people 2S-want 2-that   1Barack.Obama 1S-win-SBJ
       'People want Barack Obama to succeed.'

(195) Ba-ba-andu b-enya   Barack Obama   ba-li a-khil-e
       2-2-people 2S-want 1Barack.Obama 2-that 1S-win-SBJ
       'People want Barack Obama to succeed.'

(196) N-enya   n-di   Barack Obama   a-khil-e
       1stSG-want 1stSG-that 1Barack.Obama 1S-win-SBJ
       'I want Barack Obama to succeed.'

(197) N-enya   Barack Obama   n-di   a-khil-e
       1stSG-want 1Barack.Obama 1stSG-that 1S-win-SBJ
       'I want Barack Obama to succeed.'

I assume that the embedded subject has raised to Spec, TrP in (193), (195), and (197). These data are therefore problematic for the analysis 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 (198) and (199), which show that when a RtO verb is passivized and the raised object becomes the subject, complementizer agreement with that derived subject is impossible.

(198)   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'

(199)   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)'

This then falls in with the raising-to-subject data discussed in the preceding section. These facts seem to suggest, then, that A-raising out of the embedded CP is possible (in fact, not restricted by phasal properties of the agreeing complementizer). Otherwise it would be impossible to raise the OM to matrix object position as in (193), or to raise the overt NP there as in (195) and (197). The question arises, then, as to what restricts complementizer agreement in the passive constructions in (198) and (199)?

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, and did not originate in the embedded clause. As argued for above, there is promise in an analysis that links the properties complementizer agreement with logophoric phenomena. Perhaps the lack of agreeing complementizers in these examples is due to a violation of binding principles, essentially a crossover violation, as the raised phrase in these cases would have raised over a co-indexed logophoric operator in the embedded CP. If this was in fact that case, it would explain why only arguments which are themselves involved in the matrix predication relationship are capable of occurring with the agreeing complementizer. In this way, the approach to complementizer agreement based on an analysis of a logophoric operator can account for the lack of complementizer agreement in raising contexts.

5.6.7 INVERSION CONTEXTS

Another interesting commentary on the analysis set forward here is the presence of

complementizer agreement in certain inversion contexts, as shown in (200) (Ken Safir and
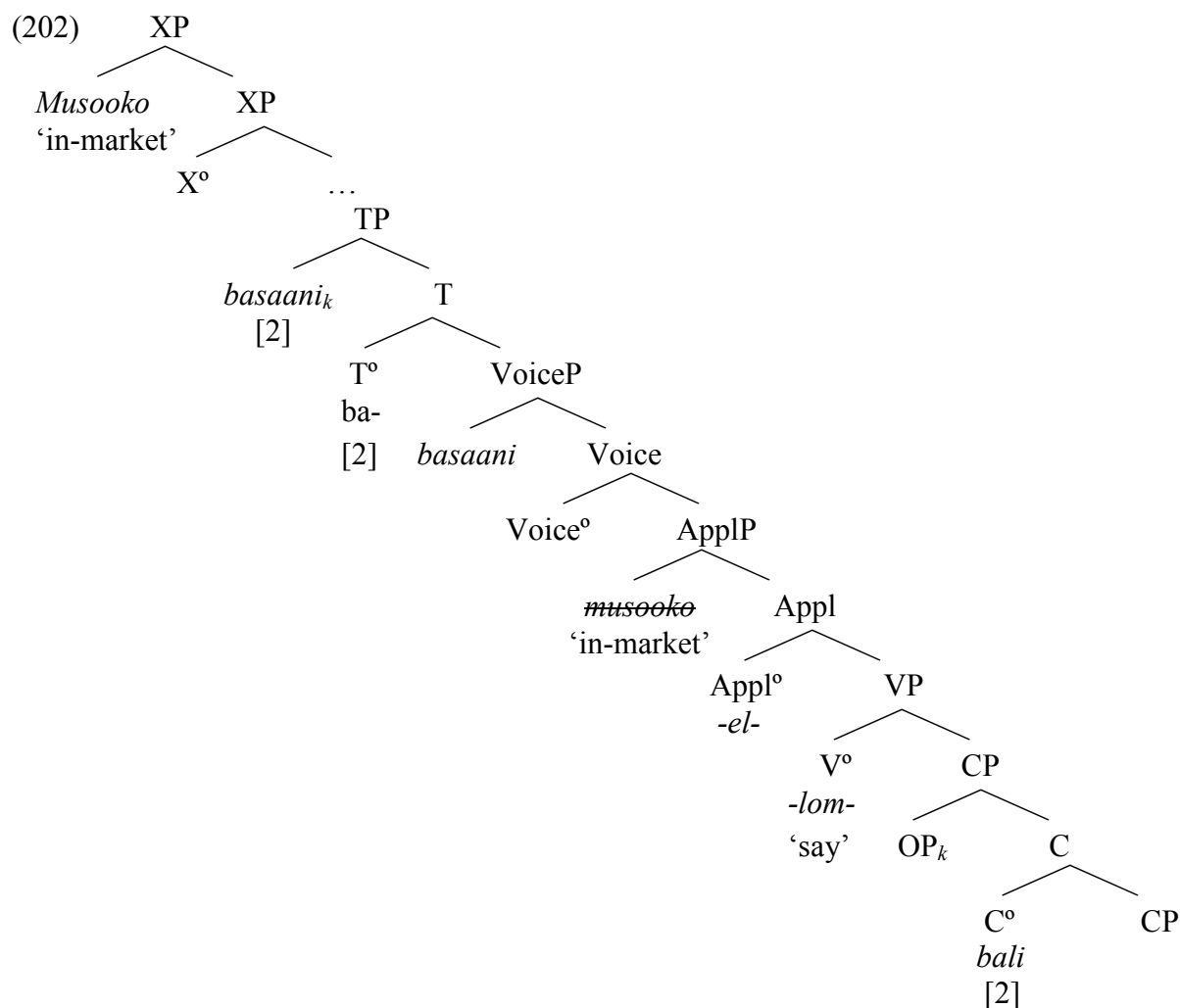
Justine Sikuku, p.c.).

(200)   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.'

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. As you will recall, however, I have argued extensively in

chapter 4 that this particular sort of inversion, which I termed disjoint agreement locative

inversion, has a very specific syntactic structure, namely, that the subject in these cases is in fact

in canonical subject position:

(201)   Disjoint Agreement Locative Inversion

        [XP LOC X-V [SUBJP SUBJ … [vP ~~SUBJ~~ ~~V~~ ~~LOC~~]]]

On the analysis of locative inversion in (201), then, the structure of the inversion sentence in

(200) will look like (202), where verb-raising to X° is assumed, though not depicted there, and

CP is used as shorthand for the specific point of view projections which were discussed in §5.4.

(202)

```
              XP
          ╱        ╲
   Musooko         XP
  'in-market'    ╱    ╲
              X°       …
                       TP
                    ╱      ╲
              basaani_k      T
                 [2]      ╱    ╲
                        T°      VoiceP
                        ba-   ╱      ╲
                        [2] basaani   Voice
                                    ╱      ╲
                               Voice°      ApplP
                                        ╱        ╲
                                   ~~musooko~~      Appl
                                   'in-market'    ╱    ╲
                                              Appl°      VP
                                              -el-     ╱    ╲
                                                     V°      CP
                                                     -lom-  ╱    ╲
                                                     'say' OP_k   C
                                                               ╱    ╲
                                                             C°      CP
                                                             bali
                                                             [2]
```

What we see in (202), 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 Lubukusu inversion constructions. A more interesting challenge to the hypothesis which I have set forth here would be to see whether a VP-internal subject (e.g. in repeated agreement locative inversion) could trigger complementizer agreement. I cannot conceive of a context where this would be possible, however, as any verb which has 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 example in (203), in an impersonal passive a null

expletive triggers subject agreement (class 5), and the same agreement is triggered on the complementizer.

(203) 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 (Voiceº here, Prº for Bowers), this agreement is unsurprising on the account set forth here. It is thus difficult to construct an example where a postverbal logical subject that was never in Spec, VoiceP could be a possible antecedent for complementizer agreement. Whether or not this is a strength of my 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.

5.7 Conclusions, and Open Issues

This chapter has addressed an instance of agreement with subjects in Lubukusu, in this case an agreement that arises on a specific complementizer. As was discussed in the introduction, this complementizer agreement shows both typologically and theoretically relevant properties. Specifically, the upward-looking, subject-oriented properties of the agreement relation are particularly troubling for a Minimalist approach to syntax, for which both of these things ought to be impossible.

I discussed the semantic, syntactic, and lexical properties which hold of the Lubukusu complementizer agreement relation in sections 5.2, 5.3, and 5.5, respectively, laying out an extensive description of the complementizer agreement phenomenon in Lubukusu. In the latter

sections of the chapter I discussed a variety of additional restrictions on complementizer agreement which offered commentary on the specific analysis proposed here.

The main proposal set forth in this chapter is that there are two conditions on complementizer agreement in Lubukusu: the subject condition and the logophoric condition. First, complementizers may only agree with a subject, and second, that subject must be an appropriate logophoric antecedent (i.e. it has a mind to report). The long-distance nature of this agreement relation is only apparent, however, as complementizer agreement is in fact local agreement between the complementizer and a null logophoric operator. I argued that this operator is located in a pragmatic projection in the left periphery—in the Epistemological Phrase (Cinque 1999, Speas 2004)—which was taken to account for the complementizer's evidential properties and its lexical distribution. A variety of analyses were discussed to explain how the null logophoric operator comes to be coreferent with the subject, and in the end I claimed that obligatory control relationships in other syntactic contexts bear the most similarity to the relationship between the subject and the operator. This conclusion was reached as much on the shortcomings of all other approaches as much as on its own merits, and as such there are a number of details about the nature of this control relationship that must be established in future research.

In the end, then, this chapter is both a significant step forward in our knowledge about this sort of matrix-subject-focused complementizer agreement relations, and a step towards understanding logophoricity in its broader context, beyond simply logophoric pronouns. If anything, this chapter can be taken as confirmation of analyses of logophoricity that rely on null elements in the left periphery, as complementizer agreement demonstrates a logophoric phenomenon that is left-peripheral on its own.

There are a number of issues that remain open, however. Empirically speaking, despite the fact that this chapter 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. This is most immediately clear with respect to its evidential properties, which have been described here in only a cursory manner. Another area that requires further research is whether there are any logophoric interactions on the level of discourse, and related to this, whether non-clause-bounded reflexives in Lubukusu interact with complementizer agreement in any significant way.

Theoretically-speaking, we are left with a large number of questions as well. While the structure of the left periphery that is adopted here serves its purpose well, as more is learned about logophoric phenomena cross-linguistically we will refine our knowledge of logophoric operators, and those conclusions will affect the analysis here. More importantly, the nature of the control relationship between the matrix subject and the null logophoric operator was somewhat undefined in this chapter, as I contented myself to note empirical similarities between complementizer agreement and control relations, and did not attempt to give a thorough analysis of the control relation. These issues require much further research, both with respect to Lubukusu complementizer agreement and control more generally, and with further developments in our understanding of control relations we may be able to adequately describe the obligatory subject control relationship that holds in Lubukusu complementizer agreement.

6 Conclusions and Final Thoughts

It is my hope that this dissertation has served both to inform and interest the reader regarding issues in the morphosyntax of Lubukusu, as well as to bring relevant and challenging data into the theoretical discussion. It should be clear that Lubukusu has a lot to offer not only in terms of our knowledge of the syntax of Bantu languages, but also in terms of our knowledge of the human faculty of language. In this last chapter I offer some final thoughts on the major issues addressed in this dissertation and consider the important role that research on Bantu languages (and on African languages more generally) can play in advancing our knowledge of human language and human cognition.

6.1 Summary

This dissertation dealt with three main issues in Lubukusu morphosyntax, all of which deal with some form of agreement with subjects. As a precursor to those issues, Chapter 2 examined several issues relating to core Lubukusu morphosyntax, exploring the nature of the different agreement forms that appear on Lubukusu verbs and offering theoretical analyses of these forms, particularly with respect to the object marker and the postverbal locative clitic.

Chapter 3 dealt with alternative agreement effects in Lubukusu (referred to as anti-agreement effects in other research). I applied Rizzi and Shlonsky's Criterial Freezing approach to subject extraction as a framework for explaining not only the subject/non-subject asymmetries in Lubukusu extraction contexts, but also the alternative agreement effects that occur in extraction of a class 1 subject. My analysis relied on an agreement relation between T^{o}, C^{o}, and the extracted subject, proposing that featural restrictions on C^{o} prevented T^{o} from being valued for all the features of the subject. The rest of the chapter went on to lay out how this approach

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explains a wide variety of alternative agreement contexts in Lubukusu, providing a rich empirical picture of the contexts of Lubukusu AAEs.

Chapter 4 moved to a different aspect of agreement with subjects in Lubukusu, looking at two locative inversion constructions that are distinguished based on their different subject agreement properties. Repeated agreement locative inversion has a verb that agrees twice with a fronted locative phrase (subject agreement and the postverbal locative clitic), whereas in disjoint agreement locative inversion the verb subject-agrees with the postverbal subject, while the postverbal locative clitic agrees with the fronted locative. Multiple diagnostics are discussed showing that there are important structural distinctions between the two constructions and that the different agreement properties can be explained by the different positions of the logical subject in the two constructions.

Chapter 5 tackled the issue of complementizer agreement in Lubukusu, documenting the phenomena thoroughly and providing an analysis based on certain logophoric properties of the agreement relation. It is shown that there are two conditions on complementizer agreement: first, the complementizer can only agree with a subject, and second, that subject must be an appropriate logophoric antecedent. Based on these properties and relying on previous work on logophoricity, I proposed a structure of the Lubukusu CP based on previous analyses of logophoric phenomena, claiming that agreement on the complementizer is triggered by a local (null) logophoric operator. The last parts of the chapter offered some ideas on the nature of the relationship between the matrix subject and the null logophoric operator, though these issues are left largely unresolved and are for future research.

6.2 On Complementizer Agreement

Despite the extensive and in-depth treatment of complementizer agreement in Chapter 5, the issue requires much further work on two levels. First, there are certainly additional empirical facts and generalizations that will arise as this phenomenon is researched further (particularly with respect to nature of the logophoric properties of complementizer agreement). Second, there are a number of theoretical issues that were left relatively undefined at the conclusion of Chapter 5, the most pressing of which is perhaps the precise nature of the proposed control relationship between the matrix subject and the null logophoric operator in complementizer agreement constructions.

In addition to further research on the Lubukusu phenomenon, further investigation of similar constructions in related languages is crucial to identifying what types of agreement relationships are in fact possible in these constructions cross-linguistically, and which relationships are ruled out across all languages. For example, while there appears to be a connection with logophoric phenomena in Lubukusu, this may not hold across all languages. If all languages with this agreement phenomena do show a connection with logophoricity, however, it will not only confirm the conclusions drawn in this work, but will provide further evidence useful for clarifying the nature of the long-distance relationship that is established between the matrix subject and the complementizer in the lower clause (argued in this work to be a Control relationship). These investigations may also prove useful to providing a more concrete analysis of subjecthood, especially as it relates to phenomena like agreement, control, and logophoricity.

6.3 On The Upward Agreement Hypothesis

A major issue that each of the topics in this dissertation addressed has to do with the nature of agreement in Bantu languages, and in particular, the ways that agreement in Bantu languages has distinctive properties when considered with respect to dominant theories of agreement (mainly, Chomsky's Agree relation and its variations). Each of the topics addressed here (alternative agreement effects, locative inversion, and complementizer agreement) all related in one way or another to a collection of proposals regarding Bantu agreement that I referred to as the Upward Agreement Hypothesis (Collins 2004, Carstens 2005, Baker 2008), which in its most basic form holds that heads in Bantu languages agree with structurally higher DPs.

As discussed in each chapter, none of the phenomena addressed here were argued to be direct evidence for or against any specific implementation of the Upward Agreement Hypothesis. Instead, each chapter addressed the issue from a different perspective. Chapter 3, on alternative agreement effects in subject extraction, crucially relied on a theory of 'upward'-probing Agree to explain alternative agreement phenomena. From a more empirical perspective, the complementizer agreement facts reported in Chapter 5 prove to be highly problematic for a theory of agreement that does not allow for agreement with a phrase which was never within the c-command domain of the agreeing head. Looking at the issue very differently, Chapter 4 dealt with a locative inversion construction in Lubukusu (disjoint agreement locative inversion) that provides a *prima facie* challenge to the Upward Agreement Hypothesis, showing that a precise structural analysis of the construction demonstrates that the Upward Agreement Hypothesis can be maintained even in light of the apparent counter-evidence.

This being said, there are still serious challenges to the Upward Agreement Hypothesis from Bantu languages, with the main challenge coming from languages that allow an object marker to co-occur with an over *in situ* object. An example from Sambaa is given in (1):

(1)   N-za-mw-ona Stella   [Sambaa]
        1STS-PRF.DJ-1O-see Stella[1]   (Riedel 2009: 44)
        'I saw Stella.'

As discussed in Riedel (2009), there are a large number of Bantu languages that allow for an object marker to co-occur with an overt object NP occurring in its base position. Riedel provides convincing evidence from Sambaa and other languages that these objects are non-dislocated (*contra* traditional analyses of object-marked objects), raising important questions about the nature of agreement with objects. Riedel notes that the Upward Agreement Hypothesis is upheld fairly transparently with subject agreement (and I would extend this generalization to other forms of agreement, such as on complementizers, focus markers, and perhaps suffixed agreement markers like the locative clitic in Lubukusu), but that the large number of examples like (1) raise important questions about whether the Upward Agreement Hypothesis is valid for object agreement. Based on this sort of evidence, therefore, Riedel (2009) analyzes object markers in Sambaa as the result of agreement on an AgrO head probing into its c-command domain and being valued for the features of the object.

Diercks (2006) and Baker (2008) provide an alternative approach to object-marking examples like (1) which maintains the Upward Agreement Hypothesis, claiming that objects in these cases have raised above the object-agreeing head, triggering agreement (whether it is v^o, AgrO^o, or Tr^o, as I have assumed in this dissertation). On this analysis verb-raising (perhaps to

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[1] DJ here stands for 'disjoint'. I refer the reader to Riedel (2009) for discussion of the conjoint/disjoin distinction in Sambaa.

Tº) obscures the fact that there is object movement in cases of object agreement. Additional diagnostics are necessary to demonstrate this sort of movement for this analysis to be maintained, however, as Diercks and Baker rely mainly on interpretational diagnostics in Swahili. There is therefore much work to be done to reconcile cross-linguistic theories of Bantu agreement (like the Upward Agreement Hypothesis) with the facts of object agreement in languages like Swahili and Sambaa.

There are therefore significant hurdles to be overcome before it is clear whether or not the Upward Agreement Hypothesis can be maintained as a generalization about the nature of agreement both for all heads within a single language, as well as across the Bantu family. Despite this work still to be done, however, the issues addressed in this dissertation make clear some of the theoretical and empirical benefits of such a theory. Riedel's (2009) generalization that the Upward Agreement Hypothesis applies to subjects but not objects is an intriguing one, as I think it accurately captures the fact that Bantu agreement phenomena may show disparate properties between objects and subjects, but it is also theoretically problematic, as it is unclear how this generalization ought to be captured theoretically in terms of parameterization of the Agree relation.

These are all important issues for future research, and I do not intend my comments here to be an attempt to resolve them, but rather to clarify the remaining questions. At the very least this dissertation has demonstrated not only that apparent counter-evidence to the Upward Agreement Hypothesis may prove to be non-fatal (e.g. disjoint agreement locative inversion), but also that there are empirical phenomena like Lubukusu complementizer agreement that are very difficult to explain without some version of the Upward Agreement Hypothesis. Looking beyond Bantu, it is my hope that continuing to examine the prolific agreements in Bantu languages may

help clarify the types of agreement relations that are in fact possible in human language, enabling us to properly restrict (and generalize) the Agree operation in a way that is empirically accurate as well as theoretically plausible. The topics addressed in this thesis are one small step in that direction.

6.4 On African Languages

On a much broader level, it is my hope that this dissertation serves to further the interest of the syntactic research community in the merits of studying Bantu languages, and African languages more generally. I do no intend to imply that Bantu/African languages inherently bear some special or unique insight into the human faculty of language. They take on this role, however, by virtue of the fact that they have been woefully under-researched relative to many other genetic and areal language groups (syntactically speaking, at least). Looking at these under-researched languages continually reveals aspects of human language that may have gone undiscovered if our focus remained on a smaller set of languages. In this way my work joins that of a growing number of syntacticians working on African languages, building momentum towards much larger and more systematic investigations of the languages of the African continent.

There are a number of logistical problems that arise in the course of investigating African languages, which often serve as an impediment to doing so. Though the African diaspora allows Western linguists to avail themselves of speakers of African languages in close proximity to their universities, the fact that it is such a distance to the African continent often discourages in-depth investigations with larger populations of speakers. That being said, there are a large number of African universities with departments dedicated to linguistics and/or African languages, including many researchers who are willing to partner with Western linguists. If we are able to take advantage of these sorts of research partnerships it may foster a research environment where

African scholars are recognized for their participation in discovering interesting and theoretically relevant phenomena, and where African languages can become increasingly relevant to the development of syntactic theories (see, for example, Ken Safir's African Anaphora project at http://www.africananaphora.rutgers.edu/). I encounter high levels of frustration among linguistics students and researchers in East Africa who try to use mainstream syntactic theories in their own work, only to find that in a large number of ways the basic frameworks are incompatible with some of the most basic structures in their languages. Our goal should be to bring these researchers into the conversation, with the goal of creating syntactic theories that are more and more cross-linguistically applicable.

In the end, our theories of human language are only as good as the accuracy of the data that they are based on, and the breadth of languages that they explain. While theoretical concerns of elegance, explanatory adequacy, and cognitive plausibility are vitally important, if we base our theories on a limited subset of languages we will create a wholly inaccurate conception of the human faculty of language and the structure of the mind, undermining the entire research program. While we need researchers to delve increasingly deeper into precise theoretical questions and cognitive applications, I believe it is just as important that there are large numbers of researchers expanding the breadth of our syntactic knowledge in a cross-linguistic perspective, exposing challenging phenomena from to-this-point under-researched or unresearched languages. In this context, many African languages are prime targets for investigation. And while this will doubtless complicate our push towards simple theories based on broad generalizations, it will at the very least ensure that the theories we create (elegant or not) will at the very least be cross-linguistically accurate.

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