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Subject Inversions in Lubukusu

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Abstract

In this thesis, I investigate subject inversions in Lubukusu. In subject inversions, the sentence does not follow the canonical word order SVO but instead the logical subject is in a postverbal position. The subject marker of the verb can either agree with a preverbal locative when the verb is an unaccusative or with the postverbal logical subject. Furthermore, the verb shows additional locative morphology if the sentence has a preverbal locative. The logical subject stays *in situ* independently of the verb agreeing with it or not. In this paper, I show that the locative is base generated in the specifier of IP if the subject marker agrees with it and that the locative can only be inserted in the specifier of IP, when the verb is an unaccusative. To account for this observation, I argue that the inflectional head in Lubukusu has Time, Locative and ϕ features. While the Locative probe only probes upwards, the ϕ probe is flexible and can agree both upwards and downwards. The ϕ probe always agrees with the external argument. If no external argument is available, the probe agrees with the internal argument. This operation can be intervened by inserting a locative DP into the specifier of IP.

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Table of Content

1	INTRODUCTION.....	4
2	AGREEMENT IN BANTU	5
2.1	GENERAL AGREEMENT PATTERNS IN BANTU.....	6
2.2	AGREEMENT IN LUBUKUSU.....	7
3	SUBJECT INVERSIONS.....	13
3.1	TYPES OF INVERSION CONSTRUCTIONS ACROSS BANTU LANGUAGES	14
3.1.1	<i>Formal Locative Inversion</i>	14
3.1.2	<i>Semantic Locative Inversion</i>	15
3.1.3	<i>Instrument Inversion</i>	15
3.1.4	<i>Patient Inversion</i>	15
3.1.5	<i>Complement Inversion</i>	16
3.1.6	<i>Default Agreeing Inversion</i>	16
3.1.7	<i>Agreeing Inversion</i>	16
3.1.8	<i>Predicate Types</i>	17
3.2	SUBJECT INVERSIONS IN LUBUKUSU	18
3.3	ANALYSES OF SUBJECT INVERSIONS	20
3.3.1	<i>Standard Analysis</i>	22
3.3.2	<i>Variation across Inversion Types</i>	22
3.3.3	<i>Variation across Languages</i>	24
3.3.4	<i>Subject Inversion Driven by Information Structure</i>	27
3.4	INTERIM DISCUSSION	30
4	ANALYSIS.....	32
4.1	METHODOLOGY	32
4.2	SUBJECT INVERSION TYPES IN LUBUKUSU	33
4.2.1	<i>Agreement with the Preverbal DP</i>	33
4.2.2	<i>Agreement with the Postverbal DP</i>	36
4.2.3	<i>Default Agreement</i>	37
4.3	POSITION OF THE LOGICAL AND THE GRAMMATICAL SUBJECT	37
4.3.1	<i>Locative Inversions</i>	38
4.3.2	<i>Agreeing Inversions</i>	40
4.4	A NEW ANALYSIS OF SUBJECT INVERSIONS IN LUBUKUSU	42
4.4.1	<i>The Locative Enclitic</i>	42
4.4.2	<i>Subject Agreement</i>	45
4.4.3	<i>Tense Probe</i>	48
4.4.4	<i>Multiple Probing</i>	49
4.5	INFORMATION STRUCTURE	54
5	CONCLUSION	57
	REFERENCES.....	59
	APPENDIX	61

1 Introduction

At first glance, Bantu languages appear very similar to each other and have therefore sometimes been analyzed as monolithic. Bantu languages share the common feature of having noun classes which can be interpreted as grammatical gender and the verb agrees with the grammatical subject in the noun class. The canonical word order in Bantu languages is typically SVO, as shown in (1)^{1,2}.

- (1) **Kú-mú-saala kw-á-kwá mu-mu-siiru.** (Declarative)
3-3-tree 3SM-PST-fall 18-3-forest
 ‘A tree fell in the forest.’
 (Diercks 2011:2)

However, increasingly research has revealed differences between Bantu languages. One of the aspects in which Bantu languages differ is in subject inversions. Several Bantu languages allow subject inversions in which the logical subject is inverted. This means that the logical subject does not appear in its preverbal canonical position but in a position after the verb. These inversion constructions have been the topic of many studies since they show interesting agreement patterns. The subject marker of the verb can either agree with the postverbal logical subject, as shown in (2a), or with the fronted element, as shown in (2b). I will follow Marten & van der Wal (2014) in this paper and distinguish between logical and grammatical subject. The grammatical subject is the constituent that the subject marker of the verb agrees with: *kumusaala* in (2a) and *mumusiiru* in (2b). The logical subject is of a semantic nature and is the argument which combines last with the predicate: *kumusaala* in (2a & 2b).

- (2) a. **Mú-mú-siirú kw-á-kwá-mó kú-mú-saala** (Agreement with the
 18-3-forest 3SM-PST-fall-18L 3-3-tree postverbal subject)
 ‘In the forest fell a tree.’
- b. **Mú-mú-siirú mw-á-kwá-mó kú-mú-saala.** (Agreement with the fronted
 18-3-forest 18SM-PST-fall-18L 3-3-tree locative)
 ‘In the forest fell a tree.’
 (Diercks 2011:2-3)

While subject inversions share several features across Bantu languages e.g. that the logical subject is in a postverbal position, they are more different than they seem at first sight. These differences have only recently become the focus of research. Van der Wal (2012) showed that the underlying structure of subject inversions varies across Bantu languages. Marten & van der Wal (2014) created a typology of subject inversions in which they presented the parameters which are set, and which can vary across Bantu languages. According to the authors, subject inversions can vary in agreement (whether the subject marker shows agreement with the

¹ If not indicated otherwise, the examples are in Lubukusu. Sentences without reference are from my own fieldwork.

² Cardinal numbers (1,2,3 etc) = noun class features; ordinal numbers (1st, 2nd etc) = Person features; ADJ = adjective; AGR = Agreement; ASP = Aspect; AP = Applicative; AUG = Augment; CAUS = Causative; CJ = Conjoint; COP = Copula; COMP = Complementizer head; DEM = Demonstrative; DJ = Disjoint; FUT = Future tense; FV = Final Vowel; HAB = Habitual; IMPF = Imperfect; INF = Infinitive; L = Locative enclitic; LOC = locative; NEG = Negation; OBJ = Object; OM = Object marker; PASS = Passive; PL = Plural; PRED = Predicative; PRF = Perfect; PRG = Progressive aspect; PRS = Present; PST = Past tense; Q = Question particle; REL = Relative; S = Subject; SM = Subject marker; TAM = Tense/aspect marker; TNS = Tense

preverbal or postverbal DP or default agreement), in word order, in thematic restrictions on the preverbal phrase and whether or not the preverbal phrase is morphologically marked. Hence, subject inversions in Bantu cannot be uniformly analyzed and each language needs to be investigated individually to determine which parameters apply and what the underlying structure of each specific language is.

Lubukusu (JE31) is one such specific Bantu language with subject inversions which have previously been discussed in literature. It is a Bantu language spoken in Western Kenya by 550,000-800,000 people (Diercks 2010). Diercks (2010, 2011) already investigated the structure of inversion constructions in Lubukusu, however it is not yet known which subject inversion parameters apply for this language. In other words, the currently available data regarding Lubukusu is not yet sufficient to analyze the syntactic structure of subject inversions.

This paper aims to give an overview of subject inversions in Lubukusu in light of newly acquired data and then attempts to reanalyze the underlying structure of subject inversions in Lubukusu. Thus, the research questions for this paper are:

- I. Which subject inversions are permitted in Lubukusu and if so, with which predicates?
- II. What is the underlying structure of subject inversions in Lubukusu?

In order to analyze the syntactic structure of inversion constructions in Lubukusu, we first need to determine which parameters account for subject inversions. Therefore, I collected data pertaining to subject inversions in Lubukusu. The types of subject inversions that are possible were then determined, along with which predicates are permitted in inversion constructions. Then, the subject inversions were categorized according to Marten & van der Wal's (2014) typology of Bantu subject inversions. Next, each inversion type was tested with unaccusatives, unergatives, transitives and passives. Furthermore, several tests were run to determine the position of the preverbal and postverbal DP in subject inversions. With this newly acquired data, I was able to properly analyze the underlying structure of subject inversions in Lubukusu.

The paper is structured as follows: Section 2 provides a theoretical background regarding agreement in Bantu and Lubukusu in particular. Section 3 presents the current state of knowledge of subject inversions in Bantu languages in 3.1 and in Lubukusu in particular in 3.2. 3.3 provides an overview of earlier approaches to analyzing the underlying structure of subject inversions in Bantu languages. Section 4 presents the newly collected data and shows which subject inversions are allowed in Lubukusu and with which predicates, in order to then analyze the underlying structure. Section 5 concludes the findings of this paper and gives an outlook for further research.

2 Agreement in Bantu

Bantu languages are a sub-family of the Niger-Congo language family. According to Lewis (2019), the Niger-Congo language family consists of 1,542 languages, 542 of them are narrow Bantu languages which will be the focus of this paper. Bantu languages constitute 7.6 % of all world languages (in contrast there are 448 Indo-European languages, with 48 Germanic languages and 43 Romance languages) (Lewis 2019, Diercks 2010). However, Bantu languages are somewhat under-researched, especially in comparison to languages of wealthier countries and regions (i.e. the global North). This means that linguistic literature has a tendency to focus on Indo-European languages. Diercks (2010:7) highlights the importance of researching Bantu languages (and other under-researched languages): *“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.”*

While Bantu languages share many similarities and are sometimes even described as monolithic, a growing body of research reveals the previously underappreciated diversity of

- (6) ha-tu-tza-pfa-ambik-a
 NEG-1STPL.SM-TNS-8OM-cook-FV
 ‘We will not cook it (e.g. food)’
 (Marten 2001:260)

(Kiluguru)

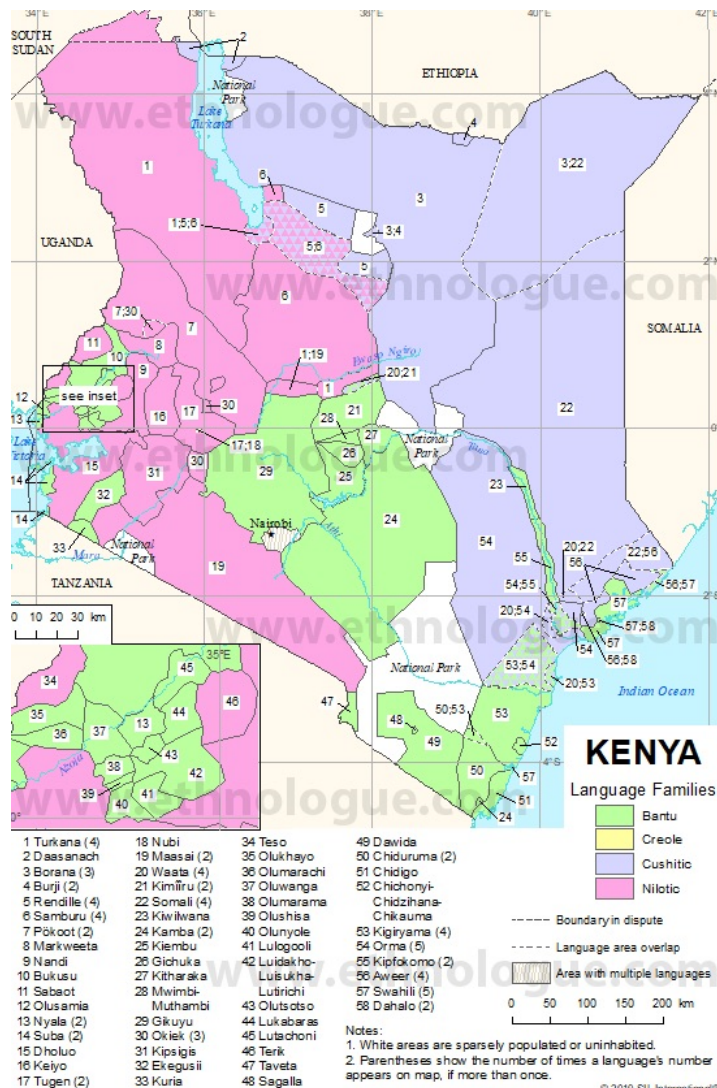
In most Bantu languages the subject marker cannot be omitted. However, the role of the object marker varies and in some Bantu languages is interpreted as an incorporated pronoun, as will be seen for Lubukusu in 2.2.

While Bantu languages share a lot of similarities in nominal classes and verbal templates, each language is different (like in other language families). Thus, the next chapter will give a more detailed overview of agreement patterns of one specific Bantu language, namely Lubukusu.

2.2 Agreement in Lubukusu

Lubukusu (JE31) (also called Bukusu) is a Bantu language spoken in Western Kenya by 550,000-800,000 people and is part of the Luhya languages (Diercks 2010). On the map inserted below (7), Lubukusu is number 10 and can be found in the far West on the border with Uganda.

(7) Map of languages spoken in Kenya (Lewis 2019)



Lewis (2019) classifies Lubukusu as the following:

- (8) Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow-Bantu, Central J, Masaba-Luhya (E.31)

Lubukusu has, like many other Bantu languages, noun classes. The noun classes in Lubukusu are expressed with double prefixes: prefixes and pre-prefixes, which means that the prefix appears twice (9). To express a locative, the pre-prefix is replaced by a locative pre-prefix (10).

- (9) **ku-mu-siiru**
3-3-forest
 ‘forest’
 (Diercks 2011:8)

- (10) **mu-mu-siiru**
18-3-forest
 ‘in the forest’
 (Diercks 2011:8)

The complete Lubukusu noun class morphology can be seen below in (11):

- (11) Lubukusu noun class morphology (Diercks, 2010:42)

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 bin’
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 /4)	ku-	ku-	kukwaana	‘big child’
	ki-	mi-	kimyaana	‘big children’
23 (Locative ‘in the Vicinity of’)	e-		enaarobi	‘at Nairobi’

slot can be filled with a locative enclitic (Diercks 2010). The final vowel can express temporal information in combination with a tense marker.

The subject marker is in the first or second position depending on the type of negation. Negation in Lubukusu is always marked by two particles. The first particle is a verbal prefix and is preinitial and realized as *se-* (15a) or postinitial and realized as *-kha*. The realization of the first particle is dependent on the structure of the negated clause. If a main clause or a complex NP is negated, the preinitial *se-* is used (15a). If an embedded relative clause, a cleft construction or an imperative is negated, the postinitial *-kha* is used (15b). The second negation particle is not a verbal prefix but nevertheless a VP constituent. It is always realized as *-ta* (Wasike 2007:242-243). The distribution of the negations is shown in the following examples.

- (15) a. Peter **se**-a-la-ba a-kula si-tabu **ta**.
 1.Peter NEG-1SM-FUT-be 1SM-buy7-book NEG
 ‘Peter will not be buying a book.’
- b. Peter a-kula engokhoniyo maayi **a-kha**-akat-il-e
 1.Peter 1SM-bought chicken which 1.mother1SM-NEG-PST-slaughter-AP-FV
 o-mu-keni **ta**.
 1-1-guest NEG
 ‘Peter bought the chicken which mother did not slaughter for the guest.’
 (Bell & Wasike 2004, retrieved from Diercks, 2010:44)

The verb not only agrees with the subject but can also show object agreement. The object marker agrees, like the subject marker, in the noun class with the object. Object agreement in Lubukusu matches the general Bantu verbal template i.e., the object marker appears between the tense marker and the verb root as shown in (16).

- (16) Tegani a-a-**ka**-kula
 1.Tegan 1-PST-**6OM**-buy
 ‘Tegan bought it.’
 (Diercks, 2010:44)

However, Diercks (2010) argued that the object marker in Lubukusu is an incorporated pronoun rather than an agreement marker based on two arguments. First, the object marker is not allowed when the object sits *in situ*. Since the object marker is argued to be an incorporated pronoun it cannot co-occur with an overt object since it is assumed to occupy the same position as the overt object in the clause. This can be seen in (17) where the direct object *babandu* is not allowed with the object marker *ba* which refers to the direct object.

- (17) Tegani a-a-**ba**-p-il-e (***ba**-ba-ndu)
 1.Tegan 1SM-PST-**2OM**-hit-FV (***2**-2-people)
 ‘Tegan hit them.’
 (Diercks, 2010:52)

Secondly, when the object is extracted like in an object cleft (18a) or in an object relative clause (18b), the object marker is also ungrammatical for the same reason as in (17):

- (18) a. lw-a-ba **lu**-u-saala ni-lwo ba-ba-ana ba-a(***lu**)-funa
 1 1SM-PST-be **11**-11-stick PRED-11 2-2-child 2SM-PST-(***11OM**)-break
 lw-a-kwa
 1 1-PST-fall
 ‘The stick which the children broke fell.’
- b. **ka**-ma-tunda ni-ko ba-ba-ndu ba-a(***ka**)-kula likoloba
6-6-fruit COMP-6 2-2-people 2SM-PST-**6OM**-buy yesterday
 ‘the fruit that the people bought yesterday.’
 (Diercks, 2010:53)

Diercks (2010) concluded that the object marker in Lubukusu is not an agreement marker but an incorporated pronoun.

At first glance, the object marker and the locative enclitic in Lubukusu seem to be similar. As already stated above, the postfinal position in Lubukusu can be filled by a locative enclitic which is illustrated in (19).

- (19) o-mu-sale wa-se o-la-**mo**
 1-1-friend 1-my 1SM-arrives-**18L**
 ‘My friend arrived in here.’
 (Diercks, 2010:45)

Like with object markers, the locative element is not allowed in its *in situ* position when the locative marker is overt. In (20) the locative *mumusiru* is not allowed when the locative marker *-mo* occurs:

- (20) ku-mw-iti kw-a-kw-ile-**mo** (***mu**-mu-siru)
 3-3-tree 2SM-PST-fall-PST-**18L** (***18**-3-forest)
 ‘A tree fell in there’
 (Diercks, 2010:24)

But unlike object markers, locative enclitics are allowed in clefts (21a) and relative clauses (21b). This indicates that the locative enclitic behaves differently than the object marker and is not an incorporated pronoun. Otherwise, (21a) and (21b) would not be allowed:

- (21) a. mw-a-ba **mu**-nju ni-mwo ba-ba-ana ba-a-funa-**mo** lu-u-saala
 18SM-PST-be **18**-house PRED-18 2-2-child 2SM-PST-break-**18L** 11-11-stick
 ‘It was in the house that the children broke the stick.’
- b. **Mu**-nju ni-mwo Peter a-la-bona-**mo** ba-ba-andu
18-house COMP-18 1Peter 1SM-FUT-see-**18L** 2-2-people
 ‘The house in which Peter will see people.’
 (Diercks, 2010:53)

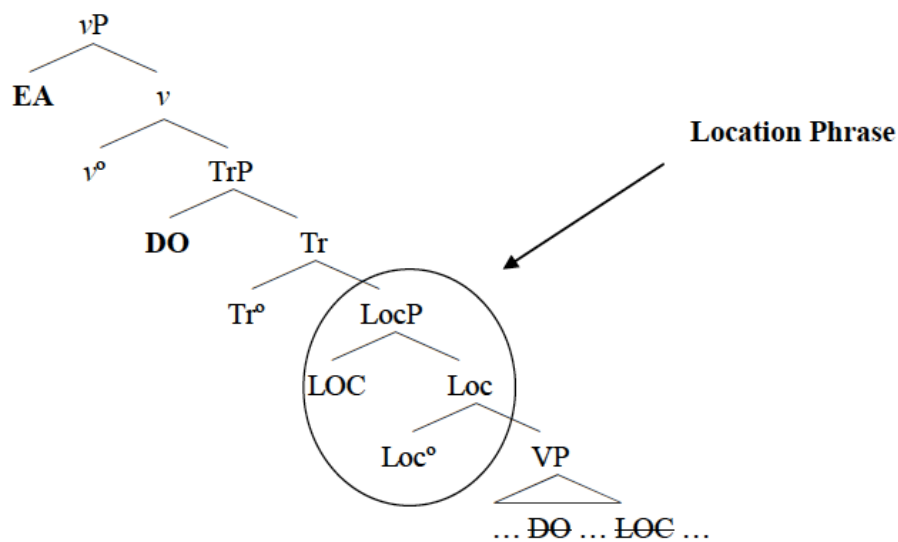
Furthermore, the object marker and the locative enclitic can appear together which indicates that they occupy different syntactic positions. This is illustrated in (22):

(22) ba-soreeri khe-ba-enja chi-ndemu mu-si-wanja ...
 2-boy PRG-2SM-look.for10-snakes 18-7-field
 ‘The boys are looking for snakes in the field.’

... ba-a-**chi**-nyola-mo
 2SM-PST-10OM-find-18L
 ‘They found them (in) there.’
 (Diercks 2010:57)

Since the locative enclitic cannot be an incorporated pronoun, Diercks (2010) concluded that the locative enclitic in Lubukusu is an agreement morpheme on a functional head, the Location phrase. Diercks (2010) argued that the locative enclitic always occurs when the locative moves via LocP, but not when the locative stays *in situ*. If the locative stays *in situ*, the enclitic cannot occur. Diercks gave the following underlying structure:

(23) Location Phrase by Diercks (2010:72)



Furthermore, Diercks (2010:56) defined the properties of the locative enclitic as the following:

(24) *Properties of Bukusu Locative clitic*

- 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*

(24.i-iv) have already been discussed in the previous paragraphs but in (24.v) Diercks stated that locative enclitics must occur in subject inversions. In subject inversions, the logical subject is inverted. This means that the subject does not appear in its preverbal canonical position but in a postverbal position. If a locative occurs preverbally in such an inversion construction, the locative enclitic is obligatory, as shown in (25):

- (25) Mú-mú-siirú kw-á-kwá-*(mó) kú-mú-saala (Agreement with the
 18-3-forest 3SM-PST-fall-18L 3-3-tree postverbal subject)
 ‘In the forest fell a tree.’
 (Diercks 2011:2-3)

The locative enclitic also occurs when the subject marker of the verb agrees with the locative in a subject inversion construction, as can be seen in (26):

- (26) Mú-mú-siirú mw-á-kwá-mó kú-mú-saala. (Agreement with the fronted
 18-3-forest 18SM-PST-fall-18L 3-3-tree locative)
 ‘In the forest fell a tree.’

(25) and (26) show two very interesting phenomena. In (25) the subject marker of the verb agrees with the logical subject, which stands in a postverbal position and is therefore inverted. In (26), the logical subject is also inverted but the subject marker of the verb agrees with the preposed locative and not with the logical subject. These subject inversions occur across Bantu languages and have been the topic of many discussions. The next chapter will further explore subject inversions in Bantu and in Lubukusu in general.

3 Subject Inversions

Bantu languages are known for having SVO word order, as displayed in (1) repeated in (27a). However, subject inversions can be observed in many Bantu languages. Subject inversions do not follow the canonical word order SVO but instead the logical subject is inverted and sits in a postverbal position as in (2) repeated in (27b & c). In subject inversions, the verb can either agree with the logical subject as in (27b) or with the preposed constituent as in (27c).

- (27) a. Kú-mú-saala kw-á-kwá mu-mu-siiru. (Declarative)
 3-3-tree 3SM-PST-fall 18-3-forest
 ‘A tree fell in the forest.’
- b. Mú-mú-siirú kw-á-kwá-mó kú-mú-saala (Agreement with the
 18-3-forest 3SM-PST-fall-18L 3-3-tree postverbal subject)
 ‘In the forest fell a tree.’
- c. Mú-mú-siirú mw-á-kwá-mó kú-mú-saala. (Agreement with the fronted
 18-3-forest 18SM-PST-fall-18L 3-3-tree locative)
 ‘In the forest fell a tree.’
 (Diercks 2011:2-3)

However, subject inversions are not uniform and vary across Bantu languages. In 3.1, I will present the parameters in which subject inversions can vary. In 3.2, I will show which of these parameters are already identified for Lubukusu. While, 3.1 and 3.2 are descriptive and purely present the phenomenon of subject inversions in Bantu in general and Lubukusu in particular, 3.3 presents several ways in which subject inversions have been analyzed and in 3.4, I will explain how these analyses account for Lubukusu.

3.1 Types of inversion constructions across Bantu languages

As stated above, subject inversions vary across Bantu languages. Marten & van der Wal (2014) created a typology of Bantu subject inversions, in which they investigated the common features of subject inversion constructions.

Marten & van der Wal (2014) stated that all subject inversions have in common the feature that the logical subject follows the verb and cannot be omitted. The postverbal subject is non-topical. Object marking is not allowed.

Furthermore, Marten & van der Wal (2014:343) defined the parameters which can differ in subject inversions across Bantu languages:

1. Morphological marking of the preverbal phrase
 - a. Locative marking
2. Thematic restrictions on the preverbal phrase
 - a. Locative
 - b. Instrument
 - c. Patient
 - d. Proposition
3. Agreement
 - a. Agreement with the preverbal DP/'topic'/clause
 - b. Default (locative) agreement
 - c. Agreement with the inverted logical subject
4. Word order
 - a. VS only
 - b. VS and VOS
 - c. VS and VSO

On the basis of these parameters Marten & van der Wal (2014) distinguished between seven types of subject inversions across Bantu languages. One language does not necessarily have all seven constructions and not all Bantu languages have inversion constructions. The seven subject inversion types are: formal locative inversion, semantic locative inversion, instrumental inversion, patient inversion, (clausal) complement inversion, default agreeing inversion, agreeing inversion. These inversion constructions will be presented further in the next paragraphs.

3.1.1 Formal Locative Inversion

In formal locative inversions, the subject marker agrees with the fronted locative in one of the locative classes (16-18) and not with the postverbal logical subject. An example of formal locative inversions is given in (28), from Otjiherero. The auxiliary *mwá* shows agreement with the locative in class 18 and does not agree with the logical subject in class 5.

- (28) **M**-òn-djúwó **mw-á** hití é-rùngà. (Otjiherero)
18-9-house SM18-PST enter 5-thief
'Into the house entered a/the thief.'
(Möhlig et al. 2002; Marten 2006; Möhlig & Kavari 2008,
retrieved from Marten & van der Wal, 2014:324)

Marten & van der Wal (2014:323-324) stated that formal locative inversions share the following properties: The postverbal DP is the logical subject and cannot be omitted. This DP is non-topical. It is either in subject focus or the sentence isthetic, i.e. topicless. The preverbal DP is

marked as locative and is the grammatical subject. Object marking (either referring to the logical subject or another DP) is not permitted. The verb and the logical subject are phonologically phrased together and cannot be separated.

Marten & van der Wal (2014) observed that formal locative inversions vary in which predicate types they allow. While in some languages formal locative inversions are available with all predicate types, some languages only permit formal locative inversions with a subset of the predicate types. This will be discussed further in 3.1.8.

3.1.2 Semantic Locative Inversion

Semantic locative inversions are very similar to formal locative inversions, but the subject marker of the verb does not agree with the locative prefix of a noun, but with the class of the noun itself. An example of semantic locative inversions is shown in (29). The verb *ima* shows agreement with the locative *ipulatiformu* in class 9 (and not in the locative classes 16-18) and does not agree with the logical subject *abantu* in class 2.

- (29) **I**pulatiformu **i**-ma aba-ntu aba-win-ile (Zulu)
 9.platform SM9-stand 2-people REL2-win-PRF
 ‘The winners stand on the platform.’
 (Buell 2007, retrieved from Marten & van der Wal 2014:328)

Like formal locative inversions, semantic locative inversions vary in which predicate types they allow. While in some languages formal locative inversions are available with all predicate types, some languages only permit formal locative inversions with a subset of the predicate types.

3.1.3 Instrument Inversion

In instrument inversions, the subject marker of the verb agrees with a noun which functions as an instrument in the noun class. The instrument is in the preverbal position while the logical subject is in a postverbal position. An example of instrument inversions is illustrated in (30). The verb *sidla* shows agreement with the instrument *isipunu* in class 7 and does not agree with the logical subject *uJohn* in class 1.

- (30) **Isi**-punu **si**-dl-a u-John (Zulu)
 7-spoon SM7-eat-FV 1-John
 ‘John is using the spoon to eat.’
 (Zeller 2012, retrieved from Marten & van der Wal, 2014:330)

It is intrinsic to instrument inversions, that they cannot occur with unaccusatives. Unaccusatives only have one theta role assigned to them which is usually a patient. Instruments need agents to be used (cf. Reinhart 2003). Ergo, the predicate needs to be an unergative or a transitive.

3.1.4 Patient Inversion

In patient inversion, or subject-object reversal, the subject marker agrees with the patient, the direct object which is in the preverbal position. An example of patient inversions is given in (31). The verb *citula* shows agreement in class 7 with the patient *iciya* and does not agree with the logical subject *imwana* in class 1.

- (31) **Ici-ya ci-tula imw-ana** (Luguru)
 7-pot SM7-broke 1-child
 ‘The child broke the pot.’ (Literally: ‘The pot broke the child.’)
 (Mkude 1974, retrieved from Marten & van der Wal, 2014:331)

It is the nature of patient inversions, that they cannot occur with unaccusatives and unergatives, since they are monovalent predicates and patient inversions require a divalent predicate.

3.1.5 Complement Inversion

In complement inversions, the clausal complement becomes the grammatical subject of the verb. The verb shows default agreement or agreement with the infinitive (which belongs to the noun class system). An example of complement inversions is given in (32). The verb *dukina* shows agreement with the infinitive *gukuunda* in class 15 and does not agree with the logical subject *abana* in class 2.

- (32) **Gu-kina gu-kuunda aba-ana** (Kinyarwanda)
 15-play SM15-like 2-children
 ‘The children like to play.’
 (Morimoto 2000, retrieved from Marten & van der Wal, 2014:333)

Like patient inversions, complement inversions cannot occur with unergatives and unaccusatives by default since they require a dyadic predicate.

3.1.6 Default Agreeing Inversion

In default agreeing inversions, the verb shows default agreement and not agreement with the logical subject which follows the verb. An example of default agreeing inversions is given in (33). The auxiliary *gó* shows default agreement in class 17 and does not agree with the logical subject *Mphó* in class 1.

- (33) **Gó tsámá-ílé Mphó.** (Tswana)
 SM17 go-PRF.CJ 1-Mpho
 ‘There has gone Mpho.’
 (Creissels 1996, Marten & van der Wal, 2014:339)

3.1.7 Agreeing Inversion

An agreeing inversion is an inversion construction in which the logical subject follows the verb, and the verb agrees with the postverbal subject. An example of agreeing inversions is illustrated in (34). The verb *nihóowá* agrees with the postverbal logical subject *nláikha* in the noun class.

- (34) **Ni-hoó-wá n-láikha.** (Makhuwa)
 SM5-PRF.DJ-come 5-angel
 ‘There came an angel.’
 (Marten & van der Wal 2014:339)

Depending on the language, agreeing inversions can occur with all predicate types.

3.1.8 Predicate Types

As mentioned in 3.1.1 and 3.1.2, Marten & van der Wal (2014) stated that both formal and semantic locative inversions vary across Bantu languages in which predicate types they allow. While some languages like Otjiherero allow locative inversions with all types of predicates, other languages are more restricted. Marten (2006) observed the following hierarchy in the availability of locative inversions:

(35) Availability of locative inversion (Marten 2006):

		non agentive		agentive		active		active
unaccusatives	>	unergatives	>	unergatives	>	transitives	>	distransitives
(Chichewa)		(Chishona)		(Setswana)		(Otjiherero)		*

This means that if locative inversions are allowed in a language, it is at least allowed with unaccusatives.

This hierarchy has not been discussed for other inversion constructions. However, it could hypothetically be extended to other inversion constructions in which the verb agrees with a preverbal DP, i.e. instrument inversions, patient inversions and complement inversions. Interestingly, instrument inversions do not allow unaccusatives and patient and complement inversions do not allow unergatives and unaccusatives as shown in the previous sections. If this hierarchy also applies to other inversion constructions with agreement with the preverbal DP, this would mean that languages like Chichewa that only allow locative inversions with unaccusatives would not allow any inversions with unergatives or transitives, i.e. instrument, patient or complement inversions. On the other hand, this hypothesis does not imply that just because a language allows locative inversion with all predicate types, this language necessarily allows other inversion constructions.

At least for Chichewa, we know that patient inversions are not allowed (Marten & van der Wal 2014). On the other hand, Otjiherero does allow locative inversions with transitives (and thus with unergatives and unaccusatives) but patient inversions are nevertheless not permitted (Marten & van der Wal 2014).

I adapt Marten's (2006) hierarchy of locative inversions and suggest that it can be extended to other inversion constructions in which the verb agrees with a preverbal DP, i.e. instrument inversions, patient inversions and complement inversions, shown in (36)

(36) Availability of inversion constructions in which the verb agrees with a preverbal DP

		non agentive		agentive		active		active
unaccusatives	>	unergatives	>	unergatives	>	transitives	>	distransitives
(only locative)		(only locative)		(locative & optionally instrument)		(locative & optionally instrument, patient complement)		*
(Chichewa)						(Otjiherero)		

However, the data for inversion constructions in Bantu is insufficient and we need more data from more Bantu languages to substantiate this claim. This thesis contributes to this endeavor by investigating inversion constructions in Lubukusu.

3.2 Subject inversions in Lubukusu

Subject inversions in Lubukusu have already been discussed in the literature by Diercks (2010, 2011). However, the focus has been on formal locative inversions and agreeing inversions. This section will give an overview of the data collected by Diercks (2010,2011).

As already stated in 1.2, Lubukusu has SVO word order. The verb agrees with the grammatical subject which is in a preverbal position in the canonical word order, shown in (1) repeated in (37):

- (37) **Kú**-mú-saala **kw**-á-kwá mu-mu-siiru. (Declarative)
 3-3-tree 3SM-PST-fall 18-3-forest
 ‘A tree fell in the forest.’
 (Diercks 2011:2)

However, this is not the case in subject inversions. As stated in the previous sections, subject inversions do not follow the canonical word order SVO, but the logical subject is inverted and sits in a postverbal position. Diercks (2010, 2011) presented agreeing inversions in which the subject marker of the verb agrees with the postverbal DP as in (38a) and locative inversions in which the subject marker agrees with the preverbal locative as in (38b) in Lubukusu which will be investigated further in this section.

- (38) a. **Mú**-mú-siirú **kw**-á-kwá-mó **kú**-mú-saala (Agreement with the
 18-3-forest 3SM-PST-fall-18L 3-3-tree postverbal subject)
 ‘In the forest fell a tree.’
- b. **Mú**-mú-siirú **mw**-á-kwá-mó kú-mú-saala. (Agreement with the fronted
 18-3-forest 18SM-PST-fall-18L 3-3-tree locative)
 ‘In the forest fell a tree.’
 (Diercks 2011:2-3)

In formal locative inversions, the verb agrees with the fronted locative. The postverbal DP is the logical subject and cannot be omitted. The locative enclitic on the verb is obligatory in locative inversions as stated in 2.2 (Diercks 2010).

Diercks (2011) showed that formal locative inversions are only allowed if the predicate is an unaccusative as in (39). Diercks distinguished between unergatives which select a locative phrase (e.g. *enter*) and those which do not (e.g. *laugh*). Both locative as in (40) and non-locative as in (41) unergatives do not permit formal locative inversions. Furthermore, both transitives and ditransitives do not permit formal locative inversions. However, Diercks did not show if locative inversions are allowed in passive voice.

- (39) **Mú**-nju **mw**-ólá-mo bá-bá-ana
 18-home 18SM-PST.arrive-18L 2-2-child
 ‘Inside/at home arrived the children.’
 (Diercks 2011:35)
- (40) ***Mu**-kanisa **mw**-engila-mo ba-ba-andu
 18-church 18SM-PST.enter-18L 2-2-person
 Intendend: ‘In the church entered people.’
 (Diercks 2011-36)

- (41) ***Mw-i-duka mw-a-chekh-a-mo Moses**
18-9-store 18SM-PST-laugh-FV-18L 1.Moses
 Intended: ‘In the store laughed Moses’
 (Diercks 2011:37)

Diercks (2010, 2011) did not test if instrument, patient or complement inversions are permitted in Lubukusu. In 3.1.8, I presented Marten’s (2006) hierarchy of the availability of locative inversions which is repeated in (42). If this hierarchy holds not only for locative inversions but also for other types of agreeing inversions in which the verb agrees with the preposed DP, we can expect that instrument, patient or complement inversions are not permitted in Lubukusu. Unlike locative inversions, instrument, patient and complement inversions do not allow unaccusatives but locative inversions are only allowed with unaccusatives. However, it is yet to be tested, if there is a correlation.

- (42) Availability of locative inversion (Marten 2006):

		non agentive	agentive	active	active	
unaccusatives	>	unergatives	>	transitives	>	distransitives
(Chichewa)		(Chishona)	(Setswana)	(Otjiherero)		*

Locative inversions are not the only inversion constructions Diercks (2010, 2011) investigated. He also discussed agreeing inversions with locatives in Lubukusu and stated that agreeing inversions are only allowed with unaccusatives (43) and locative unergatives (44), but not with non-locative unergatives (45) or transitives (46).

- (43) **Mú-nju b-ólá-mo bá-bá-ana**
18-home 2SM-PST.arrive-18L 2-2-child
 ‘Inside/at home arrived the children.’
 (Diercks 2011:35)

- (44) **Mu-kanisa b-engila-mo ba-ba-andu**
18-church 2SM-PST.enter-18L 2-2-person
 ‘In the church entered people.’
 (Diercks 2011:36)

- (45) ***Mw-i-duka ka-a-chekh-a-mo Moses**
18-9-store 1SM-PST-laugh-FV-18L 1.Moses
 Intended: ‘In the store laughed Moses’
 (Diercks 2011:37)

- (46) ***khu-mu-saala y-emb-el-a-kho e-nyuni lu-lw-imbo**
17-3-tree 9SM-sang-AP-FV-17L 9-bird 11-11-song
 Intended: ‘On the tree sang a bird a song.’
 (Diercks 2010:254)

Diercks (2011) also stated that default agreeing inversions are prohibited in Lubukusu. Diercks (2011:12) called such a construction *prototypical Bantu presentational construction* and stated that it does not exist in Lubukusu. According to Diercks, the closest construction in Lubukusu is an agreeing inversion with a locative enclitic on the verb which is presented in (47):

Furthermore, unlike an object, the logical subject cannot be passivized (49) nor relativized (50) (Bresnan & Kanerva, 1989). (49a) and (50a) show locative inversions in Chichewa. The subject marker of the verb agrees with the preverbal locative. The logical subject stands in a postverbal position. (49b) shows that the postverbal DP *alendowo* cannot be passivized unlike an object. (50b) shows that the postverbal DP *nkhandwe* cannot be relativized unlike an object.

- (49) a. **Ku**-mu-dzi **ku**-na-bwer-a a-lendo-wo. (Chichewa)
 17-3-village 17SM-PST-come-FV 2-visitor-2DEM
 'To the village came those visitors.'
- b. ***A**-lendo-wo **a**-na-bwer-edw-a ndi ku-mu-dzi.
 2-visitor-2DEM 2SM- PST-come-PASS-FV by 17-3-village
 lit. 'The visitors were come by to the village.'
 (Bresnan & Kanerva 1989:15)
- (50) a. **Pa**-m-chenga **p**-a-im-a nkhandwe. (Chichewa)
 16-3-sand 16SM-PERF-stand-FV 9.fox
 'On the sand is standing the fox.'
- b. ***N'**chi-yâni **chi**-mene pa-m-chenga p-a-i-m-a?
 COP7-Q 7-REL 16-3-sand 16SM-PERF-stand-FV
 lit. 'What is it that on the sand is standing?'
 (Bresnan & Kanerva 1989:15)

The preverbal DP functions as a subject in the sense that it agrees with the subject marker slot of the finite verb. In order to control subject agreement on the verb, the locative needs to be a DP. However, some languages have undergone the “Great Locative Shift” (Marten 2010) and locative prefixes (class 16-18) became PPs in these languages. These languages do not allow formal locative inversions. Only languages which treat nouns in the locative classes as DPs allow formal locative inversions. On the other hand, languages which allow semantic locative inversions treat nouns in the locative classes as PPs (if they still have the locative classes) and thus use a DP without the locative prefix as the grammatical subject (van der Wal in prep).

As another argument that the preverbal DP functions as a subject, Bresnan & Kanerva (1989) and Zeller (2012, 2013) have shown that the locative or instrument DP can be dropped, illustrated in (51), and that it can raise, illustrated in (52). Both can be seen as arguments that the preverbal locative functions as a subject. In (51a & 51b) *ITheku* is the grammatical subject. The subject marker agrees in the noun class with it in both sentences. However, (51b) is a semantic locative inversion and the grammatical subject has been dropped.

- (51) a. I-Theku **li**-yi-i-dolobha eli-hle. (Zulu)
 AUG-5.Durban 5SM-COP-AUG-5.city 5.ADJ-pretty
 ‘Durban is a pretty city.’
- b. **Li**-hlal-a a-ba-ntu aba-ningi.
 5SM-stay-FV AUG-2-people 2.ADJ-many
 ‘Many people live there.’ (lit. ‘It lives many people.’)
 (Zeller 2013:1113)

(52) is also a semantic locative inversion and shows a raising construction. The DP *lezi zindlu* has risen from the subordinate clause to the subject position of the main clause. The subject marker of the verb of the main clause agrees with the DP in the noun class.

- (52) a. **Lezi zin-dlu zi-bonakal-a sengathi zi-hlal-a** (Zulu)
10.DEM 10-house 10SM-seem-FV COMP 2SM-stay-FV
 ba-ba-ntu aba-dala.
 AUG-2-person 2.ADJ-old
 ‘Old people seem to live in these houses.’
 (Zeller 2013:1113)

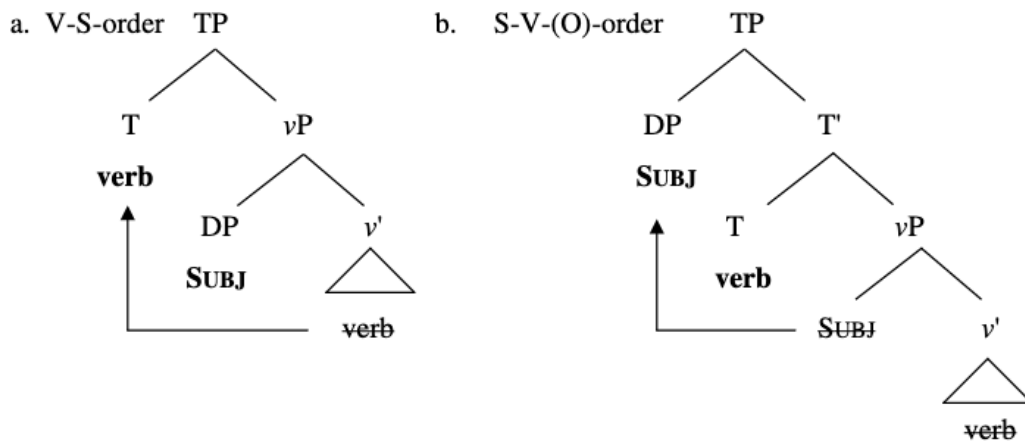
The theories regarding the underlying structure of subject inversions greatly vary across Bantu languages. While there is a standard analysis for subject inversions it does not account for all subject inversions in every Bantu language as the following sections will show.

The following sections will present different analyses encountered in the literature. In 3.3.1, I will present the standard analysis. In 3.3.2, I will present a morpho-syntactic analysis which argues for variation across inversion types. The analysis in 3.3.3 argues for variation across languages. In 3.3.4, I will present an analysis based on information structure.

3.3.1 Standard Analysis

An analysis for agreeing inversions proposed by many scholars (cf. Demuth 1990; Demuth and Mmusi 1997; Baker 2003; Letsholo 2004; Carstens 2005; Zerbian 2006; Hyman and Polinsky 2007) is that in agreeing inversions the verb moves to T while the logical subject remains *in situ*. This is illustrated in (53).

- (53) Agreeing inversion (a) and canonical word order (b) illustrated by Zeller (2008:224)



In locative inversions, the logical subject also stays *in situ*, but the locative moves to the specifier of TP. This movement is motivated by the EPP in T.

However, increasingly research has revealed differences in subject inversions across Bantu languages. This means that the standard analysis might hold for some subject inversions in some languages but not for all. The following sections show that there is variation across inversion types and across Bantu languages.

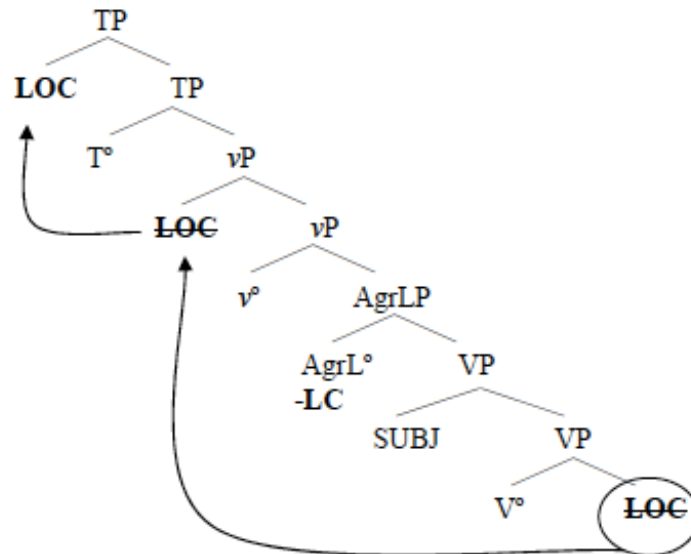
3.3.2 Variation across Inversion Types

Diercks (2010, 2011) analyzed subject inversions in Lubukusu. He focused on locative inversions and attested formal locative inversions and agreeing inversions with a locative. He called formal locative inversions “repeated agreement locative inversions” since the verb agrees

with the locative on the subject marker and in addition has a locative enclitic. The agreeing inversion is called “disjoint agreement locative inversions” since the verb agrees with the postverbal logical subject but shows locative agreement on the locative enclitic. Diercks analyzed these two agreement inversions differently.

In his analysis of formal locative inversions, the verb moves to T and the locative to the specifier TP via the specifier vP. Since the specifier of vP is filled with an agent subject in unergatives and transitives, only unaccusatives allow formal locative inversions in Lubukusu. This is visualized in (54):

(54) Locative inversion in Lubukusu (Diercks 2011:41)



In Diercks’ (2010, 2011) analysis, the subject stays *in situ* in locative inversions. He showed that by inserting the manner adverb *bwangu* between the verb and the logical subject. Manner adverbs are, by assumption, adjuncts in the vP-domain and do not occur in the TP-domain (Cinque 1999). Manner adverbs can either be right or left adjoined to the vP (cf. Bowers 2002). The classic example in the literature by Pollock (1989), given in (55), shows that the adverb is allowed between the verb in T and the internal argument but not between the subject in the specifier of TP and the verb in T.

- (55) a. Jean embrasse souvent Marie.
 Jean kisses often Marie
 b. *Jean souvent embrasse Marie.
 Jean often kisses Marie
 (Pollock 1989:367)

Diercks (2010, 2011) inserted the manner adverb *bwangu* in different positions in a locative inversion. Since *bwangu* can be inserted between the verb and the postverbal DP but not between the verb and the preverbal DP, Diercks assumed the verb to be in T and the preverbal DP in the specifier position of TP.³

³ (*) and (✓) mark where the adverb can and cannot occur.

- (56) [_{TP} Mu-mu-siiru o-mwo (*) mw-a-kwa-mo [_{vP}(✓) ku-mu-saala (bwangu)]]
 18-3-forest DET-18 18SM-PST-fall-18L 3-3-tree (quickly)
 ‘In the forest fell a tree quickly.’
 (Diercks 2011:30)

Diercks (2011) argued that the locative and the logical subject are equidistant to Spec TP, and thus can both move to Spec TP and agree with the verb without violating the locality constraint.

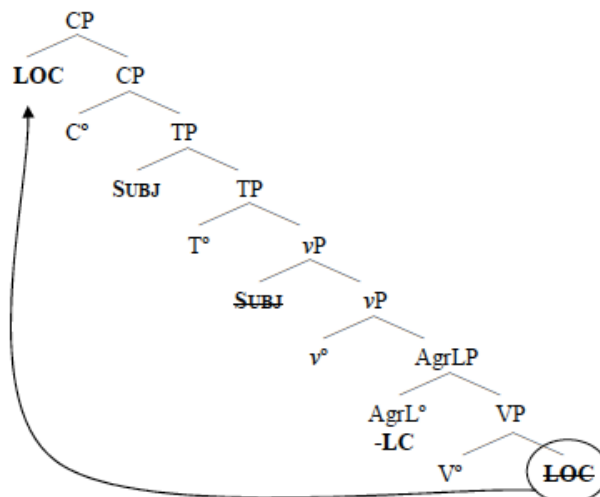
However, the agreeing inversion in (57) differs from the locative inversion in (56) in the sense that the manner adverb cannot be inserted between the verb and the postverbal logical subject:

- (57) [_{CP} Mu-mu-siiru o-mwo (*) kw-a-kwa-mo [_{TP}(*) ku-mu-saala [_{vP}(bwangu)]]]
 18-3-forest DET-18 3SM-PST-fall-18L 3-3-tree (quickly)
 ‘In the forest fell a tree quickly.’
 (Diercks 2011:30)

Diercks (2011) took this discrepancy between formal locative inversions (56) and agreeing inversions (57) and used it to support his claim that the logical subject stays *in situ* in formal locative inversions but raises to the subject position in agreeing inversions. He argued that: “*bwangu* ‘quickly’ is a vP-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.” (Diercks 2011:29).

Thus, Diercks (2011) concluded that agreeing inversions have a different syntactic structure than locative inversions. Since manner adverbs are not allowed preverbally in agreeing inversions, he argues that the verb moved to C via T. He further argued that the logical subject moves to the specifier position of TP and then agrees with the verb, which is illustrated in (58). Using the difference of the syntactic structure of agreeing inversions and locative inversions, he explained why agreeing inversions are also allowed with unergatives.

- (58) Agreeing inversion in Lubukusu (Diercks 2011:42)



3.3.3 Variation across Languages

The previous section showed that the underlying structure of subject inversions can vary within one language. Van der Wal (2012) argued that the structure of subject inversions also varies

across Bantu languages. She investigated agreeing inversions in Matengo and Makhuwa, two Bantu languages which both have agreeing inversions, but they behave quite differently. For both languages, van der Wal argued that the verb moves just above vP. “*This partly-raised verb stem between TP and vP undergoes phonological merger with the prefixes on the verb, which are in the heads of the inflectional domain.*” (van der Wal 2012:206).

Van der Wal (2012) argued that languages differ depending on whether or not the language has a movement trigger which raises the logical subject to a higher position. If the language does not have a movement trigger the logical subject stays *in situ* in agreeing inversions but if a movement trigger exists, the logical subject moves to a higher position.

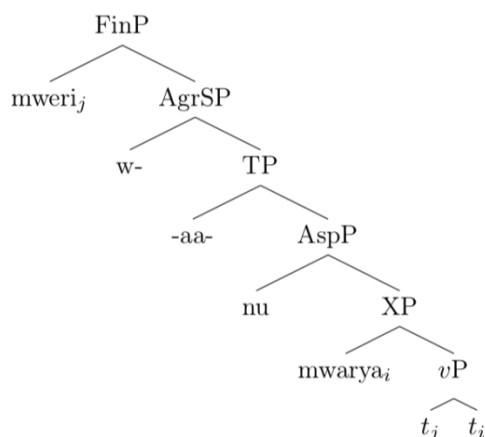
According, to van der Wal (2012), Matengo is a language without a movement trigger in which the logical subject stays low *in situ* in agreeing inversions. Van der Wal’s analysis of agreeing inversions in Matengo is, besides the position of the verb, very close to the traditional analysis.

On the other hand, Matengo has a movement trigger and the logical subject moves to a higher position. In order to have an agreeing inversion, the vP moves to C after the logical subject moved out of the vP. Thus, agreeing inversions in Makhuwa involve remnant movement. (60) shows the structural representation of the agreeing inversion in (59). The subject *mweéri* is base generated in the specifier of vP and then moves to the specifier of FinP as can be seen in (60a). After the movement of the subject the verbal complex moves to a position higher than the subject as can be seen in (60b).

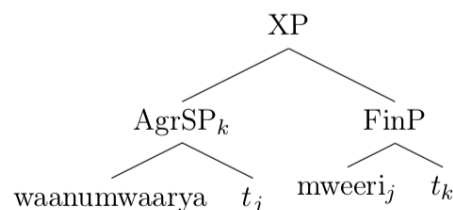
- (59) **Waa-nú-mwááryá** mweéri. (Makhuwa)
3SM.PST-PERS-shine 3.moon
 ‘The moon was shining.’
 (van der Wal 2012:225)

- (60) Structural representation of agreeing inversions in Makhuwa (van der Wal 2012:225-226)

a.



b.



Van der Wal (2012) used several tests to determine whether the logical subject stays *in situ* or moves. If the logical subject stays *in situ* and the verb moves just above vP, the word order of agreeing inversions with transitive verbs should be VSO and VOS should be ungrammatical. This can be observed in Matengo, illustrated in (61a). (61b) shows that VOS is not allowed in Matengo.

(67a) shows a sentence in canonical word order SVO in Matengo. The reading “ $\forall > \text{not}$ ” indicates that the universal quantifier scopes over the negation. This means that the logical subject moved from the *in situ* position. However, (67b), which shows an agreeing inversion, only has the reading “ $\text{not} > \forall$ ”. This indicates the negation scopes over the postverbal subject but not vice versa. This means that the logical subject stays *in situ*.

- (67) a. Míkɔ̀ngú j-oote ngase ji-á-bwi'ke. (Matengo)
 4.trees 4-all NEG.AUX 4SM-PST-fall
 ‘All trees have not fallen down.’
 (All trees are still standing)
- b. Ngase ji-á-bwiki míkɔ̀ngú j-oote.
 NEG.AUX 4SM-PST-FALL 4.trees 4-all
 ‘Not all trees have fallen.’
 (Some trees have fallen and others are still standing)
 (van der Wal in prep:8)

Unlike Matengo, Makhuwa allows the reading in which the universal quantifier scopes over the negation, this is illustrated in (68). This clearly indicates that the logical subject must have moved to a higher position in order to scope over the negation.

- (68) Tsi-hi-tziv-álé epoolu ts-ooteéne. (Makhuwa)
 10-NEG-be.sweet-PERF-REL 10.cakes.PL 10-all
 ‘What was not sweet were all the cakes.’
 (van der Wal, 2012:224)

Van der Wal (2012) concluded that subject inversions in Bantu are not uniform and each language needs to be tested individually.

3.3.4 Subject Inversion Driven by Information Structure

To account for variation in the underlying structure of subject inversions, van der Wal (in prep) argued amongst many scholars (cf. Bresnan & Kanerva 1989; Yoneda 2011; Marten & van der Wal 2014) that inversion constructions are motivated by information structure.

A sentence can be divided into topic and comment. The topic is what the sentence is about. The comment is what is said about the topic. If a sentence has a focus, it is part of the comment (Partee 1991). Van der Wal (in prep) claims that across Bantu languages, the specifier of TP is a topic position. Thus, a canonical SVO sentence has a subject topic. If a sentence is *thetic* i.e., does not have a topic, the preverbal position stays empty (e.g. agreeing inversions or default agreeing inversions in languages like Matengo). If for example the locative is the topic of the sentence, locative inversions occur.

3.3.3 showed that there is variation of the underlying structure of subject inversions. In languages like Makhuwa, the logical subject moves to a higher position before the verbal complex moves in agreeing inversions. This influences the information structure of the sentence. The logical subject moves to the topic position and can therefore not be in focus in agreeing inversions (van der Wal 2012). This is illustrated in (69) which shows an agreeing inversion with the subject being modified by the focus marker *paáhi*. Since the subject is in the topic position (in the specifier of TP), the sentence is infelicitous.

- (69) #Aa-váh-íya ekanétá anámwáne paáhi.
 2SM-PRES.DJ-give-PASS 10.pens 2.children only
 Intended: ‘Only children were given pens.’
 (van der Wal 2012:221)

In languages like Matengo, in which the subject stays *in situ* in agreeing inversions, this is not the case. Since the logical subject stays *in situ* in agreeing inversions and does not move to the topic position, the logical subject can be in focus. This is shown in (70): the logical subject *mwaná* is in focus because it is the answer to a wh-question. (70a) shows an agreeing inversion in which the logical subject *mwaná* is in a postverbal position and in focus. This sentence is felicitous. However (70b) presents an SVO sentence in which the logical subject *mwaná* is also in focus but moved to the preverbal topic position. This is infelicitous.

- (Answer for the question: ‘Who has broken it.’)
 (70) a. Ju-kájwi mwá:na. (Matengo)
 1sm-break.pst 1.child (mwá:na in focus)
 ‘My child has broken (it).’
 b. #Mwaná ju-kájwí:le.
 1.child 1SM-break.PST (Mwaná in focus)
 ‘My child has broken it.’
 (Yoneda 2011:760)

To account for this, van der Wal (in prep) argued that the inflectional head has a [Topic] probe with a movement trigger which attracts the closest DP with a [topic] feature. If there is no topic, nothing is attracted like in agreeing inversion in Matengo. Subject agreement happens independently of movement.

However, this is more complex in inversion constructions with a preverbal agreeing DP since the grammatical subject does not equal the logical subject. To account for this van der Wal (in prep) offered an analysis based on flexible licensing in which the grammatical and the logical subject are licensed individually.

Van der Wal (in prep) stated that the logical subject stays *in situ* in inversion constructions with a preverbal agreeing DP. The *in situ* position for the logical subject is the specifier of vP for unergatives and transitives and the complement of VP for unaccusatives. She showed that by testing the position of the logical subject with scope relations (cf. 3.3.3). The logical subject is modified by a universal quantifier and the sentence is negated. If the logical subject stays *in situ*, the only acceptable reading is “not>∀”. This can be observed in patient inversions which is illustrated in (71). The negation scopes over the postverbal subject but not vice versa, which indicates that the logical subject stays *in situ*.

- (71) Inzogá nti-zi-nywá abáana b-óose. (Kinyarwanda)
 9.alcohol NEG-9SM-drink 2.children 2-all
 ‘Not all children drink alcohol (but some do).’ Neg > ∀
 * ‘All children do not drink alcohol (none drink).’ ∀ > Neg
 (Jean Paul Ngoboka, p.c. retrieved from van der Wal in prep:8)

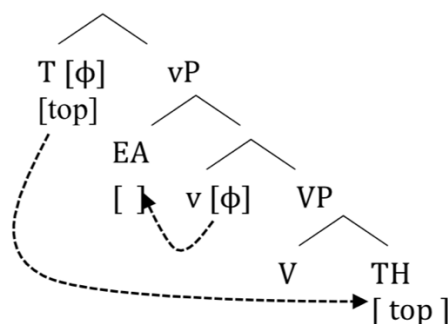
Van der Wal (in prep) argued in favor of flexible licensing. If the predicate is an unergative or a transitive, the external argument (EA) which functions as the logical subject is (upward) licensed by v. In addition, T has a [Topic] probe which licenses the closest DP with a [topic] feature. T is supposed to have a movement trigger which attracts the topic. Since the logical subject is already licensed by v, T can look past the logical subject in order to attract the closest topic. This is shown in (72) for patient inversion in. Van der Wal stated that this operation is

the same for locative and instrument inversions in which the subject marker also agrees with the preverbal DP.

- (72) Ibitabo bi-á-som-ye Yohani. (Kirundi)
 8.books 8SM-PST-read-PERF 1.John
 ‘John reads the books.’
 (Ndayiragije 1999, retrieved from van der Wal in prep:22)

In (72), the *v* licenses the external argument (EA) *Yohani* in the specifier of *vP*. The Topic probe in T seeks the closest topic which is the theme (TH) *ibitabo* in the complement position of VP. T has a movement trigger which attracts the topic. The topic *ibitabo* moves to specifier of TP. The verb shows subject agreement with the topic. This is illustrated in (73).

- (73) Structural representation of patient inversions (van der Wal in prep:22)

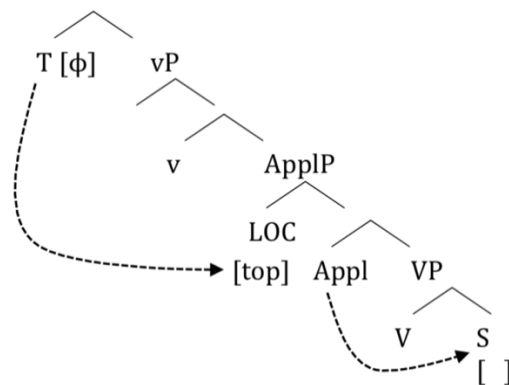


Locative inversions are not only allowed with unergatives and transitives but also with unaccusatives. Unaccusatives do not have an external argument, which means that the derivation differs. Van der Wal (in prep) argued that the locative (independently of the predicate type) is base generated in the specifier of an applicative phrase. The applicative head is not necessarily spelled out as a morpheme. The applicative head then licenses the internal argument which functions as the logical subject. The locative which carries a [Topic] feature is then licensed and attracted by T. This can be seen in (75) which shows the derivation for the semantic locative inversion with an unaccusative presented in (74).

- (74) Kî-rîniki gî-kî i-kî-îj-ag-a a-ekûrû ba-ingi. (Kîîtharaka)
 7-clinic 7-DEM FOC-7SM-come-HAB-FV 2-women 2-many
 ‘To this clinic come very many women.’
 (Buell & Muriungi ms retrieved from van der Wal in prep:24)

In (74), the applicative licenses the logical subject (S) *ækûrû baingi* in the complement position of VP. The Topic probe in T seeks the closest topic which is the locative (LOC) *kîrîniki ikîîjaga* in the specifier position of ApplP. T has a movement trigger which attracts the topic. The topic *kîrîniki ikîîjaga* moves to specifier of TP. The verb shows subject agreement with the topic.

(75) Derivation of locative inversions with an unaccusative (van der Wal in prep:24)



To conclude, van der Wal (in prep) stated once more that subject inversions vary across languages and that the subject inversion parameters need be checked individually for each language.

3.4 Interim Discussion

The previous sections showed that subject inversions vary across languages and that the standard analysis of subject inversions is not applicable to every subject inversion in every Bantu language. To recapitulate: The standard analysis is as follows: The verb is in T. The logical subject stays *in situ* whether the subject marker of the verb agrees with it or not. The preverbal DP moves to the specifier of T (cf. Demuth 1990; Demuth and Mmusi 1997; Baker 2003; Letsholo 2004; Carstens 2005; Zerbian 2006; Hyman and Polinsky 2007).

However, Diercks (2010, 2011) argued for Lubukusu that the position of the verb and the logical subject are dependent on the inversion type. According to his analysis, the verb moves to C and the logical subject to the specifier of T in agreeing inversions, but in locative inversions, the logical subject stays *in situ* and the verb is in T.

Van der Wal (2012) argued that the position of the logical subject and the verb is dependent on the language. According to her analysis, the logical subject is either *in situ* and the verb just above vP or the logical subject moves to the specifier of the TP and the whole verbal phrase then moves over it.

In later work, van der Wal (in prep) took information structure into account. She argued amongst others (cf. Bresnan & Kanerva 1989; Yoneda 2011; Marten & van der Wal 2014) that the preverbal DP is a topic. According to van der Wal, the preverbal DP is licensed and attracted by a [Topic] probe in T. The logical subject on the other hand is licensed by a ϕ -probe. This flexible licensing allows the [Topic] probe to look over the logical subject since it is already licensed. Van der Wal argues that the variation of the underlying structure of subject inversions is due to the variation of the information structure of subject inversions across languages.

The positions of the verb (76), the logical subject (77), and the preverbal DP (78) according to the different analyses are visualized in the following tables.

(76) Position of the Verb:

Position of the verb:	Just above vP	in T	in C	Remnant movement of the verbal complex to C
Carstens (2005)		✓		
van der Wal (2012, in prep)	✓ (depending on the language)			✓ (depending on the language)
Diercks (2011)		✓ (in locative inversions)	✓ (in agreeing inversions)	

(77) Position of the logical subject

Position of the logical subject:	<i>In situ</i>	Specifier of T
Carstens (2005)	✓	
van der Wal (2012, in prep)	✓ (depending on the language)	✓ (depending on the language)
Diercks (2011)	✓ (in locative inversions)	✓ (in agreeing inversions)

(78) Position of the preverbal DP

Position of the preverbal DP:	Specifier of T	Specifier of C
Carstens (2005)	✓	
van der Wal (2012; in prep)	✓	
Diercks (2011)	✓ (in locative inversions when the SM agrees with it)	✓ (in agreeing inversions when the SM does not agree with it)

Van der Wal (2012) already showed for agreeing inversions that there is variation across languages. She also stated in later work (van der Wal in prep) that the properties for each language need to be checked individually.

However, the properties of subject inversions in Lubukusu have not been completely investigated. The data for Lubukusu is incomplete and it is nearly impossible to analyze the underlying structure of subject inversions in Lubukusu with the existing data. While Diercks (2010, 2011) already analyzed the underlying structure, more data is needed to verify his analysis. We do not have a full picture of which inversion constructions are allowed in Lubukusu. Diercks (2010, 2011) only focused on formal locative inversions and agreeing inversions with a preverbal locative.

Diercks (2010, 2011) argued in his analysis of subject inversion in Lubukusu that the preverbal DP lands in the specifier of T if the verb agrees with it, and that the logical subject stays *in situ* (e.g. locative inversion). If the verb does not agree with the preverbal DP but with the logical subject (e.g. agreeing inversion), the logical subject moves to the specifier of the TP. This analysis differs from the standard analysis of agreeing inversions where the logical subject

stays *in situ* and the verb moves to T. Diercks (2011) consolidated his analysis with arguments based on the behavior of vP-adverbs, which can be left- or right-adjoined to the vP but not to TP. Since vP-adverbs are not allowed between the verb and the postverbal logical subject in agreeing inversions, he argues that the logical subject must have moved out of its base generated position to the specifier of TP and that the verb must have moved to C. However, the reason that vP-adverbs are not allowed between the verb and the logical subject in agreeing inversions could also be due to remnant movement like in Makhuwa shown by van der Wal (2012) (cf. 3.3.3).

Diercks' data is not able to discriminate between different analyses and hence more research is necessary in order to investigate the precise underlying structure of inversion constructions in Lubukusu. I therefore propose to test precisely the properties of subject inversions in Lubukusu on the base of Marten & van der Wal's (2014) typology.

I further propose, following van der Wal (2012), to test if the postverbal subject has moved out of its *in situ* position in Lubukusu by making use of scope. In this way, the position of the preverbal DP (whether the subject marker of the verb agrees with it or not) can also be determined if the preverbal DP is modified by the universal quantifier instead of the logical subject.

Only after testing the precise properties of subject inversions in Lubukusu and position of the preverbal DP and the postverbal DP in the inversion constructions, subject inversions in Lubukusu can be analyzed.

This chapter gave an overview of different analyses of subject inversions across Bantu languages. The existing research suggests that subject inversions vary across languages. Hence, each language needs to be investigated individually to see which subject inversions are allowed, which predicates are permitted and where the logical subject and the grammatical subject are located. Only once these questions are answered can the underlying structure of subject inversions in a language be determined.

However, currently available Lubukusu data is not sufficient to answer these questions and therefore it is impossible to analyze the syntactic structure of subject inversions in Lubukusu. The next chapter will give an overview of subject inversions in Lubukusu making use of newly acquired data in order to then analyze their syntactic structure.

4 Analysis

In this chapter, I will analyze subject inversions in Lubukusu. As shown in the previous chapter, the current data is not sufficient to investigate the precise underlying structure of subject inversions in Lubukusu. In 4.1, I will discuss the methodology utilized to collect the new data. In 4.2, I will give a complete overview of subject inversion types in Lubukusu. In 4.3, I will determine the positions of the logical and grammatical subject in subject inversions. In 4.4, I will propose a new analysis of subject inversions in Lubukusu based on the insights provided by the new data. 4.5 will discuss the impact of information structure for subject inversions in Lubukusu.

4.1 Methodology

The data below was collected in interviews over Skype in January and February 2019. The interviews were conducted with one native speaker of Lubukusu living in Nairobi. His daily life language is Swahili. The speaker was asked to translate sentences in Lubukusu which were given in English. Some of the sentences were embedded in a context while others were out-of-the-blue sentences. Furthermore, sentences in Lubukusu (partly from the literature, partly constructed by me) were presented, and the speaker was asked to give grammaticality judgements and to correct the sentences if ungrammatical or infelicitous. Based on this data,

two online surveys were conducted in June 2019 with sentences in Lubukusu. There were 8 participants for the first survey and 3 of these 8 participants also filled out the second survey. They were either asked to judge the grammaticality of these sentences from 1-5 or give the meaning of the sentences in English.

4.2 Subject Inversion Types in Lubukusu

The following section gives an overview of subject inversions in Lubukusu. The study takes the seven subject inversion types into account which Marten & van der Wal (2014) provided, namely formal locative inversion, semantic locative inversion, instrument inversion, patient inversion, complement inversion, agreeing inversion and default agreeing inversion. These inversion types can be categorized into three groups depending on agreement. The subject marker of the verb can either agree with the preverbal DP, with the postverbal logical subject or show default agreement. Formal locative inversion, semantic locative inversion, instrument inversion, patient inversion, complement inversion all fall within the first group, while agreeing inversion shows agreement with the postverbal logical subject and as the name suggests, default agreeing inversions show default agreement.

4.2.1 Agreement with the Preverbal DP

Formal locative inversion, semantic locative inversion, instrument inversion, patient inversion and complement inversion all agree with the preverbal DP. However, they differ in the predicate types they allow. Instrument inversion, patient inversion, complement inversion allow all predicate types apart from unaccusatives. Formal locative inversion and semantic locative inversion on the other hand are less restricted and permit unaccusatives, unergatives and transitives. Marten (2006) showed in his hierarchy of locative inversion that not every language allows locative inversions with every predicate type.

In 3.1.8, I suggested that Marten's (2006) hierarchy of locative inversion could be applied to other inversion constructions in which the verb agrees with a preverbal DP. I illustrated that in an expanded hierarchy, visualized in (36) repeated in (79).

(79) Availability of inversion constructions in which the verb agrees with a preverbal DP

unaccusatives (only locative)	>	non agentive unergatives (only locative)	>	agentive unergatives (locative & optionally instrument)	>	active transitives (locative & optionally instrument, patient complement)	>	active distransitives *
(Chichewa)						(Otjiherero)		

Diercks (2010, 2011) argues that Lubukusu only allows locative inversions with unaccusatives. If Diercks (2010) is correct and this hypothesis holds for Lubukusu, it would mean that Lubukusu does not allow preverbal DP agreeing inversions with unergatives and transitives. However, previous research has not taken patient, complement or instrument inversions into account for Lubukusu. The following paragraphs aim to reassess these topics while taking into account the newly acquired data. I will first reassess the status of Locative inversions in Lubukusu to then test if instrument, patient or complement inversions are permitted in Lubukusu.

(85) ***ku**-mu-siiru **kw**-emb-il-e-(mo) o-mu-khasi (unergative)
 3-3-forest 3SM-sing-PST-FV-(18L) 1-1-woman
 Intended: ‘The woman sang in the forest.’

(86) ***Li**-li-taala **ly**-al-il-e-(mo) o-mw-ana sy-khula (transitive)
 5-5-village 5SM-eat-PST-FV-(18L) 1-1-child 7-food
 Intended: ‘The child ate food in the village.’

To conclude, Lubukusu only allows formal locative inversion and only with unaccusatives. This leads to the assumption, that instrument, patient or complement inversions are not permitted in Lubukusu.

In patient inversion or subject-object reversal the subject marker agrees with the patient, the direct object which is preposed. Since unaccusatives and unergatives are both intransitive, they cannot have patient inversion. However, transitive verbs also do not allow patient inversion in Lubukusu as shown in (87).

(87) #**Ku**-mu-siiru **kw**-a-bona o-mu-secha
 3-3-forest 3SM-PST-see 1-1-man
 Intended: ‘It’s the man who saw the forest.’
 Meaning: ‘The forest saw the man.’

In instrument inversions an instrument is fronted, and the subject marker of the verb agrees with it. Due to the nature of unaccusatives, they cannot have an instrument. The grammatical subject of unaccusatives is never an agent, but an instrument needs an agent in order to be used (cf. Reinhart 2003). However, other predicate types also do not allow instrument inversion in Lubukusu as shown in (88).

(88) ***si**-jiko **sy**-al-il-e o-mw-ana (si-yakhula)
 7-spoon 7SM-eat-PST-FV 1-1-child (7-food)
 Intended: ‘The child ate (the food) with a spoon.’

In complement inversions, the clausal complement is fronted, and the verb shows default agreement. In the case of an infinitive as the clausal complement, the verb agrees with the infinitive (class 15). Neither of these options are possible in Lubukusu, as shown in (89).

(89) ***khw**-iinyaa **kh**-asima ba-ba-ana (Infinitive)
 15-play 15SM-love 2-2-child
 Intended: ‘The children love to play.’

This means that Marten’s (2006) hierarchy can not only be applied for locative inversions in Lubukusu but also to all inversion constructions which show subject agreement with the preverbal DP. However, it must be further investigated if this can also be applied to other Bantu languages.

To conclude this section: Lubukusu only allows subject inversions with agreement with the preverbal DP with unaccusatives and passives i.e. when the sentence has no external argument. This means that instrument, patient and complement inversions are not allowed in Lubukusu because they require an external argument. Only formal locative inversions with unaccusatives and passives are allowed. The data shows further that Lubukusu has not undergone the “Great Locative Shift” and allows subject agreement with nouns in the locative classes (16-18) i.e.

The difference between Dierck's data (2010, 2011) and this new data relates to the locative. While agreeing inversions with a locative are only allowed with unaccusatives and locative-unergatives, agreeing inversions without a locative are also allowed with non-locative unergatives.

4.2.3 Default Agreement

The last category of subject inversions is default agreeing inversions. In default agreeing inversions, the verb shows default agreement rather than agreement with the logical subject which follows the verb. Such a construction is not permitted in Lubukusu as shown in (98):

- (98) a. ***Bi**-f-il-e **o**-mu-ndu
 8SM-die-PST-FV **1**-1-someone
 b. ***si**-file **o**-mu-ndu
 7SM-die-PST-FV 1-1-someone
 Intended: 'There died a man.'

When asked to translate the sentence *There died a man*, an agreeing inversion with a locative enclitic in class 16 was produced, as shown in (99):

- (99) **A**-f-il-e-**wo** **o**-mu-ndu
 1SM-die-PST-FV **-16L** 1-1-someone
 'There died a man.'

However, this does not mean that Lubukusu never employs default agreement. Lubukusu shows default agreement, for example, when the conjuncts of a conjoint subject are in different classes. Lubukusu uses class 8 in such cases, which is illustrated in (100):

- (100) E-**mbwa** ne omu-ndu **by**-a-loma **bi**-li o-mu-keni k-ool-ile.
 9-dog and 1-person **8SM**-PST-say **8**-that 1-1-guest 1SM-arrive-PST
 'The dog and the person said that the guest arrived.'
 (Diercks 2013:365)

This section gave an overview of subject inversion types in Lubukusu: Subject inversions in which the verb agrees with the preverbal DP are only allowed with unaccusative predicates and passives. This means that instrument, patient and complement inversions are not allowed because they cannot co-occur with unaccusative predicates. Lubukusu, since it did not partake in the Great Locative Shift, does not allow semantic locative inversions but formal locative inversions. It treats nouns in the locative classes as DPs. Furthermore, Lubukusu does not allow default agreeing inversions. It allows agreeing inversions with unaccusatives and unergatives. The locative is optional.

However, this data is not yet sufficiently detailed enough to provide an analysis of the underlying structure of subject inversions of Lubukusu. Hence, I will provide further data in the next section and offer an analysis of subject inversions in Lubukusu.

4.3 Position of the Logical and the Grammatical Subject

This section aims to determine the position of the logical and the grammatical subject in agreeing inversions in Lubukusu. The previous section has shown that Lubukusu only allows locative inversions with unaccusatives and passives and agreeing inversions with passives, unaccusatives and unergatives. However, it is still unclear where the preverbal DP and the

postverbal DP are located. In order to analyze the underlying structure of subject inversions in Lubukusu, this is essential to know. Therefore, I investigate their positions in locative inversions in 4.3.1 and in agreeing inversions in 4.3.2. Only after this, I propose a new analysis based on the newly acquired data.

4.3.1 Locative Inversions

First, I will determine the position of the postverbal logical subject in locative inversions. Following van der Wal (2012), I will use scope relations to test if the postverbal logical subject has moved out of its *in situ* position in Lubukusu. In order to use scope as a test for movement in a language, the language needs to allow scope inversions. This is the case in Lubukusu. Consider the example in (101). The subject in this sentence, *babakhasi baose* ‘all women’, is modified by a universal quantifier. The scopal reading of this sentence is ambiguous. There is surface scope in which the universal quantifier scopes over the negation, leading to the interpretation that *for some women it holds that they do not sing*, but there is also an inverse scope interpretation in which the negation scopes over the trace of the universal quantifier leading to the meaning that *it is not the case that some women sang, i.e. no-one sang*. This indicates that the subject moved out of its base generated position.

- (101) **Ba**-ba-khasi **ba**-ose se-**ba**-emb-il-e ta
 2-2-women 2-all NEG-2SM-PST-FV NEG
 ‘All women did not sing (none sang).’ $\forall > \text{Neg}$
 ‘Not all women sang (but some did).’ $\text{Neg} > \forall$

The surface scope was the most prevalent meaning, but the inverse scope is also an option for most speakers. This shows that the negation scopes over the universal quantifier and that the language does allow scope ambiguities. The reason why the inverse scope was less prominent than the surface scope reading, could be that there is another way of saying this, comparable to English where ‘No woman sang.’ is better than ‘All women did not sing.’

Diercks (2010, 2011) argued that in locative inversions the logical subject stays *in situ*. This predicts that the negation should be able to scope over the universal quantifier but not vice versa and the reading would only be “not> \forall ”. This is indeed the case. (102) shows a locative inversion with two operators: a negation and a universal quantifier modifying the postverbal logical subject. The sentence is not ambiguous and the negation scopes over the universal quantifier but not vice versa. The reading of the sentence is “not> \forall ” and cannot have any other reading. This indicates that the logical subject in locative inversions stays *in situ*.

- (102) **Mu**-mu-siiru se-**mw**-akwile-mo ki-mi-saala ky-ose ta.
 18-3-forest NEG-18SM-fall-PST-FV -18L 4-4-tree 4-all NEG
 ‘Not all trees fell in the forest (but some did).’ $\text{Neg} > \forall$
 *‘All trees did not fall in the forest (none fell).’ $\forall > \text{Neg}$

Another test to investigate the position of the logical subject, is by inserting manner adverbs in different positions. If the logical subject stays *in situ* – the complement of VP when the verb is unaccusative – manner adverbs should be allowed between the logical subject and the verb (whether the verb is in T or C). On the other hand, if manner adverbs are not allowed between the logical subject and the verb, the verb must have moved to a position higher than the manner adverb.

Diercks (2010, 2011) already applied this test and reached the conclusion that, the logical subject stays *in situ* in locative inversions since the manner adverb *bwangu* can appear between

the verb and the postverbal DP, as shown in (56) repeated in (103). Diercks assumed the verb to be in T and the preverbal DP in the specifier position of TP.⁴

- (103) [TP Mu-mu-siiru o-mwo (*) mw-a-kwa-mo [vP (✓) ku-mu-saala (bwangu)]]
 18-3-forest DET-18 18SM-PST-fall-18L 3-3-tree (quickly)
 ‘In the forest fell a tree quickly.’
 (Diercks 2011:30)

I retested Diercks’ (2011) constructions and adjoined the manner adverb *bwangu* left to the vP as in (104a), right to the vP as in (104b) and to TP as in (104c) to a locative inversion with an unaccusative verb. (104c) is, as predicted, ungrammatical since manner adverbs cannot be adjoined to the TP. It shows that *bwangu* is indeed a vP-adverb. In locative inversions as in (104), the manner adverb occurs between the verb and the logical subject, shown in (104b). This is in line with Diercks’ data and indicates that the logical subject is *in situ*.

- (104) a. Mu-mu-siiru o-mwo mw-a-kwa-mo ku-mu-saala **bwangu**.
 18-3-forest det-18 18SM-PST-fall-18L 3-3-tree **quickly**
 b. Mu-mu-siiru o-mwo mw-a-kwa-mo **bwangu** ku-mu-saala.
 18-3-forest det-18 18SM-PST-fall-18L **quickly** 3-3-tree
 c. *Mu-mu-siiru o-mwo **bwangu** mw-a-kwa-mo ku-mu-saala.
 18-3-forest det-18 **quickly** 18SM-PST-fall-18L 3-3-tree
 ‘In the forest fell the tree quickly.’

I argue that the postverbal logical subject in locative inversions stays *in situ* based on the insights of the newly acquired data.

After determining the position of the logical subject in locative inversions, the position of the preverbal grammatical subject is still unclear. It could either be base generated in a high position or moved there. Again, I will use scope relations to investigate the position of the locative. The sentences contain two operators in order to apply this test: a negation and a universal quantifier which modifies the locative. If the locative with the universal quantifier moved, the universal quantifier would scope over the negation and the negation would scope over the universal quantifier. This would lead the sentence to be ambiguous with the meanings “not>V” and “V>no. If the locative is base generated in a high position, the universal quantifier would scope over the negation but not vice versa. Then, the sentence would only have the meaning “V>not”.

Diercks (2010, 2011) argued that in locative inversions the locative moves to the specifier of TP. This would mean that the negation would scope over the universal quantifier and vice versa and the sentence would be ambiguous with the meanings “not>V” and “V>not”. However, this is not the case. (105) shows a locative inversion with two operators: a negation and a universal quantifier modifying the locative. The only accepted reading was the one with surface scope, i.e. the universal quantifier scopes over the negation but not vice versa. This leads the reading of the sentence to be “V>not” and nothing else. This indicates that the locative in locative inversions is base generated in a high position. However, while the participants were clear about the meaning of the sentence, not all participants did accept the sentence as grammatical.

⁴ (*) and (✓) mark where the adverb can and cannot occur.

- (105) %Mu-mi-siiru ky-ose se-mw-a-kwa-mo ki-mi-saala ta.
 18-4-forest 4-all NEG-18L-PST-fall-18L 4-4-tree NEG
 ‘All trees did not fall in the forest (none fell).’ $\forall > \text{Neg}$
 *‘Not all trees fell in the forest (but some did).’ $\text{Neg} > \forall$

In this section, I showed that postverbal logical subject stays *in situ* in locative inversions. I furthermore showed that the grammatical subject, the preverbal locative, is base generated high in the phrase.

4.3.2 Agreeing Inversions

The previous section determined the position of the logical and the grammatical subject in locative inversions. This section will do the same for agreeing inversions. In agreeing inversions, the logical subject is also the grammatical subject since the subject marker of the verb agrees with the logical subject. I will apply the same tests as in the previous section, namely scope relations and asserting manner adverbs.

Diercks (2010, 2011) argued in his analysis that in agreeing inversions the logical subject moves to the specifier of TP and the verb to C. This predicts that the negation should be able to scope over the universal quantifier and vice versa. This would lead the sentence to be ambiguous with the meanings “not> \forall ” and “ \forall >not”. However, this is not the case. (106) shows an agreeing inversion with two operators: a negation and a universal quantifier modifying the logical subject. The sentence is not ambiguous and only the negation scopes over the universal quantifier but not vice versa. The only meaning the sentence has, is “not> \forall ”. This indicates that the logical subject stays *in situ* and does not move in agreeing inversions.

- (106) Mu-li-taala se-**ba**-emb-il-e-mo **ba**-ba-khasi **ba**-ose ta
 18-5-village NEG-**2SM**-sing-PST-FV -18L **2**-2-women **2**-all NEG
 ‘Not all women sang in the village (but some did).’ $\text{Neg} > \forall$
 *‘All women did not sing village (none sang).’ $\forall > \text{Neg}$

Diercks (2011) tested the position of the logical subject in agreeing inversions and argued that an adverb cannot be inserted between the verb and the postverbal logical subject, as shown in (107). He concluded that the logical subject must have moved to a higher position. He therefore proposed that the logical subject moves to the specifier of TP and the verb moves to CP:

- (107) [_{CP}Mu-mu-siiru o-mwo (*) kw-a-kwa-mo [_{TP}(*) ku-mu-saala [_{VP}(bwangu)]]]
 18-3-forest DET-18 3SM-PST-fall-18L 3-3-tree (quickly)
 ‘In the forest fell a tree quickly.’
 (Diercks 2011:30)

However, the results of my fieldwork differ from Diercks’ (2010) data. The manner adverb is allowed between the verb and the logical subject, shown in (108b). This differs from Diercks’ data and indicates that the logical subject stays *in situ* in agreeing inversions.

- (108) a. Mu-mu-siiru o-mwo kw-a-kwa-mo ku-mu-saala **bwangu**.
 18-3-forest det-18 3SM-PST-fall-18L 3-3-tree **quickly**
 b. Mu-mu-siiru o-mwo kw-a-kwa-mo **bwangu** ku-m-usaala.
 18-3-forest det-18 3SM-PST-fall-18L **quickly** 3-3-tree
 c. *Mu-mu-siiru o-mwo **bwangu** kw-a-kwa-mo ku-mu-saala.
 18-3-forest det-18 **quickly** 3SM-PST-fall-18L 3-3-tree
 ‘In the forest fell a tree quickly.’

To conclude the findings, I argue that the logical subject sits *in situ* in agreeing inversions.

Diercks (2010, 2011) only investigated agreeing inversions with a preverbal locative. He argued that the preverbal locative moves from VP to the specifier of CP without data to confirm this claim. I will therefore test the position of the preverbal locative in agreeing inversions. In order to do this, I apply the scope test to agreeing inversions preverbal locative. The sentence contains again two operators: a negation and universal quantifier modifying the locative. If the locative with the universal quantifier moved, the universal quantifier should be able scope over the negation and vice versa. This would lead the sentence to be ambiguous. If the locative is base generated in a high position, the universal quantifier would scope over the negation but not vice versa.

(109) shows a negated agreeing inversion with a preverbal locative modified by a universal quantifier. The participants allowed both the surface scope reading (“ $\forall > \text{not}$ ”) and the inverse scope reading (“ $\text{not} > \forall$ ”) for this sentence. This indicates that the locative moves from a position low in the phrase to a higher position. However, the participants were clear about the meaning of the sentence but not all participants accepted the sentences as grammatical.

- (109) %Mu-mi-siiru ky-ose se-kw-a-kwa-mo ki-mi-saala ta
 18-4-forest 4-all NEG-3SM-PST-fall-18L 4-4-tree NEG
 ‘All trees did not fall in the forest (none fell).’ $\forall > \text{Neg}$
 ‘Not all trees fell in the forest (but some did).’ $\text{Neg} > \forall$

(109) has shown that the position of the locative in agreeing inversions differs from the position of the locative in locative inversions. In locative inversions, the locative is base generated high in the phrase but in agreeing inversions the locative moves from a position low in the phrase to a higher position. This means that the subject marker of the verb only agrees with the locative if it is base generated high in the phrase.

However, (109) is not able to determine where the locative in agreeing inversions is base generated. In previous research, it has been argued that the locative is base generated in the specifier of VP (cf. Ura 1996 for Chichewa) or as the complement of VP (Diercks 2010). This means that the locative is analyzed as an argument so that the verb can agree with it when the locative is preposed. However, the subject marker of the verb only agrees with the locative when it is base generated in the specifier of IP as shown in the previous sections.

If the locative is base generated in the specifier of VP, the subject marker of the verb should be able to agree with the locative in an agreeing inversion when there is no external argument since the locative and the internal argument are equidistant. Chomsky’s (2000:122) ‘Equidistance Principle’ states:

- (110) Equidistance Principle: Terms of the same Minimal Domain are equidistant to Probes
 Minimal Domain: The Minimal Domain of a head is the set of terms immediately contained in projections of that head

However, in agreeing inversions with a locative and without an external argument, the subject marker of the verb can only agree with the logical subject as shown in (111).

- (111) A-f-il-e mu-nju o-mu-khasi
 1SM-die-PST-FV 18-house 1-1-woman
 ‘A woman died in the house.’

To summarize the findings of this section, I have shown that the logical subject stays *in situ* in agreeing inversions. I have furthermore argued that the locative in agreeing inversions is an adjunct of VP which can move to a preverbal position in agreeing inversions.

4.4 A New Analysis of Subject Inversions in Lubukusu

The previous section has shown that the logical subject always *in situ* independently of the inversion type. However, the position of the locative varies. In agreeing inversions, the locative is an adjunct of VP which can move to a preverbal position. In locative inversions, the locative is the grammatical subject of the sentence. It is base generated high in the phrase and did not move there. This means that the subject marker only agrees with the locative if it is base generated high in the phrase.

With this newly acquired data, Diercks' (2010, 2011) analysis becomes obsolete and therefore subject inversions in Lubukusu need to be reanalyzed. This new analysis must account for subject agreement with the postverbal logical subject in agreeing inversions which stays *in situ* but also for subject agreement with the locative in locative inversions which is base generated in a preverbal position.

However, this new analysis should not be limited to subject inversions, additionally the locative enclitic also requires an alternative analysis. This new analysis must explain why the locative enclitic only occurs if the locative is in a preverbal position independently of whether the locative moved to the preverbal position or was base generated there.

Only after subject agreement and the locative enclitic have been analyzed, the underlying structure of subject inversions can be fully determined.

4.4.1 The Locative Enclitic

In this section, the status of the locative enclitic is analyzed. Diercks (2010, 2011) showed that a locative enclitic is always obligatory if a locative is in a preverbal position which is in line with my new data. However, he argued that there is a location phrase below TP which licenses the locative when the locative moves to a higher position as visualized in (112). However, in locative inversions the locative does not move to the preverbal position but is instead base generated there, as shown in (105). Therefore, it cannot move via LocP as proposed by Diercks (2010). For this reason, licensing of the locative with the locative enclitic needs to be reanalyzed before we can properly analyze subject inversions.

- (114) a. Iris **heeft** (hier/daar) gedanst. (Dutch)
 Iris **have.PRES** here/there danced
 ‘Iris has danced (here/there).’
 b. Iris **had** (hier/daar) gedanst.
 Iris **have.PAST** here/there danced
 ‘Iris had danced (here/there).’
 (Wesseling 2018:139)

However, Wesseling (2018) argued that the inflectional head in Dutch can also express location. According to her, the inflectional head has besides the ϕ -probe an additional locative probe. While languages like Halkomelem express location on the finite verb, Dutch expresses location through an expletive in specifier position of IP. This can be seen in (115). The subject *wie* is licensed by the ϕ -probe on the inflectional head. However, the expletive *er* values the locative probe in the inflectional head.

- (115) [_{CP}Wie lacht_i [_{IP} er t_i]?
 Who laughs EXPL
 ‘Who is laughing?’
 (Wesseling 2018:140)

I adopt this for Lubukusu and argue that the inflectional head in Lubukusu does not only have ϕ -features to license the grammatical subject, but also locative features to license the locative. If this is true, why does the verb not always display locative morphology when there is a locative in the sentence?

Assuming I has a locative probe, it seems to probe the locative if the locative is moved to or base generated in a position higher than the probe. This means that the probe is only valued if it is c-commanded by the probe. This is not an uncommon assumption for Bantu languages. Many scholars (cf. Baker 2008; Diercks 2010; Zeijlstra 2012; Bjorkman & Zeijlstra 2014) argued that Bantu languages have upward agreement and that the verb always agrees with a higher constituent. Complementizer agreement is often shown as an argument for upward agreement in Bantu. Diercks argued that (116) has upward agreement since the complementizer of the embedded clause agrees with the subject of the matrix clause which is base generated in the matrix clause. Therefore, the goal does not c-command the probe but the probe c-commands the goal.

- (116) o-mu-ndu a-many-ile a-li ba-ba-ndu ba-la-soma si-i-tabu
 1-1-person 1SM-know-PST 1-COMP 2-2-person 2SM-FUT-read 7-7-book
 ‘(The) person knows that people will read the book.’
 (Diercks 2010:23)

Baker (2008) argued that the initial agreement approach is too restricted and claims that for a successful agreement operation the goal has to c-command the probe or the probe has to c-command the goal.

- (117) A functional head F agrees with XP if F c-commands XP **or** XP c-commands F.

Baker (2008) furthermore applied this agreement relation to two parameters:

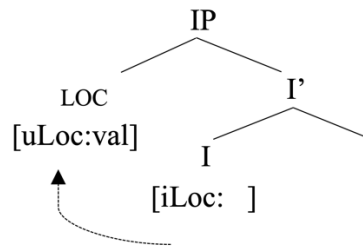
- (118) Directionality Parameter: F agrees with DP only if DP asymmetrically c-commands F.

- (119) Case Parameter: F agrees with DP only if F values the Case features of DP (or vice versa).

Baker (2008) argued that Bantu languages only obey (118) but not (119), while Indo-European languages only obey (119) but not (118).

I propose that the locative probe in I only agrees upwards. The probe looks upwards and if it finds a locative, it agrees with it. If the probe does not find a locative higher up, a \emptyset -morpheme is inserted. Since the locative probe can only probe upwards, a locative lower than the probe cannot value the probe. This valuation is visualized in (120).

(120)



4.4.2 Subject Agreement

The previous section showed that the inflectional head in Lubukusu has an additional locative probe. However, Lubukusu has also subject agreement and therefore a ϕ -probe. This section analyzes the properties of the ϕ -probe in Lubukusu. This analysis must account for subject agreement in canonical sentences but as well for subject agreement with the logical subject *in situ* and subject agreement with locative base generated in a preverbal position.

While the locative probe has upward agreement, this cannot be not the case for the ϕ -probe. Upward agreement with the ϕ -probe seems to take place in locative inversions in which the subject marker agrees with the preverbal base generated locative. Upward agreement potentially also explains subject agreement in canonical SVO sentences if the ϕ -probe agrees with the subject as the goal after the subject has moved to a preverbal position. However, it has already been demonstrated in 4.3.2 that movement of the subject is optional. In agreeing inversions, the subject marker agrees with the postverbal logical subject which stays *in situ* and does not move to a position where it could c-command the ϕ -probe. Therefore, upward agreement cannot account for subject agreement in agreeing inversions.

While downward agreement explains subject agreement with the postverbal subject in agreeing inversions and potentially with canonical SVO sentences if the probe agrees with the goal before the goal has moved. However, downward agreement does not work for locative inversions in which the subject marker agrees with the locative which is base generated in the preverbal position and is therefore not c-commanded by the ϕ -probe. This means that the ϕ -probe in Lubukusu needs to be more flexible and must allow downward and upward agreement.

Flexible probing is not a new idea. Béjar & Rezac (2009) for example argue for Georgian that the π -probe (which sits in *v* in Georgian) probes downwards and agrees with the internal argument. This is illustrated in (121). If the probe does not find a goal in its c-commanded domain i.e. if the sentence does not have an internal argument, the probe agrees upwards with the external argument. This is shown in (122).

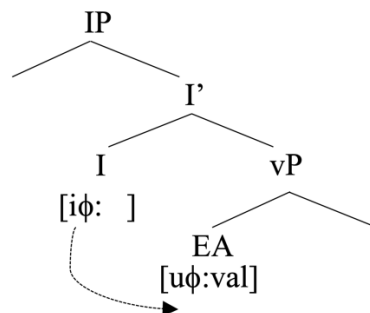
- (121) **m-xedav** (Georgian)
1st.SG.OM-see
 ‘You see me.’
 (Béjar & Rezac 2009:51)
- (122) **v-xedav**
1st.SG.SM-see
 ‘I see.’
 (Béjar & Rezac 2009:51)

However, this approach cannot be directly applied to Lubukusu. In order to analyze the ϕ -probe in Lubukusu, we need to investigate and determine with which elements the ϕ -probe agrees. As the presented data has shown, the subject marker can either agree with the external argument in canonical sentences, with unergatives and transitives or in agreeing inversions with unergatives. If there is no external argument the subject marker can agree with the internal argument in canonical sentences, with an unaccusative or passive or in agreeing inversions with an unaccusative or passive. It can also agree with a preverbal locative in locative inversions.

Locative inversions are only allowed when the verb is an unaccusative or passive. Ergo, the locative can only be base generated in the preverbal position if the verb does not have an external argument. The subject marker only agrees with the preverbal locative if the locative is base generated in the preverbal position but not if it has moved there. This means that the ϕ -probe only probes upwards when there is no external argument in the sentence and if a DP (e.g. a locative) is base generated in a preverbal position. In other words, this means that the ϕ -probe always agrees with the external argument and only if there is no external argument, the ϕ -probe can agree with other elements.

As said, if the sentence has an external argument, the ϕ -probe agrees with it. However, it is unclear in canonical sentences whether the ϕ -probe in I agrees with the external argument upwards or downwards i.e. before or after the external argument moved to the specifier of IP. In agreeing inversions with an unergative, the ϕ -probe must agree downward since the subject stays *in situ*. This indicates that movement of the subject is not obligatory but optional. Van der Wal (in prep) states that movement to the specifier of IP is motivated by information structure in Bantu languages. The impact of information structure in Lubukusu will be further discussed in 4.5.

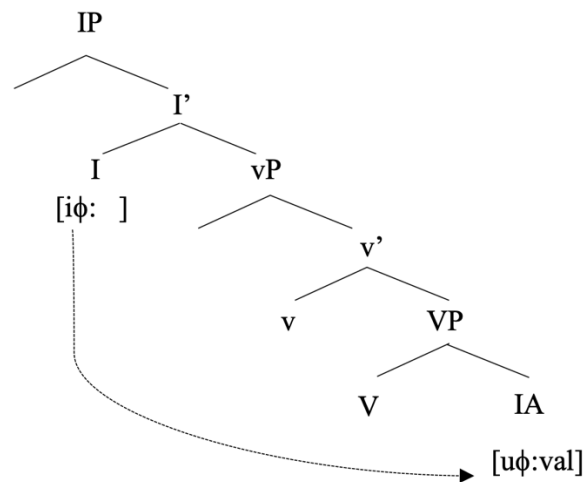
(123)



If the sentence, does not have an external argument i.e. when the verb is an unaccusative or passive, the ϕ -probe agrees with the internal argument. Unaccusatives and passives typically share the characteristics of promoting the internal argument to the subject. Again, it is unclear in canonical sentences whether the ϕ -probe in I agrees with the internal argument upwards or downwards i.e. before or after the internal argument moved to the specifier of IP. In agreeing

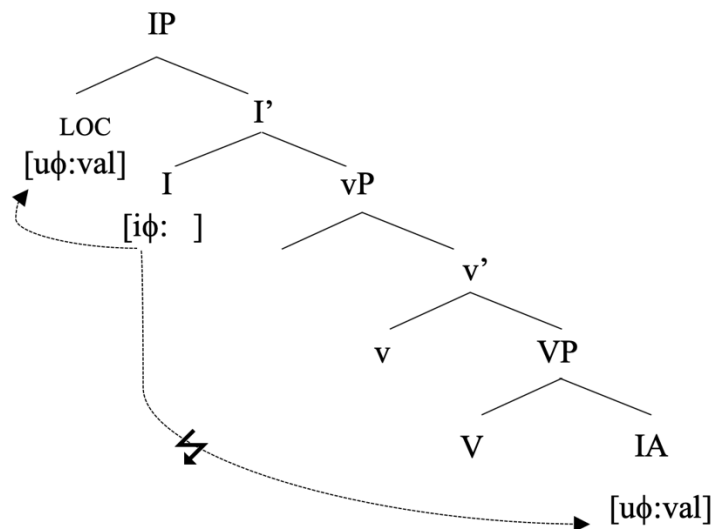
inversions, the ϕ -probe must agree downward since the subject stays *in situ*. This indicates once more that movement of the subject is not obligatory but optional.

(124)



However, agreeing with the internal argument can be interrupted by inserting an argument to the specifier of IP e.g. a locative.

(125)



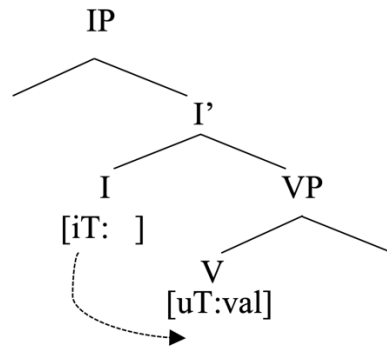
Since the ϕ -probe always agrees with the external argument, agreement with the preverbal DP in inversion constructions is never allowed with unergatives and transitives. If the sentence does not have an external argument, the ϕ -probe agrees with the internal argument, unless an argument is inserted to the specifier of IP. Subject agreement with the internal argument can be interfered by inserting a locative into the specifier of IP. This could hypothetically mean that any other DP could have this interfering effect with the condition that it can function as an additional argument with an unaccusative. However, besides locatives no DP comes to my mind which could fulfill this condition.

In this section, I showed that the ϕ -probe in Lubukusu is flexible and agrees upwards and downwards. If the sentence has an external argument, the ϕ -probe always agrees downwards with it. If there is no external argument, the ϕ -probe agrees downwards with the internal argument. However, agreement with the internal argument can be interrupted by inserting a DP in the specifier of IP with which the ϕ -probe agrees upwards.

4.4.3 Tense Probe

In the two previous sections, I showed that the inflectional head does not only have ϕ -features but also locative features. This is adapted from Wesseling (2018) who argues that the inflectional head in Dutch has not only ϕ -features but also locative features. In addition, Wesseling (2018) argued that Dutch also has a tense probe on I which agrees with the tense goal in V. She followed Pesetzky & Torrego (2007). This is illustrated in (126).

(126) Validation of the Tense probe (Wesseling 2018:83):

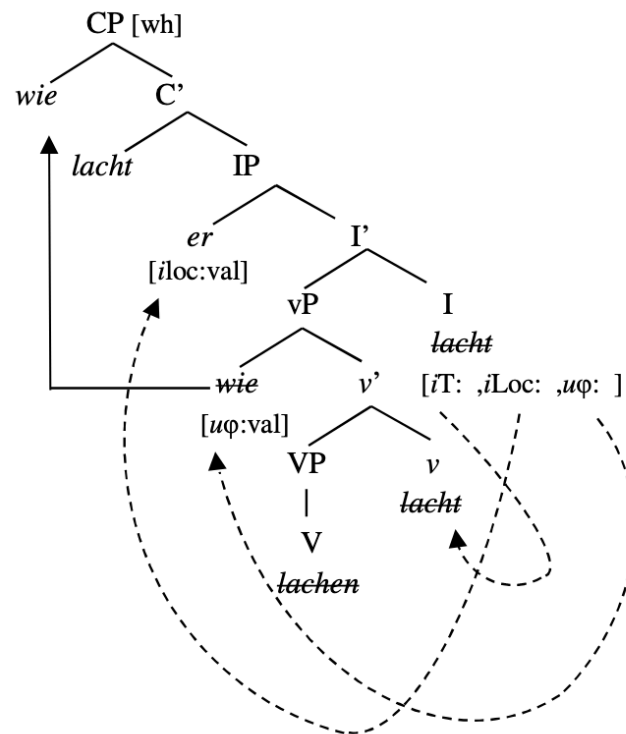


This means that, according to Wesseling (2018), the inflectional head in Dutch has three probes: The locative probe, the ϕ -probe and the tense probe. This is illustrated in (128) for the sentence in (115) repeated in (127):

(127) Wie lacht_i er?
 Who laughs EXPL
 ‘Who is laughing?’
 (Wesseling 2018:140)

Wesseling (2018:140) states that “*the tense feature on I is valued via agreement with the verb in v, verb movement from I to C follows due to the V2 restriction of Dutch. I checks its Phi-features against the Phi-features of wie ‘who’. The I-head then still has its unvalued locative feature, whereby er is merged in spec,IP.*”

(128) Structural representation of (127) (Wesseling 2018:140)



I adopt this and argue that Lubukusu also has unvalued tense features on the inflectional head which are valued by the verb. This means that the inflectional head has three probes: The locative probe, the ϕ -probe and the tense probe. The following section will combine the given analyses of probes in Lubukusu and argue for multiple probing in Lubukusu which accounts for agreement in canonical sentences, agreeing inversions and locative inversions.

4.4.4 Multiple Probing

The previous sections have analyzed locative agreement and subject agreement in Lubukusu. The analysis took into account that the ϕ -probe agrees downwards with postverbal logical subject in agreeing inversions which stays *in situ* but upwards with the locative in locative inversions which is base generated in a preverbal position.

This analysis also took into account that the locative probe only agrees with the locative in a preverbal position independently of whether the locative moved to the preverbal position or was base generated there.

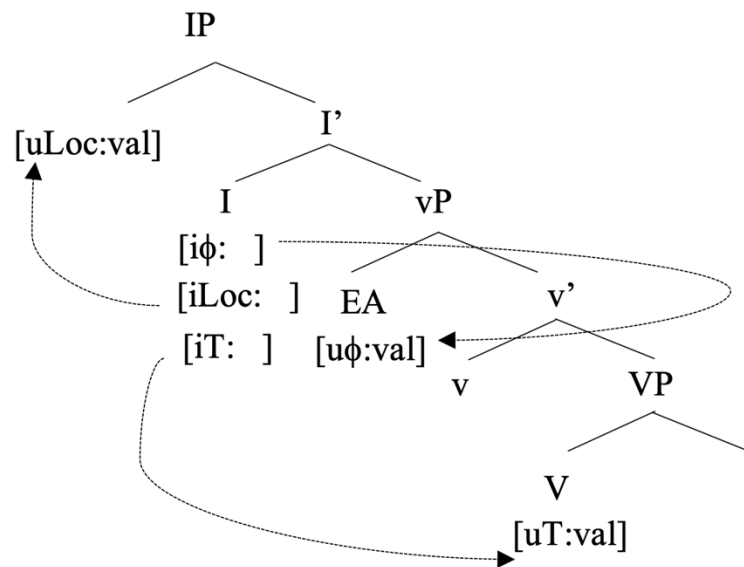
I adopted Wesseling's (2018) claim that the inflectional head in Dutch has three probes: The locative probe, the ϕ -probe and the tense probe. I argue that Lubukusu has also three probes:

- I. The locative probe which only probes upwards
- II. The ϕ -probe which can probe up- and downwards
- III. The tense probe which probes downwards

The locative probe only be valued by locatives which c-command the probe. The ϕ -probe in Lubukusu is flexible and agrees upwards and downwards. If the sentence has an external argument, the ϕ -probe always agrees downwards with it. If there is no external argument, the ϕ -probe agrees downwards with the internal argument. However, agreement with the internal

argument can be interrupted by inserting a DP in the specifier of IP with which the ϕ -probe agrees upwards. The tense probe agrees with the tense goal in V. This is visualized in (129).

(129)



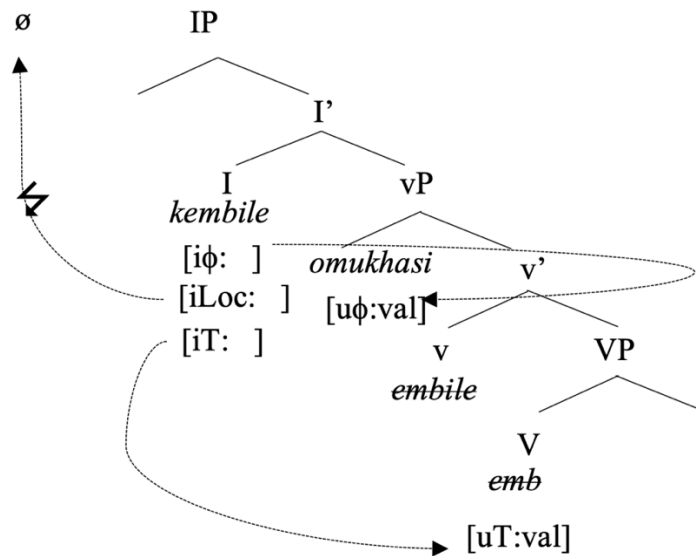
In the following paragraphs, I will demonstrate how the concept of multiple probing accounts can account for subject inversions in Lubukusu. Multiple probing can explain the underlying structure of agreeing inversions with and without a locative as well as the underlying structure of locative inversions.

In agreeing inversions, the verb agrees with the postverbal logical subject which stays *in situ*. The derivation for the agreeing inversion with an unergative (130) is illustrated in (131).

- (130) **K-emb-il-e** **o-mu-khasi** (unergative)
1SM-sing-PST-FV **1-1-woman**
 ‘It is the woman who sang.’

The ϕ -probe finds the external argument *omukhasi* and agrees with it which is expressed in subject agreement morphology *k-*. The locative probe searches for a locative in the higher domain. Since there is no locative, no locative morphology occurs. The Tense probe finds the verb and probes it for its Tense features and checks its uninterpretable features.

(131)



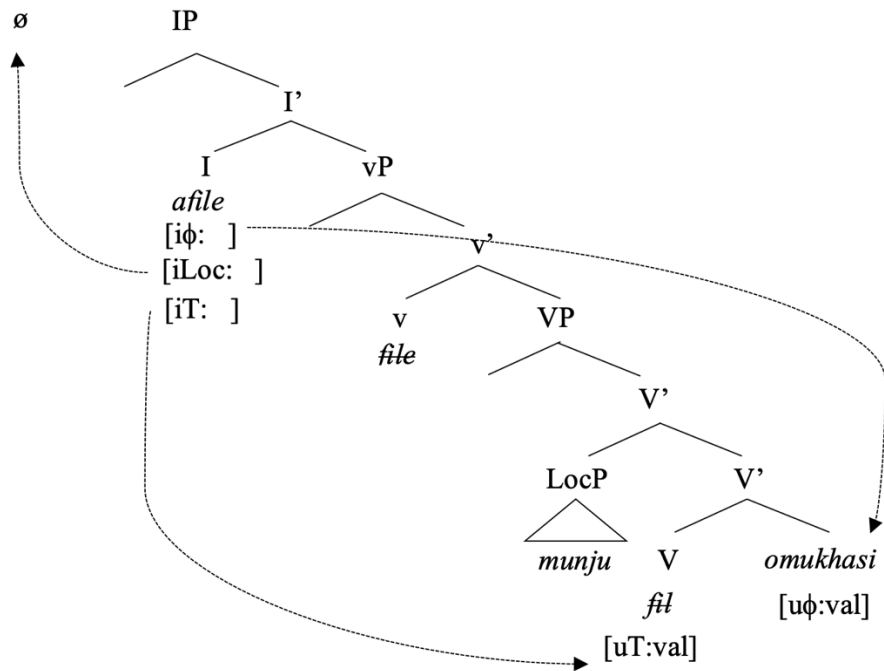
The derivation looks the same for agreeing inversions with unaccusatives or passives with the difference that the ϕ -probe agrees with the internal argument, the complement of VP, since there is no external argument to agree with.

Agreeing inversions can occur with a locative in a preverbal or postverbal position. I have shown that the locative in agreeing inversions is a VP- adjunct which can move to a preverbal position.

(132) shows an agreeing inversion with a postverbal locative. The verb does not show locative morphology since the locative probe can only be valued by a locative c-commanding the probe. The subject marker of the verb agrees with the internal argument *omukhasi* since the sentence does not have an external argument. The Tense probe is valued by the Tense features on V. The derivation for (132) is shown in (133).

- (132) **A-f-il-e** **mu-nju** **o-mu-khasi**
1SM-die-PST-FV **18-house** **1-1-woman**
 ‘A woman died in the house.’

(133)

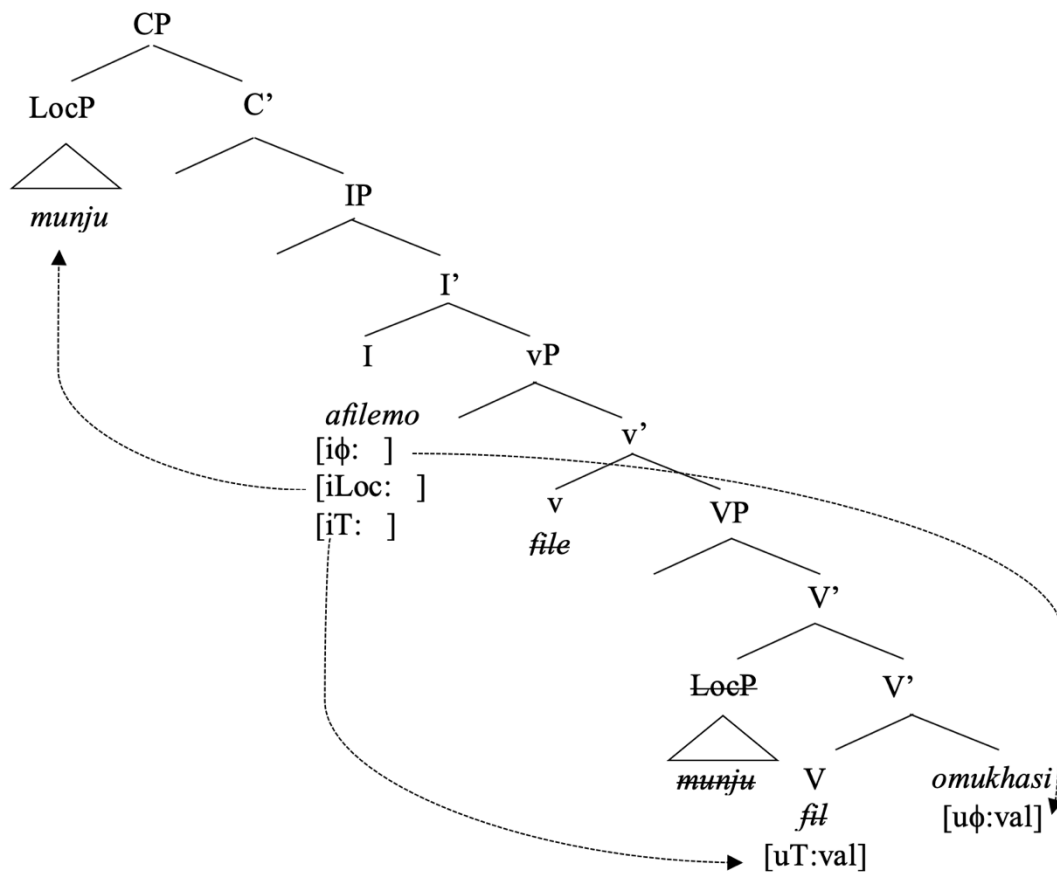


If the locative moves to a preverbal position in an agreeing inversion as in (134), it can value the locative probe on I since it is now c-commanding it. Therefore, the verb shows locative morphology *-mo*.

- (134) Mu-nju a-file-mo o-mu-khasi
 18-house ISM-PST.die-18L 1-1-woman
 ‘A woman died in the house.’

The derivation for (134) is shown in (135). Since the locative is not in an argument position, it cannot move to the specifier of IP. I will therefore argue that the locative moves to the specifier of CP. However, further research is required to determine the correct location of the moved locative in agreeing inversions.

(135)

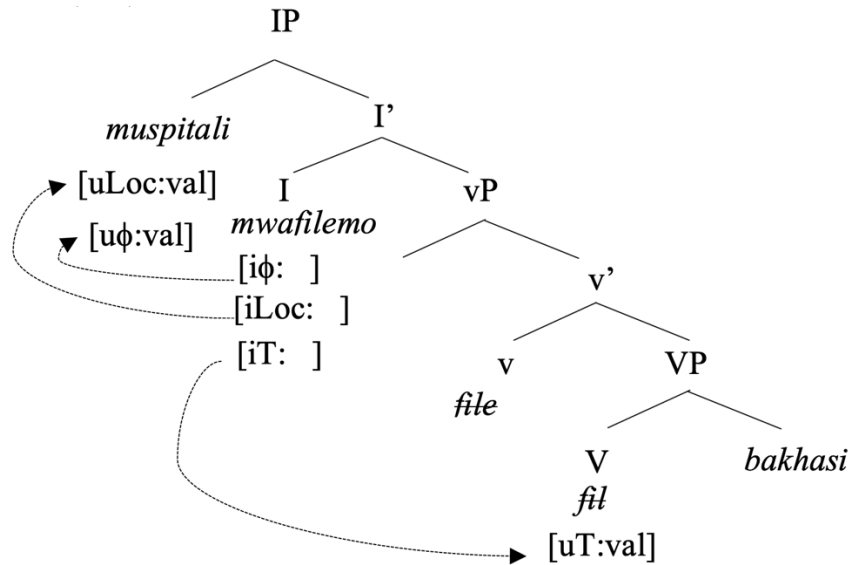


However, the derivation is altered in Locative inversions in which a locative is base generated in the specifier of IP. The internal argument is still in the complement of VP but the ϕ -probe does not agree with it but with the preverbal locative. The derivation of the locative inversion in (136) is illustrated in (137).

- (136) **Mu**-spitali **mw**-af-il-e-mo ba-khasi
18-hospital **18SM**-die-PST-FV -**181** 2-women
 ‘In the hospital died women.’

The ϕ -probe does not find an external argument and agrees with the closest DP which is the locative *muspitali*, base generated in the specifier of IP. This is expressed in subject agreement morphology *mw*-. The locative probe seeks a locative in the higher domain, finds the locative, and locative morphology *-mo* occurs. The Tense probe finds the verb and probes it for its Tense features and checks its uninterpretable features.

(137)



In this section, I have shown that the logical subject stays *in situ* in both agreeing inversions and locative inversions in Lubukusu. I have further shown that the locative in locative inversions is base generated in the specifier of IP. The locative can only be inserted in the specifier of IP, when the verb is an unaccusative. If agreeing inversions have a locative, the locative is base generated as an adjunct of VP and then moves to CP. To account for this, I proposed that the inflectional head has Locative features, Tense features and ϕ -features. The locative probe only probes upwards, in other words, if it is c-commanded by a locative. The ϕ -probe always agrees with the external argument. If the sentence does not have an external argument, the ϕ -probe agrees with the internal argument. This operation can be interrupted by inserting a DP in the specifier of IP with which the ϕ -probe agrees. The tense probe is validated by the verb.

While this section analyzed the underlying structure of subject inversions, it did not take information structure into account. Many scholars (cf. Bresnan & Kanerva 1989; Yoneda 2011; Marten & van der Wal 2014, van der Wal in prep) have previously shown that information structure has an impact on subject inversions across Bantu languages. The following section will investigate the role of information structure for subject inversions in Lubukusu.

4.5 Information Structure

As shown in 3.3.4, it has been argued that information structure plays a key role in analyzing subject inversions in Bantu (cf. Bresnan & Kanerva 1989; Yoneda 2011; Marten & van der Wal 2014, van der Wal in prep). These publications argue that the preverbal DP is in a topic position. Thus, the logical subject is the topic in canonical sentences. If the logical subject is not a topic, it does not move to the preverbal position which leads to subject inversions. The preverbal topic position either stays empty or is filled by a DP which becomes the topic of the sentence.

A sentence can be divided into topic and comment. The topic is what the sentence is about. The comment is what is said about the topic. If a sentence has a focus, it is part of the comment (Partee 1991).

The assumption that the preverbal DP is in a topic position leads to several predictions:

- I. If the preverbal DP is in a topic position, it cannot be in focus and cannot be focalized.
- II. If the topic position is empty, the sentence is *thetic* i.e. “out of the blue”.

This has already been proven correct for several Bantu languages. Yoneda (2011) showed for Matengo that topical elements occur preverbally and non-topical elements occur postverbally. She further states that focus occurs immediately after the verb (IAV). This is illustrated in (138). (138a) shows a canonical sentence in which the preverbal subject is the topic. (138b) shows an agreeing inversion with the subject being in a postverbal position. The subject is non-topical. In order to get a topic reading on the subject, (138b) is not appropriate.

- (138) a. *Ńkongu gu-hábwĩ:ke.* (Matengo)
 3tree 3SM-fall.PST (*ńkongu* is the topic)
 (As a comment on a particular tree) ‘The tree has fallen down.’
 b. *Gu-hábwiki ńko:ngo.*
 3SM-fall.PST 3tree (*ńkongu* is not the topic)
 (Answer for ‘What has fallen down’) ‘A tree has fallen down.’
 (Yoneda 2011:756)

The preverbal position cannot be in focus in Matengo since it is a topic position. Yoneda (2011) shows that by focusing the DP *mwaná* in (139). *Mwaná* is in focus because it is the answer to a wh-question. (139a) shows an agreeing inversion in which the logical subject *mwaná* is in a postverbal position and in focus. This sentence is felicitous. In (139b), the logical subject *mwaná* is also in focus but stands in a preverbal position. This is infelicitous.

- (Answer for the question: ‘Who has broken it.’)
 (139) a. *Ju-kájwi mwá:na.* (Matengo)
 1sm-break.pst 1.child (*mwá:na* in focus)
 ‘My child has broken (it).’
 b. *#Mwaná ju-kájwĩ:le.*
 1.child 1SM-break.PST (*Mwaná* in focus)
 ‘My child has broken it.’
 (Yoneda 2011:760)

As shown in 3.3.4, van der Wal (in prep) argues that movement in languages like Matengo is motivated by Topic features on the inflectional head. According to her, agreement and movement are not tied together in these languages, and a DP only moves to a preverbal position if it is a topic. This can be the logical subject in which case, the sentence would be canonical. If the logical subject is not the topic of the sentence it does not move which leads to a subject inversion. The sentence can either be topicless and no DP moves to the topic position or another DP e.g. the locative being the topic which then would move. This would lead to a locative inversion.

However, it is still unclear if information structure plays a role in subject inversions in Lubukusu. In order to test if the preverbal DP in Lubukusu is a topic position, I will test if the preverbal DP can be focalized by modifying it with the focus marker *only* and with the wh-element *which*. If the focus particle *only* modifies the locative (140) in a locative inversion, the sentence is degraded (if not prohibited) but not if it modifies the postverbal DP (141):

- (140) *Mu-sikuli (*mwo-ng’ene) mw-apwile-mo ba-ba-aana*
 18-school 18-only 18SM-was.hit-18L 2-2-children
 Intended: ‘Children were hit only in this school (and not in other schools).’
 Context: ‘There are three schools in this town. In all the schools but one the children are not hit.’

- (141) Mu-sikuli mw-apwile-mo ba-ba-aana bo-ng'ene
 18-school 18SM-was.hit-18L 2-2-children 2-only
 'Only children were hit at the school (and not adults).'
 Context: 'There is a school in the village where adults are not hit but children are.'

However, if the preverbal logical subject *omukhasi* is modified by the focus marker *only*, the sentence stays grammatical:

- (142) O-mu-khasi ye-ng'ene a-a-tima mu-mu-siiru.
 1-1-woman 1-only 1SM-PST-run 18-3-forest
 'Only the woman ran in the forest.'

Furthermore, wh-elements are allowed to refer to the locative in a locative inversion (143) even though they are a focus marker:

- (143) Mu-nju siina ni-mwo mw-afile-mo o-mu-secha?
 18-house what COMP-18 18SM-died-18L 1-1-man
 'In which house died a man?'

However, when a d-linked question is asked (e.g. *which book did you read?*), the range of felicitous answers is limited to a set of books which is known to the speaker and the hearer (Pesetsky 1987:108). Since d-linked wh-elements already refer to a known set, the focus effect could be loosened and less strong. Therefore, this needs to be tested with non-d-linked wh-elements such as *where*. *Where* does not refer to a known set and is hence certainly a focal element. Unlike d-linked wh-elements it is not allowed in a preverbal position independently of whether the subject marker agrees with it or not. This is illustrated in (144). (144a) shows a locative inversion with the preverbal wh-element *wae*. (144b) shows an agreeing inversion with the preverbal wh-element *wae*. (144c) shows a canonical sentence with the wh-element *wae* in a postverbal position. (144a) and (144b) are ungrammatical since the wh-element occurs preverbally.

- (144) a. * Wae mw-afile-mo o-mu-secha?
 Where 18SM-die.PST-18L 1-1-man
 b. * Wae a-file-mo o-mu-secha?
 Where 1SM-die.PST-18L 1-1-man
 c. O-mu-secha a-file wae?
 1SM-die.PST-18L 1-1-man where
 'Where did the man die.'

The current data does not give enough insight of whether or not information structures explains the difference of wh-questions which are d-linked and wh-questions which are not d-linked. Further research is required to answer this question.

At this point, it is impossible with the current data to answer the question whether or not information structure plays a role in subject inversions in Lubukusu.

However, it is unlikely that the sentences shown in (145) all possess the exact same meaning, as they are all constructed differently.

- (145) a. Kú-mú-saala kw-á-kwá mu-mu-siiru. (Declarative)
 3-3-tree 3SM-PST-fall 18-3-forest
 ‘A tree fell in the forest.’
- b. Mú-mú-siirú kw-á-kwá-mó kú-mú-saala (Agreeing Inversion)
 18-3-forest 3SM-PST-fall-18L 3-3-tree
 ‘In the forest fell a tree.’
- c. Mú-mú-siirú mw-á-kwá-mó kú-mú-saala. (Locative Inversion)
 18-3-forest 18SM-PST-fall-18L 3-3-tree
 ‘In the forest fell a tree.’
 (Diercks 2011:2-3)

However, looking at other languages, information structure seems to influence the word order. Besides the given data from other Bantu languages in this thesis, a few examples of information structure influencing word order are scrambling in German (Frey 2004) or stylistic fronting in Icelandic (Molnár 2010). This suggests that languages are economic, meaning that different constructions rarely express the exact same meaning.

It can therefore be assumed that subject inversions in Lubukusu have at the very least a stylistic effect. However, the paper was unable to demonstrate this. For this reason, it is necessary that the meaning of subject inversions in Lubukusu is further researched. It is unclear what motivates the subject to move in canonical sentences but not in agreeing inversions in Lubukusu, or more broadly stated, what motivates subject inversions in Lubukusu? Another important question which remains unanswered is how exactly do agreeing inversions with a preverbal locative and locative inversions differ in their meanings?

5 Conclusion

In this thesis, I have analyzed subject inversions in Lubukusu. Subject inversions do not follow the canonical word order SVO, but the logical subject is inverted e.g. occurs in a postverbal position. Subject inversions occur across Bantu languages but only in fairly recent studies, has it been shown that they vary in agreement (whether the subject marker shows subject agreement with the preverbal or postverbal DP or default agreement), in word order, in thematic restrictions on the preverbal phrase and whether or not the preverbal phrase is morphologically marked. Also, the underlying structure varies across Bantu languages. Therefore, each language needs to be investigated individually.

Lubukusu is a Bantu language, in which subject inversions have not yet been investigated in depth. Hence, the aim of this thesis was to answer the following questions:

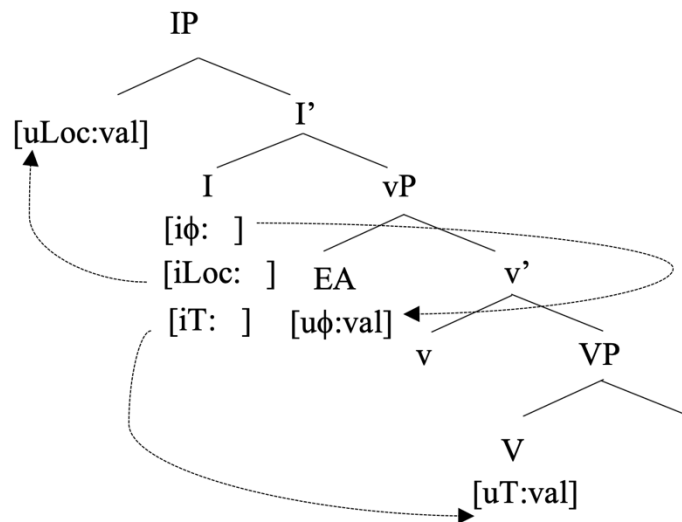
- I. Which subject inversions are allowed in Lubukusu and with which predicates?
- II. What is the underlying structure of subject inversions in Lubukusu?

With newly acquired data, I was able to show that subject inversions in Lubukusu are fairly restricted when compared to other Bantu languages. Lubukusu allows two kinds of subject inversions: Formal locative inversions and agreeing inversions. This means subject inversions can either show subject agreement with a preverbal locative or subject agreement with the postverbal DP – the logical subject of the sentence. Subject inversions with default agreement are prohibited. Agreement with the preverbal locative is only allowed if the verb is an unaccusative. Agreement with the postverbal DP is allowed if the verb is either an unaccusative or an unergative.

In this thesis, I have shown that the logical subject stays *in situ* in both agreeing inversions and locative inversions. I have further demonstrated that the locative in locative inversions is base generated in the specifier of IP. The locative can only be inserted in the specifier of IP,

when the verb is an unaccusative. If agreeing inversions have a locative, the locative is base generated as an adjunct of VP and then moves to CP. To account for this, I proposed that the inflectional head has Locative features, Tense features and ϕ -features. The locative probe only probes upwards i.e. if it is c-commanded by a locative. The ϕ -probe always agrees with the external argument. If the sentence does not have an external argument, the ϕ -probe agrees with the internal argument. This operation can be interrupted by inserting a DP in the specifier of IP with which the ϕ -probe agrees. The tense probe is validated by the verb. This is illustrated in (146)

(146)



However, I was not able to account for the impact of information structure on subject inversions in Lubukusu. Many scholars (cf. Bresnan & Kanerva 1989; Yoneda 2011; Marten & van der Wal 2014, van der Wal in prep) have previously shown that information structure motivates subject inversions in several Bantu languages. The current data for Lubukusu was insufficient to either confirm or reject this and further research is needed to investigate this matter. It is yet unclear what motivates the subject to move in canonical sentences but not in agreeing inversions in Lubukusu, or more broadly stated, what motivates subject inversions in the language.

This paper has proven once more that it is absolutely necessary to research all languages and not only the ones spoken by the wealthy if we truly seek to understand the concept of Universal Grammar. If only a small set of similar languages is researched, we miss out on important aspects of other languages. This can be seen in the example of the inflectional head. It is often argued that the inflectional head has only Tense features based on research undertaken on a restricted set of commonly researched languages. This concept has already been challenged by Ritter & Wiltschko (2009). They showed that the features on the inflectional head can vary in languages. This paper adapted this by following Wesseling (2018), arguing that the inflectional head in Lubukusu does not only have Tense features but also Locative features and ϕ features.

This work is in line with others that have stated that Bantu languages are not monolithic but vary. This has already been mentioned by van der Wal (2012, in prep) and Diercks (2010). Subject inversion in one Bantu language is not automatically the same as subject inversion in another Bantu language. They not only vary in the inversion type but also in the underlying structure (which van der Wal 2012 has already argued). This means that each Bantu language needs to be researched individually before being analyzed since there seems to be extensive variation in the structure of subject inversions across Bantu languages.

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Appendix

Mumu-siiru omwo bwangu mwakwamo kumusaala.

Answer

1	4	50,00%
2	1	12,50%
3	2	25,00%
4	1	12,50%
5	0	0,00%

Wae mwakwamo kumusaala?

Answer

	Count	Percentage
1	3	37,50%
2	4	50,00%
3	0	0,00%
4	0	0,00%
5	1	12,50%

Musikuli syebaakonilemo babaana baose ta.

Answer

	Count	Percentage
All of the children slept.	0	0,00%
Some of the children slept.	6	75,00%
None of the children slept.	0	0,00%
The sentence is ungrammatical.	4	50,00%

Alile omwana siyakhula.

Answer

	Count	Percentage
1	5	62,50%
2	3	37,50%
3	0	0,00%
4	0	0,00%
5	0	0,00%

Mumusiiru omwo mwakwamo bwangu kumusaala.

Answer

	Count	Percentage
1	1	12,50%
2	4	50,00%
3	1	12,50%
4	0	0,00%
5	2	25,00%

Mumusiiru syekwakwilemo kimisaala kyose ta.

Answer

	Count	Percentage
All of the trees fell.	0	0,00%
Some of the trees fell.	5	62,50%
None of the trees fell.	1	12,50%
The sentence is ungrammatical.	5	62,50%

Wae mukwakwamo kumusaala?

Answer	Count	Percentage
1	6	75,00%
2	2	25,00%
3	0	0,00%
4	0	0,00%
5	0	0,00%

Munju syebalilemo babasecha baose ta.

Answer	Count	Percentage
All of the men are eating.	0	0,00%
Some of the men are eating.	4	50,00%
None of the men are eating.	1	12,50%
The sentence is ungrammatical.	6	75,00%

Musikuli eyose syemwabonamo babaana ta.

Answer	Count	Percentage
Children were seen in all of the schools.	0	0,00%
Children were seen in some of the schools.	1	12,50%
Children were seen in none of the schools.	5	62,50%
The sentence is ungrammatical.	4	50,00%

Wae mumwafilemo omusecha?

Answer	Count	Percentage
1	4	50,00%
2	2	25,00%
3	1	12,50%
4	0	0,00%
5	1	12,50%

Mumusiiru omwo mwakwamo kumusaala bwangu.

Answer	Count	Percentage
1	3	37,50%
2	0	0,00%
3	1	12,50%
4	2	25,00%
5	2	25,00%

Afile kumusaala omusecha.

1	6	75,00%
2	1	12,50%
3	1	12,50%
4	0	0,00%
5	0	0,00%

Omusecha afile wae?

Answer	Count	Percentage
1	3	37,50%
2	0	0,00%
3	0	0,00%
4	2	25,00%
5	3	37,50%

Mulitaala syemwafilemo babasecha baose ta.		
Answer	Count	Percentage
All of the men died.	0	0,00%
Some of the men died.	6	75,00%
None of the men died	1	12,50%
The sentence is ungrammatical.	4	50,00%

Mumusiiru omwo bwangu kwakwamo kumusaala.		
Answer	Count	Percentage
1	6	75,00%
2	1	12,50%
3	0	0,00%
4	1	12,50%
5	0	0,00%

Kumusaala kwakwa wae?		
Answer	Count	Percentage
1 (1)	0	0,00%
2 (2)	0	0,00%
3 (3)	0	0,00%
4 (4)	0	0,00%
5 (5)	8	100,00%

Kimisaala kyose syafilemo omusecha ta.		
Answer	Count	Percentage
The man sees all of the trees.	0	0,00%
The man sees some of the trees.	1	12,50%
The man sees none of the trees.	0	0,00%
The sentence is ungrammatical	7	87,50%

Alile siyakhula omwana.		
Answer	Count	Percentage
1	1	12,50%
2	4	50,00%
3	1	12,50%
4	1	12,50%
5	1	12,50%

Mulitaala syebaembilemo babakhasi baose ta.		
Answer	Count	Percentage
All of the women sang.	0	0,00%
Some of the women sang.	6	75,00%
None of the women sang.	1	12,50%
The sentence is ungrammatical	4	50,00%

Wae mumwakwamo kumusaala?

Answer	Count	Percentage
1	4	50,00%
2	2	25,00%
3	1	12,50%
4	0	0,00%
5	1	12,50%

Musikuli syebaabonamo babaana baose ta.

Answer	Count	Percentage
All of the children were seen.	1	12,50%
Some of the children were seen.	5	62,50%
None of the children were seen.	1	12,50%
The sentence is ungrammatical.	3	37,50%

Mumusiiru omwo kwakwamo bwangu kumusaala.

Answer	Count	Percentage
1	3	37,50%
2	1	12,50%
3	1	12,50%
4	1	12,50%
5	2	25,00%

Wae kwakwamo kumusaala?

Answer	Count	Percentage
1	3	37,50%
2	2	25,00%
3	1	12,50%
4	0	0,00%
5	2	25,00%

Mumusiiru kyose syemwakwilemo kimisaala ta.

Answer	Count	Percentage
Trees fell in all of the forests.	1	12,50%
Trees fell in some of the forests.	1	12,50%
Trees fell in none of the forests.	3	37,50%
The sentence is ungrammatical	4	50,00%

Mumusiiru omwo kwakwamo kumusaala bwangu.

Answer	Count	Percentage
1	3	37,50%
2	0	0,00%
3	0	0,00%
4	2	25,00%
5	3	37,50%

Wae afilemo omusecha?

Answer	Count	Percentage
--------	-------	------------

1	4	50,00%
2	1	12,50%
3	0	0,00%
4	1	12,50%
5	2	25,00%

Mulitaala lyose syemwafilemo babasecha ta.

Answer	Count	Percentage
Men died in all of the villages.	0	0,00%
Men died in some of the villages.	2	25,00%
Men died in none of the villages.	4	50,00%
The sentence is ungrammatical.	4	50,00%

Wae mwafilemo omusecha?

Answer	Count	Percentage
1	5	62,50%
2	1	12,50%
3	0	0,00%
4	1	12,50%
5	1	12,50%

Mulitaala syebaafilemo babasecha baose ta.

Answer	Count	Percentage
All of the men died.	0	0,00%
Some of the men died.	4	50,00%
None of the men died.	2	25,00%
The sentence is ungrammtical.	3	37,50%

Wae muafilemo omusecha?

Answer	Count	Percentage
1	3	37,50%
2	1	12,50%
3	1	12,50%
4	0	0,00%
5	3	37,50%

Musikuli syemwabonamo babaana baose ta.

Answer	Count	Percentage
All of the children were seen.	1	12,50%
Some of the children were seen.	4	50,00%
None of the children were seen.	1	12,50%
The sentence is ungrammatical.	3	37,50%

Baacha babaana khusikuli.

Answer	Count	Percentage
1	0	0,00%
2	1	33,33%
3	1	33,33%
4	0	0,00%
5	1	33,33%

Babasecha baakula kamatunda khusooko mulitaala.

Answer	Count	Percentage
1	0	0,00%
2	0	0,00%
3	2	66,67%
4	1	33,33%
5	0	0,00%

Afile munju omukhasi.

Answer	Count	Percentage
1	1	33,33%
2	0	0,00%
3	1	33,33%
4	1	33,33%
5	0	0,00%

Omukhasi yengene aatima mumusiiru.

Answer	Count	Percentage
1	0	0,00%
2	0	0,00%
3	0	0,00%
4	2	66,67%
5	1	33,33%

Mumusiiru kysoe syekwakwamo kumusaala ta.

Answer	Count	Percentage
A tree fell in every forest	0	0,00%
A tree fell in some forests.	2	66,67%
A tree fell in none of the forests.	2	66,67%
The sentence is ungrammatical.	2	66,67%

Omukhasi alile kamatuunda munju.

Answer	Count	Percentage
1	0	0,00%
2	0	0,00%
3	0	0,00%
4	1	33,33%
5	2	66,67%

Mumusiiru aacha omuana yengene.

Answer	Count	Percentage
1	0	0,00%
2	1	33,33%
3	1	33,33%
4	1	33,33%
5	0	0,00%

Babakhasi baose syebaembile ta.

Answer	Count	Percentage
--------	-------	------------

All women sang.	0	0,00%
Some women sang.	3	100,00%
No women sang.	1	33,33%
The sentence is ungrammatical.	1	33,33%

Babasecha baakula kamatunda mulitaala khusooko.

Answer	Count	Percentage
1	1	33,33%
2	0	0,00%
3	0	0,00%
4	1	33,33%
5	1	33,33%

Baacha khusikuli babaana.

Answer	Count	Percentage
1	0	0,00%
2	2	66,67%
3	0	0,00%
4	0	0,00%
5	1	33,33%

Omuana akhasome sitabu musikuli mulitaala.

Answer	Count	Percentage
1	1	33,33%
2	1	33,33%
3	1	33,33%
4	0	0,00%
5	0	0,00%

Munju eyose syeafilemo omusecha.

Answer	Count	Percentage
A man died in every house.	0	0,00%
A man died in some houses.	1	33,33%
A man died in none of the houses	1	33,33%
the sentence is ungrammatical.	2	66,67%

Mumusiiru aatimamo omukhasi yengene.

Answer	Count	Percentage
1 (1)	0	0,00%
2 (2)	0	0,00%
3 (3)	0	0,00%
4 (4)	1	33,33%
5 (5)	2	66,67%

Omukhasi alile munju kamatuunda.

Answer	Count	Percentage
1	0	0,00%
2	0	0,00%
3	1	33,33%
4	1	33,33%
5	1	33,33%

Babaana baose syebaacha khusooko ta.

Answer	Count	Percentage
All children went to the market.	0	0,00%
Some children went to the market.	3	100,00%
No children went to the market.	0	0,00%
The sentence is ungrammatical	1	33,33%

Afile omukhasi munju.

Answer	Count	Percentage
1	0	0,00%
2	1	33,33%
3	0	0,00%
4	1	33,33%
5	1	33,33%

Omuana akhasome sitabu mulitaala musikuli.

Answer	Count	Percentage
1	1	33,33%
2	1	33,33%
3	1	33,33%
4	0	0,00%
5	0	0,00%

Omuana yengene aacha mumusiiru.

Answer	Count	Percentage
1	0	0,00%
2	1	33,33%
3	0	0,00%
4	1	33,33%
5	1	33,33%