

Locatives in Kinyarwanda

by

Jean Paul Ngoboka

Thesis submitted in fulfilment of the requirements for the degree of Doctor of
Philosophy in the Linguistics Programme of the School of Arts, University of
KwaZulu-Natal, Durban

Supervisor: Professor Jochen Zeller

November 2016

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This thesis is dedicated to my wife, Berthe.

Acknowledgements

First and foremost my greatest thanks are due to my supervisor: Professor Jochen Zeller. I don't have words good enough to extend my gratitude to him. Professor Zeller has been my syntax teacher and my supervisor. As my supervisor, he found enough time to discuss my work, which sometimes resulted in long meetings in his office. Without his comments, suggestions, corrections and those long meetings, this thesis would have never become what it is now. I was also privileged to have an office next to his.

I am also grateful to Professor Jochen Zeller for taking an interest in me not only as a student but also as a person; he made sure that my stay at the university was comfortable and enjoyable. He made sure that I did not miss any scholarship opportunities. I will also miss the evenings at the Portuguese Restaurant.

I would like to express my sincere gratitude to the following people for their contribution to the realisation of this project, directly or indirectly:

- Professor Laurent Nkusi for his encouragement and guidance on where to find references on Kinyarwanda.
- Professor Tembue Zembele wa Ololo for encouraging me to pursue my PhD and recommending me for a PhD scholarship, which I eventually secured.
- Professor Heike Tappe whose encouragement and advice kept my morale high during my stay at the university.
- Dr Langa Khumalo for allowing me to attend his Corpus Linguistics classes, and his encouragement and willingness to help.
- The University of KwaZulu-Natal for the doctoral research scholarship in the 2014 and 2015 academic years, which made it possible for me to stay at the university, meet the necessary expenses, and complete my studies.
- All those who participated in the elicitation process and those who accepted to check some of the data with me during the writing process: Pierre Celestin Kamonyo, Jean de Dieu Munyakazi, Virgie Uwibambe, Joseph Magambo, Louis Gatebuke, Onesphore Majyambere, Jean Bosco Mugisha, Justine Mukagasana, Julienne Mukandayisenga, Jean Marie Vianney

Bazirake, Modeste Sebera, Denyse Dusabirema, Claudine Muraraneza and 4 anonymous participants.

- Mrs. Muhle Sibisi and Mr. Njabulo Mnpungose for the discussion of the Zulu examples.
- My wife, Berthe, and my children, for enduring my long absence during which life became a bit difficult; special thanks to Berthe for her moral support and for successfully playing the role of a mother and father for the time I was away.
- My friends and former colleagues Juvenal Rubegwa and Patrick Ujwiga for their constant encouragement and regular emails.
- Innocent Ndateba for accepting to be my host at the university, before I could find my own accommodation.
- Fellow students for sharing the PhD experience while we were at Howard College: Agness, Rajabu, Donatilla, Clemence, Mado, and Claudine.
- Last but not least, Mr. Brandon Chetty for editing this thesis.

Abstract

This study, titled *Locatives in Kinyarwanda*, is about Kinyarwanda, a language spoken in Rwanda and its neighboring countries. It aims to investigate issues related to locatives and locative constructions in Kinyarwanda, namely, locative markers, locative shift, and locative inversion and related constructions. The issues investigated are the following: the syntactic status of the locative markers *ku-*, *mu-*, and *i-* of classes 17, 18, and 19, respectively, and the corresponding locative elements *hó*, *mó* and *yó*; the derivation of locative shift and locative inversion, the question of whether the preposed locative DPs/expressions are base-generated in the preverbal position or whether they are the result of movement from the postverbal position, and whether they are subjects or topics. The study is conducted within the framework of the Minimalist Program, with phase theory and Locality (the Minimal Link Condition) playing a prominent role in my analysis. These theories are complemented by a theory of small clauses as Relator phrases (Den Dikken, 2006, 2007), and incorporation theory (Baker, 1988).

The study shows that, despite having the semantic properties of prepositions, syntactically, the Kinyarwanda locative markers *ku-*, *mu-*, and *i-* are determiners similarly to augments and demonstratives. It is shown that the locative elements *hó*, *mó*, and *yó* are clitics and that they are derived either morphologically by combining the locative marker with the pronominal root *-ó* or syntactically by incorporation of a locative D-head into a functional head that is realized by this pronominal stem. It is shown that locative shift and different types of locative inversion involve a small clause in their derivation. The main claim defended in this thesis is that these constructions are based on the same syntactic configuration and derivational processes: a locative D-head, realized as a locative marker, selects a Locative DP to form a "big" locative DP; when the locative marker incorporates into the functional head that selects the "big DP", the Locative DP moves from the small clause to the specifier of a higher functional head (the so-called Linker in Locative shift constructions, and T in locative inversion constructions). It is also shown that Locative DPs in semantic locative inversion are structural subjects, whereas the preposed locative expressions in formal locative inversion are topics which are base-generated in the left periphery, from where they bind a locative pro in the subject position.

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List of abbreviations

1,2 S/P: first, second person singular/plural

APPL: applicative

ASS: associative

AUG: augment

CAUS: causative

COND: conditional

DEM: demonstrative

DJ: disjoint verb form

EXPL: expletive

FUT: future tense (remote)

FV: final vowel

IMPRF: imperfective aspect

INST: instrument

LOC: locative

NEG: negative

NFUT: near future tense

OM: object marker

PASS: passive

PERF: perfective aspect

PERS: persistive

PROG: present progressive

PRON: pronoun

PST: near past tense

REFL: reflexive

REL: relative marker

REM: remote past tense

SM: subject marker

SBJC: subjunctive

STAT: stative

SUBS: subsecutive

CHAPTER ONE: INTRODUCTION

This study, which is conducted within the framework of the Minimalist Program as developed in Chomsky (1995, 2000, 2001), investigates issues related to locatives and locative constructions in Kinyarwanda. Important aspects of the Minimalist Program that will guide this study are phase theory and locality conditions on agreement and syntactic movement, which are captured by the Minimal Link Condition. These concepts will be complemented by theories of the small clause/Relator phrase (Den Dikken, 2006) and incorporation (Baker, 1988). The main claim I defend in this thesis is that all locative constructions in Kinyarwanda, including derived constructions such as locative shift and locative inversion, involve a small clause (a Relator phrase/RelP) at the initial stage of the derivation whose head Rel selects a Locative DP as its complement. I demonstrate in detail that the differences between the types of locative constructions analyzed in this thesis follow from the different ways in which the Relator head and its locative complement can be realized. An important idea that I will develop is that the Locative DP-complement of Rel can be a so-called "big DP" (see Bošković, 2007; Oosthuizen, 2013a, 2013b; Zeller, 2015 for a similar analysis) in which the locative D-head selects another DP with locative semantics as its complement. As I show, locative shift and different types of locative inversion are based on this "big DP", which I refer to as "big DP_{Loc}"; their derivation involves incorporation of the locative D-head into a pronominal Relator head and subsequent movement of its DP-complement to a (subject or object) position outside the small clause.

In this introductory chapter, I briefly present in section 1.1 the general issues to be investigated, highlighting the themes and objectives of the study. In section 1.2, I provide a discussion of the theoretical framework that I adopt in this thesis. Section 1.3 provides a brief sociolinguistic background of the Kinyarwanda language, and section 1.4 offers an overview of the following chapters.

1.1 The topic

This study, titled *Locatives in Kinyarwanda*, is about Kinyarwanda, a language spoken in Rwanda and its neighboring countries. It deals with different themes/subtopics of locative constructions i.e., (i) locative markers, (ii) locative shift, and (iii) locative inversion.

The first theme/subtopic deals mainly with locative classes and the respective locative markers *ku-*, *mu-*, and *i-* of classes 17, 18, and 19, as illustrated in (1):

- (1) a. ku ku-kuguru
 LOC17 15-leg
 'on a/the leg'
- b. mu ki-biíndi
 LOC18 17-pot
 'in a/the pot'
- c. i Kigali
 LOC19 9.Kigali
 'at/in Kigali'

The central question to be addressed in this subtopic is the categorial status of the locative markers *ku-*, *mu-*, and *i-*, i.e. whether they are noun class prefixes, prepositions, determiners, etc. I argue that they are determiners on par with augments and demonstratives. I also explain the relationship between the locatives *mu-*, *ku-*, and *i-* and their counterpart clitics *hó*, *mó*, and *yó* that we see in locative shift, locative inversion or other constructions such as when the Locative DP is passivized, object marked, extracted, stativized, or not expressed (i.e. when it is *pro*). While some authors treat these clitics as prepositions in the form of affixes (i.e. incorporated prepositions) (Baker, 1988, 1992; Nakamura, 1997; Zeller & Ngoboka, 2006), or as substitutes for locative markers and their complements (Overdulse & Jacob, 1998), others analyze similar clitics in other Bantu languages as agreement markers (Diercks, 2010, 2011). However, none of these studies has explained the exact morphosyntactic properties of these clitics. In this thesis, I show that the locative clitics *hó*, *mó*, and *yó* are bimorphemic pronouns, complex heads derived by combining a locative prefix with the personal pronoun root *-ó*. In certain constructions, the complex clitic can be derived syntactically, by incorporation of the head of a "big DP_{Loc}" (the locative prefix) into the Relator head of the small clause (lexicalized as the personal pronoun root *-ó*).

The second subtopic is locative shift. Locative shift is a construction in which a verb has two objects, a Locative DP and a Theme DP. Such constructions are possible when the structure contains the clitics *hó* or *mó*. Locative shift constructions are illustrated in (2b) and (2c):¹

- (2) a. Umugaanga yashyize ibimenyeetso ku báana.
u-mu-gaanga a-a-shyír-ye i-bi-menyeetso ku ba-áana
AUG-1-doctor 1.SM-PST-put-PERF AUG-8-signs LOC17 2-children
'A doctor put signs on the children.'
- b. Umugaanga yashyize abáana hó ibimenyeetso.
u-mu-gaanga a-a-shyír-ye a-ba-áana hó i-bi-menyeetso
AUG-1-doctor 1.SM-PST-put-PERF AUG-2-children LOC17 AUG-8-sign
'A doctor put signs on the children.'
- c. Umugaanga yashyizehó abáana ibimenyeetso.
u-mu-gaanga a-a-shyír-ye-hó a-ba-áana i-bi-menyeetso
AUG-1-doctor 1.SM-PST-put-PERF-LOC17 AUG-2-children AUG-8-signs
'A doctor put signs on the children.'

The example in (2a) is the canonical locative construction, in which a Theme-DP follows the verb and precedes the locative expression introduced by the locative marker *ku-*. (2b) and (2c) are double object constructions in which locative shift has applied. The Locative DP (which is a bare DP without a locative prefix, but with locative semantics) precedes the Theme. Both (2b) and (2c) include the clitic *hó*, which appears between the Locative DP and the Theme DP in (2b), but which is attached to the verb in (2c).

The question that will be answered in connection with these constructions is whether the sentences in (2b) and (2c) are derived from (the same underlying structure as) the sentence in (2a). I will argue that a non-shifted locative construction like (2a) and locative shift constructions like (2b) and (2c) project a small clause, which I analyze as a Relator phrase, following Den Dikken, (2006). The subject of the small clause is the Theme and the locative expression is the

¹ Examples are presented in four lines. Line 1 represents vowel lengthening, surface tone, and phonologically conditioned sound changes. Line 2 presents the underlying morphemes and lexical tone; the interlinear glosses are in line 3; and line 4 provides a translation.

complement. I argue that the derivation of (2b) and (2c) involves movement of a Locative DP from a "big DP_{Loc}" complement of the small clause head to the specifier of a functional projection between the verb and the small clause, the Linker (Den Dikken, 2006), whose head is realized by the locative clitic. The clitic itself is derived via incorporation of the head of the "big DP_{Loc}" into the Relator head, which subsequently moves to the Linker head. This derives the word order in (2b). In (2c), I argue that the Linker head moves further and attaches to the verb. Therefore, my analysis based on a small clause allows me to account not only for the derivation of locative shift but also to explain the nature of the locative clitic and the two positions in which it appears.

The derivation of locative shift based on small clauses I am defending in this thesis also resolves the long standing problem of object asymmetry. While the Locative DP in (2b) and (2c) has "primary object" properties (i.e. it can be passivized, object-marked and extracted), the Theme DP has none of these properties – at least not for as long as the Locative DP is in its final derived position in the specifier of the Linker. However, as first demonstrated by Zeller & Ngoboka (2006), the Theme DP can acquire these primary object properties when the Locative DP has itself undergone movement operations such as extraction, object marking and passivation. Zeller & Ngoboka's (2006) analysis of this phenomenon is based on the Minimal Link Condition (MLC). However, I present an alternative analysis in this study, which combines the Minimal Link Condition with key aspects of phase theory. I argue that the fundamental asymmetry between the two objects in locative shift constructions is due to the fact that the Theme's movement is constrained by the Phase Impenetrability Condition (PIC) proposed by Chomsky (2000, 2001). Adopting ideas developed in McGinnis (2001), who applies the PIC in her analysis of object asymmetries in Bantu applicative constructions, I propose the existence of an edge feature of the Linker head which allows the Theme to move across the Locative DP to a second specifier of the Linker, from where it can escape the phase. However, I will propose a constraint, the *Heavy Edge Constraint*, according to which the edge feature of the Linker that can attract the Theme to a second specifier can only do so on condition that both the Theme and the Locative DP move away from the edge before the next phase is completed. In other words, the edge of the Linker phase can only be overtly realized by one DP (the Locative); when two DPs move to the edge, none of the two DPs must stay on the edge.

The third subtopic addressed in this thesis is locative inversion, which is further subdivided into two subtopics: formal locative inversion and semantic locative inversion (Buell, 2007). Semantic locative inversion is illustrated in (3b) while (3c) is a case of formal locative inversion. Both constructions have a corresponding non-inverted locative construction in (3a).

- (3)
- | | | | | |
|----|---|--------------------------|---------------------------|---------------|
| a. | Abakinnyi | baagumye | mu | kibúga. |
| | a-ba-kinnyi | ba-a-gum-ye | mu | ki-búga |
| | AUG-2-players | 2.SM-PST-stay-PERF | LOC18 | 7-pitch |
| | 'The players have stayed on the pitch.' | | | |
| b. | Ikibúga | cyaagumyemó | | abakinnyi. |
| | i-ki-búga | ki-a-gum-ye-mó | | a-ba-kinnyi |
| | AUG-7-pitch | 7.SM-PST-stay-PERF-LOC18 | | AUG-2-players |
| | 'The players have stayed on the pitch.' | | | |
| c. | Mu | kibúga | haagumyemó | abakinnyi. |
| | mu | ki-búga | ha-a-gum-ye-mó | a-ba-kinnyi |
| | LOC18 | 7-pitch | 16.SM-PST-stay-PERF-LOC18 | AUG-2-players |
| | 'The players have stayed on the pitch.' | | | |

The study will deal with the constructions in (3b) and (3c). The following issues will be investigated: whether (3b) and (3c) are derived from (3a), and if such is the case, how they are derived. I will argue that all sentences in (3) comprise of a small clause. I show that in (3b), the Locative DP in the preverbal position originates in the small clause and moves to the structural subject position, SpecT. However, I will demonstrate that the preverbal locative expression in (3c) is not in the subject position. Instead, I will argue that there is a locative pro DP in SpecT which also originates in the small clause and that the preverbal locative expression is base-generated in the left periphery. In other words, I argue that the derivations of semantic and formal locative inversion in (3b) and (3c) are fundamentally similar, but differ only in what moves. While in (3b) a full Locative DP moves to SpecT, in (3c) it is a locative pro which moves.

I will also deal with locative inversion constructions like (4) below:

- (4) Mu kibúga haagumye abakinnyi.
 mu ki-búga ha-a-gum-ye a-ba-kinnyi
 LOC18 7-pitch 16.SM-PST-stay-PERF AUG-2-players
 'The players stayed on the pitch.'

The construction in (4) is similar to (3c) but no clitic attaches to the verb. I will show that if the locative expression is dropped in constructions such as (4), two interpretations may result, which correspond to a locative and a non-locative (expletive) construction. Despite the surface resemblance between the structure of an expletive construction and that of locative inversion, the two constructions have a different underlying syntax.

Summarizing the above, this study contributes to the existing literature in the following ways:

- (i) It clarifies the syntactic status of locative prefixes/markers in Kinyarwanda, showing that they are determiners rather than prepositions. Although their semantic properties are similar to those of prepositions in languages such as English, I show that Kinyarwanda locative prefixes/markers are *syntactically* like determiners and hence belong to the same syntactic category as augments and demonstratives.
- (ii) It offers an analysis of the internal structure of the locative clitic. The locative clitic is not a preposition or an affix as argued in the literature. It is rather a complex head resulting from the combination of a locative prefix and a personal pronoun stem. As I will show, the locative prefix and the pronominal stem can be combined via incorporation, in which case the locative clitic is derived syntactically.
- (iii) The two different positions of the locative clitic in a locative shift construction (see (2b) and (2c)) are also accounted for by my study. As noted above and in (ii), I show that the clitic in locative shift constructions is a morphologically complex head derived by incorporation of the head of a "big DP_{Loc}" into the pronominal head of the small clause, which then moves further and adjoins to Linker, a functional head that serves as a landing site for the Locative DP. If the clitic remains in Linker, a locative shift construction with

a clitic between the two objects is derived; if the clitic moves further and attaches to the verb, it precedes both objects.

- (iv) My study also reveals the parallels between locative shift and both types of locative inversion constructions. I show that all these constructions can be accounted for under one umbrella analysis based on the projection of the small clause from which a Locative DP/pro moves to the specifier of the Linker (SpecLk) or to SpecT. If the Locative DP remains in SpecLk, locative shift is derived. If it moves to SpecT, semantic or formal locative inversion is derived. The difference between semantic and formal locative inversion lies in the noun class of the Locative DP which undergoes movement. If this DP belongs to a non-locative noun class, the result is semantic locative inversion; if the DP is a pro of class 16, the result is a formal locative inversion construction.
- (v) My study also offers a novel analysis of the object (a)symmetries in locative shift constructions, which is based on phase theory. The *Heavy Edge Constraint* that I propose governs the phonological realization of the edge of certain phases in Kinyarwanda and explains why the Theme DP can acquire primary object properties in locative shift constructions if and only if the Locative DP is moved away from the edge of the Linker phase.
- (vi) Finally, my study offers a thorough empirical discussion of the semantic type and argument structure properties of predicates that allow locative inversion in Kinyarwanda. This discussion enables me to add Kinyarwanda locative inversion to the typology of locative inversion in Bantu.

1.2 Theoretical framework

In this research I adopt the framework of the Principles and Parameters theory (Chomsky 1981, 1986a, 1986b), more specifically the assumptions and ideas that characterize the Minimalist Program (Chomsky, 1995). The Principles and Parameters approach to language suggests that there is a set of universal principles that underlie the grammars of all human languages, together with a finite number of parameters that determine linguistic variation (Chomsky, 1965). To know

a language means to have the (underlying) knowledge of these universal principles, but also to have acquired the respective parameter settings which define exactly how the universal principles need to be applied in order to construct grammatical sentences in one's particular language (see Chomsky (1986a, 1986b, 1995); Cook, (1988)). The Minimalist Program is a version of the Principles and Parameters theory, which places emphasis on economy, simplicity, elegance, and naturalness (Chomsky, 1995). It is a derivational approach which is based on the following key concepts: (external) Merge, Move (internal Merge), and Agree.

According to Chomsky (1995), Merge is a process in which two constituents are combined to form one single constituent. Phrases and sentences are derived through the recursive application of the operation Merge. There are two types of Merge: external Merge and internal Merge. According to Chomsky (1995: 243), external Merge consists in combining objects α and β to form the new object K. When α or β are taken from the syntactic object already constructed, the process is called internal Merge, which is the same as Move. Move/internal merge is the displacement of objects from where they have first been merged to a target position. The displaced element leaves an unpronounced copy (or trace) behind.

The displacement of syntactic objects or movement is triggered by morphological properties (grammatical features) of items involved in the derivation (see also Ura, (2000); Radford, (2004); Collins, (2004); Stroik, (2009); Rizzi, (2006); and others). Movement is generally considered a consequence of the operation Agree (but see below) which establishes agreement between the grammatical features of two functional categories. For Agree to take place, an uninterpretable feature of a functional category F (called the "probe") searches for a goal, the corresponding interpretable feature of an XP in a specific domain (typically F's c-command domain). When the probe finds a goal with matching features, Agree can take place: the uninterpretable feature of the probe is valued (or checked) and deleted in the mapping to LF. In some languages, an agreeing goal-XP can remain in situ, but often, Agree between a probe and a goal is followed by movement of the goal-XP to the specifier of F (see below).

Baker (2008b: 40) summarizes the conditions for Agree postulated in Chomsky (2000, 2001) as follows:

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

Condition (5a) states that in order for agreement between a probe and a goal to take place, F must c-command the XP it agrees with. Condition (5b) is a locality condition: Agree requires *closest* c-command; a probe P on F can only agree with the *closest* goal G in its c-command domain, with closeness defined as in (6) (see Chomsky (2000: 122)):

- (6) *Locality*: D(P) is the c-command domain of P, and a matching feature G is closest to P if there is no G' in D(P) matching P such that G is in D(G').

Locality conditions also hold for internal Merge/Move. In this thesis, I will adopt the version of a locality condition on movement known as the Minimal Link Condition (MLC). It is a condition that excludes an element from moving to a position K if there is another element with the same features which is closer to the landing site:

- (7) *Minimal Link Condition* (Chomsky, 1995: 311)

K attracts α only if there is no β , β closer to K than α such that K attracts β .

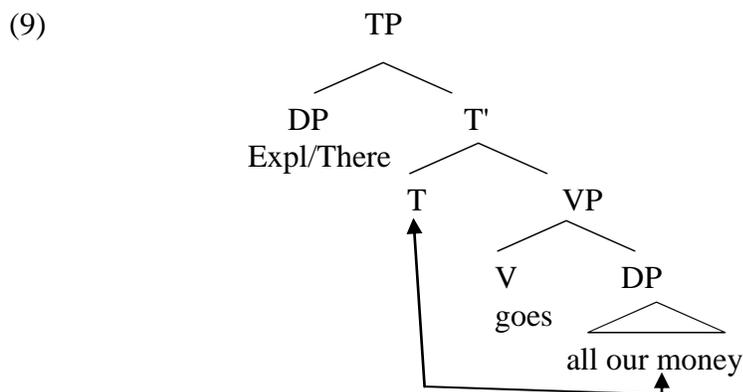
(5c) captures the fact that syntactic operations like Move and agreement relations between elements are constrained by *phases*. (I describe the concept of a phase below). Finally, the activity condition in (5d) states that a syntactic element can only participate in an Agree relation if it has an unvalued/unchecked case feature. For example, if the phi-features (person, number, gender) of the inflectional category T act as a probe and searches for the interpretable phi-

features of a DP as a goal, they can only agree with a DP which has an unchecked/unvalued Case feature.

As already noted, Agree between a probe and a goal is often accompanied by movement of the goal-XP to the specifier of the head F which hosts the probe. This movement is triggered by an EPP-feature associated with F, which can only be checked if F's specifier is filled. However, movement of the goal to the probe is subject to parametric variation. In some languages, the goal does not have to raise to the functional head in order for agreement to take place. For example, in languages such as English, subject movement is not always required:

- (8) a. All our money *goes* there.
 b. There *goes* all our money!

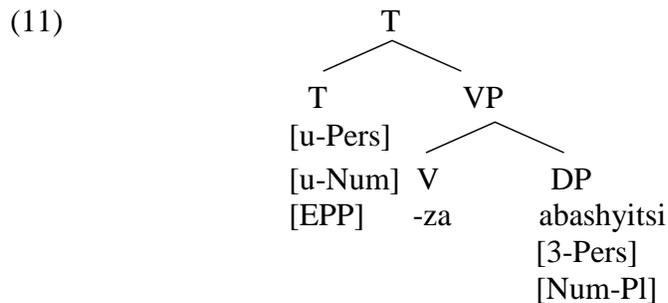
In (8), T probes in its c-command domain and finds the phi-features of the Theme DP *all our money*. T then agrees with the DP *all our money* in person and number and assigns nominative Case to the DP. In (8a), the subject is then attracted by T's EPP-feature and moves to SpecT, but crucially in the exclamation sentence in (8b), the DP remains in situ in VP. The expletive *there* is merged in SpecT to satisfy the EPP requirement. The grammatical sentence in (8b) can therefore be syntactically represented as follows:



In contrast to English, in Bantu languages like Kinyarwanda, agreement between T and a Theme DP is not possible unless the DP moves to SpecT. This is illustrated by the following Kinyarwanda sentences:

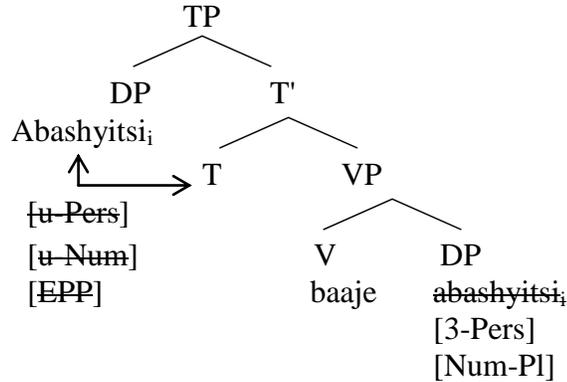
- (10) a. Abashyitsi babiri baaje.
 a-ba-shyitsi ba-biri ba-a-a-z-ye
 AUG-2-guests 2-two 2.SM-PST-DJ-come-PERF
 'Two guests have come.'
- b. *Baaje abashyitsi babiri.
 ba-a-z-ye a-ba-shyitsi ba-biri
 2.SM-PST-come-PERF AUG-2-guests 2-two
 Intended: 'Two guests have come.'

Being an accusative verb, the verb *-za* 'come' merges with the DP *abashyitsi* 'visitors'. When T merges, it probes for a goal with phi-features (phi-features are expressed by noun class features in Bantu languages) to establish an Agree relationship. In (10a), T finds the Theme DP *abashyitsi* and an Agree relation is established between T and the Theme DP *abashyitsi*:



However, (10b) demonstrates that it is not possible to leave the agreeing Theme-DP inside the VP. The word order V-subject is not possible in Kinyarwanda (and in many other Bantu languages) when the verb and the subject DP agree. Based on this observation, various analyses and parameter settings have been suggested in the literature that link agreement in Bantu directly to movement (Baker, 2003, 2008a; Carstens, 2005; Collins, 2004; Zeller, 2008). In this thesis, I adopt the proposals of Baker (2003) and Carstens (2005) and assume that in Kinyarwanda, probing phi-features of a functional head F are always associated with F's EPP-feature. This has the consequence that the EPP-feature of an agreeing head F can only be checked by the goal-DP with which F agrees:

(12)

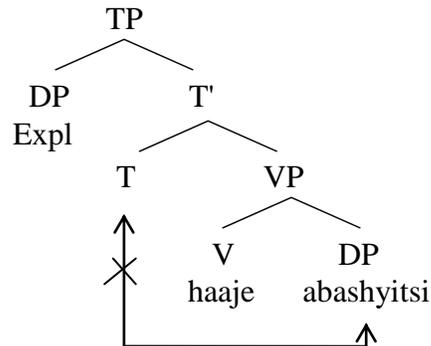


Notice that a grammatical sentence with the Theme-subject *abashyitsi* in situ can also be derived in Kinyarwanda. However, in this case there is no agreement between T and the subject:

- (13) Haaje abashyitsi babiri.
 ha-a-z-ye a-ba-shyitsi ba-biri
 16.SM-PST-come-PERF AUG-2-guests 2-two
 'Two guests have come./It is two guests who have come.'

In (13), T does not agree with the subject DP, which therefore has remained inside the VP. In order to satisfy the EPP requirement of T, an expletive *pro* is instead merged in SpecT. This derives the sentence in (13) as represented in (14). The subject marker *ha-* is a default prefix required by morphology as there are no phi-features on T.

(14)



(13)/ (14) also illustrate that movement and agreement in Kinyarwanda are independent of Case (see Baker 2003; 2008; Carstens 2005). I assume that the subject DP receives nominative Case from T under c-command in both (10a) and (13). Therefore, in (10a), the case-marked subject

also agrees with T, but since it remains in situ in expletive constructions such as (13), nominative case assignment can also take place without agreement.

Let me now return to Chomsky's phase condition in (5c), which will be of importance in the analysis of locative constructions. According to Chomsky (2000, 2001, and subsequent work), derivations proceed in cycles, and a phase is one part of the derivation that constitutes such a cycle. Chomsky (2000) states that in order for agreement to take place between a head F and XP, both F and XP must be contained in the same phase. Phases can be headed by a number of possible categories. Such categories include C (Complementizer), D (Determiner), and ν (light verb). According to Chomsky (2000, 2001), strong phases are CP (headed by C) and ν P (headed by ν) because they are 'propositional'. CPs represent a complete functional complex, which includes a specification of a sentence force such as indicative and interrogative, while ν Ps represent a complete thematic argument structure including an external argument. In contrast, intransitive ν Ps (e.g. in unaccusatives and passives) and TPs are not phases.

According to Chomsky (2001), derivations take place phase by phase and must obey the Phase Impenetrability Condition (PIC).

(15) *Phase Impenetrability Condition* (Chomsky, 2001:13)

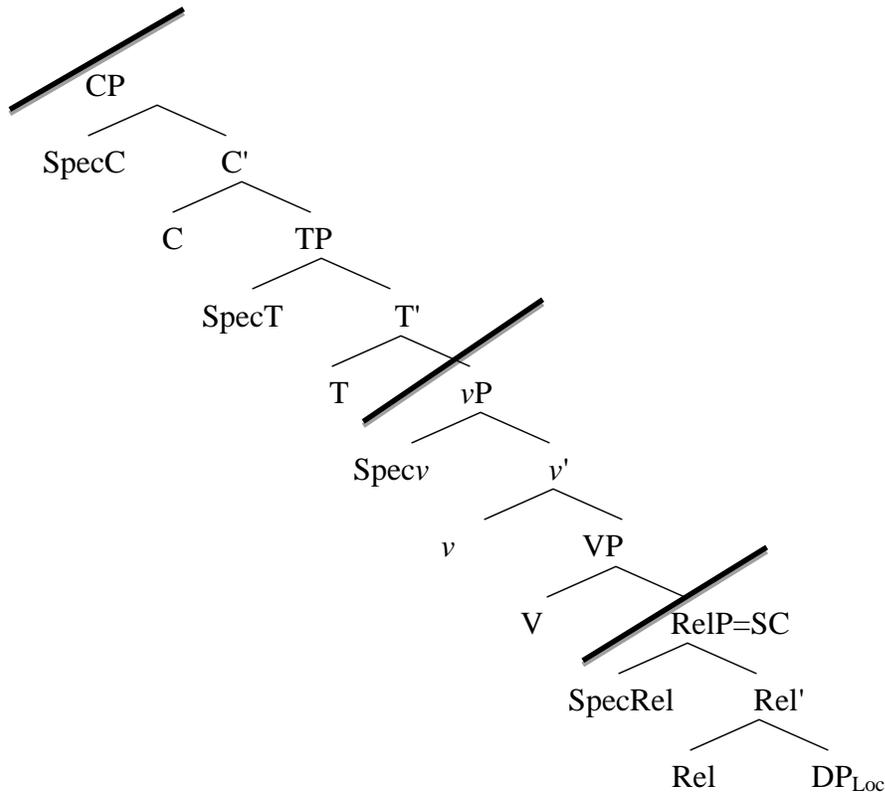
In phase α with head H, the domain of H is not accessible to operations outside α , only H and its *edge* are accessible to such operations.

The PIC as defined in (15) means that once a phase is complete, movement and agreement operations can target its head and constituents in its edge while elements in the domain of the head become impenetrable to further syntactic operations. While the edge of a phase refers to adjuncts and specifiers, the domain of a phase means the complement of its head. According to the PIC, the domain is transferred to PF to be assigned an appropriate phonological representation and to LF to be assigned a semantic representation.

In this thesis I adopt the phase theory. I will assume that CPs and ν Ps are phases, but I will suggest that other categories can be phases as well. In particular, I will adopt the proposal made

by Den Dikken (2006, 2007) and assume that phases can be extended by head movement: if a head H is a phase and moves to the head X of a dominating category, the phase is extended to the level of XP. I will also assume that in locative constructions, VPs select a small clause, which I call RelP (Relator Phrase), following Den Dikken (2006, 2007). The Relator Phrase is a phase on par with CPs, *v*Ps, and DPs, and therefore subject to the PIC. Thus, my analysis of locative constructions will be based on a structure like (16), which represents CP, *v*P and RelP phases, whose boundaries are shown by the thick lines.

(16)



According to phase theory, in the above structure, movement to a position outside vP or $RelP$ can target elements in $Specv$ and $SpecRel$ respectively, as $Specv$ is the edge of the vP phase while $SpecRel$ is the edge of the $RelP$ phase. In contrast, movement to a position outside the $RelP$ phase cannot target the DP_{Loc} inside $RelP$ as this would violate the PIC defined above: the DP is in the domain of Rel , the head of the phase, hence it is inaccessible for movement. As I will show, for the DP_{Loc} to escape the $RelP$, it will have to move to the edge of $RelP$ first; movement to a position outside $RelP$ must therefore proceed successive-cyclically via $SpecRel$.

Finally, I will resort to the theory of incorporation to account for movement of material out of complex DPs. I assume that when the head of the DP_{Loc} -complement of Rel in (16) incorporates into the Relator head, it allows its own complement to move out of DP_{Loc} to $SpecRel$. As noted above, my analysis allows for the Locative DP-complement in (16) to be a "big DP_{Loc} ", whose head selects another DP (the Locative DP). The "big DP_{Loc} " being a phase, incorporation of its

head allows subsequent movement of the Locative DP to the edge of the Relator phase from where it can be attracted by a higher probing head.

1.3 Background to the Kinyarwanda language

As is indicated by the title of this dissertation, the study is about Kinyarwanda, a language spoken in Rwanda and its neighboring countries. The word *Kinyarwanda* is referred to as *ikinyarwanda* by its native speakers. It is morphologically analyzed as *i-ki-nya-rwanda*: *i-* is an augment or pre-prefix; *ki-* a prefix of class 7, the class in which language nouns belong; *nya-* is another prefix used to derive nouns from other nouns, meaning 'belonging to', 'which has to do with' or 'related to', etc.; and *rwanda* the country where the language is spoken. The meaning of the word is thus 'the language of Rwanda'. This word also refers to the Rwandan culture and customs. In other languages (e.g. French, English, Swahili), the prefix *i-* is dropped, which is why the language is known to non-native speakers as *Kinyarwanda*.

Kinyarwanda belongs to Group D61 in Guthrie's (1971) classification, but it was later reclassified by Meeussen and other Belgian scholars as belonging to J61 (Maho, 2007; Nurse & Philippson, 2003). It is among the few Bantu languages spoken by all the citizens of a whole nation. Kimenyi (2009) suggests that Kinyarwanda is a Bantu language that has the second largest number of speakers after Kiswahili, with an estimated number of 20 million. This figure includes all Rwandans living in Rwanda, which was 10.5 million according to the results of the 2012 national census as well as Congolese of Rwandan origin from South Kivu and North Kivu provinces, Ugandans in the west-southern province of Bufumbira, and some speakers from Tanzania as well as Burundians (Kayigema, 2010; Kimenyi, 2009; Nkusi, 1995).

Kinyarwanda is very similar to Kirundi, another Bantu language spoken in Burundi; they are mutually intelligible to such an extent that they may be considered as dialects of one language (Gasarabwe, 1992; Goldsmith & Mpiranya, 2010). Gasarabwe suggests, for example, that a name should be found that would include both Kinyarwanda and Kirundi as two dialects of one language. In fact, the difference between the two languages lies mainly in intonation, in a limited number of vocabulary, and to a lesser extent, in grammar (see for example Ngoboka & Zeller, (to appear) for a discussion of grammatical differences between Kinyarwanda and Kirundi regarding

the so-called conjoint/disjoint alternation). Gasarabwe (1991:142) goes so far as to state that there may be greater differences between varieties within Kinyarwanda and Kirundi than between the two languages. Kinyarwanda is also mutually intelligible with Ha, another Bantu language spoken in Tanzania.

Kinyarwanda is a national language of Rwanda and currently one of the three official languages along with English and French. It is used for all communication purposes. Most official functions in Rwanda are performed in Kinyarwanda. For instance, official/formal and informal meetings are held in Kinyarwanda. Various official documents, including the official Gazette of the Republic of Rwanda, have a Kinyarwanda version. Laws are written in Kinyarwanda, and court proceedings are conducted in this language. For many years, the medium of instruction in primary education was Kinyarwanda. The constitution of 24 November 1962 specifies that the national language of the Republic of Rwanda is Kinyarwanda and that the official languages are Kinyarwanda and French (Kanyamibwa (1997) cited in Bazirake (2006)). Until 1994 there were only two official languages in Rwanda, Kinyarwanda and French. In 1994, English was adopted as a third official language along with Kinyarwanda and French. Since 2009 English has become the sole medium of instruction for the Rwandan education system.

Despite the fact that all Rwandans speak the same language, it should be noted that some varieties can be identified. The most distinct ones are Kirera and Kigoyi, which are spoken in the northern and north-eastern parts of the country, respectively. The two dialects will be referred to from time to time in the sketch of Kinyarwanda grammar in chapter 2. Besides these varieties, there are a few languages spoken at the borders of Rwanda with neighboring countries. Such languages include among others, Oluchiga at the border with Uganda in the north, Havu at the border with the DRC in the west, and Olunyambo at the border with Tanzania, in the East. As far as I know, these languages, as well as the varieties mentioned above, have not been systematically documented as languages spoken in the country.

It should be noted here that Kiswahili is another language spoken in Rwanda as the fourth language, along with Kinyarwanda, English, and French. However, it has neither a national nor an official language status; it is mainly used in business, informal and personal communication,

and its speakers are found almost exclusively in urban areas. However, with Rwanda being a member of the East African Community, in which Kiswahili is the major language of communication, some attempts are being made to promote the status of Kiswahili in Rwanda.

Like all other Bantu languages, Kinyarwanda is a tone language, distinguishing high tone and low tone (toneless) syllables. Generally two types of tones are identified in Kinyarwanda: lexical tone and grammatical tone. Lexical tone is the tone carried by a syllable of a word which is part of the meaning of the word and which distinguishes a word from another word if they share segmental features. As an example, a lexical tone distinguishes the word *kubara* 'to count' from *kubára* 'to tell (a story)'. As for grammatical tone, it is a tone that appears on the verb in connection with TAM or other functions. For example, the verb *-gura* 'buy' is a toneless verb but it can acquire a high tone in different contexts, e.g. in a relative clause such as *abaantu bagúra ibitabo* 'people who buy books', in the negative form such as *ntibagúra* 'they don't buy', etc. Notice that a high tone can also appear on the subject marker in conditional mood as *Báguze...* 'If they bought... ' (see also chapter 2, section 2.1).

Finally, I wish to stress here that Kinyarwanda is based on the noun class system. It has 16 noun classes, including the locative class 16, plus three more locative classes (classes 17, 18, and 19). Like in other Bantu languages, the noun class prefix is marked on the verb and the nominal modifiers as an agreement marker. This is possible in noun classes 1-16, but not with the locative classes 17, 18, and 19. While the class 16 prefix behaves like other noun class prefixes by being marked on the verb and noun modifiers, prefixes of classes 17, 18, 19 have a different agreement mechanism. Instead of each prefix being marked on the verb, only the class 16 prefix *ha-* marks agreement for all the locative classes. More details about locative noun classes and agreement are provided in the relevant chapters that follow.

1.4 Outline of the thesis

Chapter 2 of this thesis provides an introduction to the structure of Kinyarwanda. It sets the scene for the analyses in the following chapters by providing a brief discussion of Kinyarwanda phonology (phonemes and tone), its noun class system, pronouns, and the morphology of the verb.

Chapter 3 deals with locative noun classes. The Kinyarwanda locative markers *ku-*, *mu-*, *i-* are often referred to as locative prefixes or prepositions. The chapter investigates their syntactic status and concludes that they are determiners. The chapter also highlights the relationships between the locative markers *ku-*, *mu-*, and *i-* and the locative clitics *hó*, *mó*, and *yó*, and offers an analysis of the morpho-syntactic properties of the clitics.

Chapter 4 provides an analysis of locative shift constructions which were illustrated in example (2) above. The chapter argues that the derivation of locative shift involves the projection of a small clause whose subject is the Theme and whose predicate contains the Locative DP. I show that the Locative DP that becomes the primary object of the locative shift construction originates in the small clause, but moves to a higher position. This movement is made possible by incorporation of the head of the small clause predicate, the locative marker, into the head of the small clause, and the projection of a functional head, the Linker (Den Dikken 2006, 2007), whose specifier serves as the landing site.

Chapters 5 and 6 deal with semantic locative inversion and formal locative inversion, respectively. I show that the two constructions are related and derived in the same way, although the status of the preposed locative DP in semantic locative inversion and that of the locative expression in formal locative inversion are different: the Locative DP in semantic locative inversion is the subject of the sentence while the locative expression in formal locative inversion is a topic projected in the left periphery.

Chapter 7 provides the conclusions of the dissertation.

CHAPTER TWO: A GRAMMATICAL SKETCH OF KINYARWANDA

This chapter presents the key grammatical properties of the Kinyarwanda language that will be of relevance in the analysis of locative constructions. I introduce Kinyarwanda phonology, the noun class and agreement system, some pronouns – notably demonstratives and personal pronouns, which I return to in subsequent chapters, as well as the Kinyarwanda verb morphology. A descriptive account of locative classes 16, 17, 18, and 19 is provided in this chapter.

2.1 Kinyarwanda phonology

2.1.1 Vowels

Kinyarwanda has five vowel sounds: /i/, /e/, /a/, /o/, and /u/. All these vowels can be long: /ii/, /ee/, /aa/, /oo/, /uu/.

2.1.2 Consonants

Kinyarwanda has the consonant sounds shown in the table below:

Table 1: Kinyarwanda consonant sounds

		Bilabial	Labio-dentals	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Nasal		/m/		/n/		/ɲ/		
Plosives	Voiced	/b/		/d/			/g/	
	Voiceless	/p/		/t/			/k/	
Fricatives	Voiced		/v/	/z/	/ʒ/			/h/
	Voiceless		/f/	/s/	/ʃ/			
Liquids				/r/				
Glides		/w/				/j/		

Some authors include the combinations of *cy* and *shy* in palatals. As Nkusi (1995) suggests, these are complex biphonemic sounds; thus, there is no reason for including them in the table because if they were, other combined sounds such as *by*, *py*, *ts*, *ty*, etc., should also appear in the table.

Note that the liquid /l/ does not exist in the Kinyarwanda phonology. Thus it does not appear in the Kinyarwanda spelling apart from a few exceptions specified in the instructions of the Minister of Sports and Culture no.001/2014 of 08/10/ 2014.

2.1.3 Tone and vowel length

Kinyarwanda is a tone language, but, as is the case for some other Bantu languages, the official orthography does not provide for tone marking. While the Decree of the Minister of Education no. 13.02/03.2/003 of 02/07/1985 stipulates that tone should be marked only in scientific works for academic or research purposes, the instructions of the Minister of Sports and Culture (Instructions no. 001/2014 of 08/10/2014) state that vowel length and tone must be marked only in case their absence may lead to confusion or mispronunciation.

The diacritics internationally used for tone marking are a grave accent (`) for low tone and acute accent (´) for high tone as in the words: *limwé* 'one', *gùtémá* 'cut', *ìntààmà* 'sheep'. However, for practical reasons, low tone is not generally marked, and the absence of a tone mark on a syllable means that the tone is low or the syllable is toneless. This is the convention I have adopted in this thesis.

Kinyarwanda orthography recommends that in scientific works, a high tone vowel bears a circumflex accent (^) and that a low tone vowel be unmarked. Thus, the word *gutéma* would be tone marked as *gutêma*. Long vowels are doubled as in *kureeba* 'look' or *umwaânya* 'space'. In this thesis, I have used the acute accent instead of the circumflex accent, given that it is more practical. The low tone is not marked.

Two types of tone can be distinguished in Kinyarwanda: lexical tone and grammatical tone.

Lexical tone: A lexical tone is a distinctive pitch of a particular syllable of a word that contributes to the meaning of a word in isolation. It is this feature that enables us to distinguish two lexical items that otherwise would not be distinguished in the orthography. It can be called an inherent tone and can also be verified in a dictionary since words are presented there as lexical entries. In this respect, in Kinyarwanda there are a number of pairs or even three lexical items that can be distinguished by tone alone, vowel length, or tone and vowel length together. Below are examples of this for verbs in (1a) and nouns in (1b):

- (1) a. *gukúura* 'grow' vs. *gukúura* 'remove'
gukeka 'burn' vs. *gukéeka* 'suspect'
gusóba 'forget' vs. *gusooba* 'urinate'
kubúra 'miss' vs. *kubúura* 'signal a danger'
- b. *ibara* 'counting' vs. *ibára* 'color'
ikireere 'dry bark of a banana tree' vs. *ikiréere* 'the air'
umusaambi 'mat' vs. *umusáambi* 'crane'
isokó 'market' vs. *isóoko* 'water source'
itara 'fermentation' vs. *itára* 'lamp' (and also *itaara* 'collection')

Grammatical/syntactic tone: This tone conveys grammatical information. In Kinyarwanda, grammatical tone is carried by a verb mainly to mark the contrast between different grammatical features. Let us illustrate this with the high tone that appears on the verb in negative sentences, as in (2), in relative clauses, as in (3), and on the verb in the conjoint form, as in (4).

- (2) a. Abakiré bagura imyeénda keénshi.
a-ba-kiré ba-gur-a i-mi-eénda keénshi
AUG-2-rich.people 2.SM-buy-FV AUG-4-clothes often
'Rich people often buy clothes.'
- b. Abakiré ntibagúra imyeénda keénshi.
a-ba-kiré nti-ba-gur-a i-mi-eénda keénshi
AUG-2-rich.people NEG-2.SM-buy-FV AUG-4-clothes often
'Rich people don't often buy clothes.'
- (3) a. Dutema ibití.
tu-tém-a i-bi-tí.
1P-cut-FV AUG-8-trees
'We cut trees.'

- b. *ibití dutemá*
i-bi-tí tu-tém-a
 AUG-8-trees 1P-cut-FV
 'the trees that we cut'

- (4) a. *Yohaáni acuruuza inyama.*
Yohaáni a-cúruuz-a i-nyama
 1.John 1.SM-sell-FV AUG-10.meat
 'John sells meat.'
- b. *Yohaáni aracúruuza.*
Yohaáni a-ra-cúruuz-a
 1.John 1.SM-DJ-sell-FV
 Lit: 'John sells.'
 'John is a seller.'

The verb *gura* 'buy' in (2) is a low tone verb but it acquires a high tone in (2b) when associated with the negative marker *nti-*. In (3b) the high tone that appears on the last syllable marks relativization of the verb. In relative clauses, the verb must bear a high tone whether it is an underlying one or not, but the syllable to which it is assigned depends on the complexity of the verb. The examples in (4) illustrate the cases of what is known as conjoint/disjoint alternation. In Kinyarwanda, when a verb is not followed by any constituent, for example in the simple present tense, it is marked with the morpheme *ra-* but also the lexical high tone is maintained, as in (4b). In contrast to the disjoint form, the conjoint form in (4a) does not have any grammatical marking, but if the verb has a high tone, it becomes low (see Ngoboka & Zeller (to appear) and references cited therein).

Consider also the word *basoma*, from the toneless infinitive *gusoma* (*ku-som-a*) 'to read', a verb conjugated in the third person plural. At first glance or when considered out of context, the first meaning that comes to mind is 'they read', that is, the simple present tense. However, this word may have up to six different interpretations in different contexts based on the different

tones/vowel length it can bear, as shown in the following examples. These interpretations include indicative, hypothetical, conjunctive, etc.:

- (5) abáana **basoma** ibitabo : children read books
 abáana **baasoma** ubíbategetse: : children can read if you order them to do so
 abáana **basomá** batsiinda néézá: : children who read pass well
 abáana **baasomá** ibi bitabo ni abáahe? : which children would/can read these books?
 abáana **básoma** baatsíinda: : if children read, they would pass
 abáana **báasoma** bátaasoma, byóose ní : whether children read or not, it is all the same
 kimwé

These examples, and similar ones, are an indication that tone/vowel length greatly contributes to the meaning of a word in a particular sentence (see Goldsmith & Mpiranya (2010) for rhythm, quantity, and tone in the Kinyarwanda verb).

Goldsmith & Mpiranya (2010) further note that there is tone competition in Kinyarwanda. For example, a lexical (underlying tone) of a verb is deleted if there is a post-stem high tone. This is illustrated in (3b) above in which the verb *-téma* 'cut' has a high lexical tone on the first syllable, but this high tone is deleted and a high tone appears on the last syllable as result of relativization. Also, consider the verb *-bóna* 'see', which bears a high lexical tone on the stem.

- (6) a. *kubóna* 'to see'
 b. *kutáboná* 'not to see'

The underlying high tone on the first syllable *-bóna* in (6a) has been deleted in (6b), but there is a high tone on the last syllable that is associated with the negative marker *tá-*.

With regard to tone spread in general, the high tone tends to spread leftward. Below are examples in which the tone on the stem spreads to the left following the number of object markers on the verb (Goldsmith & Mpiranya, 2010:34) (with my own translation):

- (7) n-ra-bón-a : I see (no object marker)
 n-ra-**mú**-bon-a : I see him (one object marker)
 n-ra-**kí-mú**-bón-er-a : I see it for him (two objects markers)
 n-ra-**kí-há-mú**-bon-er-a : I see it for him there (three object markers)

In some instances, a toneless word may acquire a high tone depending on its position in the sentence (Kimenyi, undated). For instance, Kimenyi notes that the verb *geenda* 'go', which is toneless in its imperative form, acquires a high tone when preceded by another word, as shown in (8a). A similar example is that of the copula *ni* in (9b), which acquires a high tone because it follows another word in a sentence.

- (8) a. *Geenda*. 'Go.'
 b. *Ubu géenda*. 'Now go.'
 (9) a. *Ni wé*. 'It is him.'
 b. *Uyu ní wé*. 'This one is him/her (this is the one)'

2.2 The Kinyarwanda noun class system

One of the well-known characteristics of Bantu languages is that nouns are divided into classes with gender and number features. The grammatical gender has nothing to do with sex. Rather, it is the way nouns are morphologically and semantically grouped. With regard to the number feature, some noun class prefixes generally convey plurality while others convey singularity. It is this pairing of singular and plural nouns that is referred to as gender. For instance, the pairing in Kinyarwanda of the nouns *umugezi* (cl.3, singular) 'river' and *imigezi* (cl.4, plural) form a gender (cf. Carstens (1991, 2008) and Harjula (2006) for more details).

In some Bantu languages, there are up to 25 noun classes, but the minimum number is 10. Kinyarwanda has 15 noun classes and four locative classes: 16, 17, 18, and 19. Most nouns consist of a pre-prefix (augment), a prefix (noun prefix), and a stem. Where the augment exists, it matches the vowel in the noun prefix. This is illustrated in the nouns *umusóre* (*u-mu-sóre*) 'young man'; *ikibiíndi* (*i-ki-bííndi*) 'pot', and *amabuye* (*a-ma-buye*) 'stones', in which the patterns

u-u, *i-i*, and *a-a* can be observed. It must be noted that although class 16 is classified as a locative class in Kinyarwanda, it differs from the other three locative classes (see below).

Table 2: Noun classes

Class	Augment (pre- prefix)	Prefix	Example	Length and tone marked	Meaning
1	u	mu	u-mu-sore	umusóre	young man
2	a	ba	a-ba-sore	abasóre	young men
3	i	mu	u-mu-gozi	umugozí	string
4	i	mi	i-mi-gozi	imigozί	strings
5	i	ri/∅	i-ri-inyo i-∅-buye	iryíinyo ibuye	tooth stone
6	a	ma	a-ma-inyo	améenyoy	teeth
7	i	ki	i-ki-uma	icyúuma	metal
8	i	bi	i-bi-uma	ibyúuma	metals
9	i/∅	n/∅	i-n-ka i-∅-suka ∅-dodo	inká isúka doodó	cow hoe amaranthus
10	i/∅	n/∅	i-n-ka dodo	inká doodó	cows amaranthus
11	u	ru	u-ru-dodo	urudódo	thread
12	a	ka	a-ka-rere	akaréeré	region
13	u	tu	u-tu-rere	uturéeré	regions
14	u	bu	u-bu-kene	ubukené	poverty
15	u	ku	u-ku-guru	ukuguru	leg
16	a	ha	a-ha-ntu	ahaantu	place
17		ku	ku mu- sozi	ku musózi	on the hill
18		mu	mu ma-zi	mu máazi	in water
19		i	i Kigali	i Kigalί	at Kigali

Although noun classes in Bantu languages are generally grouped in pairs of singular and plural, some nouns have no singular/plural pairing. These include: some nouns derived from infinitives referring to manner/conditions in class 4: *imyíigire* (*i-mi-úg-ir-e*) 'way of studying', *imibéerehó* (*i-mi-ba-ir-ho*) 'living conditions'; nouns referring to liquids in class 6: *amatá* (*a-ma-tá*) 'milk', *amavúta* (*a-ma-vúta*) 'oil'; abstract nouns in class 14: *ubumenyi* (*u-bu-menyi*) 'knowledge', *ubuzima* (*u-bu-zima*) 'health/life'; infinitival nouns with or without an augment in class 15:

kuuza/ukuuza 'come/coming'; and some other nouns from different classes: *amaganyá* (*a-ma-ganyá* cl.6) 'wailing, complaint', *imbáragá* (*i-n-báragá* cl.10) 'strength', *ukurí* (*u-kurí* cl.15) 'truth', and *ahaantu* (*a-ha-ntu*/cl.16) 'place' (see Nkusi, 1995 for further details).

From the table above, it can also be noted that nouns in class 9 and those in class 10 have the same morphology and cannot be distinguished if they are out of context. They become distinct in a sentence when they agree with the verb or with an adjective or any modifier (see the details in section 2.3). This is also the case for classes 1 and 3 but, unlike classes 9 and 10, these classes differ semantically, one including humans and the other non-humans. Note also that the locative classes 17, 18, and 19 differ significantly from the other classes: they have a locative class marker instead of an augment.

Morphologically, the Kinyarwanda noun generally has an augment, a prefix, and a stem (and a suffix in some cases). Below, I briefly discuss the augment in section 2.2.1, the noun class prefixes of classes 1-16 in section 2.2.2, the agreement system in section 2.3, and present in some detail the locative classes 16, 17, 18, and 19 in section 2.4.

2.2.1 The augment

Most Kinyarwanda nouns begin with a vowel. This initial vowel is called augment or pre-prefix. Out of the 5 Kinyarwanda vowels, only three can be used as augments: *a*, *i*, and *u*.

As mentioned earlier, Kirundi and Kinyarwanda are very similar languages; Kirundi has exactly the same augments (i.e. *a*, *i*, and *u*). Luganda and some other languages spoken in Uganda such as Lunyankore differ from Kinyarwanda and Kirundi in that their augments are *a*, *e*, and *o* (see Hyman & Katamba, 1993). Kiswahili does not have augments apart from *u-* of class 11 and 14. It should be noted here that some Bantu languages only have them in class 9 or 6 (Mutaka & Tamanji, 2000).

It is argued that an augment is a vowel copy of the noun class prefix (Ndayiragije, Nikiema, & Bhatt, 2012). However, this needs to be modified (Bizimana, 1998); some nouns do not have

noun class prefixes (e.g. class 5), while some noun class prefixes do not contain a vowel (classes 10 and 9).²

The augment is dropped in some contexts because it does not have any semantic content. For example, in a vocative case, after demonstratives, in some question words, after locatives, in names of people and compound nouns, after some indefinite pronouns, the negative marker *nta*, etc. In fact, some authors (Hurel, 1956 cited in Nkusi, 1995:126) refer to it as an epenthetic vowel because it can be dropped without generally affecting the semantic content of the word. However, it is prefixed to words other than nouns to derive a nominal (pronoun). In this case, if it is dropped, the meaning may change. It is prefixed:

- (i) to a pronoun when the pronoun precedes the noun it modifies: *inzu yaawe* (house-your) 'your house' > *i-yáawé nzu* (your-house) 'your own house'
- (ii) to an associative to replace the noun it modifies: *uruugi rwaa Kagabo* 'door of Kagabo' > *u-rwaa Kagabo* 'that of Kagabo'
- (iii) to an adjective to turn it into a noun: *umugabo mutó* (man-small) > *u-mutó* 'the small one'
- (iv) to a finite verb in a relative clause to turn it into a free relative : *abaantu badakorá* 'people who do not work' > *a-badákorá* 'those who do not work'
- (v) to a numeral to mean 'in a group of': *abaantu babiri* (people-two) 'two people' > *a-babíri* 'forming a group of two' as in the proverb *Ababíri bíishe umwé* 'Two killed one' meaning 'Two people are stronger than one/Two heads are better than one.'
- (vi) to an absolute pronoun to turn it into a relative pronoun referring to the object: *bó* 'them' > *a-bóo nzí* 'those that I know'.

The derived words/phrases have the properties of nouns: they can function as subjects and objects, and they are found in all noun classes.

² Examples of nouns in which the augment is not the vowel copy of the noun class include the following: *i-zúuba* 'sun', *i-n-ká* 'cow'; *i-yoora* 'picking up'

2.2.2 The noun prefixes of classes 1-16

The noun prefix follows the augment if there is one. Each class has a different noun prefix apart from the classes 1 and 3, which share the prefix *mu-*, and classes 9 and 10, which share the prefix *n-*.

Classes 1/2: mu-/ba-: Proper nouns and augmentless nouns such as *maamá* 'mother', *mushíki waanjye* 'my sister', *maarúme* 'my uncle', *peresida* 'President', etc., belong here. However, in some cases, the noun prefix *baa-* (cl.2) is placed before common nouns like *maarúme* or proper nouns such as *Mugabo* to turn them into plural nouns. The name *Mugabo* can be referred to as *baa Mugabo* as *maarúme* can become *baa máarume*. *Baa maarúme* would be translated as 'my uncles' and *baa Mugabo* as 'Mugabo and company' (see Taljaard & Bosch (1993) for *hulle* in Afrikaans or *o* for Zulu). In some instances, however, the augmentless loan words such as *mama* and *papa* may take an augment and a noun-class prefix to become *umupapa* 'a father', *umumama* 'a mother'. In such a case they become indefinite.

Classes 3/4: mu-/mi-: the augment and noun prefix of class 3 are homophonous with those of class 1. However, despite having the same augment, nouns in classes 1 and 3 agree with the verb differently: *a-* for class 1 and *u-* for class 3.

Classes 5/6: i-ri, i-∅ /a-ma: Guthrie (1971) observes that in many Bantu languages, nouns in class 5 have lost the noun prefix. Generally, this is also true for Kinyarwanda. The augment is followed directly by the stem as in the following words: *ibuye* (*i-∅-buye*) 'stone', *ibabá* (*i-∅-babá*) 'feather'. However, a very small number of words in this class have maintained the noun prefix *ri-*. The examples include *iryúnyo* (*i-ri-inyo*) 'tooth' and *iryóoya* (*i-ri-oya*) 'feather'.

Classes 7/8: ki-/bi-: Some nouns in class 7 exhibit the noun prefix *gi-* instead of *ki-*. This alternation between *ki-* and *gi-* is known as Dahl's Law, i.e. a voicing dissimilation law according to which in some Bantu languages, voiceless stops, such as /k/, /p/ and /t/, are voiced (/g/, /b/, /d/) when immediately followed by a syllable with another voiceless stop. Examples includes the words *i-ki-biúndi*/**i-gi-biúndi* 'pot', and *i-gi-tí*/**i-ki-tí* 'tree'.

Classes 9/10: n- or \emptyset -: Both the classes 9 and 10 share the noun prefix *-n-* or zero (*- \emptyset -*) prefix. Here are examples: *inkokó (i-n-kokó)* 'hen', *isúka (i- \emptyset -súka)* 'hoe', *mudásobwá (- \emptyset - \emptyset -mudásobwá)* 'computer'. Augmentless nouns of class 10 are sometimes pluralized by placing the morpheme *zaa* before them. Compare *mudasobwa* 'computer/computers' and *zaa mudásobwá* 'computers'.

Class 11/10: ru-/n-: some nouns in class 11 have their plural form in class 10; others are uncountable and hence cannot be pluralized. For example, *urudódo* 'thread' and *urweémbe* 'razor' become *indódo* and *inzeémbe* in the plural, but *urume* 'dew' and *urufúro* 'foam' remain as such because they are uncountable/mass nouns.

Class 12/13: ka-/tu-: In some words *ga-* and *du-* replace *ka-* and *tu-* as noun prefixes. The alternation between the voiced and voiceless consonants (k/g and t/d) is related to the phonetic environment (see Dahl's Law above). This is illustrated by the following words: *akaguru (a-ka-guru/*a-ga-guru)* 'small leg'; *agasózi (a-ga-sozi/*a-ka-sózi)* 'small hill'; *utubaati (u-tu-baati/*u-du-baati)* 'cupboard'; *udutabo (u-du-tabo/*u-tu-tabo)* 'small books'.

Class 14/(6): bu-/ma-: Many nouns in class 4 are abstract nouns such as *ubukené* 'poverty', *ubumenyi* 'knowledge', *ubuuntu* 'generosity', *ubuhaánga* 'intelligence', and hence have no plural form. A few nouns in this class are both plural and singular but they may also have their plural form in class 6: *ubwáato bumwé* 'one boat' or *ubwáato butatu* 'three boats' or *amáato atatu (cl.6)* 'three boats'.

Class 15/6: ku- or u-ku-/ma-: In some phonetic environments, the noun prefix *ku-* is realized as *gu-* (see Dahl's Law). The class 15 has four nouns referring to parts of the body: *ukuguru (u-ku-guru)* 'leg' and *ugutwí (u-ku-twí)* 'ear', *ukubóko (u-ku-bóko)* 'arm', *ukwáaha (u-ku-áaha)* 'armpit'. These are nouns that have their plural in class 6 as *a-ma-guru*, *a-ma-twí*, *a-ma-bóko*, *a-ma-áaha*.

In addition to nouns such as *ukuguru* 'leg', class 15 includes all infinitives. The augment *u-* may be prefixed to the infinitive but an infinitive with or without an augment has the same meaning.

- (10) (U)kuuza kwaawe kuzaadushiimiisha.
 (u)-ku-z-a kwa-we ku-zaa-tu-shiim-iish-a
 15-15-come-FV 15.ASS-2S 15.SM-FUT-1S-please-INST-FV
 'Your coming will please us.'

Class 16: ha: Only one noun, *ahaantu* (*a-ha-ntu*) 'place', is found in this class. I return to class 16 in section 2.4 where I present locative classes in some detail.

2.3 The agreement system

In Kinyarwanda, as well as in all Bantu languages, the noun is the basis for the agreement system. Consider the following example where the noun *umugozí* (cl.3) 'string' triggers agreement on the other words in the sentence:

- (11) Unó mugozí muníni urabóneka, ndawúbona.
 u-no mu-gozí mu-níni u-ra-bónek-a, n-ra-wu-bon-a
 3-DEM 3-string 3-thick 3.SM- DJ-be.visible-FV 1S-DJ-OM3-see-FV
 'This thick string is visible, I see it.'

In this example, the noun *umugozí* 'string' triggers agreement on the demonstrative, on the adjective, and on the verb. Note, however, that the agreement marker varies depending on the category of the word that agrees with the noun. The noun *umugozí*, which is in class 3, is marked with *u-* on the demonstrative, and on the verb as a subject marker; with *mu-* on the adjective; and with *wu-* on the verb as an object marker. All these are agreement markers for noun class 3. Below is a table outlining noun prefixes, agreement markers on the verb (as subject or object markers), on adjectives and pronouns, including numerals.

Table 3: Agreement/concord markers

	Person/noun prefix	SM	OM	Agreement with adjectives	Agreement with pronouns including numerals
1 st pers.: sing.	n-	n-	-n-	mu-	
plural	tu-	tu-	-tu-	ba-	
2 nd pers: sing.	u-	u-	-ku-	mu-	
plural	mu-	mu-	-ba-	ba-	
3 rd pers.: classes 1	mu-	a-/u-	-mu-	mu-	u-
2	ba-	ba-	-ba-	ba-	ba-
3	mu-	u-	-wu-	mu-	u-
4	mi-	i-	-yi-	mi-	i-
5	ri-	ri-	-ri-	ri-	ri-
6	ma-	a-	-ya-	ma-	a-
7	ki-	ki-	-ki-	ki-	ki-
8	bi-	bi-	-bi-	bi-	bi-
9	n-	i-	-yi-	n-	i-
10	n-	zi-	-zi-	n-	e-
11	ru-	ru-	-ru-	ru-	ru-
12	ka-	ka-	-ka-	ka-	ka-
13	tu-	tu-	-tu-	tu-	tu-
14	bu-	bu-	-bu-	bu-	bu-
15	ku-	ku-	-ku-	ku-	ku-
16	ha-	ha-	-ha-	ha-	ha-
17	ku-	ha-	-ha-	ha-	ha-
18	mu-	ha-	-ha-	ha-	ha-
19	i-	ha-	-ha-	ha-	ha-
Reflexive			-ii-		

It can be noted from the table above that noun prefixes and adjective prefixes are identical in form, but subject markers and object markers are not identical with noun prefixes in all classes. Also, notice that in class 1, there are two subject markers: *u-* in relative clauses and *a-* in other cases (see Cheng (2006) and Henderson (2011, 2013) for anti- or alternative agreement).

The Kirera and Kigoyi varieties of Kinyarwanda differ from standard Kinyarwanda in terms of agreement markers in classes 3, 6, and 10. This is shown in table 4.

Table 4: Kirera and Kigoyi concords

	Class 3		Class 6		Class 10
	SM	OM	SM	OM	Numerals
Standard Kinyarwanda	u-	wu-	a-	ya-	e-
Kigoyi/Kirera Dialects	gu-	gu-	ga-	ga-	i-

2.4 The Kinyarwanda locative classes 16, 17, 18, and 19

Locatives in Kinyarwanda appear in four classes, namely classes 16, 17, 18, and 19. Each of these classes is described in some detail below.

2.4.1 Locative class 16: *ha-*

As indicated above, the class 16 includes only one attested locative noun *ahaantu* (*a-ha-ntu*).³ Although it is a locative class, it behaves more like non-locative noun classes. It has an augment, a real noun prefix that attaches to the root unlike the locative markers *ku-* and *mu-*, for example, which precede other noun prefixes.

Like nouns in other classes, the locative noun *ahaantu* controls concord on the verb, adjectives, and pronouns such as numerals, demonstratives, as well as the associative.

- (12) Aha **haantu** **haawe** ndaháazi ní heezá aríko
 aha ha-ntu ha-we n-ra-ha-zi ni ha-iizá aríko
 16.DEM 16-place 16-2S. 1S-DJ-16.OM-know be 16-nice but
 harakóonja.
 ha-ra-kóonj-a
 16.SM-DJ-be.cold-FV

'This place of yours, I know it, it is nice but cold.'

³There are other languages which, like Kinyarwanda, also have only one locative noun. One such an example is the locative DP *indawo* 'place' in Zulu. However, unlike in Kinyarwanda, the Zulu locative noun *indawo* does not belong to the locative class 17, but to the non-locative class 9 (Buell, 2012). Also, the noun *indawo* may take a locative marker, but such is not the case for the Kinyarwanda locative noun *ahaantu*.

The example in (12) shows that the noun *ahaantu* agrees with the demonstrative (*aha* 'this'), the possessive (*haawe* 'your'), the adjective (*heezá* 'nice'), the verb as an object marker (*ndaháazi* 'I know it'), as well as a subject marker (*harakóonja* 'it gets cold').

It is possible to have pronouns bearing the prefixes of a particular noun class. Locative classes comprise of different pronouns derived in this way. In this regard, class 16 has a full range of pronouns with the prefix *ha-*.

Demonstratives: *aha* (*a-ha*) 'here', *háno* (*ha-no*) 'here', *aho* (*a-ha-o*) 'there', *háriíya* (*ha-riíya*) 'there', *hárya* (*ha-rya*) 'there', *háa* (*ha-a*) referring to a specific known place such as *háa haantu* 'the very place you know'.

Absolute: *hó* (*ha-ó*) 'there'

Numerals: *hamwé*⁴ (*ha-mwé*) 'one place', *hané* (*ha-né*) 'four places', *hariindwi* (*ha-riindwi*) 'seven places' (note that locative prefix *ha-* is marked on the stems of the numbers 1-7)

Indefinite: *ahaáandi* (*a-ha-ndi*) 'another place'.

Interrogative: *hé* (*ha-é*) 'where'. (*hé* can be reduplicated as *héehé*)

It is worth mentioning that there are some other words referred to as 'paralocatif' (Coupez, 1980; Grégoire, 1975) such as *haasí* 'down', *heejuru* 'up/in the air', *hiíno* 'nearer' and *hiírya* 'further', which contain the prefix *ha-* and behave like locative expressions with locative markers.

⁴In addition to functioning as a numeral, the word *hamwé* has other meanings: (i) it can be used as an indefinite when it refers to non-specific places and is translated as '(in) some places'; (ii) it can also function as an adverb meaning 'together.'

2.4.2 Locative class 17: *ku-*

The prefix *ku-* refers to a specific location, small or large, and means 'at' or 'on', 'to', 'from', or 'towards'.

- (13) a. *ku musózi* 'on the hill'
b. *ku kubóko* 'on the arm'

As stated above, the noun *ahaantu* is the only noun that belongs to a locative class (cl.16). However, Kinyarwanda linguists following Coupez (1980) include the noun *ukuuntu* 'manner' and related words (pronouns) in class 17. It is not clear why this word is classified as such. The reason behind this must be because the noun prefix *ku-* resembles that of the locative class 17, but this is very unusual as this word has nothing to do with location. The noun *ukuuntu* should be classified in class 15, because classes 16, 17, 18, and 19 are locatives (with a temporal meaning). One piece of evidence that *ukuuntu* should not be classified in class 17 is that such a noun is marked on the verb with the class 15 prefix *ku-*, which is homophonous with class 17; and unlike other locative expressions, it does not agree with the locative prefix *ha-*. Moreover, although class 15 is known to be a class of infinitives, it includes a few non-infinitive words, which makes this class more diversified than locative classes. For example, nouns known as referring to some parts of the body that are in pairs belong in this class: *ukuguru* 'leg', *ukubóko* 'arm', *ukwáaha* 'armpit', *ugutwí* 'ear'. Furthermore, this class comprises of a number of words such as *ukwéezi* 'moon/month' and *ukurí* 'truth'. Therefore, it is more reasonable to classify the noun *ukuuntu* 'manner' in class 15 than in class 17. The same problem arises with some other words related to *ukuuntu*. For example, the free relative in the following example is wrongly classified in class 17 (Coupez, 1980):

- (14) ukó mbyúumva
ukó n-bi-úumv-a
17.DEM 1S-8.OM-undestand-FV
'the way I understand it'

The demonstrative pronouns *kúriíya* 'like that/in that way', *uko* 'like that/in that way', *uku* 'like this/in this way' *kúrya* 'in the other way you know', are also classified in class 17; in my view, they should belong to class 15 together with the word *ukuuntu* as well as related free relatives. I therefore conclude that there are no pronominals of class 17.

The class 17 prefix *ku-* is sometimes realized as *kwa* when referring to names of people, meaning 'at X's house/place'.

- (15) a. Mvuuye kwaa Remeera.
 n-vu-ye ku-a Remeera
 1S-come-PERF LOC17-ASS Remeera
 'I'm coming from Remera's house.'
- b. Ndi kwaa múshiki waange.
 n-ri ku-á mu-shíki waange
 1S-be LOC17-ASS 1-sister my
 'I am at my sister's house.'

Kwa is a complex locative derived by combining the locative *ku-* and the associative *-á* as *ku-á*. The literal translation is 'at place of'. (For further details on the use of *ku-*, see Kimenyi (1980)).

Unlike class 16, class 17 has no specific pronominal or any pronoun bearing its prefix. Pronouns bearing the prefix *ha-* of class 16 also refer to class 17. The examples below show that classes 17, 18, and 19 lack verbal agreement; they are all marked on the verb with the prefix *ha-* of class 16.

- (16) a. Ku méézá hari ibiráhuré.
 ku méézá ha-ri i-bi-ráhuré
 LOC17 6.table 16.SM-be AUG-8-glass
 'There are glasses on the table.'

- b. Mu Bufaraansá hataangiye amatóora.
mu Bufaraansá ha-a-táangir-ye a-ma-tóora
LOC18 14.France 16.SM-PST-start-PERF AUG-6-elections
'Elections have started in France.'
- c. I Butáre heera amasaká.
I Butáre ha-éer-a a-ma-saká
LOC19 9.Butare 16.SM-grow-FV AUG-6-sorghum
'Sorghum grows at Butare.'

See section 2.7 for more details.

2.4.3 Locative class 18: *mu-*

The locative (*mu-*) expresses interiority and means *in, between, among, within*. It can refer to physical as well as temporal interiority:

- (17) a. Abáana bari muu nzu.
a-ba-ána ba-ri mu n-zu
AUG-2-child 2.SM-be LOC18 9-house
'The children are in the house.'
- b. Ahagaze mu baantu beénshi.
a-hagarar-ye mu ba-ntu ba-íínshi
1.SM-stand-PERF LOC18 2-person 2-many
'He is standing among many people.'

Like *ku-*, *mu-* has an allomorph: *mwa* (Coupez, 1980) derived as the combination of the locative *mu* plus the associative *-a* (*mu-a*).

- (18) a. mwaa nyoko
 mu-a nyoko
 LOC18-ASS 1.your.mother
 Lit: 'in your mother's'
 'in your mother's house'
- b. mwáanyu
 mu-á-nyu
 LOC18-ASS-1P
 Lit: 'in yours'
 'in your house'

Unlike *kwa*, which is very productive, *mwa* has become obsolete and appears in a few fixed expressions such as the ones above. For further details on the use of *mu-*, see also Kimenyi (1980).

Class 18 has a restricted number of possible pronominals when compared to class 16 – it only has absolute and demonstrative pronouns.

Absolute: mó (mu-ó) 'there' (also realized as mwó)

Demonstratives: umu (u-mu) '(in) here', umwo (u-mu-o) '(in) there', múriíya (mu-riíya) '(in) there'

2.4.4 Locative class 19: *i-*

Class 19 in Kinyarwanda corresponds to class 25 in the Bantu noun class system. The prefix *i-* refers to geographical names: *i Kigalí* 'in Kigalí', *i Durubaáni* 'in Durban', *i Niyuyoóruke* 'in New York'. Kimenyi (1980) notes that this prefix is also used before names of countries. I wish to specify here that for names of countries, *i-* is restricted only to the names of Rwanda and those of the three neighboring countries, namely Congo, Burundi, and Uganda.

- (19) a. *mu Buruúndi / i Buruúndi* 'in Burundi'
 b. *mu Bugáandé / i Búugandé* 'in Uganda'

- c. *mu Budaáge* /**i Budaáge* 'in Germany'

Unlike *ku-* and *mu-*, *i-* is not used before common nouns.

- (20) a. *u-mu-gezi* cl. 3 'a river'
 **i-mu-gezi* 'at the river'
 b. *u-bu-búiko* cl.14 'store'
 **i-bu-búiko* 'in the store'

However, it is exceptionally found in a handful of common nouns, as in the examples below with a slight change in meaning.

- (21) a. *u-mu-sózi* 'mountain/hill'
 i-mu-sózi 'on the surface'
 b. *u-mu-aámi* 'a king'
 i-bu-aámi 'the king's palace'

It also alternates with an augment in some nouns referring to directions, as in (22a).

- (22) a. *u-bu-rásirazúuba* cl.14 'the east'
 i-bu-rásirazúuba cl.19+14 'in the east'
 b. *u-bu-réengerazúuba* cl.14 'the west'
 i-bu-réengerazúuba cl.19+14 'in the west'

Also, note that the locative *i-* is prefixed to the cranberry morpheme *muhirá* to derive the noun *i-muhirá*. *Imuhira* means 'at home' with the locative prefix *i-*, but the root *-muhirá* does not exist independently of the locative prefix.

- (23) *i-muhirá* 'at home'
 **u-muhirá* 'a home'

It seems that the word **umuhirá* used to mean 'home' but now it is out of use in Kinyarwanda (Prof. Laurent Nkusi, p.c).

Since the prefix of class 19 is phonologically bound and homophonous with the augment of certain classes, it is likely to be confused with augments from other classes. The test that can be used to distinguish it from augments is to put the word in which it appears in a preverbal position and observe the kind of agreement it triggers on the verb. If the word agrees with the verb with the prefix *ha-*, then it is an instance of a locative expression. If a different prefix shows up, it is not a locative expression. For example, at first glance, the word *imahaánga* in (23a) may be thought to belong to the class 5, 9 or 10 given the initial vowel *i-*. Indeed, at least at surface level, its morphology is not very much different from that of the words *imákasí* 'scissors' or *Imáana* 'God', both of which belong to class 9 or 10. However, it differs from them in that the verb it appears with is marked with the prefix *ha-* of class 16, instead of the subject marker *i-* (as seen in the example below).

- (24) a. *Imahaánga iragoora.
 i-mahaánga **i**-ra-goor-a
 AUG.9-foreign country 9.SM-DJ-be.difficult-FV
 Lit: 'Foreign countries are difficult.'
 'It is difficult to live in a foreign country.'
- b. Imahaánga haragoora.
 i-ma-haánga **ha**-ra-goor-a
 LOC19-6-foreign countries 16.SM-DJ-be.difficult-FV
 Lit: 'In foreign countries is difficult.'
 'It is difficult to live in a foreign country.'

The locative *i-* has an equivalent of *kwa* and *mwa* (the counterparts of *ku-* and *mu-* respectively before names of persons), meaning 'at X's place'. However, this use is very restricted; it is limited to personal pronouns, and *i-* is linked to the pronoun by the associative *wa* (in class 3).

- (25) a. iwáangé
 i-wá-nge
 LOC19-3.ASS-1S
 'at my house'
- b. iwáanyu
 i-wá-nyu
 LOC19-3.ASS-2P
 'at your house'

I assume that this associative *wa-(u-á)*, with the class 3 prefix, also agrees with the noun **umuhirá* 'home' mentioned above.

The class 19 prefix does not attach to a wide range of pronouns. Those that can bear this prefix are demonstratives and absolute pronouns only.

Demonstratives: *iyi (i-yi)* 'this way', *inó (i-no)* 'here' (meaning also in this region), *iyó (i-yo)* 'there' (meaning also in that/your region), *iríiya (i-ríiya)* 'there', *iryá (i-rya)* 'there' (meaning far from the speaker).

Absolute pronoun: *yó* 'there'

Before concluding this section, it should be noted here that some locative adverbs bear two prefixes: that of class 16 plus that of 17 or 19:

- (26) a. haákuno
 ha-ku-no
 16-17-DEM
 'on this side of the river/water body or valley'
- b. haákurya
 ha-ku-rya
 16-17-DEM
 'on the other side of the river/water body or valley'

- c. hiírya
ha-i-rya
16-19-DEM
'farther from here'

From locative absolute pronouns, it is possible to derive free relative pronouns for the classes 16, 18, and 19, by prefixing the pronoun with an augment. No free relative is derived from class 17 with a locative meaning.

- (27)
- a. ahó mvúuyé
a-hó n-vu-ye
AUG-16 1S-come.from-PERF
'where I'm coming from'
 - b. *ukó mvúuyé
u-kó n-vu-ye
AUG-LOC17 1S-come.from-PERF
'where I'm coming from'
 - c. umwó mvúuyé
u-mwó n-vu-ye
AUG-LOC18 1s-come.from-PERF
'where I 'm coming from'
 - d. iyó mvúuyé
i-yó n-vu-ye
AUG-LOC19 1S-come.from-PERF
'where I'm coming from'

Recall that according to Coupez (1980), class 17 has a free relative pronouns *ukó* with the meaning of manner in an example like (28):

- (28) *u-kó nkorá* (cl.17) 'the way I work'/*'where I work'.

The fact that (27b) and (28) are ungrammatical on a locative reading provides further evidence that words such as *ukó* should be classified in class 15 rather than 17.

2.5 Non-locative use of locative markers

Although the aim of the thesis is to provide an analysis of the locative use of locative markers, it is necessary to briefly look at their non-locative use.

Kinyarwanda locatives appear in constructions in which they do not have a locative meaning as is shown in the following subsections.

2.5.1 Temporal use of locatives

In addition to spatial location, locatives *ku-* and *mu-* (and their counterparts *kurí/murí*) can also refer to a temporal location. They appear in many expressions, including the following:

- (29)
- a. *ku cyúumwéeru* 'on Sunday'
 - b. *ku manywá* 'during the day'
 - c. *mu gitóondo* 'in the morning'
 - d. *mu mwáaka waa mbere* 'in the first year'

With the times of day, in some cases, it is difficult to explain why one locative is used, but not the other. Consider, for example, the ungrammaticality of (30) in contrast to (29b,c) above:

- (30)
- a. **mu manywá* 'during the day'
 - b. **ku gitóondo* 'in the morning'

This is in line with the general view that the meaning of locatives is vague (Taylor, 1996). Taylor correctly assumes that locatives should be construed as having the meaning of 'with respect to'. This can be true of Kinyarwanda; indeed, it would be difficult to explain why the word *igitóondo* 'morning' should have 'interiority' features expressed by locative *mu-* of class 18, while *amanywá* 'the day' would lack these features.

The locative *i-* can also appear in some temporal expressions, but it is preceded by the associative *ná-* followed by an NP denoting some time of day.

- (31) a. *u-mu-goroobá* cl.3 'evening'
nímugórooba (na-i-mugórooba) 'in the evening'
 b. *i-joro* cl.5 'night'
níjoro (na-i-joro) 'at night'

Finally, the locative *i-* is also used before the word *sáa* borrowed from Kiswahili, to express time:

- (32) *i sáa sitá* 'at twelve'

2.5.2 Partitive use of *ku-*

A locative expression with *ku-* is often used to convey a partitive meaning.

- (33) Abáana banyooye kuu nzogá.
 a-ba-áana ba-a-nyó-ye ku n-yogá
 AUG-2-child 2.SM-PST-drink-PERF LOC17 9-beer
 'The children drank some of the beer.'

It is important to note here that in these constructions in which the locative *ku-* has a partitive meaning, the locative *ha-* is not used as an object marker. Compare the grammatical example in (34b) corresponding to (34a), in which the locative expressions are marked on the verb as the object marker *ha-*, and the ungrammaticality of (35b).

- (34) a. Abacúruuzi baageze ku isokó.
 a-ba-cúruuzi ba-a-ger-ye ku i-sokó
 AUG-2-traders 2.SM-PST-arrive-PERF LOC17 AUG-5.market
 'The traders have arrived at the market.'

- b. Abacúruuzi baahageze.
 a-ba-cúruuzi ba-a-**ha**-ger-ye
 AUG-2-traders 2.SM-PST-16.OM-arrive-PERF
 'The traders have arrived there.'

- (35) a. Ngiiye gufáta ku mafaraanga yaawe.
 n-gi-ye ku-fát-a ku ma-faraanga ya-we
 1S-go-PERF 15-take-FV LOC17 6-money 6.ASS-2S
 'I'm going to take some of your money.'
- b. *Ngiiye kuháfata.
 n-gi-ye ku-**ha**-fát-a
 1S-go-PERF 15-16-take-FV
 Intended: 'I'm going to take some of it.'

In order for examples such (35b) to be grammatical, the locative *hó* replaces the whole locative expression, (36a), or it co-occurs with an object marker corresponding to the locative NP as in (36b).

- (36) a. Ngiiye gufátahó.
 n-gi-ye ku-fat-a-hó
 1S-go-PERF 15-take-FV-LOC17
 'I'm going to take some of it.'
- b. Ngiiye kuyáfatahó.
 n-gi-ye ku-ya-fát-a-hó
 1S-go-PERF 15-6.OM-take-FV-LOC17
 'I'm going to take some of it.'

2.5.3 Other non-locative uses

The locative *ku-* is used in different constructions in which it can correspond to different English prepositions *for, on, by*, etc. Consider the examples below:

- (37) a. Peteero yanyogoshe ku buuntu.
 Peteero a-a-n-óogosh-ye ku bu-ntu
 Peter 1.SM-PST-1S-shave-PERF LOC17 14-generosity
 'Peter cut my hair for free.'
- b. Yabikoze ku bweénde.
 a-a-bi-kór-ye ku bu-eénde
 1.SM-PST-8.OM-do-PERF LOC17 14-intention
 'He did it intentionally.'
- c. Twaamushiimye ku buryó budasaanzwé.
 tu-a-mu-shiim-ye ku bu-ryó bu-ta-saanzwe
 1P-PST-1.OM-thank-PERF LOC17 14-manner 14-NEG-be.usual
 'We thanked him in an unusual manner.'
- d. Inyama ni amafaraanga 2000 ku kiró.
 i-nyama ni a-ma-faraanga 2000 ku ki-ró
 AUG-10.meat be AUG-6-francs 2000 LOC17 7-kilo
 'Meat is 2000 Francs a kilo.'
- e. Kurí nge, birashoboka.
 kurí nge bi-ra-shobok-a
 LOC18 1S 8.SM-DJ-be.possible-FV
 Lit: 'On me they are possible.'
 'For me it is possible.'

Note that in (37a) *ku-* is translated as *for*, expressing reason, in (37b) as *on*, with the meaning of reason, in (37c) as *in* in a manner expression, in (37d) as *per* expressing rate, and in (37e) as *for*, as way of giving an opinion. As can be seen from the examples, *ku-* has multiple non-locative meanings.

Constructions such as those in (37), which are not semantically locative, do not allow the derivation of locative shift, nor can they serve as an input for locative inversion. They will not be our concern in the chapters in which syntactic analyses are provided.

2.6 The locatives *ku-* and *mu-* and the associatives *ná/-á (a)* and the comparative *nká*

The associatives *ná* and *-á* and the comparative *nká* behave differently when they precede the locatives *ku-* and *mu-*. Their vowel sound *-a* must change to *-o*.

2.6.1 The associative *-á/a*

The associative *-á* or *-a* connects two lexical items. The relationship between those items may be that of possession, characteristics, type, origin, quality, location, description, purpose, allocation, etc.

The associative is made up of two morphemes: the prefix, which corresponds to the agreement marker for different nouns classes, and the stem *-á*.

- (38) a. umwáana wa Kagabo
 u-mu-áana u-a Kagabo
 AUG-1-child 1-ASS 1.Kagabo
 'Kagabo's child'
- b. inzu za kizuúngu
 i-n-zu zi-a ki-zuúngu
 AUG-10-house 10-ASS 7-white.person
 Lit : 'houses of whites'
 'modern houses'

When used before the locatives *mu-* and *ku-*, the associative stem *-á/a* becomes *-ó*:

- (39) a. inká zó mu Rwaanda
 i-n-ká zi-ó mu Rwaanda
 AUG-10-cow 10-ASS LOC18 11.Rwanda
 'cows from/of Rwanda'
- b. injaangwé yó ku gasózi
 i-n-jaangwé i-ó ku ka-sózi
 AUG-9-cat 9-ASS LOC17 12-hill
 'a wild cat'

It is possible to prefix the associative *-a* with an augment. This process derives a pronoun replacing the first noun in the noun phrase. In the cases of a locative expression following the associative, the pronoun also appears with the root *-ó*. Thus (38a) becomes (40) while (39a) becomes (41).

(40) uwa Kagabo
 u-u-a Kagabo
 AUG-1-ASS 1.Kagabo
 'that of Kagabo'

(41) izó mu Rwaanda
 i-zi-ó mu Rwaanda
 AUG-10-ASS LOC18 11.Rwanda
 'those from/of Rwanda'

2.6.2 The associative *ná*

The associate *ná* connects two words of the same category (verbs, noun, adjectives, etc). It can also connect locative expressions, but, as mentioned above, the vowel *-a* becomes *-o*.

(42) a. *mu rugó ná kw' iishuúri
 mu ru-gó ná ku i-shuúri
 LOC18 11-home and LOC17 AUG-5.school
 'at home and at school'

 b. mu rugó **nó** ku iishuúri
 mu ru-gó nó ku i-shuúri
 LOC18 11-home and LOC17 5-school
 'at home and at school'

2.6.3 The comparative *nká*:

The comparative *nká* behaves exactly like the associative *-a* and *na*. The vowel *-a* becomes *-o* before a locative marker. Here are examples:

- (43) a. *Ku iishuúri si nká mu rugó.
 ku i-shuúri si nká mu ru-gó
 LOC17 AUG-5.school be.NEG like LOC18 11-home
 'At school is not the same as at home.'
- b. Ku ishuúri si **nkó** mu rugó.
 ku i-shuúri si nkó mu ru-gó
 LOC17 AUG-5.school be.NEG like LOC18 11-home
 'At school is not the same as at home.'

Like locative expressions headed by *ku-* and *mu-*, any locative expression of class 16 bearing the prefix *ha-* also triggers the change of the vowel *-a* in the associatives *ná* and *-á* and the comparative *nká* into the vowel *-o*.

- (44) ifoto *ya/yó hejuru
 i-foto i-a/i-ó ha-ejuru
 AUG-9.picture 9.ASS 16-up
 'the picture on the top'

- (45) harugru *ná/nó heepfó
 ha-ruguru ná/nó ha-epfó
 16-up and 16-down
 'up and down'

- (46) Heejuru ni *nká/nkó haasí.
 ha-ejuru ni nka/nkó ha-si
 16-up be like 16-down
 'The upper part is like the lower part.'

The vowel *-o* that surfaces in locative constructions in some contexts seems not to be specific to Kinyarwanda. A similar phenomenon is observed in Luganda. In this language, the vowel *o-* appears before a locative expression when preceded by an associative (Hyman & Katamba, 1993):

- (47) a. ku mmeeza [Luganda]
 LOC17 table
 'on the table'
- b. ebitabo byaa o-ku-mmeeza
 book ASS AUG-LOC17-table
 'books (of) on the table' (Hyman & Katamba, 1993: 238)

The vowel *-o* also surfaces in locative contexts in Zulu. As is shown in (48), some nouns in Zulu acquire a locative meaning when they are prefixed with the vowel *o-*, which replaces an augment (Mr Mpungose Njabulo, p.c.).

- (48) a. u-nyawo [Zulu]
 AUG-foot
 'a/the foot'
- b. o-nyaw-eni
 LOC-foot-LOC
 'on a/the foot'

The question why the vowel *a* in the associatives *ná* and *-á* as well as the comparative *nká* becomes *o* will not be pursued any further and is noted for future work.⁵

⁵ This phenomenon of the vowel *a* becoming *o* is also observed in infinitives. Compare (i) and (ii), in which the associative *ná* becomes *nó* before an infinitive.

- i. *kuryá ná kunywá
 ku-rí-a ná ku-nyó-a
 15-eat-FV and 15-drink-FV
 'eating and drinking'
- ii. kuryá nó kunywá
 ku-rí-a nó ku-nyó-a

2.7 The prefix *ha-*

The prefix *ha-* is the canonical noun prefix for class 16. Moreover, it appears on words modifying expressions belonging to classes 17, 18, and 19. It can agree with the verb (as a subject marker), adjectives, and pronouns. In these cases, the prefix *ha-* is said to have a locative meaning. Besides this locative use, however, the prefix *ha-* appears in other constructions in which it does not have any locative meaning at all (see chapter 6 for more details).

2.7.1 Locative use of *ha-*

Bantu languages differ in important ways as far as the locative concord is concerned. While some have only one prefix for locative classes (e.g. Sesotho, Setswana), others (e.g. Chichewa, Herero) have a three-way distinction of the three locative classes in their agreement markers (Buell, 2007; Demuth & Mmusi, 1997; Marten, 2006). Kinyarwanda is one of the languages of Sesotho and Setswana type, which does not have a full set of locative concords. As noted in example (16), the morpheme *ha-* is the only agreement marker for the locative classes 16, 17, 18, and 19.

Also, consider (49) in which *ha-* is marked on an adjective and is used predicatively as well as attributively.

- (49) a. Ku rupapuro haabaaye ható.
 ku ru-papuro ha-ba-ye **ha**-tó.
 LOC17 11-paper 16.SM-be-PERF 16-small
 Lit: 'On the paper has become small.'
- b. muu nzu heeza
 mu n-zu **ha**-iiza
 LOC18 9-house 16-beautiful
 'the beautiful inside of the house'

15-eat-FV and 15-drink-FV
'eating and drinking'

Finally, there are a number of locative words (adverbials) that bear the prefix *ha-* with a locative meaning. They all agree with the pronouns, adjectives, and verbs they are used with, hence they function like locative DPs.

- (50)
- a. *haanzé (ha-nzé)* 'outside'
 - b. *haasí (ha-sí)* 'down'
 - c. *haruguru (ha-ruguru)* 'up'
 - d. *heejuru (ha-ejuru)* 'up'
 - e. *heepfó (ha-epfó)* 'down'
 - f. *hagatí (ha-gatí)* 'in the middle'

2.7.2 Non-locative use of *ha-*

Although the prefix *ha-* has a locative meaning when referring to the locative DP *ahaantu* as well as locative expressions in classes 17, 18, and 19, in some instances, it does not have a locative meaning.

2.7.2.1 *ha-* in expletive constructions

The prefix *ha-* is also used in expletive constructions where a logical subject, (51a), or object in passives (51b), are focused and have remained in situ inside the VP.

- (51)
- a. Haapfuuye abaantu batatu.
ha-a-pfú-ye a-ba-ntu ba-tatu
 16.SM-PST-die-PERF AUG-2-person 2-three
 Lit: 'There have died three people.'
 'Three people have died.'
 - b. Haaguzwe ibitabo bitaanu.
ha-a-gur-w-ye i-bi-tabo bi-taanu
 16.SM-PST-buy-PASS-PERF AUG-8-book 8-five
 Lit: 'There have been bought five books.'
 'Five books have been bought.'

2.7.2.2 *ha-* in weather condition verbs

The prefix *ha-* is also marked on weather condition verbs.

- (52) Haríjimyē.
ha-ra-íjím-ye
16-DJ-be.dark-PERF
'It is dark.'

A detailed syntactic analysis of *ha-* as a locative and expletive marker is provided in chapter 6 in which I deal with the type of locative inversion referred to as formal locative inversion.

2.7.2.3 *ha-* in temporal expressions

Finally, *ha-* appears in a number of words referring to location in time; the meaning of these time expressions is closely related to their counterpart locative expressions. In fact, as is shown by their morphology, the examples below share the stem, *-mbere* 'before' in (53a) and *-nyuma* 'after' in (53b).

- (53) a. *mbere* 'before' → *i-mbere* 'at the front' → **haa**-*mbere* 'some time ago'
b. *nyuma* 'after' → *i-nyuma* 'at the back' → **haa**-*nyuma* 'afterwards/later'

This is not surprising, since location can refer to space or time. The link between spatial and temporal expressions is explored in more detail in Bender et al (2005), who examine a phenomenon similar to the ones in (53) in Tongan. Also, note that like locative expressions, preposed temporal expressions are marked on the verb or the adjective with the class 16 prefix *ha-*. For example, consider the use of the word *ejó*. When used alone, it means *tomorrow* or *yesterday*, and the time referred to is understood from the context. When speakers wish to avoid the ambiguity that might arise, they qualify the word as follows:

- (56) a. Birashoboka.
 bi-ra-shobok-a
 8.SM-DJ-be.possible-FV
 'It is possible.'
- b. Kirazira.
 ki-ra-zir-a
 7.SM-DJ-be.prohibited-FV
 'It is prohibited.'

In fact, in (56), the prefixes *bi-* and *ki-* refer to unspecified nouns (i.e. *ikiintu* 'a thing' and *ibiintu* 'things'). Thus, (56) supports the claim that impersonal passives with the locative prefix *ha-* are not permitted in Kinyarwanda.

In short, the prefix *ha-* is non-locative when it appears in expletive constructions (where the subject remains in situ) or when no subject is expressed such as in weather condition verbs. It also appears in temporal expressions because there is a conceptual link between time and space, as suggested by Bender et al. (2005).

Summary of the use of the prefix *ha-*:

The prefix *ha-*

- (i) agrees with class 16 as well as a locative expression comprising of the locatives *ku-*, *mu-*, *i-* as a subject/object marker
- (ii) agrees with locative adverbs such *haanzé* 'out', *inyuma* 'at the back', etc.
- (iii) agrees with pronouns (demonstratives, indefinite, etc.), or adjectives
- (iv) agrees with a temporal expression
- (v) agrees with an expletive where there is no structural subject (e.g. the logical subject remains in situ inside the VP)
- (vi) appears in subjectless weather condition verbs

2.8 Pronouns

In this section, I introduce two types of pronouns which will be of importance in the analysis of locative constructions: demonstratives and personal pronouns. In chapter 3, I compare and contrast locative markers and demonstratives to show that they share many properties, and that they are of the same syntactic nature. In chapters 4, 5, and 6, I argue that personal pronouns can head a phrase.

2.8.1 Personal pronouns

Personal or absolute pronouns are pronouns that replace noun phrases and are emphatic in nature. When they co-occur with a noun, they convey the meaning of emphasis as well as contrast. They are found in the first and second person, singular and plural, and similar pronouns are also found in the third person in all classes.

The table below shows that in the first and second person singular and plural, personal pronouns can be short or long. In the short form (which is labeled as 1st part in the table), the stem is *-é* in the first person singular, first and second person plural, but *-ó* in the second person singular. The second part also includes a prefix and a stem: the prefixes are *u-* for the first and second person singular, *bu-* for the first and second person plural. In the second part, the stem is the same for all persons, that is, *-é*. As for the agreement markers (see column 3), they correspond to the prefixes (in column 1), except for 1st person singular in which *ngi-* cannot appear as an agreement marker; *gi-* must be dropped, leaving only *n-*.

Table 5: Personal pronouns: 1st and 2nd persons

	1 st part		2 nd part		Agreement marker	Personal pronouns	
	Prefix	Stem	Prefix	Stem		Short form (1 st part)	Long form (1 st and 2 nd part)
1 st p.sing	(n)gi-	-é	u-	é	n-	(n)ge	(n)geewé
2 p.sing	u-	-ó	u-	é	u-	*wo/we	wowé
1 st p. plural	tu-	-é	bu-	é	tu-	twe	tweebwé
2 nd p. plural	mu-	-é	bu-	é	mu-	mwe	mweebwé

In these pronouns, the first part of the pronoun (which I have called 'short form') can stand alone or can be compounded with the second part (e.g. *nge* or *geewé* 'me', *twe* or *tweebwé* 'us'). However, it is not possible for the second person singular short form *wó* (*u-o*) to stand alone, as is indicated by the star in the table. On the contrary, the second part, *we* 'you', can stand alone. The long and short forms do not have any difference in meaning; the use of one or the other depends on the speaker's preference.

Personal pronouns are usually used in subject position and after the copula *ni/si*; they may also be used in object position.

- (57) a. Nge ndashaaka gukóra.
 nge n-ra-shaak-a ku-kór-a
 1S 1PS-PRES-want-FV 15-work-FV
 'I want to work.'
- b. Baza nge.
 báz-a nge
 2.ask-FV 1S
 'Ask me.'

Although personal pronouns can appear in object positions, as in (57b), most people prefer constructions in which the object is marked on the verb. Thus, (58) is preferred over (57b):

- (58) Mbaza.
 n-báz-a
 1S.OM -ask-FV
 'Ask me.'

In contrast to personal pronouns in first and second person, personal pronouns in classes 1-19 are short; they do not have two parts. The stem is *-ó*, except for class 1 in which it is *-é*, similar to the one in the 1st and 2nd persons. Class 17 does not normally take the root *-ó*. As a locative pronoun, *kó* has a special use (see chapter 3).

Table 6: Personal pronouns (3rd person)

Class	Prefix	Stem	Pronoun	Kirera and Kigoyi peculiar pronouns
1	u-	-é	wé	
2	ba-	-ó	bó	
3	u-	-ó	wó	gu-ó (gó)
4	ri-	-ó	ryó	
5	i-	-ó	yó	
6	a-	-ó	yó	ga-ó (gó)
7	ki-	-ó	cyó	
8	bi-	-ó	byó	
9	i-	-ó	yó	
10	zi-	-ó	zó	
11	ru-	-ó	rwó	
12	ka-	-ó	kó	
13	tu-	-ó	twó	
14	bu-	-ó	bwó	
15	ku-	-ó	??ko (byó)	
16	ha-	-ó	hó	
17	ku	-ó	?kó /hó	
18	mu-	-ó	mó	
19	i-	-ó	yó	

The prefix of absolute pronouns is not necessarily the noun class prefix: in some cases it corresponds to the augment (classes 1, 3, 5, 6, 9), in others to the noun class prefix (classes 2, 4, 7, 8, 11, 12, 13, 14, 15, 14, 15, 16, 17, 19), or the object /subject marker (class 10).

All the pronouns in the table may anaphorically co-occur with the noun they refer to as in the example below:

- (59) Peteero_i wé_i yaagiiye.
 Peteero u-é a-a-a-gii-ye
 1.Peter 1-PRON 3.SM-PST-DJ-go-PERF
 Lit: 'Peter him he has gone.'
 'As for Peter, he has gone.'

The pronoun *byó* of class 8 appears in the table in class 15 to make the reader aware that when an infinitive (cl.15) is the subject of a sentence like (60), it can agree in class 8.

- (60) Kwiga_i byó_i biratiinda.
 ku-íig-a bi-ó bi-ra-tiind-a.
 15-study-FV 8.PRON 8.SM-DJ-be.slow-FV
 'As far as studying is concerned, it takes time.'

It must be emphasized in this section on pronouns that Kinyarwanda is a pro-drop language. Pro-drop languages have *pro*, i.e. small *pro* or little *pro*, a phonetically empty pronoun (AlAlamat, 2014; Holmberg & Biberauer, 2010; Rizzi, 1986; Roberts, 2005, 2010), which had been proposed earlier in Chomsky (1981, 1995). In pro-drop languages or null subject languages, the subject may be dropped without affecting the grammaticality of the sentence. For example, in (59), both the DP *Peetero* and the personal pronoun *wé* can be dropped, leaving only the phrase *yaagiye* 'he has gone.' This is because there is *pro* (i.e. a null subject) in SpecT, with which the verb agrees.

In chapter 3, I argue that pronouns such as *mó* and *hó* are derived by (externally) merging the personal pronoun root *-ó* with locative prefixes, as is the case for other pronouns. These pronouns can replace an entire locative expression; however, they can also co-occur with the locative DP. In chapters 4, 5, and 6, I argue that the complexity of the pronouns *hó*, *mó*, and *yó* (which appear in locative shift and locative inversion) results from incorporation of the locative

D-head into the personal pronoun stem (internal merge), which heads a phrase (i.e. a small clause whose complement is a locative DP).

2.8.2 Demonstrative pronouns

Kinyarwanda has six demonstrative pronouns, all of which precede and agree with the noun they refer to. Here are examples:

- (61)
- a. aba bakózi
 aba ba-kózi
 2.DEM 2-workers
 'these workers'
 - b. záa nkokó
 záa n-kokó
 10.DEM 10-hens
 'those hens'
 - c. iki kiráhuré
 iki ki-ráhuré
 7.DEM 7-glass
 'this glass'

As the examples illustrate, similarly to locatives, when a noun is modified by a demonstrative, the augment of the noun is deleted. I will argue in chapter 3 that demonstratives, augments, and locatives share the property of being determiners.

The Kinyarwanda demonstrative pronouns are shown in the table below:

Table 7: Demonstratives

Cl.	A	B	C	D	E	F
1	uyu	unó	uwo	urííya	wáa	uryá
2	aba	báno	abo	báriíya	báa	bárya
3	uyu	unó	uwo	urííya	wáa	uryá
4	iyi	inó	iyo	irííya	yáa	iryá
5	iri	ríno	iryo	rírííya	ryáa	rírya
6	aya	anó	ayo	arííya	yáa	aryá
7	iki	kíno	icyo	kírííya	cyáa	bírya
8	ibi	bíno	ibyo	bírííya	byáa	bírya
9	iyi	inó	iyo	irííya	yáa	iryá
10	izi	zíno	izo	zírííya	záa	zírya
11	uru	rúno	urwo	rúrííya	rwáa	rúrya
12	aka	káno	ako	káriíya	káa	kárya
13	utu	túno	utwo	túrííya	twáa	túrya
14	ubu	búno	ubwo	búrííya	bwáa	búrya
15	uku	kúno	uko	kúrííya	kwáa	kúrya
16	aha	háno	aho	hárííya	háa	hárya
17	uku	kúno	uko	kúrííya	kwáa	kúrya
18	umu	múno	Um(w)o	múrííya	mwá	múrya
19	iyi	inó	iyo	irííya	?	iryá

Adapted from Ovadulve (1988).

Column A: This demonstrative is used to show a close relation between an object and the speaker and possibly the listener, meaning 'this'. It has no stem; an augment just combines with

the noun prefix (e.g. *aba báana* (*a-ba ba-áana* cl.2) 'these children'). In some classes, the augment combines with the object marker (e.g. *izi nká* (*i-zi n-ká* cl.10) 'these cows').

This demonstrative may optionally follow the noun it modifies when the speaker displays the corresponding number of fingers instead of verbalizing the number. For example, *inká izí* 'cows these' would be considered grammatical if it is mentioned while simultaneously displaying, for example, three fingers if the number of cows also happens to be three. However, this instance would also require a high tone.

Column B: Closer to the speaker than the listener, meaning 'this ... here'. The stem is *-no*. Example: *báno bagabo* (*ba-no ba-gabo* cl.2) 'these men', *rúno rugó* (*ru-no ru-gó* cl.11), 'this fence.'

Column C: Closer to the listener than the speaker, meaning 'that'. This demonstrative has a pre-prefix, which is identical to the augment, and a prefix, as well as a stem (*-o*). Example: *abobajuura* (*a-ba-o ba-juura* cl.2) 'those thieves', *uwo mugezi* (*u-u-o mu-gezi* cl.3), 'that river.'⁶

Column D: Far from both the speaker and the listener, meaning 'that... over there'. The stem is: *-riíya*. Example: *báriíya begeenzi* (*ba-rííya ba-geenzi* cl.2) 'those travellers', *zíriíya nzu* (*zi-rííya n-zu* cl.10) 'those houses'.

Column E: What is being referred to is not present, but it is specific; it is known to both the speaker and the listener or defined according to the context. It may correspond to 'that/those' or even the definite article 'the' in English. The stem is *-áa*. Example: *báa bagabo* 'the/those men', *záa nká* 'the/those cows'.

⁶ The demonstratives in column C may be confused with the relative pronouns used in free relatives. The difference is that the stem in the demonstrative has a low tone (*-o*), while the one in the free relative has a high tone (*-ó*).

(i)	uwo	mboná	(ii)	uwó	mboná
	uwo	n-bón-a		uwó	n-bón-a
	1.DEM	1S-see-FV		1.REL. PRON	1S-see-FV
	'that one over there (that) I see'			'the one (that) I see'	

Column F: This demonstrative indicates what has been mentioned or referred to or discussed earlier. It also corresponds to *that/those/the* in English. Example: *bárya bagabo (ba-rya ba-gabo)* 'the other men (we talked about/we saw)'.

The demonstratives in columns A, B, C, D and F co-occur with the noun or can replace it. Those in E behave more like determiners than pronouns; they must co-occur with the noun they refer to, but they cannot replace it or stand alone.

- (62) *Báriíya báana/ Báriíya* 'Those children/those ones' (Column D)
*Báa báana/*Báa* 'The children/those ones' (Column E)

The demonstratives in E and F have nearly the same meaning as definite articles in languages where they exist. For instance, they cannot be accompanied by a pointing finger. Rather, they convey definiteness in the sense that what is being referred to has been mentioned earlier or is understood by both the speaker and the listener.

It should be pointed out that because Kirera and Kigoyi have different noun prefixes for class 3 and 6, demonstratives in these classes are also different:

Table 8: Kirera and Kigoyi demonstratives

Class 3	Standard Kinya	uyu	unó	uwo	urííya	wáa	uryá
	Kirera/ Kigoyi	ugu	gúno	ugo	gúriíya	gwáa	gúrya
Class 6	Standard Kinya	aya	anó	ayo	arííya	yáa	aryá
	Kirera/ Kigoyi	aga	gáno	ago	gáriíya	gáa	gárya

I return to demonstrative pronouns in chapter 3 where I analyze locative markers with reference to augments and demonstratives.

2.9 The verb

In general, one of the most prominent features of Bantu and Kinyarwanda grammar is that the noun agrees with the verb by being marked on it as a subject marker or an object marker. In addition to the subject and object markers, a verb can bear several prefixes and suffixes. While prefixes generally include negative markers, tense markers, and modal markers, etc., suffixes are mainly aspect morphemes and extensions. Extensions perform different functions such as those of causative, instrumental, applicative, locative, etc. It should be noted here that Kinyarwanda is an agglutinative language: many affixes combine together to form a word, each contributing individually to the overall meaning of the formed word. In this section, I present the morphology of the verb. TAM /NEG markers are presented within a slot system referred to as a mega-slot system, the Pan-Bantu Slot System (PBSS), which applies to all Bantu languages (Maho, 2007).

The template comprises of three categories of slots: Initial slots (I), (which precede subject markers), medial slots (M) (between the subject marker and the object marker or verb stem if there is no object marker), and final slots (F), (which follow the verb root). According to Maho (2007), initial slots range from one to four (I1-I4), medial slots from one to sixteen (M1-M16), and final slots from one to seven (F1-F7). In the table below, Maho presents only medial slots that range from 1 to 16. The grouping of the TAM/ NEG markers in a box is based on their etymological relation.

Table 9: Maho's TAM/NEG marker slots

M1	M2	M3	M4	M5	M6	M7	M8	M9	M 10	M 11	M 12	M 13	M 14	M 15	M 16
a	NEG	(c)e	ki	nga	ka	NEG	nV	di	mV	ja, da	...	ka	NEG
a			ca	ka	(ka)		a	ndV	ja, jo	da, do		ngu	ti	na	
V*							mbV	da,ci	ma			ku	ba		
H*												Loc	bV		
												M13	a		

*V=various forms; *H=high tone appearing on the subject marker

The slots marked with the dot (...) notation represent local innovations that are geographically limited. These are 'catch-all' slots (Maho, 2007: 217).

Based on Maho's (2007) slot system, I present the Kinyarwanda slot system including initial, medial, and final markers in the table below.

Table 10: Kinyarwanda TAM/NEG marker slots

Initial		Medial		Final	
nti/si	NEG	ta	NEG	ik,ur,am,uk	primary suffixes
ni	hypothetical/conditional	a	recent past	y, iish	causative/instrumental
		á	remote past	ir	applicative
		aa	conditional	ik	stative
		a	disjoint marker	an	associative
		(ra)-ki-(a)	persistent	w	passive
		ka	subsecutive	aga	imperfective aspect
		ka	contrast, surprise, etc.	ye	perfective aspect
		ra	present progressive	a	final vowel (imperfective)
		ra	near future	e	final vowel (subjunctive)
		ra	disjoint marker		
		zaa	remote future		
		ii	reflexive		
		na	coordination		

I wish to highlight the following regarding suffixes and prefixes in Kinyarwanda. Kinyarwanda is among the few Bantu languages that allow multiple object-marking. In normal speech, the number of object markers can vary from one-to-three, but they can go up to 4 or even 5. (63b) is a case where the verb bears four object markers.

- (63) a. Naheereye Ngoga imbwá inyama mu nzu.
n-a-há-ir-ye Ngoga i-n-bwá i-nyama mu n-zu
1S-PST-give-APPL-PERF 1.Ngoga AUG-9-dog AUG-10.meat LOC18 9-house
'I gave the dog the meat for Ngoga in the house.'
- b. Naahayísimuheereye.
n-a-ha-yi-zi-mu-há-ir-ye
1S-PST-16.OM-9.OM-10.OM-1.OM-give-APPL-PERF
'I gave it to it for him there.' (Bizimana, 1998:341)

The verb can bear numerous suffixes. In the following example, the verb bears 4 suffixes (instrument, applicative, causative, passive) and a locative clitic.

- (64) Tuzaavaaniishirizwahó imisoro.
tu-zaa-vaan-iish-ir-z-w-a-hó i-mi-soro
1P-FUT-remove-INST-APPL-CAUS-FV-LOC17 AUG-4-taxes
Lit: 'We will be made to be exempted from taxes.'

In Kinyarwanda, the order between associative and applicative morphemes may change depending on the meaning of the sentence.

- (65) a. Abáarimú bazaavuganira abáana.
a-ba-áarimú ba-zaa-vug-**an-ir**-a a-ba-áana
AUG-2-teachers 2.SM-FUT-speak-ASS-APPL-FV AUG-2-children
'Teachers will speak in favor of the children.'

- b. Abáarimú bazaavugirana.
a-ba-áarimú ba-zaa-vug-**ir-an**-a
AUG-2-teachers 2.SM-FUT-speak-APPL-ASS-FV
'Teachers will speak in favor of each other.'

2.10 Conclusion

This chapter has set the scene for the study of locatives in Kinyarwanda. It is mainly descriptive. I have introduced aspects of Kinyarwanda phonology, the noun class and agreement system and the pronouns that will be of relevance in the analysis of different locative constructions, namely demonstratives and personal pronouns. The study is also a descriptive account of locative classes 16, 17, 18, and 19. For the sake of completeness, some locative constructions which are not directly relevant to the analysis chapter were presented. These include cases of non-locative uses of locative markers. Given the importance of the verb in the study of any aspect of the language, I have also introduced the Kinyarwanda verb morphology.

CHAPTER THREE: LOCATIVES *KU-*, *MU-*, AND *I-*, AND THEIR COUNTERPARTS *HÓ*, *MÓ*, AND *YÓ*

So far, no study has been devoted to the syntactic status of the Kinyarwanda locative markers *ku-*, *mu-*, and *i-*, and their counterparts *hó*, *mó*, and *yó* (to the best of my knowledge). This chapter has two major sections. Section 3.1 discusses locative markers, showing that despite having the semantic properties of prepositions, they are determiners like augments and demonstratives. Section 3.2 deals with the clitics *hó*, *mó*, and *yó*. I show that these types of locatives are complex pronouns derived by combining the locative prefixes *ku-*, *mu-* and *i-* and the personal pronoun root *-ó*, either morphologically or by syntactic incorporation.

3.1 Locative prefixes

3.1.1 Locative prefixes in Bantu

Many Bantu languages have locatives (locative markers)⁷ that belong to classes 16, 17, and 18, with the prefixes *pa-*, *ku-*, and *mu-*, respectively (Marten, 2010).⁸ In some languages, there are three locative classes, while in others there is only one. Kinyarwanda is among the few languages that have four locative classes. In addition to classes 16, 17, and 18, it has an additional locative class (class 19) (see chapter 2). The class 19 locative marker *i-* corresponds to the prefix *e-* of the locative class 25 in many Bantu languages (Grégoire, 1975). Grégoire (1975) notes that the prefix *e-* is found in the following words, all of which mean 'at home': *e-kaa* in Luganda, *ee-ka* in Shi and *e-khaya* in Swati and Ndebele. In Kinyarwanda, the word is *i-muhirá*. Note that the Zulu language also has this prefix as in the word *e-sikoleni* 'at school'. This suggests that the locative prefixes *i-* and *e-* are the same syntactic element realized by two different but related vowels in different languages. As for the class 16 prefix *ha-*, it seems to have also changed from the locative class prefix *pa-* found in other Bantu languages. Indeed, the consonant /p/ appears in a very few words of Kinyarwanda. It is mostly found in loan words such as *gupaanga* 'to plan' from the Kiswahili word *kupanga*, *ipaantalo* 'trousers' from the French word *pantalon*, etc., and a few onomatopoeic words. Furthermore, the Zulu expressions *phansi* 'down' and *phezulu* 'up' correspond to the Kinyarwanda expressions *haasí* and *heejuru*, respectively, with exactly the same meaning as in Zulu. These phenomena can be another

⁷ I will refer to locatives such as *ku-* and *mu-* as locatives or locative markers.

⁸ In some Great Lakes Region languages, including Kinyarwanda, the class 16 prefix is *ha-* instead of *pa-*.

symptom of a general change from *pa* to *ha* as a locative marker in Kinyarwanda, as well as in some languages of the Great Lakes Region.

There are different ways of expressing location in different Bantu languages (see Marten 2010). Some use the suffix *-ni* (e.g. Kiswahili), while others use the prefix *e-* together with the suffix *-ni* (e.g. Zulu and Swati). Kiswahili has several ways of expressing location: the locative class prefixes *pa-*, *ku-*, and *mu-* (agreement markers) are used along with the noun suffix *-ni*, the preposition *katika*, and the expression *-enye* (Amidu, 2007). *Katika* appears in expressions like *katika duka* 'in the shop' while *-enye* appears in expression such as *kwenye/mwenye duka* 'in the shop'. Unlike *katika*, *-enye* behaves like a root: it can bear the prefix of any of the three locatives as an agreement marker.⁹ Also, note the use of the locative suffix *-eng* in some southern African Bantu languages such as Swati (Creissels, 2011). Finally, there are cases where a noun is used with a locative meaning but without any morphological change, i.e., with neither a prefix nor a suffix (e.g. Kiswahili). Consider this example from Amidu (2007).

- (1) Ni-li-nunu-a n-dizi duka dogo li-le. [Kiswahili]
 1S-PST-buy-FV 10-banana 5-shop 5-little 5-that
 Lit: 'I bought bananas that little shop.'
 'I bought bananas in that little shop.' (Amidu, 2007: 27)

The example in (1) shows that the Locative DP *duka* 'shop' just follows the direct object *ndizi* 'banana' without any locative marking. Some Kinyarwanda speakers also tend to drop the locative marker before certain names of places. Although such cases are very rare in Kinyarwanda, this is an indication that there might be a change towards the dropping of locative markers.

⁹ According to Amidu (2007), the meaning of the expression *kwenye duka* literally means 'there having that shop'.

- (2) Mariyá atuuye Nyábugogó.
 Mariyá a-túur-ye Nyábugogó
 1.Mary 1.SM-live-PERF 9.Nyábugogó
 Lit: 'Mary lives Nyábugogó.'
 'Mary lives at Nyábugogó.'

While some languages such as Chichewa, Herero, and others have a three-way locative marking, i.e. each locative class has a corresponding subject marker, Kinyarwanda does not. First, consider the examples in Chichewa in (3) from Bresnan & Kanerva (1989).

- (3) a. Pa-m-sikã-pa pá-bád-w-a nkhonya. [Chichewa]
 16-3-market-16 16.SM IM FUT-be born-IND 10 fist
 'At this market a fight is going to break out.'
- b. Ku-mu-dzi ku-na-bwér-á a-lěndo.
 17-3-village 17SB-REC PST-come-IND 2-visitor
 'To the village came visitors.'
- c. M-nkhalãngo mw-a-khal-á mi-kãngo.
 18-9 forest 18 SB-PERF-remain-IND 4-lion
 'In the forest, have remained lions.' (Bresnan & Kanerva, 1989:9)

The Chichewa examples show that each class has its own prefix and agrees with the verb.

Secondly, consider the Kiswahili examples in (4). Like Chichewa, Kiswahili has three locative subject markers, but, unlike Chichewa, Locative DPs do not bear the three locative markers. Instead, they bear the locative suffix *-ni*, as in (4).

- (4) a. Nyumba-ni hapa **pa**-na baridi. [Kiswahili]
 9.house-LOC 16.DEM 16-have 9.cold
 'This home is cold.'

- b. Nyumba-ni huku **ku**-na baridi.
 9.house-LOC 17.DEM 17-have 9.cold
 'This home is cold.'
- c. Nyumba-ni humu **m**-na baridi.
 9.house-LOC 18.DEM 18-have cold
 'It is cold inside this home.'

Some Kiswahili DPs even appear in their unmarked form without a locative marker, but, they still agree with the verb in different locative classes:

- (5) a. Hospitali hapa **pa**-na baridi. [Kiswahili]
 9.hospital 16.DEM 16-have 9.cold
 'It is cold at this hospital.'
- b. Hospitali huku **ku**-na baridi.
 9.hospital 17.DEM 16-have 9.cold
 'It is cold at this hospital.'
- c. Hospitali humu **m**-na baridi.
 9.hospital 18.DEM 17-have cold
 'It is cold inside this hospital.'

Also, notice that in the examples above, the subject DP is marked as a locative by a demonstrative.

Like Chichewa, Kinyarwanda has three locative markers, but unlike Chichewa and Kiswahili, it has only one subject marker, the class 16 suffix *ha-*, for all the four locative classes (see chapter 2).

- (6) a. Ahaantu háanyu hasa néezá.
 a-ha-ntu ha-nyu **ha**-s-a néezá
 AUG-16-place 16-2P 16.SM-look-FV well
 'Your place looks nice.'

- b. Ku kiraro hanyuze(hó) amakamyó.
ku ki-raro **ha**-a-nyur-ye-(hó) a-ma-kamyó
LOC17 7-bridge 16.SM-PST-pass-PERF-LOC17 AUG-6-trucks
'Trucks passed on the bridge.'
- c. Mu giseenge harava(mó) amáazi.
mu ki-seenge **ha**-ra-vu-a-(mó) a-ma-zi
LOC18 7-roof 16.SM-PRES-come-FV-LOC18 AUG-6-water
'Water is coming out of the roof.'
- d. I Byuumba hatuuye(yó) abanyámahaánga baké.
i Byuumba **ha**-túur-ye-(yó) a-ba-nyámahaánga ba-ké
LOC19 9.Byumba 16.SM-live-PERF-LOC19 AUG-2-foreigners 2-few
'Few foreigners live at Byumba.'

From the Kinyarwanda examples, we note the following. First, the Kinyarwanda locative class 16 differs from the other locative classes above in that the Locative DP looks like a canonical DP with an augment and a prefix and agrees with the verb and its modifiers. Second, the other three locatives have different locative prefixes, but they all agree with the prefix *ha-* of class 16. Also, note that *ha-* is marked on the verb as an object marker for locative expressions.

The use of the locative subject marker leads to the following assumption: the fact that only the prefix *ha-* is used as an agreement marker for all the four locative classes points to a morphological deficit in Kinyarwanda. As will be shown below, locative expressions such as *mu giseenge* 'in the roof' are DPs, and a locative prefix like *mu-* is a determiner that heads the DP. However, these DPs differ from other DPs in that they lack interpretable phi-features (gender, number, and person). Instead of having phi-features, they only have an interpretable locative feature. I assume that this is the locative feature that is expressed on the verb and its modifiers – in the form of the agreement marker *ha-*. I elaborate on the status of locative prefixes in Kinyarwanda in the following section.

3.1.2 The locative prefixes in Kinyarwanda are determiners

In this section, I argue that locative expressions such as *ku kiraro* 'on the bridge' are DPs. In the remainder of this thesis, a locative DP like *ku kiraro* or any other locative DP headed by the locative D-head, will be distinguished from other DPs by bearing a Loc subscript as follows: DP_{Loc}. The major difference between a DP_{Loc} and other DPs, such as those headed by an augment (e.g. *igiseenge* 'roof') or a demonstrative (e.g. *iki giseenge* 'this roof') lies in the s-selectional properties. The locative D-head always s-selects an NP/DP complement that denotes a possible location or turns an NP or a DP it selects into a location. In other words, locative D-heads differ from other determiners in terms of their semantic properties.

Due to their semantic properties, the locative markers *ku-*, *mu-*, and *i-* have been traditionally treated as prepositions (Kimenyi, 1980). This is not surprising, since a preposition is defined as a word whose function is to indicate relationships between nominals (Hopper & Traugott, 2003). According to Crystal (1997), a preposition is an item that typically precedes a noun phrase, often a single noun or pronoun, to form a single constituent; and the noun and the preposition form a single phrase comprising of the noun and its modifiers. A preposition is also defined as a word or a syntactic element that precedes a noun phrase and indicates a spatial relation, the temporal relation being secondary (Matthews, 1997). Saint-Dizier (2006) notes that a preposition expresses a wide range of semantic relations between its complements and the rest of the context: spatial relations, including direction (origin, path, end point), temporal, comparison, agent, instruments, means, manner, cause, purpose, etc. Therefore, considered along these lines, Kinyarwanda locative prefixes could be treated as prepositions.

However, the similarities between the Kinyarwanda locatives and prepositions are only semantic. In the rest of this section, I show that *syntactically* they do not exhibit the properties of prepositions; they are instead determiners like augments (as well as demonstratives). I begin by showing that augments in Kinyarwanda are determiners and conclude that locatives markers are also determiners since they pattern with augments rather than prepositions.

The fact that augments are determiners has been proven in the literature (Meeussen (1959), Hyman & Katamba (1993), Taraldsen (2010), Ndayiragije, Nikiema, & Bhatt (2012), Van der

Spuy (2014) and others). Taraldsen provides evidence that augments in Zulu are determiners and concludes that nouns without augments are bare noun or "D-less". Van der Spuy (2014) argues that an augment is a determiner, a "default determiner" which is "used when no more precise one is required." According to Van der Spuy (2014), augments are in complementary distribution with various determiners, namely demonstratives, enumeratives, and absolute pronouns.

In their study of augments in Kirundi, Ndayiragije et al (2012 :113) propose that the augment is "the spell-out of a Determiner category dominating the Kirundi noun phrase (NP)". Ndayiragije et al (2012) provide several pieces of evidence that the augment is a determiner like determiners in other languages, such as French. The evidence includes the following: (i) from the semantic point of view, the augment is unspecified with respect to definiteness. It can be definite or indefinite; (ii) from the syntactic point of view, it can be deleted in some contexts, including (a) before the negative marker *nta*; (b) in compound nouns; (c) in vocative case; (d) in anthroponyms; etc.

We observe the same behavior as far as Kinyarwanda augments are concerned. To begin with, in Kinyarwanda, the augment is unspecified in terms of definiteness.

- (7) Umwáarimú afashe igitabo.
 u-mu-áarimú a-fát-ye i-ki-tabo
 AUG-1-teacher 1.SM-hold-PERF AUG-7-book
 'A/the teacher is holding a/the book.'

The augment can be dropped before the negative marker *nta*.

- (8) a. Naboonye umunyéeshuúri.
 n-a-bón-ye u-mu-nyéeshuúri
 1S-PST-see-PERF AUG-1-student
 'I've seen a student.'

- b. Nta (*u)-munyéeshuúri naboonyé.
 nta u-mu-nyéeshuúri n-a-bón-ye
 NEG AUG-1-student 1S-PST-see-PERF
 Lit: 'There is no student that I've seen.'¹⁰
 'I haven't seen any student.'

The augment can be dropped in compound nouns.

- (9) umugabo-(*i)-mbwá
 u-mu-gabo-i-n-bwá
 AUG-1-man-AUG-9-dog
 'a coward'

The augment can be dropped in vocative case:

- (10) *Bíte, (*a)-ba-gábo?* 'Hi, men!'

All the examples show that like augments in Kirundi and other languages, augments in Kinyarwanda are also determiners.

Having shown that augments in Kinyarwanda are determiners, I will demonstrate that locative markers behave like augments (as well as demonstratives), which will lead me to the conclusion that they are determiners on par with augments (and demonstratives).

Before presenting the evidence that locatives are determiners, I wish to stress here that syntactically both augments and locative markers in Kinyarwanda are independent heads. I apply two tests that have been used in the literature: gapping and alternative agreement (Bresnan & Mchombo, 1995). Let me start with the gapping test. According to Bresnan & Mchombo (1995), gapping (also referred to as ellipsis) is applicable to syntactic, but not morphological

¹⁰ *Nta* appears in a non-verbal predicate and approximately means 'there is no...'. For example *Ntaa mafaraanga* (*NEG-money*) can stand alone as a complete sentence meaning 'There is no money.'

constituents. If a constituent can be gapped, it means that it is (syntactically) an independent head. In other words, if locatives are independent heads, it should be possible to gap their NP complements. First consider the example in (11), which shows that augments in Kinyarwanda allow gapping.

- (11) uburásirazúuba bw' ú-Rwaanda n' ú ~~burásirazúuba~~ bwaa Kénya
 u-bu-rásirazúuba bwá u-Rwaanda ná u ~~bu-rásirazúuba~~ bwá Kenyá
 AUG-14-east 14.ASS AUG-11.Rwanda and AUG 14-east 14.ASS 9.Kenya
 'the east of Rwanda and Kenya'

Like augments, locative markers also allow gapping.

- (12) Turaara mu nzu ya Yohaáni nó muu ~~nzu~~
 tu-raar-a mu n-zu ya Yohaáni nó mu ~~nzu~~
 1P-sleep-FV LOC18 9-house 9.ASS1.John and LOC18 (9-house)
 ya Kagabo.
 ya Kagabo
 9.ASS 1.Kagabo
 'We sleep in John's house and Kagabo's.'

This is consistent with the view that augments and locative prefixes are independent heads.

Note, however, that unlike the locatives *ku-* and *mu-*, the locative *i-* does not allow gapping. This is illustrated in (13):

- (13) *iburásirazúuba bw' ú-Rwaanda n' i ~~burásirazúuba~~ bwaa Kénya
 i-bu-rásirazúuba bwá u-Rwaanda ná i-~~bu-rásirazúuba~~ bwá Kenyá
 LOC19-14-east 14.ASS AUG-11.Rwanda and LOC19-14-east 14.ASS 9.Kenya
 'in the east of Rwanda and Kenya.'

Nonetheless, this does mean that locative D-heads do not allow gapping. The inability of the locative *i-* to allow gapping could be due to the fact that unlike *ku-* and *mu-*, *i-* is affixal in nature, which prevents it from being elided in gapping. The fact that two locatives out of three allow gapping like augments is evidence that locatives are generally heads.

Now, I turn to the alternative agreement test. Unlike noun class prefixes, locative markers allow alternative agreement, a phenomenon referred to as phrasal recursivity by Bresnan & Mchombo (1995). Recursivity refers to the existence of alternative concords in which modifiers may simultaneously show concord with any of several class markers on the same noun. Chichewa, for example, allows alternative agreement for locative markers, in which case modifiers with the inner concord precede the ones showing outer concords. In the example below, the inner prefix *mu-* of the locative expression *pamudzi* 'at the village' agrees with the first modifier *wáthú* 'our' while the outer prefix *pa-* agrees with the other modifier *pônse* 'all' with the class 16 prefix.

- (14) pa-mu-dzi w-áthú p-ônse [Chichewa]
 16-3-village 3-our 16-all
 'at all of our village' (Bresnan & Mchombo, 1995: 199)

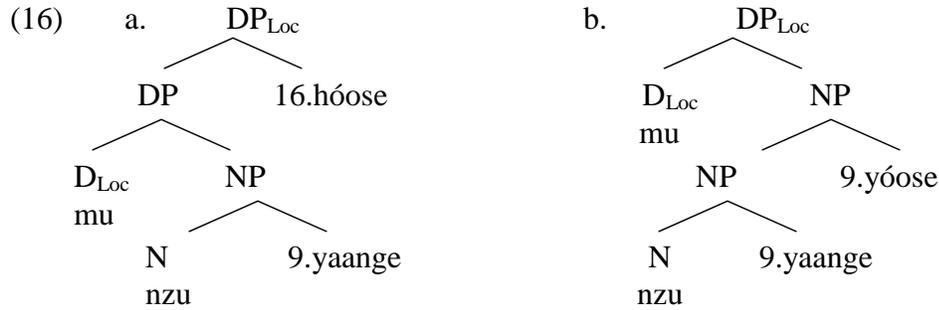
This is possible with locatives in Chichewa, but not when the second class prefix is a non-locative class. Bresnan & Mchombo (1995) applied this test to other nouns containing two noun class prefixes, including the diminutive noun prefix *ka-*, and found that alternative agreement is not possible. They concluded that the phrasal recursivity tests show that locative prefixes are syntactically independent while other prefixes are not.

As far as Kinyarwanda is concerned, recall that all the three locatives trigger *ha-* on the verb as an agreement marker. Furthermore, the locative prefix *ha-* can also be marked on the verb as an object marker for the three locatives classes. Although these locative classes do not show standard agreement by triggering their own prefix on the verb, they show alternative agreement: the inner prefix (i.e. the prefix of a non-locative class) can be marked on the first modifier while the outer prefix (the locative prefix) is marked on the other modifiers as well as on the verb with the class 16 subject marker *ha-*. This fact is illustrated in the examples below in which the

modifiers bear different prefixes. In (15a), the first modifier *yaange* 'my' agrees with the noun *inzu* cl.9 'house' while the second modifier *hóose* 'all' bears the class 16 noun prefix *ha-* triggered by the locative prefix *mu-*. In contrast, in (15b) both modifiers agree only with the noun *inzu* 'house'. The example in (15c) shows that although the modifiers show different agreement markers, the verb must agree in class 16. It is not possible to have the class 16 agreement marker on all the modifiers, as in (15d).

- (15) a. muu nzu yaange hóose
 mu n-zu i-a-nge ha-óose
 LOC18 9-house 9-ASS-1s 16-all
 'in my entire house'
- b. muu nzu yaange yóose
 mu n-zu i-a-nge i-óose
 LOC18 9-house 9-ASS-1S 9-all
 'in my entire house'
- c. Muu nzu yaange hóose/yóose harava.
 mu n-zu i-a-nge ha-óose/i-óose ha-ra-vu-a
 LOC18 9-house 9-ASS-1s 16-all/9-all 16.SM-DJ-leak-FV
 'It leaks all over in my house.'
- d. *Muu nzu haange hóose harava.
 mu n-zu ha-nge ha-óose ha-ra-vu-a
 LOC18 9-house 16.ASS-1S 16-all 16.SM-DJ-leak-FV
 'It leaks in my entire house.'

The agreement patterns exhibited in the examples above can be accounted for in terms of the attachment site of the modifier (Carstens, 2008). If the modifier attaches to DP_{Loc} , it agrees in class 16 (16a), but if it attaches to the NP inside DP_{Loc} , agreement is with the specific noun class (16b). Thus (15a) corresponds to the structure in (16a) while (15b) corresponds to (16b).



In contrast to locative prefixes, non-locative prefixes which precede other prefixes do not allow alternative agreement. As is the case in Chichewa with the diminutive *ka-* (Bresnan & Mchombo, 1995), in Kinyarwanda the prefix *bu-* of class 14 may precede another prefix to turn a concrete noun into an abstract noun. If we examine the word *ubumuuntu* 'humaneness' that has two prefixes, we note that it behaves differently from a locative expression in that it does not allow alternative agreement. In (17a), the outer prefix *bu-* triggers agreement on the modifier and the verb. In contrast, the inner prefix cannot be marked on the verb or the modifier, (17b,c).

- (17) a. Ubumuuntu buké buteerwa n' íkí?
u-bu-mu-ntu bu-ké bu-téer-w-a ná íkí
AUG-14-1-person 14-little 14.SM-cause-PASS-FV by what
Lit: 'What causes little humaneness?'
- b. *Ubumuuntu muké buteerwa n' íkí?
u-bu-mu-ntu mu-ké bu-téer-w-a ná íkí
AUG-14-1-person 1-little 14.SM-cause-PASS-FV by what
Intended: 'What causes little humaneness?'
- c. *Ubumuuntu muké muteerwa n' íkí?
u-bu-mu-ntu mu-ké mu-téer-w-a ná íkí
AUG-14-1-person 1-little 1.SM-cause-PASS-FV by what
Intended: 'What causes little humaneness?'

Similarly to augments, locative markers are syntactic heads, while other prefixes are part of the noun morphology. This is supported by the fact that alternative agreement is possible for

locatives. As such, locative markers differ from noun class prefixes, which do not allow alternative agreement.

Having shown that locative markers in Kinyarwanda are independent heads, I present evidence that they are determiners on par with augments. Firstly, locative markers and augments in Kinyarwanda are in complementary distribution, and they both select NPs, not DPs, meaning that they occupy the same syntactic position in the DP.

- (18) a. *u-mu-sózi* cl.3 'hill'
 b. *ku-mu-sózi* cl17+cl.3 'on the hill'
 c. *mu-mu-sózi* cl.18+cl.3 'in the hill'
 d. *i-mu-sózi* cl.19+cl.3 'on the surface'

In the above examples, the noun class prefix is preceded by an augment in (18a) while in (18b-d), it is preceded by the locatives *ku-*, *mu-*, and *i-*. Being in complementary distribution, a locative and an augment cannot co-occur, whatever the order.

- (19) a. **ku-i-mi-sózi* 'on hills'
 b. **i-ku-mi-sózi* 'on hills'¹¹

Due to the fact that locative markers and augments occupy the same syntactic position, I propose that locative expressions such as *ku nzu* 'at/on the house' have the structure in (20b) comparable to that of ordinary DPs in (20a):

- (20) a.
$$\begin{array}{c} \text{DP} \\ \swarrow \quad \searrow \\ \text{D} \quad \text{NP} \\ i /iyi \quad nzu \\ \text{'a/the/this'} \quad \text{'house'} \end{array}$$
- b.
$$\begin{array}{c} \text{DP}_{\text{Loc}} \\ \swarrow \quad \searrow \\ \text{D}_{\text{Loc}} \quad \text{NP (Locative NP)} \\ ku \quad nzu \\ \text{'at/on'} \quad \text{'house'} \end{array}$$

¹¹ There are exceptions though. The vowel of nouns in class 5 co-occurs with locatives. Here is an example:

- i. **ku sokó* cl.5/ \sqrt{ku} *isokó* (*kwisokó*) 'at the market'
 ii. **ku súka* cl.9/ \sqrt{ku} *isúka* (*kwisúka*) 'on the hoe'

Augments (as well as demonstratives) belong to the category of determiners and obligatorily c-select an NP as can be observed in (20a). The DP in (20a) is headed by the augment *i-*, but it can also be headed by a demonstrative like *iyi* 'this'. Similarly, (20b) shows that a locative can also head a DP, the same way as determiners do. It is assumed that the NP in (20b) is a shortcut for a potentially more articulated phrasal structure below DP, which could be Number Phrase (NumP), as suggested by Carstens (1997:385), who also proposes that Locative DPs are the extended projection of nouns.

Secondly, locative markers behave like augments as well demonstratives in terms of conjoinability of their NP complements, in contrast to prepositions. Like augments (as well as demonstratives), locative markers do not scope over their NP complements, but prepositions do. In other words, the NPs that the locative markers select cannot be conjoined. Consider the following example in (21), in which the NP complements of the augment has failed to conjoin:

- (21) *Twaáguze i- [nzu ná nká].
 tu-á-gur-ye i- [n-zu ná n-ká]
 1P-REM-buy-PERF AUG-[9-house and 9-cow]
 'We bought a house and a cow.'

It is assumed that locative markers cannot scope over the NPs they head, because they have the same properties as augments. This assumption is borne out. The example in (22) shows that, like augments, locative markers cannot scope over conjoined NPs.

- (22) *Twaágeze muu [nzu ná cyuúmba]
 Tu-á-ger-ye mu [n-zu ná ki-uúmba]
 1P-REM-arrive-PERF LOC18 [9-house and 7-room]
 'We arrived in the house and the room.'

For these sentences to be grammatical, the locative marker must be repeated on the second conjunct as in (23).

- (23) Twaágeze [muu nzu] nó [mu cyúumba].
 Tu-á-ger-ye [mu n-zu] nó [mu ki-úumba]
 1P-REM-arrive-PERF [LOC18 9-house] and [LOC18 7-room]
 'We arrived in the house and the room.'

The fact that augments and locatives do not scope over conjoined NPs does not contradict the above conclusion that they are independent heads or determiners. I assume that (21) and (22) are ungrammatical because NP coordination in Kinyarwanda is disallowed. For example, it is also not possible to conjoin NPs headed by a demonstrative, as shown in (24).

- (24) * Wáa [muhuúngu na mukoóbwa] baataashye.
 wáa [mu-huúngu na mu-koóbwa] ba-a-taah-ye
 1-DEM [1-boy and 1-girl] 2.SM-PST-go.home-PERF
 'The boy and the girl have gone home.'

In order for the sentence to be grammatical, the demonstrative must be repeated on both conjuncts.

- (25) [Wáa muhuúngu] na [wáa mukoóbwa] baataashye.
 wáa mu-huúngu na wáa mu-koóbwa ba-a-taah-ye
 1-DEM 1-boy and 1-DEM 1-girl 2.SM-PST-go.home-PERF
 'The boy and the girl have gone home.'

Importantly, typical prepositions such as the instrumental preposition *na* can scope over conjoined NPs in Kinyarwanda.

- (26) Dukata impapuro n' [íicyúuma cyaangwa imákasí].
 tu-kat-a i-n-papuro n' [i-ki-úuma cyaangwa i-mákasí]
 1P-cut-FV AUG-10-paper and [AUG-7-knife or AUG-9.scissors]
 'We cut paper with a knife or scissors.'

The contrast between (26) and examples like (21), (22), and (24) is strong evidence that locatives in Kinyarwanda are determiners, not prepositions.

Thirdly, locative markers pattern with augments in not allowing other material to intervene between them and their NP complements. The example in (27) shows that a demonstrative cannot be inserted between the augment and the NP it selects:

(27) **i-iyi-n-zu* 'this house'

The same phenomenon is observed with locative markers. A demonstrative is not allowed between locative markers and their NP complements. This is what is shown in (28c), in which a demonstrative *iyi* 'this' between the locative D-head *mu* 'in' and the NP *nzu* 'house' renders the construction ungrammatical.

- (28) a. *mu n-zu* 'in the house'
 b. *iyi n-zu* 'this house'
 c. **mu iyi n-zu* 'in this house'

The opposite is also true; a demonstrative determiner cannot select a DP headed by a locative or an augment. Compare the grammatical examples in (28a, b) with the ungrammatical ones in (29):

- (29) a. **iyi mu n-zu* 'in this house'
 b. **iyi i-n-zu* 'this house'

In contrast, the preposition *na* 'with' allows a demonstrative determiner between it and its DP complement:

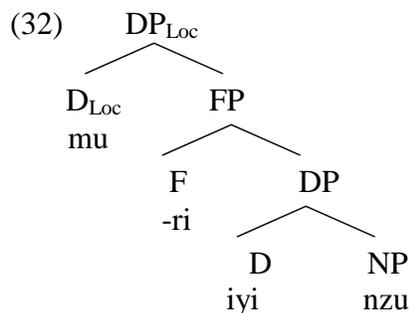
(30)	Yafuunguuye	icupa	n'	úuru	rufuunguuzo.
	a-a-fuunguur-ye	i-cupa	ná	uru	ru-fuunguuzo
	1S-PST-open-PERF	AUG-5.bottle with		11.DEM	11-opener
	'He opened the bottle with this opener.'				

The data in (27)-(30) shows that locatives pattern with augments in all instances, which is consistent with the view that locative markers are determiners rather than prepositions. As is shown in (28c), a determiner does not combine with a DP; however, it is possible for a preposition to merge with a DP as in (30). Thus, in (28c) and (29), the c-selectional properties of a D-head are violated since the Locative D-head must c-select an NP rather than a DP.

However, there is a mechanism that prevents a particular derivation from crashing in case a locative D-head should take a DP as its complement rather than an NP: the Locative DP must first combine with the morpheme *-ri*. The example in (28c) becomes grammatical with the insertion of the morpheme *-ri* (31):

(31) *mu-ri iyi n-zu* 'in this house'

My claim that locative prefixes are determiners that c-select NPs, and not DPs, can explain the appearance of *-ri* - which manifests when a locative merges with a DP headed by a demonstrative. I assume that when the locative D combines with a DP, its c-selectional properties are violated, (28c). However, the derivation can be rescued by combining the locative D-head with the morpheme *-ri* as in (31). I assume that *-ri* is of nominal nature and is the head of a (potentially functional) projection that projects between a locative D and a DP. I call this projection FP. In other words, an extra layer, which must select a DP, is required for the derivation not to crash. The syntactic representation of (31) is shown in (32).



Prepositions typically select DP-complements as in (30). If locatives were prepositions, then we would expect examples like (28c) to be grammatical, and we would not be able to offer an explanation for the strategy shown in (31).

Licensing provides further evidence for the fact that locatives and augments pattern together. If a particular NP does not license an augment, it cannot license the locative prefixes *mu-* and *ku-* either. In other words, whatever prevents that NP from licensing an augment also does not allow it to take a locative marker. To be specific, some Kinyarwanda nouns do not have an augment as a D-head. Such nouns include those in classes 9 and 10, loan and foreign words, and names of persons and places, as is shown in (33):

- (33)
- a. *Ø-kaminuúza* cl.9 'a university'
 - b. *Ø-telefoóne* cl.9 'a phone'
 - c. *Ø-Nyabároongo* cl.9 'Nyabarongo (River)'
 - d. *Ø-Mariyá* cl.1 'Mary'
 - e. *Ø-Tanzaniyá* cl.9 'Tanzania'
 - f. *Ø-Aziyá* cl.9 'Asia'

Since these nouns do not license an augment, it is also expected that they cannot license locative markers. This is what we see in (34). All the examples in (33) become ungrammatical if a locative is added.

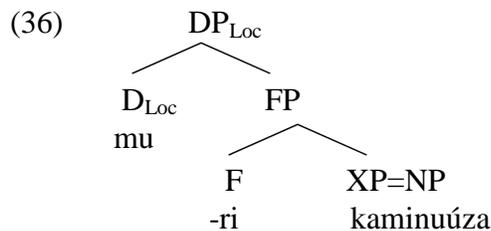
- (34)
- a. **mu-kaminuúza* cl.9 'in the university'
 - b. **ku-telefoóne* cl.9 'on the phone'
 - c. **mu-Nyabároongo* cl.9 'in Nyabarongo (River)'
 - d. **ku-Mariyá* cl.1 'on Mary'
 - e. **mu-Tanzaniyá* cl.9 'in Tanzania'
 - f. **mu-Aziyá* cl.9 'in Asia'

The morpheme *-ri* is inserted between the locative D-head and XP because the locatives *ku-* and *mu-* do not appear before nouns that do not license augments. Recall that the same situation was observed when a D-head should combine with a demonstrative. The ungrammatical examples in (34) above become grammatical if *-ri* combines with the locative *ku-* or *mu-*.

- (35)
- a. *murí kaminuúza* cl.9 'in the university'

- b. *kurí telefoóne* cl.9 'on the phone'
- c. *murí Nyabároongo* cl.9 'in Nyabarongo'
- d. *kurí Mariyá* cl.1 'to/on Mary'
- e. *murí Tanzaniyá* cl.9 'in Tanzania'
- f. *murí Aziyá* cl.9 'in Asia'

As indicated above, because NPs such as those in (34)-(35) do not license an augment, they do not combine with locative markers either. As such, a functional projection is required, which mediates the relation between a D-head and a particular NP that does not license the D-head. I propose that this projection is the same as the functional projection FP in (32). As a functional projection, it can combine with such augmentless nouns. Thus, the syntactic representation of a DP_{Loc} like *murí kaminuúza* 'in the university' in (35a) is as follows:



Although proper nouns fall in the category of those nouns that do not license a D-head, there is a group of names that license a D-head (a locative as well as an augment). Such nouns are proper names of places (regions and countries), which bear the class 14 prefix *bu-* and agree in class 14. These proper nouns can license an augment like common nouns. Additionally, they can license the locatives *ku-* and *mu-*. Here are examples:

- (37)
- a. *u Bushinwá* cl.14 'China'
mu Bushinwá 'in China'
 - b. *u Budaáge* 'Germany'
ku Budaáge 'on/to/about Germany'¹²

¹² The NP *Rwanda* behaves like NPs that bear the prefix *bu-* of class 14. Like these NPs, the noun *Rwanda* bears an augment, so, it is known as *u Rwanda*. While other proper names of places (except those above that include the prefix *bu-*) belong to class 9, the noun *Rwanda* is in class 11 and agrees in this class. It is able to license an augment;

However, it is worth noting that every initial vowel of a proper noun does not exhibit the properties of an augment. Some foreign nouns beginning with an initial vowel (e.g. *Indoneziyá* 'Indonesia', *Ameriká* 'America') do not license the locative marker *ku-* or *mu-*. For example, we would expect the initial vowels in nouns such as *Indoneziyá* and *Ameriká* to be dropped so as to have the DP_{Loc} *mu Ndoneziyá* 'in Indonesia' or *mu Meriká*, but this is not the case. The fact that these vowels are maintained suggests that they are not augments.¹³

It must also be noted that the locative marker *i-* behaves differently from the other two locatives in a number of ways. For example, this locative marker is licensed by proper names of places; it is not generally licensed by common nouns as in the examples in (38b).

- (38) a. *u-mu-gí* 'town'
 b. **i-mu-gí* 'in town'

However, the fact that (38b) is ungrammatical does not invalidate the claim that locative markers are D-heads. Indeed, there are cases where the locative marker *i-* is in complementary distribution with augments and other locatives. Here are two examples:

- (39) a. *u-bu-rásirazúuba* 'the east'
 b. *i-bu-rásirazúuba* 'in the east'
 c. *mu-búrasurazúuba* 'in the east'
- (40) a. *u-mu-aámi* 'a king'
 b. *u-bu-aámi* 'kingdom'
 c. *i-bu-aámi* 'at the royal palace'¹⁴

therefore, it also licenses the locatives *ku-* and *mu-* as well as *-i-*. Thus, it is possible to say: *mu Rwanda* 'in Rwanda' or *ku Rwanda* 'on/to/about Rwanda', or *i Rwanda* 'in Rwanda'.

¹³ In his study of Kirundi augments, Meeussen (1959:63) distinguishes those nominals that have augments and those that do not. Nominals that have augments include nouns, possessives, free relatives, indefinites, and interrogatives. Those that do not have augments are nouns without class prefixes, some special nouns, locatives, personal pronouns, demonstratives, even those that bear an initial vowel, numerals, etc. All this is true for Kinyarwanda.

¹⁴ The class 14 prefix *bu-* also seems to carry some locative features or is rather used to form locative DPs. Apart from combining with the locative *i-* to form locative expressions referring to cardinal points (i.e. *i-bu-rásirazúuba* 'in the east', *i-bu-réengerazuúba* 'in the west'), it can also combine with an augment to form locative nouns. For example, names of many regions in Rwanda begin with this prefix (e.g. *u Bugesera* 'regions where Bagesera people

The fact that the locative marker *i-* in (39) and (40) is in complementary distribution with augments also supports the view that locatives are determiners. The only question is why the locative marker *i-* can only appear before proper names of places such as *i Kigali* 'at Kigali', *i Pari* 'in Paris', while *ku-* and *mu-* cannot. I suggest that this restriction is related to semantic features or s-selectional properties of the locative *i-*. Unlike *ku-* and *mu-*, *i-* s-selects an NP referring to a location and, moreover, this NP must be specifically the name of a place.

In short, this section has shown that locative markers are determiners. They pattern with augments and demonstratives rather than prepositions. For example, unlike prepositions, they combine with NPs, not DPs. Moreover, they do not allow their complement NPs to be conjoined and no material can intervene between them and their complements. In contrast, typical prepositions allow their complements to be conjoined and some material to intervene between them and their complements.

3.1.3 The prepositional nature of the locative determiners

Although Kinyarwanda locatives are determiners, they also have the semantic properties of prepositions. As indicated in section 3.1.2, the semantic properties of prepositions include expression of spatial relations, including position, direction, notably origin or source, path, end point, as well as other relations such as manner and reason. Despite the fact that locatives in Bantu do not generally express direction or source (Baker, 1992; Coupey, 1980; Taylor, 1996), the locatives *ku-*, *mu-*, and *i-* can express such concepts as position or direction when they combine with verbs that encode such a feature. In this case, they can convey the meaning expressed by prepositions in other languages such as English and French. In the examples below, *ku-* is translated as *at*, *from*, *to* or *towards*, depending on the verb it is used with:

- (41) a. Ndi ku iisokó.
n-rí ku i-sokó
1S-be LOC17 AUG-5.market
'I am *at* the market.'

live', *u Bugoyi* 'region where Bagoyi people live'). It is also found in many names of countries as in these examples: *u Buholaandí* 'The Netherlands', *u Bufaraansá* 'France', *u Bubiligi* 'Belgium', *u Buyapaáni* 'Japan', etc.

- b. Mvuuye ku iisokó.
n-vu-ye ku i-sokó
1S-come-PERF LOC17 AUG-5.market
'Tm coming *from* the market.'
- c. Ngiiye ku isokó.
n-gi-ye ku i-sokó
1S-go-PERF LOC17 AUG-5.market
'Tm going *to* the market.'
- d. Ndagana ku iisokó.
n-ra-gan-a ku i-sokó
1S-PRES-move.towards-FV LOC17 AUG-5.market
'Tm moving *towards* the market.'

In some instances where *ku-*, *mu-*, or *i-* do not express a precise meaning such as those of the prepositions *towards*, *through*, *into*, an applicative is required to make the locative meaning more specific in this way. For example, in (42b), the applicative makes it possible to express the meaning of the English prepositions *through*, which is not possible with (42a) in the absence of the applicative.

- (42) a. Umugoré yabóonye umujuura mu iidírishyá.
u-mu-goré a-á-bón-ye u-mu-juura mu i-dírishyá
AUG-1-woman 1.SM-REM-see-PERF AUG-1-thief LOC18 AUG-5.window
'A woman saw a thief in the window.'
- b. Umugoré yabóneye umujuura mu iidírishyá.
u-mu-goré a-á-bón-ir-ye u-mu-juura mu i-dírishyá
AUG-1-woman 1.SM-REM-see-APPL-PERF AUG-1-thief LOC18 AUG-5.window
'A woman saw a thief through the window.'

The possible interpretation with the locative *mu-* in (42a) is that the thief was in the window, but with the applicative, (42b), two interpretations are possible. The woman saw the thief through the window or the woman herself was in the window.

Also, observe the difference between the sentences in (43), in which the addition of the applicative reverses the direction. The verb *-íimuka* means 'to move from' if it is used without an applicative. When an applicative is added, then it means 'to move to.'

- (43) a. Uyu mugabo yiimutse i Butáre.
 uyu mu-gabo a-a-íimuk-ye i Butáre
 1.DEM 1-man 1.SM-PST-move-PERF LOC19 Butare
 'This man moved from Butare.'
- b. Uyu mugabo yiimukiye i Butáre.
 uyu mu-gabo a-a-íimuk-ir-ye i Butáre
 1.DEM 1-man 1.SM-PST-move-APPL-PERF LOC19 Butare
 'This man has moved to Butare.'

A similar phenomenon is observed in Tswana. In Tswana, if the verb *huduga* selects a locative expression without an applicative, it refers to the source of the motion, but when the applicative is added, it expresses direction (Creissels, 2006).

- (44) a. Ke tlaa huduga ko Kanye. [Tswana]
 S1S FUT move LOC Kanye
 'I am going to move from Kanye.'
- b. Ke tlaa hudugela ko Gaborone.
 S1S FUT move.APPL LOC Gaborone
 'I am going to move to Gaborone.' (Creissels, 2006: 26)

Also, consider the Kinyarwanda verb *gutéemba* 'flow'. When used with the locative *mu-*, no direction is entailed (as in 45a). Rather the action simply takes place in a particular location. To express the idea of direction, the verb takes an applicative (45b).

- (45) a. Amáazi aratéemba muu nzu.
a-ma-zi a-ra-téemb-a mu n-zu
AUG-6-water 6.SM-PRES-flow-FV LOC17 9-house
'Water is flowing in the house.'
- b. Amáazi aratéembera muu nzu.
a-ma-zi a-ra-téemb-ir-a mu n-zu
AUG-6-water 6.SM-PRES-flow-APPL-FV LOC17 9-house
'Water is flowing into the house.'

The data above suggest that, although direction and position are encoded in the verb (Creissels, 2004, 2006), the verb requires a preposition to convey such a meaning. Moreover, the prepositional nature of the locative markers may explain why they all exhibit the Loc-feature that is reflected in their agreement in the locative class 16 (see section 3.1.1 above).

3.2 The locative clitics *hó*, *mó*, and *yó*

3.2.1 Contexts in which the locative clitics occur

This section aims to discuss the different contexts in which the locative clitics *hó*, *mó*, and *yó* occur in Kinyarwanda. Before I describe these context, it should be born in mind that there is a correspondence between locative markers *ku-* *mu-*, and *i-* and the clitics *hó*, *mó*, and *yó*, which is as follows: *ku* → *hó*; *mu* → *mó* (*mwó*); *i* → *yó*.

The first context in which these clitics occur is when they refer to or replace a locative expression comprising the locative D-head and its NP complement (the DP_{Loc}). Consider the following examples for all the three locative classes: in the a-examples, the verb selects a locative expression, and in the b-examples, the clitic attaches to the verb:

- (46) a. Yakoze ku rukutá.
a-a-kór-ye ku ru-kutá
1.SM-PST-touch-PERF LOC17 11-wall
'He touched the wall.'

- b. Yakoze hó.
a-a-kór-ye-hó
1.SM-PST-touch-PERF-LOC17
'He touched there.'
- (47) a. Inká yaguuye mu mwoobo.
i-n-ká i-a-gu-ye mu mu-oobo
AUG-9-cow 9.SM-PST-fall-PERF LOC18 3-hole
'A cow fell into a hole.'
- b. Inká yaguuyemó.
i-n-ká i-a-gu-ye-mó
AUG-9-cow 9.SM-PST-fall-PERF-LOC18
'A cow fell there.'
- (48) a. Yageze i Pari.
a-a-ger-ye i Pari
1.SM-PST-arrive-PERF LOC19 9.Paris
'He arrived in Paris.'
- b. Yagezeyó.
a-a-ger-ye-yó
1.SM-PST-arrive-PERF-LOC19
'He arrived there.'

Notice that like the locative clitics, the locative object marker *ha-* can also replace the locative D-head and its complements. Compare (49b) and (49c).

- (49) a. Abaantu bari ku isokó.
a-ba-ntu ba-rí ku i-sokó
AUG-2-person 2.SM-be LOC17 AUG-5.marker
'People are at the market.'

- (51) a. Avuye ahaantu.
 a-vu-ye a-ha-ntu
 1.SM-come-PERF AUG-16-place
 'He is coming from some place.'
- b. Avuuyeyó.
 a-vu-ye-yó
 1.SM-come-PERF-LOC19
 'He is coming from there.'

Although both *hó* and *yó* can refer to the noun *ahaantu* 'place', the locative *hó* appears when the place referred to is smaller, while *yó* refers to larger places. For example, *hó* can replace the locative phrases *ku méezá* 'on/at the table', *ku gití* 'on a tree', *ku rukutá* 'on the wall', *ku rupapuro* 'on a piece of paper', all of which refer to smaller places, while *yó* is more appropriate for larger places such as *ku isokó* 'at the market', *ku ishuúri* 'at school', *imuhirá* 'at home', *mu mugí* 'in town', *mu Buyápaáni* 'in Japan'. In this respect, if the place referred to is larger, *yó* can correspond to all the three locatives (*ku-*, *mu-*, and *i-*). Consider for example (52) below:

- (52) Abashyitsi baagezeyó.
 a-ba-shyitsi ba-a-ger-ye-yó
 AUG-2-visitor 2.SM-PST-arrive-PERF-LOC19
 'Visitors have arrived there.'

In (52), the clitic *yó* can stand for locative expressions like *mu mugí* cl.18 'in town', *ku isokó* cl.17 'at the market', or even *mu Buraayi* cl.18 'in Europe'. Therefore, *yó* does not necessarily refer to a locative expression belonging to class 19. Note, however, that the correspondence between *mu-* and *mó* is straightforward. The clitic *mó* cannot refer to a locative expression including *ku-* or *i-*. Its semantic property of interiority makes it exclusively replace a DP_{Loc} headed only by the locative prefix *mu-*. As for the locative *hó*, it refers to expressions with the prefixes of classes 16 or 17, but not of classes 18 or 19.

Also, consider (55):

- (53) a. Baakuuyemó imyeénda.
ba-a-kúur-ye-mó i-mi-eénda
2.SM-PST-remove-PERF-LOC18 AUG-4-cloth
'They took off their clothes.'
- b. Barihó.
ba-rí-hó
2.SM-be-LOC18
Lit: 'They are there'
'They are alive.'
- c. Mariyá yahisemó umupiíra.
Mariyá a-a-hit-ye-mó u-mu-pííra
1.Mary 1.SM-PST-choose¹⁶-PERF-LOC18 AUG-3-sweater
'Mary has chosen a sweater.'
- d. Mariyá ashyizweyó.
Mariyá a-shyír-w-ye-yó
1.Mary 1.SM-put-PASS-PERF-LOC19
Lit: 'Mary is put there.'
'Mary is having a deep sleep.'¹⁷

Some of these verbs are transitive (*gukuuramó imyeénda* 'to take off clothes'), while others are intransitive (*Barihó* 'They are alive'). However, it is possible that in many of these cases a location is implied. For example, the location implied by *gukuuramó imyeénda* is the body or the person, meaning that the clothes are 'taken off'; *kubahó* 'to be alive' implies the locative expression 'somewhere', meaning that someone who is alive is 'somewhere'/'there'. However, this implicit location cannot be explicitly expressed; if it is made explicit, the sentence becomes ungrammatical. This is a clear indication that the locative clitic has been lexicalized and become

¹⁶ It is difficult to divide the word *-hisemó* 'choose' into morphemes. Note the root *-hít-* is a cranberry morpheme; it acquires its meaning only when it is suffixed with the locative clitic *hó*.

¹⁷ There is a significant number of words exemplifying lexicalization of the locatives *hó*, *mó* and *yó*: *kurarahó* (pass-the-night-loc) 'to pass the night alive/without having been used'; *gucáhó* (pass-loc) 'to pass someone'; *kwiirwanahó* (fight-oneself-loc) 'to defend oneself'; *kumarahó* (finish-loc) 'wipe off'; *gukorahó* (touch-loc) 'put someone in a difficult situation'; *gutáhó* (throw-loc) 'to follow'; *kuvanahó* (take-loc) 'to remove/cancel'; *kubamó* (be-loc) 'keep a secret for someone'; *kuvamó* (leave-loc) 'betray someone by revealing their secrets'; *gukuramó* (remove-loc) 'to deduct/undress'; *gushyirwayó* (be-put-loc) 'be sleeping deeply'; *kugezwayó* (be-made-to arrive-loc) 'be very ill'.

part and parcel of the word it is attached to with a specific meaning. Compare (53a) above and (54) below.

- (54) *Bakuuye imyeénda kurí bó.
ba-a-kúur-ye i-mi-eénda kurí bó
2.SM-PST-remove-PERF AUG-4-clothes LOC17 2.PRON
'They took off clothes (off the body).'

Besides replacing the whole DP_{Loc} (i.e. the D-head and its complement), there are cases where the locative clitic co-occurs with an object marker referring to the locative NP. Thus, the examples in (55b) and (55c), both of which correspond to (55a), are equally grammatical.

- (55) a. Abaantu baagiiye muu nzu.
a-ba-ntu ba-a-gi-ye mu n-zu
AUG-2-persons 2.SM-PST-go-PERF LOC18 9-house
'People have gone into the house.'
- b. Abaantu baagiiyemó.
a-ba-ntu ba-a-gi-ye-**mó**
AUG-2-persons 2.SM-PST-go-PERF-LOC18
'People have gone into it.'
- c. Abaantu baayigiiyemó.
a-ba-ntu ba-a-**yi**-gi-ye-**mó**
AUG-2-persons 2.SM-PST-9.OM-go-PERF-LOC18
'People have gone into it.'

In (55b), the whole DP_{Loc} is replaced by the locative clitic, while in (55c), the verb bears the locative clitic and the object marker at the same time. This seems to contradict what is stated in the previous paragraphs that the clitic replaces the whole DP_{Loc} . If it was true that the locative clitic replaces the whole locative expression, then it would be difficult to account for the occurrence of the object marker *yi-* of class 9 in (55c) above, which co-occurs with the clitic *mó*. Note that in Kinyarwanda, an object marker is an incorporated pronoun in the sense that instead

of co-occurring with the noun it refers to, it replaces it. If *yi-* replaces the noun *inzu* 'house' in the above example, then it is not clear what the clitic *mó* replaces. Overdulse & Jacob (1998:262) suggest that the clitic is a substitute for a phrase comprising the locative marker and its complements. However, in light of (55c), one would have to say, contrary to Overdulse and Jacob's claim, that the clitic replaces the locative prefix *mu-* only instead of replacing the whole expression, since the DP is already incorporated as an object marker. The issue raised by (55c) will be resolved in chapters 4, 5 and 6, where I discuss incorporation of the locative D-head.

The locative clitics also appear in locative shift constructions, in which the Locative DP becomes the object of the verb. Locative shift is a double object construction in which the locative clitic co-occurs with the Locative DP. It is either attached to the verb as in (56b) or follows the Locative DP, as in (56c).

- (56) a. Baaciiye impapuro mu makayí.
 ba-a-ci-ye i-n-papuro mu ma-kayí
 2.SM-PST-tear-PERF AUG-10-paper LOC18 6-notebook
 'They tore sheets of paper from the notebook.'
- b. Baaciiyemó amakayí impapuro.
 ba-a-ci-ye-mó a-ma-kayí i-n-papuro
 2.SM-PST-tear-PERF-LOC18 AUG-6-notebook AUG-10-paper
 'They have torn sheets of paper from the notebook.'
- c. Baaciiye amakayí mó impapuro.
 ba-a-ci-ye a-ma-kayí mó i-n-papuro
 2.SM-PST-tear-PERF AUG-6-notebook LOC18 AUG-10-paper
 'They have torn sheets of paper from the notebook.'

The analysis of locative clitics in constructions such as those in (56) is offered in chapter 4 where I discuss locative shift constructions. I argue that locative clitics in locative shift are derived by internal merge by incorporating the head of the "big DP_{Loc}" into the head of a small clause/Relator Phrase (Den Dikken, 2006).

The clitic can also co-occur with a preposed Locative DP in locative inversion as in (57).

- (57) a. Imyeénda iri mu kabaati.
 i-mi-eenda i-ri mu ka-baati
 AUG-4-cloth 4.SM-be LOC18 12-wardobe
 'The clothes are in the wardrobe.'
- b. Akabaati karimó imyeénda.
 a-ka-baati ka-ri-mó i-mi-eénda
 AUG-2-wardobe 12.SM-be-LOC18 AUG-4-clothes
 'The clothes are in the wardrobe.'

More details on these constructions are provided in chapter 5 in the analysis of semantic locative inversion.

Locative clitics can also attach to the verb when a locative expression (DP_{Loc}) is preposed as in (58b).

- (58) a. Aba bagabo bageenda mu módoká yaange.
 aba ba-gabo ba-geend-a mu módoká ya-nge
 2.DEM 2-men 2.SM-travel-FV LOC18 9.car 9.ASS-1S
 'These men travel in my car.'
- b. Mu módoká yaange hageendamó aba bagabo.
 mu módoká ya-nge ha-geend-a-mó aba ba-gabo
 LOC18 9.car 9.ASS-1S 16.SM-travel-FV-LOC18 2.DEM 2-men
 'These men travel in my car.'

These constructions show even more clearly that the clitic does not replace the locative expression since they both occur in the same sentence. An analysis of constructions such as those in (58) is provided in chapter 6, which deals with the type of locative inversion referred to as formal locative inversion.

To round off this discussion, we have seen that the locative clitic can replace the DP_{Loc}, it can co-occur with a Locative DP in locative shift constructions, and it can co-occur with either the Locative DP or the DP_{Loc} in locative inversion constructions. These occurrences will be analyzed in subsequent chapters.

For the sake of completeness, I provide a few cases of special uses of the locative clitic; these cases will not be the subject of the analyses in the subsequent chapters.

The locative clitic *hó* is added to greetings to make them sound more polite.

- (59) a. Mwaaramutse (-hó)?
 mu-a-ramuk-ye (-hó)
 2P-PST-pass.the.night.alive-PERF (-LOC16)
 Lit: 'Have you passed the night alive?'
 'Good morning'
- b. Mwiiriwe (-hó)?
 mu-a-írirw-ye (-hó)
 2p-PST-pass.the.day.alive (-LOC16)
 Lit: 'Have you passed the day alive?'
 'Good afternoon'

The locative clitics *hó* and *mó* can also attach to the auxiliary *-rí* 'be' to mark the progressive aspect. There is emphasis on the continuous aspect of the action.

- (60) Abáana barihó barakóra ikizaami.¹⁸
 a-ba-áana ba-ri-hó ba-ra-kór-a i-ki-zaami
 AUG-2-child 2.SM-be-LOC16 2.SM-DJ-do-FV AUG-7-exam
 'Children are doing an exam.'

¹⁸ For Kirundi, the use of the locative clitic is the only way of expressing the present progressive. Recall, however, that Kirundi speakers use the locative clitic *kó* instead of *hó*.

- (61) a. Abáana barimó baríiga igiswáyiré.
 a-ba-áana ba-rí-mó ba-ra-íig-a i-ki-swáyiré
 AUG-2-children 2.SM-be-LOC18 2.SM-PRES-study-FV AUG-7-swahili
 'The children are studying Kiswahili.'
- b. Abáana barimó kwíiga igiswáyiré.
 a-ba-áana ba-ri-mó ku-íig-a i-ki-swáyiré
 aug-2-children 2.SM-be-LOC18 15-study-FV AUG-7-swahili
 'The children are studying Kiswahili.'

In Kinyarwanda, the locative clitic *hó*, like personal pronouns such as *bó* in (62a), may co-occur with the noun it refers to for contrastive topicalization. The example in (62a) shows a case of a personal pronoun co-occurring with the noun it refers to; (62b) shows that a locative clitic can also co-occur with a DP_{Loc} for contrastive topicalization.

- (62) a. Abáana bó bazaabyeemera.
 a-ba-áana bó ba-zaa-bi-éemer-a
 AUG-2-children 2.PRON 2.SM-FUT-8.OM-agree-FV
 'As for the children, they will agree with it.'
- b. I Kigalí hó harakóonja.
 i Kigalí hó ha-ra-kóonj-a
 LOC19 9.Kigalí LOC16 16.SM-DJ-be.cold-FV
 'As for Kigalí, it is cold.'

Notice that although the personal pronoun *ngeewé* 'I' is a first person singular pronoun, it requires the locative clitic *hó* to express contrastive topicalization as in (63).

- (63) Ngeewéhó ndabyéemeye.
 Ngeewé-hó n-ra-bi-éemer-ye
 1S-LOC16 1S-DJ-8.OM-accept-PERF
 'As for me, I accepted it.'

3.2.2 The morphosyntactic properties of the locatives *hó*, *mó*, and *yó*

Having provided the context in which the clitics *hó*, *mó* and *yó* occur, I now turn to their morphosyntactic properties. It was mentioned earlier that the locatives *hó*, *mó*, and *yó* correspond to the locatives *ku-*, *mu-* and *i-*. It has also been shown that they can replace a DP. Their derivation and morphosyntactic properties are addressed below.

Despite being monosyllabic, the locative clitics are not simple constituents; they are complex and derived. To understand their derivation, since they also appear in the table of personal pronouns in chapter 2, I provide a comparison in the paragraphs below between them and personal pronouns in different noun classes.

Absolute pronouns are derived by adding a prefix to the absolute pronoun root *-ó*, which can take the prefix of any noun class. I illustrate the derivation with a few examples (from classes 2, 7, 10, and 11).

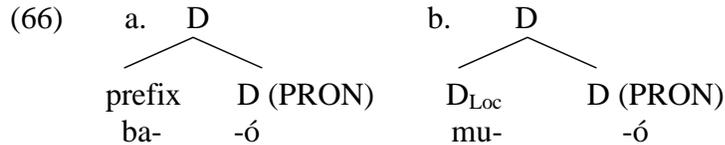
- (64)
- a. *ba-ó* → *bó* cl.2 'them' (e.g. *abaantu* 'persons')
 - b. *ki-ó* → *cyó* cl.7 'it' (e.g. *ikibiíndi* 'pot')
 - c. *zi-ó* → *zó* cl.10 'them' (e.g. *inká* 'cows')
 - d. *ru-ó* → *rwó* 'it' (e.g. *urunigí* 'necklace')

As can be observed above, pronouns like *bó* are bimorphemic, as they are derived by the combination of a noun class prefix and the pronominal root *-ó*.

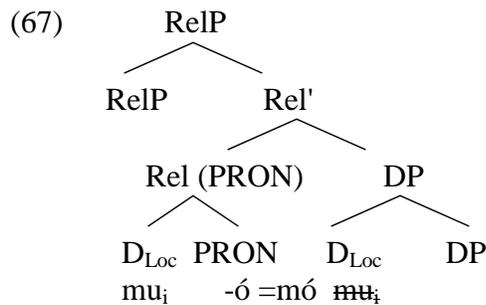
Being pronouns on par with the pronouns in (64) above, the locative clitics are also bimorphemic; they are derived by combining a locative prefix and the personal pronoun root *-ó*. This is shown in (65), where in (65a) the personal pronoun root *-ó* is prefixed with the locative marker *mu-* of class 18 and in (65b) with *i-* of class 19.

- (65)
- a. *mu-ó* → *mó/mwó* cl.18 'there'
 - b. *i-ó* → *yó* cl.19 'there'

This is in line with Chomsky's (2013) observation that pronouns can be complex heads. The locative clitic is a complex pronoun derived by prefixing the locative marker, which I have shown to be a determiner, to the pronominal root *-ó*. The structure for the pronoun *bó* 'them' is shown in (66a) while the structure for the locative clitic *mó* is shown in (66b).



I now suggest that, unlike pronouns, locative clitics such as *mó* can be derived in two ways. They can be derived by external Merge, (66b), or by incorporation of the Locative D-head into the Relator head in the cases of locative shift, locative inversion, and other related constructions such as passives and extractions as shown in (67):



Details of the structure in (67) are provided in chapters 4, 5, and 6.

Thus, from the data in (65), we note a clear correspondence between the locative markers *mu-* and *mó* and *i-* and *yó* as a result of prefixation. This is parallel to (66a) in which personal pronouns are derived by combining the pronoun stem with the class prefix. However, the correspondence between the locative clitic *hó* and the prefix *ku-* is not transparent. Indeed, it is expected that the derivation of the class 17 clitic should be as in (66b), where the pronominal stem merges with the locative. However this is not what happens; merging the class 17 prefix *-ku* and the pronoun root *-ó* does not derive a grammatical construction as shown in (68).

(68) *ku-ó* → **kó* cl.17 'there'

The clitic *-kó* is not licensed in Kinyarwanda as a clitic replacing a DP_{Loc} in class 17 (but note that it is in Kirundi, a language very similar to Kinyarwanda).

As indicated above, a DP_{Loc} headed by the locative *ku-* is replaced by *hó*, instead of *kó*, as illustrated in (69).

- (69) a. Impapuro ziri ku méezá.
 i-n-papuro zi-ri ku méezá
 AUG-10-paper 10.SM-be LOC17 6.table
 'The papers are on the table.'
- b. Impapuro zirihó.
 i-n-papuro zi-ri-hó
 aug-10-paper 10.SM-be-loc17
 'The papers are there.'

The facts in (69) suggest that the derivation is as follows:

(70) *ku-ó* → *hó* 'there'

Note that the class 16 prefix *ha-* also derives the clitic *hó* when combined with the pronominal root *-ó*, as is shown in (71).

(71) *ha-ó* → *hó* 'there'

I suggested above that these complex heads can be derived in two ways: (i) in the lexicon/morphology, by simply attaching a prefix to the nominal part as in (66b); or (ii) by incorporation of the prefix from an underlying construction with a locative expression, (67) (this is discussed in chapter 4). However, it is expected that the combination of *ku-* and *-ó* or incorporation of *ku-* into *-ó* should yield the clitic *kó*, but this is not the case. It is a lexical idiosyncrasy of Kinyarwanda that the syntactic head derived by combining the pronominal root -

ó and the prefix *ku-* of class 17 is spelled out as *hó*, not *-kó*. This can be explained in terms of Distributed Morphology (Halle & Marantz, 1993, 1994). In the syntax, the derivation of the class 17 clitic is entirely regular, but the only vocabulary item available to be inserted into a structure is *hó*.

I summarize in the table below the correspondence between the locative markers, the locative clitics and the locative subject/object marker *ha-*:

Table 11: Locatives, clitics, and object markers

Class	Prefix/Locative marker	Clitic	Locative subject/object marker
16	ha-	<i>hó</i> (<i>yó</i>)	ha-
17	ku-	<i>hó</i> (<i>yó</i>)	ha-
18	mu-	<i>mó</i> (<i>yó</i>)	ha-
19	i-	<i>yó</i>	ha-

3.2.3 The clitic properties of *hó*, *mó*, and *yó*

So far, it has been assumed that *hó*, *mó*, and *yó* are clitics. In this section, I show that although they are complex constituents, they exhibit the properties of clitics. I will illustrate this with some of the criteria proposed in Zwicky & Pullum (1983) and Zwicky (1985) to distinguish clitics from prefixes and words (namely binding, closure and construction), as well as the conjoinability and gapping tests by Bresnan & Mchombo (1995) and Sportiche (1999).

Before looking at the criteria, I wish to mention here that clitics share some properties with affixes. For instance, both are bound morphemes and cannot occur in complete isolation, and they generally need a host to attach to.

Binding: According to Zwicky & Pullum (1983) and Zwicky (1985), a word is independent, whereas a clitic is a bound morpheme because it cannot occur in complete isolation. Only a word can occur in complete isolation. In this regard, *hó*, *mó*, and *yó* are generally bound morphemes

because they do not stand alone, i.e. they must attach to a host. In the conversation below, the answer to the question in (72) is highly marked; a host is required to improve the construction.

(72) Baagezeyó.
ba-a-ger-ye-yó
2.SM-PST-arrive-PERF-LOC19
'They have arrived there.'

(73) Q. Baageze hé?
ba-a-ger-ye hé
2.SM-PST-arrive-PERF where
'Where have they arrived?'

A. ??Yó.
LOC 19
'There.'

The answer in (74) below would be most appropriate.

(74) Baagezeyó.
ba-a-ger-ye-yó
2.SM-PST-arrive-PERF-LOC19
'They have arrived there.'

Closure: certain affixes and clitics 'close off' words to affixation, meaning they do not allow further affixation. This means that "an element that closes off combinations to affixation, or indeed to cliticization, should be a clitic" (Zwicky 1985: 287). The locatives *hó*, *mó*, and *yó* 'close off' affixation; in other words, no suffix can follow them. All the other suffixes precede them (applicative, causative, passive, aspect, etc.), as can be seen in the following example:

- (75) Akazi kazatangirizwayó.
a-ka-zi ka-zaa-tangir-ir-z-w-a-yó
AUG-12-work 12.SM- FUT-start-APPL-CAUS-PASS-FV-LOC19
Lit: 'Work will be made to start there.'
'Work will be started there.'

In this example, the locative *mó* cannot in any case be followed by any other suffix, which is why some Kinyarwanda speakers are tempted to spell it as a separate word.

Construction: Affixes combine with stems or full words; words and clitics combine with words. Put differently, unlike affixes, clitics do not combine with word stems. If the Kinyarwanda locative clitics *hó*, *mó*, and *yó* are considered against this background, they meet the criterion of construction. Indeed, they do not combine with stems (and hence cannot appear before other suffixes). As stated above, they combine with fully inflected words; they follow the last morpheme, including the aspect morpheme in a tensed verb or the final vowel in an infinitive.

The results from the three tests above are corroborated by the conjoinability test which has been applied to other languages to determine the independent status of a constituent (see for example Bresnan & Mchombo (1995), Luís (2004), and Sprotiche (1999)). The conjoinability test aims to show that if two items can be conjoined, they are independent/free morphemes or lexical words; if they cannot be conjoined, then they are bound morphemes. The conjoinability test shows that the locatives *hó* and *mó* cannot be conjoined, thus suggesting that they are bound morphemes.

- (76) a. Ibitabo biri kuu ntébe nó mu tubaati.
i-bi-tabo bi-rí ku n-tébe nó mu tu-baati
AUG-8-book 2.SM-be LOC17 9-chair and LOC18 13-cupboard
'The books are on the chair and in the cupboard.'

- b. *Ibitabo birihó ná mó.
 i-bi-tabo bi-rí-hó ná mó
 AUG-8-book 8.SM-be-LOC17 and LOC18
 Lit: 'The books are on and in.'

The example in (76b) is consistent with Sportiche's (1999:191) analysis of object clitics in French. Sportiche (1999) demonstrates that object clitics in French "cannot be conjoined independently of their V host nor can their V host be conjoined independently of them". The fact that the locatives *hó*, *mó*, and *yó* need a host, but that the host can be of different category (a verb, but also the Locative DP), is evidence that they are clitics.

Another test that shows that locative clitics are not independent words is gapping. The idea is that words allow gapping but gapping should not be possible with affixes and clitics. Gapping is not possible with the locatives *hó*, *mó* and *yó*. Compare (77a) with (77b), in which gapping is possible with full locative expressions such as *kuu nzu* 'at the house' and *muu nzu* 'in the house' and in which it is not possible with *hó* and *mó* which replace *kuu nzu* and *muu nzu*, respectively.

- (77) a. Baageze kuu nzu cyaangwá ~~baageze-~~
 ba-a-ger-ye ku n-zu cyaangwá ba-a-ger-ye
 2.SM-PST-arrive-PERF LOC17 9-house or 2.SM-PST-arrive-PERF
 muu nzu?
 mu n-zu
 LOC18 9-house
 'Did they arrive at or in the house?'
- b. ??Inzu bayigezehó cyaangwá
 i-n-zu ba-yi-ger-ye-hó cyaangwá
 AUG-9-house 2.SM-9.OM-arrive-PERF-LOC17 or
 ~~bayigeze-~~mó?
 ba-a-yi-ger-ye-mó
 2.SM-PST-9.OM-arrive-LOC18
 'Did they arrive at or in the house?'

The conjoinability and gapping tests corroborate the results from the binding, construction and closure tests, all of which suggest that *hó*, *mó*, and *yó* are not words, but that they are rather bound morphemes, notably clitics.

3.3 Conclusion

This chapter has covered two subtopics of locatives: the locative markers *ku-*, *mu-*, and *i-*, and the locative clitics *hó*, *mó*, and *yó*.

It was shown that despite exhibiting the properties of prepositions, the locative markers *ku-*, *mu-*, and *i-* are syntactically determiners. Like prepositions, their s-selection properties are such that they must select an NP complement denoting a location. Furthermore, they express spatial relations such as position, direction, origin or source, path, end point. This may be reason for believing that they are prepositions. However, syntactically, they pattern like augments and demonstratives in various respects.

It was shown that the Locative DPs can appear in two forms, a simple form (e.g. *mu-*) or a complex form derived with the morpheme *-ri*. It was argued that *-ri* is the head of a functional projection that is an extension of a Locative DP which mediates the relation between the locative D-head and a DP complement. Since locative D-heads c-select only nominal categories smaller than D, they cannot merge with a DP directly, as this would be a violation of their c-selectional properties. In order for the derivation to converge, *-ri* must therefore be projected as the sister of DP. Thus this functional projection can combine with the DP complement, which can be headed by an augment, a locative or a demonstrative.

Whether locative expressions headed by *ku-*, *mu-* or *i-* can be grammatical subjects of a sentence when preposed was not discussed in this chapter. This issue will be dealt with in chapter 6 in which I analyze (formal) locative inversion in Kinyarwanda. However, it was shown that the fact that all locative markers trigger the subject marker *ha-* on the verb is an indication that this is a special locative agreement. It was argued that this is only a symptom of a morphological deficit in Kinyarwanda; the locative marker lacks the person and number feature but has a Loc feature that is reflected in the agreement system.

With regard to the locative clitics *hó*, *mó*, and *yó*, it was shown that they appear in various constructions and perform different functions. They can replace a locative expression, they can co-occur with a Locative DP in locative shift, when a Locative DP or a DP_{Loc} is preposed. It was also shown that these clitics are morphologically complex heads. Like pronouns, they are derived by combining a locative prefix with the personal pronoun root *-ó*, but they can also be derived by internal merge by way of incorporation. In this regard, it will be shown in chapter 4 that a locative clitic is a complex head which, in some constructions, is derived by head movement of the locative D-head that adjoins to the Relator head, i.e. the head of the small clause (Den Dikken, 2006, 2007), which is lexicalized as the pronominal element *-ó*. Finally, it was shown in this chapter that the locatives *hó*, *mó*, and *yó* are clitics; they are syntactically dependent elements that require a phonological host.

CHAPTER FOUR: LOCATIVE SHIFT

This chapter focuses on locative shift in Kinyarwanda, a type of double object construction in which the Applied Object is a Locative DP and the Direct Object is the Theme. Locative shift is illustrated by the examples in (1b) and (1c).

- (1) a. Umwáana yaánditse izína **ku** gikapú.
 u-mu-áana a-á-aandik-ye i-zína ku ki-kapú
 AUG-1-child 1.SM-REM-write-PERF AUG-5.name LOC 17 7-bag
 'The child wrote the name on the bag.'
- b. Umwáana yaánditse**hó** igikapú izína.
 u-mu-áana a-á-aandik-ye-hó i-ki-kapú i-zína
 AUG-1-child 1.SM-REM-write-PERF-LOC17 AUG-7-bag AUG-9.name
 'The child wrote the name on the bag.'
- c. Umwáana yaánditse igikapú **hó** izína.
 u-mu-áana a-á-aandik-ye i-ki-kapú hó i-zína
 AUG-1-child 1.SM-REM-write-PERF AUG-7-bag LOC 17 AUG-9.name
 'The child wrote the name on the bag.'

The example in (1a) is an SVO sentence in which the Theme DP *izína* 'the name' is the Direct Object, which appears adjacent to the verb. In addition, the locative expression *ku gikapú* 'on the bag' is part of the predicate. (1b) and (1c) are locative shift constructions. In (1b), the locative clitic *hó* appears attached to the verb, and the DP *igikapú* 'the bag' is closer to the verb and precedes the Theme DP *izína* 'the name', which is now realized as the second object of the verb. I henceforth refer to the first object-DP of a locative shift construction as the "Locative DP", since it seems to fulfill the same thematic role as that expressed by the locative expression in examples such as (1a). In (1c), the Locative DP also follows the verb and precedes the Theme

DP, but the clitic is no longer attached to the verb. Instead, it appears between the Locative DP and the Theme DP.¹⁹

While locative shift constructions are possible with classes 17 and 18 with the clitics *hó* and *mó* respectively, there is no locative shift with the clitic *yó*. The sentences in (1b,c) illustrate locative shift with the clitic *hó* (class 17) while those in (2b,c) illustrate locative shift with the clitic *mó* (class 18), but the sentences in (3b,c) with the clitic *yó* (class 19) are ungrammatical.

- (2) a. Abanyéeshuúri baáciye impapuro **mu** makayí.
 a-ba-nyéeshuúri ba-á-cí-ye i-n-papuro mu ma-kayí
 AUG-2-student 2.SM-REM-tear-PERF AUG-10-sheet LOC18 6-notebook
 'The students tore sheets of paper from notebooks.'
- b. Abanyéeshuúri baciye**mó** amakayí impapuro.
 a-ba-nyéeshuúri ba-á-cí-ye-mó a-ma-kayí i-n-papuro
 AUG-2-student 2.SM-REM-tear-PERF-LOC18 AUG-6-notebook AUG-10-sheets.of.paper
 'The students tore sheets of paper from notebooks.'
- c. Abanyéeshuúri baáciye amakayí **mó** impapuro.
 a-ba-nyéeshuúri ba-á-cí-ye a-ma-kayí mó i-n-papuro
 AUG-2-student 2.SM-REM-tear-PERF AUG-6-notebook LOC18 AUG-10-sheetsof paper
 'The students tore sheets of papers from notebooks.'
- (3) a. Umucúruuzi yajyaanye umuceri **i** Butáre.
 u-mu-cúruuzi a-a-jyaan-ye u-mu-ceri i Butáre
 AUG-1-trader 1.SM-PST-take-PERF AUG-3-rice LOC19 9.Butáre
 'The trader took the rice to Butare.'
- b. *Umucúruuzi yajyaanyeyó Butáre umuceri.
 u-mu-cúruuzi a-a-jyaan-ye-yó Butáre u-mu-ceri
 AUG-1-trader 1.SM-PST-take-PERF-LOC19 9.Butáre AUG-3-rice
 Intended: 'The trader took the rice to Butare.'

¹⁹ Speakers' judgments vary with regard to locative shift constructions. Some find them marked or ungrammatical (see Jero (2013)). The author and some other speakers consulted during the elicitation process find them grammatical (see also Kimenyi (1980)).

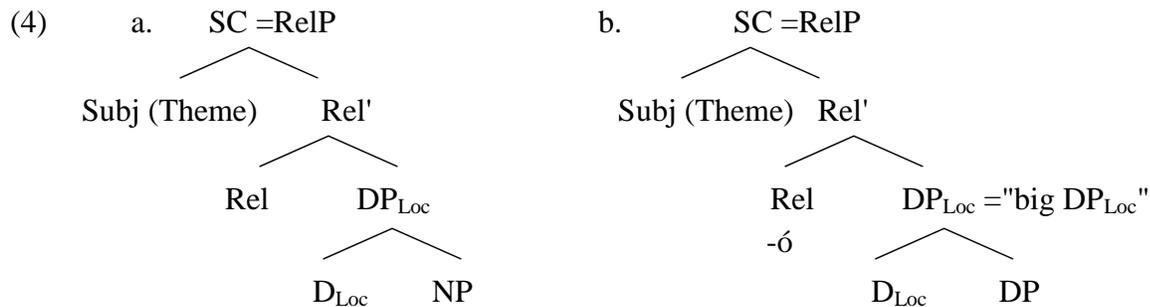
- c. *Umucúruuzi yajyaanye Butáre yó umuceri.
 u-mu-cúruuzi a-a-jyaan-ye Butáre yó u-mu-ceri
 AUG-1-trader 1.SM-PST-take-PERF 9.Butáre LOC19 AUG-3-rice
 Intended: 'The trader took the rice to Butare.'

Since class 19 does not allow locative shift, locative shift constructions that will be dealt with in this chapter are those including the locative clitics *hó* and *mó* of classes 17 and 18. It is not clear why the locative clitic *yó* of class 19 does not appear in locative shift constructions. The peculiar behavior of class 19 might be due to the fact that the locative marker *i-* is significantly different from the other two locative markers (see the discussion in chapter 3). While the locatives *ku-* and *mu-* can head common or proper nouns, the locative marker *i-* mainly selects proper names. As I will argue below, locative shift constructions are derived from underlying constructions in which a locative marker incorporates into a pronominal head to derive the corresponding locative clitic, while its complement, the Locative DP, is promoted to a higher position. If one assumes that there is a restriction that prevents proper names of location from appearing in the object position as Applied Objects, then the impossibility of locative shift with the clitic *yó* can perhaps be explained as a result of the selectional properties of the locative marker *i-*. I leave this point open as a topic for further research.²⁰

²⁰ Note, however, that the clitic *yó* appears on the verb when the Locative DP is pro, (ia), when it has been object-marked, (ib) or when the locative expression has been passivized, (ic):

- (i) a. Umucúruuzi yajyaanyeyó umuceri.
 u-mu-cúruuzi a-a-jyaan-ye-yó u-mu-ceri
 AUG-1-trader 1.SM-PST-take-PERF-LOC19 AUG-3-rice
 'The trader took the rice there.'
- b. Umucúruuzi yawújyaanyeyó.
 u-mu-cúruuzi a-a-wu-jyaan-ye-yó
 AUG-1-trader 1.SM-PST-3.OM-take-PERF-LOC19
 'The trader took it there.'
- c. I Butáre hajyaanweyó umuceri.
 i Butáre ha-a-jyaan-w-ye-yó u-mu-ceri
 LOC19 9.Butare 16.SM-PST-take-PASS-PERF-LOC19 AUG-3-rice
 'Rice was taken to Butare.'

This chapter focuses on constructions like (1b) and (1c) in which the object Locative DP is seemingly introduced by the clitic *hó* or *mó*. I will argue that locative constructions like (1a-c) contain a small clause comprising of a subject (the Theme) and a predicate (the locative expression or DP_{Loc}). I will show that in (1a), the locative determiner head (D_{Loc}) selects an NP, while in (1b,c), it exceptionally selects a DP instead of an NP. This DP formed by the $D_{Loc}+DP$ will be referred to as "big DP_{Loc} ". The structure in (4a) shows a DP_{Loc} that we find in locative constructions with SVO order such as (1a), whereas (4b) is the representation of a small clause with a "big DP", which serves as the basis for the derivation of the locative shift constructions in (1b,c). Note that the head of the small clause in (4a) is null, while it is realized as the personal pronoun root *-ó* in (4b).



I assume that locative shift constructions are derived by movement of the Locative DP – the complement of the D_{Loc} in (4b) – from the small clause to a position where it precedes the Theme. This movement is licensed by incorporation of the head of the "big DP_{Loc} " into the head of the small clause (which I call "Relator", following Den Dikken (2006, 2007)). Due to the fact that the Relator phrase is a phase, the Locative DP can escape the phase by moving to the edge of the phase, which is the second specifier of the Rel, where it is visible to external probing heads. From SpecRel, the Locative DP can be attracted to the specifier of the Linker, a functional head which serves as a landing site for movement of the complement of the incorporated D_{Loc} head. Details are provided in section 4.3, in which I propose my analysis of locative shift.

4.1 Previous studies

Double object constructions in Bantu languages have attracted the attention of many researchers including, but not limited to, Kimenyi (1980, 1995), Marantz (1984, 1993), Baker (1988),

Bresnan & Moshi (1990), Alsina & Mchombo (1993), Mchombo (1993), Machobane (1995), Moshi (1998), Ngonyani (1998), Mchombo & Firmini (1999), Pylkkänen (2000), McGinnis (2001), Zeller & Ngoboka (2006), Georgal & Whitman (2008). However, most of these authors do not specifically focus on locative double object constructions, which I refer to in this thesis as locative shift constructions. Below, I provide a brief review of the analyses proposed in Baker (1988), Nakamura (1997), and Zeller & Ngoboka (2006), which are of particular relevance to the study of locative shift in Kinyarwanda. What these analyses have in common is that they account for the derivation of certain types of double object constructions (such as applicative constructions) in terms of incorporation. Nakamura (1997) and Zeller & Ngoboka (2006) are particularly relevant to my study, given that they both deal specifically with Kinyarwanda locative shift and are also conducted within the framework of the Minimalist Program, which I also adopt in this thesis. I will also briefly discuss other accounts of double object constructions which could potentially be applied to Kinyarwanda, namely those proposed by Larson (1988) and McGinnis (2001).

4.1.1 Preposition incorporation

The theory of incorporation, as developed by Baker (1988), accounts for various grammatical function changing processes. It covers applicatives, causatives, instrumentals, etc. Baker (1988:229) defines incorporation as a "syntactic movement of an X^0 category to adjoin to its X^0 governor". This movement must obey the Head Movement Constraint, as proposed in Travis (1984: 129):

(5) *Head movement constraint (HMC):*

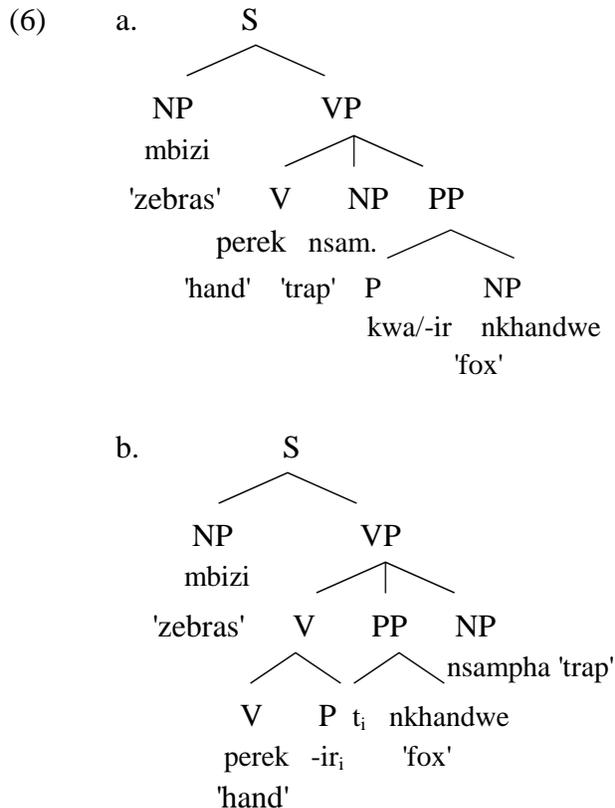
An X^0 may only move into the Y^0 which properly governs it (Baker, 1988:53).

Baker illustrates incorporation as head movement with the following Chichewa benefactive applicative construction:

- (6) a. Mbidzi zi-na-perek-a msampha kwa nkhandwe. [Chichewa]
zebras SP-PST-hand-ASP trap to fox
'The zebras handed the trap to the fox.'

- b. Mbizizi zi-na-perek-er-a nkhandwe msampha.
zebras SP-PST-hand-APPL-ASP fox trap
'The zebras handed the fox the trap.' (Baker, 1988: 229)

According to Baker (1988), the syntactic representation of the above sentences looks as follows:



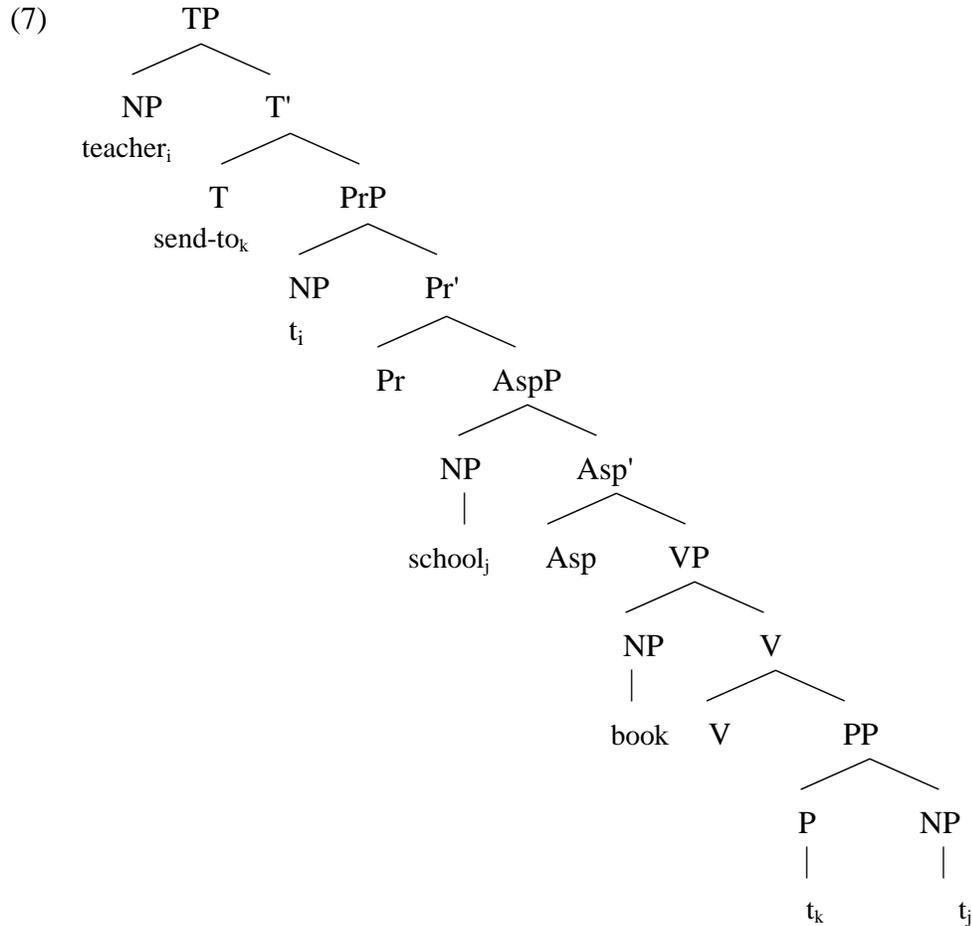
The syntactic representations show that the Applied Object is generated at D-structure²¹ as the object of the preposition in both (6a) and (6b). According to Baker, the preposition in (6b) is the applicative marker, which has the form of an affix, so it has to find a host into which to incorporate (See Baker's (1988:140) *Stray Affix Filter*). After incorporation of the applicative suffix, the NP stranded by the affixal preposition becomes the Direct Object of the verb. As a consequence, the Theme and the Applied Object exhibit different syntactic properties in Chichewa. The Applied Object acquires the properties of a Direct Object, supplanting the Theme, which loses all of those properties. The Applied Object is closer to the verb, it can be

²¹ Baker's theory was proposed in the framework of Government and Binding, where D-structure representations were mapped onto S-structure representations by movement.

passivized, object-marked or extracted. In contrast, the Theme occupies the second position, cannot be passivized, object-marked or extracted.

Baker's theory of incorporation is adopted in Nakamura's (1997) and Zeller & Ngoboka's (2006) analyses of locative shift in Kinyarwanda. Like Baker (1988), Nakamura assumes that in Kinyarwanda, Locative DPs are prepositional phrases. Nakamura (1997) groups applicatives into four types. Types I and III are derived by preposition incorporation. Examples of these are the Kinyarwanda locative shift constructions (which he refers to as locative applicatives) and the Chichewa benefactive applicatives. Nakamura (1997) assumes that in these constructions, the applicative construction alternates with a construction with a full PP. Types II and IV are derived by the combination of the applicative morpheme and the verb in the lexicon, whereby the applicative adds a new argument to the argument structure of the verb. I will focus on Nakamura's analysis of types I and III here, since they are derived syntactically via incorporation, which is relevant to my analysis.

According to Nakamura, in applicatives of types I and III, an aspect phrase (AspP) is projected above VP for structural Case assignment. The Theme is in SpecV while the Applied Object (Locative DP) is the object of a preposition. The preposition incorporates into the verb and, after incorporation, the Applied Object moves to SpecAsp where it is assigned structural Case and c-commands the Theme. As for the Theme, it remains in SpecV where it receives inherent Case. As a consequence, the Applied Object, which c-commands the Theme in SpecV, has all the properties of a primary object (for example, it can be passivized and object-marked), while the Theme lacks these properties. The syntactic representation of locative shift constructions looks as follows (Nakamura, 1997: 260):



According to Nakamura, the Theme can be targeted by movement only in a non-applied construction, before the Applied Object moves across the Theme. Once the Applied Object is in SpecAsp, it blocks movement of the Theme to a higher position. This is in accordance with the Minimal Link Condition (Chomsky 1995, 2000, 2001).

(8) *Minimal Link Condition* (Chomsky, 1995: 311)

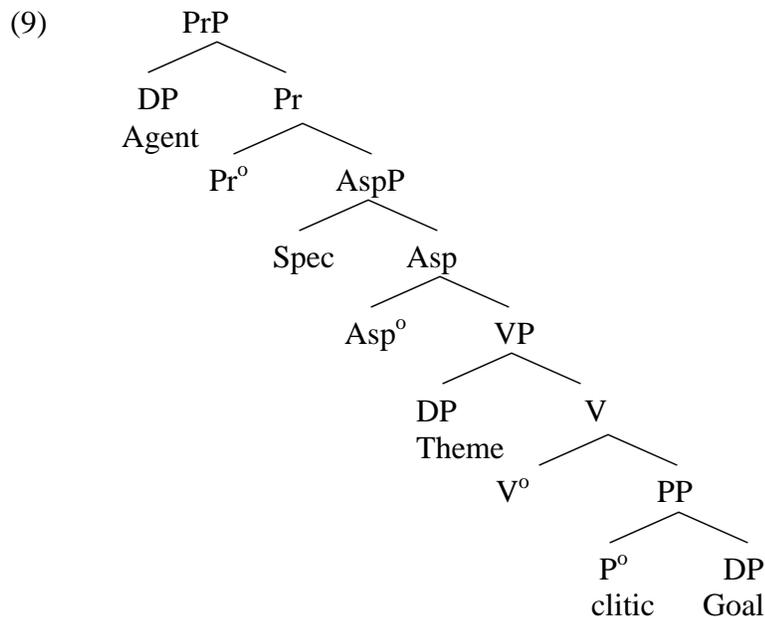
K attracts α only if there is no β , β closer to K than α such that K attracts β .

Therefore, as long as the Locative DP is in SpecAsp and hence c-commands the Theme, the latter cannot undergo any movement operation as it is blocked by the former. According to Nakamura, this explains why in Kinyarwanda, the Locative DP can be passivized and object-marked while the Theme cannot.

Zeller & Ngoboka (2006) draw on Baker (1988) and Nakamura (1997) in their analysis of locative shift in Kinyarwanda. The main assumption by Zeller and Ngoboka is that the Theme's lack of primary object properties is not due to its failure to get structural Case as Nakamura claims. Following Ura (1996) and McGinnis (McGinnis, 1998, 2001, 2004), they argue that the asymmetrical behavior of the objects is due to the violation of locality constraints, specifically the Minimal Link Condition, as defined in (8) above.

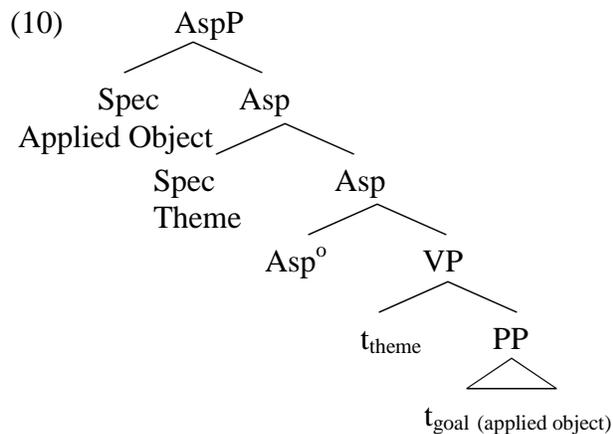
Zeller and Ngoboka assume two functional projections, both of which are adopted from Nakamura: Predicate Phrase, referred to as PrP (due to Bowers (1993)) and AspP. Whereas PrP introduces the external argument, AspP is where structural Case is assigned. VP is selected by AspP, and AspP is the complement of PrP. Zeller and Ngoboka further argue that AspP projects multiple specifiers because it is assumed that in Kinyarwanda the verb has two structural Cases to assign to the two objects in a double object construction.

Following Larson (1988), Zeller and Ngoboka assume that the Theme is merged as the specifier of VP. They follow Baker (1988) and Nakamura (1997) in representing the Locative DP as the complement of a preposition, which according to them is the locative clitic that incorporates into the verb. Their syntactic representation of a locative shift construction looks as follows (Zeller & Ngoboka 2006:106):



This syntactic representation makes it possible to explain the different object properties of the Theme, namely word order, passivization, object-marking and extraction, as well as Case assignment.

In the above configuration, since the Theme c-commands the Locative DP, the MLC dictates that it is the first to be attracted to SpecAsp for Case checking. After this movement, its copy is not phonetically realized; therefore, it does not block movement of the Applied Object (see Chomsky, 2000, who assumes that phonetically unrealized elements are not visible for the MLC). The Applied Object is also attracted by Asp and moves to a second specifier of Asp above the Theme in the lower SpecAsp (note that Zeller & Ngoboka (2006:107-108) do not assume tucking-in à la Richards (1997)). Consequently, the Applied Object in the higher SpecAsp c-commands the Theme in the lower SpecAsp:



The consequence (of the fact that the Locative DP c-commands the Theme in (10)) is that the former is visible to a probing head and can be passivized, object-marked or extracted. At the same time, Zeller and Ngoboka argue that the MLC blocks these operations from applying to the Theme. In other words, the MLC also holds for the asymmetrical relation between two DPs in the specifiers of the same head; they are not analyzed as being equidistant.

Zeller and Ngoboka's (2006) analysis captures two important aspects of locative shift. First, like Nakamura, they can explain that the Theme DP in locative shift constructions usually has no primary object properties, since the Locative DP is closer to the functional heads that license operations such as passivization and object-marking, and the Theme DP cannot cross the

Locative DP in the higher SpecAsp. However, a second important aspect of locative shift, which is not discussed in Nakamura's (1997) study, is that the Theme can adopt primary object properties in certain contexts and can be passivized, object-marked and extracted. This aspect is also explained by Zeller and Ngoboka's theory. I return to the relevant data, and the analysis thereof, in section 4.4.2 below.

Although the theory of preposition incorporation developed by Baker (1988) and advocated by Nakamura (1997) and Zeller & Ngoboka (2006) addresses the issue of the asymmetry between the two objects in locative shift, a number of issues cannot be accounted for in these accounts because they are based on wrong assumptions and are incomplete in many respects.

First of all, all the three accounts wrongly assume that locative expressions in Kinyarwanda (which I have labeled DP_{LocS} in (4a) and (4b) above) are PPs. I have shown in chapter 3 that what they call a PP is actually a DP headed by a locative class marker whose category is the same as that of other determiners, such as augments.

Secondly, the three accounts discussed above all assume that the incorporated and the non-incorporated locative morpheme are the same element. One is in the form of an affix and the other an independent preposition. According to Baker (1988:22), a locative such as *ku-* is a preposition that is "morphologically independent" while a clitic like *hó* is a corresponding applicative affix (see also Nakamura, 1997:266). An important fact is ignored here, namely the clitic that attaches to the verb is not a simple morpheme. As I showed in chapter 3, despite being monosyllabic, the clitic is not monomorphemic; it is rather a complex head derived by the combination of the locative marker and the personal pronoun root *-ó*. A clitic like *mó* is a complex head comprising of the locative marker *mu-* and the pronominal element *-ó* as $mu+ó=mó$. I argue below that this combination can be derived syntactically, via incorporation of the head of the "big $DPLoc$ " into the head of the small clause, the Relator, headed by the pronominal element *-ó*.

Thirdly, the accounts proposed in Baker (1988), Nakamura (1997), and Zeller & Ngoboka (2006) are based on incorporation of a preposition into the verb. Therefore, these accounts cannot explain the different positions of the locative clitic. As it can be observed in (1b,c), repeated here

as (11), the clitic can precede or follow the locative DP, appearing between the two objects rather than attached to the verb.

- (11) a. Umwáana yaánditsehó igikapú izína.
u-mu-áana a-á-aandik-ye-hó i-ki-kapú i-zína
AUG-1-child 1.SM-REM-write-PERF-LOC17 AUG-7-bag AUG-9.name
'The child wrote the name on the bag.'
- b. Umwáana yaánditse igikapú hó izína.
u-mu-áana a-á-aandik-ye i-ki-kapú hó i-zína
AUG-1-child 1.SM-REM-write-PERF AUG-7-bag LOC 17 AUG-9.name
'The child wrote the name on the bag.'

It is important to point out that constructions such as (11b), with the clitic following the Locative DP, is the more unmarked form of locative shift. My elicitation has revealed that speakers prefer locative shift constructions when the clitic appears between the Locative DP and the Theme over the one in which the clitic attaches to verb. Therefore, I assume that the former is the canonical type of locative shift, while the latter is a slightly more marked construction. Importantly, the above analyses based on incorporation into the verb cannot account for this type of locative shift and the position of the clitic between the two objects. If the locative clitic is incorporated into the verb, it would be difficult to explain how it can be linearly separated from the verb by the Locative DP in examples such as (11b).²² Therefore, I will argue below that the incorporating element (a determiner, not a preposition) does not incorporate into the verb, but into the head of the small clause Rel. This head moves to the functional head, the Linker, and remains in this position in constructions such as (11b). Moreover, I will show that even constructions where the verb and the clitic are adjacent do not necessarily involve incorporation of the latter into the verb. Details are provided in the actual analysis below.

²² While Baker (1988) and Zeller & Ngoboka (2006) are silent about the two positions of the locative clitic, Nakamura (1997: 257) at least identifies the problem although he does not attempt to address it. He notes in passing, in a footnote (see footnote 9), that the locative clitic is peculiar in that it is not suffixed directly to the verb and that it can even appear after the Locative DP. In the same footnote, he wonders how incorporation can apply to this construction since the clitic is supposed to incorporate into the verb. He has no more to propose regarding this phenomenon.

Finally, none of the accounts discussed above can account for the difference between the preposed Locative in locative shift constructions, which is in the form of a DP, and the postverbal Locative in constructions such as (1a), which is a bare NP. Since these accounts assume that the head of the locative expression has incorporated, it is expected that what becomes the first object in a locative shift construction is the complement of the incorporated locative marker, which would be an NP: notice that the noun headed by the locative D-head is an augmentless noun (i.e. *-gikapú* 'bag' in (1a)); yet what becomes the Applied Object is a full DP with an augment (*igikapú* in (11b) and (11c)). This issue will be resolved in the proposal I am putting forward, which suggests the projection of a "big DP_{Loc}", i.e. a locative expression with a locative D-head that exceptionally selects a full DP rather than a locative NP.

Given the issues I have highlighted above, I propose an alternative analysis of locative shift below which maintains the idea that these constructions are derived via incorporation, but which takes into account aspects of locative shift that have been ignored or overlooked by previous analyses, such as the categorial nature of the incorporating element, the complex morphological form of the clitic, the different positions of the clitic, and the fact that the Locative phrase which appears as the first object in locative shift constructions is a fully-fledged DP.

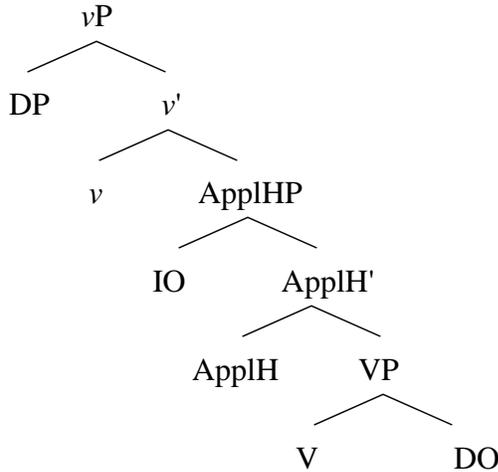
4.1.2 Other accounts of double object constructions

In this section, I briefly discuss the analyses of double object constructions proposed in McGinnis (2001) and Larson (1988). McGinnis's proposal is interesting for my analysis in that she offers an account of double object constructions based on phase theory, which I am also adopting. Larson's (1988) analysis of double object constructions is not directly concerned with Bantu languages or Kinyarwanda specifically, but could potentially account for this phenomenon if applied to Kinyarwanda locative shift.

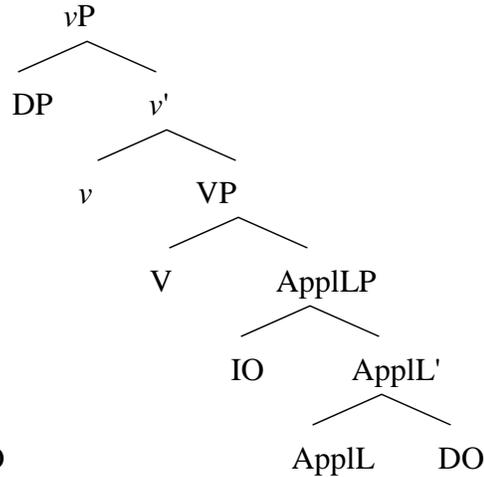
McGinnis' analysis of applicatives draws on Pylkkänen (2000). According to Pylkkänen, there are two types of applicatives, High Applicatives and Low Applicatives. Pylkkänen (2000) argues that high applicatives express a relation between an event and an individual, whereas low applicatives express a relation between two individuals. Syntactically, this difference is

represented as in (12) (IO stands for Indirect Object (Applied Object) while DO stands for Direct Object):

(12) a. High Applicatives



b. Low Applicatives



In high applicatives, the applicative morpheme relates a DP in its specifier to a VP-complement and expresses a relation between an object and an event, while a low applicative head relates the DP-specifier to a DP-complement, hence expressing a relation between two objects. High applicatives correspond to symmetrical applicatives, while low applicatives are equivalent to asymmetrical applicatives. The two types can be distinguished in terms of their object properties such as passivization, object-marking, and word order. In high applicatives, both objects have all the properties of a primary object, but this is not the case with low applicatives. According to Pylkkänen (2000), low applicatives require a transitive verb whereas high applicatives can combine with any type of verb. High applicatives are possible with unergative verbs, those kinds of verbs that can take a cognate object. Since this object is implicit, high applicatives merge with a VP complement and a DP specifier while low applicatives merge below VP with a DP complement and a specifier.

To account for different behaviors of objects in these applicatives, McGinnis further develops Pylkkänen's (2000) account by adopting the theory of phases (Chomsky, 2000, 2001). Following the idea that little v normally selects the VP and is analyzed as a strong phase, McGinnis proposes that the sister of VP counts as a strong phase head if it assigns a theta-role to its

specifier. According to this definition, the head of ApplP in high applicatives counts as a phase, because it selects VP and assigns a theta-role to the Applied Object in its specifier. In contrast, the low applicative phrase is not the sister of VP, and so it does not count as a phase.

The Phase Impenetrability Condition dictates that once a phase is completed, constituents inside the phase become inaccessible to further operations:

(13) *Phase Impenetrability Condition* (Chomsky 2001:13)

The domain of H is not accessible to operations outside HP; only H and its edge are accessible for such operations.

(13) would predict that in (12a), only the Applied Object in the specifier of ApplH is "accessible to operations outside" ApplH. However, according to McGinnis, an edge- or EPP-feature can be added to a phase head before the phase is completed, so that it is possible for elements in the domain of the phase head to move to the edge (i.e. the specifier of the phase head) from where they are accessible. In high applicatives, for instance, the Applied Object is closer to T, but because ApplH is a phase, a phase-EPP-feature can be added so that the Direct Object can leapfrog over the Applied Object and also become accessible. That is why both the Applied and the Direct Object in high applicatives have primary object properties; for example, both objects can be attracted to SpecT in a passivation process. In contrast, in low applicatives, the phase-EPP-feature of v can be checked only by the Applied Object because of the locality constraint captured by the MLC. The Applied Object blocks the Direct Object from checking the EPP-feature of v ; only the Applied Object can move to the edge of vP . This implies that the Direct Object cannot become visible to an external probing head due to the Phase Impenetrability Condition; it is trapped inside the phase and the MLC cannot allow it to move to the edge of the phase across the Applied Object.

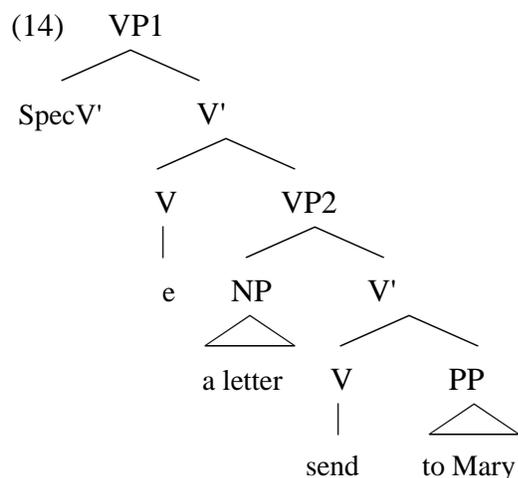
If applied to Kinyarwanda, this analysis can explain the asymmetry between the two objects. An assumption can be made that Kinyarwanda locative shift constructions are low applicatives and that both the Applied Object (the Locative DP) and the Direct Object (the Theme) are embedded in vP . If a phase-EPP-feature is added to v , it can be checked by the Applied Object, not the Theme. This would explain why the Theme cannot undergo passivization, object-marking and

even extraction since it is trapped inside the phase. However, as will be discussed in more detail in section 4.4.2 below, locative shift constructions are not asymmetrical in all contexts, but allow the Theme DP to be passivized, object-marked or extracted under certain conditions. McGinnis' (2001) analysis cannot account for these facts; it only explains those cases where the Theme lacks primary object properties.

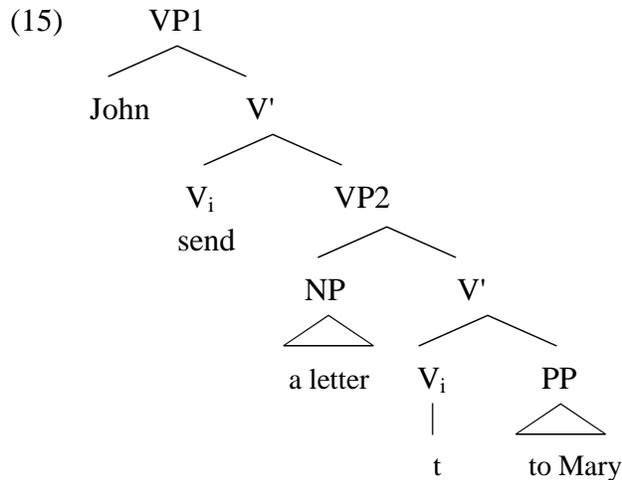
Nevertheless, McGinnis's (2001) claim that phase heads can be equipped with an EPP-feature that can attract a constituent to its specifier will be adopted to account for movement of constituents out of the phase. For instance, I will demonstrate that the Theme can escape the phase in which it is projected before the phase is completed, thanks to the phase-EPP-feature.

Now I turn to Larson (1988). Although Larson's analysis is about English double object constructions, some of its aspects can potentially be applied to Kinyarwanda locative shift.

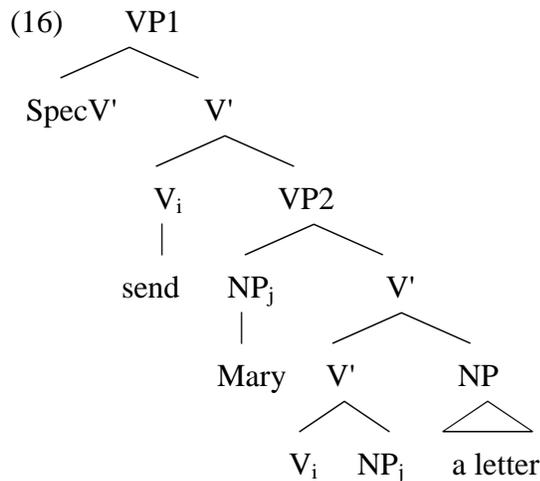
In Larson's (1988) analysis, the double object derivation is similar to passivization. A double object construction starts as a dative construction in which the predicate consists of two VPs, VP1 and VP2. In a dative construction like *John sent a letter to Mary*, the head of the lower VP (VP2) has as its complement the PP *to Mary*, which includes the Goal NP *Mary* and the specifier *a letter*. The head of the higher VP (VP1) is empty and the subject is in its specifier (p. 351):



In the derivation, the lower V raises to the head of VP1 and this derives the dative sentences shown in (15) (p. 353).



A double object construction such as *John sent Mary a letter* is derived as follows. Larson assumes that in languages such as English, which do not have applicative morphemes, the preposition is simply absorbed (in contrast to preposition incorporation proposed in Baker (1988) for the derivation of applicative double object constructions in Bantu languages). After the preposition is absorbed, the Goal NP moves to the specifier of the lower VP, which is a Case position, and the Theme NP adjoins to V' as an adjunct. The resulting structure is as follows (p. 353).



Although Larson's analysis is not about Bantu, it looks suitable, because dative shift is an alternation which looks like locative shift in Kinyarwanda. Larson's analysis could be adopted for Kinyarwanda to account for some aspects of Kinyarwanda locatives as follows. One could

argue that the PP in (14) and (15) corresponds to the locative expression DP_{Loc} in Kinyarwanda and that the derivation of non-shifted constructions with the word order V-Theme- DP_{Loc} proceeds as in (15). The locative shift construction is then derived as in (16): Instead of being absorbed, the locative D-head of DP_{Loc} incorporates into the lower verb, and the stranded Locative DP moves to a higher position (such as SpecVP2) for structural Case assignment (see Zeller, 2006a; Zeller & Ngoboka, 2006, for analyses of locative shift in this spirit). As a consequence, the Locative DP, which is now the object of the verb, acquires all the properties of a primary object, while the Theme has become an adjunct and loses these properties. In this respect, the Kinyarwanda locative shift construction would be similar to the English dative shift.

In my account of locative shift constructions, I adopt this (modified) Larsonian analysis. However, the morphological structure and syntactic position of the clitic require a more detailed analysis of the functional architecture. For this, I adopt the idea that both objects of a dative or double object construction originate as parts of a small clause – which leads me to the next section.

4.2 Small clauses

In this section, I provide the background to small clauses based on Stowell (1981), Williams (1980), Hoekstra & Mulder (1990), and others (section 4.2.1). In section 4.2.2, I discuss some accounts of the head of the small clause (according to Hoekstra & Mulder (1990), Haegeman (1994), Heycock (1995), Bowers (1993)). In section 4.2.3, I discuss Den Dikken's (2006, 2007) analysis of small clauses. In the latter discussion, focus will be specifically on what Den Dikken calls the 'Relator', the head of the small clause, and the 'Linker', the functional head which serves as a landing site for the moved Locative DP. It will also be shown that small clauses are phases.

4.2.1 Definition and basic structure

The term "small clause" was used for the first time by Stowell (1981), but the theory of small clauses has also been advocated in works such as Chomsky (1981, 1986b), Hoekstra (1988), Hoekstra & Mulder (1990), Bowers (1993), Den Dikken & Næss (1993), Den Dikken (1995), Heycock (1995), Moro (1997, 2000), Citko (2008), Basilico (2003) and others. A small clause is generally known as a syntactic unit consisting of a (NP/DP) subject and a predicate. A small

clause is a clause lacking a verb (Trask, 1993), a verbless predicate (Haegeman, 1994: 123), "any construction consisting of a subject and a non-verbal predicate" (Citko 2008: 262).

The concept of small clause is applicable to constructions like (17) from Stowell (1981: 257), in which the italicized part is a small clause:

(17) I consider *John very stupid*.

Similar constructions had been identified earlier by Williams (1980: 203):

- (18) a. *John is sad*.
b. John ate *the meat raw*.
c. John made *Bill mad*.

Williams (1980) and Stowell (1981) argue that small clauses are [DP XP] structures (note that in their terminology, they use NP instead of DP). Whereas DP and XP are in a subject-predicate relationship, with no verb involved, XP represents the categories DP, AP or PP. Consider again the following construction from Stowell (1981:257), comprising a small clause with a PP predicate.

(19) I expect *that sailor off my ship*.

According to Hoekstra & Mulder (1990), the representation of a small clause with a PP predicate looks as follows:

(20) DP V [_{sc} DP PP]

Note that (20) does not specify the category of the small clause and the syntactic relation between the subject DP and the predicate PP. One question that arises with respect to the latter point is whether this relation is mediated by a (potentially null) head which selects the PP as its complement and the DP as its specifier. In fact, the nature of the head of the small clause has

been the subject of debate in the literature. Given its relevance to the analysis I am proposing in this thesis, I discuss a few previous accounts below.

4.2.2 The head of the small clause

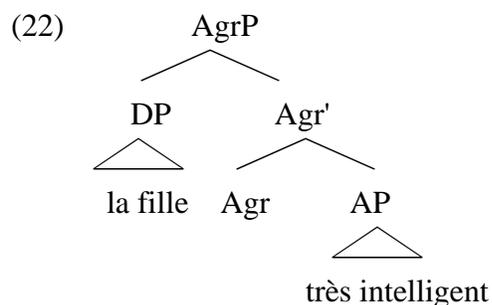
Different accounts concur that the small clause is a constituent. However, proposals differ with regard to what heads the small clause. Nonetheless, it is generally argued that the small clause has a head (Kayne, 1994:69); the specifier is the subject DP while the complement is the (DP, PP, or AP) predicate.

Haegeman (1994), following Den Dikken & Næss (1993:323), who owe the idea to Chomsky (1993), proposes, for example, that the head of a small clause is Agree (Agr). Her argument is based on the following French example (p.125).

(21) Je considère *les filles très intelligentes*.

I consider the girls very intelligent

(21) shows that in the small clause *les filles très intelligentes*, the predicate *très intelligentes* agrees with the small clause subject *les filles* in number and gender. This leads Haegeman to assume that in (21), Agr is the head of the small clause whose subject is the DP *la fille* and whose predicate is *très intelligent*. The syntactic representation looks as follows (Haegeman, 1994:125):



According to Heycock (1995), a small clause in a copular construction is headed by Aspect (Asp). In her analysis of small clauses, copular verbs such as *be*, *remain*, and *become* select a

projection (the small clause) with a null aspectual head, whose complement is the predicate, as shown in (23).

(23) be/remain/become [_{Asp} [_{Asp'} Asp [DP John [DP our real problem]]]]

Heycock (1995) assumes that in the derivation of an inverse construction, Asp adjoins to the matrix verb, as shown in (24):

(24) be/remain/become +Asp [_{Asp} [_{Asp'} t_i [DP John [DP our real problem]]]]

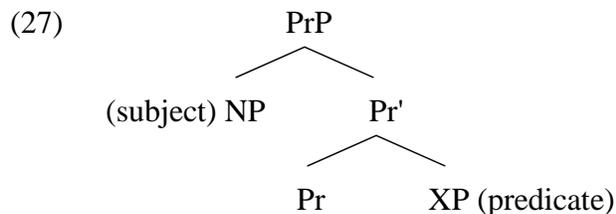
Following Chomsky (1993), Heycock (1995) assumes that after Asp has adjoined to the verb, the DP *John* and the DP *our real problem* in (24) become equidistant (see also Den Dikken (1994:5) for a similar view). Therefore, either the DP *John* or *our real problem* can move to the subject position. This implies that if the DP *John* moves, we derive the canonical copular construction in (25).

(25) John is/becomes/remains our real problem.

If the DP *our real problem* moves to the subject position, we derive the inverse copular construction.

(26) Our real problem is/has become/remains John.

In Bowers' (1993) analysis, the head of a small clause is a functional category Pr (standing for predication). The syntactic representation of PrP looks as follows (Bowers, 1993: 595):



The specifier of Pr is occupied by the subject of the small clause, and its complement is the predicate, which can be an AP, a DP, or a PP (see Adger and Ramchand (2003) for a similar analysis). Thus a sentence like *They consider John crazy*, which comprises the small clause *John crazy*, would be represented as follows:

(28) [IP They consider [PrP John [Pr' [Pr e] [AP crazy]]]] (Bowers, 1993:295)

In short, the views differ as to what heads the small clause. It can be a preposition in a small clause of the type [DP PP] (Hoekstra & Mulder (1990); it can be Agr (Haegeman and Den Dikken & Næss), Asp (Heycock), or Pr (Bowers).²³

In Den Dikken's (2006) proposal, which I will discuss in the next section, the head of the small clause is different: it is generally referred to as a "Relator", which can be phonetically null or instantiated by a lexical element. As I am going to adopt the notion of Relator Phrase in my analysis of locatives both in this chapter and subsequent chapters, I discuss Den Dikken's account of predicate inversion from a small clause.

4.2.3 Small clauses as Relator Phrases (Den Dikken 2006, 2006)

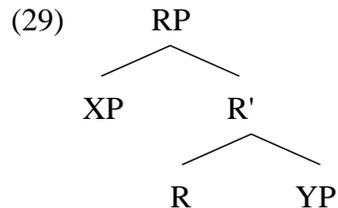
4.2.3.1 The Relator Phrase configuration

According to Den Dikken (2006), predicate inversion in a small clause means inversion of the predicate around the subject, which results in a construction in which the predicate of the Relator precedes the subject. An example of predicate inversion was presented in the context of the discussion of Heycock's (1995) proposal in (26) above. In his analysis, Den Dikken (2006) assumes that the term 'subject' does not refer to a thematic subject and that it is not equivalent to an external argument. For Den Dikken, an unaccusative predicate such as *fall* or *die*, which has no external argument, nevertheless has a subject. With regard to the predicate, it is the syntactic constituent that denotes a property of the subject. A small clause equals a Relator phrase (RelP), whose head, the 'Relator', functions as a syntactic and semantic link between the subject and the

²³ A different view of small clauses is advocated by Moro (1997, 2000), who argues that none of the two constituents forming a copular small clause projects; instead, Moro argues that small clauses are symmetrical constructions in which the two maximal projections of subject and predicate are sisters (see also Chomsky (2008, 2013) for a similar view, especially with regard to the problem of labeling small clauses).

predicate. As Den Dikken (2006:1) puts it, the Relator "mediates the relationship between a predicate and its subject ."

The syntactic configuration of a Relator phrase is as follows (Den Dikken 2006:11):



In the above abstract representation of the Relator Phrase, RP stands for Relator Phrase, XP stands for the subject of the Relator while YP is the predicate. As Den Dikken himself notes, the Relator head bears some resemblance to Bowers' (1993) Pr (predication) head. For example, as small clauses, both Rel (Relator) and Pr (Predication) project a specifier, in which the subject is merged. However, they differ in the following way. In Bowers' (1993) theory, Pr is an independent functional category that assigns a theta-role to its specifier, whereas Rel in Den Dikken's analysis is a "placeholder for *any* head" (p. 15); it does not assign any theta-role, and it could be lexicalized as the copular *be*, a preposition like *for*, functional heads such as T, Topic or Focus, or it may be silent if it is not instantiated by any lexical head.

4.2.3.2. The Relator phrase as a phase

Den Dikken (2006) assumes that RelP is a phase. This follows from Chomsky's (2000, 2001) assumption that phases are "propositional" and correspond to phrases that include the subject and the predicate. Therefore, according to Den Dikken (2006:112), RelP, like *vP*, is a strong phase, a "phase in its own right". Since RelP is a phase, syntactic movement from RelP is constrained by Chomsky's (2001) Phase Impenetrability Condition defined in (13) and repeated here as (30):

(30) *Phase Impenetrability Condition* (Chomsky, 2001:13)

The domain of H is not accessible to operations outside HP; only H and its edge are accessible for such operations.

Since RelP is a phase, the subject in SpecRel is on the edge but the predicate is not. Movement should target the subject, which is on the edge of the Relator phase, or the head. In other words,

an external probe cannot see a constituent below the head of a phase. Therefore, an Agree relationship cannot be established between the predicate of a small clause (or anything contained in the predicate) and a probing head.

In order to explain predicate inversion, Den Dikken (2006, 2007) proposes two operations that allow for movement of the small clause predicate across the subject: (i) the head of the predicate raises up to the Relator; (ii) a functional head is introduced outside the Relator phrase and the Relator head raises to it. The structure in (31) shows the first operation. The head of the predicate (XP) has adjoined to the head of the Relator phrase (Den Dikken 2006: 113):

(31) $[_{RP} DP [_{RELATOR+X_j} [_{XP} t_j \dots]]]$

The raising of the head of the predicate to the Relator head ensures two things: the predicate becomes visible to external probes outside of the Relator phase; and the predicate and the subject become equidistant (see the discussion Den Dikken, 2006: 113-115). Den Dikken assumes that the predicate and the subject are in the same minimal domain, including Spec LkP and Spec RelP.²⁴

According to Den Dikken (2006), the operation of raising the head of the predicate alone is sufficient to allow inversion to take place. Den Dikken (2006: 14-15) argues that "raising of the predicate head to the head position of the small-clause phase makes the predicate's features visible on the head of the phase (the RELATOR) by literally transferring the features of the predicate head right up to the head of the phase". This means that this operation makes the head and its maximal projection visible to probing heads. Note that according to den Dikken, what moves is the remnant headless XP.

²⁴ In fact, incorporation of the head of the predicate does not make the subject and the predicate equidistant. The following slightly modified definition of the minimal domain of a head movement chain enables den Dikken to account for equidistance between the predicate and the subject:

- (i) The *minimal domain* $\delta_{\text{MIN}}(\text{CH})$ of a chain resulting from head adjunction of α to β is $\delta_{\text{MIN}}(\alpha) \cup \delta_{\text{MIN}}(\beta)$ (den Dikken 2006:114).

The operation in (ii) is the second step in the derivation of an inverse construction. It consists of introducing an outside functional head, the Linker, to which the Relator raises. The Linker is defined as "the manifestation of a syntactic aid to inversion" (Den Dikken 2006: 80). It is a functional head, whose specifier serves as a landing site for the moved predicate.

According to Den Dikken, the raising of the Relator head to the Linker head gives rise to "Phase Extension", defined as follows:

- (32) *Phase Extension* (Den Dikken 2007: 1)
 Syntactic movement of the head H of a phase α up to the head X of the node β dominating α extends the phase up from α to β ; α loses its phasehood in the process, and any constituent on the edge of α ends up in the domain of the derived phase β as a result of Phase Extension.

When the Relator head movement extends the RP phase to LkP, the resulting configuration is as follows (p. 115):

- (33) $[_{LkP} Lk+R_i [_{RP} SUBJECT [t_i [PREDICATE]]]]$

As a result of this raising of the Relator head to the Linker head, a minimal domain is created, which includes SpecLk and SpecRel, hence enabling the predicate to raise to SpecLk. Therefore, the predicate can move to SpecLk, resulting in inversion of the subject and the predicate of the small clause. This is shown in the structure in (34) (p.115):

- (34) $[_{LkP} PREDICATE_j [Lk+R_i [_{RP} SUBJECT [t_i t_j]]]]$

Movement of the predicate to SpecLk has a consequence for the predicate as well as for the subject. Regarding the predicate, it is now on the edge of an extended phase, hence, it is visible to an outside probe for possible movement to a higher position. As for the subject, it is trapped inside the extended phase according to (34). Recall that before incorporation of the Relator into

the Linker and movement of the predicate to SpecLk, the subject was visible to external probes, as it was located on the edge of the Relator phase. However, now it is no longer on the edge because it is embedded within the new phase created by phase extension as a result of movement of the Relator head. The subject is no longer visible to an outside probe, and no Agree relationship can be established because of the PIC.

In my analysis of locative shift, I adopt various aspects of Den Dikken's (2006, 2007) theory of small clauses outlined above, including his proposal that head movement can extend a phase. To account for locative constructions in Kinyarwanda, I adopt Den Dikken's proposal of a Relator head projecting a small clause with the Theme DP projecting as the small clause subject in SpecRel and the locative expression (the DP_{Loc}) as the complement of the Relator head. I also adopt the idea that the head of the predicate can incorporate into the head of the small clause. As I will argue below, the Relator head in locative shift constructions is lexicalized as the pronominal form *-ó* in Kinyarwanda, which attracts the head of the DP_{Loc} (the locative marker) to incorporate into it. The resulting complex head corresponds to the locative clitic. Finally, I will also adopt Den Dikken's proposal that a Linker phrase can project above the Relator phrase, and I will show that the Linker phrase includes a landing site for movement of the Locative DP, the complement of the locative marker, from the small clause predicate. In the next section, I demonstrate that the syntactic properties of locative shift constructions presented above follow from this proposal.

4.3 An analysis of Kinyarwanda locative shift

4.3.1 The basic locative structure

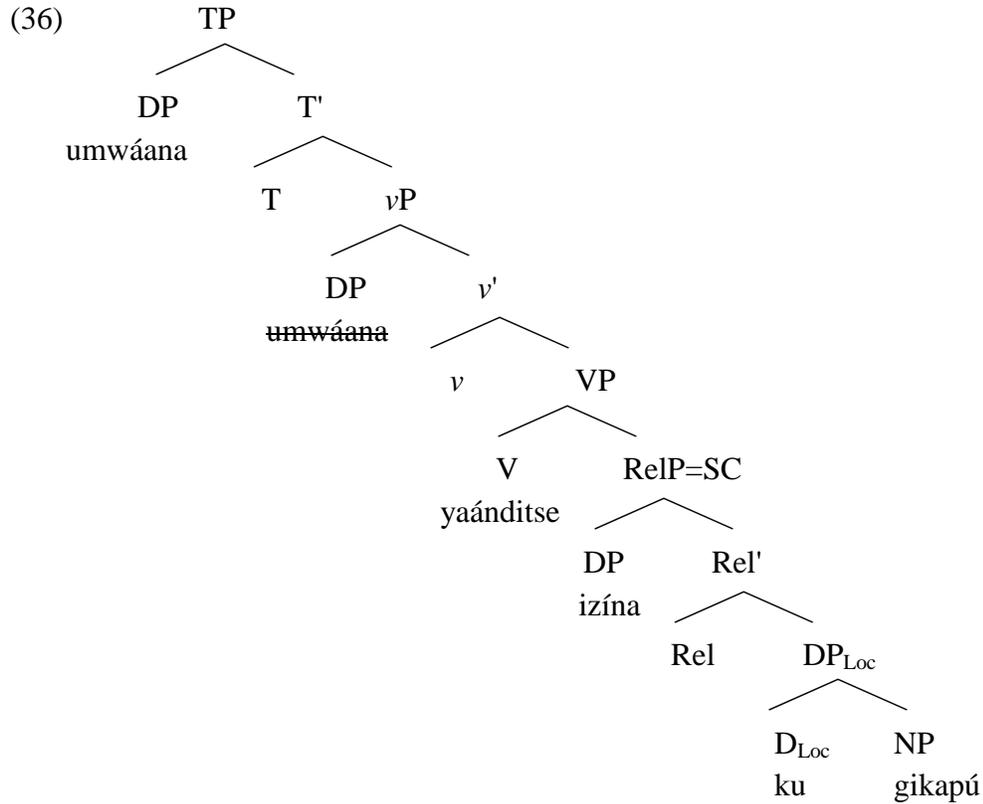
My analysis of locative shift is concerned with the alternation presented in (1), repeated here as (35):

- (35) a. Umwáana yaánditse izína **ku** gikapú.
 u-mu-áana a-á-aandik-ye i-zína ku ki-kapú
 AUG-1-child 1.SM-REM-write-PERF AUG-9.name LOC17 AUG-7-bag
 'The child wrote the name on the bag.'

- b. Umwáana yaánditse**hó** igikapú izína.
 u-mu-áana a-á-aandik-ye-hó i-ki-kapú i-zína
 AUG-1-child 1.SM-REM-write-PERF-LOC17 AUG-7-bag AUG-9.name
 'The child wrote the name on the bag.'
- c. Umwáana yaánditse igikapú **hó** izína.
 u-mu-áana a-á-aandik-ye i-ki-kapú hó i-zína
 AUG-1-child 1.SM-REM-write-PERF AUG-7-bag LOC17 AUG-9.name
 'The child wrote the name on the bag.'

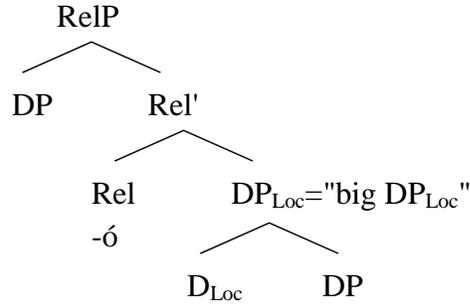
Sentence (35a) is an SVO locative construction. (35b) is a locative shift construction in which the Locative DP *igikapú* precedes the Theme DP *izína*, and in which a locative clitic attaches to the verb. The sentence in (35c) is another instance of locative shift. Like in (35b), the Locative DP precedes the Theme but, in contrast to (35b), the clitic appears between the Locative DP *igikapú* 'bag' and the Theme *izína* 'name'.

I now propose that locative constructions in Kinyarwanda always contain a small clause which includes two DPs. The Theme DP is the subject of the small clause, and the small clause predicate is a locative DP (DP_{Loc}) headed by the locative marker. Adopting Den Dikken's (2006) proposal of a Relator Phrase, I assume that the locative construction in (35a) contains a Relator phrase of the type $[_{RelP} DP [_{Rel} DP_{Loc}]]$, namely *izína ku gikapú* 'name on the bag'. The Theme DP *izína* 'the name' is the subject of Rel while the DP_{Loc} *ku gikapú* 'on the bag' is the predicate. The Relator head is null. The Relator phrase *izína ku gikapú* is the complement of the verb; the external argument is introduced by *v*, which selects the VP. The structure of (35a) is shown in (36):



As noted above, my analysis of locative shift constructions such as (35b) and (35c) is based on the key idea that also underlies most of the proposals discussed in section 4.1, namely that the word order of locative shift constructions, with the Locative DP preceding the Theme DP, is derived by movement. I will argue that the Locative DP in locative shift constructions originates as part of the DP_{Loc} -predicate of a small clause. However, as I will demonstrate in the following and subsequent sections, the structure of the small clause and the locative predicate in a locative shift construction such as (35b) and (35c) look slightly different from the RelP shown in (36). In (36), which represents the locative SVO construction in (35a), the locative D_{Loc} -head selects a locative NP, and the Relator head is null. In contrast, I will argue that in constructions such as (35b) and (35c), the locative D_{Loc} -head exceptionally selects a Locative DP rather than a Locative NP, resulting in a "big DP_{Loc} "-predicate. Furthermore, I will argue that the Relator head in (35b) and (35c) is realized as the pronominal root *-ó*. Thus, the syntactic representation of the Relator phrase in locative shift constructions in (35b) and (35c) is (4b), repeated here as (37).

(37)



Details of this exceptional c-selection of the locative D_{Loc} -head are provided in 4.3.3, where I will argue that the structural configuration in (37) needs to be "undone" by movement of both the head of the DP_{Loc} (which incorporates into Rel) and the Locative DP (which moves to the specifier of the functional head, the Linker, where it precedes the Theme). This is how locative shift constructions are derived. In the following section 4.3.2, I motivate the idea that the Relator head in (35b) and (35c) corresponds to the pronominal root *-ó*.

4.3.2 The pronominal nature of Rel

As noted above, I adopt earlier analyses of locative double object constructions in Kinyarwanda and assume that in locative shift constructions such as (35b) and (35c), the Locative DP has moved out of the RelP to a higher position above the Theme DP. However, as mentioned above, in (35b) and (35c), the D-head exceptionally c-selects a DP, rather than an NP (see (37)). This DP cannot be accessible for probing from above, since the RelP is a phase, and the PIC does not allow constituents in the c-command domain of the phase head to enter Agree-relations with higher probes. The question therefore arises which process allows for the Locative DP to be extracted from RelP in locative shift.

Before proceeding to the process of movement of the Locative DP across the Theme in SpecRel (see section 4.3.3 below), it is worth determining at this stage in some detail what the Relator head is in Kinyarwanda and how it affects the realization of the incorporated locative determiner.

Recall that in the preposition incorporation analysis proposed in Baker (1988), Nakamura (1997), Zeller & Ngoboka (2006), and Zeller (2006a), the locative D-head is treated as a preposition (see section 4.1). The common assumption among the authors above is that this P-head incorporates into, or cliticizes to, the verb. When the preposition raises and incorporates into its host, it is

realized as a clitic (e.g. *hó*). This means that, according to what is generally assumed in the literature, the difference between an element such as *ku-* that appears in the basic locative construction in (35a), and the locative clitic that appears in locative shift and other similar constructions, is that the former is an "ordinary" preposition, a free morpheme, while the latter is of an affixal or clitic-nature (see Baker, 1988; Nakamura, 1997; Zeller & Ngoboka, 2006; and Zeller, (2006a). Adopting this view for the data presented in (35) implies that the difference between the form of the preposition and the clitic is accidental; the preposition happens to be a form like *ku-* or *mu-*, while the clitic just happens to be a corresponding form ending in *-ó* (i.e. *mó* or *hó*).

In contrast to this view, I suggest that the change of the form of the "preposition" (which I have found to be a locative determiner) is not entirely accidental. First, notice that there are indeed languages which exhibit preposition incorporation without the so-called preposition changing its form. For example, in languages such as English (Baker, 1988) and Lunda (Kawasha, 2007), the clitic and the preposition have the same phonological realization, no matter whether they are incorporated or in situ heading a PP. Here are examples:

- (38) a. I went to the house.
 b. This is the house I went to.

- (39) a. Mumbanda washa kabáka mwihébi. [Lunda]
 mu-mbanda wu- a- sh-a ka-báka mu-i-hébi
 1-woman SM1- TNS-put-FV 12-corn LOC-5-basket
 'The woman put the corn in the basket.'
- b. Mumbanda wakishámu.
 mu-mbanda wu- a- ki- sh-a-mu
 1-woman SA1-TNS-OM12-put-FV-LOC
 'The woman put it in it.' (Kawasha, 2007:43-44)

As can be seen in the above examples, the English and Lunda prepositions *in* and *mu* incorporate into the verb but do not show any morphological change.²⁵ In Lunda for example, the preposition is realized as *mu* in (39a) when it heads a locative expression while in (39b), in which its complement is not expressed, the preposition has incorporated into the verb, but in both cases the locative appears as *mu*. Regarding the case of English, Baker (1988: 260) argues that sentences like (38b) "have the properties of preposition incorporation, but without actual incorporation". This "abstract" preposition incorporation makes it possible to extract the DP *the house* in (38). It is therefore necessary to find out why the Locative D-heads *ku-* and *mu-* take the forms *mó* and *hó* in Kinyarwanda when they incorporate, in contrast to the languages above in which the incorporated elements is similar to the non-incorporated one.

I suggest that the morphology of the Kinyarwanda locative clitic points to the presence of a pronoun. It was demonstrated in chapter 3 that the locative clitic results from the combination of the locative marker and a personal pronoun root as follows: $mu + ó = mó$; $i + ó = yó$; and $ku + ó = hó$.

I now propose that the *o*-vowel, which turns the form of the locative marker into that of the locative clitic, is associated with the head of a Relator phrase, which attracts the head of its DP_{Loc} -complement. The difference between Kinyarwanda and languages such as English, Lunda, and Luganda is that in the latter languages, the Relator is not associated with phonetic content of any sort. In contrast, in languages such as Kinyarwanda and Luhya, in which, for example, the clitic *hó* appears on the verb, the Relator is lexicalized by the personal pronoun *-ó*. When the locative D-head incorporates into Rel, the phonological form of the complex head therefore corresponds to that of the locative clitic.

Taking the above into account, I have assumed that in Kinyarwanda the Relator head can be realized in two ways: it is null in non-inverted locative constructions such as (35a) but lexicalizes as the personal pronoun root *-ó* in locative shift constructions, as was shown in (37). This results in the locative clitics *hó* or *mó*, depending on whether the locative marker attracted to it is *ku-* or

²⁵ Luganda, another Bantu language, has constructions similar to (39b) in which a locative preposition such as *mu* incorporates into the verb without a change of morphology (Mr Gonza Mayingo, p.c.).

mu-.²⁶ However, recall from chapter 3 that the fact that the combination *ku-ó* realizes as *hó* can be explained in terms of Distributed Morphology with regard to insertion of vocabulary items associated with the terminal node derived by syntactic incorporation. I assume that since *kó* does not appear as a locative clitic, *hó* is the default, not being specified for a specific locative class.

There is independent evidence for my claim that the Relator-head can be lexicalized as a pronominal element in Kinyarwanda. Recall that according to Den Dikken (2006), the label "Rel" is simply an umbrella term for various different categories that can function as elements which connect subjects and predicates. Such elements can be copulas, prepositions, or other functional heads, such as Focus or Topic. According to my proposal, pronouns represent another type of functional category that can act as a Relator. Interestingly, there are languages where pronominal elements are in fact used as copulas, for example Zulu (Buell, 2008; Buell & de Dreu, 2013), Hebrew (Hazout, 2010), and Polish (Citko 2008):

(40) A-ba-wona a-masela. [Zulu]
 NEG-2.SM-6PRON ART-6thieves
 'They are not thieves.' (Buell, 2008:19)

(41) Dan *hu* sar ba- memšala. [Hebrew]
 Dan he minister in.the government
 'Dan is a cabinet member.' (Hazout, 2010:472)

(42) Jan *to* mój najlepszy przyjaciel. [Polish]
 Jan pro my best friend
 'Jan is my best friend.' (Citko, 2008: 262)

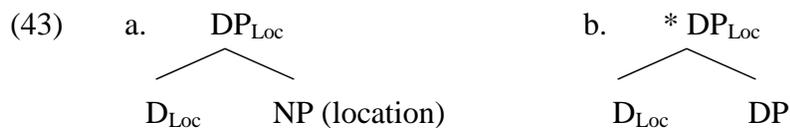
As (40) shows, negated nominal predicate constructions in Zulu may be formed by means of a strong pronoun which agrees in noun class with the following nominal predicate and links it to the subject. Inflectional morphology is realized on the pronoun. This suggests that the pronoun in

²⁶ When the locative marker is *i-*, the result is the clitic *-yó*, which may occur in the constructions mentioned in footnote 20.

(40) is the head of a Relator phrase which selects the nominal predicate as its complement and the subject in its specifier. The same assumption can be made about the syntax of the Hebrew example in (41), where the pronoun *hu* connects the subject *Dan* and the nominal predicate *sar bamemšala*, or about Polish in (42) in which the pronoun *to* connects the subject *Jan* and the predicate *mój najlepszy przyjaciel*. The data shows that the assumption that Rel in Kinyarwanda locatives can be lexicalized as a pronoun is not a construction-specific stipulation, but is independently motivated.

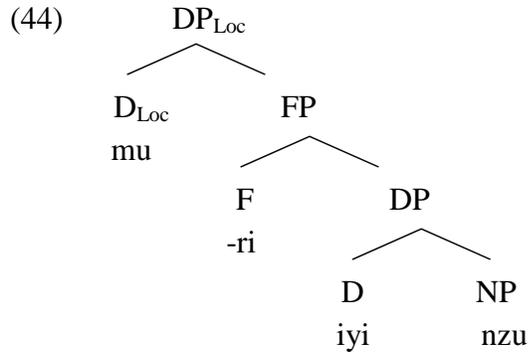
4.3.3 D_{Loc}- to-Rel movement

Now that it has been established that the Relator head is a (bimorphemic) pronoun that heads a phrase, I examine the issue of the c-selectional property of the D_{Loc}-head in relation to the structures in (36) and (37). It was shown in chapter 3 that what is often treated as a locative PP is actually a DP (DP_{Loc}) because the locative marker has the same syntactic distribution as determiners such as augments and demonstratives. As a determiner, the D_{Loc} c-selects an NP, not a Locative DP, as in (43a) below. If the D_{Loc}-head selects a DP, as in (43b), its lexical c-selectional requirement is violated and the derivation crashes.



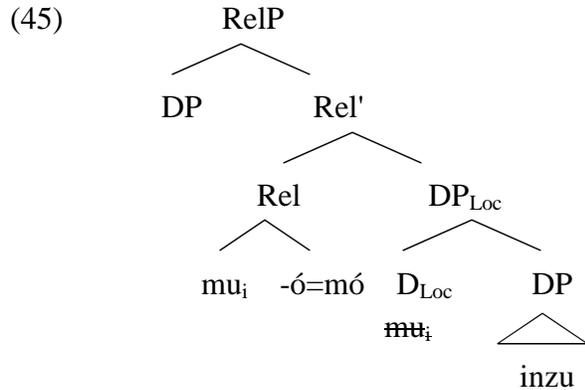
However, it was shown in chapter 3 that there are cases where (43b) can be rescued from crashing. Such a situation occurs when a demonstrative DP should be selected by the D_{Loc} (locative marker). Although this should be possible semantically, a configuration in which the locative marker directly combines with the demonstrative DP is not licensed, as illustrated by the ungrammatical example **mu iyi nzu* 'in this house'. I have argued that in this case, the D_{Loc}-head must combine with the expletive morpheme *-ri*, which I assume heads a functional projection (FP) of a nominal nature that projects between the D_{Loc}-head and the DP. The resulting syntactic representation of the grammatical DP_{Loc} *muri iyi nzu* is shown in (44):²⁷

²⁷ One problem remains, though: it is not clear why D cannot c-select a DP, which is also a functional projection, whereas its c-selectional properties allow it to merge with FP.

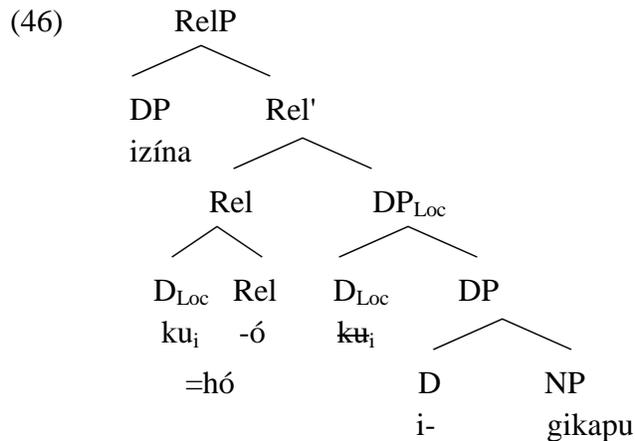


However, I propose that there is an alternative way in which the combination of D_{Loc} and a DP denoting a location can be syntactically licensed. Instead of merging a DP with a nominal functional head, whose projection then merges with D_{Loc} (as in (44)), I suggest that the c-selectional requirements of D_{Loc} can also be satisfied if D_{Loc} incorporates into another head which is nominal in nature. In this case, I suggest that it is possible that D_{Loc} merges directly with another DP, because the D_{Loc} -head is not pronounced as the sister of a DP, but as part of the complex head derived via incorporation. I assume that the c-selection is checked in the mapping to PF, before complex syntactic structures are spelled-out by vocabulary items, so the syntactic derivation that counts for the licensing of c-selectional properties is the one that reflects the output of movement operations. In other words, a "big DP_{Loc} " is licensed after all, but only if this DP_{Loc} is the complement of a nominal head into which D_{Loc} can incorporate. I suggest that the Relator head in (37) above, which corresponds to the pronominal head $-\acute{o}$, is suitable to license a "big DP_{Loc} "-complement. The pronominal Rel-head attracts the D_{Loc} ²⁸, thereby rescuing the derivation from crashing:

²⁸ See Heintz (2006) who argues that pronouns are roots. This is in line with my claim that the root $-\acute{o}$ is a (pro)-nominal, which must attract a locative determiner.



It was shown in chapter 3 that absolute pronouns such as *bó* 'them' consist of a pronoun root *-ó* and a functional noun class marker *ba* resulting in *ba-ó* (*bó*). Similarly, I argued that the morphological structure of the locative clitics is complex as well: they also consist of the pronominal root and a locative class prefix. Crucially, I suggest that the relevant morphologically complex terminal node that can be associated with a locative clitic via vocabulary insertion can also be derived syntactically. Thus, when the D_{Loc} head *ku-* incorporates into the pronominal Rel-head *-ó*, the resulting head is spelled out as the locative clitic *hó*, as shown in (46):



Matushansky (2006) suggests that nominals have uninterpretable N-features that can be checked by D as verbs have uninterpretable V-features that can be checked by T. In (46), the Relator, which is in the form of the personal pronoun *-ó* and hence has nominal features, targets the D_{Loc} -head, which checks off its uninterpretable N-features. The incorporation of the D-head into the

Relator derives the complex Relator head (*mó* or *hó*). By contrast, in cases of a non-shifted locative construction such as (36), the Relator head is null and the locative D-head does not need to be attracted to it: the c-selectional property remains intact since in this case, the locative D-head selects an NP.

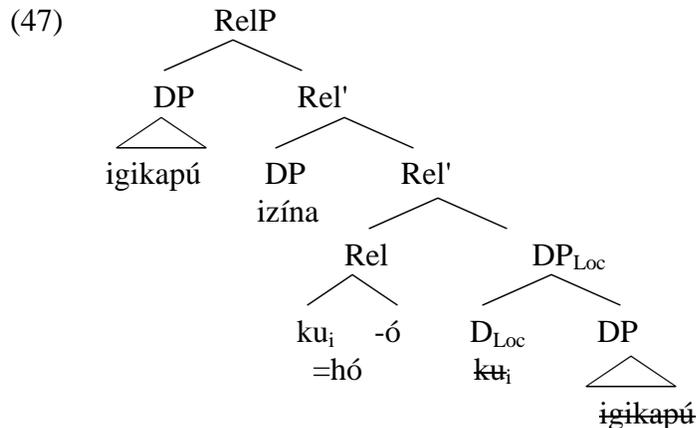
4.3.4 Movement of Locative DP to the second SpecRel

I now turn to the Case requirements of the relevant DPs that form a small clause in locative constructions. In canonical constructions such as (35a), where the locative marker selects an NP, it is plausible to assume that the DP_{Loc} bears some sort of inherent Case that is linked to the locative semantics of its head. The Theme DP in SpecRel is in the c-command domain of v and will receive structural Case from v (perhaps after moving to Spec v).

However, in locative shift constructions, D_{Loc} selects another DP, not an NP. The view I am adopting is that the D_{Loc} -head is not a Case assigner, so it cannot assign Case to its Locative DP-complement. This means that the Locative DP must move to a position where its Case feature is checked. This is in contrast with the non-inverted constructions in which the D_{Loc} selects an NP, which does not need case. However, the small clause RelP, which constitutes a phase, does not include a possible Case assigner. This means that, in order to guarantee that the Locative DP-complement of D_{Loc} will eventually receive Case from an element outside RelP, it has to move to the edge of the phase, i.e. to a second specifier of RelP. In this position, it will be accessible for the relevant Agree relation with another head that will ultimately lead to the valuation of the Locative DP's Case feature.

I therefore suggest that there is an EPP-feature associated with the pronominal Rel-head that attracts the Locative DP, which moves to a second specifier of RelP across the Theme.²⁹ As a result, the Locative DP is on the edge of the RelP-phase and can be the target of external probes:

²⁹ Notice that movement of the Locative DP is motivated by Case, even though the relevant Case assigner is not part of the RelP phase. The potential Look-ahead problem that arises from this assumption can be solved if the theory proposed in Bošković (2007) is adopted. According to Bošković (2007), movement is not triggered by attracting features, but by unchecked features of the moving element (see also Stroik 2009; Zeller 2015). According to this view, movement of the Locative DP to the edge of the phase is necessary simply because the Case feature of the Locative DP is unchecked in its base position. The DP therefore has to move in order to remain visible for heads merged outside the RelP phase, "in the hope" that an appropriate Case assigner will eventually be introduced in the



The derivation in (47) involves movement of the Locative DP out of the complex "big DP_{Loc}". A problem of this analysis is that it possibly constitutes a violation of the "complex NP constraint" (Ross, 1967). Moreover, if DPs are phases (which seems to be the standard assumption in current syntactic theory; cf. Bošković (2014) and references therein), then the Locative DP should not be able to escape the DP_{Loc} and move to SpecRel, as it is in the domain of the phase head D_{Loc}.

However, a solution to this problem is provided by Den Dikken's (2006, 2007) theory of phase extension, according to which movement of a phase head X into the next higher head Y extends the phase to YP (see (32) above). Since D_{Loc} incorporates into Rel, the DP-phase is extended to RelP (which is a phase already). Crucially, according to (32), DP_{Loc} loses its status as a phase in the process, and elements within DP_{Loc} can therefore move to the edge of the next phase, i.e. to SpecRel. In short, incorporation of D_{Loc} into Rel does not only circumvent the potential violation of D_{Loc}'s c-selectional requirements, it also "opens up" the DP_{Loc}-phase and allows movement of the Locative DP to SpecRel. Notice also that in many of the standard or more recent "big DP"-analyses (e.g. Boeckx, 2003; Kayne, 1994; Oosthuizen, 2013a, 2013b), movement of material out of the "big DP" (or a comparable complex nominal constituent) is usually not considered to be problematic.

In (47), both the Locative DP and the Theme DP are located on the edge of the RelP. In terms of the PIC, both DPs should be accessible to operations from above. However, I do not assume that

derivation. I do not adopt this type of analysis here and continue to capture movement in terms of EPP- or edge features, but as far as I can see, my analysis can be reformulated in a theory without Look-ahead.

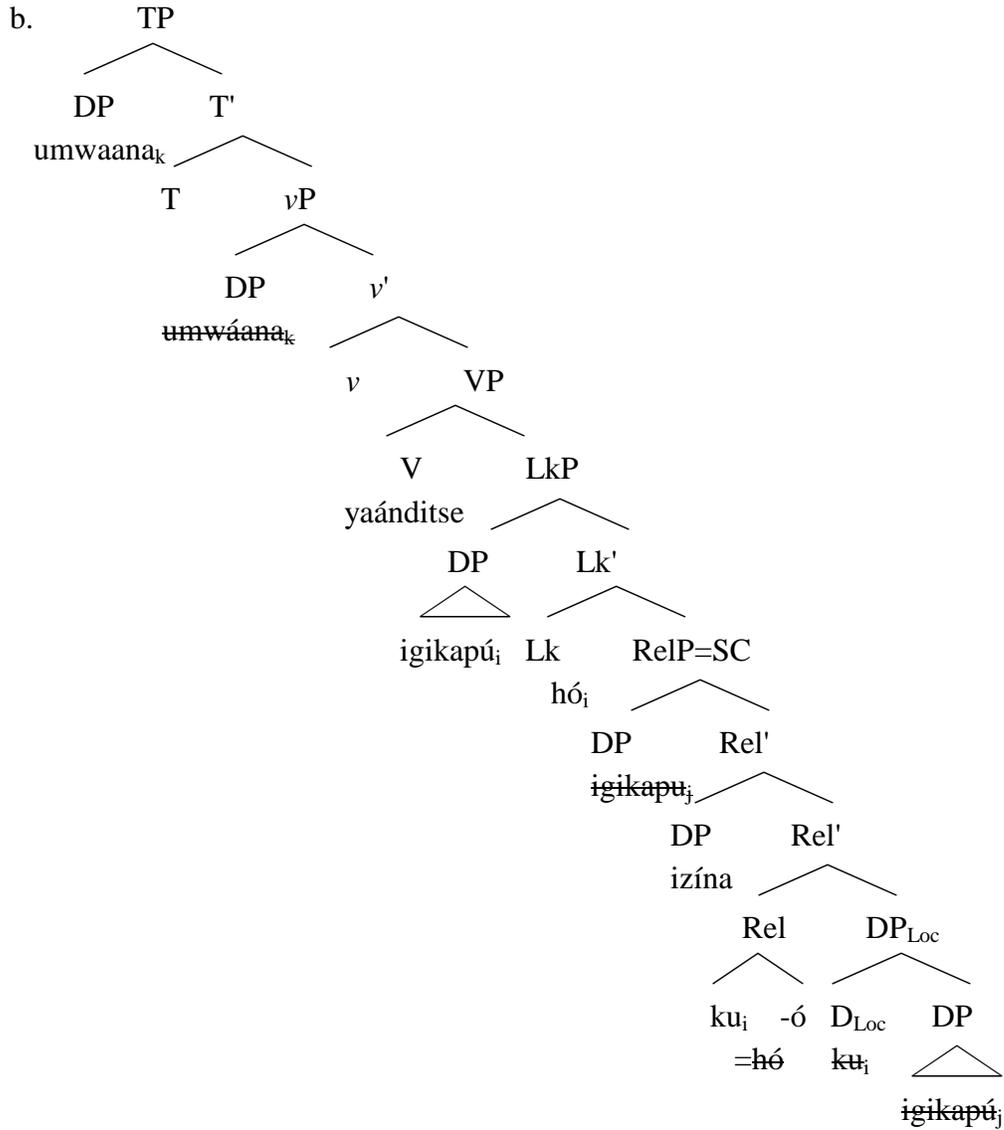
the Locative DP and the Theme in (47) are equidistant. Rather, I adopt the view advocated in Zeller & Ngoboka (2006) and Zeller (2006a), according to which the higher specifier in (47) is closer to functional heads outside RelP than the lower specifier, as the former c-commands the latter. This means that in terms of the MLC, the Locative DP is closer to probes than the Theme in the first specifier. This is relevant if we now consider the continuation of the derivation of locative shift.

4.3.5 The landing site of the Locative DP: the Linker

Next, I follow Den Dikken (2006) and assume that in locative shift constructions, the RelP merges with a functional head called the Linker. The Linker is a functional category whose function is to serve as a landing site for movement of the Relator head as well as of a constituent from within the Relator phrase, because the Linker is equipped with an EPP-feature and projects a specifier to host such a constituent. Moreover, it participates in Case assignment: as I will argue in section 4.3.6 below, the Case-feature of the Theme DP will be valued by the Linker.

In the previous section, we have already seen that the Locative DP is in the second, higher specifier of Rel while the Theme is still in the lower SpecRel. When the Linker merges with RelP, the Relator head incorporates into it, and this incorporation extends the Relator phase to the Linker phase. As a phase head, the Linker can therefore have an edge- or EPP-feature, which can serve to attract a DP to its specifier. There are three potential targets for EPP-driven movement in the Linker's c-command domain: the Locative DP in the second specifier, the Theme in the first specifier and the "big DP", whose head has incorporated into the Relator, allowing its complement, the Locative DP, to move to the second SpecRel. In the case at hand, a strict interpretation of the MLC prevents the Theme or DP_{Loc} from moving to SpecLk (see Zeller & Ngoboka (2006) and Zeller (2006a)). Rather, being the closest DP to the Linker, it is the Locative DP that is attracted by the Linker and that moves to SpecLk. Subsequently, LkP merges with V, VP merges with ν , and the Agent merges in Spec ν . Next, T merges with νP . When T probes, it identifies the Agent in Spec ν , agrees with it in noun class, and T's EPP-feature attracts it to its specifier. As a result, with the clitic in Lk and the Locative DP in SpecLk, the canonical locative shift construction in (48a) is derived, with the order *Subj-Verb-Loc DP-Clitic-Theme*. The syntactic structure of (48a) is shown in (48b).

- (48) a. Umwáana yaánditse igikapú hó izína.
 u-mu-áana a-á-aandik-ye i-ki-kapú hó i-zína
 AUG-1-child 1.SM-REM-write-PERF AUG-7-bag LOC17 AUG-9.name
 'The child wrote the name on the bag.'



It is important to note that, to the best of my knowledge, no proposal in the existing literature on Kinyarwanda locative applicatives accounts for constructions such as (48) in which the locative clitic follows the Locative DP. As noted above, this type of locative shift construction is the standard type of locative shift, but all previous studies have concentrated on constructions in

a sentence such as (50b) below, it also triggers the conjoint form. The disjoint form is not licensed, (50c):

- (50) a. Abáana baaza mw' iishuúri.
 a-ba-áana ba-z-a mu i-shuúri
 AUG-2-children 2.SM-come-FV LOC18 AUG-5.class
 'The children come into the class.'
- b. Abáana baazamó.
 a-ba-áana ba-z-a-mó
 AUG-2-children 2.SM-come-FV-LOC17
 'The children come there.'
- c. *Abáana barazamó.
 a-ba-áana ba-ra-z-a-mó
 AUG-2-children 2.SM-DJ-come-FV-LOC17
 'The children come there.'

I will argue that in constructions such as (50b), the Theme-subject *abáana* 'children', like the Theme object of a locative shift construction, originates as the subject of the small clause, but ultimately moves to SpecT to become the grammatical subject (the reason for why this type of movement is possible will be discussed in detail below and in chapter 5). What is relevant at this point is that, as a result of the Theme moving to SpecT in (50b), neither of the two DP-arguments is overtly realized inside the VP: the Locative DP is pro, and the copy of the Theme in SpecRel is not pronounced. Importantly, the verb in (50b) is in the conjoint form, and the sentence is grammatical; the addition of the disjoint marker *ra-* renders the sentence ungrammatical, (50c). The grammaticality of (50b) and ungrammaticality of (50c) can only be explained by the assumption that the locative clitic in (50b) has *not* incorporated into the verb, but has remained inside the head position of the verb's complement, i.e. in Linker. If the clitic is in Linker, then the condition for the licensing of the conjoint form is fulfilled by LkP in (50b), because now the VP includes overt material (the LkP, whose head is pronounced as the clitic). In contrast, if the locative clitic had incorporated into the verb, then this condition would not be fulfilled, since the complement of V would be phonetically null. The clitic would have moved with the verb to *v*, in which case the VP in (50b/c) would not include any overt material, and the disjoint form should

be required. The contrast between (50b) and (50c) therefore provides strong evidence for my analysis that in the standard form of locative shift, the clitic moves to Linker and remains in this position. The alternative form, in which the clitic precedes the Locative DP, will be discussed in section 4.3.7 below.³⁰

The position of the locative clitic between two objects in Kinyarwanda locative shift makes this type of locative shift resemble the Kinande double object constructions discussed in Baker & Collins (2006). These constructions include an element that resembles the Kinyarwanda locative clitic, and Baker and Collins also call it a Linker (see also Collins (2003) who has identified a similar morpheme in Ju|'hoansi and ꞤHoan). A Linker in Kinande is a morpheme which can appear between the two objects of a double object construction. This is illustrated in (51):

- (51) a. Mo-n-a-hir-ire okugulu k'- omo-kihuna. [Kinande]
 Aff-1sS-T-put-Ext leg.15 Lk.15 Loc.18-hole.7
 'I put the leg in the hole.'
- b. Mo-n-a-hir-ire omo-kihuna m'- okugulu.
 Aff-1sS-T-put-Ext Loc.18-hole. 7 Lk.18 leg.15
 'I put the leg in the hole.' (Baker and Collins, 2006: 311)

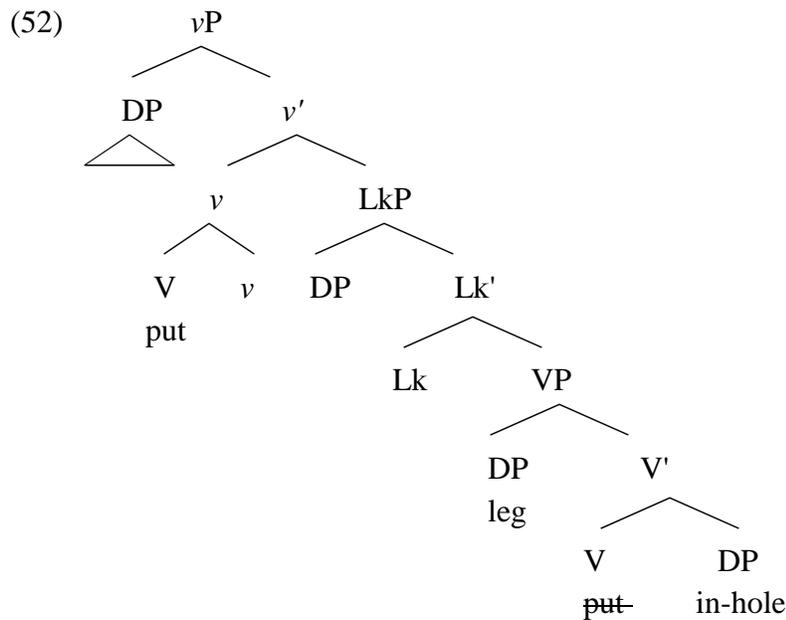
According to Baker and Collins, a Linker is a *v*P-internal constituent whose specifier serves as a landing site for DP movement in a double object construction. Baker and Collins argue that the Linker is a functional head, which, like certain heads such as prepositions, the light verb *v*, or T, has the ability to check the Case feature. This means that the Linker has an uninterpretable Case checking feature. When the verb selects only one DP, the Linker is not needed; its Case feature

³⁰ Notice that locative constructions such as (50b) behave differently from constructions in which a locative expression has incorporated into the verb in the form of an object marker, because the latter triggers the disjoint form of the verb. Compare the examples in (i).

- (i) a. Abaantu biicayehó.
 a-ba-ntu ba-iicar-ye-hó
 AUG-2-people 2.SM-sit-PERF-LOC17
 'People are sitting there.'
- b. Abaantu barahiicaye.
 a-ba-ntu ba-ra-ha-iicar-ye
 AUG-2-people 2.SM-DJ-16.OM-sit-PERF
 'They are sitting there.'

can be checked by the light verb *v*. However, with two objects, the Linker needs to project in order to check the Case of the second object. (This assumption will be adopted for the Linker category in Kinyarwanda in section 4.3.6 below).

Baker and Collins assume that the Linker Phrase is projected higher between *v*P and VP, and its EPP-feature can attract an internal VP element for Case assignment, as is shown in (52). (Baker & Collins, 2006:313).



Data like those in (51), and the structure in (52) make Baker and Collins' Linker resemble the Linker I am proposing, which is realized as a clitic that appears between the Locative DP and the Theme. However, a close examination of constructions with the Linker in Kinande and the locative clitic in Kinyarwanda shows that the Kinyarwanda locative clitic cannot be analyzed as being equivalent to Baker and Collins' Linker; they are different elements.

To begin with, the two elements differ in terms of word order. In the Kinande double object constructions, one DP appears before the Linker and the other follows it, and the order can be reversed, i.e. either the Indirect Object or the Direct Object can precede the Linker. In contrast, the order is fixed in Kinyarwanda. The Locative DP must precede the Theme DP; if the order is reversed, the construction becomes ungrammatical. Compare the ungrammatical examples in

(53b,c) in Kinyarwanda with the analogous construction in (51a) in Kinande, which is grammatical.

- (53) a. Umwáana yaánditse igikapú hó izína.
u-mu-áana a-á-aandik-ye i-ki-kapú hó i-zína
AUG-1-child 1.SM-REM-write-PERF AUG-7-bag LOC17 AUG-9.name
'The child wrote the name on the bag.'
- b. *Umwáana yaánditse izína hó igikapú.
u-mu-áana a-á-aandik-ye i-zína hó i-ki-kapú
AUG-1-child 1.SM-REM-write-PERF AUG-9.name LOC17 AUG-7-bag
'The child wrote the name on the bag.'
- c. *Umwáana yaánditse izína hó ku gikapú.
u-mu-áana a-á-aandik-ye i-zína hó ku ki-kapú
AUG-1-child 1.SM-REM-write-PERF AUG-9.name LOC17 LOC17 7-bag
'The child wrote the name on the bag.'

The second difference concerns agreement patterns. In Kinande, the Linker agrees with the DP that moves to its specifier. In (51a), the Linker agrees with the Direct Object *okuguru* 'leg' while in (51b), it agrees with the Locative DP *omukihuna* 'in the hole.' Such is not the case for the Kinyarwanda locative shift construction. What can be noted about Kinyarwanda, however, is that although the Locative DP does not agree with the Linker, it is the only DP that can be attracted to SpecLk, for the reasons explained above.

Given all the facts presented here, I conclude that despite the surface resemblance between Baker and Collins' Linker and the locative clitic in locative shift constructions in Kinyarwanda, the two elements have different properties. However, like the Linker in Kinande, the Linker in Kinyarwanda (the locative clitic) can function as a case assigner.

One may also wonder whether the analysis Carstens & Diercks (2013) propose for clitics in Lubukusu may not be replicated for Kinyarwanda because from their description, one notes a number of similarities between locative constructions in the two languages. It could be assumed that the Linker Phrase I am proposing is their Agree Locative Phrase (AgrLP) since both serve as

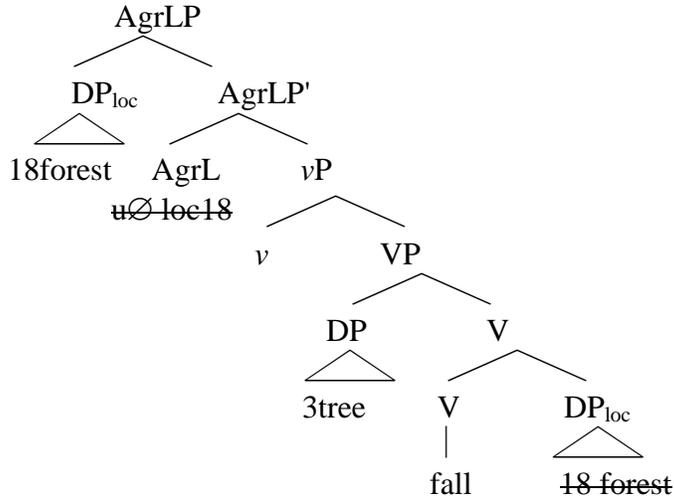
landing site for a Locative DP. (Also, note that clitics in Lubukusu and Kinyarwanda are morphologically similar).

Carstens and Diercks suggest that the clitic in Lubukusu heads a projection between T and *v*P, which, following Diercks (2011), they call AgrLP. They argue that this is a special clitic that always and only agrees with locatives when these locatives are left-dislocated, raised to SpecC, or occupy SpecT. They also note that this clitic never agrees with in-situ locatives and, because it is sensitive only to locatives, that it ignores the Theme in its search for a goal and rather probes for the Locative DP and raises it to its specifier. As such they account for the absence of an intervention effect when T attracts a Locative DP which originates lower in the structure than the Theme in locative inversion constructions such as (54a). The structure in (54b) shows how in Carstens & Diercks' (2013) analysis, the Locative DP crosses the Theme to agree with the clitic and moves to AgrLP where it precedes the Theme. From AgrLP, the Locative DP can be attracted to T and become the subject of the sentence. The derivation of the sentence in (54a) is shown in the structure (54b) (I have omitted the projection of the agreeing *how* in (54b) since it is irrelevant to my purpose³¹):

- (54) a. Mu-mu-siiru mw-a-kwa-*(mo) ku-mu-saala. [Lubukusu]
 18-3-forest 18SA-PST-fall-*(18LOC) 3-3-tree
 'In the forest, fell a tree.' (Carstens & Diercks 2013: 224)

³¹ Carstens & Diercks (2013) discuss in detail the properties of the *wh*-word in Lubukusu that corresponds to 'how' in English. It is a VP adjunct that agrees in number, person, and noun class, with the subject of the clause in which it appears.

b.



One may wonder whether the analysis in (54b) could be adopted to account for the occurrence of a locative clitic in Kinyarwanda locative shift, with AgrL replacing the Linker. Like in Lubukusu, the Kinyarwanda locative clitic always appears adjacent to the verb when the Locative DP is left-dislocated or raised to SpecC. Similarly, the locative clitic never surfaces when the locative DP is in situ. We could also stipulate that like in Lubukusu, the Linker/AgrL in Kinyarwanda searches for the Locative DP and ignores the Theme in its search, which is why only the locative DP moves to its specifier.

However, there are reasons to suspect that the agreeing locative clitic in Lubukusu and the Kinyarwanda locative clitic perform different functions. First of all, in Carstens and Diercks' account, AgrLP appears with intransitive verbs. We do not know whether AgrLP would also appear in locative shift constructions in Lubukusu, which are based on transitive verbs. In Carstens & Diercks (2013), AgrLP projects above VP and attracts the Locative DP to its specifier, allowing it to move further to T to derive locative inversion, or to SpecC for topicalization. It seems that AgrLP is projected to accommodate movement of the Locative DP to a higher position. This means that the case of the locative shift construction we have discussed in this section may not be accounted for, since in these constructions, the Locative DP stays in SpecLk (which would be Carstens and Diercks' AgrLP).

Moreover, recall that the locative clitic in Kinyarwanda is a complex (bimorphemic) head comprising of a locative marker as a suffix, and a pronoun root. From the discussion in Diercks & Carstens (2013) as well as Diercks (2010), it is not possible to know whether the clitic in Lubukusu is monomorphemic or a complex head. Since such a detail is not available, it is not possible to reach a definitive conclusion. A comparative study on locative clitics is necessary to determine whether locative clitics are complex heads in all languages in which they appear and whether they are based-generated in SpecAgrLP as Carstens and Diercks claim or whether, like in the account I have proposed for Kinyarwanda, they are derived by incorporation of the D_{Loc} head into the Relator head.³²

4.3.6 Case assignment to the two object DPs

As noted above, in ordinary locative constructions in which the D_{Loc} selects an NP, the DP_{Loc} has inherent Case, and the Theme DP receives structural case from the light verb v . However, in locative shift constructions, there are two DP-objects which need Case, the Theme and the Locative DP. I now adopt Baker & Collins' (2006) proposal regarding the Linker in Kinande and suggest that the Linker head in Kinyarwanda is another Case assigner that can check/value the Case feature of a DP in its c-command domain. We therefore have an independent motivation for the presence of the Linker in locative shift constructions: it is required to make sure that both DPs (the Theme and the Locative) can get Case.

However, I assume that the Linker does not assign Case as soon as it is merged with RelP. Recall that at this stage, both the Theme DP and the Locative DP are located on the edge of RelP, in SpecRel. Since the Locative DP is closer to the Linker than the Theme, immediate Case assignment would lead to a situation in which the Locative DP receives case from the Linker, but the Theme would then remain caseless, and the derivation would crash. I therefore suggest that Case assignment by the Linker is delayed until all derivations within the (extended) Linker phase are completed. As was argued in the preceding section, the Linker-head has an EPP-feature which can attract the closest DP (the Locative DP) to its specifier. I now suggest that the Linker assigns Case only once the Locative DP is already in SpecLk; as a result, the closest DP in the

³² For example, locative clitics similar to those in Kinyarwanda and Lubukusu are found in other Bantu languages outside of the Great Lakes region. Chitumbuka, a language spoken Malawi, has the clitic *-mo* corresponding to the locative marker *mu-* (see Downing, 2006, example (16b)).

Linker's c-command domain is the Theme, so the Theme DP gets Case from the Linker, while the Locative DP is still caseless when in SpecLk. However, when the next phase (the ν P) is constructed, the Locative DP can get structural Case from the light verb ν , which is a Case assigner. When ν merges with VP, the closest goal it identifies in its c-command domain is the Locative DP in SpecLk.

In summary, when D_{Loc} selects a Locative DP, rather than an NP, the Linker must be part of the derivation, in order to make sure that both the Locative and the Theme can receive Case. The movement operations that place the Locative DP and the Theme DP in the right configurations in which they can receive case from ν and Linker are triggered by EPP/edge features of the relevant phase heads (Rel and Linker).

4.3.7 The pre-Locative position of the clitic

I now turn to the second locative shift construction in (1b), repeated here as (55), in which the clitic attaches to the verb and precedes the Locative DP:

- (55) Umwáana yaánditse**hó** igikapú izína.
 u-mu-áana a-á-aandik-ye-hó i-ki-kapú i-zína
 AUG-1-child 1.SM-REM-write-PERF-LOC17 AUG-7-bag AUG-9.name
 'The child wrote the name on the bag.'

As pointed out above, the locative shift construction in which the clitic follows the Locative DP is preferred to the construction in which the clitic is closer to the verb. I suggest that the former serves as an input for the derivation of the latter. I assume that in order to derive (55), the clitic, which is in Linker in (48), cliticizes to the verb at PF (rather than incorporating syntactically).

It is not clear why the clitic is sometimes pronounced as following the verb, even if it is in a different syntactic position. However, this could be due to phonological reasons. It seems that some speakers have reanalyzed the clitic as a suffix, due to its frequent occurrence in constructions where it appears adjacent to the verb. For example, there are many instances of fully grammatical constructions where the locative clitic in Kinyarwanda is linearly adjacent to

the verb, even if it is syntactically in the Linker position. Such cases include the constructions in which the Locative DP is *pro* (see (50b) above), when it is object-marked, extracted or the subject of a locative inversion construction. There are also cases of lexicalization when the addition of the locative clitic gives a new meaning to the verb. In this regard, there are a non-negligible number of verbs in Kinyarwanda which bear the clitic in non-locative shift constructions. Such verbs comprise verbs like *kubáhó* 'to be alive' derived from *kubá* 'to be', *gukúuramó* 'to take off clothes/to subtract' derived from *gukúura* 'to remove'. It should also be noted here that in many languages, locative clitics appear attached to the verb (e.g. Lubukusu and Kuria (Diercks & Sikuku, 2013); Lunda (Kawasha, 2007); Chitumbuka (Downing, 2006)). These could be the reasons for assuming that speakers want to keep the phonological adjacency between the verb and the clitic.

According to the analysis presented here, the syntax of Kinyarwanda therefore includes *two* positions in which a locative clitic (i.e. the complex head derived via D-head-to-Rel movement) can appear. However, in contrast to what is assumed in other existing accounts of this phenomenon, the *syntactic* position in which the clitic appears is the head of the verb's complement (LkP); syntactically, the verb and the clitic do not combine via incorporation. Therefore, when a full Locative DP is present, the clitic is typically not adjacent to the verb, but appears between the Locative DP and the Theme. As an alternative, the clitic can cliticize to the verb, but I have argued that this is a (marked) PF process.

To wind up this section, this analysis has been able to account for two types of locative shift in Kinyarwanda. Specifically, I demonstrated how the type of locative in which the clitic follows the Locative DP serves as an input for a phonological reordering operation in which the clitic attaches to the verb, and ends up preceding the Locative DP at PF. In chapters 5 and 6, I show that the analysis defended here can also serve as a basis for the analysis of the other types of locative constructions, notably semantic locative inversion, passivization as well as stativization of the Locative DP. In the remainder of this chapter, I discuss some consequences and implications of my analysis for the asymmetrical properties of Kinyarwanda locative double object constructions.

4.4 Agree, Locality, and asymmetries in Kinyarwanda locative constructions

4.4.1 The asymmetrical properties of locative shift constructions

While some languages are said to be asymmetrical, Kinyarwanda is said to be a symmetrical language. In symmetrical languages, more than one post-verbal DP exhibits primary object properties such as the ability to be passivized, object-marked or extracted, while in asymmetrical languages only one, the Applied Object, has those properties (Bresnan & Moshi, 1990, and sources cited therein). However, while both objects in Kinyarwanda double object constructions such as the Benefactive and Instrumental applicatives typically show so-called "primary object properties" (Kimenyi, 1980; Zeller, 2006a; Zeller & Ngoboka, 2006, 2015), the two objects in locative shift constructions do not exhibit the same object properties (see van der Wal (2015:1), who notes that "the situation is not black-and-white with 'symmetrical languages"). While the Locative DP in Kinyarwanda can be passivized, object-marked and extracted, the Theme cannot undergo any of these operations. Witness the grammaticality of the a-examples and ungrammaticality of the b-examples.

Passivization

- (56) a. Igikapú cyaánditswehó izína n' úumwáana.
i-ki-kapú ki-á-aandik-w-ye-hó i-zína ná u-mu-áana
AUG-7-bag 7.SM-REM-write-PASS-PERF-LOC17 AUG-5.name by AUG-1-child
Lit: 'The bag was written on the name by the child.'
- b. *Izína ryaánditswehó igikapú n' úumwáana.
i-zína ri-á-aandik-w-ye-hó i-ki-kapú ná u-mu-áana
AUG-5.name 5.SM-REM-write-PASS-PERF-LOC17 AUG-7-bag by AUG-1-child
Intended: 'The name was written on the bag by the child.'

Object-marking

- (57) a. Umwáana yacyaánditsehó izína.
u-mu-áana a-á-ki-aandik-ye-hó i-zína
AUG-1-child 1.SM-REM-7.OM-write-PERF-LOC17 AUG-5.name
'The child wrote a name on it.'

- b. *Umwáana yaryaánditsehó igikapú.
 u-mu-áana a-á-ri-aandik-ye-hó i-ki-kapú
 AUG-1-child 1.SM-REM-5.OM-write-PERF-LOC17 AUG-7-bag
 Intended: 'The child wrote it on the bag.'

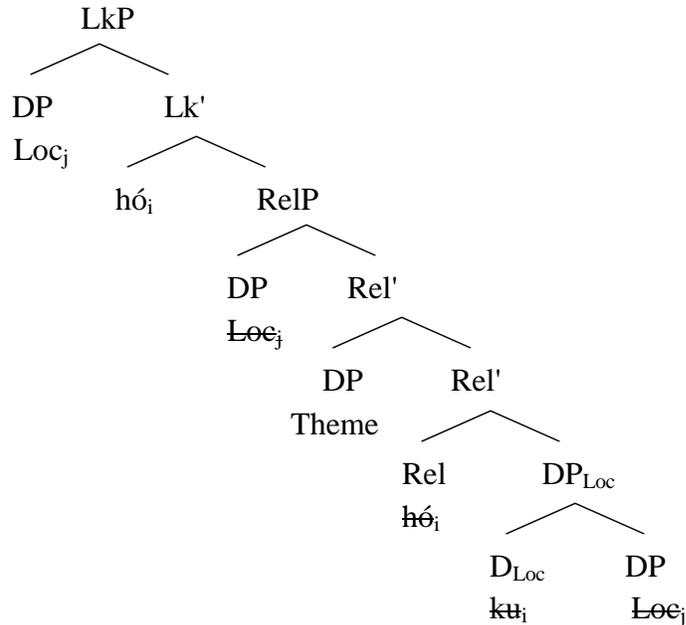
Extraction

- (58) a. igikapú umwáana yaánditsehó izína
 i-ki-kapú u-mu-áana a-á-aandik-ye-hó i-zína
 AUG-7-bag AUG-1-child 1.SM-REM-write-PERF-LOC17 AUG-5.name
 'the bag on which the child wrote the name'
- b. *izína umwáana yaánditsehó igikapú
 i-zína u-mu-áana a-á-aandik-ye-hó i-ki-kapú
 AUG-5.name AUG-1-child 1.SM-REM-write-PERF-LOC17 aug-7-bag
 Intended: 'the name the child wrote on the bag'

In (56a), the Locative DP has been promoted to subject position in a passive, while the Theme has stayed in situ. The sentence is grammatical. In contrast in (56b), where the Theme has been passivized, with the Locative DP in situ, the sentence is ungrammatical. Similarly, in (57a) the Locative DP has been object-marked with the Theme in situ and this yields a grammatical sentence, but (57b) is ungrammatical because the Theme has been object-marked while the Locative DP has stayed in its object position. In (58a), the Locative DP has been extracted as a null operator in a relative clause, and the Theme DP has remained in situ. The ungrammaticality of (58b) is due to the fact that the Theme has been extracted in the relative, while the Locative DP is in situ.

The grammaticality of constructions like the (a)-examples in (56)-(58) can be explained in terms of phase theory. Consider the structure in (59), which shows the derivation of locative shift constructions at the stage of the Linker phrase.

(59)



As I have argued above, once the Locative DP has moved out of the RelP in locative shift, it ends up on the edge of the Linker phase from where it c-commands the subject (Theme) in SpecRel. In terms of argument structure, it becomes the Applied Object, and the Theme is the basic object. Prior to incorporation and movement of the Locative DP to SpecLk, the Theme is on the edge of the Relator phase and would be visible to external probes, but after movement of the Locative DP, it is trapped inside the Linker phase, and only the Locative DP is able to enter Agree relationships with higher probes. Therefore, the Theme cannot be passivized, extracted or object-marked in locative shift constructions.

I assume that the a-examples in (56)-(58) are grammatical because the Locative DP is in SpecLk, on the edge of the phase. According to the PIC defined above, only the edge (the specifiers and adjuncts) and the head of the phase are accessible to external probes, but the complements are not. In the examples above, which are based on the structure in (59), any probing head that merges with Lk, i.e. ν , T or C, can only see the Locative DP on the edge of the phase; so the Locative DP can be passivized or object-marked and extracted while the Theme is frozen inside the Linker phase.

In the passivization process, it is assumed that an Agree relation is established between T and the closest DP in its c-command domain. In a passive, ν P is not a (strong) phase. Therefore, in the

above constructions, when the phi-features of T search for a DP to agree with, they find the phi-features of the Locative DP in SpecLk, on the edge of the Linker phase. An Agree relationship is then established between the Locative DP and T. The Locative DP is attracted to SpecT as the subject of a passive sentence, and the derivation converges.

Regarding object-marking, some authors suggest that object markers are agreement markers, while others analyze them as incorporated pronouns. For some, object-marking is a result of movement of the object to AgrO (Buell, 2005; Woolford, 2000). For others, it is a case of cliticization (Diercks & Sikuku, 2013). According to Diercks & Sikuku, who also follow Kramer (2014) and Harizanov (2014), an object marker is of category D. D undergoes phrasal movement to Spec ν followed by V movement to ν and the cliticization of the D to the complex verb $\nu+V$. (See also Matushanski (2006) who assumes that romance clitics adjoins to specifiers as heads). Zeller & Ngoboka's (2006) account is similar to that of Diercks and Sikuku in some respects. They also assume that an object marker belongs to the category D. However, instead of D undergoing phrasal movement to light ν , they propose that it adjoins to Pr (Predicate) via head-to-head movement, where gender features are checked, and incorporates into the verb.

My account of object-marking is similar to that of Diercks & Sikuku (2013) and Zeller & Ngoboka (2006). I assume that in Kinyarwanda, an object marker is of category D and object-marking is a consequence of D-movement. Since I am not assuming the projection of Pr, I propose that in Kinyarwanda, the pronominal D moves to Spec ν as a phase from where it cliticizes to the verb.

Regarding the sentences in (57) in which the Locative DP can be object-marked while the Theme cannot, I propose that in (57a), the Locative DP is realized as D. Like movement of the Locative DP we have discussed in the previous sections, D movement must obey the MLC and the PIC. The Locative D originates as the complement of D_{Loc} and moves first to the second specifier of Rel, and then on to SpecLk, where it is on the edge of the Phase. When ν is introduced in the derivation, it can attract the pronominal Locative D in SpecLk, as this DP has remained visible after completion of the LkP phase. From SpecLk, the object marker can be attracted to Spec ν and then cliticize to ν as an object marker.

As for the ungrammaticality of (57b) in which the Theme is object-marked, I assume that the Theme is a D(P) projected as the subject of the Relator phrase. To incorporate into the verb as an object marker, the Theme D would also need to move to Spec ν before cliticizing to the verb. However, since LkP is a phase, the Theme D is trapped inside the Linker phase according to the PIC. So the problem in (57b) is that the Theme D has moved from the phase where it is deeply embedded (and frozen) and cliticized to the verb as an object marker. This movement is illicit, since only the Locative DP is in SpecLk, i.e. on the edge of the phase; it can be attracted to Spec ν as an object marker.

In the relative clause constructions in (58), the extracted element is a null operator, which is presumably attracted by a feature of C in the left periphery. Again, the PIC explains why only the Locative DP can be extracted: when C is introduced in the derivation, only the Locative DP is still accessible. The Theme DP will already have been transferred to the interfaces, and is no longer visible to the probe in C. Therefore, only (58a) is possible.³³

Note that some of the contrasts in (56)-(58) can also be explained in terms of Locality (i.e. the MLC) (see Nakamura 1997; Zeller & Ngoboka 2006; Zeller, 2006a, 2006b). For example, since T agrees with and attracts only the closest DP in its c-command domain, the fact that the Locative DP c-commands the Theme would also explain why only the Locative DP, but not the Theme, of a locative shift construction, can be passivized. However, it is not clear why the Locative DP would block movement of the Theme to SpecC in relativization since this is A-bar movement. As pointed out by Zeller and Ngoboka (2006) themselves, only another operator feature (e.g. a Q-feature or a Topic-feature, etc.) would be expected to act as an intervenor for operator movement of the Theme. Given that the Locative DP in examples such as (58b) does not carry such a feature, it would not be expected to block the Theme from being attracted by a feature of C. In contrast, the impossibility of A-bar extraction of the Theme can straightforwardly be explained in terms of phase theory. The Theme DP is trapped inside the LkP-phase, so it cannot be extracted, even if no other operator intervenes between the Theme and target of movement. In this regard, my account is comparable to McGinnis' (2001) account,

³³ Since ν P is a phase, the Locative is presumably first attracted by an edge feature of ν , and moves to a second specifier of ν P, before it is attracted by C. The PIC still explains that only the Locative, and not the Theme, can be extracted.

- c. Ni igikapú ízína ryaánditswehó n' úumwáana.
 ni i-ki-kapú i-zína ri-á-aandik-w-ye-hó ná u-mu-áana
 be AUG-7-bag AUG-5.name 5.SM-REM-write-PASS-PERF-LOC17 by AUG-1-child
 'It is the bag on which the name was written by the child.'

Object-marking: The Theme can be object-marked when the Locative DP is pro (61a), when it has undergone passivization (61b), when it is also object-marked (61c), or extracted (61d).

- (61) a. Umwáana yaryaánditsehó.
 u-mu-áana a-á-ri-aandik-ye-hó
 AUG-1-child 1.SM-REM-5.OM-write-PERF-LOC17
 'The child wrote it there.'
- b. Igikapú cyaáryaanditswehó n' úumwáana.
 i-ki-kapú ki-á-ri-aandik-w-ye-hó ná u-mu-áana
 AUG-7-bag 7.SM-REM-5.OM-write-PASS-PERF-LOC17 by AUG-1-child
 Lit: 'The bag was written it by the child.'
 'It was written on the bag by the child.'
- c. Umwáana yarícyaaanditsehó.
 u-mu-áana a-á-ri-ki-aandik-ye-hó
 AUG-2-child 1.SM-REM-5.OM-7.OM-write-PERF-LOC17
 'The child wrote it on it.'
- d. Ni igikapú umwáana yaryaánditsehó.
 ni i-ki-kapú u-mu-áana a-á-ri-aandik-ye-hó
 be AUG-7-bag AUG-1-child 7.SM-REM-5.OM-write-PERF-LOC17
 'It is the bag on which the child wrote it.'

Extraction: The Theme can be extracted when the Locative DP is pro (62a), when it is passivized (62b), or object-marked (62c).

- (62) a. Ni izína umwáana yaánditsehó.
 ni i-zína u-mu-áana a-á-andik-ye-hó
 be AUG-5.name AUG-1-child 1.SM-REM-write-PERF-LOC17
 'It is the name the child wrote there.'
- b. Ni izína igikapú cyaánditswehó n' úumwáana.
 ni i-zína i-ki-kapú ki-á-aandik-w-ye-hó ná u-mu-áana
 be AUG-5.name AUG-7-bag 7.sm-REM-write-PASS-PERF-LOC17 by AUG-1-child
 Lit: 'It is the name the bag was written on by the child.'
- c. Ni izína umwáana yacyaánditsehó.
 ni i-zína u-mu-áana a-á-ki-aandik-ye-hó
 be AUG-5.name AUG-1-child 1.SM-REM-7.OM-write-PERF-LOC17
 'It is the name the child wrote on it.'

The grammaticality of these sentences constitutes a challenge for the analyses discussed in section 4.1.1 (i.e. Baker, 1988; Nakamura, 1997; McGinnis, 2001, and similar ones such as Marantz, 1993). According to these analyses, the sentences in (60)-(62) are not expected to be grammatical. For example, Baker's account would rule out these sentences on the grounds that the Theme loses all the primary object properties in the presence of the Applied Object, when the double object construction is a result of preposition incorporation. According to Nakamura's account, the sentences should be ruled out by the MLC. The examples in (60)-(62) would also be incorrectly ruled out by McGinnis' (2001) account, which is based on the PIC, which predicts that the Theme should be trapped inside the ν P, hence inaccessible to external probes. Therefore, these earlier accounts are incomplete.

Thus, I propose an alternative account to explain the grammatical sentences in (60)-(62). This account is based on the assumption that the Theme is in principle allowed to move to the edge of the LkP from where it is accessible to operations triggered by heads in higher phases (Chomsky, 2000, 2001, 2005; McGinnis, 2001). In the same way that the Locative DP was allowed to leapfrog the Theme in SpecRel to move to the edge of the Relator phase, the Theme can move across the Locative DP to the edge of the Linker phase. However, as the data suggests, in contrast to SpecRel, I suggest that the projection of a second specifier of the Linker is only

available on one condition, namely that none of the two specifiers is overtly realized. I capture this condition, which I call the "Heavy Edge Constraint", in (63):

(63) *Heavy Edge Constraint (HEC)*

The edge of a phase must not be heavy by the time it is transferred (i.e. when the next phase is completed).

The edge of a phase is heavy iff:

- (i) it includes more than one specifier, and
- (ii) at least one of these specifiers is realized with phonetic content at PF

(63) states that "heavy" edges are not licensed and that the edge of a phase counts as heavy when (i) it includes multiple specifiers, and (ii) one or more of these multiple specifiers are pronounced at PF. This means that there are two ways in which the edge of a phase can be non-heavy, and licensed for transfer: either there is only one specifier (which can be overt or null), or there is more than one specifier, but none of them are pronounced.

Let us see how (63) explains the data in (56)-(58) and (60)-(62). According to Chomsky (2000, 2001), an object can move from the domain of a phase to its edge to check phase-EPP-features. McGinnis (2001) suggests that an EPP-feature can be added to any phase head before the phase is completed. The edge of the phase provides an escape hatch for material which, otherwise, would be trapped inside the phase. Based on Chomsky (2000, 2001), McGinnis (2001), and others, I assume that being a phase, the Linker Phrase may have an EPP-feature that allows the Theme to move out of the Relator phrase to the edge of LkP before this phase is completed.

In the examples above (60)-(62) in which the Theme has undergone passivization, object-marking or A-bar extraction, I assume that the Theme has moved out of the phase to the second specifier of Linker on top of the Locative DP or has tucked-in underneath the Locative DP (see the details below). When the Locative DP is object-marked, passivized, extracted, or is realized as the phonologically null *pro*, and the Theme has also undergone movement, the HEC is not violated. The edge of LkP is realized by two specifiers, but neither of them is overtly realized at PF. In summary, a second specifier of the LkP is licensed to allow the Theme to move to the

edge of the Linker-phase, but then both the Theme and the Locative DP must move away from the edge by the time the next phase (CP) is completed. As such the HEC is obeyed.

When the Theme does not undergo movement, there is only one specifier of LkP, occupied by the Locative DP. The HEC implies that the Locative DP can be phonetically realized on the edge of the phase only if the Theme remains in situ in SpecRel. In this case, we derive the canonical word order of a locative shift construction. Notice that the word order S-V-Theme-Locative-Clitic is also ruled out by the HEC; it is not possible to move both the Theme and the Locative DP to SpecLk and pronounce them both in this position. This is illustrated by the ungrammatical example in (64).

- (64) *Umwáana yaánditse izína igikapú **hó.**
 u-mu-áana a-á-aandik-ye i-zína i-ki-kapú hó
 AUG-1-child 1.SM-REM-write-PERF AUG-9.name AUG-7-bag LOC 17
 'The child wrote the name on the bag.'

Landau (2007:517) suggests that the EPP feature is satisfied by material with phonetic content, but that it can also be satisfied by the copy of a moved element. In this regard, I assume that the Linker EPP feature is satisfied by the Locative DP when it is in SpecLk in locative shift, but it can also be satisfied by its copy for instance when the Locative has moved to *v* as an object marker, to C as a relative operator, or to T as the subject of a passive sentence. In all these cases, no second specifier is needed and the Theme remains inside the Linker phase. Even if the Locative moves away, the Theme can only move to the second specifier of Lk when it also moves away: the Heavy Edge Constraint states that when a second specifier has been introduced, none of the two DPs can remain on the edge of the phase; they must both move away by the time the next phase is completed.

For the sake of illustration, the following structures illustrate some of the movement operations involved in the derivation of the above data in more detail:

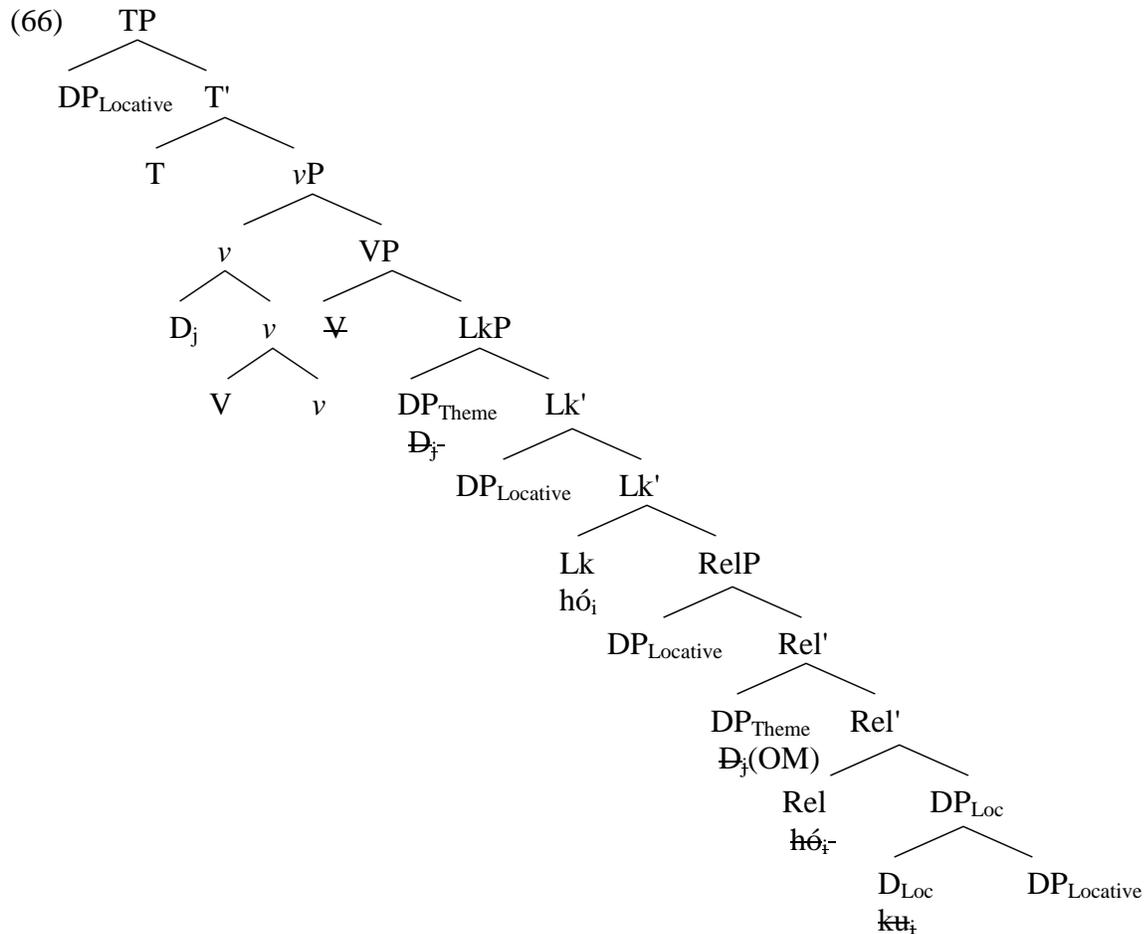
- Object-marking of the Theme when the Locative DP is passivized: (61b) repeated here as (65):

(65) Igikapú cyaáryaanditswehó n'úumwáana.
 i-ki-kapú ki-á-ri-aandik-w-ye-hó ná u-mu-áana
 AUG-7-bag 7.SM-REM-5.OM-write-PASS-PERF-LOC17 by AUG-1-child

Lit: 'The bag was written it by the child.'

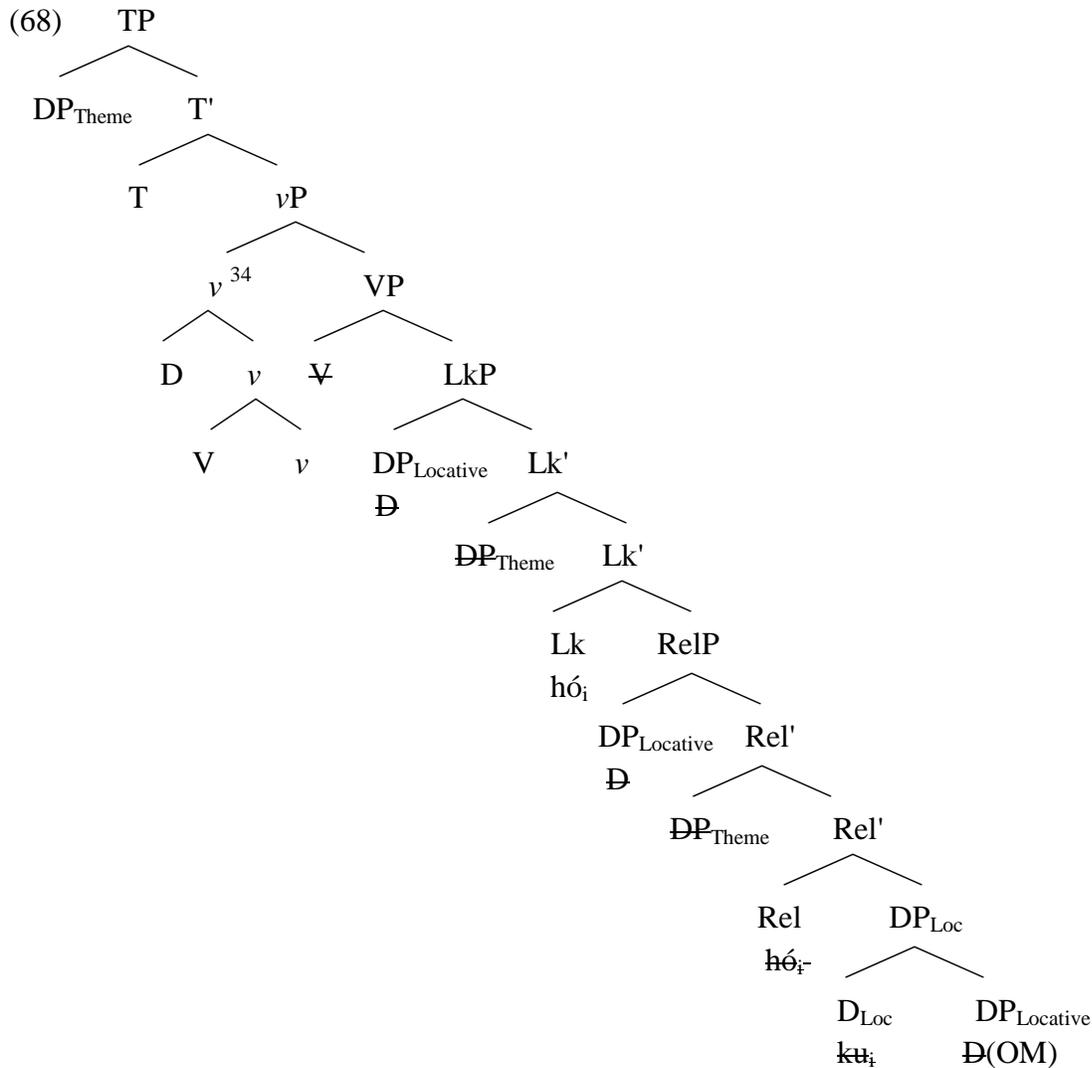
'It was written on the bag by the child.'

Object-marking of the Theme is possible only when the Locative DP does not have any phonetic content at transfer. For this to be achieved, I assume that the pronominal Theme has escaped the Linker phase and is in the second specifier of the Linker. From SpecLk, it moves to Spec ν from where it incorporates into the verb as an incorporated pronoun, as is shown in the following syntactic representation:



In the example in (65) represented as (66), the HEC is not violated because the Locative DP needs to be moved away by becoming the subject of the sentence in a passive. The Theme can also be object-marked when the Locative DP has also moved away by becoming an object marker itself, as in (61c), or when realized as pro, as in (61a); in all these cases, the Locative DP has no phonetic content. When the Theme is incorporated into *v* as an object marker, and the Locative DP is passivized, an object marker or pro, both DPs are not phonologically realized in SpecLk; so the HEC is obeyed.

- Passivization of the Theme when the Locative DP is object-marked: (60b) repeated here as (67):



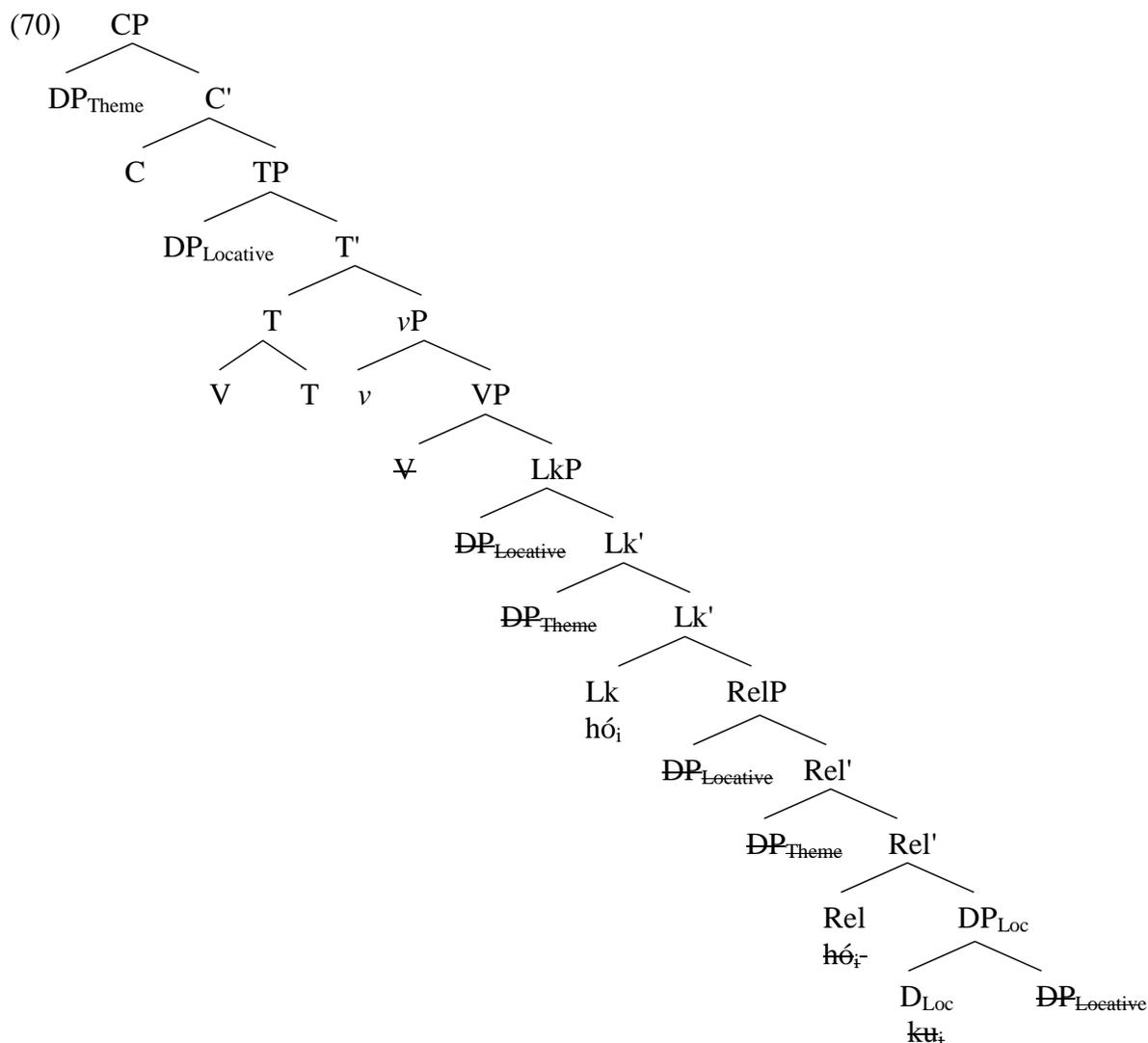
An issue that would arise in connection with this derivation is why tucking in would not be possible at the RelP stage. As we saw, the Locative DP can move to the second specifier of Rel and be attracted to SpecLk, but it cannot tuck-in underneath the Theme DP. In this case, the Locative DP would also tuck-in underneath the Theme so that this would allow the Theme DP to be attracted to SpecLk. This would derive a locative shift construction in which the Theme DP would precede the Locative DP as in the ungrammatical example in (64) above. One possible explanation is that base-generated specifiers do not allow this operation.

- Extraction of the Theme when the Locative DP is passivized, (62b), repeated as (69):

³⁴ V could presumably also move to T but I ignore v-to-T movement in the syntactic representation.

- (69) Ni izína igikapú cyaánditswehó n' úumwáana.
ni i-zína i-ki-kapú ki-á-aandik-w-ye-hó ná u-mu-áana
be AUG-5.name AUG-7-bag 7.sm-REM-write-PASS-PERF-LOC17 by AUG-1-child
'It is the name the bag was written on by the child.'

Movement of the Theme to C in a relativization process is also licensed if the Locative DP has either incorporated into the verb as an object marker, occupies SpecT as the grammatical subject (as in (69)), or is realized as pro. In this case, when the Theme moves to SpecC as a relative operator, the HEC is satisfied and the derivation converges. However, this also requires tucking-in of the Theme DP below the Locative DP so that the Locative DP should be the closest target for any probing head. As such once the Locative DP has moved to *v* as an object marker or to T as the subject of a passive sentence, the Theme can be extracted, hence moving away from SpecLk. The derivation is shown in (70) below:



In this case the MLC and the HEC are obeyed: the Locative DP in the first specifier moves first according to the MLC, and by the time the vP phase is completed, both the Theme DP and the Locative DP are not on the edge of LkP.

To sum up, the asymmetry between the two objects can be explained by phase theory. I have shown that the Theme fails to have primary object properties when an (overt) Locative DP occupies SpecLk, because the Theme DP is trapped inside the Lk-phase, and movement to the edge of the phase is ruled out by the HEC. However, I have also shown that the phase EPP-feature, when complemented by the HEC, can account for cases where the Theme exhibits primary object properties: the Theme can move to the edge of the LkP-phase as well, on top of

the Locative DP or tuck-in underneath the Locative DP, but in this case, the Locative DP and the Theme must both move away before the next phase is completed, in order to satisfy the HEC.

4.5 Conclusion

The aim of this chapter was to provide an account of locative shift in Kinyarwanda. My major claim is the following: Based on the theory of small clauses/Relator phrases, I showed that a locative construction comprises a small clause whose subject is the Theme and whose predicate is a DP_{Loc} . The locative shift construction is derived by movement of the Locative DP from a "big DP_{Loc} " inside the Relator phrase to a higher specifier (SpecLk) from where it precedes the Theme.

This chapter has shown that the head of the Relator phrase is null in non-shifted locative constructions but lexicalizes as the personal pronoun *-ó* in locative shift. It was shown that the incorporation of the locative marker into the personal pronoun derives the locative clitic. Therefore, my analysis accounts for the correspondence between the locative markers *ku-*, *mu-*, and *i-* and the clitics *hó*, *mó*, and *yó*. It was also shown that the locative clitic does not incorporate into the verb, as was previously believed; it is a head of its own projection derived by incorporation of the D_{Loc} -head into the Relator and then into the Linker head. Crucially, the clitic typically remains in the Linker position, in which case it appears between the Locative DP and the Theme.

It was shown that incorporation of the locative D-head into the Relator makes the Locative DP a candidate for movement to a higher position, SpecRel. However, in order to receive Case from ν and/or to establish an Agree relation with an external probe such as T, C or ν , it has to move further to the specifier of the Linker phrase. The projection of the Linker is required to license movement of the Locative DP. When the Lk is projected, the Relator head (the derived locative clitic) moves and adjoins to it, thereby extending the phase to the Linker Phase. Because Lk has an EPP-feature, the Locative DP is attracted by this EPP-feature, and the locative shift construction is derived. The Theme in SpecRel is now in the domain of the new phase head (the Linker), and in this position, it is no longer visible to external probes.

This derivation has consequences for the properties of the two objects. Once in SpecLk, the Locative DP is on the edge of the Linker Phrase where it c-commands the Theme. As such, it is visible to external probes and can therefore undergo movement to higher positions such as SpecT in passivization, Spec ν as an object-marker, or SpecC when relativized. These movement processes are not available to the Theme, which is trapped inside the Linker phase and hence cannot enter an Agree relationship with an external probe due to the PIC.

Cases where the Theme DP can undergo movement, hence breaking the asymmetry, were explained in terms of phase theory, specifically the phase-EPP-feature. I showed that, contrary to what was assumed previously by Zeller & Ngoboka (2006), the Theme fails to have primary object properties not because of an intervention effect imposed by the Locative DP, but because it is trapped inside the Linker phase. However, I have also assumed that, being a phase head, the Linker can project a second specifier which can serve as an escape hatch for the Theme to escape the Relator phase. However, I argued that the possibility to realize this second EPP feature is constrained by the HEC, which states that at the end of the derivation, both DPs in SpecLk must be phonologically null.

In short, I have accounted for the asymmetry observed in locative shift constructions through the theory of small clauses and incorporation, within the framework of the Minimalist Program, specifically by combining phase theory and the MLC.

The analysis, which is based on the ideas of a Relator phrase, comes with some advantages: it can be carried over to locative inversion as it enables us to account for crucial aspects of the two types of locative inversion, i.e. semantic locative inversion and formal locative inversion. I will argue in the following chapters that locative inversion, particularly semantic locative inversion, is based on a similar underlying structure, and characterized by the same processes, as a locative shift construction.

CHAPTER FIVE: SEMANTIC LOCATIVE INVERSION

Kinyarwanda has two types of locative inversion, which are also found in some other Bantu languages: semantic locative inversion and formal locative inversion (Buell, 2007). Formal locative inversion is the type of locative inversion that has received a considerable amount of attention in the literature (Bresnan, 1994; Bresnan & Kanerva, 1989; Buell, 2005, 2007; Creissels, 2011; Demuth, 1990; Demuth & Mmusi, 1997; Diercks, 2010, 2011; Marten, 2006; Zerbian, 2006). In this kind of locative inversion, a locative expression comprising of a locative marker and a DP is preposed and the logical subject follows the verb. Regarding semantic locative inversion, very little attention has been paid to it; only a handful of studies have been devoted to the phenomenon, namely Buell (2005, 2007) and Zeller (2013) for the Zulu language as well as Zeller (2006b) for Kinyarwanda. A few other studies (Creissels, 2011; Den Dikken, 2006) have mentioned the existence of such a construction in other languages (Luhya and Tswana respectively) without, however, entering into details (see also Marten & Van der Wal, (2015) and Zalzmann, (2011) for a general overview of locative inversion). Semantic locative inversion is described as a type of construction in which "the noun denoting location surfaces in subject position [...] in its canonical form, without any sort of locative morphology, and the subject marker on the verb is of the usual noun class of that noun" (Buell 2007: 107). Previously this type of inversion was referred to as/confused with a kind of subject/object reversal construction (Buell, 2005; Kimenyi, 1980; Zeller, 2006b). Both semantic and formal locative inversion constructions exist in Kinyarwanda, and they are highly productive.

The two types of locative inversion are illustrated in the examples in (1b) and (1c), both of which have a corresponding canonical locative construction in (1a):

- (1) a. Abashyitsi baraara mu cyuúmba cyaa Máriyá.
a-ba-shyitsi ba-raar-a mu ki-uúmba cya Mariyá
AUG-2-visitors 2.SM-sleep-FV LOC18 7-room 7.ASS 1.Mary
'Visitors sleep in Mary's room.'

- b. Mu cyuúmba cyaa Máriyá haraaramó abashyitsi.
 mu ki-uúmba cya Mariyá ha-ráar-a-mó a-ba-shyitsi
 LOC18 7-room 7.ASS 1.Mary 16.SM-sleep-FV-LOC18 AUG-2-visitors
 'Visitors sleep in Mary's room.'
- c. Icyuúmba cyaa Máriyá kiraaramó abashyitsi.
 i-ki-uúmba cya Mariyá ki- ráar -a-mó a-ba-shyitsi
 AUG-7-room 7.ASS 1.Mary 7.SM-sleep-FV-LOC18 AUG-2-visitors
 'Visitors sleep in Mary's room.'

The sentence in (1a) is the canonical locative constructions with the order S-V-Loc. The example in (1b) illustrates formal locative inversion. This is the type of construction largely found in the literature on Bantu locative inversion. In this construction, the locative expression with a locative class marker precedes the verb and the subject is expressed in post-verbal position. In some languages such as Chichewa (Bresnan & Kanerva, 1989) or Herero (Marten, 2006: 9), the preposed locative agrees with the verb, while in others such as Southern Sotho (Demuth, 1990), Setswana (Creissels, 2011), and Northern Sesotho (Zerbian, 2006), no agreement is observed. Kinyarwanda belongs to the latter type of languages in which the pre-posed locative expression does not agree with the verb. As can be seen in (1b), instead of having the prefix *mu-* as the subject marker, which would correspond to the class 18 of the fronted locative, a different prefix (*ha-* of class 16) appears on the verb.

As far as meaning is concerned, there seems to be no significant difference between semantic locative inversion and formal locative inversion.³⁵ Compare the locative inversion constructions in (2) and (3).

- (2) Intébe yaanjye yiicayehó umuuntu.
 i-n-tébe yaanjye i-iicar-ye-hó u-mu-ntu
 AUG-9-chair 9.ASS.1S 9.SM-sit-PERF-LOC17 AUG-1-person
 'Someone is sitting on my chair.'

³⁵ However, see chapter 6 for a significant difference between semantic locative inversion and formal locative inversion when the preverbal locative DP/expression is relativized.

- (3) Ku ntébe yaanjye hiicayehó umuuntu.
ku n-tébe yaanjye ha-iicar-ye-hó u-mu-ntu
LOC17 9-chair 9.ASS.1S 16.SM-sit-PERF-LOC17 AUG-1-person
'Someone is sitting on my chair.'

As can be seen in the translation, the sentences in (2) and (3) mean the same. Speakers use both constructions interchangeably.

This chapter focuses on semantic locative inversion constructions, which are illustrated by (1c). In this type of construction, a DP denoting a location appears in the subject position. This DP does not have any locative morphological marking like in the case of formal locative inversion. Adopting the terminology introduced in chapter 4, I refer to this DP as the Locative DP. The Locative DP in (1c) belongs to class 7 as is shown by the noun class prefix *ki-*. Like in formal locative inversion in (1b), the logical subject follows the verb, but it can also be observed that, unlike in (1b), agreement is between the Locative DP and the verb. It is important to also note that a locative clitic *mó* attaches to the verb; its presence is obligatory or, to put it differently, it cannot be omitted. The ungrammaticality of (4) below is due to the missing locative clitic *mó*:

- (4) *Icyuúmba cyaa Máriyá kiraara abashyitsi.
i-ki-uúmba cya Mariyá ki-ráar-a a-ba-shyitsi
AUG-7-room 7.ASS 1.Mary 7.SM-sleep-FV AUG-2-visitors
'Visitors sleep in Mary's room.'

This chapter is intended to be a contribution to the body of the existing knowledge on locative inversion both from a descriptive and theoretical perspective. I provide a detailed description of semantic locative inversion and a syntactic account of this phenomenon. My main claim in this chapter is that the syntax of semantic locative inversion in Kinyarwanda is similar to the syntax of locative shift constructions, which were discussed in chapter 4. Like in locative shift constructions, the derivation of semantic locative inversion involves a small clause, which I call Relator Phrase (Den Dikken, 2006, 2007). The head of the small clause is the Relator (Rel), the "big DP_{Loc}" (the locative marker plus the Locative DP) is the complement of Rel, and the Theme occupies the specifier of the Relator as the subject of the small clause. I propose that in semantic

locative inversion, like in locative shift, the head of DP_{Loc} incorporates into Rel, deriving the locative clitic, while the Locative DP moves to the specifier of a Linker-projection. The main difference between semantic locative inversion and locative shift is that in the former construction, the Locative DP moves from SpecLk to the subject position (SpecT). My analysis therefore differs in an important way from Buell (2005) and Zeller (2013), who, in their study of semantic locative inversion in Zulu, argue that this construction does not involve movement from a post-verbal position to SpecT or SpecTop. Instead, they propose that the Locative DP is merged above vP/VP , in SpecLoc for Buell (2005) and SpecPr for Zeller (2013). My aim is to show that such accounts cannot be carried over to Kinyarwanda.

In the following section, I discuss the types of predicates that license semantic locative inversion.

5.1 The thematic structure of verbs that license semantic locative inversion

Bresnan (1994), Bresnan & Kanerva (1989) and Levin & Rapaport Hovav (1995) discuss in some detail the types of verbs that allow locative inversion. In their influential work on English and Chichewa, Bresnan & Kanerva (1989) and Bresnan (1994) argue that locative inversion is possible only with unaccusative and passivized transitive verbs, those verbs that lack the Agent. Passivized transitives are grouped together with unaccusative verbs because the Agent thematic role is suppressed by the passive morpheme. Thus, in both cases the Theme is the highest thematic role expressed. Levin & Rapaport Hovav (1995) note that all unaccusative verbs do not behave in the same way since some of them are disallowed in locative inversion. They also show that inversion constructions with agentive verbs do in fact exist, which is unexpected, according to Bresnan (1994) and Bresnan & Kanerva (1989). Subsequent work on other Bantu languages, including Marten (2006), Khumalo (2010), and Marten & Van der Wal (2015), even reports cases of locative inversion with transitive verbs. This means that what is true for English and Chichewa cannot be generalized to all languages. Like Herero (Marten 2006) and Zimbabwean Ndebele (Khumalo 2010), Kinyarwanda is another language that allows inversion with unaccusative, unergative and transitive verbs. Note that although Kinyarwanda does not allow inversion with ditransitives, passivized ditransitive verbs can also appear in locative inversion constructions.

5.1.1 Semantic locative inversion with unaccusatives

The category of unaccusatives can be divided into two groups as far as locative inversion in Kinyarwanda is concerned. One group allows inversion without an applicative while the other group requires this marker. The first group includes verbs of motion such as *-jya* 'to go', *-gera* 'to arrive', *-za* 'to come', *-gwa* 'to fall', *-va* 'to leave', and existence verbs such as *-túura* 'to live', *-guma* 'to remain/stay', *-ráara* 'to sleep' ('spend the night'), *-bá* 'to be', and spatial configuration verbs *-ryáama* 'to lie', *-éegama* 'to lean', *-iicara* 'to sit', *-hágarara* 'to stand', verbs of appearance such *-garagara/-bóneka* 'to be visible'. This group is illustrated in (5) and (6). In each case a non-inverted construction is presented alongside the inversion construction. The sentence in (5) is semantic locative inversion with an unaccusative motion verb, while (6) is with a verb of existence.

- (5) a. Abaguzí baageze kuu nzu.
 a-ba-guzí ba-a-ger-ye ku n-zu
 AUG-2-buyers 2.SM-PST-arrive-PERF LOC17 9-house
 'Buyers have arrived at the house.'
- b. Inzu yagezehó abaguzí.
 i-n-zu i-a-ger-ye-hó a-ba-guzí
 AUG-9-house 9.SM-PST-arrive-PERF-LOC17 AUG-2-buyers
 'Buyers have arrived at the house.'
- (6) a. Abarwáayi bazaaguma mu bitaro.
 a-ba-rwáayi ba-za-gum-a mu bitaro
 AUG-2-patients 2.SM-FUT-stay-FV LOC18 8.hospital
 'Patients will stay in the hospital.'
- b. Ibitaro bizaagumamó abarwáayi.
 i-bitaro bi-za-gum-a-mó a-ba-rwáayi
 AUG-8.hospital 8.SM-FUT-stay-FV-LOC18 AUG-2-patients
 'Patients will stay in the hospital.'

The second group, which requires an applicative, seems to be homogeneous compared to the first one. It comprises of those verbs that Levin & Rappaport Hovav (1995) refer to as change-of-state verbs. Such verbs include the following, among others: *-shyá* 'to burn', *-pfá* 'to die', *-úuma* 'to dry', *-bira* 'to boil', *-kúra* 'to grow up', *-sara* 'to become crazy', *-sáaza* 'to age', *-bora* 'to decompose', *-shóonga* 'to melt'. They are illustrated by the following two examples:

- (7) a. Umukinnyi yapfiiriye mu kibúga.
 u-mu-kinnyi a-a-pfú-ir-ye mu ki-búga
 AUG-1-player 1.SM-PST-die-APPL-PERF LOC18 7-pitch
 'A player died on the pitch.'
- b. Ikibúga cyaapfiriye mó umukinnyi.
 i-ki-búga ki-a-pfú-ir-ye-mó u-mu-kinnyi
 AUG-7-pitch 7.SM-PST-die-APPL-PERF-LOC18 AUG-1-player
 'A player died on the pitch.'

- (8) a. Amafaraanga yahiiyiye muu nzu.
 a-ma-faraanga a-a-hí-ir-ye mu n-zu
 AUG-6-money 6.SM-PST-burn-APPL-PERF LOC18 9-house
 'The money burnt in the house.'
- b. Inzu yahiriye mó amafaraanga.
 i-n-zu i-a-hí-ir-ye-mó a-ma-faraanga
 AUG-9-house 9.SM-PST-burn-APPL-PERF-LOC18 AUG-6-money
 'The money burnt in the house.'

If no applicative is added to this type of verbs, both the inverted and the non-inverted sentences become ungrammatical. This is shown in (9):

- (9) a. *Amafaraanga yahiiye muu nzu.
 a-ma-faraanga a-a-hí-ye mu n-zu
 AUG-6-money 6.SM-PST-burn-PERF LOC18 9-house
 'The money burnt in the house.'

- b. *Inzu yahiiyemó amafaraanga.
 i-n-zu a-a-hí-ye-mó a-ma-faraanga
 AUG-9-house 9.SM-PST-burn-PERF-LOC18 AUG-6-money
 Intended: 'The money burnt in the house.'

How can the difference between the two groups of verbs be explained? Stated differently, why is the applicative required in the second group of unaccusative verbs, and not in the first one? This can be accounted for by the s-selectional properties of the verbs in question. It can be argued that the first group of verbs (e.g. *-za* 'to come', *-gera* 'to arrive', *-jya* 'to go', *-hágarara* 'to stand', *-túura* 'to live/stay') sub-categorize for location. They select a location as an argument, which is not the case for the second group of verbs (e.g. *-sáaza* 'to age', *-sara* 'to become crazy', *-úuma* 'to dry', *-bora* 'to decompose'). For this category of verbs, an applicative is required (see section 5.5.3 and 5.5.4 for a syntactic representation). In contrast, for some verbs that sub-categorize for a location, the addition of the applicative is prohibited. Observe the ungrammaticality of (10) below:

- (10) *Inzu yagéreyehó abaguzí.
 i-n-zu i-a-ger-ir-ye-hó a-ba-guzí
 AUG-9-house 9.SM-PST-arrive-APPL-PERF-LOC18 AUG-2-buyers
 Intended: 'Buyers arrived at the house.'

To conclude this section, I wish to highlight the following about word order in semantic locative inversion with intransitive verbs. At the surface level, a semantic locative inversion construction looks like a sentence with normal SVO word order (11a). This is because the Locative DP in subject position does not have a locative class marker. Moreover, the order in (11a) is the only one possible, and no material can intervene between the verb and the postverbal subject *umwóotsi*. (11b) is ungrammatical, because the expression *buri kaánya* 'every time' intervenes between the verb and the postverbal subject:

- (11) a. Inzu iravamó umwóotsi.
i-n-zu i-ra-vu-a-mó u-mu-óotsi
AUG-9-house 9.SM-PRES-come-FV-LOC18 AUG-3-smoke
'Smoke is coming out of the house.'
- b. *Inzu iravamó buri kaánya umwóotsi.
i-n-zu i-ra-vu-a-mó buri ka-aánya u-mu-óotsi
AUG-9-house 9.SM-PRES-come-FV-LOC18 every 12-time AUG-3-smoke
Intended: 'Smoke is coming out of the house every time.'

A 'bare' Locative DP such as *inzu* 'house' in (11a) (i.e. without *ku-*, *mu-*), cannot occupy a position other than that of the subject if the intended meaning is that of a location. Therefore, it is not possible to have a construction like (12) below in which the 'bare' Locative DP follows the verb.

- (12) *Umwóotsi uravamó inzu.
u-mu-óotsi u-ra-vu-a-mó i-n-zu
AUG-3-smoke 3.SM-PRES-come-FV-LOC18 AUG-9-house
Intended: 'Smoke is coming out of the house.'

To appear in the post-verbal position it must be a 'full' Locative DP with a locative marker as in (13) below.

- (13) Umwóotsi urava muu nzu.
u-mu-óotsi u-ra-vu-a mu n-zu
AUG-3-smoke 3.SM-PRES-come-FV LOC18 9-house
'Smoke is coming out of the house.'

The ungrammaticality of (12) will be explained in terms of obligatory movement of the Locative DP from the small clause in accordance with phase theory and the MLC (see section 5.5.2).

5.1.2 Semantic locative inversion with unergatives

Kinyarwanda also allows semantic locative inversion to apply to unergative verbs. However, unergative verbs differ from unaccusatives in that an applicative is almost always required for semantic locative inversion to be possible. I suggest that this is because unergatives generally do not entail a location. As indicated above, for unergatives as well as unaccusatives that require an applicative, an applicative phrase must be projected as an extension of the small clause (Relator Phrase) (see the syntactic representation in 5.5.3). Examples of such verbs include *-ryá* 'to eat', *kina* 'to play', *-siimbuka* 'to jump', *-byína* 'to dance', *-seka* 'to laugh/smile', *-rira* 'to cry'.³⁶ In the following examples, an applicative is added to the verb. Notice that the applicative is obligatory not only in locative inversion, but also in the corresponding non-inverted locative constructions.

- (14) a. Abagoré bariira mu buriri.
 a-ba-goré ba-rí-ir-a mu bu-riri
 AUG-2-women 2.SM-eat-APPL-FV LOC18 14-bed
 'Women eat in bed.'

- b. Uburiri buriramó abagoré.
 u-bu-riri bu-rí-ir-a-mó a-ba-goré
 AUG-14-bed 14.SM-eat-APPL-FV-LOC18 AUG-2-women
 'It is women who eat in bed.'

- (15) a. Abakinnyi b' úmwuuga bakinira ku
 a-ba-kinnyi bá u-mu-uuga ba-kin-ir-a ku
 AUG-2-players 2.ASS AUG-3-profession 2.SM-play-APPL-FV LOC17
 bibúga byiizá.
 bi-búga bi-iizá
 8-pitch 8-good
 'Professional players play on good pitches.'

³⁶ Verbs such as *ryá* 'eat' are generally transitive. I treat them as unergative when their object is omitted.

- b. Ibibúga byiizá bikinirahó abakinnyi
 i-bi-búga bi-iizá bi-kin-ir-a-hó a-ba-kinnyi
 AUG-8-pitch 8-good 8.SM-play-APPL-FV-LOC17 AUG-2-player
 b' úmwuuga.
 bá u-mu-uuga
 2.ASS AUG-3-profession
 'Professional players play on good pitches.'

However, there are exceptional cases where the applicative is not a requirement with unergative verbs either. In the following examples, two options manifest themselves: the sentences are grammatical whether the verb has an applicative or not.

- (16) a. Ibiro byaa Perezida bikoramó abasóre.
 i-biro bya Perezida bi-kór-a-mó a-ba-sóre
 AUG-8.office 8.ASS 1.president 8.SM-work-FV-LOC18 AUG-2-young.men
 'Young men work in the President's office.'
- b. Ibiro byaa Perezida bikoreramó abasóre.
 i-biro bya Perezida bi-kór-ir-a-mó a-ba-sóre
 AUG-8.office 8.ASS 1.president 8.SM-work-APPL-FV-LOC18 AUG-2-young.men
 'Young men work in the President's office.'

Verbs such as *-ryá* 'to eat' and *-nywá* 'to drink' behave like *-kóra* 'to work' above in that they may sometimes license semantic locative inversion without an applicative. The exceptional behavior of these verbs can be described as follows: an unergative verb without an applicative can take a locative expression in its complement when this locative expression denotes the *prototypical location* of the event. When the locative expression is not a prototypical location for the event described by the verb, a simple unergative verb is not sufficient; the addition of a locative expression requires an applicative. For example, in (14b) above, if no applicative is added to the verb, the sentence becomes ungrammatical because a bed is not a prototypical place for eating. However, if the locative complement is the expression 'in the restaurant', it is possible to

combine the unergative verb with a locative expression without adding the applicative. Compare (14) above with (17) below:

- (17) a. Abakózi barya murí reesitora.
 a-ba-kózi ba-rí-a muri reesitora
 AUG-2-workers 2.SM-eat-FV LOC18 9.restaurant
 'Workers eat in the restaurant.'
- b. Reesitora iryamó abakózi.
 Reesitora i-rí-a-mó a-ba-kózi
 9.restaurant 9.SM-eat-FV-LOC18 AUG-2-workers
 'Workers eat in the restaurant.'

The examples in (17) show that, since a restaurant is a prototypical place for eating, no applicative is required to introduce the location in the argument structure of the verb *-ryá* 'eat'. This suggests that there is a link between the syntactic argument and the lexical semantics. A similar example is that of the verb *-íiga* 'study'. No applicative is required if, for example, the subject is a student studying in a class of which he/she is a member. In contrast, if a student finds space in another class, or if she/he finds another room and uses it for the purpose of carrying out her/his studying activity, an applicative must be used. Compare (18) (where the verb does not combine with an applicative marker) and (19) (where the applicative is required), which illustrate this difference:

- (18) a. Abáana b' ábahaánga biiga mw' iishuúri A.
 a-ba-áana bá a-ba-haánga ba-iig-a mu i-shuúri A
 AUG-2-children 2.ASS AUG-2-brilliant 2.SM-study-FV LOC18 AUG-5.classA
 'Brilliant children study in class A.'
- b. Ishuúri A ryiigamó abáana b' ábahaánga.
 i-shuuri A ri-iig-a-mó a-ba-áana bá a-ba-haánga
 AUG-5.class A 5.SM-study-FV-LOC18 AUG-2-children 2.ASS AUG-2-brilliant
 'Brilliant children study in class A.'

- (19) a. Abakózi biigira muu yaandi mashuúri.
 a-ba-kózi ba-íig-ir-a mu yaandi ma-shuúri
 AUG-2-workers 2.SM-study-APPL-FV LOC18 6.other 6-class
 'Workers study in other classes.'
- b. Ayaáandi mashuúri yiigiramó abakózi.
 Ayaáandi ma-shuúri a-íig-ir-a-mó a-ba-kózi
 6.other 6-classes 6.SM-study-APPL-FV-LOC18 AUG-2-workers
 'Workers study in other classes.'

The applicative in the above examples is often referred to as an event localizer (Creissels, 2004; Grégoire, 1998; Kimenyi, 1980). As indicated above, it introduces a location which, otherwise, is not required by the event, and places emphasis on the location of the event. For instance, no applicative is required in (16a) because the office is considered as the usual work place for the young men. In contrast, the applicative is added in (16b) to place emphasis on the office as a place where the young men are sitting or standing, or are found at a specific time, etc., to do some work. They may be consultants, inspectors or visitors, who might have offices elsewhere.

However, not all examples follow straightforwardly from the idea of "prototypical locations". For example, as shown in (15) above, the applicative is still required with the verb *-kina* 'play' if the sentence expresses that the action of playing takes place in a physical location, even if this location can be considered prototypical (e.g. *mu kibúga* 'on the pitch'). However, it is surprising that no applicative is required when the complement is the locative expression *mu ikiípe* 'in a team'. This is illustrated by (20) below.

- (20) a. Abakinnyi b' úmwuuga bakina murí Chelsea.
 a-ba-kinnyi bá u-mu-uuga ba-kin-a murí Chelsea
 AUG-2-players 2.ASS AUG-3-profession 2.SM-play-FVLOC18 Chelsea
 'Professional players play for Chelsea.'

- b. Chelsea ikinamó abakinnyi b' úmwuuga.
 Chelsea i-kin-a-mó a-ba-kinnyi bá u-mu-uuga
 9.Chelsea 9.SM-play-FV-LOC18 AUG-2-player 2.ASS AUG-3-profession
 'Professional players play for Chelsea.'

It is not clear why the verb *-kina* 'play's-selects the locative *mu ikiípe* 'in a team', but not *mu kibúga* 'on a pitch'. I have no explanation for this. Perhaps, since the location 'on the pitch' denotes a physical place, the applicative must be added to turn it into an event localizer. In contrast, a team does not require an event localizer since it is not a physical location, and the applicative can therefore not appear here.

5.1.3 Semantic locative inversion with transitives/ditransitives

The example in (21b) illustrates that semantic locative inversion is also possible with transitive verbs in Kinyarwanda:

- (21) a. Abashaakashaatsi baandikira ibitabo murí ibi biro.
 a-ba-shaakashaatsi ba-aandik-ir-a i-bi-tabo murí ibi biro
 AUG-2-researchers 2.SM-write-APPL-FV AUG-8-books LOC18 8.DEM 8.office
 'Researchers write books in this office.'
- b. Ibi biro byaandikiramó ibitabo abashaakashaatsi.
 ibi biro bi-andik-ir-a-mó i-bi-tabo a-ba-shaakashaatsi
 8.DEM 8.office 8.SM-write-APPL-FV-LOC 18AUG-8-books AUG-2-researcher
 'Researchers write books in this office.'

As (21) shows, transitive verbs behave like unergative verbs in often requiring an applicative. However, a transitive does not take an applicative if the locative expression is a typical Goal entailed by that particular verb.

- (22) a. Abanyéeshuúri baandika amataangaazo kurí iki kibáahó.
a-ba-nyéeshuúri ba-aandik-a a-ma-taangaazo kurí iki ki-báahó
AUG-2-students 2-write-FV AUG-6-notices LOC18 7.DEM 7-board
'Students write notices on this board.'
- b. Iki kibáahó cyaandikahó amataangaazo abanyéeshuúri.
iki ki-báahó ki-aandik-a-hó a-ma-taangaazo a-ba-nyéeshuúri
7.DEM 7-board 7.SM-write-FV-LOC17AUG-6-notices AUG-2-students
'Students write notices on this board.'

Semantic locative inversion with transitives is not very productive. Views differ with regards to the acceptability of semantic locative inversion with transitive verbs to such an extent that some speakers find such constructions ungrammatical. I return to this point in section 5.5.5, where I propose an analysis of semantic locative inversion with transitive verbs. Here, I simply wish to add that, although semantic locative inversion constructions with typical transitive verbs are not always fully acceptable, (23), Loc-V-O-S sentences become much better when the postverbal subject is a heavy NP, as in (24) and (25):

- (23) ??Iri sokó riguramó imyeénda abakoóbwa.
iri soko ri-gur-a-mó i-mi-eénda a-ba-koóbwa
5.DEM 5.market 5.SM-buy-FV-LOC18 AUG-4-clothes AUG-2-girls
'Girls buy clothes in this market.'

- (24) Isokó ryáa Nyábugogó riguramó imyeénda
i-sokó ryá Nyabúgogó ri-gur-a-mó i-mi-énda
AUG-5.market 5.ASS 9.Nyabugogo 5.SM-buy-FV-LOC18 AUG-4-clothes
abaantu bakuundá gucíiririkany-a.
a-ba-ntu ba-kúund-a ku-cíiririkany-a
AUG-2-person 2-like-FV 15-haggle-FV
'It is people who like haggling who buy clothes in Nyabugogo market.'

(25)	Ingaánda	zó	muri	Áafuriká	akeénshi	zishoramó
	i-n-gaánda	zó	murí	Afuriká	akeénshi	zi-shoor-a-mó
	AUG-10-industries	10.ASS	LOC18	9.Africa	often	10.SM-invest-FV-LOC18
	amafaraanga		abanyéemaári	batari		ábéenegíhugu.
	a-ma-faraanga		a-ba-nyéemaári	ba-ta-ri		a-ba-éenegíhugu
	AUG-6-money		AUG-2-financiers	2.SM-NEG-be		AUG-2-nationals

'It is non-national financiers who often invest money in African industries.'

The contrast between (23) and (24)/(25) will become relevant in section 5.5.5, where I propose an analysis of these constructions.

Notice that in semantic locative inversion with transitive verbs, two word orders are possible: Loc-V-O-S and Loc-V-S-O. This is illustrated in (26).

(26)	a.	Iri	shuúri	ryiigiramó		imibaré	abáana.
		iri	shuúri	ri-íig-ir-a-mó		i-mi-baré	a-ba-áana
		5.DEM	5.classroom	5.SM-study-APPL-FV-LOC18		AUG-4-maths	AUG-2-child
		'Children study maths in this classroom.'					
	b.	Iri	shuúri	ryiigiramó		abáana	imibaré.
		iri	shuúri	ri-íig-ir-a-mó		a-ba-áana	i-mi-baré
		5.DEM	5.classroom	SM.5-stuy-APPL-FV-LOC18		AUG-2-child	AUG-4-maths
		'Children study maths in this classroom.'					

Like in (24), (26a) may be improved when the subject DP is a heavy NP, but it is not the case with (26b), in which the Theme DP follows the Locative DP: (27a), which corresponds to (26a) is perfect, but (27b), which is based on (26b) is ungrammatical.

- (27) a. Iri shuúri ryiigiramó imibaré abáana
 iri shuúri ri-íig-ir-a-mó i-mi-baré a-ba-áana
 5.DEM 5.classroom 5.SM-study-APPL-FV-LOC18 AUG-4-maths AUG-2-child
 bafité imyáaka i-riindwi.
 ba-fité i-myáaka i-riindwi
 2.SM-have AUG-4.years 4-seven
 'It is children who are seven years old who study maths in this classroom.'
- b. *Iri shuúri ryiigiramó abáana bafité
 iri shuúri ri-íig-ir-a-mó a-ba-áana ba-fité
 5.DEM 5.classroom SM.5-stuy-APPL-FV-LOC18 AUG-2-child 2.sm-have
 imyáaka i-riindwi imibaré.
 i-myáaka i-riindwi i-mi-baré
 4-years 4-seven AUG-4-maths
 'It is children who are seven years old who study maths in this classroom.'

The analyses of the constructions in (26) are provided in sections 5.5.5.1 and 5.5.5.2, respectively.

Locative inversion with ditransitive verbs is not possible, (28b). It is possible only when the verb is passivized and the theta-role of the Agent is absorbed, (28c).

- (28) a. Ababyéeyi baheera abáana ibiryó mu
 a-ba-byéeyi ba-há-ir-a a-ba-áana i-bi-ryó mu
 AUG-2-parents 2.SM-give-APPL-FV AUG-2-children AUG-8-food LOC18
 mashuúri.
 ma-shuúri
 6-classrooms
 'Parents give children food in classrooms.'

- b. *Amashuúri aheeramó abáana ibiryó
a-ma-shuúri a-há-ir-a-mó a-ba-áana i-bi-ryó
AUG-6-classroom 6-give-APPL-FV-LOC18 AUG-2-children AUG-8-food
ababyéeyi.
a-ba-byéeyi
AUG-2-parents

Intended: 'Parents give children food in classrooms.'

- c. Amashuúri aheererwamó abáana
a-ma-shuúri a-há-ir-w-a-mó a-ba-áana
AUG-6-classrooms 6.SM-give-APPL-PASS-FV-LOC18 aug-2-children
ibiryó (n' ababyéeyi).
i-bi-ryó ná a-ba-byéeyi
AUG-8-food by AUG-2-parents

'Children are given food in classrooms.'

From the above discussion, the following observation can be highlighted: Compared to other Bantu languages, there is less restriction on the type of verbs that allow locative inversion in Kinyarwanda. Intransitive, transitive, and passivized ditransitive verbs allow locative inversion; if a particular verb does not s-select a location, an applicative is added to introduce a location in the argument structure of the verb. Once a locative expression is added to the verb phrase, inversion is possible.

The following table is a summary of the interaction between argument structure and the presence of a locative clitic and an applicative in semantic locative inversion constructions.

Table 12: Interaction of the applicative and clitics with the argument structure

Types of verb	clitic	applicative
Unaccusative e.g. <i>-gera</i> 'to arrive', <i>-gwa</i> 'to fall', <i>-za</i> 'to come'	required	disallowed
Unaccusative e.g. <i>-pfá</i> 'to die', <i>-úuma</i> 'to dry', <i>-shyá</i> 'to burn'	required	required
Unergatives e.g. <i>-byína</i> 'dance', <i>-ryá</i> 'eat'	required	generally required but there are exceptions: if the Locative DP is a prototypical place where a particular activity takes place (e.g. study in a class; work in an institution; eat in a restaurant, play in a team, etc.), the applicative is <i>not</i> required
Transitives <i>-aandika</i> 'write', <i>-íiga</i> 'study'	required	generally required but there are exceptions such as when the locative is a goal (e.g. write letters on the board).

5.2 Preverbal Locative DPs

The key difference between semantic locative inversion and formal locative inversion concerns the morphosyntactic status of the preposed Locative DPs. In formal locative inversion, the preposed Locative DP bears a locative prefix (classes 17-19); what has been fronted is therefore the whole locative expression DP_{Loc}. In contrast, in semantic locative inversion, the preverbal Locative DP has not carried along the locative marker; it is an ordinary DP that belongs to any other noun class. However, the subject in semantic locative inversion denotes a location of something. This is why Buell (2007) has termed this kind of construction semantic locative

inversion. As I show now, in this type of locative inversion, the preposed Locative DP is the grammatical subject of the clause (and located in the preverbal subject position SpecT).

A number of tests have been proposed in the literature to determine the status of preposed locatives in Bantu languages (Bresnan & Kanerva, 1989; Buell, 2005; Demuth & Mmusi, 1997; Machobane, 1995; Morimoto, 2000). Those tests are the following: agreement with the verb, lack of expletives with locative markers, attributive VPs, subject raising, reflexivization, relativization, clefting, wh-questions, and subject dropping. I will apply agreement, subject dropping, relativization, wh-questions and subject dropping (prodrop).³⁷

5.2.1 Agreement

Agreement means that the subject DP must agree in phi-features, i.e. person, number, and gender, with the verb. This is what happens with semantic locative inversion in Kinyarwanda as is demonstrated by all examples discussed above and by the example in (29):

- (29) *Ihemá* *riraaramó* *baa mukeerarugeendo.*
 i-hemá *ri-ráar-mó* *ba mukeerarugeendo*
 AUG-5.tent 5.SM-sleep-LOC18 2 1.tourist
 'Tourists sleep in the tent.'

In (29), the Locative DP *ihemá* 'tent' is a singular noun and belongs to noun class 5. The fact that *-ri-* is marked on the verb as an agreement marker is an indication that the Locative DP is a grammatical subject.

A further piece of evidence that the Locative DP is a grammatical subject is that it exhibits properties different from those of topicalized DPs. Indeed, if a constituent is topicalized, a resumptive pronoun is required and there is no agreement with the verb. For example, in (30),

³⁷ The attributive VP, subject raising, and reflexivization tests will not be applied as they are language specific. Also, note that the "lack of expletives" with locative markers as a test will be discussed in detail only when I provide the analysis of formal locative inversion in chapter 6 since this construction bears some resemblance with expletives. As for semantic locative inversion, it suffices to mention that it is a construction which cannot be an expletive construction. The preposed locative is a normal DP that can belong to any noun class and triggers agreement on the verb, hence a structural subject of the sentence. As such, there is a clear distinction between semantic locative inversion and expletive constructions.

the locative is a fronted topic, and this topicalization requires the appearance of a resumptive pronoun (the object marker *ri-*) on the verb. Furthermore, the topicalized Locative DP does not control subject agreement on the verb. This follows from the position of the topic in the left periphery, which is different from the canonical subject position SpecT. This position is occupied by the logical subject (the Theme *ba mukeerarugeendo* 'tourists') in (30), which therefore agrees with the verb.

- (30) *Ihemá* *baa mukeerarugeendo* *bariraaramó.*
 i-hemá *ba mukeerarugeendo* *ba-ri-ráar-a-mó*
 AUG-5.tent 2 1.tourist 2.SM.-5OM.sleep-FV-LOC18
 'The tent, tourists sleep in it.'³⁸

In contrast to (30), there is no resumptive pronoun in semantic locative inversion constructions, and the fronted Locative DP always agrees with the verb, unless one treats the subject marker as an agreement marker.

5.2.2 Relativization

In Kinyarwanda, a subject DP can be relativized. When such a DP belongs to class 1, its relativization triggers the alternative agreement marker on the verb, which is marked with the subject relative marker *u-* instead of the normal agreement marker *a-* of class 1. Consider the examples in (31):

- (31) a. *Umwáana* *ararwáaye.*
 u-mu-áana *a-ra-rwáar-ye*
 AUG-1-child 1.SM-DJ-be.sick-PERF
 'The child is sick.'

³⁸ See section 5.5.2 for the analysis of constructions like (30) in which the locative topic is base-generated in the left periphery.

- (33) Ni irifhe hemá riraarámó baa mukeerarugeendo?
 ni i-ri-he hemá ri-ráar-a-mó ba mukeerarugeendo
 be AUG-5-which 5.tent 5.SM-sleep-FV-LOC18 2 1.tourist
 'In which tent do tourists sleep?'

(33) shows that the Locative DP in semantic locative inversion behaves like any other subject DP in terms of wh-questioning.

5.4.5 Subject drop

Another test often used to test subjecthood is subject dropping (pro-drop). In pro-drop languages, a subject marker should have an anaphoric interpretation. For example, Bresnan & Mchombo (1987) and Bresnan & Kanerva (1989) (and subsequent work on locative inversion) argue that in Chichewa locative inversion, the locative reference is anaphoric; thus the locative meaning is maintained in the absence of the subject. This distinguishes Chichewa from other Bantu languages such as Setswana (Demuth & Mmusi, 1997) in which, when the preposed locative is dropped, no locative reference is available.

As far as semantic locative inversion in Kinyarwanda is concerned, the preposed locative DP is the subject of the sentence. The subjecthood of the locative DP can be explained as follows: on the one hand, the fronted locative DP cannot be a subject if the subject position is filled with an expletive pro. In such a case, if the subject is dropped, with an expletive pro in the subject position, the locative interpretation is not available. On the other hand, the subject position can be filled with a locative pro. Thus, if the subject is dropped, the locative interpretation is maintained. This is the case in (34). (34) corresponds to (29) without the subject DP, but the locative meaning is maintained.

- (34) Riraaramó baa mukeerarugeendo.
 ri-ráar-a-mó ba mukeerarugeendo
 5.SM-sleep-FV-LOC18 2 1.tourist
 'It is slept in by tourists/ It is tourists who sleep in it.'

In short, all the tests applied here (agreement, relativization, wh-questioning, and subject dropping) show that the preverbal locative DP is a structural subject.

5.3 Post-verbal subject DPs

This section aims to address two issues: the position of the post-verbal subject and its syntactic properties.

There is compelling evidence that the post-verbal subject DP is not right-dislocated, but occupies a VP/vP-internal position. One such piece of evidence is word order. In most semantic locative inversion constructions, the subject follows the verb directly, and no other constituent can intervene between the verb and the post-verbal DP. In (35a), the subject directly follows the verb and the sentence is grammatical. By contrast, in (35b), the intervention of the temporal expression *ku cyúumwéeru* 'on Sunday' between the verb and the logical subject renders the sentence ungrammatical.

- (35) a. Ihemá riraaramó baa mukeerarugeendo.
 i-hemá ri-ráar-mó ba mukeerarugeendo
 AUG-5.tent 5.SM-sleep-LOC18 2 1.tourist
 Intended: 'It is tourists who sleep in the tent.'
- b. *Ihemá riraramó ku cyúumwéeru baa mukeerarugeendo.
 i-hemá ri-ráar-mó ku cyúumwéeru ba mukeerarugeendo
 AUG-5.tent 5.SM-sleep-LOC18 on Sunday 2 1.tourist
 Intended: 'It is tourists who sleep in the tent on Sundays.'

Transitive verbs behave exactly in the same way. A temporal expression is not permitted to intervene between the verb and the object:

- (36) *Mariyá acuruuza ku cyúumwéeru inkweeto.
 Mariyá a-cúruuz-a ku cyúumwéeru i-n-kweeto
 1.Mary 1.SM-sell-FV on Sunday AUG-10-shoes
 Intended: 'Mary sells shoes on Sundays.'

Notice, however, that some material, e.g. VP-adjuncts such as *akeénshi* 'often', or *cyaane* 'much/hard', can appear between the verb and the subject in semantic locative inversion, but it is the same type of material that can also separate an object from its verb:

- (37) Ihemá riraarámó *akeénshi* ba mukeerarugeendo.
 i-hemá ri-ráar-mó akeénshi ba mukeerarugeendo
 AUG-5.tent 5.SM-sleep-LOC18 often 2 1.tourist
 'It is tourists who often sleep in the tent.'

- (38) Mariyá acuruuza *akeénshi* inkweeto.
 Mariyá a-cúruuz-a akeénshi i-n-kweeto
 1.Mary 1.SM-sell-FV often AUG-10-shoes
 'Mary often sells shoes.'

The parallels between (35b) and (36), and (37) and (38), support the view that the postverbal subject in semantic locative inversion is in a VP-internal position.

A second piece of evidence has to do with the morphological form of the verb. When the logical subject is expressed in post-verbal position and the locative is preposed, the verb exhibits the conjoint verb form rather than the disjoint verb form (see also chapter 2 and chapter 4). It has been shown in the literature (Bizimana, 1998; Coupez, 1980; Ngoboka & Zeller, to appear) that in Kinyarwanda, if a verb is in the conjoint form, there must be other material inside the VP. Therefore, the conjoint form in an example such as (39a) is grammatical, but (39b) is ungrammatical:

- (39) a. Yohaáni akuunda akazi ké.
 Yohaáni a-kúund-a a-ka-zi ké
 1.John 1.SM-like-FV AUG-12-job his
 'John likes his job.'

- b. *Yohaáni arakúunda akazi ké.
 Yohaáni a-ra-kúund-a a-ka-zi ké
 1.John 1.SM-DJ-like-FV AUG-12-job his
 Intended: 'John likes his job.'

The fact that the conjoint form is compulsory in semantic locative inversion (see all the examples presented thus far) constitutes evidence that the post-verbal subject is inside the VP. For instance, if the verb in the example in (35a) appears in the disjoint form, meaning that the DP *baa mukeerarugeendo* is out of VP (e.g. right dislocated), the sentence becomes ungrammatical, as shown in (40) below:

- (40) *Ihemá riraraaramó baa mukeerarugeendo.
 i-hemá ri-ra-ráar-a-mó ba mukeerarugeendo
 AUG-5.tent 5.SM-DJ-sleep-FV-LOC18 2 1.tourist
 Intended: 'It is tourists who sleep in the tent.'

The third type of evidence that the postverbal subject in semantic locative inversion is in a VP-internal position has to do with pronoun binding. As noted in Buell (2007) and Zeller (2013) in their discussion of semantic locative inversion in Zulu, if a quantificational DP in subject position can bind inside a post-verbal DP, then this is an indication that the post-verbal DP is in the c-command domain of the subject, i.e. inside the VP. Applying this test to semantic locative inversion in Kinyarwanda confirms that the post-verbal subject in these constructions is in fact inside the VP.

- (41) Buri_i musózi uhuurirahó abatuúrage báawo_i.
 Buri mu-sózi u-húur-ir-a-hó a-ba-tuúrage ba-wó
 Each 3-village 3.SM-meet-APPL-FV-LOC17 AUG-2-residents 2-ASS-3.PRON
 Lit.: 'At each village meet its residents.'

Now I turn to the syntactic properties of the post-verbal DP. Apart from being inside the VP, the post-verbal subject does not exhibit any characteristic properties of an object: it cannot be object marked, passivized or extracted like an object.

Object marking:

- (42) *Ihemá ribaraaramó.
 i-hemá ri-ba-ráar-a-mó
 AUG-5.tent 5.SM-2.OM-sleep-FV-LOC18
 Intended: 'They sleep in the tent.'

Passivization:

- (43) *Baa mukeerarugeendo baraarwamó n' íhemá.
 ba mukeerarugeendo ba-ráar-w-a-mó ná i-hemá
 2 1.tourist 2.SM-sleep-PASS-FV-LOC18 by AUG-5.tent
 Intended: 'The tent is slept in by the tourists.'

Extraction:

- (44) *baa mukeerarugeendo íhemá riraarámó
 ba mukeerarugeendo i-hemá ri-ráar-a-mó
 2 1.tourist AUG-5.tent 5.SM-sleep-FV-LOC18
 Intended: 'the tourists that sleep in the tent'³⁹

Another property of a direct object that the post-verbal subject lacks is the ability to be dropped as an understood object. In Kinyarwanda, like in many other Bantu languages, an object may be left implicit, i.e. its meaning can be understood from the context. However, this is not possible with the post-verbal logical subject in a semantic locative inversion construction. The example in (45) is a canonical SVO sentence in which the object can be omitted, and its omission does not

³⁹ Note that the sentences in (42) - (44) are grammatical with a different reading, corresponding to a syntax in which the Locative is a *thematic* subject and the postverbal DP is a genuine object. In this case, (42) would mean that 'the tent sleeps in them', (43) would mean that 'tourists are slept in by the tent', and (44) would mean 'the tourists in which the tent sleeps.'

affect the grammaticality of the sentence. In contrast, (46) is unacceptable without the post-verbal subject.⁴⁰

(45) Abanyéeshuúri baá(ra)gúze (ibitabo).
 a-ba-nyéeshuúri ba-á-ra-gur-ye (i-bi-tabo)
 AUG-2-students 2.SM-REM-DJ-buy-PERF (AUG-8-books)
 'The students bought (books).'

(46) Ihemá ri(ra)raaramó *(baa mukeerarugeendo).
 i-hemá ri-ra-ráar-a-mó (ba mukeeragugeendo)
 AUG-5.tent 5.SM-DJ-sleep-FV-LOC18 (2 1.tourist)
 Intended: 'The tent is slept in by the tourists.'

Bresnan & Kanerva (1989) attribute the inability of the post-verbal subject in locative inversion constructions to be object-marked and extracted to its discourse function. They argue that this inability has to do with information structure, notably focus on the post-verbal subject. The post-verbal subject cannot be expressed by an object marker because an object marker is inconsistent with focus. (See also Ndayiragije (1999), who stresses that object markers are weak pronouns which cannot be focused). With regards to extraction, Bresnan and Kanerva argue that the post-verbal subject cannot be extracted given that extraction is closely related to topicalization. As such, a constituent that is focused cannot at the same time be a topic. The view that it is the focus-interpretation of the postverbal subject that keeps it from being accessible to syntactic operations such as object marking or passivization is also articulated in Den Dikken (2006: 125), who proposes that "a constituent that ends up in a syntactic configuration that leads it to be interpreted as a focus, [i.e. in a postverbal position, JPN], will inevitably be interpreted as the focus of the clause that it is in, and will literally be frozen in place." However, although an account based on focus is plausible, as information structure plays an important role in locative inversion (as I will show in the next section), focus alone cannot explain the unexpected behavior of the post-verbal subject. As shown in Zeller (2013), in locative inversion constructions with

⁴⁰ Notice that the omission of an object requires the disjoint marker *ra-*. But, even with the disjoint marker, it is not possible to omit the postverbal subject in (46).

transitive verbs, which are possible in some Bantu languages (including Kinyarwanda), it is not only the postverbal subject which is frozen in place. Rather, the postverbal object can also not be object-marked, passivized, or extracted in these constructions. This is also true for Kinyarwanda. Consider the example in (26b) repeated here as (47):

- (47) Iri shuúri ryiigiramó abáana imibaré.
 iri shuúri ri-íig-ir-a-mó a-ba-áana i-mi-baré
 5.DEM 5.classroom SM.5-stuy-APPL-FV-LOC18 AUG-2-child AUG-4-maths
 'Children study maths in this classroom.'

The postverbal object in (47) cannot be passivized (48a), object-marked (48b), or extracted (48c).

- (48) a. *Imibaré yiigirwamó iri ishuúri
 i-mi-baré i-íig-ir-w-a-mó iri i-shuúri
 AUG-4-maths 4.SM-study-APPL-PASS-FV-LOC18 5.DEM AUG-5.classroom
 n' áabáana.
 ná a-ba-áana
 by AUG-2- children
 Intended: 'Maths is studied in this classroom by the children.'
- b. *Iri shuúri riyiigiramó abáana.
 iri shuúri ri-yi-íig-ir-a-mó a-ba-áana
 5.DEM 5.classroom 5.SM-4.OM-study-APPL-FV-LOC18 AUG-2-children
 Intended: 'Children study it in this classroom.'
- c. *imibaré ishuúri ryiigiramó abáana
 i-mi-baré i-shuúri ri-íig-ir-a-mó a-ba-áana
 AUG-4-maths AUG-5.classroom 5.SM-study-APPL-FV-LOC18 AUG-2-children
 Intended: 'the maths that the children study in the classroom'

According to Zeller (2013: 1133), *all* vP-internal DPs in semantic locative inversion are "syntactically inert." Since the focus account can only explain the "frozenness" of the postverbal

subject, an alternative account is required. As I will argue below, the syntactic analysis of semantic locative inversion, which I present in section 5.5, offers such an account.

5.4 Post-verbal subject and focus

It is generally assumed that locative inversion is linked with focus. "Focus" is defined as "information in an utterance which the speaker believes, assumes, or knows that the hearer does not share with him/her" (Hyman & Watters, 1984: 237) (see also Watters (1979: 140)); as the "non-presupposed part of a sentence" (Zubizarreta, 1998: 1); "the constituent with the most important and salient pragmatic information" (Dik 1978 and Givón 1975 cited in Watters 1979:139); or the part of a sentence constituent to which the speaker wants the listener to pay attention (Erteschik-Shir, 1997: 11). One type of focus often associated with locative inversion is presentational focus (Bresnan & Kanerva, 1989; Levin & Rappaport Hovav, 1995; Demuth & Mmusi, 1997; Zerbian, 2006; Creissels, 2011). Presentational focus refers to constructions in which all constituents are new (Zerbian, 2006:266), or sentences in which all elements are equally salient (Van der Wal, 2009). Bresnan (1994: 90) argues that a sentence has presentational focus when "a scene is set and a referent is introduced on the scene to become the new focus of attention." In addition to presentational focus, two other types of focus are often associated with locative inversion: narrow focus and contrastive focus on the thematic subject. There is narrow focus when only one constituent within a sentence is in focus, in contrast to presentational focus which concerns the whole VP or the entire utterance (Zerbian, 2006:363). With regard to contrastive focus (or identificational focus, according to Kiss (1998), it is placed on one particular constituent, in cases where, for example, an "utterance contradicts part or all of a previous assertion" or the existing knowledge of the speaker and the listener (Hyman & Watters, 1984: 240).

Various tests have been proposed to establish whether there is presentational, narrow, or contrastive focus on a given constituent. A presentationally focused sentence can be an answer to the question "What happened?" while narrow focus on the subject can be tested by the use of wh-question words in subject questions such as "Who came?" or "Who is dancing?" (Zerbian, 2006).

With regard to contrastive focus, it is often tested with the 'not phrase' (Bresnan and Kanerva, 1989:35).⁴¹

5.4.1 Presentational focus

In Kinyarwanda, locative inversion is less appropriate for presentational focus than narrow and contrastive focus. This is illustrated by the example in (49). Recall that an utterance is said to be presentationally focused when focus is on the whole utterance and when it can be an answer to the question "What happened?" We note in the conversation below that semantic locative inversion is not entirely appropriate as an answer to the question.

- (49)Q: Byaageenze bíte?
 bi-a-geend-ye bi-té
 8.SM-PST-go-PERF 8-how
 'What happened?'
- A1: Abanyéeshuúri baagiye muu náama.
 a-ba-nyéeshuúri ba-a-gi-ye mu náama
 AUG-2-students 2.SM-PST-go-PERF LOC18 9.meeting
 'The students have gone to the meeting.'
- A2: ??Ináama yagiyemó abanyéeshuúri.
 i-náama i-a-gi-ye-mó a-ba-nyéeshuúri
 AUG-9.meeting 9.SM-PST-go-PERF-LOC18 AUG-2-students
 'It is the students who went to the meeting.'

Although the answer (49A2) is not completely ruled out, it is not as natural as (49A1). (49A2) would be more appropriate as an answer to a subject question like 'Who went to the meeting?' The implication of this is that in Kinyarwanda, when the whole utterance is focused, semantic

⁴¹ Following Bresnan & Mchombo (1986), Bresnan & Kanerva (1989) present the example in (i). According to Bresnan and Kanerva, in this locative inversion construction from Chichewa, the final 'not' phrase, i.e. *osati njovu* 'not the elephants' induces a contrastive focus on the postverbal subject.

(i) Ku-mu-dzi ku-na-bwer-a mi-kango osati njovu. [Chichewa]
 17-3-village 17SB-RECPST-come-IND 4- lion not 10.elephant
 'To the village came lions, not elephants.' (Chichewa, Bresnan & Kanerva 1989:35)

locative inversion is not entirely appropriate; it is better to use an SVO or an expletive construction to express presentational focus.

5.4.2 Narrow focus on the post-verbal subject

I will apply two tests to show that semantic locative inversion conveys narrow focus on the post-verbal subject: questioning the post-verbal subject in situ with a wh-question word and modifying the subject with the focus particle *gusa* 'only'.

5.4.2.1 Questioning the post-verbal subject with a wh-question word

Apart from a few languages such as Chichewa, Kiswahili, and Chitumbuka, it is a well-known fact that a subject cannot be questioned in the preverbal subject position (SpecT) in most Bantu languages. This is in line with the general view that the preverbal subject position in Bantu is associated with topichood and hence incompatible with wh-question words (Sabel & Zeller, 2006). Kiss (2002) argues that wh-question words as well as the focus particle *only* have an inherent focus feature, with a semantic function associated with exhaustive identification. The ungrammaticality of (50) below is therefore due to the fact that the subject is questioned in the subject position with the wh-question word *baa ndé* 'who'.

- (50) *Baa ndé baagiiye muu náama?
 ba ndé ba-a-gi-ye mu náama
 2 who 2.SM-PST-go-PERF LOC18 5.meeting
 Intended: 'Who went to the meeting?'⁴²

One of the strategies used by speakers to ask a subject question in Kinyarwanda is to place the question word in post-verbal position. This is also consistent with the views stressed in Watters (1979), König (1991), Zubizarreta (1998), Mchombo (2004), and many others, that the post-verbal position is a focus position. In his study of focus in Aghem, Watters (1979: 145) proposes a rule according to which the focused subject must be postposed to the IAV (immediate after verb) position. I do not assume that a subject is moved to the IAV for the purpose of focus;

⁴² The wh-question word *kukí* 'why' is an exception: it always occurs in preverbal position and may occur in a cleft construction with the copular *ni* or not. It does not appear in the post-verbal position.

rather, the IAV corresponds to the vP-internal base position of the logical subject (Specv in the case of an Agent; a VP-internal specifier in case of Theme-subjects). Since the verb in Kinyarwanda moves to a vP-external head position, an *in situ* subject appears in a postverbal position, and in this position, it is focused. In the example in (51) below, in order to place focus on the subject DP, the wh-phrase follows the verb in a semantic locative inversion construction. (52) is an expletive construction, in which the logical wh-subject also appears post-verbally.

(51) Ináama yagiiyemó baa ndé?
 i-náama i-a-gi-ye-mó ba ndé
 AUG-9.meeting 9.SM-PST-go-PERF-LOC18 2 who
 'Who went to the meeting?'

(52) Haagiiye muu náama baa ndé?
 ha-a-gi-ye mu náama ba ndé
 16.SM-PST-go-PERF LOC18 9.meeting 2 who
 'Who went to the meeting?'

In order to highlight the focus properties of the wh-subjects in (51) and (52), these sentences can also be translated as wh-clefts, i.e. "It is who that went to the meeting?"

Since there is narrow focus on the subject in the question, the answer must also convey the same focus. (53A1) is a perfect answer because the focused subject, which corresponds to the wh-question word in (53Q), is post-verbal. In contrast, (53A2) is unacceptable; it is an incongruous answer, because the focus falls on the predicate, not on the subject.

(53) Q: Ináama yagiiyemó baa ndé?
 i-náama i-a-gi-ye-mó ba ndé
 AUG-9.meeting 9.SM-PST-go-PERF-LOC18 2 who
 'Who went to the meeting?'

A1: Ináama	yagiiyemó	abashyitsi.		
i-náama	i-a-gi-ye-mó	a-ba-shyitsi		
AUG-9.meeting	9.SM-PST-go-PERF-LOC18	AUG-2-visitors		
'It is the guests who went to the meeting.'				
A2: *Abashyitsi	baagiiye	muu	náama.	
a-ba-shyitsi	ba-a-gi-ye	mu	náama	
AUG-2-visitor	2.SM-PST-go-PERF	LOC18	9.meeting	
'The guests went to the meeting.'				

5.4.2.2 The use of the focus particle *gusa* 'only'

The particle *only* is a standard test for a focused word/phrase. Downing (2006) observes that the particles *so* 'also' and *wáaka* 'only' in Chitumbuka must follow the constituent they place in focus. Lee (2004) comes to a similar observation: in Korean, the particle *man* 'only' is always adjacent to a focused phrase, which can be a VP, DP, or PP. In Kinyarwanda, the focus particle *gusa* 'only' is always adjacent to a focused constituent (to the right). Since a preverbal subject in SpecT generally functions as a topic, and is thus incompatible with focus, it is never modified by the particle *gusa*. This is in contrast to Bantu languages such as Chitumbuka (Downing, 2006), in which the particle *so* 'also' and *wáaka* 'only', can be adjacent to the subject in subject position. Chitumbuka is therefore more like English, which also allows for this possibility (cf. *Only John came*). The following Kinyarwanda sentence, which is an existential construction comprising of a subject and a locative predicate, linked by the copular verb *-ri*- 'be', is ungrammatical. The ungrammaticality is attributable to the fact that the logical subject (the Theme *amáazi* 'water') is modified by the focus particle *gusa* in preverbal subject position.

(54)	*Amáazi	gusa	ari	mu	kibiíndi.
	a-ma-zi	gusa	a-ri	mu	ki-biíndi
	AUG-6-water	only	6.SM-be	LOC18	7-pot
	Intended: 'Only water is in the pot.'				

In contrast, it is possible to have the focus particle *gusa* adjacent to the locative predicate *mu kibiíndi* as in:

- (55) Amáazi ari mu kibiíndi gusa.
a-ma-zi a-ri mu ki-biíndi gusa
AUG-6-water 6.SM-be LOC18 7-pot only
'The water is only in the pot.'

In order to focus the logical subject, the Locative DP must be preposed, and the subject *amáazi* 'water' must be expressed post-verbally. Therefore, (56) is a semantic locative inversion construction based on a copular verb. The focus particle can then be adjacent to the logical subject in postverbal position, hence making it the focused element in the sentence.

- (56) Ikibiíndi kirimó amáazi gusa.
i-ki-biíndi ki-ri-mó a-ma-zi gusa
AUG-7-pot 7.SM-be-LOC18 AUG-6-water only
'There is only water in the pot.'

In summary, the test based on the focus particle *gusa* 'only' reveals that the postverbal subject in semantic locative inversion is the focused element in the sentence in which it appears.

5.4.3 Contrastive focus on the post-verbal subject

Contrastive focus refers to a situation where one assertion contradicts the other (Hyman & Watters, 1984), when a constituent with this type of focus is a rejection of an alternative (Gussenhoven, 2007). Contrastive focus is often signaled by the use of a 'not phrase'. While some Bantu languages such as Chichewa (Bresnan & Kanerva, 1989: 35) and Chitumbuka (Downing 2006) behave like English in using a 'not-phrase' for contrastive focus, such a phrase does not exist in Kinyarwanda. However, Kinyarwanda can express the same focus in a different way: in addition to having a post-verbally expressed logical subject, two clauses are juxtaposed to each other, one in the negative form and one in the affirmative form.

- (57) Ihemá riraaramó baa mukeerarugeendo,
 i-hemá ri-ráar-a-mó ba mukeerarugeendo
 AUG-5.tent 5.SM-sleep-FV-LOC18 2 1.tourist
 ntiriraarámó abaantu bóose.
 nti-ri-ráar-a-mó a-ba-ntu ba-óose
 NEG-5.SM-sleep-FV-LOC18 AUG-2-people 2.all
 'A tent is slept in by tourists; it is not slept in by all people.'
 'It is tourists who sleep in a tent, not all people.'

Contrastive focus can also be expressed by strong pronouns (Bresnan & Kanerva, 1989; Bresnan & Mchombo, 1987; Diercks & Sikuku, 2013). Bresnan & Mchombo (1987:748) note that in Chichewa, independent object pronouns are used only to introduce new topics or for contrast. In Kinyarwanda, strong pronouns are also used to introduce contrastive topics or to convey contrastive focus on objects/complements. Consider first the following example:

- (58) Twe twaagiye mu náama.
 Twe tu-a-gi-ye mu náama
 1P 1P.SM-PST-go-PERF LOC18 9.meeting
 'As for us, we went to the meeting.'

In (58) the strong pronoun *twe* 'we' introduces a contrastive topic, as shown by the translation. The subject is a contrastive topic while there is contrastive focus on the complement, the locative expression *mu náama* 'in the meeting'.

When expressed post-verbally in a semantic locative inversion construction, strong pronouns can also express contrastive focus on the logical subject. This is illustrated by the answer in (59A): the answer is appropriate to the question because contrastive focus falls on the post-verbal logical subject *twe* 'us.'

- (59) Q: Ináama yagiiyemó baa ndé?
i-náama i-a-gi-ye-mó ba ndé
AUG-9.meeting 9.SM-PST-go-PERF-LOC18 2 who
'Who went to the meeting?'
- A: Ináama yagiiyemó twe.
i-náama i-a-gi-ye-mó twe
AUG-9.meeting 9.SM-PST-go-PERF-LOC18 1P
'It is *we* who went to the meeting.'

In short, a subject expressed post-verbally conveys focus. This is not specific to Kinyarwanda, nor is it a specific feature of locative inversion. This is illustrated by the following (non-locative) inversion construction in English.

- (60) Staring me in the eye was A GREEN-EYED MONSTER (König, 1991:13).

The logical subject 'a green-eyed monster' is focused because it is expressed postverbally.

5.5 A syntactic analysis of semantic locative inversion

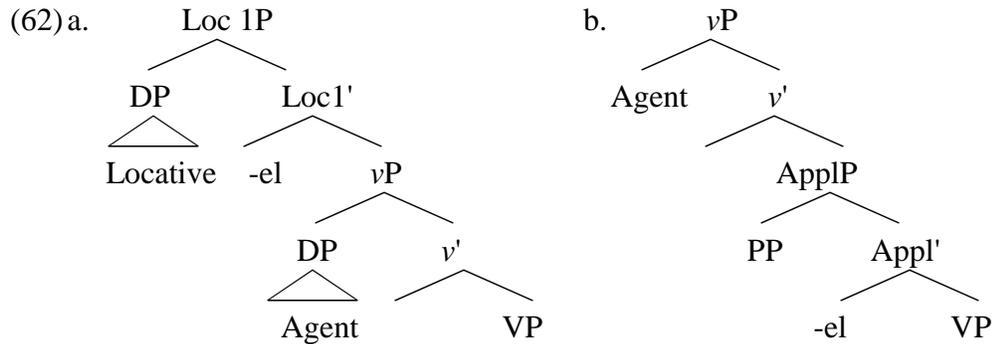
5.5.1 Previous accounts

In this section, I provide a brief discussion of the analyses of semantic locative inversion in Zulu presented in Buell (2005) and Zeller (2013). Both Buell and Zeller challenge the standard view that locative inversion is the result of movement of a locative expression (a DP or PP) from inside the VP to SpecT. They demonstrate for Zulu that the Locative DP originates in a position that is higher than that of the logical subject. This position is the specifier of *-el-* (applicative) for Buell (2005) and *Pr* (predication) for Zeller (2013). I show that, although their analyses are plausible as far as the Zulu language is concerned, they cannot be replicated for the same phenomenon in Kinyarwanda. After reviewing their analyses, I propose an account that explains the issues that cannot be addressed by these accounts. In contrast to Buell and Zeller, I show that in Kinyarwanda semantic locative inversion, the Locative DP originates in a small clause whose predicate is a DP_{Loc} , and ends up in the preverbal position as a result of movement.

Buell's analysis is based on the following examples from Zulu:

- (61) a. A-bantwana ba-fund-el-a e-sikole-ni. [Zulu]
 2-2child 2.SM-study-APPL-FV LOC17-7.school-LOC
 'The children study at the school.'
- b. I-sikole si-fund-el-a a-bantwana.
 7-7.school 7.SM-study-APPL-FV 2-2.child
 Lit. 'The school studies at the children.'
 'The children study at school.' (Buell, 2005:191)

According to Buell, a Locative DP like *isikole* 'school' in (61b) merges above the Agent (see (62a) below), in contrast to the locative PP⁴³ in (61a), which merges below the Agent, (62b). According to Buell, the applicative head *-el-* projects between T and ν P in semantic locative inversion in Zulu, and the Locative DP is introduced in its specifier (Buell 2005:203):



Some of the arguments that Buell provides to motivate the projection of the Locative DP above ν P/VP are the following: (i) Locative applicatives contrast with other applicatives such as reason, which cannot raise to the subject position; so the former are projected above ν P and the latter below ν P as is shown in (62); (ii) the Agent can be implicit: this means that it behaves as an object compared to the Locative DP, which is a subject; (iii) passivization of the Locative DP in Zulu is disallowed. According to Buell, this shows that the Locative DP is in the subject position; thus, unlike objects, it cannot be passivized.

⁴³ Note that Buell (2005, 2007) analyzes locatives in Zulu as PPs, not DPs.

This analysis is specific to Zulu and may not be replicated for other languages or for Kinyarwanda in particular. As Zeller (2013) points out, this analysis implies that in semantic locative inversion, the applicative morpheme is obligatory and projects a LocP above *v*P. Consequently, it cannot account for the fact that in Kinyarwanda (as well as in Zulu), semantic locative inversion is possible with a number of unaccusative verbs which do *not* require the applicative. Furthermore, as was discussed in section 5.1.2, even unergative verbs in Kinyarwanda can appear in locative inversion without an applicative morpheme in certain contexts, namely when the relation between the locative and the event described by the verb is prototypical. Buell's analysis would therefore only be applicable to a subgroup of verbs that appear in semantic locative inversion in Kinyarwanda, namely transitive verbs and unergatives which require the use of the applicative morpheme.

Apart from the issue of the projection of the applicative whose specifier hosts the locative, there are other differences between Kinyarwanda and Zulu that render the analysis inapplicable. As an example, Buell shows that the Agent can be left implicit in semantic locative inversion in Zulu because it behaves like a typical object, which may be dropped. This is illustrated in the following example:

- (63) I-sikole si- zo- fund-el-a t_i e_{agent} . [Zulu]
 7-7.school 7-SM-FUT-study-APPL-FV
 Lit. 'The school will study at.'
 'The school will be studied at.' (Buell, 2005: 199)

In contrast to Zulu, the post-verbal subject in Kinyarwanda cannot be left implicit; the analogous construction in (64) is ungrammatical. This suggests that the syntax of semantic locative inversion in Kinyarwanda is different from the syntax proposed for Zulu in (62a):

- (64) *Ishuúri_i riziigiramó t_i e_{agent} .
 i-shuúri ri-za-íúg-ir-a-mó
 AUG-5.school 5.SM-FUT-study-APPL-FV-LOC18
 'The school will be studied in.'

Another difference between semantic locative inversion in Zulu and Kinyarwanda is illustrated by quantifier stranding. Buell (2005: 204) shows that a fronted locative in Zulu cannot strand a quantifier in postverbal position inside the vP/VP. According to Buell, this is evidence that the base position of the preverbal locative is outside the vP:

- (65) *I-zikole zi-fund-el-a zonke. [Zulu]
 8-8.school 8.SM-study-APPL-FV 8.all
 'The schools are all studied at.' (Buell, 2005:204)

In contrast to Zulu, quantifier stranding is possible with a fronted locative in semantic locative inversion in Kinyarwanda:

- (66) Amashuúri yiigiramó abáana yóose.
 a-ma-shuúri a-íig-ir-a-mó a-ba-ána yóose
 AUG-6-schools 6.SM-study-APPL-FV-LOC18 AUG-2-children 6.all
 'The schools are all studied in by children.'

The example in (66) shows that when the Locative DP moves to the subject position in locative inversion, it can strand a quantifier inside the VP, in a position following the postverbal subject. In section 5.5.3 below, I show that this position marks the base position of the Locative DP inside a SC-predicate.

Another argument provided by Buell (2005) in favor of his analysis is based on his observation that the Locative DP in semantic locative inversion in Zulu cannot be passivized:

- (67) *I-sikole si-zo-fund-el-w-a. [Zulu]
 7-school 7.SM-FUT-study-APPL-PASS-FV
 'The school will be studied at.' (Buell, 2005:200)

Buell argues that the ungrammaticality of (67) is due to the Locative DP being generated in a "high", subject-like position, whereas passivization is otherwise only available for object-like material that originates in ν P/VP. Notably, the Kinyarwanda example corresponding to Buell's ungrammatical example is perfect. Compare:

- (68) Ishuúri riziigirwamó.
 i-shuúri ri-za-íig-ir-w-a-mó
 AUG-5.school 5.SM-FUT-study-APPL-PASS-FV-LOC18
 'The school will be studied in.'

Following Buell's reasoning, we can interpret the grammaticality of (68) as evidence that the Locative subject in semantic locative inversion in Kinyarwanda originates inside the ν P/VP.

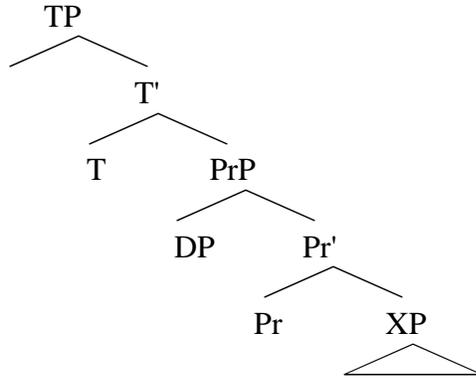
In my analysis of semantic locative inversion which I present below, the data in (63)-(68) will be accounted for. I will suggest that semantic locative inversion involves the projection of a small clause. The logical subject of an intransitive verb is projected as the subject of this small clause, whose predicate is the "big DP_{Loc} ". According to the literature (e.g. Williams, 1980; Stowell, Den Dikken 2006, 2007; and others), it is a requirement that a small clause have a subject. As I will argue below, this means that the logical subject of a semantic locative inversion construction based on an intransitive verb will always be obligatorily realized as the subject of the small clause, even when it is the Agent of an unergative verb (cf. Zeller, 2006b). Because of this, it cannot be implicit. Furthermore, my analysis based on the projection of a small clause also accounts for passivization of the locative in Kinyarwanda. It will be shown below that semantic locative inversion and passivization of the Locative DP involve similar processes where the Locative DP moves from its small clause-internal position inside VP to the subject position.

In short, Buell's account, which is based on the projection of the locative in the specifier of the applicative, cannot fully account for semantic locative inversion in Kinyarwanda, and this can be attributed to the differences between the two languages.

Now I turn to Zeller's (2013) account. Like Buell, Zeller demonstrates that in Zulu, the Locative DP does not originate inside the VP. Zeller's claim is supported by the following evidence: (i) the 'bare' Locative DP, which appears in semantic locative inversion as the grammatical subject does not receive a theta-role inside the VP; a Locative DP inside the VP is only licensed if it is selected by a locative class marker (see (61) above); (ii) if the Locative DP originated inside the VP, it would be difficult to explain how it would cross the Agent in Spec ν on its way to SpecT because the two DPs are not in the same minimal domain; the logical subject is closer to T than the Locative DP. If the Locative DP moved to SpecT from ν P/VP, it would therefore be a violation of Locality principles such as the Minimal Link Condition; (iii) movement of the Locative DP from inside the VP would also violate the Phase Impenetrability Condition (PIC) as spelled out in Chomsky (2000, 2001, 2008). According to the PIC, it is not possible for a constituent in the c-command domain of a phase head to move to a position outside of the phase, but since ν is a phase head, a VP-internal Locative would be first merged in ν 's c-command domain and should therefore not be extractable; (iv) locative inversion is not possible with non-verbal predicates, a restriction which, according to Zeller, cannot be explained on the basis of the movement account, but follows from his alternative analysis of semantic locative inversion.

Taking into account these issues, Zeller proposes that the syntax of semantic locative inversion is similar to that of non-verbal predicates. Non-verbal predicate constructions as well as semantic locative inversion are based on the projection of a functional category. Zeller (2013: 1109), following Bowers and Baker, terms the functional category Pr (predication):

(69)



Zeller adopts a proposal by Baker (2003), according to which the structure of non-verbal predication is based on (69), with *XP* standing for AP, NP/DP, or PP. According to Baker, the non-verbal predicate is linked to its subject argument by a functional category *Pr*. The subject is in the specifier of *Pr* and the non-verbal predicate is its complement. Zeller extends Baker's proposal by arguing that, in semantic locative inversion, *XP* is *vP/VP*. In the same way that the subject of a non-verbal predicate is base-generated in *SpecPr*, the Locative DP in semantic locative inversion is generated as a subject in *SpecPr*.

An important assumption defended by Zeller is that *Pr* is a phase; therefore, no movement is possible from the complement of *Pr*. This explains why the logical subject in semantic locative inversion in Zulu cannot move out of *vP/VP* once *vP/VP* has merged with *Pr*. Movement of the logical subject from *VP* to *SpecT* violates the Phase Impenetrability Condition as well as the Minimal Link Condition because the Locative DP in *SpecPr* is closer to *T* than the logical subject inside *vP/VP*. In (70), I repeat Chomsky's (2001: 13) Phase Impenetrability Condition, already discussed in chapter 4:

(70) The domain of *H* is not accessible to operations outside *HP*; only *H* and its edge are accessible to such operations.

Like Buell's account, Zeller's account can only partly account for Kinyarwanda semantic locative inversion. For example, it can explain why a bare locative DP is not licensed in the postverbal position if it is intended to have a locative meaning. As was mentioned earlier, in Kinyarwanda

(like in Zulu) the bare locative DP is licensed only in the preverbal position. This explains the ungrammaticality of (72) compared to (29) repeated in (71).

(71) Ihemá riraaramó baa mukeerarugeendo.
 i-hemá ri-ráar-mó ba mukeerarugeendo
 AUG-5.tent 5.SM-sleep-LOC18 2 1.tourist
 'Tourists sleep in the tent.'

(72) *Baa mukeerarugeendo baraaramó ihemá.
 ba mukeerarugeendo ba-ráar-a-mó i-hemá
 2 1.tourist 2.SM-sleep-FV-LOC18 AUG-5.tent
 'Tourists sleep in the tent.'

However, the ungrammaticality of (72) can also be interpreted as evidence that movement of the Locative DP from a postverbal position to subject position is required *precisely because* a Locative DP is not licensed in the VP. As I have argued with respect to locative shift in section 4, a locative DP as the complement of a D_{Loc} -head must move to the edge of RelP in order to remain visible to other heads for case assignment. I will adopt the same assumptions in my analysis of semantic locative inversion below. Consequently, the fact that a "bare" Locative DP is not licensed in a VP-internal position does not constitute evidence that it does not originate there.

Regarding inversion out of non-verbal predicates, Zeller's account for Zulu can only apparently predict the impossibility of inversion out of non-verbal predicates in Kinyarwanda. Indeed, Kinyarwanda like Zulu does not allow inversion out of non-verbal predicates. However, as I argue, semantic locative inversion in Kinyarwanda is possible only when the locative expression is contained in a small clause which is selected by the verb or which is introduced by an applicative. Therefore, because a locative expression in a non-verbal predicate is an adjunct, inversion cannot take place out of it.

With regard to the issue of the PIC and movement of the Locative DP across the Agent in Spec_v, it will be shown that it is resolved in Kinyarwanda by incorporation of the head of the locative DP into the Relator head, and subsequent movement of the Locative DP to SpecRel and then SpecLk from where it can be attracted to SpecT. In addition, the Agent of an unergative verb is generated VP-internally in the specifier of the Relator phrase. As such, the Locative DP is free to move from the small clause (Relator phrase) to the subject position, as there is no Agent in Spec_v to block its movement. Details are provided below.

Another issue concerns some restrictions discussed in Zulu. Zeller (2013) notes for example that it is not the case that every Locative DP that appears in post-verbal position can also become the subject of a semantic locative inversion construction. As noted above, this restriction does not hold for Kinyarwanda. Every Locative DP selected by the verb can appear in locative inversion. If a specific verb does not select a Locative DP, an applicative is required to turn the locative into the argument of the verb. In that case, inversion is possible, irrespective of the type of Locative DP involved. This is illustrated by the following example from Buell (2007), who also argues that the sentence in (73) is ungrammatical because of the semantics of the DP in question. An analogous sentence in Kinyarwanda is perfect. Compare (73) and (74).

(73) *Le fektri i-sebenza izingcweti eziningi. [Zulu]
 9this 9factory 9-work 10experts 10many
 'Many experts work at this factory.' (Buell, 2007:118)

(74) Uru rugaánda rukoramó impugúuke nyiínshi.
 uru ru-gaánda ru-kór-a-mó i-n-pugúuke n-íínshi
 11.DEM 11-factory 11.SM-work-FV-LOC18 AUG-10-experts 10-many
 'Many experts work in this factory.'

The difference between (73) and (74) is an indication that Kinyarwanda and Zulu semantic locative inversion constructions have different syntactic structures.

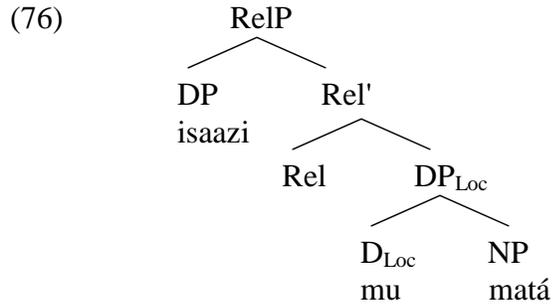
Finally, it should be mentioned that neither Buell's (2005) nor Zeller's (2013) account reviewed above explain why in Kinyarwanda, a locative clitic always appears on the verb when the Locative DP becomes the subject of a semantic locative inversion construction, as no comparable element appears in semantic locative inversion in Zulu. In contrast, the analysis of semantic and formal locative inversion that I propose below explains the occurrence of the clitic. Based on my analysis of locative shift in chapter 4, I argue again that the clitic results from incorporation of the locative D-head into the Relator head lexicalized as the pronoun *-ó*. As in the analysis of locative shift, it is the incorporation of the locative D-head which makes it possible for the Locative DP to move out of the small clause.

Having reviewed two existing accounts of semantic locative inversion and having pointed out their limitations as far as Kinyarwanda data are concerned, I now propose my analysis of semantic locative inversion in Kinyarwanda, which is based on the projection of a small clause (SC).

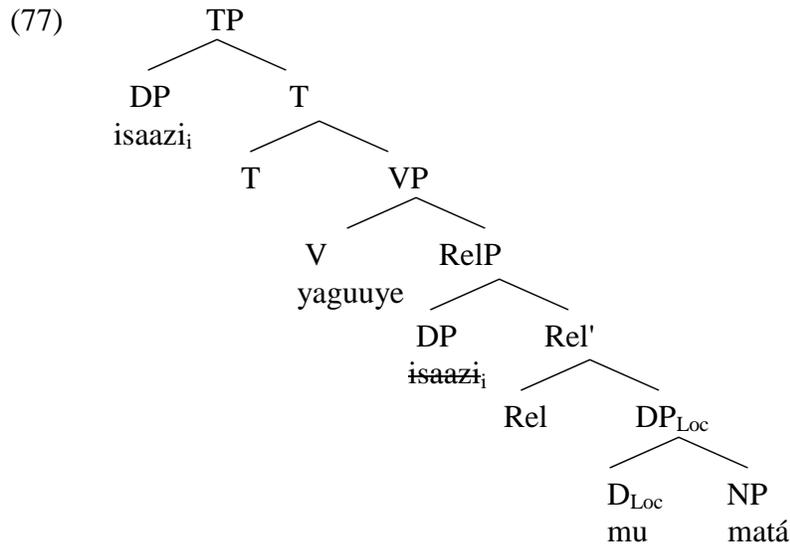
5.5.2 Semantic locative inversion with unaccusative verbs

As was stated earlier, the analysis I adopt for locative inversion constructions is based on small clauses. Specifically, as was argued in chapter 4 for locative shift constructions, I assume that a locative inversion construction involves a small clause of the type [DP DP_{Loc}] (see chapters 3 and 4). I adopt the structure proposed by Den Dikken (2006, 2007) where the small clause is a Relator Phrase (RelP). In my analysis of locative shift in chapter 4, I showed that the Theme of a ditransitive locative construction is generated as the subject of the RelP. I now adopt the same view for the analysis of locative constructions based on unaccusative verbs. According to the unaccusative hypothesis (Burzio, 1986; Perlmutter, 1978), the structural subject of an unaccusative verb is a Theme-DP, in contrast to the subject of an unergative verb. Therefore, the logical subject argument of an unaccusative verb such as *-gwa* 'fall' starts out in the specifier position of RelP from where it moves to the subject position. The sentence in (75) is a locative construction with an unaccusative verb of motion. I assume that in (75), the unaccusative verb *-gwa* selects the small clause *isaazi mu matá* 'fly in milk' of the type [DP DP_{Loc}], whose syntax is shown in (76):

- (75) Isaazi yaguuye mu matá.
 i-saazi i-a-gu-ye mu ma-tá
 AUG-9.fly 9.SM-PST-fall-PERF LOC18 5-milk
 'A fly has fallen in the milk.'



Den Dikken (2006) suggests that the Relator head can be null or can be an overt lexical item. In the case of a DP_{Loc} -predicate like in (76), it is null. In (76), after RelP has merged with VP and VP merged with T, the Theme DP is attracted to SpecT, hence fulfilling the EPP requirement of T and becoming the grammatical subject of the verb. The syntactic representation is shown in (77):⁴⁴



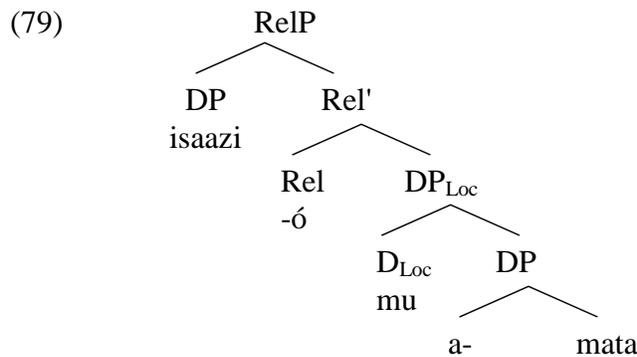
⁴⁴ The standard view is that the light verb also projects in unaccusative constructions, but does not select a specifier. For expository purposes, I do not represent the projection of the light verb in the syntax of unaccusative constructions here; it will be represented only where relevant.

As we can see from the structure, the D_{Loc} selects an NP; therefore, no incorporation into Rel is required.

Now let me turn to the analysis of the corresponding semantic locative inversion construction in (78):

- (78) Amatá yaguuyemó isaazi.
 a-ma-tá a-a-gu-ye-mó i-saazi
 AUG-6-milk 6.SM-PST-fall-PERF-LOC18 AUG-9.fly
 Lit: 'The milk fell a fly.'
 'A fly fell in the milk.'

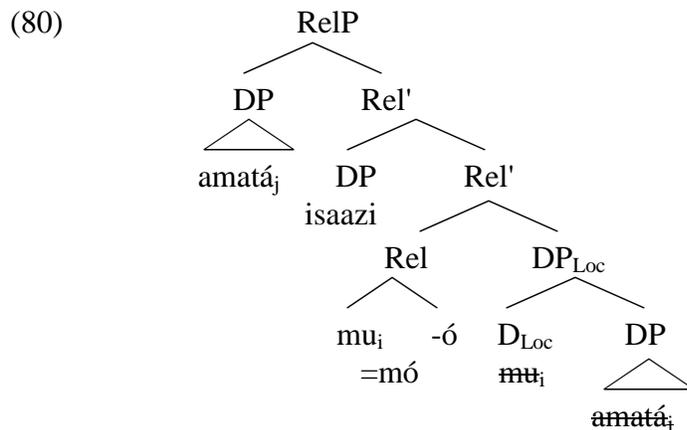
I assume that the construction in (78) also comprises of the small clause *isaazi mu matá* as in (75). However, while the Relator head is null in (75), it is lexicalized as the personal pronoun *-ó* in (78). Recall from chapter 4 that this is in line with Den Dikken's (2006) assumption that the head of the Relator can be null or lexicalized by a lexical item such as a preposition, a copula, etc. As I argued in detail in chapter 4, the existence of a pronominal Relator head licenses the locative D-head *mu* to exceptionally merge with a full DP rather than an NP. In (78), this DP is *amatá*. The "big DP_{Loc} " *mu amatá* combines with the personal pronoun *-ó* whose specifier is occupied by the Theme DP *isaazi*. This derives the Relator Phrase whose subject is *isaazi*, whose head is the personal pronoun *-ó*, and whose predicate is the DP_{Loc} *mu amatá*. This is shown in the structure below.



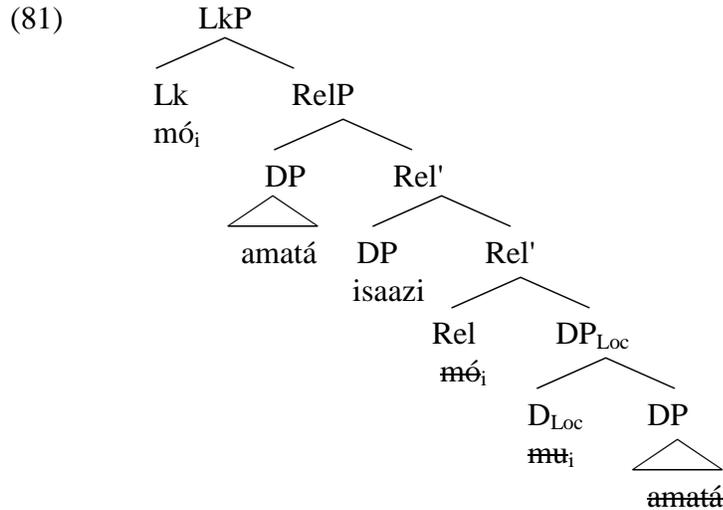
The difference between (77) and (79) is that the Relator is null in (77) but lexicalizes as the personal pronoun in (79), and that the D_{Loc} -head merges with a full DP in (79), rather than an NP. However, as argued in chapter 4, the "big DP_{Loc} " structure violates the c-selectional requirements of the locative marker. As a result, the head of the Relator, the pronoun *-ó*, which is nominal in nature, must attract the locative D-head, which incorporates into it. In the example in (78), the two heads, i.e. the Relator *-ó*, and the locative D-head *mu* form a complex Relator head *mó* ($mu+ó$), which is the locative clitic.

Recall that the Relator phrase is a phase. According to phase theory, only constituents on the edge of the phase are visible to external probes. In (75), the subject of the small clause, the Theme *isaazi*, is on the edge of the Relator phase and can be attracted to T as the subject of a sentence. This explains why the sentence is grammatical. In contrast, the Locative DP *amatá* is not on the edge of the phase; it is part of the complement of the head of the Relator Phrase, which is a phase. As such it is invisible to external probes because phase theory stipulates that constituents c-commanded by the head of the phase cannot be targeted by any movement operation once the phase has been completed.

In order for the locative DP to be visible to an external probe, it must therefore move to the edge of the Relator-phase. I assume that, as in locative shift constructions, an EPP-feature associated with the pronominal Rel-head can attract the Locative DP, which moves to a second specifier of RelP, above the Theme. This is possible, since the DP_{Loc} phase has been extended, due to incorporation of the D_{Loc} into Rel (see chapter 4).

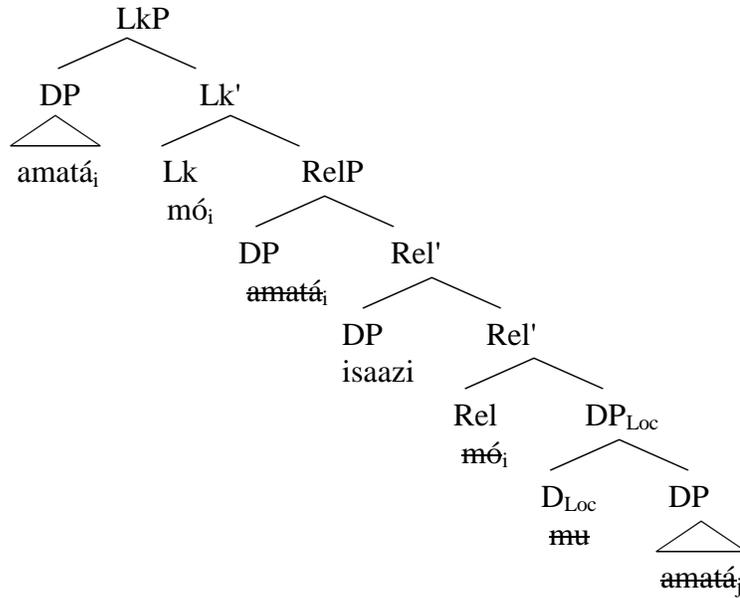


The second step for moving the Locative DP out of the Relator Phrase is the projection of the Linker. Now the complex Relator head (the locative clitic) moves to Linker, resulting in the syntactic representation in (81):

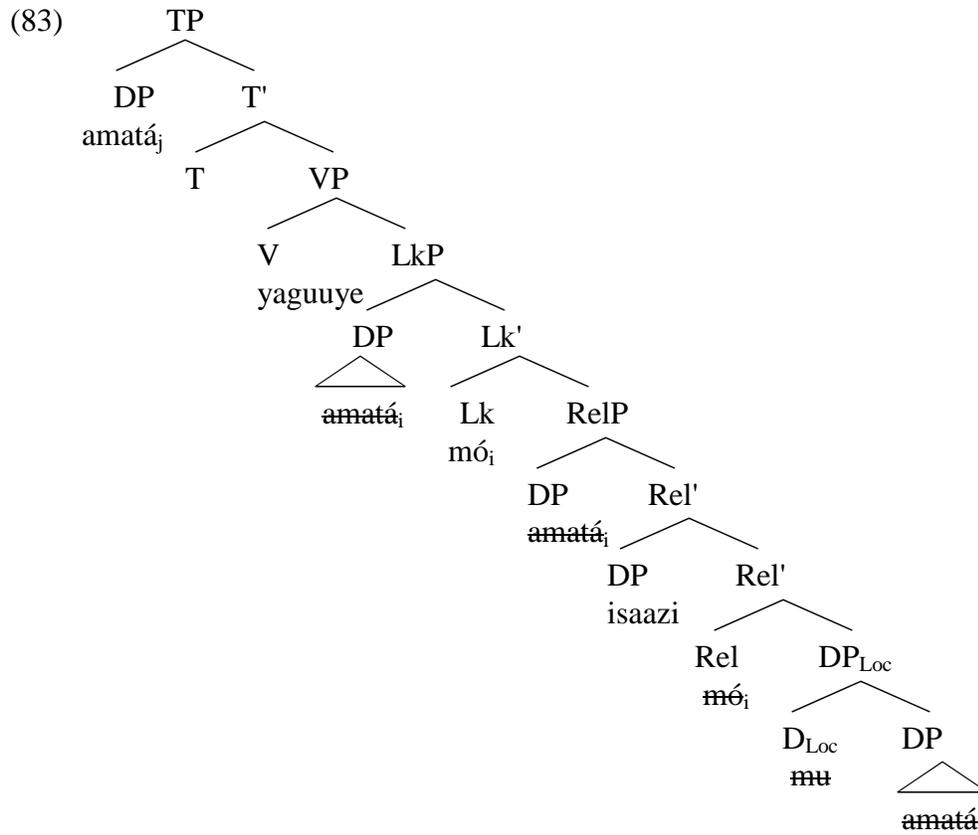


As was argued in chapter 4, I follow Den Dikken (2006, 2007) and assume that Rel-to-Linker movement extends the phase to the LinkerP. Being equipped with an EPP feature, the Linker-head attracts the closest DP to its specifier. As noted in chapter 4, I do not assume that the Locative DP and the Theme DP in SpecRel are equidistant. Rather, I adopt the ideas expressed in Zeller & Ngoboka (2006) and Zeller (2006a) and assume that the Locative-DP is closer to Lk than the Theme, because it asymmetrically c-commands the latter. Therefore, the Theme in SpecRel cannot move to SpecLk across the Locative DP; and only the Locative DP can move to SpecLk:

(82)



Up to this point, the derivation of semantic locative inversion constructions with unaccusative verbs such as (78) is entirely analogous to the analysis of locative shift provided in chapter 4. The main difference is the continuation of (82) above into (83) below. Since there is no Agent in an accusative construction, when T is merged with the VP, V moves to T, and when T's uninterpretable phi-features probe, an Agree relation is established between T and the Locative DP (the closest Goal) in SpecLk. The Locative DP moves to the grammatical subject position where it agrees with V. This derives a semantic locative inversion construction, as shown in (83).



As can be seen in (83), it is not possible for the Theme to move to SpecT across the Locative DP in SpecLk. This movement operation would yield the following ungrammatical sentence:

- (84) *Isaazi yaguuye amatá mó.
 i-saazi i-a-gu-ye a-ma-tá mó
 AUG-9.fly 9.SM-PST-fall-PERF AUG-6-milk LOC18
 Intended: 'A fly has fallen in the milk.'

Zeller (2006a) argues that sentences such as (84) are ungrammatical because movement of the Theme is ruled out by the Minimal Link Condition: the Theme *izaasi* 'a fly' has moved to SpecT crossing the Locative DP *amatá* 'milk' in SpecLk. According to the Minimal Link Condition, the Locative DP is the only candidate for movement to SpecT because, being in SpecLk, it is closer to T than the Theme in the subject position of RelP. However, based on the discussion in chapter 4, section 4.4.1, I suggest here that movement of the Theme is first and foremost ruled out because of phase theory. Since the phase has been extended to LinkerP, the Theme is now no longer on the edge of a phase, and therefore invisible for probing from a higher head such as T.

According to this analysis, incorporation of the locative D head into the Relator head and subsequent movement of the Relator to Linker results in the Theme losing its ability to enter an Agree relation with a higher probe.

This analysis implies that the Theme can be visible to a higher probe if it moves to a second specifier of LkP. Crucially, as I argued in chapter 4, this possibility exists only if there is no other phonological material on the edge of LkP (see the Heavy Edge Constraint proposed in chapter 4 repeated in (85)).

(85) *Heavy Edge Constraint (HEC)*

The edge of a phase must not be heavy by the time it is transferred (i.e. when the next phase is completed).

The edge of a phase is heavy iff:

(iii) it includes more than one specifier, and

(iv) at least one of these specifiers is realized with phonetic content at PF

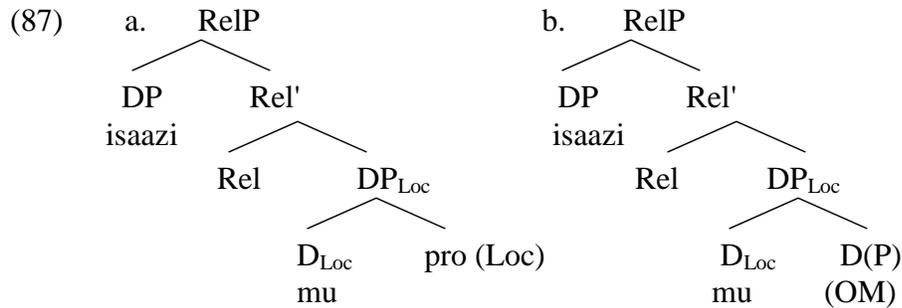
In order for the Theme to undergo any movement operation, the Locative DP must also move away, so that SpecLk is only realized by its unpronounced copy at PF. Therefore, the prediction is that in constructions in which the Locative DP is a pro, an object marker, or is extracted as a relative operator, the Theme *can* be attracted to T as the subject. The following examples show that this prediction is borne out (see Zeller, 2006a, 2006b). (Recall that according to the HEC, both specifiers of LkP must be evacuated by the time the next phase is completed).

- (86) a. Isaazi yaguuyemó.
 i-saazi i-a-gu-ye-mó
 AUG-9.fly 9.SM-PST-fall-PERF-LOC18
 'A fly fell there.'
- b. Isaazi yayaguuyemó.
 i-saazi i-a-ya-gu-ye-mó
 AUG-9.fly 9.SM-PST-6.OM-fall-PERF-LOC18
 'A fly fell in it.'

- c. amatá isaazi yaguuyémó
 a-ma-tá i-saazi i-a-gu-ye-mó
 AUG-6-milk AUG-9.fly 9.SM-PST-fall-PERF-LOC18
 'the milk into which a fly fell'

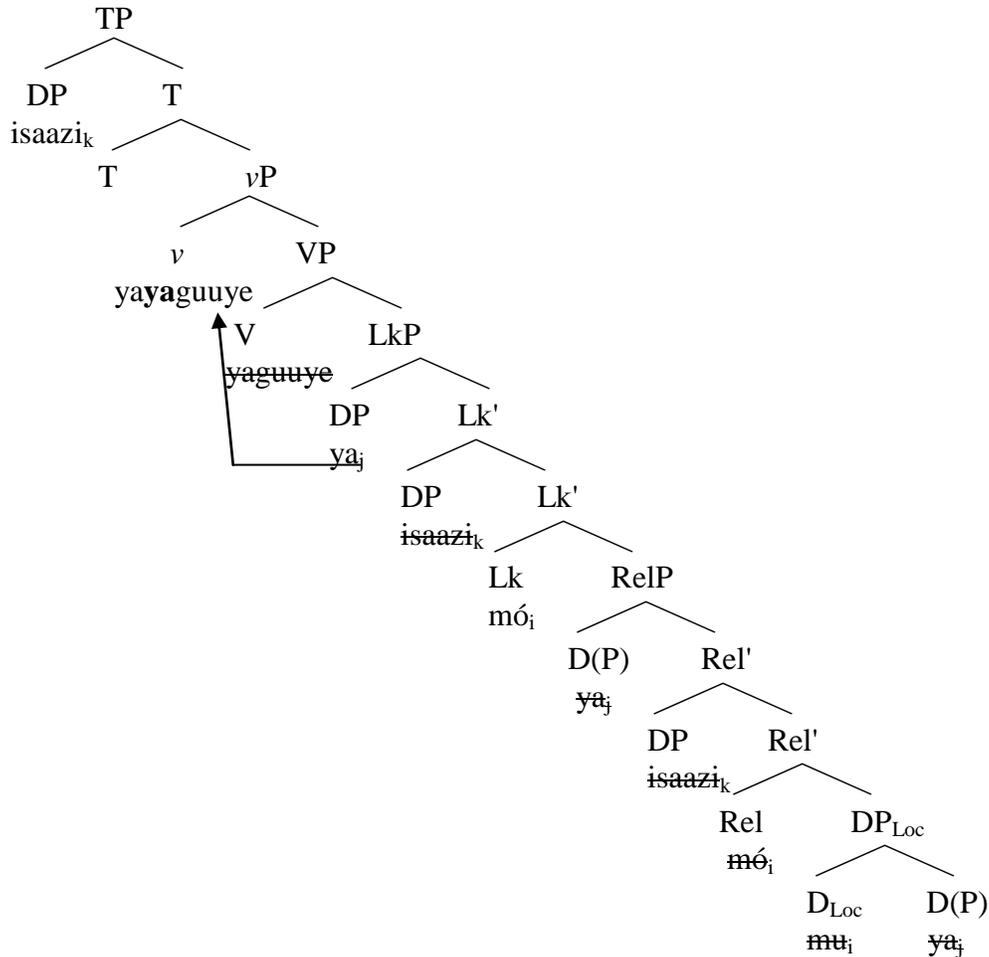
In (86a), the complex Relator head (i.e. the clitic) appears on the verb but the Locative DP is realized as *pro*. The example in (86b) is similar to (86a) in that the complex Relator head *mó* attaches to the verb as a clitic. The Locative is realized by an object marker which has incorporated into the verb. As was argued in chapter 4, when the Locative DP is an object marker, the Theme has tucked-in underneath the Locative DP in SpecLk so that movement of the Locative DP to Specv as an object marker frees the Theme's movement to T. Crucially, in (86a) and (86b), the copy of the Locative DP (*pro* or the object marker) in SpecLk is unpronounced. Therefore, the Theme *isaazi* in the first specifier of Lk is now free to move to a second specifier of the Linker, from where it can move to SpecT and become the grammatical subject of the sentence. Similarly, in (86c), the Theme can move to SpecT, since the relative operator is null.

The examples in (86) are similar to examples of locative shift discussed in chapter 4, in which the Theme was shown to be allowed to move to SpecT in a passive in exactly those constructions in which the Locative was either realized as an object marker, *pro*, or a relative operator. Consequently, I adopt the same type of analysis to account for the examples in (86) that I put forward in chapter 4 to explain Theme passivization in locative shift constructions. I assume that the constructions in (86) involve derivational processes similar to those for semantic locative inversion discussed above. In both sentences a Relator Phrase is projected and the Theme *isaazi* is the subject, and a Locative DP selected by D_{Loc} forms the predicate. The difference lies in the complement of the locative D_{Loc} -head: I suggest that in (86a), the D-head selects *pro* while in (86b), it selects a determiner (D) corresponding to the object marker *ya*. The structures in (87a) and (87b) below are representations of the small clauses underlying the sentences in (86a) and (86b), respectively.



Let us look at how the construction in (86b), in which the Locative DP is marked on the verb, is derived. In (86b) the locative D head selects the D(P) *ya-*. The D_{Loc} incorporates into the Relator head and the Object marker moves to the second specifier or RelP where it becomes visible to external probes. The complex Relator head adjoins to the Linker head, which makes it possible for the Locative DP (the object marker *ya-*) to move to SpecLk. However in order for the Theme to escape the Linker phase before it is completed, it is attracted to the edge of the Linker phase, another phase EPP feature. As was argued in chapter 4, in order for the Theme to undergo movement, the Heavy Edge Constraint must be obeyed. According to this constraint, in case there are two specifiers, none of them must have phonetic content. As I proposed in chapter 4 with regard to Locative shift constructions, the locative object marker first moves to SpecLk as an object marker, and the Theme tucks-in below the Locative DP instead of moving to the second specifier. Therefore, the locative OM in the top specifier of the Linker moves to Spec v and then incorporates into the verb. Once the locative object marker has incorporated into the verb, via movement to SpecV, m-merger with V, and V-to-T movement, the Theme can now be attracted to T, hence also evacuating the specifier. The structure is shown in (88):

(88)



According to this analysis, the two constructions in (86) are similar, but differ in the following way: *pro* is not pronounced while the object marker has phonetic content. Therefore, in the case of *pro*, the Theme moves to the second specifier while *pro* is in the lower specifier of Linker. The Theme in the second specifier can move to T without violating the HEC since *pro* has no phonetic content and does not need to incorporate in order for the Theme to be able to move. By the time the *vP* is completed, no constituent with a phonetic content is in SpecLk.

With regard to (86c), in which the Locative DP is extracted, and the Theme is the structural subject of the sentence, I assume that the Theme has also escaped the Rel phase by movement to the second SpecLk before the next phase, i.e. the *vP* phase, is completed. The Theme is attracted to T as the closest constituent with phi-features, and when C merges with T, the Locative DP moves to SpecC as a relative operator. With the Locative DP in SpecC and the Theme DP in SpecT, the HEC is obeyed as none of the two DPs are pronounced in SpecLk. According to this

constraint, a phase must have one edge feature; in case two specifiers are projected, none of them must be occupied by an element with phonetic content.

Also, notice that with the locative pro in SpecLk, two options are available. Either the Theme *isaazi* 'fly' moves to SpecT, which derives the construction in (86a), repeated as (89a); or pro moves to SpecT, in which case (89b) is derived, but in (89b), the Theme has stayed in SpecRel.

- (89) a. *Isaazi* *yayaguuyemó*.
 i-saazi *i-a-ya-gu-ye-mó*
 AUG-9.fly 9.SM-PST-6.OM-fall-PERF-LOC18
 'A fly fell in it.'
- b. *Yaguuyemó* *isaazi*.
 a-a-gu-ye-mó *i-saazi*
 6.SM-PST-fall-PERF-LOC18 AUG-9.fly
 Lit: 'It (the milk) fell the fly.'
 'In it fell the fly.'

It is also possible for the construction in (89a) to be expanded by a topic Locative DP projected in SpecTop in the left periphery:

- (90) *Amatá* *isaazi* *yayaguuyemó*.
 a-ma-tá *i-saazi* *i-a-ya-gu-ye-mó*
 AUG-6-milk AUG-9.fly 9.SM-PST-6.OM-fall-PERF-LOC18
 'The milk a fly fell in it.'

5.5.3 Semantic locative inversion with unergative verbs

As was stated above, unergative verbs (here I include certain transitive verbs with optional direct objects when they are used intransitively), such as *-kóra* 'to work', *-ryá* 'to eat', *-nywá* 'to drink', *-byína* 'to dance', *-kina* 'to play', *-vúga* 'to speak', *-rwaana* 'to fight', can appear in semantic locative inversion. I provide two examples with the verbs *-kóra* 'to work' and *-rwaana* 'to fight'.

- (91) Ibiro byaa Perezida bikoreramó abasóre.
i-biro bya Perezida bi-kór-ir-a-mó a-ba-sóre
AUG-8.office 8.ASS 1.president 8.SM-work-APPL-FV-LOC8 AUG-2-young.men
'Young men work in the president's office.'
- (92) Aka kabari karwaaniramó abaantu beénsi.
aka ka-bari ka-rwan-ir-a-mó a-ba-ntu ba-iínshi
12.DEM 12-pub 12.SM-fight-APPL-FV-LOC18 AUG-2-people 2-many
'Many people fight in this pub.'

In (91) and (92) an applicative has been added as an event localizer. While (91) may also be grammatical without an applicative, such is not the case for (92) in which it cannot be dropped (see the discussion in section 5.1.2 above).

An analysis according to which locative inversion is an unaccusative phenomenon (Bresnan, 1994; Bresnan & Kanerva, 1989; Collins, 1997; Ura, 2000) predicts that sentences such as those in (91) and (92) are not possible. Bresnan (1994: 74-82) argues that a locative phrase that occurs with unergatives is "either an adjunct describing the location of the entire event or a locative predicated of a (possibly implicit) non-subject argument". In their study of Chichewa locative inversion, Bresnan & Kanerva (1989) argue that the inverted subject is an unaccusative object, meaning that it can appear in subject or object position. They claim that inversion is possible only with unaccusative verbs, specifically motion verbs such as *-fika* 'to arrive', *-tuluka* 'to come out', postural verbs such as *-ima* 'to stand', *-khala* 'to sit/ dwell', as well as existential verbs like *-li* 'to be', *-kha'la* 'to remain/be left'. They argue that inversion cannot take place with agentive verbs such as *-luka* 'to weave' and *-kodza* 'to urinate' as well as *-dya* 'to eat' and *-phika* 'to cook'. They come to the conclusion that "the unaccusative character of locative inversion in Chichewa seems to reflect grammatical principles of general applicability" (p. 20). (See also Diercks, 2011:717 for Lubukusu, who argues that locative inversion is not possible with a verb that has an external argument).

In fact, an analysis that considers semantic locative inversion as an unaccusative phenomenon can also easily find support in the Minimalist Program. In an unaccusative construction, the Theme originates in VP and can be attracted to SpecT as the subject of the sentence. A common assumption is that a VP-internal Theme and a VP-internal locative argument are equidistant (see for example Collins (1997: 27)). Thus, the Locative can be extracted across a Theme DP and become the subject of the sentence in locative inversion. In contrast, the Agent originates in Specv, so an Agent and a Locative are never equidistant. Therefore, it is not expected that locative inversion can take place with unergative or transitive verbs because in this case, the Locative would be competing with the Agent subject in Specv for the subject position and the Agent would be the best candidate as it is closer to T than the locative. As such, movement of the locative to SpecT is expected to be blocked. However, despite these predictions, constructions such as (91) and (92) do exist in Kinyarwanda and they have been reported in other languages including even in English (Levin & Rappaport Hovav, 1995). This has prompted some linguists to propose different accounts of locative inversion. For example, the analyses of semantic locative inversion in Zulu proposed by Buell (2005) and Zeller (2013) argue that locatives are base-generated above the position of the Agent in inversion constructions, an analysis that avoids the locality problem raised by locative inversion with unergative and transitive verbs. However, in light of the issues that are not resolved by these analyses, which were discussed in section 5.5.1 above, I consider their proposals to be unfeasible to account for semantic locative inversion in Kinyarwanda.

The analysis I am proposing, which is based on the projection of a small clause, can solve the problems raised by inversion involving unergative verbs. My proposal is that in locative constructions, the verb selects a small clause, the Relator Phrase, as is the case for unaccusative verbs. The predicate is the DP_{Loc} which requires a subject (indeed the essence of a small clause is that it has a DP subject and a predicate). Therefore, a small clause-subject is compulsory regardless of whether the verb is unaccusative, unergative or transitive. Unaccusative and transitive verbs select Themes, which are the canonical small clause subjects. However, since the logical subject argument of an unergative is an Agent, I propose that when a small clause is selected by an unergative verb, the Agent is projected as the subject of the small clause. In the case of locative constructions that I am studying, the subject of the small clause is therefore always the sole DP-argument of an intransitive verb, regardless of whether the intransitive verb

is unaccusative or unergative. In other words, I assume that an unergative verb becomes unaccusative in this syntactic sense by selecting a small clause whose specifier represents the Agent.

The fact that the subject of unergative verbs can originate in the VP is supported in some previous work including Hoekstra & Mulder (1990), Levin & Rappaport Hovav (1995), Zeller (2006b) and more recently Mugari & Makaro (2014) (see also Zalzmann (2011) and Hatakeyama et al (undated)). Hoekstra & Mulder (1990: 29) provide examples in which unergative verbs appear in locative inversion. They assume that the subject of an unergative verb is projected inside the VP, but they argue that the predicate must be a locative one. Similar observations have been made by Levin & Rappaport Hovav (1995), who provide English examples of locative inversion constructions with the unergative verbs *work*, *sing*, *swim*, etc. They note that although these verbs are basically unergatives, they behave like unaccusatives in the presence of directional PPs. This was also hinted at earlier in Milsark (1974), cited in Kuno & Takami (2004: 35-36), who says that the logical subject can occur VP-internally if the verb is intransitive and co-occurs with a locative expression. Such verbs include typical unaccusatives such as *live* and *come* as well as typical unergative verbs like *run*, *dance*, *walk*, *swim*. All this finds further support in Mendikoetxea (2006), who claims that the presence of a locative element is a crucial factor in the "unaccusativization of the structure" (p. 10). Mendikoetxea (2006: 21) comes to the conclusion that "unergative verbs that appear in LI structures express existential meanings associated with an unaccusative structure in the lexicon."

In his analysis of locative constructions in Kinyarwanda, Zeller (2006b) also argues that the addition of a locative PP in a construction with an unergative verb turns the construction into an unaccusative one. Zeller provides this example to illustrate his point:

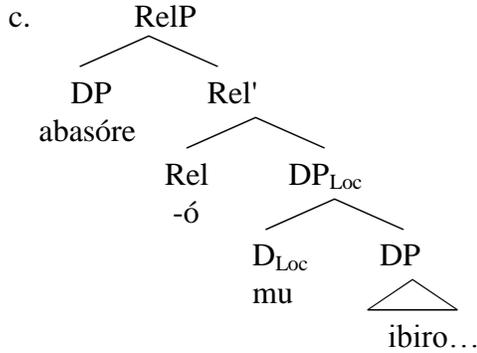
- (93) a. Umugabo y-a-kór-e-ye mu ishuúri.
 man SP-PST-work-APPL-ASP in class
 'The man worked in class.'
- b. *Umugabo y-a-kór-e-a-mó ishuúri.
 man SP-PST-work-APPL-ASP-LOC class (Zeller, 2006b: 115)

According to Zeller (2006b), both constructions in (93) include locative PPs and therefore have an unaccusative syntax. This means that the subject *umugabo* originates inside the VP in both (93a) and (93b). In (93a), it is the closest DP to T and can move to SpecT. In (93b), in contrast, the Locative DP *ishuúri* has moved to a position above *umugabo*.⁴⁵ Therefore, (93b) is ungrammatical because movement of the DP *umugabo* to SpecT is blocked by the Locative DP, due to the Minimal Link Condition. Importantly, according to Zeller (2006b), the landing site of movement of the Locative DP is below the projection of *v*. This means that the base position of the subject DP *umugabo* in (93b) must be below *v* as well – which implies that this subject DP does not originate in Spec v , but in a lower, VP-internal position.

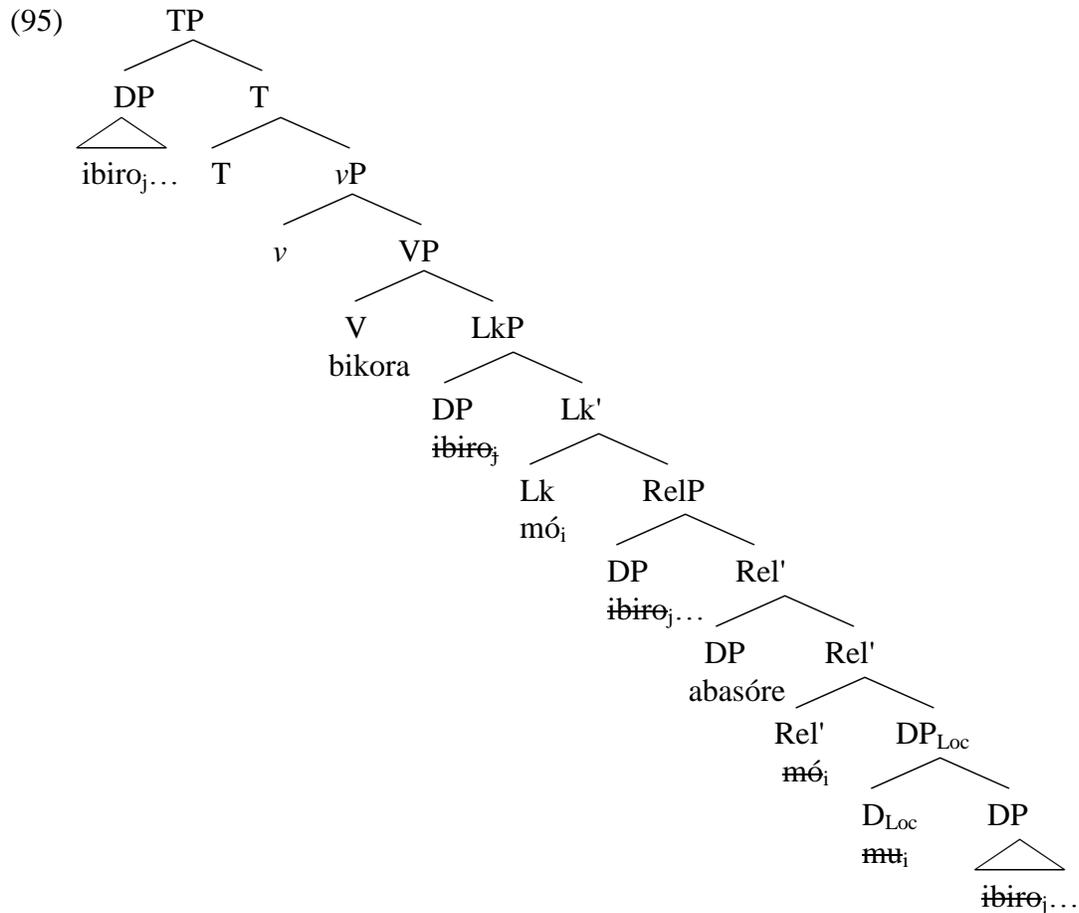
The analysis I propose, which is based on the projection of a small clause, comes to complement and elaborate on those accounts I have just reviewed, which suggest that the subject of an unergative verb is represented VP-internally if the predicate is locative in nature. The example of semantic locative inversion in (91), repeated here as (94b), is based on the projection of the small clause *abasóre mu biro byaa Perezida*, as shown in (94c).

- (94) a. Abasóre bakora mu biro byaa Perezida.
 a-ba-sóre ba-kór-a mu biro bya Perezida
 AUG-2-young.men 2.SM-work-FV LOC18 8.office 8.ASS 1.president
 'Young men work in the President's office.'
- b. Ibiro byaa Perezida bikoramó abasóre.
 i-biro bya Perezida bi-kór-a-mó a-ba-sóre
 AUG-8.office 8.ASS 1.president 8.SM-work-FV-LOC18 AUG-2-young.men
 'In the president's office work young men.'

⁴⁵ In Zeller's (2006b) analysis, this position is a second specifier of VP. As was argued above, my account differs from Zeller's in that I take the landings site of Locative DP-movement to be SpecLk, but the spirit of Zeller's analysis is preserved in my account.

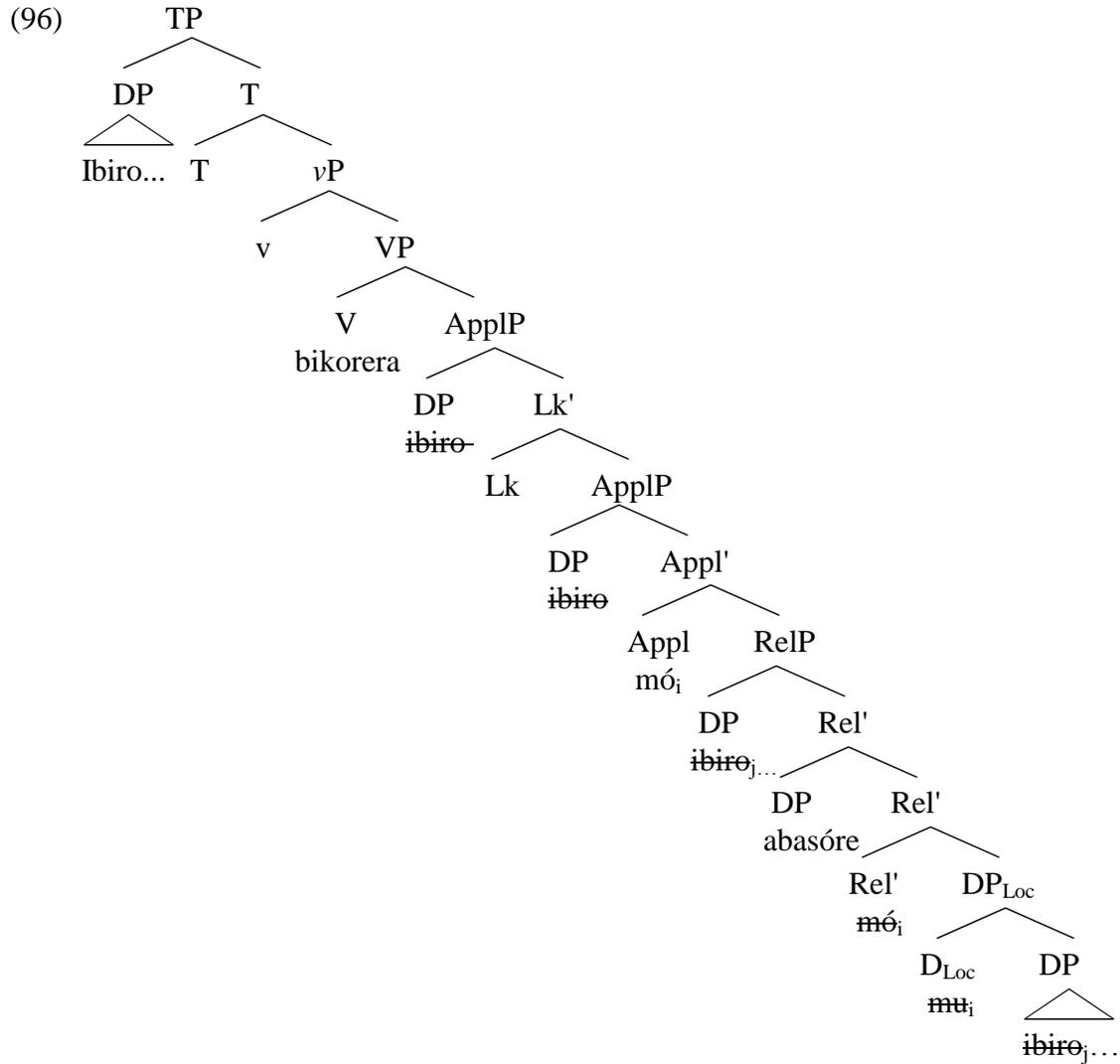


Like in the case of unaccusative verbs, the subject *abasóre* 'young men' is merged VP-internally in example (94a) above, as the subject of the Relator Phrase. The predicate is the Locative DP *mu biro byaa Perezida* 'in the President's office'. The same is the case in (94b), but here, the locative head selects the Locative DP *ibiro byaa Perezida*, and the head of the Relator is a nominal element (the personal pronoun *-ó*), as shown in (94c). As in the case of locative shift with transitive verbs and semantic locative inversion with unaccusative verbs, the Locative D-head in (94b) incorporates into the Relator head *-ó* and the complex head is realized as *mó*. Now the Locative DP can move to the second specifier of RelP. The Linker Phrase is projected, and the complex Relator head adjoins to Lk, extending the phase to LkP, and followed by movement of the Locative DP to SpecLk. This configuration explains why the Locative DP, and not the Theme, is the only candidate for movement operations: only the former, but not the latter, is on the edge of a phase and accessible for probing by T. From SpecLk, the Locative DP eventually moves to SpecT and becomes the grammatical subject. The derivation is shown in the structure below:



According to this analysis, there is no syntactic distinction between unaccusative and unergative verbs when they appear in sentences with locative predicates. Recall that ordinarily, only unaccusative verbs have subjects which originate inside the VP and become structural subjects (Perlmutter 1978; Burzio 1986), while unergative verbs are those whose subjects are agentive and originate in Spec v . However, the properties of Kinyarwanda semantic locative inversion constructions with unergative verbs provide evidence for the view, independently put forward in the literature, that the two classes of verbs cannot be syntactically distinguished when they appear in a construction with a locative expression.

As mentioned earlier, unergatives generally require an applicative when they select a small clause whose predicate is a locative. I propose that the Relator phrase can be extended by an applicative projection. Thus if the verb *-kóra* 'work' in (94b) bears the applicative, the syntactic representation in (95) will look as follows:



We see from the syntactic representation that the Locative DP moves from SpecLk to SpecT via SpecAppl.⁴⁶

5.5.4 Semantic locative inversion with transitive verbs

In many languages, transitive verbs can appear in locative inversion only when they are passivized. Demuth & Mmusi (1997) (see also Marten, 2006; Buell 2007, Marten & Van der Wal 2015) show that all those languages that allow inversion with unaccusatives also allow inversion with passivized transitives. This is not surprising, since passivized verbs are generally considered as unaccusatives. As Kuno & Takami (2004: 19) put it, the subjects of "unaccusative verbs take

⁴⁶ In constructions such as those represented in (96), I suggest that the applicative affix *ir-* is added to the verb in the morphology, in the mapping to PF.

the direct object position at D-structure and move to the specifier position of IP at S-structure to be assigned nominative Case." Therefore, passive verbs are considered to constitute a subclass of unaccusative verbs. In passive constructions, the theta-role of the Agent is suppressed and the Theme becomes the highest argument of the verb, as is the case in unaccusative constructions. I assume that in the absence of an agentive subject, the Locative DP can move to SpecT, because after having moved to SpecLk, the Locative DP is the closest Goal for T. (See chapter 4 for various examples of passivized locative shift constructions, based on transitive verbs plus locatives).

In contrast, with non-passivized transitive verbs, locative inversion is not expected to be possible (Bresnan & Kanerva 1989; Bresnan, 1994), as the Agent DP in Specv should block the Locative from moving to subject position. However, despite being disallowed in a large number of languages, locative inversion with transitive verbs is possible in some other Bantu languages. It has been reported for Herero (Marten 2006), Nsenga (Marten, Kula, & Thwala, 2007), and Zimbabwean Ndebele (Khumalo, 2010) as well as for Zulu (Zeller, 2013) (although only with a limited degree of acceptability).

Like the latter languages, Kinyarwanda has locative inversion constructions with transitive verbs. Consider again the examples in (26), repeated here as (97). The examples show that a transitive verb like 'study' licenses locative inversion with both the Agent and the Theme appearing postverbally, either producing the word order Loc-V-O-S (97a) or Loc-V-S-O (97b):

- (97)
- | | | | | | |
|----|---------------------------------------|--------|--------------------------|-------------|-------------|
| a. | Ishuúri | ryaawe | ryiigiramó | imibaré | abáana. |
| | i-shuúri | ryaawe | ri-íig-ir-a-mó | i-mi-baré | a-ba-áana |
| | AUG-5.class | 5.your | 5.SM-study-APPL-FV-LOC18 | AUG-4-maths | AUG-2-child |
| | 'Children study maths in your class.' | | | | |
| b. | Ishuúri | ryaawe | ryiigiramó | abáana | imibaré. |
| | i-shuúri | ryaawe | ri-íig-ir-a-mó | a-ba-áana | i-mi-baré |
| | AUG-5.class | 5.your | 5.SM-study-APPL-FV-LOC18 | AUG-2-child | AUG-4-maths |
| | 'Children study maths in your class.' | | | | |

Transitive verbs differ from unaccusatives and unergatives discussed above in that they select both an Agent and a Theme argument. Thus, locative inversion constructions based on these verbs are a challenge for grammar theories including the Minimalist Program since they are not expected to be grammatical. To the best of my knowledge, not much has been said regarding how this phenomenon can be accounted for (but see Zeller 2013, whose proposal explains the possibility of locative inversion with transitive verbs). The major issue is to explain how the Locative DP can move to the subject position across the agentive subject in Spec_v.

As noted before, locative inversion constructions with typical transitives in Kinyarwanda (i.e. those that take an object) are not accepted by all speakers. For example, inversion with the verb *-gura* 'buy' does not yield a fully grammatical sentence. Compare (23) and (24) repeated here as (98) and (99). Such constructions are improved when the Agent is a heavy NP, as shown by the grammaticality of the example in (99).

- (98) ?Isokó ryáa Nyábugogó riguramó imyeénda
 i-sokó ryá Nyabúgogó ri-gur-a-mó i-mi-eénda
 AUG-5.market 5.ASS 9.Nyabugogo 5.SM-buy-FV-LOC18 AUG-4-clothes
 abakoóbwa.
 a-ba-koóbwa
 AUG-2-girls

'It is girls who buy clothes in Nyabugogo market.'

- (99) Isokó ryáa Nyábugogó riguramó imyeénda
 i-sokó ryá Nyabúgogó ri-gur-a-mó i-mi-eénda
 AUG-5.market 5.ASS 9.Nyabugogo 5.SM-buy-FV-LOC18 AUG-4-clothes
 abaantu bakuundá gucíiririkany-a.
 a-ba-ntu ba-kúund-a ku-cíiririkany-a
 AUG-2-person 2.SM-like-FV 15-haggle-FV

'It is people who like haggling who buy clothes in Nyabugogo market.'

The data suggest that verbs that allow transitive semantic locative inversion are those that are often used without an object (e.g. *-úga* 'study', *-kóra* 'work', *-aandika* 'write' as in (97)).⁴⁷ Otherwise those verbs that require an object (e.g. *-gura* 'buy' do not produce fully acceptable sentences, (98), unless it is a case of a heavy NP, (99)).

In section 5.5.4.1, I first examine the construction in (97) in which the Theme object precedes the logical subject and then discuss the order Loc-V-S-O in 5.5.4.2.

5.5.4.1 The order Loc-V-O-S

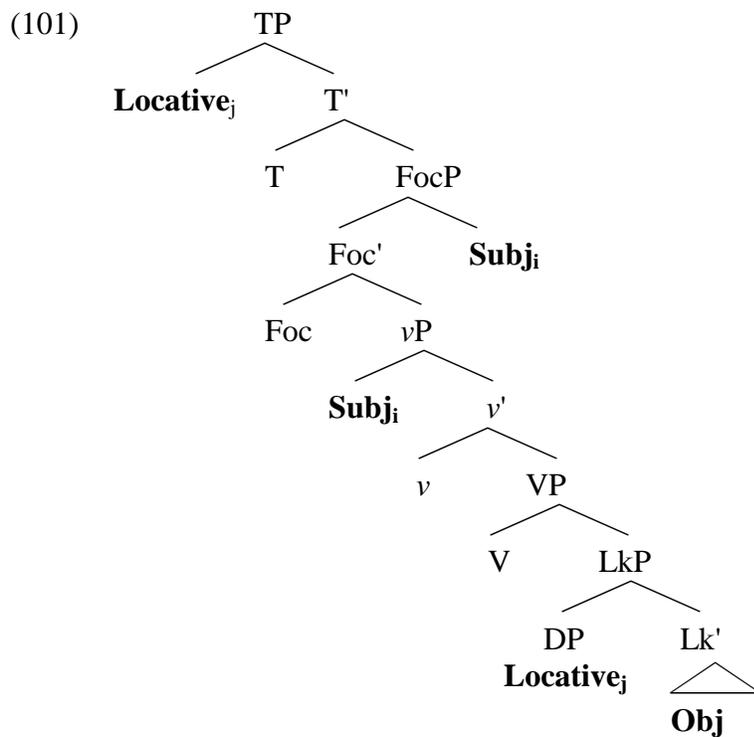
Many Bantu languages, including Kinyarwanda, have so-called subject-object reversal or OVS-constructions in which a Theme becomes the subject of a sentence in the presence of an Agent. In OVS-constructions, the postverbal Agent is typically focused:

- (100) Imódoká zaa BMW zituunga abakiré.
 i-módoká za BMW zi-túung-a a-ba-kiré
 AUG-10.cars 10.ASS BMW 10.SM-own-FV AUG-2-rich.people
 Lit: 'BMW cars own rich people.'
 'It is rich people who own BMW cars.'

In his analysis of OVS in Kirundi (which is mutually intelligible with Kinyarwanda), Ndayiragije (1999) proposes that in OVS constructions, a functional head Foc projecting a Focus Phrase is projected between TP and VP but its specifier branches to the right to serve as a landing site for subject movement from Spec_v. Ndayiragije argues that because focus features are strong, they attract the subject of a transitive verb, if it is focused, to SpecFoc. Once the subject is in SpecFoc, the EPP features of T can attract the object of a transitive verb and move it to SpecT. With the object in SpecT and the subject in SpecFoc, the surface order of the Kirundi OVS is derived.

⁴⁷ See chapter 6 on formal locative inversion: in contrast to semantic locative inversion, formal locative inversion is possible with transitive verbs that obligatorily take an object such as *-gura* 'buy'.

The analysis proposed by Ndayiragije could potentially be applied to Kinyarwanda semantic locative inversion in which the Agent follows the Theme by assuming that the FocP which according to Ndayiragije projects in the subject-object reversal construction can also project and attract the Agent subject in semantic locative inversion. To derive (97a), one could assume that the Agent *abáana*, which originates in Spec ν , is attracted to SpecFoc above ν P, and that this movement operation frees the Locative DP in SpecLk to move to T to satisfy its EPP feature. This would derive a semantic locative inversion construction in which the Locative DP is the subject of the sentence and the Theme object precedes the Agent:



Although the derivation shown in (101) would result in the correct surface order Loc-V-O-S, it leaves one problem. As a result of focus movement, the Agent is no longer in Spec ν , but it is still located in a position where it intervenes between the probing head T and the Locative DP in SpecLk. Therefore, the problem raised by the MLC is not really solved by (101); the MLC would still predict that the phi-features of the subject prevent T from finding the Locative DP as its closest goal-DP. When the subject is in SpecFoc, it still intervenes between T and the Locative DP and should still block movement of the Locative DP to SpecT.

Therefore, in order to explain semantic locative inversion with transitive verbs that give rise to the word order Loc-V-O-S, I propose a potential alternative to the analysis of OVS discussed by Ndayiragije. Recall that semantic locative inversion with transitives is marked or even ungrammatical for many speakers, but improves when the postverbal subject is phonologically "heavy". (Heaviness is determined in terms of length or the number of words (Arnold, Losongco, Wasow, & Ginstrom, 2000)). Let us consider again (97a), repeated here as (102).

(102)	Isokó	ryaa	Nyábugogó	riguramó	imyeénda
	i-sokó	ryá	Nyabúgogó	ri-gur-a-mó	i-mi-eénda
	AUG-5.market	5.ASS	9.Nyabugogo	5.SM-buy-FV-LOC18	AUG-4-clothes
	abaantu	bakuundá	gucíiririkany-a.		
	a-ba-ntu	ba-kúund-a	ku-cíiririkany-a		
	AUG-2-person	2-like-FV	15-haggle-FV		

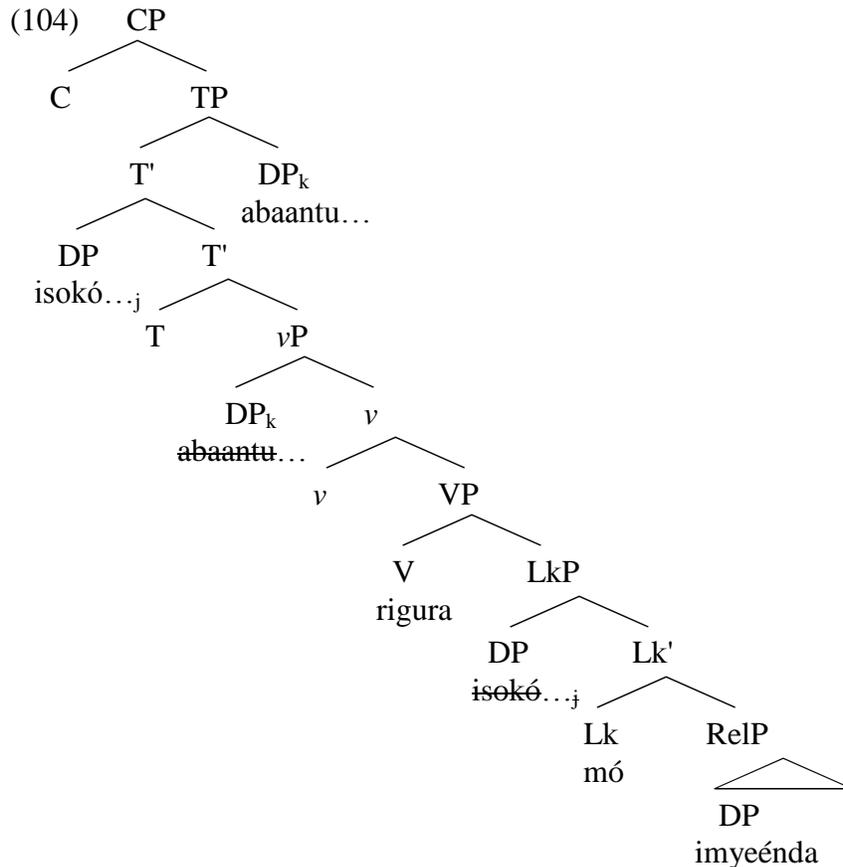
'It is people who like haggling who buy clothes in Nyabugogo market.'

I assume that the analysis of semantic locative inversion which gives rise to Loc-V-O-S word order should be considered as a case of "heavy NP-shift" whose acceptability improves the "heavier" the postverbal subject is. Culicover & Levine (2001) present an analysis of heavy NP-shift in comparison to locative inversion. Their analysis is similar to mine in that they suggest that some apparent cases of locative inversion are in fact instances of heavy NP-shift and should be analyzed in terms of a different syntax. They propose that constructions such as (103), from English, do not exhibit genuine locative inversion with an unergative verb, but heavy NP-shift of the subject DP (Culicover & Levine, 2001: 293)

(103) Into the room slept fitfully the students in the class who had heard about the social psych experiment that we were about to perpetrate.

Culicover & Levine argue that in (103), the subject DP has been extraposed and is right-adjoined to TP (their IP), while the PP has undergone topicalization. Adopting the general idea behind their analysis, I propose that Agent subjects in inversion constructions with Loc-V-O-S order have been extraposed to the right, an operation that is marked (see (98) above), unless the

extraposed DP is phonologically "heavy" (99). Crucially, I assume that when the Agent has moved to the right, its copy in Spec ν no longer intervenes between T and the Locative DP, thereby allowing the latter to be attracted to SpecT (as in (104)). I represent rightward movement of the Agent as adjunction to TP:



It must be noted, however, that the account sketched in (104) is also riddled with problems. In particular, it raises questions about cyclicity: how exactly can movement of the Agent to a position above TP license subsequent movement of the Locative to SpecT? Notice that ν P's with agentive subjects are typically phases. But if ν P is a phase in (104), movement of the Locative DP should be banned. One possible answer to this problem would be to argue that the edge of ν P is subject to the same Heavy Edge Constraint that I motivated for the edge of the Linker phase: An element is allowed to escape the ν P phase via movement to the second specifier of Spec ν , but only if both the elements in the first and second specifiers also evacuate. With an in situ Agent in Spec ν , a Locative DP can therefore escape the ν P-phase by moving to the phase edge. However,

in order for the Locative DP to undergo movement, the agentive DP must not be phonetically realized in the first specifier. Therefore, the Locative DP in the second specifier of ν P can move to SpecT as the subject of the sentence, but only when the Agent also leaves the ν P edge by being extraposed, hence obeying the HEC I have proposed. However, more research is needed to test the implications of this idea. For now, I conclude that the analysis of semantic locative inversion with Loc-V-O-S order in terms of heavy NP-shift is a promising account, which however raises some questions which need to be addressed in future research.

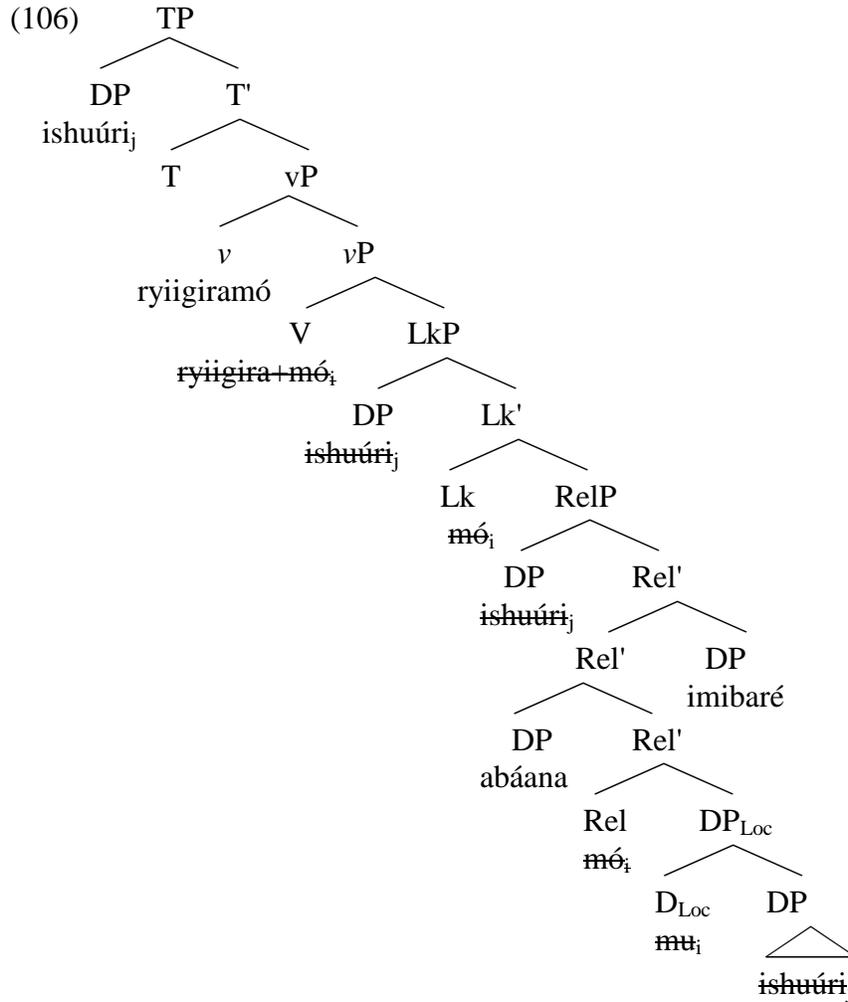
5.5.4.2 *The order Loc-V-S-O*

Consider again the locative construction in (97b), repeated as (105), in which the Agent precedes the Theme:

- (105) Ishuúri ryaawe ryiigiramó abáana imibaré.
 i-shuúri ryaawe ri-íig-ir-a-mó a-ba-áana i-mi-baré
 AUG-5.class 5.your 5.SM-study-APPL-FV-LOC18 AUG-2-child AUG-4-maths
 'Children study maths in your class.'

In order to explain why constructions such as (105) are possible, I propose that transitive verbs that take optional Theme arguments (and therefore can be used intransitively) can appear in two different syntactic frames. In the standard representation, the verb selects both the Agent and the Theme; consequently, the Agent DP originates in Spec ν and the Theme in a VP-internal position. However, I assume that there is also an alternative representation of these verbs, in which the Theme DP *is not selected*. In this alternative, the verb can be used intransitively, and appear without an object. When the Theme is not selected, I assume that the Agent must be merged as the obligatory small clause subject, along the lines of the analysis of unergative verbs presented in section 5.5.3 above. Therefore, I assume that constructions such as (105) are similar to semantic locative inversion constructions with unergative verbs, in that the Agent subject is base-generated in a low position inside the RelP. Importantly, I propose that some verbs with unselected Themes nevertheless allow the Theme-DP to be represented in the syntax as an adjunct. In his analysis of double object constructions, Larson (1988) proposes that double object constructions are comparable to passives in which the theta-role of the Theme is demoted. He proposes that in that case the Theme is adjoined to VP as an adjunct. Following this proposal, I

therefore suggest that certain DPs with the thematic role of Theme can be right-adjoined to a low position in the clause. For concreteness, I assume that the Theme DP *imibaré* 'maths' in (105) is right-adjoined to RelP:



As an adjunct, the Theme can be dropped without affecting the well-formedness of the sentence.⁴⁸ In contrast, verbs such as *-gura* 'buy', which obligatorily take an object, do not allow the Theme to be right-adjoined as an adjunct. The example in (98), which is already marked, becomes ungrammatical, if the object follows the subject, hence right-adjoined.

⁴⁸ In the structure in (106), the Theme DP *imibaré* is still closer to Lk than the Locative DP *ishuúri* and should therefore be a better candidate for movement to T, but it is not the case. I assume that adjuncts do not produce intervention effects according to the MLC, for unclear reasons.

(107)	*Isokó	ryáa	Nyábugogó	riguramó	abakoóbwa
	i-sokó	ryá	Nyabúgogó	ri-gur-a-mó	a-ba-koóbwa
	AUG-5.market	5.ASS	9.Nyabugogo	5.SM-buy-FV-LOC18	AUG-2-girls
	imyeénda.				
	i-mi-eénda				
	AUG-4-clothes				

Intended: 'It is girls who buy clothes in Nyabugogo market.'

This is evidence that the syntax of the two types of verbs is different, namely that the Agent in (105) originates inside the RelP, which cannot be the case in (103).

In summary, I have presented two possible accounts of semantic locative inversion with transitive verbs which solve the Locality problem raised by the presence of an Agent subject. In one account, the Agent moves from Spec_v to a position in the right periphery, a process comparable to heavy NP-shift. This operation removes the Agent as a possible intervener and frees up the Locative DP to be probed by T. The resulting word order is Loc-V-O-S. The alternative account is based on the idea, motivated above, that in the presence of locative predicates, Agents can be represented as subjects of small clauses. Transitive verbs which allow this syntactic representation usually also license the omission of the Theme, but can also realize the Theme as an optional adjunct in the right periphery. Semantic locative inversion is now possible, as the Locative DP can move to a position above the Agent and the Theme from where it can be probed and attracted by T. The resulting configuration, with the Locative in Spec_T, the logical subject in Spec_{Rel} and the Theme-"object" in a right-adjoined position, corresponds to the word order Loc-V-S-O.

5.6 Other forms of semantic locative inversion

The analysis of locative inversion resulting from movement of the Locative DP from the small clause to Spec_T can be carried over to two similar constructions: passivization and stativization of the Locative DP. In Kinyarwanda, the Locative DP can become the subject of a passive sentence as well as the subject of a stative sentence. Like semantic locative inversion, I assume that these constructions involve a small clause whose predicate is a locative expression (DP_{Loc}).

The gap caused by the impossibility of passivizing verbs of this type is filled by the existence of semantic locative inversion.

Passivization of Locative DPs with unergatives

Next, consider semantic locative inversion with passivized unergative verbs:

- (110) a. Urubyiruko rubyinira mu kabari kaa Mugabo.
 u-ru-byiruko ru-byín-ir-a mu ka-bari ka Mugabo
 AUG-11-youth 11.SM-dance-APPL-FV LOC18 12-tavern 12.ASS 1.Mugabo
 'Young people dance in Mugabo's tavern.'
- b. Akabari kaa Mugabo kabyinirwamó
 a-ka-bari ka Mugabo ka-byín-ir-w-a-mó
 AUG-12-tavern 12.ASS 1.Mugabo 12.SM-dance-APPL-PASS-FV-LOC18
 n' úrubyiruko.
 ná u-ru-byiruko
 by AUG-12-youth
 'Young people dance in Mugabo's tavern.'

Other unergative verbs such as *-ryá* 'to eat', *-nywá* 'to drink', *-seka* 'to smile/laugh', *-nnya* 'to defecate', *-kina* 'to play', *-úruka* 'to run', *-vúga* 'to speak', *-siimbuka* 'to jump', etc., can be found in passives. As a general rule, passivization of Locative DPs is possible with all unergative verbs. This is expected since these are action verbs. Recall that even unaccusative verbs that entail action can be passivized. Passivization of unergatives is also in line with Perlmutter's (1978: 162) description of unergatives as those verbs that appear in "predicates describing willed or volitional acts".

Passivization of Locative DPs with transitives/ditransitives

Like in many other languages, Bantu as well as non-Bantu, passivization of transitive verbs with a fronted locative is possible in Kinyarwanda. Not only is it possible with transitives, but it is also permitted with ditransitive verbs.

Transitive:

- (111) a. Leeta irúubaka amazu mu mugí.
 Leeta i-ra-úubak-a a-ma-zu mu mu-gí
 9.Government 9.SM-PRES-build-FV AUG-6-house LOC18 3-city
 'The government is building houses in the city.'
- b. Umugí urúubakwamó amazu na Leeta.
 u-mu-gí u-ra-úubak-w-a-mó a-ma-zu ná Leeta
 AUG-3-city 3.SM-PRES-build-PASS-FV-LOC18 AUG-6-house by 9.Government
 Lit: 'The city is being built in houses by Government.'

Ditransitive:

- (112) a. Ababyéeyi baheera abáana ibiryó
 a-ba-byéeyi ba-há-ir-a a-ba-áana i-bi-ryó
 AUG-2-parents 2.SM-give-APPL-FV AUG-2-children AUG-8-food
 mu mashuúri.
 mu ma-shuúri
 LOC18 6-classroom
 'Parents give children food in classrooms.'
- b. Amashuúuri aheererwamó abáana ibiryó
 a-ma-shuúuri a-há-ir-w-a-mó a-ba-áana i-bi-ryó
 AUG-6-classroom 6-give-APPL-PASS-FV-LOC18 AUG-2-children AUG-8-food
 n' ábabyéeyi.
 ná a-ba-byéeyi
 by AUG-2-parents
 'Children are given food in classrooms.'

5.10.1.2 Derivation

The aim of this section is to show that absorption of the Agent by the passive morpheme allows movement of the Locative DP from a small clause to the subject position. Details are provided below.

In intransitive verbs, it is the Agent (in the case of unergative verbs) or the Theme (in the case of unaccusatives) which is suppressed in a passive. This leaves the Locative DP as the only available DP to move to SpecT. Consider (113) below in which an unaccusative verb has been passivized, and semantic locative inversion has been applied, and (114), in which the same has happened in a construction with an unergative verb.

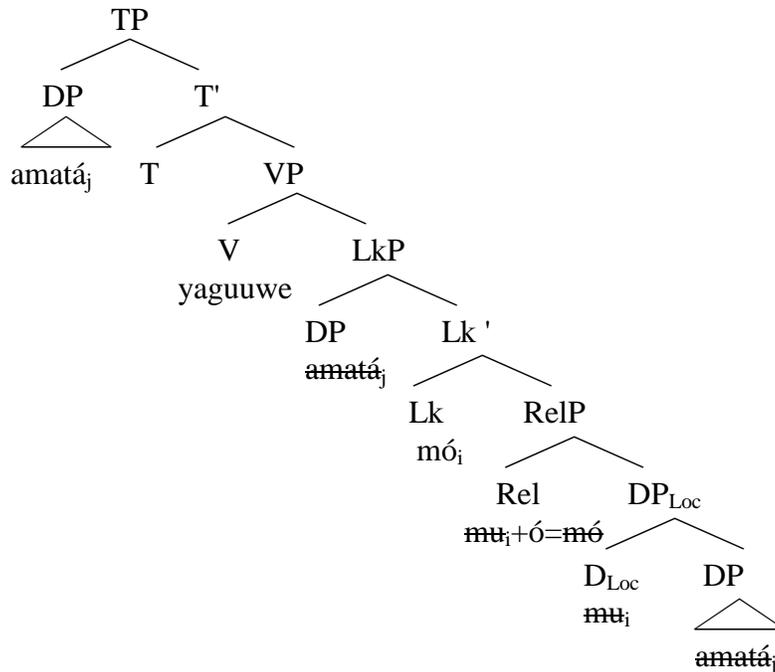
- (113) Amatá yaguuwemó n' ísaazi.
a-ma-tá a-a-gu-w-e-mó ná i-saazi
AUG-6-milk 6.SM-PST-fall-PASS-PERF-LOC18 by AUG-9.fly
Lit: 'The milk was fallen in by a fly.'
- (114) Uburiri buriirwamó n' ábagoré.
u-bu-riri bu-rí-ir-w-a-mó ná a-ba-goré
AUG-14-bed 14.SM-eat-APPL-PASS-FV-LOC18 by AUG-2-women
Lit: 'The bed is eaten in by women.'

Since the passive morpheme in Kinyarwanda absorbs the highest theta-role, it follows that passivized unaccusatives and unergatives have the same syntax, as is reflected in the structure in (115) below. The locative expression, the "big DP_{Loc}", is projected and merges with the Relator. The specifier of the Relator is not projected because its subject (a Theme in unaccusative constructions, an Agent in unergative constructions) is absorbed by the passive morpheme *-w*.⁴⁹ Therefore, RelP does not count as a (strong) phase in passive constructions. The locative D-head incorporates into the Relator head, the personal pronoun *-ó*, and the two elements form the clitic *mó*. After incorporation of the locative D-head into the Relator head, the Linker is projected and the new Relator head adjoins to it, as in semantic locative inversion. The EPP feature of Lk now attracts the Locative DP to its specifier. LkP merges with the VP, which in turn merges with T. T probes in its c-command domain for an element with phi-features to agree with and finds the Locative DP in SpecLk, which is attracted to its specifier. This derives the passive construction

⁴⁹ This means that the requirement that small clauses must have subjects is relaxed in passives and only applies to active constructions.

in the structure in (115). The Agent or Theme argument of the passivized verb can optionally appear as an oblique.

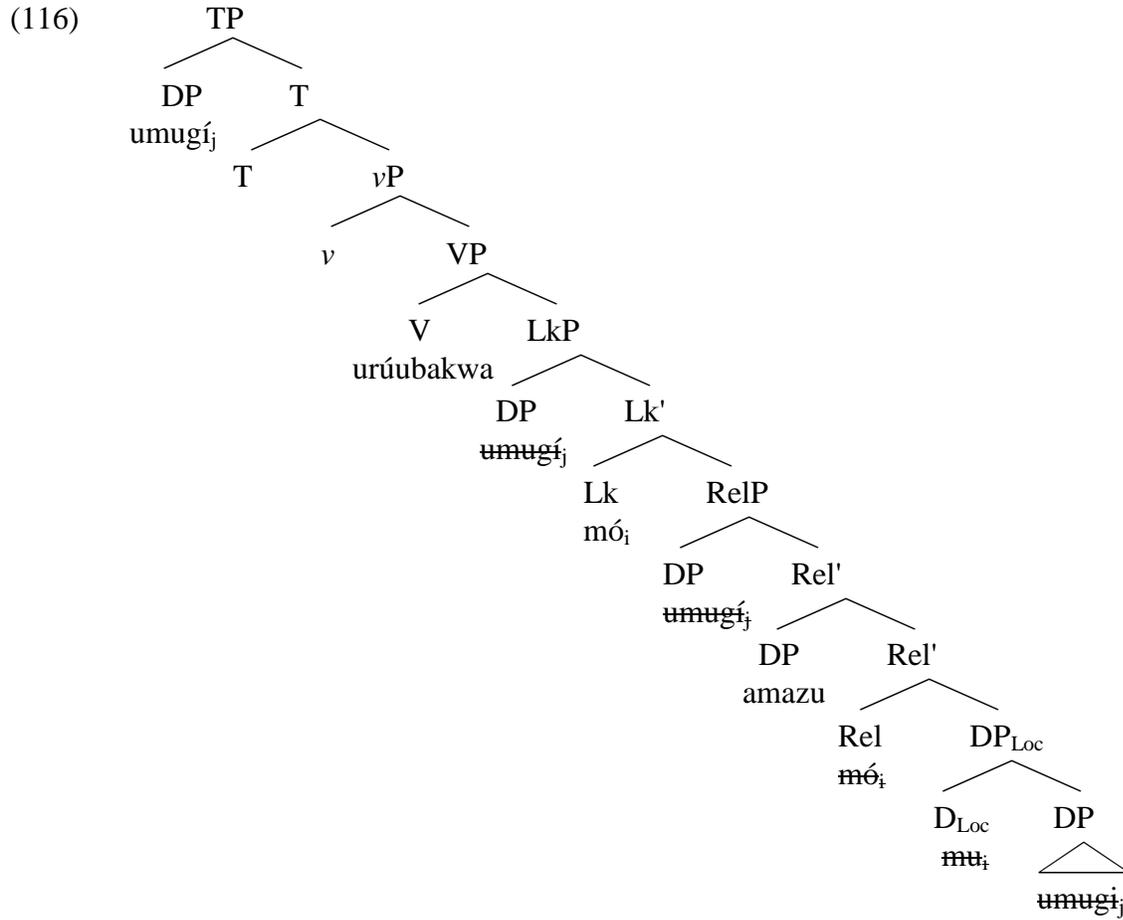
(115)



The structure above represents the derivation of (113) in which the verb is unaccusative (-*gwa* 'fall'), but the same structure would also be an accurate representation of (114) (with the unergative verb -*ryá* 'eat').

Now I turn to transitive verbs. Passivization of a transitive verb suppresses the theta-role of the Agent, while the Theme remains in situ inside the VP. The derivation of semantic locative inversion in a passive construction based on a transitive verb is therefore identical to semantic locative inversion with unaccusative verbs. The small clause comprises of the Theme as the subject and the DP_{Loc} as the predicate. The locative D-head incorporates into the Relator head -*ó* and they form the complex locative clitic. Since the small clause has a subject, the RelP is a phase; therefore, the Locative DP moves to a second specifier above the Theme DP. The Relator Phrase merges with Lk and the Relator head adjoins to the Linker head. Lk projects a specifier which serves as a landing site for the Locative DP, which is closer to Lk than the Theme. Now *v* merges with LkP. However, because the theta-role of the Agent has been suppressed, *v* does not project a specifier, and no external argument intervenes between T and the Locative DP. *v*P merges with T, and when T probes in its c-command domain, it finds the Locative DP in SpecLk

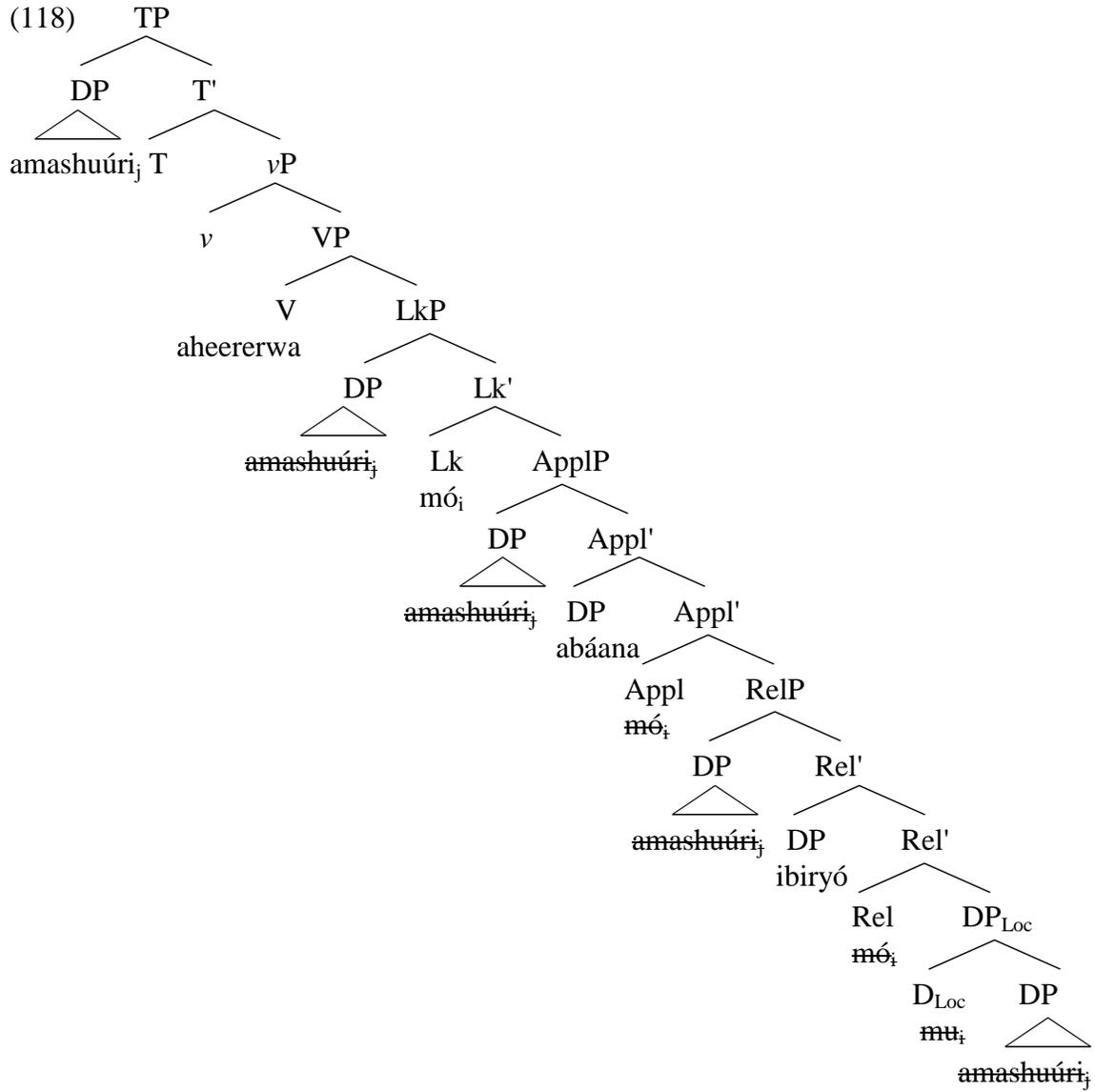
as the closest DP. The Locative DP is attracted by the EPP feature of T and becomes the subject of the passivized transitive verb while the Theme remains in situ in SpecRel. The Agent can be optionally expressed as an oblique:



Finally, let me discuss the fact that ditransitive verbs allow semantic locative inversion when passivized, deriving the word order Loc-V-O-O (with the indirect Goal-object preceding the Theme), as shown in (102b), repeated as (117).

- (117) Amashuúri aheererwamó abáana ibiryó
a-ma-shuúri a-há-ir-w-a-mó a-ba-áana i-bi-ryó
AUG-6-classroom 6.SM-give-APPL-PASS-FV-LOC18 AUG-2-children AUG-8-food
n' ábabyéeyi.
ná a-ba-byéeyi
by AUG-2-parents
'Children are given food in the classrooms.'

In order to explain the grammaticality of (117), I assume that indirect objects are introduced as specifiers of a functional category Appl (for applicative) which projects above the small clause consisting of the Theme and DP_{Loc} in semantic locative inversion. When Rel moves to Appl, it extends the phase to ApplP, along the lines of Den Dikken (2006, 2007). I furthermore assume that the Appl-phase head can host an EPP-feature and attract the closest DP in its c-command domain to move to a second specifier above the Goal (cf. McGinnis (1999)). Furthermore, in semantic locative inversion constructions, this EPP-feature is obligatorily associated with Appl, in order to attract the Locative DP, which is located in the second, higher specifier of RelP. The Locative-DP will move to SpecAppl above the Goal. When the Linker is merged with ApplP, it will agree with and attract the Locative-DP to SpecLk (and the complex Rel-head, realized by the derived locative clitic, will move to Linker via Appl, extending the phase to LkP). From here, the Locative-DP can enter an Agree-relation with T and move to SpecT, because passivization has absorbed the Agent-theta-role, and ν does not project a specifier and does not head a strong phase:



The analysis of semantic locative inversion with passivized ditransitive verbs predicts that the Goal-DP can never become the subject of these passives when the Locative is merged inside a "big DP_{Loc}", because it is buried too deep inside the LkP-phase and hence is invisible to probing by T. This prediction is borne out:

- (119) *Abáana baheererwamó amashuúri ibiryó
a-ba-áana ba-há-ir-w-a-mó a-ma-shuúri i-bi-ryó
AUG-2-children 2.SM-give-APPL-PASS-FV-LOC18 AUG-6-classroom AUG-8-food
(n' ábabyéeyi).
ná a-ba-byéeyi
by AUG-2-parents

Intended: 'Children are given food in the classrooms by parents.'

A further prediction is that the Goal-DP should become accessible to probing by T, however, when the copy of the Locative DP in SpecLk is unpronounced, since this allows the Goal-DP to move to a second specifier of LkP, on the edge of LkP. This is when the locative DP has been extracted (120), when it is pro (121), or when it is object-marked (122). This prediction is also confirmed:

- (120) amashuúri abáana baheerérwamó ibiryó
a-ma-shuúri a-ba-áana ba-há-ir-w-a-mó i-bi-ryó
AUG-6-classroom AUG-2-children 2.SM-give-APPL-PASS-FV-LOC18 AUG-8-food
'the classrooms in which the children are given food'

- (121) Abáana baheererwamó ibiryó.
a-ba-áana ba-há-ir-w-a-mó i-bi-ryó
AUG-2-children 2.SM-give-APPL-PASS-FV-LOC18 AUG-8-food
'The children are given food there.'

- (122) Abáana bayaheererwamó ibiryó.
a-ba-áana ba-ya-há-ir-w-a-mó i-bi-ryó
AUG-2-children 2.SM-6.OM-give-APPL-PASS-FV-LOC18 AUG-8-food
'The children are given food in them.'

- (125) Inzu yagezwehó n' ábaguzí banyúranye.
 i-n-zu i-a-ger-w-ye-hó ná a-ba-guzí ba-nyúranye
 AUG-9-house 9.SM-PST-arrive-PASS-PERF-LOC17 by AUG-2-buyers 2-different
 'The house has been arrived at by different buyers.'

While conducting this research, my intuition was that the frequency of semantic locative inversion constructions such as (124) is higher than that of constructions in which the Locative DP is the subject of a passive verb (124). I tested this intuition by conducting a Google-search for the following constructions: *inzu iraramó (abaantu)* and *inzu irarwamó (n'ábaantu)*, both of which are approximately translated as 'The house is slept in (by people)'.⁵⁰ The first sentence is a semantic locative inversion, and the second is a passive locative construction. Interestingly, the findings showed that my intuition was correct. For semantic locative inversion, I found a total of 41 examples, while for passivization, the number was 33. This finding suggests that both constructions exist, but that semantic locative inversion with an active verb may perhaps be used slightly more frequently than the corresponding construction with a passivized verb. I have provided the same translation for the constructions in (124) and (125) because the two constructions are used interchangeably. However, further research may reveal differences between the two constructions in terms of information structure.

Syntactic similarities and differences between the two types of constructions are highlighted below:

Similarities:

- Both constructions involve a small clause.
- In both constructions, a clitic attaches to the verb, which is derived by incorporation of the locative D into the Relator head.
- The Locative DP is in subject position as the grammatical subject of the sentence.

⁵⁰ The Theme is in brackets because the sentences I found had different Theme DPs.

Differences:

- In passives, the verb bears the passive morpheme *-w*.
- The theta-role of the Agent is suppressed in transitives and unergatives.
- The Theme is suppressed in unaccusatives.
- The Relator does not project a specifier in unaccusative constructions because its subject is suppressed by the passive morpheme.
- The logical subject (Theme or Agent) of passivized verbs is optionally expressed as an oblique in passives, whereas the logical subject of a semantic locative inversion construction appears postverbally and is obligatory.

5.6.2 Stative (semantic) locative inversion

Mchombo (2004: 90) notes that some Bantu extensions have "in common the property that they eliminate one NP from the range of required arguments within the clause structure." Such morphemes are the passive suffix *-w* and the stative morphemes *-k*, *-ik*, and *-ek*. Mchombo refers to constructions involving the morpheme *-ik* and *-ek* as stative constructions. According to Mchombo, the term is justified based on the fact that the verb in these kinds of constructions denotes the resulting state of the base verb (p. 95). Like passives, stative constructions assign the sole thematic role of Patient/Theme because the morphological rule governing such constructions eliminates the Agent. As a consequence, the Patient/Theme is typically promoted to the grammatical subject position (p. 98).

Detransitivizing morphemes such as *-ik*, *-ek* do also exist in Kinyarwanda. However, this section is not concerned with these morphemes since they do not appear in the type of construction I am dealing with. It deals with stative constructions in which the perfective aspect morpheme *-ye* performs the same function as the stative morphemes above.

The morpheme *-ye* is an aspect marker for perfect tenses. In addition to being an aspect marker, it can also stativize a construction, as is discussed in Kimenyi (1980). Kimenyi (1980:137) indicates that "stativization is a process that gives a passive reading to a sentence." The tense of the input sentence must be in a perfective aspect, as in (126) below. The former subject is deleted

and the Theme/Patient becomes the subject of the sentence. Kimenyi (1980: 137) provides numerous examples including the following (Kimenyi's glosses are adapted to mine):

- (126) a. Umugoré akubuuye inzu.
 u-mu-goré a-kúbuur-ye i-n-zu
 AUG-1-woman 1.SM-clean-PERF AUG-9-house
 'The woman has just cleaned the house.'
- b. Inzu irakúbuuye.
 i-n-zu i-ra-kúbuu-ye
 AUG-9-house 9.SM-DJ-clean-PERF
 'The house is cleaned.'

Stativization constructions such as (126b) are similar to the passive in that the theta-role of the Agent is suppressed. However, unlike in passives, the Agent cannot appear in a by-phrase adjunct:

- (127) *Inzu irakúbuuye n' úmugoré.
 i-n-zu i-ra-kúbuu-ye ná u-mu-goré
 AUG-9-house 9.SM-DJ-clean-PERF by AUG-1-woman
 Intended: 'The house is cleaned by the woman.'

Kimenyi correctly notes that there are some restrictions on stativization, including (among other things), that the direct object of a non-agentive verb cannot be stativized; in other words, for stativization to take place, the verb must be transitive and the subject an Agent.

A Theme DP can also be stativized if there is a locative expression. This is possible only when the locative marker D_{Loc} c-selects an NP-complement and projects an "ordinary" locative DP (i.e. not a "big DP_{Loc} "). Stativization of the Theme in (128a) results in (128b):

- (128) a. Umunyéeshuúri yashushaanyije inyoni ku kibááhó.
u-mu-nyéeshuúri a-a-shushaany-ye i-nyoni ku ki-bááhó
AUG-1-student 1.SM-PST-draw-PERF AUG-9.bird LOC17 7-board
'A student has drawn a bird on the board.'
- b. Inyoni ishushaanyije ku kibááhó.
i-nyoni i-shushaany-ye ku ki-bááhó
AUG-9.bird 9.SM-draw-PERF LOC17 7-board
'A bird is drawn on the board.'

Kimenyi does not provide any examples where a Locative DP itself is stativized. It seems that he takes stativization to be a property of a Patient/Theme because he argues that the functional role of stativization is "to show the state of a patient resulting from some action" (p. 139). He further claims that when a verb has two objects, stativization does not apply.⁵¹ However, stativization of a Locative is not excluded, although it is possible only with a restricted group of transitive verbs such as *-manika* 'to hung' *-aandika* 'to write', *-óomeka* 'to stick', *-shushaanya* 'to draw', *-séseka* 'to insert', *-ruunda* 'to pile', etc. The common characteristic of these verbs is that they entail placement of some sort, which also implies that there is a goal (Locative DP). Stativization of the Locative DP in (128) is illustrated by the example in (129) below:

- (129) Ikibááhó gishushaanyijehó inyoni.
i-ki-bááhó ki-shushaany-ye-hó i-nyoni
AUG-7-board 7.SM-draw-PERF-LOC17 AUG-9.bird
'A bird is drawn on the board.'

⁵¹ This statement is inaccurate; there are cases where a verb with two objects can be stativized (e.g. if one object is an instrumental). In my view, the ungrammaticality of Kimenyi's example in (i) is due, not to the number of objects, but to the disjoint marker *ra-*. If *ra-* is dropped, the sentence becomes grammatical. Compare (i) and (ii).

- (i) Ibáruwá iraandikiishije *ikáramú.
i-báruwá i-ra-aandik-iish-ye i-káramú
AUG- 9.letter 9.SM-DJ-write-INST-PERF AUG-9.pen
'The letter is written with a pen.' (Kimenyi 1980: 139)
- (ii) Ibáruwá yaandikiishije ikáramú.
i-báruwá i-aandik-iish-ye i-káramú
AUG- 9.letter 9.SM-write-INST-PERF AUG-9.pen
'The letter is written with a pen.'

As can be predicted from the presence of the aspectual morpheme *-ye*, stativization is not possible in other aspects. It is found in the present perfective as in (129) above, in the past perfective as in (130a) below as well as in the future perfective, (130b). The auxiliary 'be' is used and is realized as *-bá* in the future and *-ri* in the past.

- (130) a. Ikibáahó cyaári gíshushaanyijehó inyoni.
 i-ki-báahó ki-a-ri ki-shushaany-ye-hó i-nyoni
 AUG-7-board 7-PST-be 7.SM-draw-PERF-LOC17 AUG-9.bird
 'A bird was drawn on the board.'
- b. Ikibáahó kizaaba gíshushaanyijehó inyoni.
 i-ki-báahó ki-za-ba ki-shushaany-ye-hó i-nyoni
 AUG-7-board 7.SM-FUT-be 7.SM-draw-PERF-LOC17 AUG-9.bird
 'A bird will be drawn on the board.'

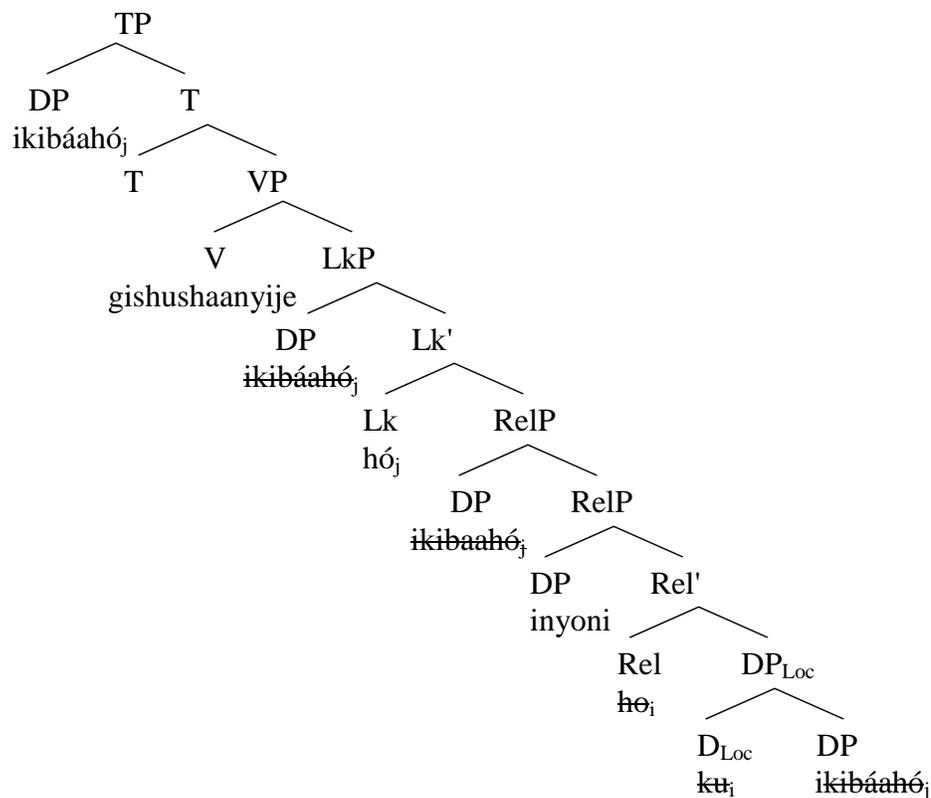
In these constructions, the Locative DP becomes the subject of the sentence and agrees with the verb. The verb bears the perfective morpheme *-ye* and is followed by the Theme. As in the case of locative shift and semantic locative inversion, the clitic must attach to the verb.

Stativization of locatives is not unique to Kinyarwanda. Similar constructions have been reported for Mandarin Chinese (Pan, 1996; Zhang, 2008). Pan (1996) notes that the perfective aspect morpheme *-zhe* eliminates the Agent in locative inversion. He further observes that such constructions are possible only with a limited number of verbs such *fang* 'to put', *yinxie* 'to print', *xie* 'to write', and *ke* 'to carve' (p. 410). These verbs have the common property of entailing an Agent, a Theme, and a Goal. This is exactly what we observe in Kinyarwanda. I also assume that the aspectual morpheme *-ye* in Kinyarwanda suppresses the theta-role of the Agent in such constructions, turning them into unaccusatives (see Zalzmán (2011) for a similar view).

The derivation of such constructions is similar to that of semantic locative inversion and locative shift. Let us look at how (129) above is derived. Like in locative shift or semantic locative inversion, the sentence comprises of the small clause *inyoni ku ikibáahó* 'bird on board', *inyoni* being the subject and *ku ikibáahó* the DP_{Loc} predicate. This DP_{Loc} merges with the Relator head,

which lexicalizes as the personal pronoun *-ó*. Like in semantic locative inversion, the Relator head attracts the locative head to it and they form the complex head *hó*. The phase head Rel attracts the Locative DP to a second SpecRel, RelP merges with the Linker, and the Relator head moves to the Linker by head-to-head movement. The Linker attracts the Locative DP to its specifier. Since the theta-role of the Agent has been absorbed by the perfective aspect morpheme *-ye*, *v* does not project a specifier, and *vP* is not a strong phase. *vP* combines with T, which probes and Agrees with the Locative DP, and the EPP feature of T attracts the Locative DP to its specifier. Thus stative semantic locative inversion in (131) is derived.

(131)



From the structure above, it is predicted that the Theme can be stativized when the Locative DP is pro, an object marker, or a relative operator. This predication is borne out. The Locative DP is pro in (132a), an object marker in (132b), and a relative operator in (132c), and the sentences are grammatical.

- (132) a. Inyoni ishushaanyijehó.
 i-nyoni i-shushaany-ye-hó
 AUG-9.bird 9.SM-draw-PERF-LOC17
 'A bird is drawn there.'
- b. Inyoni igishushaanyijehó.
 i-nyoni i-ki-shushaany-ye-hó
 AUG-9.bird 9.SM-7.OM-draw-PERF-LOC17
 'A bird is drawn on it.'
- c. ikíbaahó inyoni ishusháanyijehó
 i-ki-baahó i-nyoni i-shushaany-ye-hó
 AUG-7-board 9.SM-bird 9.SM-draw-PERF-LOC17
 'the board on which the bird is drawn'

To conclude this section, let me summarize the properties of stativization of Locative DPs:

Like semantic locative inversion and passives –

- stativization of the Locative DP involves a small clause.
- a clitic attaches to the verb as a result of incorporation of the locative D into the Relator head.
- the Locative DP ends up in subject position as the grammatical subject of the sentence.

Like passives –

- the theta-role of the Agent is suppressed in a stative construction.

Unlike semantic locative inversion and passives –

- the theta-role of the Agent cannot optionally appear as an oblique.
- the verb cannot appear in different aspects; the construction is possible only in the perfective aspect (present, past, and future).
- the construction is only possible with a small and specific group of verbs (those referred to as placement verbs).

5.7 Conclusion

This chapter has focused on semantic locative inversion and related constructions. The following are the major characteristic properties of semantic locative inversion: the Locative DP appears in preverbal position, without a locative class marker, as a grammatical subject of the sentence; the Theme of unaccusative and transitive verbs, or the Agent of an unergative verb, is the subject of the small clause in which the Locative DP originates; the clitic obligatorily attaches to the verb, and the logical subject, which follows the verb, cannot be omitted, unless the verb is passivized. Different tests such as agreement and relativization were applied to establish that the preverbal locative DP is a grammatical subject. Regarding the postverbal subject, it was shown that it does not have properties of an object despite occupying a postverbal position.

Semantic locative inversion was shown to be possible with intransitive verbs (both unaccusatives and unergatives), transitive verbs, and passivized ditransitive verbs. The applicative that attaches to some verbs is not a characteristic feature of locative inversion; it rather ensures that the small clause contains a locative predicate. But, once the locative argument is introduced by the applicative, it can participate in locative inversion.

It was shown that the projection of a small clause whose predicate is a Locative DP is the starting point in the derivation of semantic locative inversion. The Locative DP, which ends up in subject position, originates inside the VP unlike, for example, in Zulu for which it has been suggested that the Locative DP does not originate in the VP (Buell, 2005; Zeller, 2013). It was also shown that semantic locative inversion shares properties with other constructions such as locative shift, locative passivization, and locative stativization: the Locative DP moves out of the small clause/VP after its head has been incorporated into the Relator head, and in each case, the derivation results in the clitics *mó/hó*, a common denominator of all such constructions. This uniform analysis captures all constructions in which the Locative DP leaves the VP to move to a higher position. As I will demonstrate, the same processes also enable us to explain formal locative inversion in Kinyarwanda, which is the subject of the next chapter.

CHAPTER SIX: FORMAL LOCATIVE INVERSION

Locative inversion with a locative expression formally marked as such by a locative marker (D_{Loc}) is called formal locative inversion (Buell, 2007). In this type of locative inversion, the locative expression (locative noun with a locative marker) precedes the verb, and the logical subject is expressed postverbally. Consider (1) below:

- (1) Ku kiraro haanyuzehó amagaáre abiri.
 ku ki-raro ha-a-nyúr-ye-hó a-ma-gaáre a-biri
 LOC17 7-brige 16.SM-PST-pass-PERF-LOC17 AUG-6-bicycles 6-two
 Lit: 'On the bridge passed two bicycles.'

In (1), the locative expression *ku kiraro* 'on the bridge' precedes the verb whereas the logical subject *amagaáre abiri* 'two bicycles' follows it.

Formal locative inversion in Bantu languages has attracted much more attention than semantic locative inversion (Bresnan & Kanerva, 1989; Demuth, 1990; Demuth & Mmusi, 1997; Zerbian, 2006; Marten, 2006; Buell, 2007; Diercks, 2010, 2011; Creissels, 2011; and others). This is probably due to the fact that it is found in more languages than semantic locative inversion.

The preverbal locative expression differs according to languages. Some languages (e.g. Chichewa, Herero, Kinyarwanda) have locative class prefixes, (2), others (e.g. Kiswahili) have a suffix, (3), while others can have a prefix and a suffix (e.g. Zulu), (4).

- (2) a. pò-ndjúwó [Herero]
 16-9.house
 'at the house'
 b. kò-mù-tí
 17-3-tree
 'in the tree'

- c. mò-ndùndú
18-9.mountain
'on the mountain' (Marten, 2006: 113)
- (3) a. nyumba-ni. [Kiswahili]
9.house-LOC
'in/at the house'
- b. soko-ni.
5.market-LOC
'in/at the market'
- (4) a. e-ndl-ini [Zulu]
LOC-9.house-LOC
'in the house'
- b. o-nyaw-eni
LOC-11.foot-LOC
'on the foot.'

In some languages, the verb agrees with the preposed locative expression in different locative classes whereas in others there is a default subject marker, which often corresponds to the prefix of one of the locative class markers or an expletive marker.

Work on (formal) locative inversion constructions generally seeks to address the following issues: the type of argument structure that allows (formal) locative inversion; the status of the preverbal locative expressions (whether they are subjects in SpecT or topics in the left periphery); whether the subject marker on the verb is an agreement marker or an expletive marker; whether the locative expressions are base-generated in a topic position or whether they are in preverbal position as a result of movement from a postverbal position; and the information structural function of such constructions. To the best of my knowledge, these issues have not been given sufficient attention as far as Kinyarwanda is concerned.

This chapter will address all the issues above, and the conclusion will enable us to add Kinyarwanda locative inversion to the typology of locative inversion in Bantu.

Before I discuss the specific properties of formal locative inversion in Kinyarwanda, I present a brief outline of how I analyze the various instances of this construction in Kinyarwanda.

Formal locative inversion in Kinyarwanda can take two shapes. The verb following the preposed locative expression may or may not appear with a locative clitic:

- (5) a. Mw' iishuúri hiinjyemó abáana baké.
 mu i-shuúri ha-a-íinjir-ye-mó a-ba-áana ba-ké
 LOC18 AUG-5.classroom 16.SM-PST-enter-PERF-LOC18 AUG-2-children 2-few
 'Few children entered the classroom.'
- b. Mw' iishuúri hiinjye abáana baké.
 mu i-shuúri ha-a-íinjir-ye a-ba-áana ba-ké
 LOC18 AUG-5.classroom 16.SM-PST-enter-PERF AUG-2-children 2-few
 'Few children entered the classroom.'

The main idea that I defend in this chapter is that the fronted locative expression in both types of formal locative inversion is not the structural subject of the sentence, but a topic merged in the left periphery of the clause. The subject position in constructions such as (5a) is filled by a locative pro-subject of class 16 which triggers class-16 agreement on the verb:

- (6) [Topic [DP LOC] [TP pro_{class 16} [*ha-verb* [... [RelP [DP D_{Loc} [DP pro_{class-16}]]]]]]]]

As (6) shows, the locative pro originates inside a "big DP_{Loc}" in RelP, as the complement of D_{Loc}, the locative marker. Since the locative marker incorporates into the verb, the verb in the resulting construction in (5a) will appear with the locative clitic. In fact, the derivation of a sentence such as (5a) is in all relevant respects identical to that of a semantic locative inversion construction, with the fronted subject DP a locative pro of class 16. When a fronted locative expression is added as a topic, as shown in (6), the result is formal locative inversion as in (5a).

In contrast, I argue that in constructions such as (5b), the absence of a clitic implies that there is no "big DP_{Loc}" inside the RelP. Instead, the locative expression originates as the complement of Rel. In this case, there is no locative marker; no incorporation takes place, and no locative clitic appears. As a result, the locative expression cannot be promoted to subject position via A-movement. However, the locative expression can undergo *A-bar movement* to the clause-initial topic position:

(7) [_{Topic} [_{DP} LOC] [_{TP} pro_{Expl} [*ha*-verb [... [_{RelP} [_{DP} LOC]]]]]]]

As (7) shows, formal locative inversion in (7) is a case of A-bar movement of the locative to a clause-initial Topic position, while SpecT is filled with an expletive *pro* (which also triggers class 16 agreement in Kinyarwanda, as I show below). In contrast, formal locative inversion in (6) is a case of A-movement of a locative *pro* to the subject position, which is bound by a base-generated topic in the left periphery.

6.1 Formal locative inversion with a clitic

6.1.1 Formal locative inversion and argument structure

Like semantic locative inversion, formal locative inversion is possible with all types of predicates (unaccusatives, intransitives, and transitives) except active ditransitives.

6.1.1.1 Formal locative inversion with unaccusative verbs

The example in (8b) shows formal locative inversion with an unaccusative verb:

(8) a. Inyoni zaaraaye ku ihemá.
 i-nyoni zi-a-ráar-ye ku i-hemá
 AUG-10.bird 10-PST-sleep-PERF LOC17 AUG-5.tent
 'Birds slept on the tent.'

- b. Ku ihemá haaraayehó inyoni.
ku i-hemá ha-a-ráar-ye-hó i-nyoni
LOC17 AUG-5.tent 16.SM-PST-sleep-PERF-LOC17 AUG-10.bird
Lit: 'On the tent slept birds.'

Like in semantic locative inversion, some unaccusative verbs require an applicative in order to participate in formal locative inversion. As was argued in chapter 5, the applicative serves to expand the argument structure of the verb by introducing a locative expression as the predicate of the small clause. This is shown in (9).

- (9) a. Imibú yapfiiriye ku mashuuka.
i-mi-bú i-a-pfú-ir-ye ku ma-shuuka
AUG-4-mosquitoes 4.SM-PST-die-APPL-PERF LOC17 6-bed.sheets
'Mosquitoes died on the bed sheets.'
- b. Ku mashuuka haapfiiriyehó imibú.
ku ma-shuuka ha-a-pfú-ir-ye-hó i-mi-bú
LOC17 6-bed.sheets 16.SM-PST-die-APPL-PERF-LOC17 AUG-4-mosquitoes
Lit: 'On the bed sheets died mosquitoes.'

The sentences above become ungrammatical if the applicative is omitted.

- (10) a. *Imibú yapfuuye ku mashuuka.
i-mi-bú i-a-pfú-ye ku ma-shuuka
AUG-4-mosquitoes 4.SM-PST-die-PERF LOC17 6-bed.sheets
Intended: 'Mosquitoes died on the bed sheets.'
- b. *Ku mashuuka haapfuuyehó imibú.
ku ma-shuuka ha-a-pfú-ye-hó -mi-bú
LOC17 6-bed.sheets 16.SM-PST-die-PERF-LOC17 AUG-4-mosquitoes
Intended: 'Mosquitoes died on the bed sheets.'

The ungrammaticality of the examples in (10) is due to the fact that verbs such as *-pfá* 'die' do not subcategorize for a locative argument, in which case it must be introduced by an applicative.

6.1.1.2 *Formal locative inversion with unergative verbs*

Unergatives generally require an applicative as in (11). The examples in (12) are unacceptable because there is no applicative added to the verb. (I treat transitive verbs such as *-ryá* 'eat' as unergative when used without an object).

- (11) a. Abagoré bariira mu buriri.
 a-ba-goré ba-rí-ir-a mu bu-riri
 AUG-2-women 2.SM-eat-APPL-FV LOC18 14-bed
 'Women eat in bed.'
- b. Mu buriri hariramó abagoré.
 mu bu-riri ha-rí-ir-a-mó a-ba-goré
 LOC18 14-bed 16.SM-eat-APPL-FV-LOC18 AUG-2-women
 'It is women who eat in bed.'
- (12) a. *Abagoré barya mu buriri.
 a-ba-goré ba-rí-a mu bu-riri
 AUG-2-women 2.SM-eat-FV LOC18 14-bed
 'Women eat in bed.'
- b. *Mu buriri haryamó abagoré.
 mu bu-riri ha-rí-a-mó a-ba-goré
 LOC18 14-bed 16.SM-eat-FV-LOC18 AUG-2-women
 'It is women who eat in bed.'

The implication of (11) and (12) is that an applicative morpheme introduces a locative argument when the verb does not require one. This is particularly expected for unergatives since they do not subcategorize for location.

Like in semantic locative inversion, some verbs such as, *-kóra* 'work', *-ryá* 'eat', *-úga* 'study', etc., do not require an applicative when the locative expression refers to a prototypical place where a particular activity takes place. The sentences in (13) and (14) below are grammatical in contrast to those in (12).

- (13) a. Abasóre bakora mu biro byaa Perezida.
 a-ba-sóre ba-kór-a mu biro bya Perezida
 AUG-2-young.men 2.SM-work-FV LOC18 8.office 8.ASS 1.President
 'Young men work in the President's office.'
- b. Mu biro byaa Perezida hakoramó abasóre.
 mu biro bya Perezida ha-kór-a-mó a-ba-sóre
 LOC18 8.office 8.ASS 1.President 16.SM-work-FV-LOC18 AUG-2-young.men
 Lit: 'In the President's office work young men.'
- (14) a. Abakiré barya mu mahóteeri.
 a-ba-kiré ba-rí-a mu ma-hóteeri
 AUG-2-rich.people 2.SM-eat-FV LOC18 6-hotels
 'Rich people eat in hotels.'
- b. Mu mahóteeri haryamó abakiré.
 mu ma-hóteeri ha-ri-a-mó a-ba-kiré
 LOC18 6-hotels 16.SM-eat-FV-LOC18 AUG-2-rich.people
 'It's rich people who eat in hotels.'

The verb *-kóra* in (13) is used here without an applicative because an office is a typical place for work. In this case, the office is not merely considered as a location where the event of working takes place at a particular moment, but as the usual place for working. Similarly, from (14) we conclude that a hotel is a place where one is expected to go and find food and eat there. This would also be the case for the nouns *reesitora* 'restaurant', *imuhirá* 'at home', *akabari* 'pub', but not for nouns like *umuhaánda* 'road', *igiseenge* 'roof', *uburiri* 'bed'. Since the latter nouns have nothing to do with eating, they must be introduced by an applicative when used in locative constructions.

However, in the examples in (13) and (14), it is also possible to add the applicative morpheme to the verb. This would turn the locative predicate into an event localizer argument, and the emphasis would be on the place where the subject is located as its referent performs the activity described by the verb (see also chapter 5, section 5.1.2).

6.1.1.3 Formal locative inversion with transitives

Transitive verbs also license formal locative inversion in Kinyarwanda. Like unergatives, transitive verbs generally require an applicative for the locative expression to be licensed.

- (15) a. Abashakashaatsi baandikira ibitabo muri
 a-ba-shakashaatsi ba-aandik-ir-a i-bi-tabo muri
 AUG-2-researchers 2.SM-write-APPL-FV AUG-8-books LOC18
 ibi biro.
 ibi biro
 8.DEM 8.office
 'Researchers write books in this office.'
- b. Murí ibi biro haandikiramó ibitabo
 murí ibi biro ha-aandik-ir-a-mó i-bi-tabo
 LOC18 8-DEM 8.office 16.SM-write-APPL-FV-LOC18 AUG-8-books
 abashaakashaatsi.
 a-ba-shaakashaatsi
 AUG-2- researchers
 'It is researchers who write books in this office.'

However, when the locative predicate is a Goal, no applicative is added.

- (16) a. Abanyéeshuúri baandika amataangaazo ku kibáahó.
 a-ba-nyéeshuúri ba-aandik-a a-ma-taangaazo ku ki-báahó
 AUG-2-students 2.SM-write-FV AUG-6-notices LOC17 7-board
 'Students write notices on the board.'

- b. Ku kibáahó haandikahó amataangaazo abanyéeshuúri.
ku ki-báahó ha-aandik-a-hó a-ma-taangaazo a-ba-nyéeshuúri
LOC17 7-board 16.SM-write-FV-LOC17AUG-6-notices AUG-2-students
'It is students who write notices on the board.'

The difference between (15) and (16) is the following: in (15), the Locative DP *ibiro* 'office' is not a Goal for the writing; it rather denotes a place where researchers are found when they are writing books, hence an event localizer. In contrast, in (16), the Locative DP is a goal for writing; the small clause structure, which licenses the locative, is licensed by the semantic relation between the Theme "notices", which are located "on the board". In (15), the semantic relation is between the event of "writing notices" and the location, and here the RelP needs to be licensed by special applicative morphology.⁵² Also, note that verbs such as *-shyíra* 'put', *-bíika* 'keep', which select a location as a Goal, do not require an applicative to introduce the locative expression

When the locative expression is a Source, it has the same properties as a Goal. No applicative is added to the verb. The example in (17) below is acceptable without an applicative.

- (17) a. Abíishoboye bagura imódoká i Buraayi.
a-ba-íishobor-ye ba-gur-a i-módoká i Buraayi
AUG-2-be.wealthy-PERF 2.SM-buy-FV AUG-10.cars LOC19 9.Europe
'Wealthy people buy cars from Europe.'
- b. I Buraayi hagurayó imódoká abíishoboye.
i Buraayi ha-gur-a-yó i-módoká a-ba-íishobor-ye
LOC19 14.Europe 16.SM-buy-FV-LOC19 AUG-10.cars AUG-2-be.wealthy-PERF
'It is wealthy people who buy cars from Europe.'

The Locative DP *i Buraayi* 'in Europe' is construed as a source of buying. The sentence means that cars are bought 'from' Europe by buyers who are not in Europe. If the applicative is added,

⁵² This difference seems to correspond to the distinction between "high" and "low" applicatives by Pylkkänen (2000) and McGinnis (2001).

the sentence means that those buyers are in Europe when they buy cars. Compare (17) and (18), in which the locative is an event localizer:⁵³

- (18) a. Abíshoboye bagurira imódoká i Buraayi.
 a-ba-íshobor-ye ba-gur-ir-a i-módoká i Buraayi
 AUG-2-be.wealthy-PERF 2.SM-buy-APPL-FV AUG-10.cars LOC19 14. Europe
 'Wealthy people buy cars in Europe.'
- b. I Buraayi hagurirayó imódoká
 i Buraayi ha-gur-ir-a-yó i-módoká
 LOC19 14.Europe 16.SM-buy-APPL-FV-LOC19AUG-10.cars
 abíshoboye.
 a-ba-íshobor-ye
 AUG-2-be.wealthy-PERF
 'It is wealthy people who buy cars in Europe.'

Note that some speakers find formal locative inversion constructions with transitives marked. However, like in the case of semantic locative inversion, such sentences improve when the logical subject is a heavy NP.

- (19) I Buraayi hagurayó imódoká abaantu
 i Buraayi ha-gur-a-yó i-módoká a-ba-ntu
 LOC19 14.Europe 16.SM-buy-FV-LOC19 AUG-10.cars AUG-2-person
 bafité amafaraanga aháagije.
 ba-fite a-ma-faraanga aháagije
 2.SM-have AUG-6-money enough
 'It is people who have enough money who buy cars in/from Europe. '

⁵³ It is must be noted that (17) does not exclude the possibility of the buyer being in Europe. This constitutes a difference between (17) and (18). In the latter, only one meaning is available: the buyer must be in Europe.

Word order in formal locative inversion with transitive verbs such as *-gura* 'buy', which select an obligatory internal argument DP, is fixed (Loc-O-S). The sentence in (20) is ungrammatical because the subject precedes the object:

- (20) *I Buraayi hagurayó abíishoboye imódoká.
 i Buraayi ha-gur-a-yó a-ba-íishobor-ye i-módoká
 LOC19 14.Europe 16.SM-buy-FV-LOC19 AUG-2-be.wealthy-PERF AUG-10.cars
 'It is wealthy people who buy cars from Europe.'

In contrast, with transitive verbs such as *-íiga* 'study', which are also sometimes used intransitively, two word orders are possible: Loc-V-S-O or Loc-V-O-S:

- (21) a. Mw' iishuúri híigiramó abáana
 mu i-shuúri ha-íig-ir-a-mó a-ba-áana
 LOC18 AUG-5.class 16.SM-study-APPL-FV-LOC18 AUG-2-children
 imibaré.
 i-mi-baré
 AUG-4-maths
 'Children study maths in the classroom.'
- b. Mw' iishuúri híigiramó imibaré
 mu i-shuúri ha-íig-ir-a-mó i-mi-baré
 LOC18 AUG-5.class 16.SM-study-APPL-FV-LOC18 AUG-4-maths
 abáana.
 a-ba-áana
 AUG-2-children
 'Children study maths in the classroom.'⁵⁴

Recall that the same patterns were observed with semantic locative inversion: verbs that take an obligatory object do not allow two word orders.

⁵⁴ In the elicitation process, I found that there are more speakers who find (21a) better than (21b).

needed to introduce a locative argument into the argument structure of the verb. Stated differently, the applicative appears on the verb regardless of whether the locative expression is expressed post-verbally or preverbally. But, it is only when the locative has become an argument that inversion can take place.

In short, the data presented in this section suggest that the argument structure of verbs that allow formal locative inversion is similar to the argument structure of verbs that allow semantic locative inversion. Like in semantic locative inversion, formal locative inversion is possible with unaccusatives, unergatives, transitives, and passivized ditransitives. However, we note an important difference between formal locative inversion and semantic locative inversion: in semantic locative inversion, the preposed Locative DP agrees with the verb in its specific class, but in formal locative inversion, the preverbal DP_{Loc} triggers the subject marker *-ha* of class 16 irrespective of the specific class it belongs to (classes 17, 18, 19). As it turns out, this is only one of many syntactic differences between the DPs in the two types of locative inversion. In the following section, I show that the preverbal DP_{Loc} s in formal locative inversion behave differently from preverbal Locative DPs in semantic locative inversion in many respects. Such differences suggest that the DP_{Loc} s in formal locative inversion are not grammatical subjects.

6.1.2 The preverbal locative expression (DP_{Loc}) in formal locative inversion

The question that arises in connection with the preverbal DP_{Loc} we see in formal locative inversion is whether the constructions in which they appear can be analyzed in terms of movement. This would mean that the head of the predicate of the small clause, the D_{Loc} , would select any DP, including a DP_{Loc} headed by another D_{Loc} . In this case, the DP_{Loc} , like the Locative DP in semantic locative inversion, would move from the small clause to the second SpecRel, to SpecLk, and then to SpecT. As a result, the locative expression would trigger the subject marker *ha-* on the verb, as this morpheme is a default locative agreement marker for all locative classes. This derivation would be explained in the following ways:

Firstly, the prefix *ha-* is a subject marker when used as the canonical subject marker for the canonical Locative DP *ahaantu* of class 16. Compare its use as a subject marker (and also as an object marker) in (23a) with that of other non-locative prefixes in (23b):

- (23) a. Aha haantu harakóonja; abaantu baraháanga.
aha ha-ntu **ha**-ra-kóonj-a; a-ba-ntu ba-ra-**ha**-áang-a
16.DEM 16.SM-place 16.SM-DJ-be.cold-FV; AUG-2-people2.SM-DJ-16.OM-hate-FV
'This place is cold; people hate it.'
- b. Izi nzu zirakóonja; abaantu barazáanga.
izi n-zu **zi**-ra-kóonj-a; a-ba-ntu ba-ra-**zi**-áang-a
10.DEM 10-houses 10.SM-DJ-be.cold-FV; AUG-2-people 2.SM-DJ-10.OM-hate-FV
'These houses get cold; people hate them.'

In these examples, the subject/object marker *ha-* of class 16 agrees with the locative expression *aha haantu* in the same way as the subject/object marker *zi-* agrees with the noun phrase *izi nzu* of class 10. This is consistent with the view that rather than noun class agreement, *ha-* is a reflex of locative agreement, and therefore compatible with any locative noun class.

Secondly, it could be argued that the subject marker *ha-* is triggered by the DP_{Loc} (24) or any other expression with a locative meaning such as *haanzé* 'out', *heejuru* 'up', *haasí* 'down', *húino* 'nearer', *inyuma* 'at the back', *imbere* 'in the front', *iruhaánde* 'at the side', *ibumosó* 'on the left', *iburyó* 'on the right', etc., (25).

- (24) Kuu ntébe imwé hiicayehó abaantu babiri.
Kuu n-tébe i-mwe ha-iicar-ye-hó a-ba-ntu ba-biri
LOC17 9-chair 9-one 16.SM-sit-PERF-LOC17 AUG-2-person 2-two
Lit: 'On one chair are sitting two people.'

- (25) Inyuma haasigayeyó umuuntu umwé.
Inyuma ha-a-sigar-ye-yó u-mu-ntu u-mwé
19.back 16.SM-PST-stay-PERF-LOC19 AUG-1-person 1-one
Lit: 'At the back has stayed one person.'
'One person has stayed at the back.'

Finally, apart from constructions with the Locative DP *ahaantu* 'place', there are other cases where *ha-* is triggered on the verb by a locative expression, which is a logical subject (i.e. which is not a preposed locative Topic). This can be seen in the examples in (26) and (27).

- (26) Mu gishaanga haanteera maraariyá.
 mu ki-shaanga ha-n-téer-a maraariyá
 LOC18 7-marsh SM.16-1S-cause-FV 9.malaria
 Lit: 'In the marsh causes me to have malaria.'

- (27) Mu gikoóni harasukuuye.
 mu ki-koóni ha-ra-sukuur-ye
 LOC18 7-kitchen SM.16-DJ-clean-PERF
 Lit: 'In the kitchen is clean.'

The constructions in (26) and (27) have no corresponding constructions with a postverbal locative expression. The locative expression in (26) is the logical subject with the theta-role of a Causer, which means that it is generated in Spec_v, and it is attracted to SpecT and also becomes the structural subject of the sentence. In (27), the expression *mu gikóni* is a Theme that has moved to the subject position in a "normal" unaccusative construction. As a result, the locative expressions in (26) and (27) trigger the locative subject marker *ha-* on the verb.⁵⁶

All these cases presented above would be consistent with the view that the preposed DP_{Loc} in formal locative inversion, like the Locative DP in semantic locative inversion, has moved to SpecT and become the subject of the sentence, hence agreeing with the verb with the locative class 16 prefix *ha-*. However, a close examination of formal locative inversion shows that the preposed DP_{LocS} in formal locative inversion clearly behave differently from preposed Locative DPs in semantic locative inversion. I will discuss these differences below.

⁵⁶ Diercks (2010: 68) reports a similar case in Lubukusu. Like in Kinyarwanda, there are cases in Lubukusu where preverbal locative expressions appear without a locative clitic on the verb. Diercks concludes that in these constructions, the relevant locative expressions are both logical subjects and grammatical subjects.

Before I begin this discussion, however, I need to address the status of preposed locative expressions in formal locative inversion. It was shown in chapter 5 and in the section above that what is preposed in semantic locative inversion is a Locative DP (= a DP without the locative marker). This Locative DP can belong to any noun class. In contrast, in formal locative inversion, the preposed locative is a full DP_{Loc}, i.e. a locative expression consisting of the locative noun plus the locative marker, which I have analyzed as a locative determiner head (Locative D-head) in chapter 3. Recall from chapter 3 that Kinyarwanda has four locative classes: three classes with a locative morphology, i.e. class 17, class 18, and class 19, with the locative morphemes *ku-*, *mu-*, and *i-*, respectively, and class 16, which includes only the noun *ahaantu* 'place'. Class 16 differs from the other classes because the DP *ahaantu* is a canonical noun: like any other noun in non-locative noun classes, it has an augment, a prefix and a stem. Observe the contrast between semantic locative inversion in (28)-(30) and formal locative inversion constructions in (31)-(33). The b-examples illustrate semantic locative inversion based on constructions with DP_{LocS} from the three locative classes (17, 18, and 19).

- (28) a. Amaráso yuúmiye ku myeénda.
 a-ma-ráso a-á-úum-ir-ye ku myeénda
 AUG-6-blood 6.SM-REM-dry-APPL-PERF LOC17 4-clothes
 'Blood dried on the clothes.'
- b. Imyeénda yuúmiyehó amaráso.
 i-mi-eénda i-á-úum-ir-ye-hó a-ma-ráso
 AUG-4-clothes 4.SM-REM-dry-APPL-PERF-LOC18 AUG-6-blood
 'Blood dried on the clothes.'
- (29) a. Abáana baraara mu cyuúmba.
 a-ba-ána ba-ráar-a mu ki-uúmba
 AUG-2-children 2.SM-sleep-FV LOC18 7-room
 'Children sleep in the room.'

b. Icyuúmba kiraaramó abáana.
 i-ki-uúmba ki-ráar-a-mó a-ba-áana
 AUG-7-room 7.SM-sleep-FV-LOC18 AUG-2-children
 'Children sleep in the room.'

- (30) a. Abashyitsi bazaagera i Kigali.
 a-ba-shyitsi ba-za-ger-a i Kigali
 AUG-2-visitors 2.SM-FUT-arrive-FV LOC19 9.Kigali
 'Visitors will arrive in Kigali.'
- b. Kigalí izaageramó abashyitsi.
 Kigalí i-za-ger-a-mó a-ba-shyitsi
 9.Kigalí 9.SM-FUT-arrive-FV-LOC18 AUG-2-visitors
 'Visitors will arrive in Kigali.'

In all these examples, the preposed DP denoting location agrees with the verb in noun class (number and gender). Recall that this DP starts out as the complement of a D_{Loc} which has incorporated into the pronominal Rel-head to form the locative clitic, which is obligatory in all the (b)-examples (see chapter 5).

The examples in (31)-(33) show formal locative inversion sentences corresponding to (28)-(30):

(31) Ku myeénda húumiyehó amaráso.
 ku mi-eénda ha-á-úum-ir-ye-hó a-ma-ráso
 LOC17 4-clothes 16.SM-REM-dry-APPL-PERF-LOC18 AUG-6-blood
 'Blood dried on the clothes.'

(32) Mu cyuúmba haraaramó abáana.
 mu ki-uúmba ha-ráar-a-mó a-ba-áana
 LOC18 7-room 16.SM-sleep-FV-LOC18 AUG-2-children
 'Children sleep in the room.'

- (33) I Kigalí hazaagerayó abashyitsi.
 i Kigalí ha-za-ger-a-yó a-ba-shyitsi
 LOC19 9. Kigali 16.SM-FUT-arrive-FV-LOC19 AUG-2-visitors
 'Visitors will arrive in Kigali.'

In all the examples of formal locative inversion, the subject marker is the class 16 prefix *ha-*. However, the locative inversion in (34) with the class 16 noun *ahaantu* 'place' is a bit problematic as it seems to have mixed properties of semantic and formal locative inversion:

- (34) a. Abajuura bazaanyura aha haantu.
 a-ba-juura ba-za-nyúr-a aha ha-ntu
 AUG-2-thieves 2.SM-FUT-pass-FV 16.DEM 16-place
 'Thieves will pass in this place.'
- b. Aha haantu hazaanyura abajuura.
 aha ha-ntu ha-za-nyúr-a a-ba-juura
 16.DEM 16-place 16.SM-FUT-pass-FV AUG-2-thieves
 Lit: 'This place will pass the thieves.'
 'Thieves will pass in this place.'

The construction (34b) may be treated as formal locative inversion or semantic locative inversion. On the one hand, like in formal locative inversion, the subject is marked on the verb with the morpheme *ha-*, which appears on the verb when a locative expression is preposed. On the other hand, like in semantic locative inversion, the Locative DP also appears in the subject position in its canonical form and agrees with the verb. Based on the form of the preposed Locative DP, it may be treated as a semantic locative inversion. However, given that no clitic attaches to the verb, such treatment would not be justified. Since semantic locative inversion requires incorporation of the D_{Loc} head into the Relator head, resulting in a clitic, I assume that this construction is a case of formal locative inversion.

I now elaborate on the difference between the preposed Locative DPs in semantic locative inversion and DP_{LocS} in formal locative inversion. The two DPs are different in many respects,

namely in terms of agreement marking, relativization, clefting, wh-questioning, and subject pro-drop. The differences between the two DPs suggest that the DP_{LocS} are topics rather than structural subjects.

6.1.2.1 Agreement

We have seen in chapter 5 as well as in the examples in (28)-(30) that a preposed Locative DP in semantic locative inversion agrees with the verb in its specific noun class. Such is not the case with formal locative inversion as is shown in (31)-(33). All the three locative classes (17, 18, 19) trigger the class 16 subject marker *ha-* on the verb. This is in contrast with Bantu languages such as Chichewa, Herero and Swahili in which the preposed locative subject agrees with the verb in its specific class. Consider the following examples from Herero:

- (35) pò-ndjúwó p-á-rará é-rúngá [Herero]
 16-9.house SC16-PAST-sleep 5-thief
 'At the house slept a/the thief.'

- (36) kò-mù-tí kw-á-pósé òzó-ndjímá
 17-3-tree SC17-PAST-make.noise 10-baboons
 'In the tree made noise (the) baboons.'

- (37) mò-ndùndú mw-á-váz-éw-á ómu-àtjé
 18-9.mountain SC18-PAST-find-PASS-FV 1-child
 'On the mountain was found a/the child.' (Marten, 2006:113)

Formal locative inversion in Kinyarwanda rather patterns with locative inversion in languages such as Tswana, Sotho, or Zulu, because these languages lack the three-way morphological distinction of subject markers exhibited by the Herero sentences.

- (38) Mó-le-fátshé-ng gó-fúla di-kgomo. [Tswana]
 18-5-country-LOC 17SM-graze 10-cattle
 'In the country are grazing the cattle.' (Demuth & Mmusi, 1997: 5)

- (39) mo-tsé-ng hó-tl-il-é ba-eti [Sotho]
 3-village-LOC 17SM-come-PRF-M 2-travelers
 'to the village came the travelers' (Demuth, 1990: 235)
- (40) E-sikole-ni, ku-zo-fund-el-a. a-bantwana [Zulu]
 LOC:7-7.school-LOC 17-SBJ- FUT-study-APPL-FV 2-2.child
 'At the school, children will study.' (Buel, 2005: 196).

As the examples in (38)-(40) show, the preposed locative expressions do not agree with the verb in their specific class. Like the above languages, Kinyarwanda has four locative class prefixes (class 16 *ha-*, class 17 *ku-*; class 18 *mu-*; and class 19 *i-*), and preposed locative expressions in all the four locative classes are marked on the verb with the prefix *ha-* of the locative class 16. This can be seen in the examples in (31)-(33) above where the subject marker *ha-* appears with the locative expressions *ku myeénda* cl.17 'on the clothes' in (31), *mu cyuúmba* cl.18 'in the room' in (32), and *i Kigalí* cl.19 'in Kigalí' (33) in the preverbal position.

However, although there is no agreement in each specific class, I suggest that there is 'locative' agreement. For example in (27), class 18 can be a logical subject and still agree with *ha-*. Since every Locative DP triggers *ha-* as an agreement marker, I conclude that there is locative agreement with locative subjects, suggesting that the interpretable features of a Locative DP are locative, valued by T after Agree, and realized as *ha-*. The data in (27) as well as in (31)-(33) are compatible with the analysis of Locative DPs as subjects.

6.1.2.2 Relativization

We have also seen in chapter 5 that a Locative DP in the preverbal position can head a subject relative clause and agree with the verb. This means that the Locative DP is the structural subject of the sentence (Demuth & Mmusi, 1997; Marten, 2006; Diercks, 2010, 2011; Zeller 2013). Preposed Locative DPs in languages such as Herero also can be relativized and agree with the verb:

- (41) mò-ngàndá mú-mw-à-hítí òv-à-ndù y-á-pì [Herero]
 18-9.house REL18-SC18-PAST-enter 2-people SC9-PAST-burn
 'The house into which people entered burnt.' (Marten, 2006: 110)

This is not what happens in formal locative inversion in Kinyarwanda. The verb in the relative clause and the matrix verb are marked differently. For example, in a sentence like (42), the relativized DP_{Loc} does not agree with the verb inside the relative in the locative class 16. The relative verb rather bears the agreement marker corresponding to the noun in its specific noun class. Only the matrix verb is marked with the class 16 prefix.

- (42) a. Muu nzu yiinjíyemó abaantu
 mu n-zu i-a-íinjir-ye-mó a-ba-ntu
 LOC18 9-house 9.SM-PST-enter-PERF-LOC18AUG-2-people
 haraanduye.
 ha-ra-aandur-ye
 16.SM-DJ-be.dirty-PERF
 'The inside of the house into which people entered is dirty.'
- b. *Muu nzu hiinjíyemó abaantu
 mu n-zu ha-a-iinjir-ye-mó a-ba-ntu
 LOC18 9-house 16.SM-PST-enter-PERF-LOC18 AUG-2-people
 haraanduye.
 ha-ra-aandur-ye
 16.SM-DJ-be.dirty- PERF
 'The inside of the house into which people entered is dirty.'

Compare (42) with (41) from Herero. In Herero the relativized verb agrees with the locative subject, *mòngàndá*, but in Kinyarwanda it does not agree with the DP_{Loc} subject *muu nzu*. It is rather the Locative DP complement of the locative D-head *inzu*, cl.9, which agrees with the verb. One may be tempted to assume that the class 16 subject marker *ha-* does not appear in relative clauses, but such is not the case; it is not generally excluded in relative clauses. For example, in constructions such as (26) and (27), in which the locative subject DP is a Causer or a Theme,

correspondence of the locative inversion construction in languages which have only one type of locative inversion. The study would explore whether two different meanings expressed by two types of inversion available in some languages can both be conveyed by only one type of locative inversion available in other languages.

6.1.2.3 Clefting

If a DP_{Loc} was the structural subject of the sentence in which it appears, it would be expected that it can be clefted and agree with the relativized verb. This was shown to be the case with Locative DPs in semantic locative inversion in chapter 5, but it is not the case in formal locative inversion; there is no agreement with the verb.

- (45) a. Ni muu nzu yiinjíyemó abaantu
 ni mu n-zu i-a-íinjir-ye-mó a-ba-ntu
 be LOC18 9-house 9.SM-PST-enter-PERF-LOC18 AUG-2-people
 haánduye.
 ha-aandur-ye
 16.SM-be.dirty-PERF
 'It is the inside of the house into which people entered which is dirty.'
- b. *Ni muu nzu hiinjíyemó abaantu
 ni mu n-zu ha-a-íinjir-ye-mó a-ba-ntu
 be LOC18 9-house 16.SM-PST-enter-PERF-LOC18 AUG-2-people
 haánduye.
 ha-aandur-ye
 16.SM-be.dirty-PERF
 'It is the inside of the house into which people entered which is dirty.'

The example in (45a) is grammatical because the relative clause verb agrees with the NP *inzu* in its specific noun class (cl.9) instead of agreeing with the locative class 16 prefix. In (45b), the relativized DP_{Loc} agrees in the locative class 16, and the sentence becomes ungrammatical. This is another indication that the preposed Locative DPs and DP_{LocS} have different syntactic properties.

Note again that in constructions such as those in (26) and (27), in which the locative subject DP is Causer or Theme, relativization with the class 16 yields a grammatical sentence:

- (46) Ni mu gishaanga haánteeye maraariyá.
 ni mu ki-shaanga ha-á-n-téer-ye maraariyá
 be LOC18 7-marsh 16.SM-REM-1S.OM-cause-PERF 9.malaria
 Lit: 'It is in the marsh that caused me malaria.'

6.1.2.4 Wh-questioning

We have seen that it is possible to question the subject in a cleft, and that the questioning of the preposed Locative DP in semantic locative inversion yields a grammatical sentence. Unlike in semantic locative inversion, preverbal DP_{Locs} in formal locative inversion cannot be questioned in a cleft. When these DP_{Locs} are questioned in a cleft construction, the verb inside the relative clause which modifies the wh-expression agrees with the locative noun in its specific noun class (class 9 in (47a)). When the verb is marked with the locative class 16 prefix (see (47b)), the construction becomes ungrammatical.

- (47) a. ??Ni mu yiíhe nzu yiinjíyemó abaantu?
 ni mu yiíhe n-zu i-a-íinjir-ye-mó a-ba-ntu
 be LOC18 9.which 9-house 9.SM-PST-enter-PERF-LOC18 AUG-2-people
 'It is in which house that people have entered?'
- b. *Ni mu yiíhe nzu hiinjíyemó abaantu?
 ni mu yiíhe n-zu ha-a-íinjir-ye-mó a-ba-ntu
 be LOC18 9.which 9-house 16.SM-PST-enter-PERF-LOC18 AUG-2-people
 'It is in which house that people have entered?'

Since the construction in (47a) is highly marked or rather ungrammatical, and (47b) ungrammatical, speakers prefer the corresponding semantic locative inversion construction. A perfect alternative to (47) would be in the form of semantic locative inversion in (48):

- (48) Ni iyííhe nzu yíinjíyemó abaantu?
 ni iyííhe n-zu i-a-íinjir-ye-mó a-ba-ntu
 be 9.which 9-house 9.SM-PST-enter-PERF-LOC18 AUG-2-people
 Lit: 'It is which house that entered people?'
 'In which house did people enter?'

The fact that the preverbal DP_{LocS} cannot be questioned (see (47)), in contrast to Locative DPs in semantic locative inversion, suggests that they are topics because topics are incompatible with the focus of a wh-construction.

6.1.2.5 Subject drop

In pro-drop languages, a subject marker should be able to have an anaphoric interpretation. This is what happens in agreeing constructions (see Buell (2007)) found in languages such as Chichewa, Kiswahili, and Herero. In these languages, when the locative expression is dropped, the locative meaning is maintained.

- (49) a. pò-ngàndá p-á-rár-á òvá-ndù [Herero]
 16-9.house SC16-PAST-sleep-FV 2-people
 'The house/home slept people.'
 b. p-á-rár-á òvá-ndù
 SC16-PAST-sleep-FV 2-people
 'There (that place) slept people.' (Marten, 2006: 113)

In (49b) the locative interpretation is maintained despite the absence of the fronted locative expression *pò-ngàndá* 'the house'.

In contrast, in languages such as Sotho, Tswana, and Zulu, the locative meaning is lost in the absence of the locative expression. This is because formal locative inversion in these languages is analyzed as an expletive construction with a fronted locative topic, and the subject marker agrees with an expletive pro, so the locative interpretation comes only from the locative expression. Since Kinyarwanda patterns with the latter languages by lacking agreement with

each preposed locative expression, it is expected that the locative meaning is lost when the locative expression is dropped.

However, this prediction is not borne out. In formal locative inversion constructions, the locative reference is maintained when the locative expression is dropped. Consider (50) below:

- (50) Muu nzu haryaamyemó abáana.
 mu n-zu ha-ryáam-ye-mó a-ba-áana
 LOC18 9-house 16.SM-sleep-PERF-LOC18 AUG-2-children.
 'Children are sleeping in the house.'

If the locative expression *muu nzu* 'in the house' is dropped, the locative interpretation is still available.

- (51) Haryaamyemó abáana.
 ha-ryáam-ye-mó a-ba-áana
 16.SM-sleep-PERF-LOC18 AUG-2-children
 'There are children sleeping (there)/It is children who are sleeping (there).'

I have added *there* in brackets in the translation to show that the locative meaning is not lost when the preverbal locative expression is dropped. Even if (51) was uttered 'out of the blue', the locative meaning would be maintained. The fact that the locative meaning is maintained in the absence of the preposed locative expression suggests that in examples such as (51), there is still a locative expression in the sentence. I will argue below that this locative expression is a locative pro-DP of class 16.

In this regard, similarly to semantic locative inversion, formal locative inversion maintains locative interpretation in the absence of the preposed Locative DP/locative expression. However, while the preposed Locative DPs in semantic locative inversion are structural subject, fronted locative expressions in formal locative inversion are topics.

Based on the discussion above, one may wonder if the DP_{Loc} cannot reach the preverbal position by way of movement. This would be explained in terms of the parallels observed between semantic locative inversion and locative shift. In chapter 5, we noted the fact that semantic locative inversion is similar to locative shift in the sense that if the Locative DP remains in SpecLk, locative shift is derived. If it moves on to SpecT, semantic locative inversion is derived. One may wonder whether the same process should not apply in formal locative inversion to derive a locative construction in which a DP_{Loc} , rather than a Locative DP, would precede or follow the locative clitic. This would mean that the complement of Rel would be a DP_{Loc} in which the D-head selects another DP_{Loc} rather than a Locative DP. Then the D_{Loc} would have to incorporate into Rel to allow the DP_{Loc} to move to SpecLk. The DP_{Loc} would stay in SpecLk to derive a construction in which the DP_{Loc} would appear in the middle field to have another type of locative shift. This prediction is not borne out. In (52b), in which the DP_{Loc} occupies SpecLk like the Locative DP in semantic locative inversion, is ungrammatical.

- (52) a. Umwáana yaánditse izína ku gikapú.
u-mu-áana a-á-aandik-ye i-zína ku ki-kapú
AUG-1-child 1.SM-REM-write-PERF AUG-5.name LOC 17 7-bag
'The child wrote the name on the bag.'
- b. *Umwáana yaánditse ku gikapú hó izína.
u-mu-áana a-á-aandik-ye ku ki-kapú hó i-zína
AUG-1-child 1.SM-REM-write-PERF LOC17 7-bag LOC 17 AUG-9.name
'The child wrote the name on the bag.'

Even if the clitic attaches to the verb, preceding the DP_{Loc} as is the case in the other form of locative shift, the sentence remains ungrammatical.

- (53) *Umwáana yaánditsehó ku gikapú izína.
u-mu-áana a-á-aandik-ye-hó ku ki-kapú i-zína
AUG-1-child 1.SM-REM-write-PERF-LOC 17 LOC17 7-bag AUG-9.name
'The child wrote the name on the bag.'

The ungrammaticality of (52b) and (53) clearly shows that the Locative D-head can never select a DP_{Loc} of class 17, 18, or 19 like *muu nzu* 'in the house'. This means that the fronted topic in formal locative inversion is not moved to this position from a base position inside a small clause. Rather, the impossibility of having DP_{LocS} in the middle field constitutes evidence that the DP_{LocS} are base-generated in the left periphery as fronted topics, hence not genuine subjects.

This alternative analysis according to which DP_{LocS} in formal locative inversion are base-generated in the left periphery, finds support in Cinque (1990) (see also (Creissels, 2011; Rizzi, 1997; Sturgeon, 2008)). For example, Cinque proposes that left dislocated DPs in Italian are based-generated in the left periphery but they must be co-indexed with a pronominal element in the main clause, i.e. a resumptive pronoun.

Also, note that the Locative pro bound by the fronted DP_{Loc} has its parallel in semantic locative inversion. We have seen in semantic locative inversion in chapter 5 that the D_{Loc} can select a pro as its complement. This pro, which can belong to different noun classes in semantic locative inversion, gives a locative reading to a construction in which it appears, even when the locative subject is not explicit. Along these lines, following Cinque (1999), I argue that in a construction like (51), there is a locative pro of class 16 that originates as the complement of a D_{Loc} inside the Relator phrase. This pro is bound by the DP_{Loc} (*muu nzu* 'in the house') based-generated in SpecTop in the left periphery.

6.1.3 Analysis

6.1.3.1 Formal locative inversion with intransitive verbs

In this section, I provide an analysis of formal locative inversion with intransitive verbs. I argue that an intransitive verb selects a small clause whose predicate is a locative pro and whose subject is the Theme. Recall that the logical subject of an unergative verb can appear in an accusative construction when there is a locative predicate. In such a case, like the Theme, the agentive subject is projected inside the VP as the subject of the small clause.

Unlike semantic locative inversion, which is unambiguously an agreeing locative construction, formal locative inversion in Kinyarwanda falls in the category of non-agreeing topicalization.

While agreeing constructions are found in those languages in which each locative class has a corresponding subject marker, non-agreeing constructions are found in those other languages in which only one subject marker is available for all the locative classes.

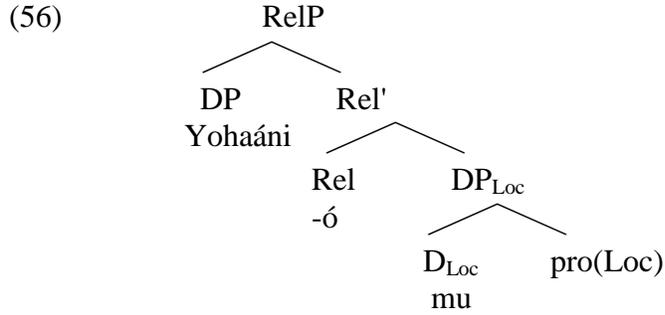
The analysis of formal locative inversion with intransitive verbs is concerned with constructions like (54) below:

- (54) a. Mu muhaánda hahagazemó Yohaáni.
 mu mu-haánda ha-hágarar-ye-mó Yohaáni
 LOC18 3-road 16.SM-stand-PERF-LOC18 1.John
 'It is John who is standing in the road.'

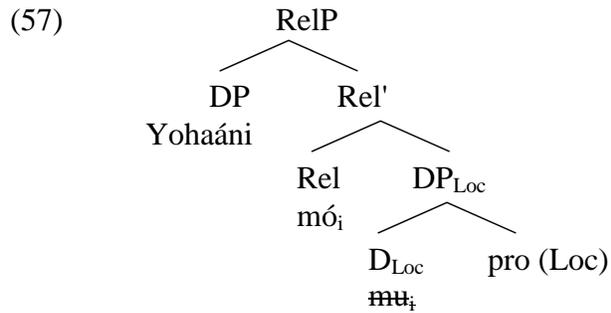
I argue, following Cinque (1990), Rizzi (1997), Creissels (2011), and others, that preposed locative expressions in sentences such (54), are base-generated in a topic position in the left periphery, specifically in SpecTop. The existence of such a topic position is indeed attested in Kinyarwanda. The following sentence in which the locative expression is a topic, with a subject in SpecT, is grammatical.

- (55) Mu rugó, abaantu barasaangira.
 mu ru-gó, a-ba-ntu ba-ra-saangir-a
 LOC18 11-home, AUG-2-people 2.SM-DJ-eat.together-FV
 'At home, people eat together.'

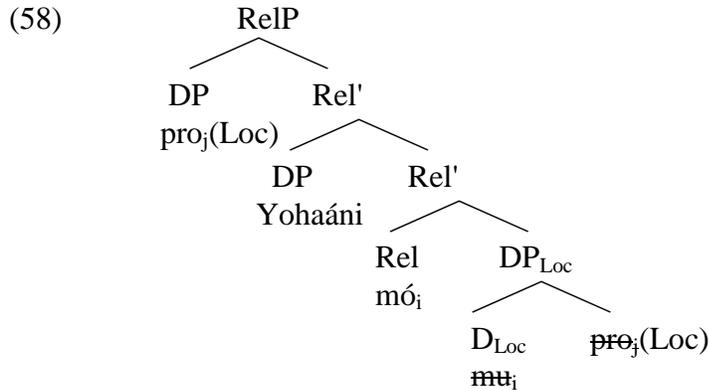
I suggest that in a formal locative inversion construction like (54), the grammatical subject position SpecT is occupied by a referential locative pro which originates as the complement of a locative D-head inside the small clause, but which has moved to SpecT in the same way as the syntactic subjects of semantic locative inversion constructions move to SpecT. Thus, (54) is derived as follows. A small clause is projected, whose subject is the Theme *Yohaáni* and whose predicate is a locative expression comprising of the locative D-head and locative pro. The structure of the small clause looks as follows:



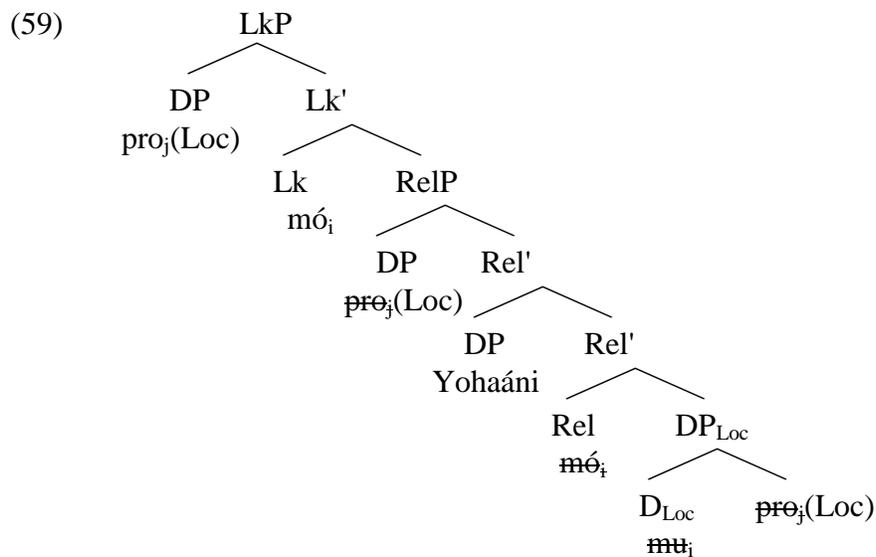
In this configuration, *pro* is not accessible to external probes since it is inside the Relator phase. Two movement operations are required for *pro* to be accessible. In the first movement, the Relator head attracts the locative D-head, which incorporates into it. The derived structure is shown in (57) in which *mó* is a complex head resulting from *mu+ó*.



In the second movement, the locative *pro* moves to the second specifier of the Relator Phrase above the Theme where it becomes visible to an external probe, as is shown in (58).

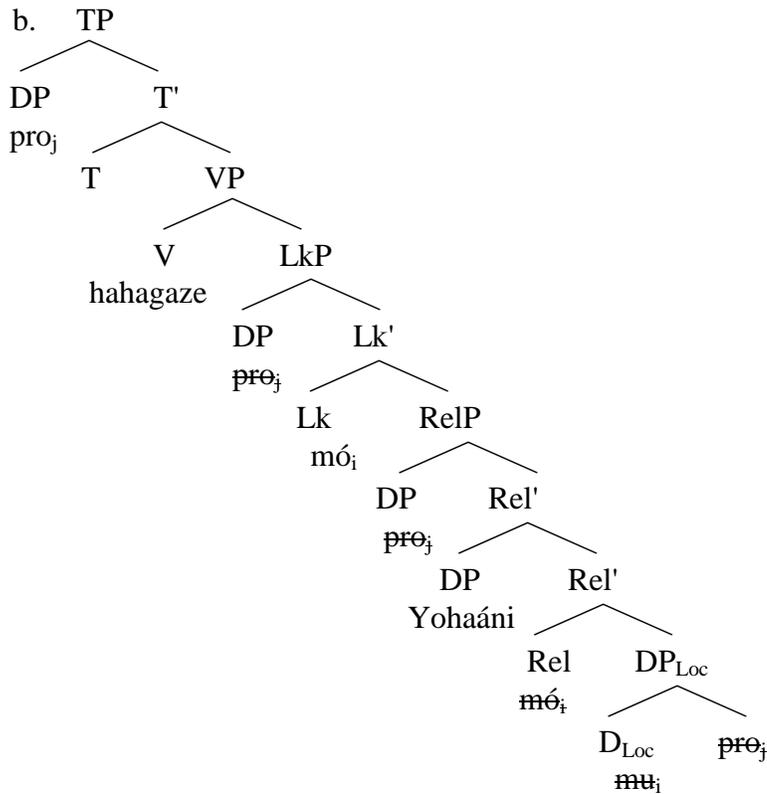


Next, the complex head *mó* incorporates into Linker, hence extending the Relator phrase to the Linker phrase. As the locative *pro* is now in the second specifier of *Rel*, it can be attracted by the EPP/edge feature of *Lk* and move to *SpecLk*, as is shown in (59).



According to the Minimal Link Condition, *pro*, which is now in *SpecLk*, is closer to *T* than the Theme *Yohaáni* in *SpecRel*. Moreover, in terms of phase theory, *pro* is on the edge of the Linker phase and visible to external probing heads while the Theme *Yohaáni* is buried inside the phase. When the VP projects and merges with *T*, *T* cannot attract the Theme to its specifier because, in terms of the MLC, this movement would be blocked by *pro*, the closest constituent with phi-features. In terms of phase theory, the Theme is not visible for movement operations. When *pro* moves to *T*, it triggers the locative subject marker *ha-* on the verb, and (60a) is derived, as is shown in (60b) (*vP* omitted).

- (60) a. Hahagazemó Yohaáni.
 ha-hágarar-ye-mó Yohaáni
 16.SM-stand-PERF-LOC18 1.John
 'It is John who is standing there.'



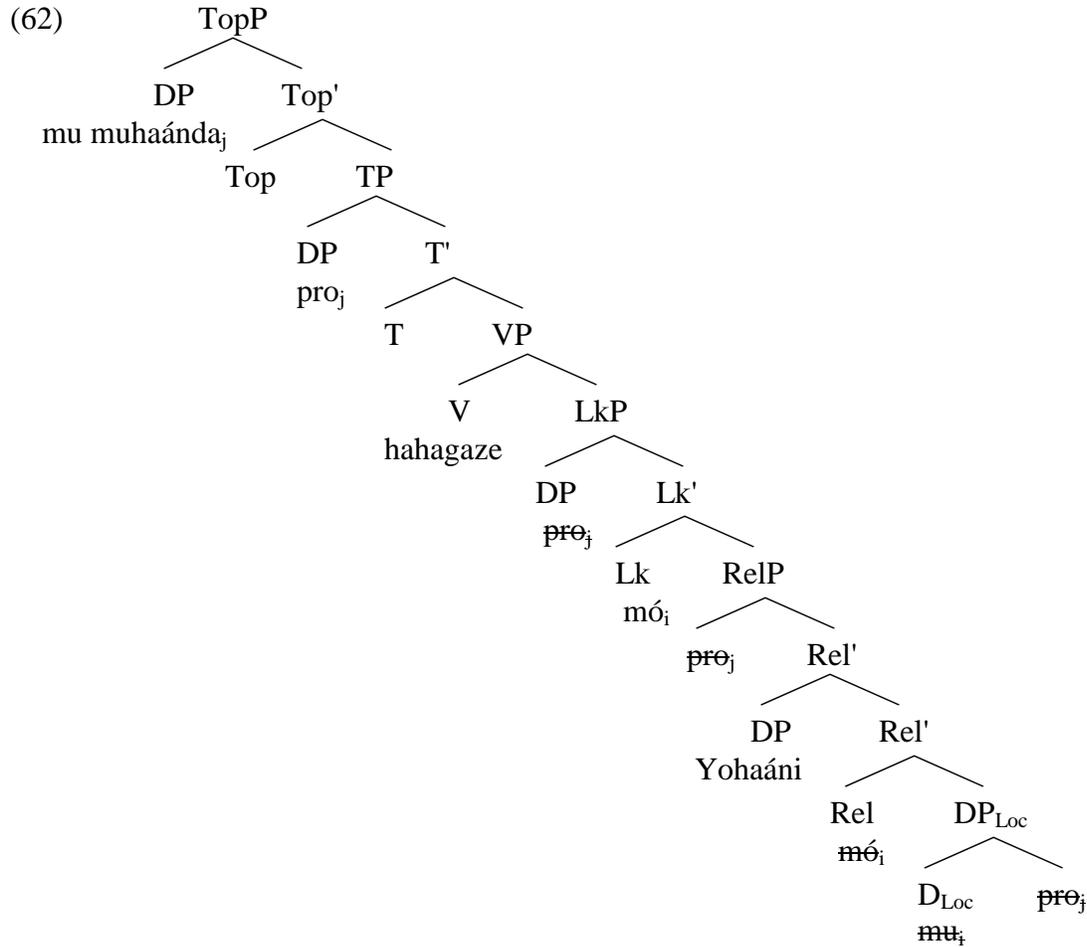
As was noted above, (60) does not have an expletive interpretation; the only available interpretation is that of an implicit locative. I have added the locative pro-form *there* to the translation to indicate this fact. According to the analysis shown in (57) and (58), this locative interpretation follows from the fact that a locative is in fact present in (60). Like in semantic locative inversion, SpecT is occupied by a Locative DP, but in contrast to the cases of semantic locative inversion discussed in chapter 5, this Locative DP is a locative pro, whose meaning, I suggest, can be translated as *there*. Importantly, I assume that the subject marker *ha-* in constructions such as (60) does not agree with an expletive, but agrees with the locative pro in SpecT. This explains why only a locative interpretation is available and constitutes evidence that in locative inversion, the absence of the preverbal locative expression does not result in the loss

of the locative reading. The construction in (60) corresponds to a semantic locative inversion construction such as (61b) in which the subject in SpecT in (61a) has been dropped.

- (61) a. Umuhaánda uhagazemó Yohaáni.
 u-mu-haánda u-hagarar-ye-mó Yohaáni
 AUG-3-road 3.SM-stand-PERF-LOC18 1.John
 Lit: 'The road stands John.'
 'It is John who is standing in the road.'
- b. Uhagazemó Yohaáni.
 u-hagarar-ye-mó Yohaáni
 3.SM-stand-PERF-LOC18 1.John
 Lit: 'It stands John.'
 'It is John who is standing there.'

In the case of semantic locative inversion, there is a *pro* in SpecT, which belongs to a non-locative class and is co-referential with the Locative DP. While *pro* in semantic locative inversion corresponds to a DP referring to a location like *umuhaánda* 'road' and triggers a subject marker *u-* of the noun class to which the dropped Locative DP belongs (class 3), *pro* in formal locative inversion triggers *ha-* as the subject marker.

The derivation continues as follows. With *pro* in the subject position, T merges with the head of the Topic Phrase, Top. The locative expression is projected in SpecTop from where it binds the resumptive locative *pro* in SpecT. This derives the sentence in (54a) *Mu muhaánda hahagazemó Yohaáni* as shown in (62) below:



I have shown that preposed locative expressions in formal locative inversion are not in the structural subject position but in SpecTop above TP. However, I have argued that the subject marker *ha-* which appears on the verb is not an expletive marker; it agrees with the locative pro in SpecT, which is also bound by the locative expression in SpecTop. This explains why sentences such as (54) always have a locative interpretation even when no locative expression is fronted.

There is further evidence that supports the analysis shown in (62), specifically the fact that the Theme DP *Yohaáni* cannot be attracted to T as the subject of the sentence. Recall from the discussion of semantic locative inversion that a Locative DP in SpecLk blocks movement of the Theme to SpecT. Consider the ungrammatical sentence below:

- (63) *Yohaáni ahagaze(mó) umuhaánda (mó).
 Yohaáni a-hagarar-ye-(mó) u-mu-haánda (mó)
 1.John 1.SM-stand-PERF-LOC18 AUG-3-road LOC18
 'John is standing in the road.'

The example in (63) is based on the sentence in (61a) above. At some stage of the derivation, the Locative DP *umuhaánda* is in SpecLk, and the Theme DP *Yohaáni* is still inside the RelP. However, as I argued in chapter 4, the head of the phase LkP has a phase EPP feature that can attract the Theme DP to the second specifier of Lk. From there it can be attracted to T. However, as was argued in chapter 4, for this to be possible, the Locative DP *umuhaánda* in the first specifier must also move away or be realized as pro because of the Heavy Edge Constraint. The problem with (63) is that, instead of both the Locative DP and the Theme moving away, it is only the Theme *Yohaáni* that has moved to SpecT in a passivization process where it will be pronounced at PF leaving the Locative DP in SpecLk, hence violating the Heavy Edge Constraint.

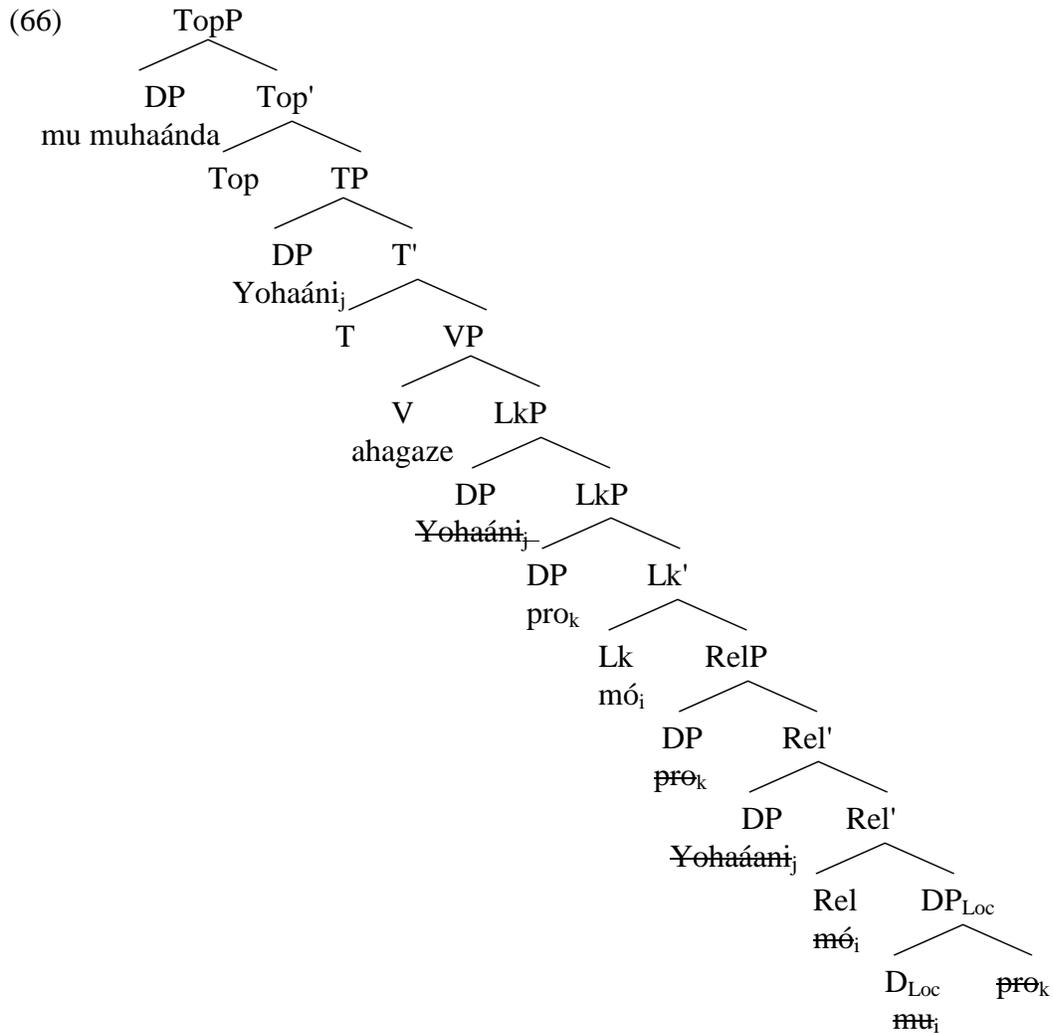
The analysis of formal locative inversion proposed above now makes an important prediction. Since the moved Locative is pro, it has no phonetic content. Therefore, when the derivation has reached the stage in (59), we predict that it should be possible to move the Theme DP to a second SpecLk above pro from where it can be attracted to SpecT. This prediction is borne out:

- (64) Yohaáni ahagazemó.
 Yohaáni a-hagarar-ye-mó
 1.John 1.SM-stand-PERF-LOC18
 'John is standing there.'

Importantly, a sentence like (64) can also be expanded with a full locative expression in SpecTop. This is illustrated by the sentence in (65), in which the Theme DP *Yohaáni* has moved to SpecT, and the locative expression *mu muhaánda* is merged in SpecTop from where it binds the incorporated pro:

- (65) Mu muhaánda Yohaáni ahagazemó.
 mu mu-haánda Yohaáni a-hágarar-ye-mó
 LOC18 3-road 1.John 1.SM-stand-PERF-LOC18
 'In the road, John is standing there.'

The syntax of (65) is shown in (66):



Note that while in (54b), represented in (62), the locative pro in SpecT triggers the subject marker *ha-* on the verb, in (65), it is the Theme *Yohaáni* in SpecT which agrees with the verb in class 1.

So far, the analysis covers formal locative inversion with unaccusative verbs. Since unergative verbs with locative arguments were argued to have an unaccusative syntax as well (see chapter 5), formal locative inversion with unergative verbs is also covered by the above discussion. In section 6.1.3.2, I provide an analysis of formal locative inversion with transitive verbs. However, before I turn to this analysis, I wish to highlight here the following parallels between formal locative inversion and semantic locative inversion.

The first parallel has to do with movement from the small clause to SpecT. While in semantic locative inversion the D_{Loc} selects a Locative DP, in formal locative inversion constructions such as (65) represented in (66), it selects a locative pro. In semantic locative inversion, the Locative DP moves from the small clause predicate to SpecRel and then to SpecT via SpecLk and becomes the grammatical subject of the sentence, agreeing with the verb in its specific noun class. In formal locative inversion, a locative pro also moves from the small clause predicate to SpecRel and then to SpecT via SpecLk. As indicated above, this pro is selected by the D_{Loc} and agrees with the verb in class 16, irrespective of the specific locative noun class to which the topicalized DP_{Loc} belongs. In contrast, when the Locative DP in semantic locative inversion is pro, it agrees with the verb in its specific noun class.

The second parallel has to do with the interpretation of the postverbal subject as focused. Like in semantic locative inversion, postverbal subjects in formal locative inversion are focused. For example, the formal locative inversion sentence in (67b) can be an answer to the question "Who went in the kitchen?"

- (67) a. Abakoóbwa baágiye mu gikoóni.
 a-ba-koóbwa ba-á-gi-ye mu ki-koóni
 AUG-2-girls 2.SM-REM-go-PERF LOC18 7-kitchen
 'Girls went in the kitchen.'
- b. Mu gikoóni haágiyemó abakoóbwa.
 mu ki-koóni ha-á-gi-ye-mó a-ba-koóbwa
 LOC18 7-kitchen 16.SM-REM-go-PERF-LOC18 AUG-2-girls
 'Girls went in the kitchen.'

This suggests that formal locative inversion conveys focus on the subject rather than presentational focus.

Consider also the following example, in which there is exhaustive focus on the postverbal subject:

- (68) Mu rugaaniiro hiícaye(mó) abagabo.
 mu ru-gaaniiro ha-á-iicar-ye(mó)⁵⁷ a-ba-gabo
 LOC18 11-sitting.room 16.SM-REM-sit-PERF-LOC18 AUG-2-men
 'It is men who sat in the sitting room.'

Any Kinyarwanda speaker who reads this sentence understands that only men, not other people (i.e. women and children), sat in the sitting room. Stated differently, those other people must have sat in another room. In short, as I have argued in chapter 5, locative inversion in Kinyarwanda does not generally convey presentational focus. A sentence like (68) above is not a typical answer to the question "What happened?" As was indicated in chapter 5, the answer to the question "What happened?" is often expressed by an SVO sentence or an expletive construction.

Notice, however, that presentational focus seems to be conveyed in formal locative inversion in Kinyarwanda with verbs of existence and appearance such as *-bá* 'be/happen', *-vúuka/-áaduka*, 'rise/break out' (see Levin & Rappaport & Hovav, 1995: 23), and verbs with similar meaning such as *-tángira* 'start'. Presentational focus also seems to be conveyed when the verb is passivized. The following sentences can be appropriate answers to the question "What happened?"

⁵⁷ The brackets around the clitic indicate that in formal locative inversion, the clitic does not always attach to the verb.

- (69) a. Mu mugí haabaaye impanuka.
mu mu-gí ha-a-bá-ye i-n-hanuka
LOC18 3-town 16.SM-PST-be-PERF AUG-9-accident
'There has been an accident in town.'
- b. Mu Rwaanda haataangiye gahuúnda y'
mu Rwaanda ha-a-tangir-ye gahuúnda yá
LOC18 11.Rwaanda 16.SM-PST-start-PERF 9.program 9.ASS
íkiingira.
i-kiingira
AUG-5.vaccination
Lit: 'In Rwanda, there has started a vaccination program.'
- c. Mu Rwaanda hataangijwe gahuúnda y'
mu Rwaanda ha-a-táangir-w-ye gahuúnda yá
LOC18 11.Rwanda 16.SM-PST-start-PASS-PERF 9.program 9.ASS
ikiingira.
i-kiingira
AUG-5.vaccination
Lit: 'In Rwanda there has been started a vaccination program.'

In the example in (69), there seems to be no specific focus on the postverbal subject; focus is rather on the whole utterance. This could be because, as has been argued in the literature (e.g. Mendikoetxea, 2006; Levin & Rappaport-Hovav, 1995), verbs of appearance and existence are 'informationally light' or do not add new information to that given by the preverbal DP. Such verbs can rather serve as a link between the preverbal DP and the postverbal DP (Mendikoetxea, 2006).

The third parallel between semantic locative inversion and formal locative inversion concerns the syntactic properties of the postverbal subject. The syntactic properties of postverbal subjects in formal locative inversion do not basically differ from those of postverbal subjects in semantic

locative inversion. I have discussed such properties in detail in chapter 5. In this chapter, I only provide a few examples for the sake of illustration.

Like in semantic locative inversion, postverbal subjects in formal locative inversion occupy a VP-internal position but they do not exhibit object properties. Consider again (67) above. (70a) shows that in (67), the postverbal subject is inside the VP, because the intervention of material between it and the verb (i.e. the temporal expression *kuwaa mbere* 'on Monday') makes the sentence ungrammatical. However, (70b) shows that VP adjuncts such as *cyaane* 'much', *akeénshi* 'often' can intervene.

- (70) a. *Mu gikoóni haágiiyemó kuwa mbere
 mu ki-koóni ha-á-gi-ye-mó kuwa mbere
 LOC18 7-kitchen 16.SM-REM-go-PERF-LOC18 on Monday
 abakoóbwa.
 a-ba-koóbwa
 AUG-2-girls
 'Girls went in the kitchen on Monday.'
- b. Mu gikoóni haágiiyemó akeénshi abakoóbwa.
 mu ki-koóni ha-á-gi-ye-mó akeénshi a-ba-koóbwa
 LOC18 7-kitchen 16.SM-REM-go-PERF-LOC18 often AUG-2-girls
 'Girls often went in the kitchen on Monday.'

Despite being VP-internal, postverbal subjects do not exhibit object properties. They cannot be object marked, passivized, or extracted:

- (71) a. *Mu gikoóni haábagiyemó.
 mu ki-koóni ha-á-ba-gi-ye-mó
 LOC18 7-kitchen 16.SM-REM-2.OM-go-PERF-LOC18
- b. *Abakoóbwa baágiwemó nó mu gikoóni.
 a-ba-koóbwa ba-á-gi-w-ye-mó nó mu ki-koóni
 AUG-2-girls 2.SM-REM-go-PASS-LOC18 by LOC18 7-kitchen

- c. *abakoóbwa mu gikoóni haágiyemó
 a-ba-koóbwa mu ki-koóni ha-á-gi-ye-mó
 AUG-2-girls LOC18 7-kitchen 16.SM-REM-go-PERF-LOC18

Like in semantic locative inversion, the resulting constructions in (71) are only possible with a nonsensical interpretation in which the locative is the logical subject (i.e. the Theme). Thus (71a) is acceptable if it means 'In the kitchen went into them'; (71b) means 'The girls were gone into by the kitchen' while (71c) means 'the girls into which the kitchen went.'

Notice the contrast between the constructions in (71) and the examples in (72). Like in (71), there is a preverbal locative expression in (72a) and a DP follows the verb. However, unlike in (71), the postverbal DP is a genuine object with a Causer Locative DP. As such, in contrast to the postverbal subject in the case of inversion, the postverbal DP can be object marked, (72b), extracted, (72c), and passivized, (72d), and the locative expression can be expressed as an oblique, like ordinary subjects (see (72d)).

- (72) a. Mu gishaanga hateera ibibázo.
 mu ki-shaanga ha-téer-a i-bi-bázo
 LOC18 7-marsh 16.SM-cause-FV AUG-8-problems
 Lit; 'In a marsh causes problems.'
- b. Mu gishaanga harabíteera.
 mu ki-shaanga ha-ra-bi-téer-a
 LOC18 7-marsh 16.SM-DJ-8.OM-cause-FV
 Lit.: 'In a marsh causes them.'
- c. ibibázo mu gishaanga hateerá
 i-bi-bázo mu ki-shaanga ha-téer-a
 AUG-8-problems LOC18 7-marsh 16.SM-cause-FV
 Lit.: 'problems which in a marsh causes'

- d. Ibibázo biteerwa nó mu gishaanga.
 i-bi-bázo bi-téer-w-a nó mu ki-shaanga
 AUG-8-problems 8.SM-cause-PASS-FV by LOC18 7-march
 Lit.: 'Problems are caused by in a marsh.'

The contrast between the sentences in (71) and (72) confirms that, despite being in a VP-internal position, the preverbal DP_{LocS} in formal locative inversion are not in the object position. The same conclusion was reached regarding the postverbal logical subjects in semantic locative inversion.

6.1.3.2 Formal locative inversion with transitive verbs

It was indicated that like semantic locative inversion, formal locative inversion is possible with transitive verbs. Consider (17), repeated as (73).

- (73) I Buraayi hagurayó imódoká abíishoboye.
 i Buraayi ha-gur-a-yó i-módoká a-ba-íishobor-ye
 LOC19 14.Europe 16.SM-buy-FV-LOC19 AUG-10.cars AUG-2-be.wealthy-PERF
 'It is wealthy people who buy cars from Europe.'

However, some speakers find such constructions marked. Like in semantic locative inversion, formal locative inversion constructions with transitive verbs are improved when the postverbal subject is a heavy NP. Consider again the example in (19), repeated here as (74):

- (74) I Buraayi hagurayó imódoká abaantu
 i Buraayi ha-gur-a-yó i-módoká a-ba-ntu
 LOC19 14.Europe 16.SM-buy-FV-LOC19 AUG-10.cars AUG-2-people
 bafité amafaraanga aháagije.
 ba-fite a-ma-faraanga aháagije
 2.SM-have AUG-6-money enough
 'It is people who have enough money who can buy cars from Europe.'

As was indicated in section 6.1.1.3 in the example (20), repeated here as (75), the order Loc-V-S-O is ungrammatical. With verbs such as *-gura* 'buy', which obligatorily take a direct object, the only acceptable word order is Loc-V-O-S:

- (75) *I Buraayi hagurayó abíishoboye imódoká.
 i Buraayi ha-gur-a-yó a-ba-íishobor-ye i-módoká
 LOC19 14.Europe 16.SM-buy-FV-LOC19 AUG-2-be.wealthy-PERF AUG-10.cars
 'It is wealthy people who buy cars from Europe.'

In contrast to verbs such as *-gura* 'buy', transitive verbs such as *-íiga* 'study', which are sometimes used intransitively, allow two word orders in formal locative inversion: Loc-V-O-S or Loc-V-S-O. Consider again (21), repeated here as (76).

- (76) a. Mw' iishuúri híigiramó abáana
 mu i-shuúri ha-íig-ir-a-mó a-ba-áana
 LOC18 AUG-5.class 16.SM-study-APPL-FV-LOC18 AUG-2-children
 imibaré.
 i-mi-baré
 AUG-4-maths
 'Children study maths in the classroom.'
- b. Mw' iishuúri híigiramó imibaré
 mu i-shuúri ha-íig-ir-a-mó i-mi-baré
 LOC18 AUG-5.class 16.SM-study-APPL-FV-LOC18 AUG-4-maths
 abáana.
 a-ba-áana
 AUG-2-children
 'Children study maths in the classroom.'

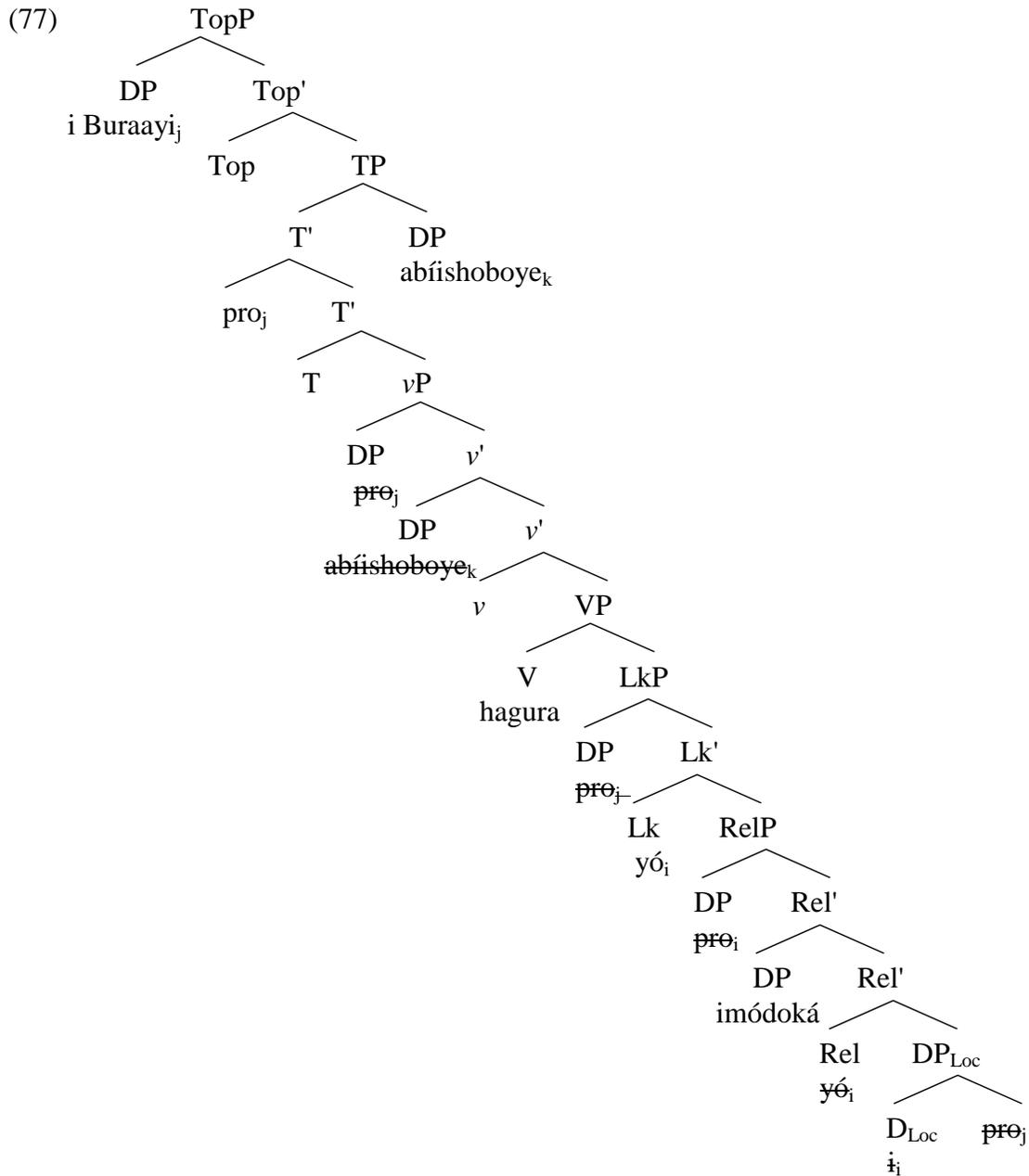
The same patterns were found in semantic locative inversion in chapter 5. Like in formal locative inversion, word order is fixed with those verbs that obligatorily take an object but relaxed with those verbs that can be used intransitively.

I propose that transitive locative inversion comprises two types with different derivations: type 1 includes locative inversion with transitives as in (73) and (76b), and type 2 comprises transitive verbs such as *-úga* 'study', when used intransitively, (76a).

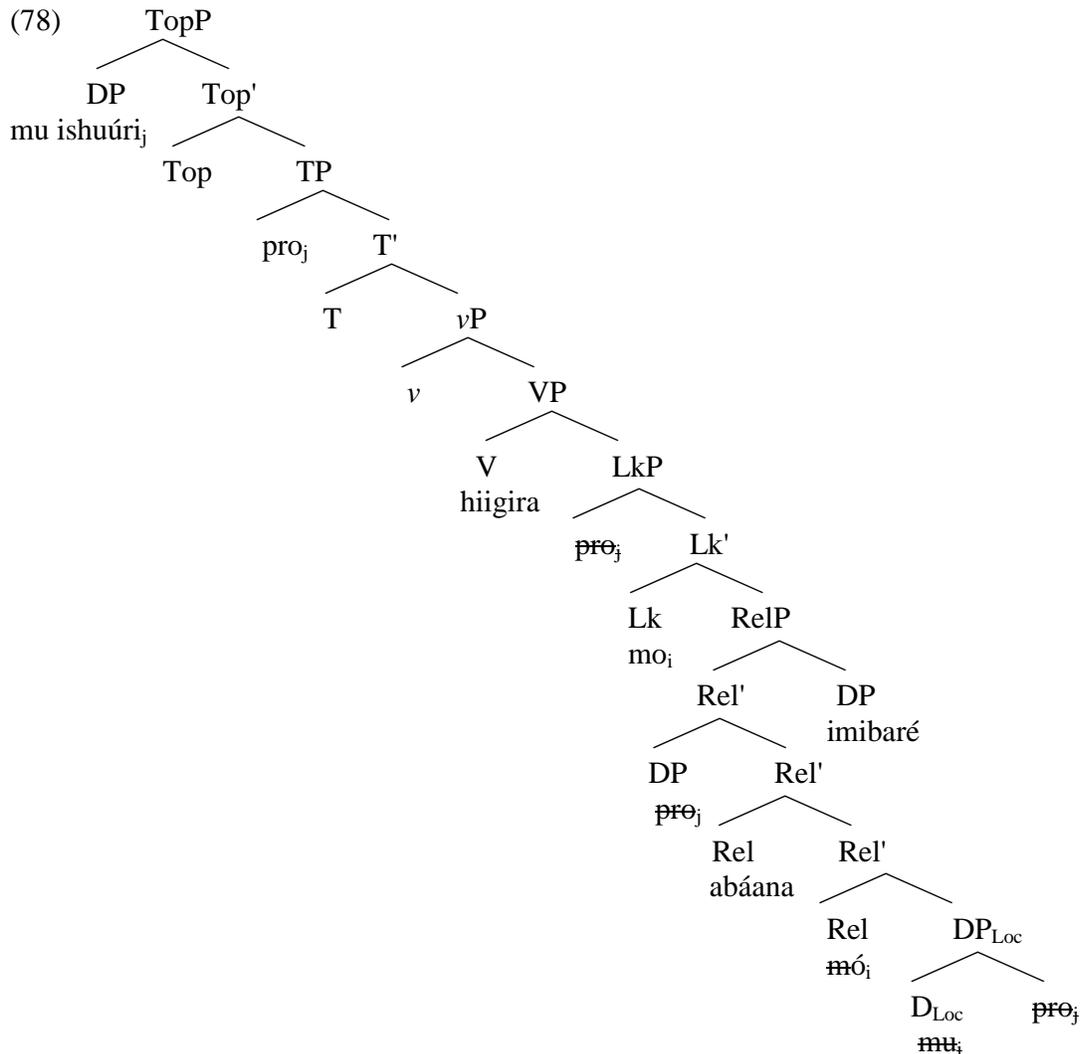
Let us first consider the order Loc-V-O-S shown in (73) and (76b). The derivation of (73) is similar to that of unaccusative constructions discussed in 6.1.1. The Theme *imódoká* 'cars' is the subject of the small clause and *pro* is the complement of the D-head *i-*. After the locative D-head has incorporated into the Relator head, deriving the complex Relator head *-yó*, the Locative *pro* moves to the second specifier of RelP where it becomes visible to external probes. The complex Rel head *-yó* adjoins to the Linker head, hence extending the RelP phase to LkP. The locative *pro*, which is in the second specifier of RelP and hence closer to Lk (according to the MLC) then moves to SpecLk. Now, the problem is that Spec ν is occupied by the Agent, which should block the locative *pro* from being attracted to SpecT. However, as was suggested in chapter 5, I assume, following Culicover & Levine (2001), that inversion constructions with the word order Loc-V-O-S are cases of heavy NP-shift. In inversion constructions with "heavy" subjects, the Agent is extraposed to the right. When the DP is extraposed, its copy in Spec ν is not phonologically realized. Therefore, I will assume, as was argued in chapter 5, that a subject DP which has undergone heavy NP shift does not block agreement between another constituent from a lower position and a higher probe. Furthermore, as was also discussed in chapter 5, the projection of the Agent in Spec ν means that ν P is a (strong) phase. Therefore, the locative *pro* can only be accessible to probing by T and escape from the ν P phase via a second specifier of ν . The locative *pro* can hence move to a second Spec ν above the subject from where it can agree with T and move to SpecT, but on one condition: as was argued for LkP, the lower specifier of ν must not be phonetically realized. Furthermore, the element in the second specifier should not stay so as not to violate the Heavy Edge Constraint introduced in chapter 4, according to which the edge is heavy if there is more than one specifier of which at least one is pronounced. Therefore, in transitive constructions with a full Agent DP, extraposition of the Agent via Heavy NP-shift is necessary in order to license formal locative inversion: only when the subject is extraposed can the locative *pro* in the second specifier of ν be attracted to SpecT, since then the copy of the Agent in the first specifier is not pronounced. The Heavy Edge Constraint is obeyed,

since both the Agent and the Locative DP evacuate the specifiers by the time the next phase (CP) is completed.

Once the locative *pro* is in SpecT, a Topic phrase is projected, and the Locative expression *i Buraaya* 'in Europe' is merged in its specifier. The syntactic representation of (73) looks as follows:



Now, I turn to the constructions in (76a) in which the Theme follows the Locative DP. As argued in chapter 5, I assume that these are cases of unergative verbs appearing in unaccusative constructions with an Agent merged as the subject of a small clause, and an optional Theme realized as an adjunct. In other words, I assume that in this type of construction, the verb is used intransitively. The logical subject is merged in SpecRel as the subject of the small clause and the locative *pro* is the complement of the locative D-head. As the derivation proceeds, *pro* ends up in the subject position to which it has moved successive-cyclically via SpecRel and SpecLk, as in the case of the constructions discussed above. With *pro* in SpecT, TopP is projected whose specifier is occupied by the locative expression *mu ishuúri* 'in the class'. Because the Theme is an adjunct, as was argued for similar constructions with semantic locative inversion, I assume that it is adjoined to the right, specifically to RelP. The syntactic representation of (76a) is as follows:



As an adjunct, the Theme can be dropped without affecting the grammaticality of the sentence. This also explains why in formal locative inversion with verbs that require an object, such as *gura* 'buy', only one word order is possible: Loc-V-O-S. In such cases, the object is not an adjunct, so it cannot be adjoined to the right.

To conclude this section, in formal locative inversion with a clitic on the verb, the locative expression is a topic base-generated in the left periphery, the logical subject is expressed post-verbally, and SpecT is occupied by a locative pro that originates inside the complement of the small clause head. The subject marker *ha-* agrees with the locative pro in SpecT; in these constructions, *ha-* is not an expletive marker, which is why a locative interpretation is also available in the absence of a preverbal locative topic (DP_{Loc}).

In the following section, I return to the second type of formal locative inversion in which no clitic attaches to the verb.

6.2 Formal locative inversion without a clitic

As indicated in the introduction, the formal locative inversion construction, which we have discussed in the previous section, has a corresponding construction without a clitic. Compare (79a) and (79b).

- (79) a. Mu muhaánda hahagazemó Yohaáni.
 mu mu-haánda ha-hágarar-ye-mó Yohaáni
 LOC18 3-road 16.SM-stand-PERF-LOC18 1.John
 'It is John who is standing in the road.'
- b. Mu muhaánda hahagaze Yohaáni.
 mu mu-haánda ha-hágarar-ye Yohaáni
 LOC18 3-road 16.SM-stand-PERF 1.John
 'It is John who is standing in the road.'

Basically, the meaning of (79a) and (79b) is the same as can be seen in the translations. However, in some cases the locative meaning of (79b) is dependent on the presence of the

locative expression in the preverbal position. In (79a), if the preverbal locative expression is dropped, the locative meaning is maintained, but in (79b) the dropping of the preverbal locative expression gives rise to two interpretations: a locative and non-locative (expletive) interpretation.

- (80) a. Hahagazemó Yohaáni.
 ha-hágarar-ye-mó Yohaáni
 16.SM-stand-PERF-LOC18 1.John
 'It is John who is standing there.'
- b. Hahagaze Yohaáni.
 ha-hágarar-ye Yohaáni
 16.SM-stand-PERF 1.John
 'It is John who is standing (there).'

The sentence in (80a) has one interpretation, namely that 'It is John who is standing *there*'. (80b) can mean the same as (80a) but it can also mean 'It is John who is standing', without any reference to a location. I will return to constructions like (80a) and (80b) in section 6.2.3 where I discuss the so-called locative 'inversion' without the preverbal locative expression. In section 6.2.1, I discuss the argument structure of verbs that license formal locative inversion without the clitic. In section 6.2.2, I provide the analysis before returning to locative inversion without the preverbal DP_{LocS} in section 6.2.3.

6.2.1 Formal locative inversion without a clitic, and argument structure

Verbs that license formal locative inversion without a clitic have the same argument structure as those that license formal locative inversion with a clitic. This type of inversion is also possible with unaccusative (81), unergative (82), and transitive (83) verbs.

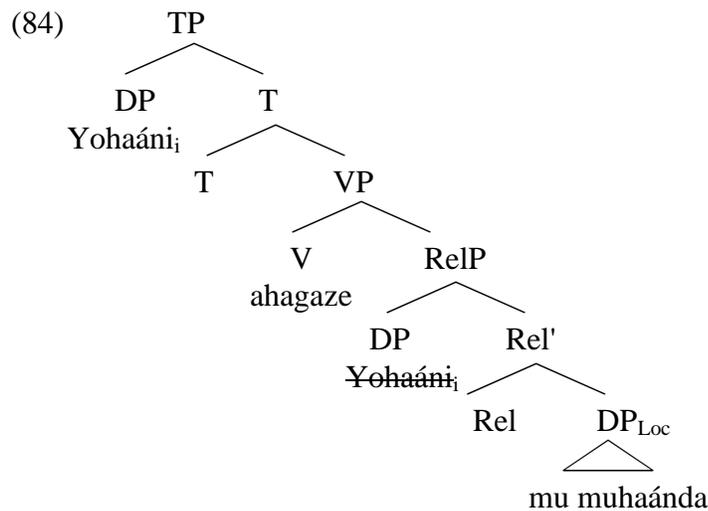
- (81) a. Yohaáni ahagaze mu muhánda.
 Yohaáni a-hágarar-ye mu mu-haánda
 1.John 1.SM-stand-PERF LOC18 3-road
 'John is standing in the road.'

- b. Mu muhaánda hahagaze Yohaáni.
mu mu-haánda ha-hágarar-ye Johaani
LOC18 3-road 16.SM-stand-PERF 1.John
'It is John who is standing in the road.'
- (82) a. Abasíinzi barwaanira mu kabari.
a-ba-síinzi ba-rwaan-ir-a mu ka-bari
AUG-2-drunkards 2.SM-fight-APPL-FV LOC18 7-pub
'Drunkards fight in the pub.'
- b. Mu kabari harwaanira abasíinzi.
mu ka-bari ha-rwaan-ir-a a-ba-síinzi
LOC18 7-pub 16.SM-fight-APPL-FV AUG-2-drunkards
Lit: 'It is drunkards who fight in the pub.'
- (83) a. Abíishoboye bagura imódoká I Buraayi.
a-ba-íishobor-ye ba-gur-a i-módoká i Buraayi
AUG-2-be.wealthy-PERF 2.SM-buy-FV AUG-10.cars LOC19 14.Buraayi
'Wealthy people buy cars in Europe.'
- b. I Buraayi hagura imódoká abíishoboye.
i Buraayi ha-gur-a i-módoká a-ba-íishobor-ye
LOC19 14.Buraayi 16.SM-buy-FV AUG-10.cars AUG-2-be.wealthy-PERF
'It is wealthy people who buy cars in Europe.'

6.2.2 Analysis: Formal locative inversion without a clitic is a case of A-bar movement

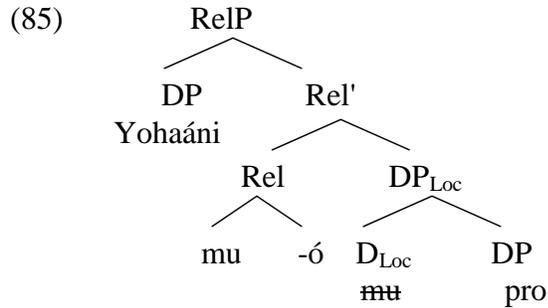
The constructions we examined in section 6.1.1 all contain a referential locative pro that originates in the complement of the small clause, and the clitic on the verb results from incorporation of the head of the complement of the Rel. In contrast, I argue that constructions without a clitic (like (81b) above) involve A-bar movement of the DP_{Loc} from the complement of the Relator, through SpecRel, the edge of the RelP to SpecTop in the left periphery. SpecT in these constructions is filled with an expletive.

I propose that in (81b), the verb selects a small clause like in other cases of locative inversion. Recall that there are two possible realizations of the Relator head. When it is the pronominal *-ó*, it selects a "big DP_{Loc} "-complement whose head incorporates into Rel, giving rise to the clitic. However, Rel can also be phonetically null, and select an "ordinary" locative expression as its complement where the locative marker selects an NP. As was argued in chapter 4, in these constructions, no movement out of Rel's complement is required. The syntactic representation of (81a) looks as follows (*vP* omitted):



Notice that the Rel selects the Locative DP *mu muhahaánda* 'in the road', and the head is null.

I now suggest that the syntax of locative inversion constructions in which no clitic appears is identical to (84). In this respect, the syntax of (81) is minimally different from the corresponding formal locative inversion construction with a clitic. In the latter construction, the Relator head selects a DP_{Loc} , whose head (the locative marker) selects a locative pro, and incorporation of D_{Loc} into the Relator head produces the clitic. Compare the Relator phrase in (84) and (85). (The structure in (85) represents the basis for formal locative inversion with a clitic):

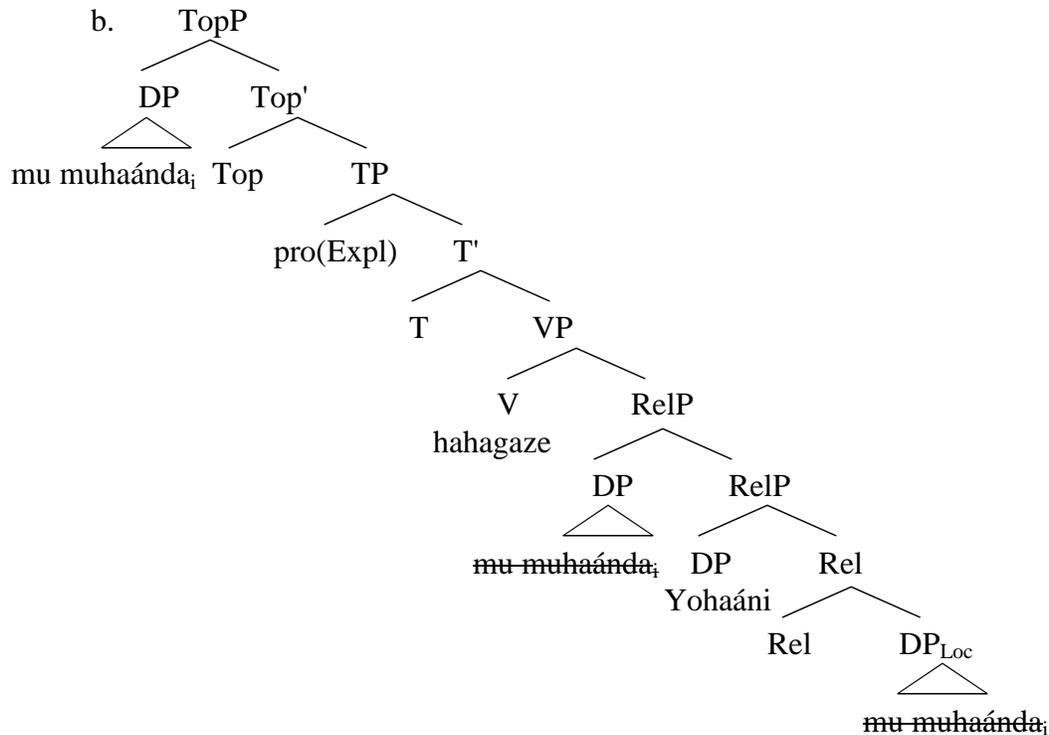


Unlike in (85), there is no "big DP_{Loc}" in (81b). As we saw in chapter 4, the "big DP_{Loc}" is only associated with the pronominal Rel -ó, an instance where the Locative DP must move to SpecLk. I propose that the derivation of the sentence in (81b) starts as (84), but its derivation is similar to the one proposed by Diercks (2011) for Lubukusu. According to Diercks, the type of locative inversion he calls disjoint agreement locative inversion is derived by A-bar movement of the locative expression from the postverbal position to SpecTop.⁵⁸

However, because the DP_{Loc} *mu muhaánda* is the complement of the Relator, which is a phase, it is not eligible for movement out of the Relator phase. In this regard, a mechanism is required to move the Locative DP out of the phase so that it becomes visible to an external probing head. I propose that it moves to the edge of the phase, the second SepcRel, like in the case discussed above, where it becomes visible. VP (ignoring *v*) merges with T and an expletive is inserted in SpecT. When Topic merges with T, the locative expression is attracted to SpecTop and (81b) is derived. The syntactic representation of (81b), repeated here as (86a), is shown in (86b).

- (86) a. Mu muhaánda hahagaze Yohaáni.
 mu mu-haánda ha-hágarar-ye Yohaáni
 LOC18 3-road 16.SM-stand-PERF 1.John
 'It is John who is standing in the road.'

⁵⁸ The difference between Lubukusu and Kinyarwanda is that while SpecT is occupied by a subject in Lubukusu with the Locative DP in SpecTop, SpecT is occupied by an expletive in Kinyarwanda, as I will argue below.



Note that the agreement morpheme *ha-* is not a locative marker in this case, but an expletive agreement marker (see chapter 2, section 2.7.2.1).

One may wonder why T agrees "upward" with the expletive in SpecT in constructions such as (86), rather than "downward" with the Theme DP inside RelP. But note that expletive agreement in Kinyarwanda is consistent with the setting of Baker's (2008b) agreement parameter for Bantu. Baker demonstrates that while downward agreement is typically attested in Indo-European languages, such is not the case in Bantu languages. In most Bantu languages, agreement is upward. According to Baker, the agreement parameter is set for Bantu languages as follows (Baker, 2008b: 155).

(87) *The Direction of Agreement Parameter*

F agrees with DP/NP only if DP/NP asymmetrically c-commands F.

The parameter implies that T can only agree with a DP that c-commands it. The example in (86) is a clear illustration of this parameter. The DP *Yohaáni* remains inside VP, so it cannot agree

with T because it does not c-command it. The only DP that c-commands T is the expletive pro in SpecT, and consequently, we get expletive agreement in (86).

This analysis proposed in (86) can account for all the different positions in which the locative expression can appear in formal locative inversion without a clitic. Indeed when no clitic attaches to the verb, the order is relaxed (88).

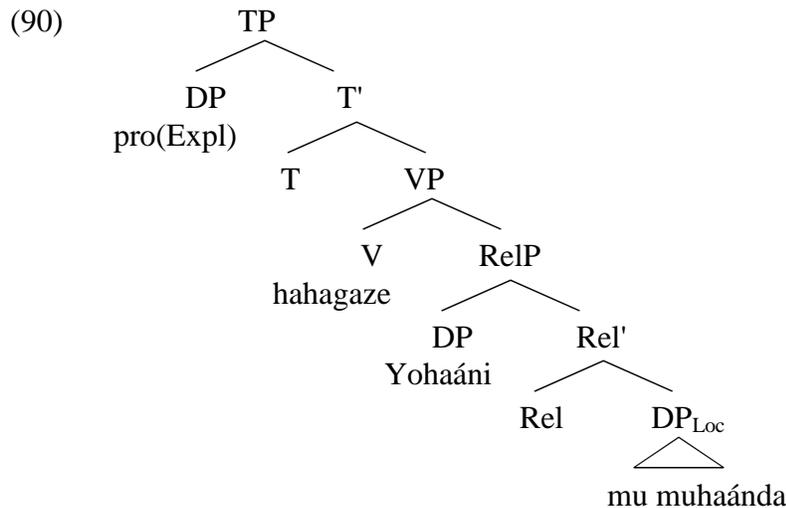
- (88) a (Mu muhaánda) hahagaze Yohaáni.
 mu mu-haánda ha-hágarar-ye Yohaáni
 LOC18 3-road 16.SM-stand-PERF 1.John
 'It is John who is standing (in the road).'
- b. ?Hahagaze Yohaáni (mu muhaánda).
 ha-hágarar-ye Yohaáni mu mu-haánda
 16.SM-stand-PERF 1.John LOC18 3-road
 'It is John who is standing in the road.'
- c. Hahagaze (mu muhaánda) Yohaáni.
 ha-hágarar-ye mu mu-haánda Yohaáni
 16.SM-stand-PERF LOC18 3-road 1.John
 'It is John who is standing in the road.'

This is in contrast with formal locative inversion with a clitic in which only one word order is allowed, namely Loc-V-S, as is shown below:

- (89) a (Mu muhaánda) hahagazemó Yohaáni.
 mu mu-haánda ha-hágarar-ye-mó Yohaáni
 LOC18 3-road 16.SM-stand-PERF-LOC18 1.John
 'It is John who is standing in the road.'
- b. Hahagazemó Yohaáni (*mu muhaánda).
 ha-hágarar-ye-mó Yohaáni mu mu-haánda
 16.SM-stand-PERF-LOC18 1.John LOC18 3-road
 'It is John who is standing in the road.'

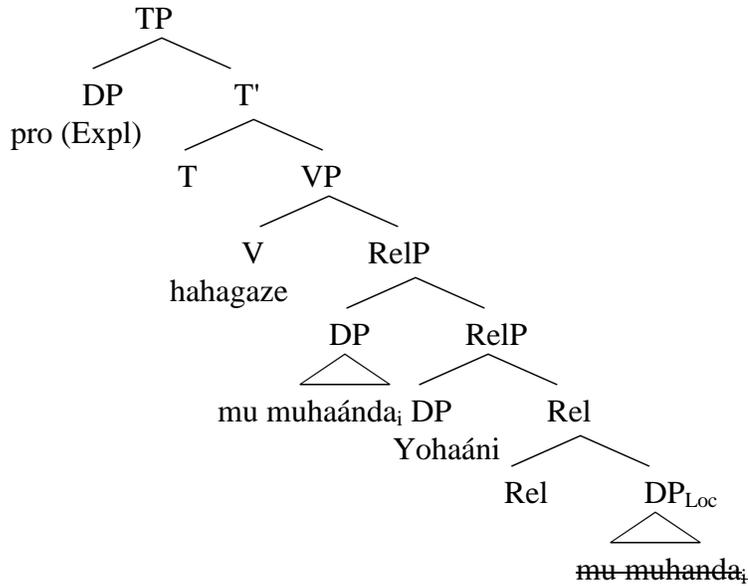
- c. Hahagazemó (*mu muhaánda) Yohaáni.
 ha-hágarar-ye-mó mu mu-haánda Yohaáni
 16.SM-stand-PERF-LOC18 LOC18 3-road 1.John
 'It is John who is standing in the road.'

The order is fixed in (89) (i.e. Loc-V-S) because the locative expression is base-generated in topic position and must bind a locative pro in SpecT (recall that the subject marker *ha-* expresses agreement with this pro subject, not expletive agreement). In contrast, in (88), more word orders are permitted. We have seen that in (88a), repeated from (81), the Locative expression is projected in a postverbal position and undergoes A-bar movement from the small clause through SpecRel to SpecTop. This means that (88b) (with the order V-S-Loc), although marked, serves as an input for (88a). In (88b), both the DP_{Loc} and the Theme remain *in situ*; an expletive is merged in SpecT, and agrees with the verb with the expletive marker *ha-*. This is shown in (90):



Similarly, (88c) starts as (88b). The DP_{Loc} moves from the complement position to the second specifier of Rel, but, unlike in (88a), it remains there. An expletive is merged in SpecT and the derivation converges.

(91)



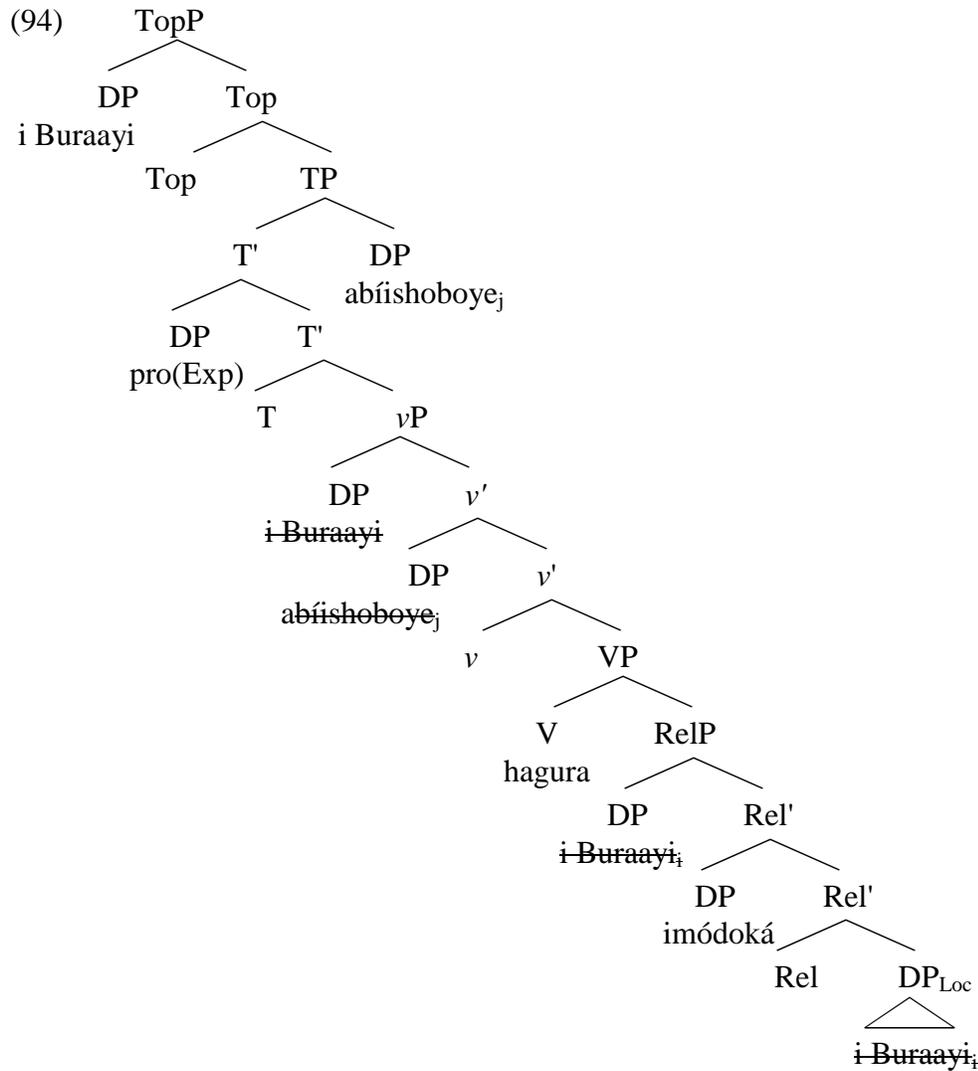
Now, I turn to formal locative inversion with transitive verbs without a clitic, like (92) below.

- (92) I Buraayi hagura imódoká abíshoboye.
 i Buraayi ha-gur-a i-módoká a-ba-íishobor-ye
 LOC19 14.Buraayi 16.SM-buy-FV AUG-10.cars AUG-2-be.wealthy-PERF
 'It is wealthy people who buy cars in Europe.'

We have seen above that locative inversion with transitives is slightly marked with a simple subject and that the construction improves with a heavy NP. The same applies to Locative inversion without a clitic. Thus, (93) below sounds better than (92).

- (93) I Buraayi hagura imódoká abaantu
 i Buraayi ha-gur-a i-módoká a-ba-ntu
 LOC19 14.Europe 16.SM-buy-FV AUG-10.cars AUG-2-people
 bafité amafaraanga aháagije.
 ba-fite a-ma-faraanga aháagije
 2.sm-have aug-6-money enough
 'It is people who have enough money who buy cars in Europe.'

I will assume here again that inversion with a transitive verb is a case of a heavy NP shift, in which the Agent has been extraposed to the right. As a locative construction, (92) is derived as follows. Little ν selects VP which, in turn, selects the Relator Phrase. Instead of selecting a "big DP_{Loc} ", Relator takes a locative expression (Locative D+NP) as its complement. Like in the case of intransitives discussed above, the DP_{Loc} escapes the Rel phase through the second specifier on top of the Theme. However, since νP is a phase, the DP_{Loc} can escape the phase before it is completed by moving to the edge of the phase (the second $Spec_{\nu}$) according to the PIC, where it is visible to external probes. From there it can be attracted to $SpecTop$. However, this DP_{Loc} movement to $SpecTop$ is permitted only if the subject is not pronounced on the edge of νP phase, according to the HEC. Therefore the heavy NP-shift is necessary for movement of the locative topic to $SpecTop$. Since the Agent has been extraposed, an expletive *pro* merges in $SpecT$. Thus with the locative expression in $SpecTop$ and an expletive *pro* in $SpecT$, the sentence in (92) is derived.



As with intransitive verbs, there is evidence that the transitive formal locative inversion in (92) is derived by movement of the Locative DP. This can be seen in the difference between formal locative inversion with a clitic and formal locative inversion without a clitic in terms of word order. In formal locative inversion with a clitic, the only possible word order is Loc-V-O-S (see the ungrammatical example in (95a)), but in formal locative inversion without a clitic, it is possible to have the locative between the verb and the Theme, and derive the word order S-V-Loc-O (although this construction is only marginally acceptable).

- (95) a. *Abíishoboye bagurayó i Buraayi imódoká.
a-ba-íishobor-ye ba-gur-a-yó i Buraayi i-módoká
AUG-2-be.wealthy-PERF 2.SM-buy-FV-LOC19 LOC19 14.Buraayi AUG-10.cars
Intended: 'It is wealthy people who buy cars in Europe.'
- b. ?Abíishoboye bagura i Buraayi imódoká.
a-ba-íishobor-ye ba-gur-a i Buraayi i-módoká
AUG-2-be.wealthy-PERF 2.SM-buy-FV LOC19 14.Buraayi AUG-10.cars
'It is wealthy people who buy cars in Europe.'

In (95b), the locative expression has moved to the second specifier of the Relator phase and remained there, but this is not possible in (95a). In (95a), the Locative DP is not licensed in a postverbal position; we have seen that it is base-generated in SpecTop and only the locative pro moves to T through SpecRel and SpecLk.

6.2.3 Locative "inversion" without the preverbal locative expression

In section 6.1.2.5, we saw that when the locative expression is omitted in a formal locative inversion construction with the clitic, the locative reading is maintained. This follows from my analysis according to which SpecT is still occupied with a locative pro in these constructions. However, if there is no clitic, and the locative is omitted, two interpretations are possible: an “expletive” (non-locative) or a locative interpretation. Consider again the following examples. In (96), the verb bears the locative clitic, and in (97) there is no clitic.

- (96) Mu muhaánda hahagazemó Yohaáni.
mu mu-haánda ha-hágarar-ye-mó Yohaáni
LOC18 3-road 16.SM-stand-PERF-LOC18 1.John
'It is John who is standing in the road.'

- (97) Mu muhaánda hahagaze Yohaáni.
mu mu-haánda ha-hágarar-ye Yohaáni
LOC18 3-road 16.SM-stand-PERF 1.John
'It is John who is standing in the road.'

If the locative expression is omitted in (96a) as in (98), the locative meaning is maintained. I have added the locative proform *there* to show that the sentence has a locative interpretation.

- (98) Hahagazemó Yohaáni.
 ha-hágarar-ye-mó Yohaáni
 16.SM-stand-PERF-LOC18 1.John
 'It is John who is standing there.'

In contrast, in (97), the dropping of the locative expression *mu muhaánda* gives rise to two interpretations, as can be seen in the translations in (99):

- (99) Hahagaze Yohaáni.
 ha-hágarar-ye Yohaáni
 16.SM-stand-PERF 1.John
 'It is John who is standing.'
 'It is John who is standing there.'

What (99) means is that there is one construction in which there is a locative pro, and another one in which there isn't. In other words, (99) is syntactically ambiguous, with each of its two interpretations represented by a different structure.

Before I proceed to the derivation of (99), I wish to stress here that such constructions are very productive in Kinyarwanda. Consider the following examples in which no location is entailed:

- (100) Habaaye impanuka.
 ha-a-bá-ye i-n-hanuka
 16.SM-PST-be-PERF AUG-9-accident
 'There has been an accident.'

- (101) Haakomeretse abaantu babiri.
 ha-a-kómerek-ye a-ba-ntu ba-biri
 16.SM-PST-be.injured-PERF AUG-2-people 2-two
 'Two people have been injured.'

In (100) and (101), the subject marker can only agree with an expletive. These sentences are typical examples of constructions that convey presentational focus. The meaning of (100) is that an accident took place, but where this happened does not matter. This is also true for (101). In this sentence, there is focus on the whole utterance or on the postverbal subjects, and it does not matter where the action took place.

Similarly, there are many names in Kinyarwanda that have the structure in (99), i.e. with the word order verb-subject. The verb bears the agreement marker *ha-*, but no location is entailed. In such cases, *ha-* marks an expletive agreement. This is illustrated by the following proper name of a person:

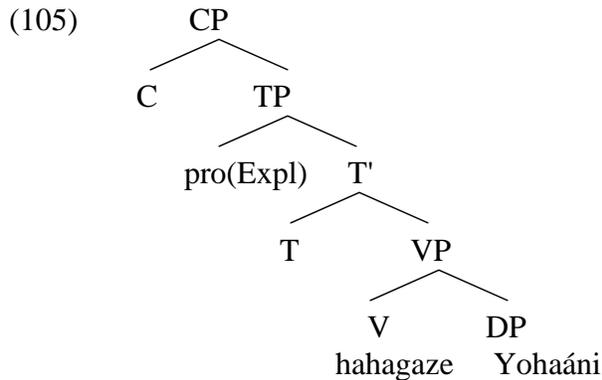
- (102) Hakuzimáana.
 ha-kúr-y-a-Imáana
 16.SM-grow.up-CAUS-FV-God
 'It is God who makes grow up.'
 Meaning: 'People live and grow up thanks to the will of God.'

Also, recall that weather condition verbs bear the expletive agreement marker as in the following example:

- (103) Harakóonje.
 ha-ra-kóonj-ye
 16.SM-DJ-be.cold-PERF
 'It is cold.'

- (104) Harashyúushye.
 ha-ra-shyúuh-ye
 16.SM-DJ-be.hot-PERF
 'It is hot.'

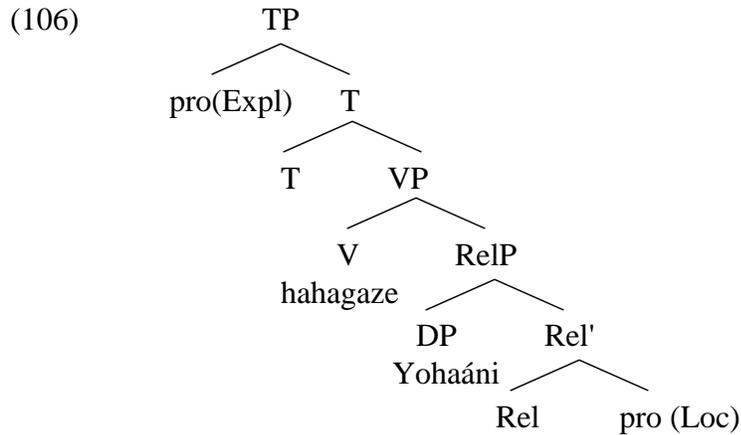
Let us now see how (99) is derived as a non-locative (expletive) construction. Unlike in the constructions discussed so far, the verb does not select a small clause in such constructions. As a typical unaccusative construction, the logical subject, the Theme *Yohaáni*, is the object of the verb *-hágarara* 'stand', and there is no external argument. When VP merges with T, the Theme *Yohaáni* can remain inside the VP instead of moving to SpecT, in which case an expletive pro must be merged in SpecT, triggering the subject marker *ha-* on the verb. In contrast to the locative constructions with a clitic, in which a locative pro was argued to have moved to SpecT, *ha-* in this case is not a locative marker, but an expletive marker:



Now, I proceed to the analysis of (99) as a construction with a locative interpretation, which corresponds to the translation 'It's John who is standing *there*.' I propose that the locative interpretation comes about when locative pro is the complement of Rel. Normally, Rel takes a DP_{Loc} as its complement in a sentence like *Yohaáni ahagaze mu muhaánda* 'John stands in the road'. I now assume that the DP_{Loc}-Complement of Rel does not have to be an overt locative

expression, but can also be the null D_{Loc} . This is what we have in (99).⁵⁹ The derivation is as follows.

Rel does not select DP_{Loc} and no incorporation takes place. Like the complement of Rel in *Yohaáni ahagaze mu muhaánda*, locative pro remains in situ. The Theme also remains inside the small clause (Relator phrase). SpecT is filled with an expletive, and *ha-* marks expletive agreement:



There is further evidence that the construction in (99) has a locative interpretation. In Kinyarwanda, there are at least two instances where *only* the locative meaning is available in constructions similar to (99) where no locative expression is fronted.

The first instance is when the semantics of the verb requires that it takes a locative complement. Such a case is illustrated by the verb *-gera* 'arrive'. Let us examine the behavior of the verb *-gera* when the fronted locative expression is dropped:

- (107) a. Mu mugí haageze abajuura.
 mu mu-gí ha-a-ger-ye a-ba-juura
 LOC18 3-town 16.SM-PST-arrive-PERFAUG-2-thieves
 'Thieves have arrived in town.'
- b. Haageze abajuura.
 ha-a-ger-ye a-ba-juura

⁵⁹ The same holds for the DP_{Loc} -complement of the D_{Loc} in locative shift and semantic locative inversion; it can be a full DP, but it can also be a pro.

16.SM-PST-arrive-PERF AUG-2-thieves

'There have arrived thieves (there).'

In (107b), there is no locative clitic and no preverbal locative expression, but the locative meaning is the only one available, i.e. a non-locative (mere expletive) interpretation is not possible. (I have again added the locative pro-form *there* to show that only the locative meaning/reference is available). This locative interpretation can be explained in terms of the selectional properties of this verb. A mere expletive interpretation is not available, because the verb *-gera* 'arrive' takes a small clause which *must* have a locative expression as its predicate. This verb is different from verbs such as *-za* 'come' and *-hágarara* 'stand'. While the verbs *-za* and *-hágarara* can select only a Theme as their object (without a locative expression), the verb *-gera* does not take a Theme as its sole complement; a locative expression is always required. The contrast between the two verbs is shown in (108) and (109):

(108) *Abajuura baageze.
 a-ba-juura ba-a-ger-ye
 AUG-2-thieves 2.SM-PST-arrive-PERF
 Intended: 'Thieves have arrived.'

(109) Abajuura baaje.
 a-ba-juura ba-a-z-ye
 AUG-2-thieves 2.SM-PST-come-PERF
 'Thieves have come.'

The example in (108) is ungrammatical because a locative expression is missing. In contrast to verbs such as *-za* 'come', the verb *-gera* 'arrive' *requires* a locative expression, meaning that if no overt locative expression is expressed in (107b), there must be a locative pro. This explains why a locative reading is the only one available with the verb *-gera* 'arrive' and similar verbs (e.g. *-va* 'leave', *-nyúra* 'pass', *-túruka* 'come from', *-kómooka* 'originate') even when no preverbal locative expression is present. In contrast, verbs such as *-za*, 'come' do not require a locative expression. Therefore, examples such as (99) can have both a locative and an expletive interpretation,

without a reference to a location. This latter interpretation is the result of a syntax which does not include a small clause whose Rel-head selects a locative complement. Since the small clause is obligatory with the verb *-gera*, an expletive interpretation is not available in (107b).

A second instance where only a locative interpretation is available when no locative expression is overtly expressed is when the applicative is used. Consider (110) below:

- (110) a. Ku rubárazá hazaakorera abakené.
 ku ru-bárazá ha-za-kór-ir-a a-ba-kené
 LOC17 11.SM-veranda 16.SM-FUT-work-APPL-FV AUG-2-poor.people
 'Poor people will work at the veranda.'
 'It is poor people who will work at the veranda.'
- b. Hazaakorera abakené.
 ha-za-kór-ir-a a-ba-kené
 16.SM-FUT-work-APPL-FV AUG-2-poor.people
 'Poor people will work there /It is poor people who will work there.'

The sentence in (110b) has only a locative interpretation, i.e. the locative pro-form *there* must be understood. Like in the case where a clitic attaches to the verb, the locative reading is present even if (110b) is uttered out of context. This means that the pro-DP is a complement of Rel, which is not the case when no locative interpretation is available. (110b) in fact provides evidence for a claim I made in earlier parts of this thesis (see for example chapter 5 and this chapter, section 6.1.1.), namely that the applicative makes the projection of RelP obligatory. Notice that it is only when the applicative is dropped in a construction like (110b) that an expletive interpretation without reference to a location becomes available again.

- (111) Hazaakora abakené.
 ha-za-kór-a a-ba-kené
 16.SM-FUT-work-FV AUG-2-poor.people
 'It is poor people who will work.'

In short, in the case of verbs such as *-gera* 'arrive', Rel must be projected with a locative predicate, which can be a full locative expression or pro. In contrast, in constructions such as (99) with the verb *-hagarara* 'stand', two options are available. The Relator is projected if there is a locative pro, and it is not projected when the sentence has only an expletive interpretation, with no locative argument.

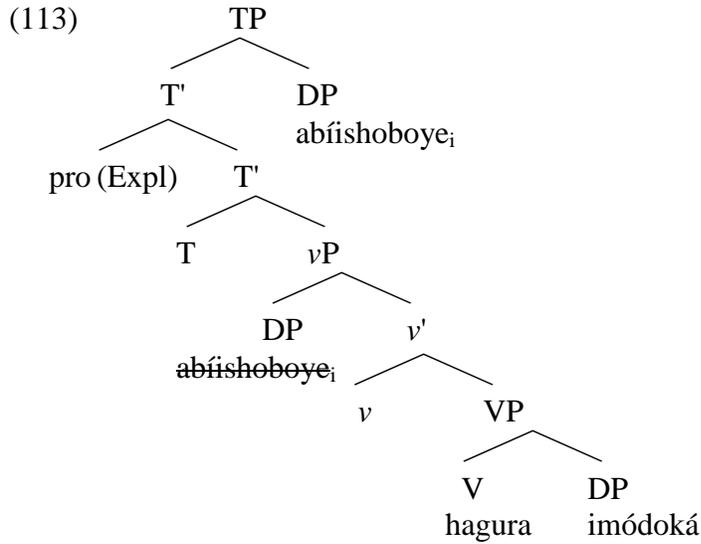
Now, I turn to transitive constructions illustrated by (112) below.

- (112) Hagura imódoká abíishoboye.
 ha-gur-a i-módoká a-ba-íishobor-ye
 16.SM-buy-FV AUG-10.cars AUG-2-be.wealthy-PERF
 'It is wealthy people who buy cars.'

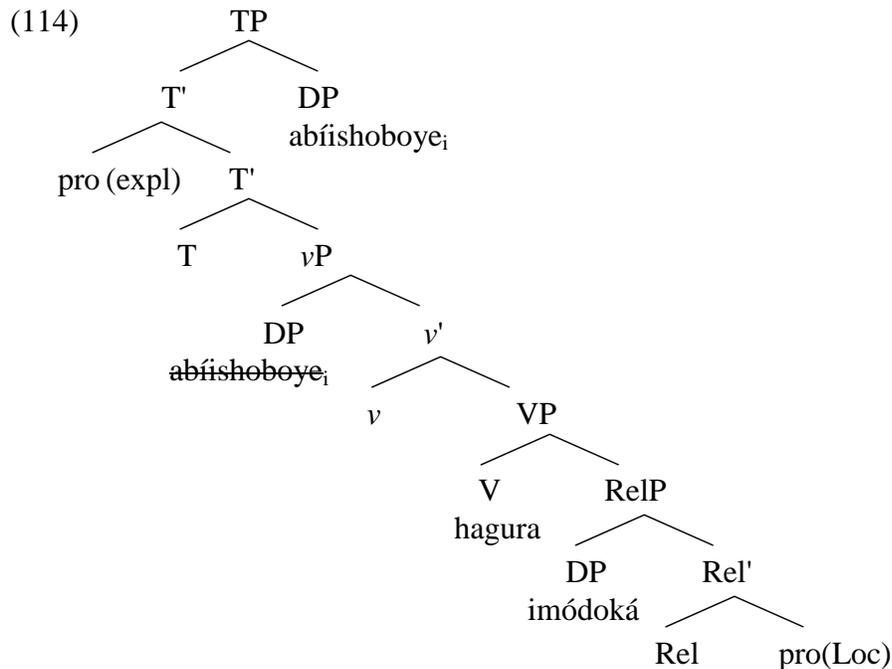
Sentences like (112) are generally expletive constructions without reference to a location, especially when uttered out of context. However, they may also have a locative interpretation.

Let us first see how (112) is derived as a transitive expletive construction without reference to a location.

Since (112) is not a locative construction, no Relator phrase is projected and no incorporation takes place. Being a transitive verb, the verb *-gura* 'buy' selects the Theme *imódoká* 'cars' as its object. When the VP merges with little *v*, the Agent *abíishoboye* 'wealthy people' occupies its specifier. However, as we noted earlier, such constructions are cases of heavy NP shift; so, the subject is extraposed (adjoined to T) and an expletive is merged in SpecT, deriving (112). The subject marker *ha-* that appears on the verb agrees with expletive pro in SpecT.



In the case where (112) has a locative interpretation, Rel is projected with locative pro as its complement. The derivation is the same as that of locative inversion without a clitic except that no locative expression is fronted. The Theme is in SpecRel while pro is the complement of Rel. No movement out of RelP takes place. The Agentive subject is extraposed while an expletive is merged in SpecT, triggering the expletive agreement marker on the verb. The syntactic representation looks as follows:



To conclude this section, I wish to stress that the subject marker *ha-* has a dual function. It can be an expletive marker or a locative marker. It is a locative marker when it agrees with a locative *pro* in the subject position bound by a locative expression. It is an expletive marker in the absence of such a *pro* in SpecT. Such is the case when the respective sentence is a mere expletive construction without any reference to a location or when the locative interpretation of the sentence comes from *pro* projected as the complement of the Rel.

It is also worth stressing here that although Kinyarwanda does not have subject markers corresponding to each locative class, locative constructions without a preposed locative expression are not always expletive without a locative interpretation. The different contexts in which the locative meaning is maintained have been described in detail in this section.

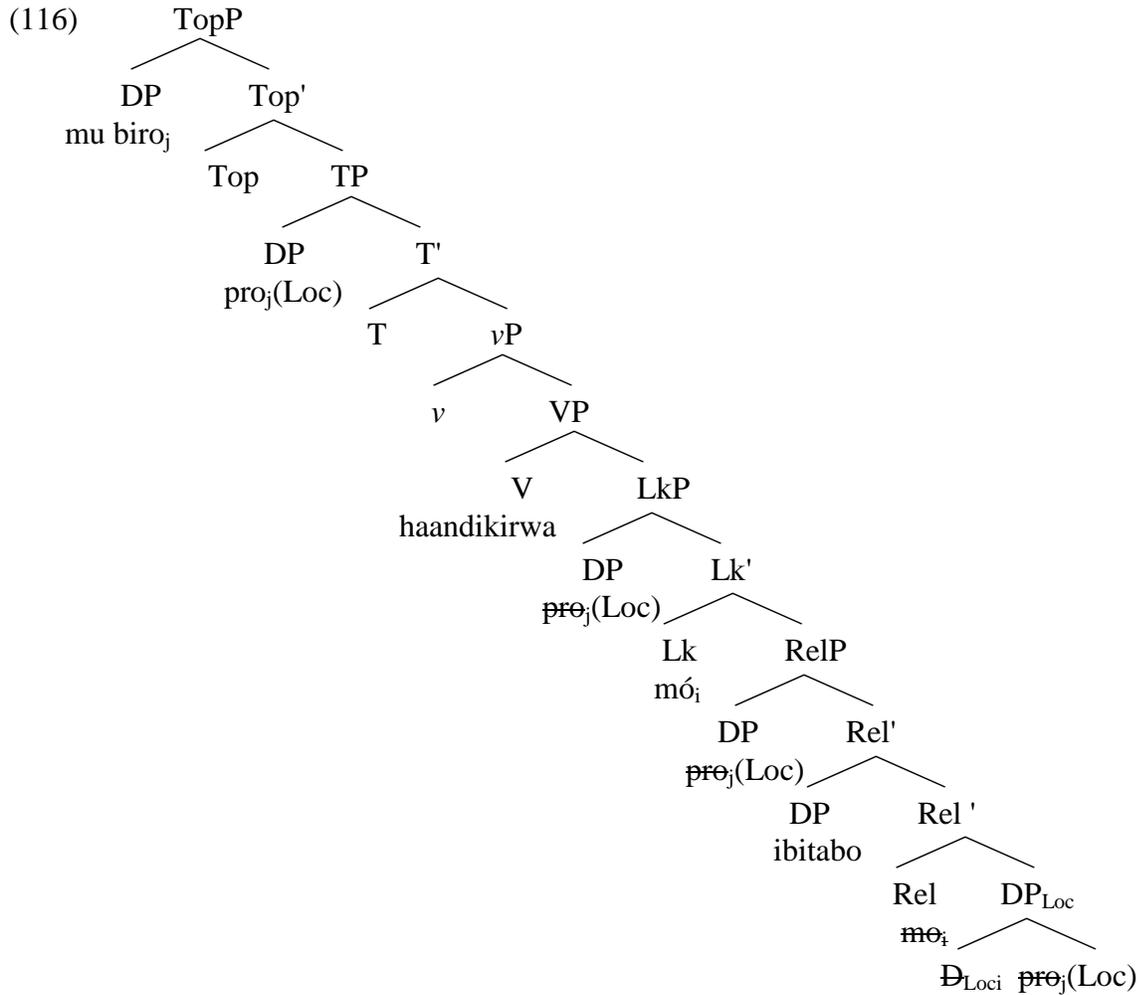
6.7 Other forms of formal locative inversion: passivization and stativization

6.7.1 Formal locative inversion and passivization

In chapter 5, it was shown that the verb can be passivized in semantic locative inversion. For example, once the agentive subject theta-role of a transitive verb has been absorbed, the Locative DP moves from the Relator phrase to subject position and the Theme remains in situ. In unaccusatives and unergatives, the Theme or the Agent is absorbed and the Locative DP moves to SpecT. Passivization of transitive verbs is also possible in formal locative inversion. As indicated above, the locative expression in formal locative inversion is base-generated in SpecTop, unlike in semantic locative inversion in which the Locative DP lands in SpecT, having moved there from inside the Relator phrase. I assume that the derivation of passivized transitives in formal locative inversion is similar to that of semantic locative inversion, and differs only in what moves from the small clause. As noted above, when a Locative DP is selected in semantic locative inversion, it is *pro* which is selected in formal locative inversion. In the passivization process, the locative D-head incorporates into the Relator, as in semantic locative inversion. The Locative *pro* moves to the second specifier of RelP while the complex Relator head incorporates into the Linker head. After this incorporation, *pro* can move to SpecLk. Since the thematic role of the Agent has been absorbed by the passive morpheme, *vP* does not project a specifier. As such *pro* in SpecLk is the closest constituent with phi-features that can be attracted to SpecT.

Thus, with the locative expression in SpecTop, the locative pro in SpecT, and the Theme in situ in SpecRel, a passive sentence (115) below is derived as shown in the structure in (116).

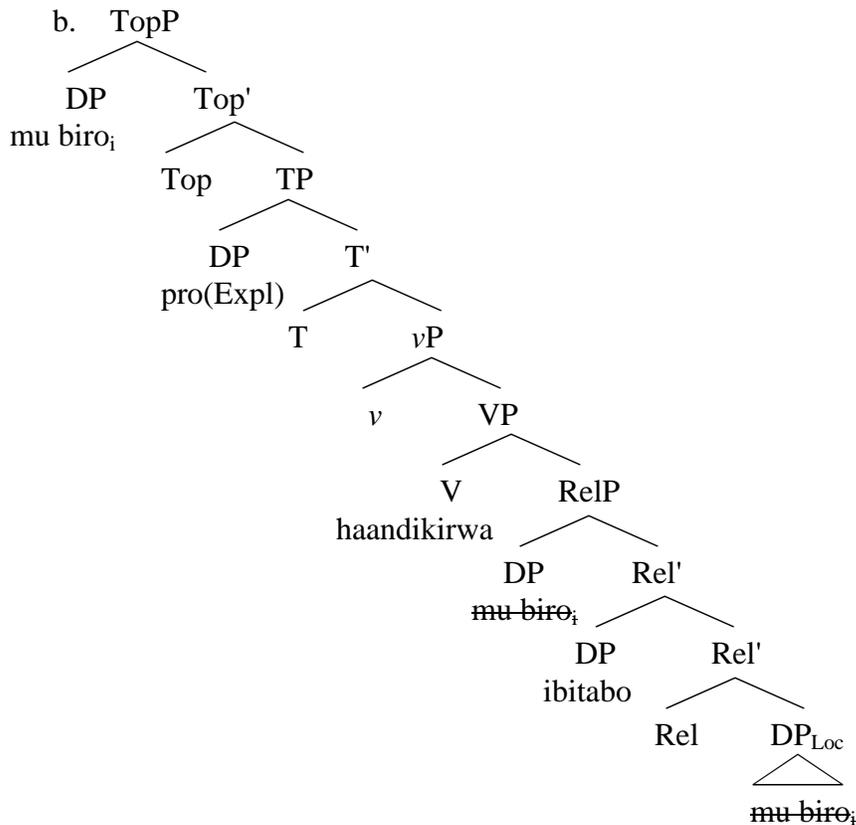
- (115) Mu biro haandikirwamó ibitabo.
 mu biro ha-aandik-ir-w-a-mó i-bi-tabo
 LOC18 8.office 16.SM-write-APPL-PASS-FV-LOC18 AUG-8-books
 'Books are written in the office.'



Constructions corresponding to (116) without the clitic also appear in the passivized form. As was argued in the previous section, the DP_{Loc} in such constructions is projected as the complement of Rel and escapes the phase through the second specifier of Rel where it is visible to external probes. I propose that passivization follows the same process. The DP_{Loc} is projected as the complement of Rel and moves to the second specifier of Rel (the edge of the phase) where

it becomes visible to external probes. When V merges with v , there is no Agent since the agentive theta-role has been absorbed by the passive morpheme; so no Spec_v is projected. When T merges, an expletive is merged in Spec_T . T merges with Spec_{Top} and the DP_{Loc} in the second specifier of Rel moves to Spec_{Top} . This derives a passivized formal locative inversion construction like (117a) in which no clitic attaches to the verb. The syntactic representation is shown in (117b):

- (117) a. Mu biro haandikirwa ibitabo.
 mu biro ha-aandik-ir-w-a i-bi-tabo
 LOC18 8.office 16.SM-write-APPL-PASS-FV AUG-8-books
 'Books are written in the office.'

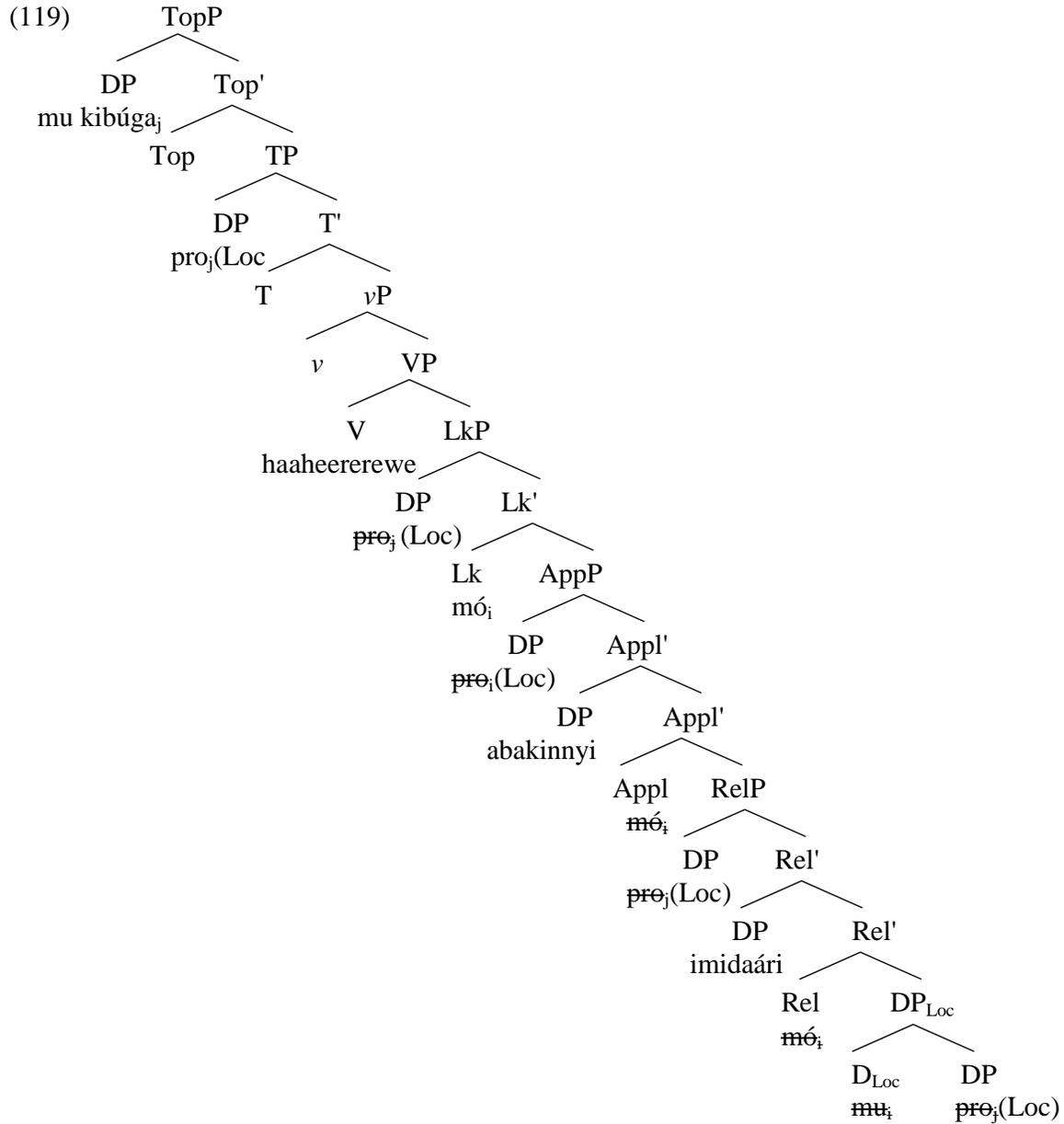


It was shown in section 6.1.3 that ditransitive verbs can also be passivized in formal locative inversion. Consider (22c), repeated here as (118).

(118)	Mu	kibúga	haaherewemó	abakinnyi
	mu	ki-búga	ha-a-há-ir-w-ye-mó	a-ba-kinnyi
	LOC18	7-pitch	16.SM-PST-give-APPL-PASS-PERF-LOC18	AUG-2-players
		imidaári	(n' ábayobozi).	
		i-mi-daári	ná a-ba-yobozi	
		AUG-4-medals	by AUG-2-officials	

'The players were awarded medals on the pitch by the officials.'

Regarding passivization of ditransitive verbs, I assume that the derivation is similar to passivization of ditransitives in semantic locative inversion. The difference is that what moves from the small clause to SpecT is a Locative DP in semantic locative inversion while in formal locative inversion it is locative pro. Like the Locative DP in semantic locative inversion, pro moves from the predicate via SpecRel, SpecAppl, and SpecLk, before landing in SpecT. Another difference is that in passivized formal locative inversion with ditransitive verbs, the locative expression is base-generated in SpecTop. The syntactic representation is shown in (119):



According to this analysis, unergative and some unaccusative verbs denoting action should also be able to be passivized, as this was also the case in semantic locative inversion. In semantic locative inversion, when an unaccusative verb is passivized, the thematic role of the Theme is absorbed, and the Locative DP moves to SpecT. When the verb is unergative, it is the Agent theta-role which is absorbed, and again, the Locative DP can move to SpecT. The examples in (120) and (121) are from chapter 5:

- (120) Amatá yaguuwemó n' ísaazi.
a-ma-tá a-a-gu-w-ye-mó ná i-saazi
AUG-6-milk 6.SM-PST-fall-PASS-PERF-LOC18 by AUG-9.fly
Lit: 'The milk was fallen in by a fly.'
- (121) Uburiri buriirwamó n' ábagoré.
u-bu-riri bu-rí-ir-w-a-mó ná a-ba-goré
AUG-14-bed 14.SM-eat-APPL-PASS-FV-LOC18 by AUG-2-women
Lit: 'The bed is eaten in by women.'

Given the parallels between semantic locative inversion and formal locative inversion with a clitic, it is predicted that intransitive verbs should also be passivizable in formal locative inversion in Kinyarwanda. The subject theta-role (Agent or Theme) would be absorbed, while a locative pro would move to SpecT. However, this prediction is not realized. In contrast to what we have observed in semantic locative inversion, a passivized intransitive verb does not license formal locative inversion, regardless of whether the verb is unaccusative (122) or unergative (123).

- (122) *Mu máazi haaguuwemó (n' úmuuntu).
mu ma-zi ha-a-gu-w-ye-mó (ná umuntu)
LOC18 6-water 16.SM-PST-fall-PASS-PERF-LOC18 (by a person)
Intended: 'In the water fell person.'
- (123) ?? Mu buriri hariirwamó (n'abagoré).
mu bu-riri ha-rí-ir-w-a-mó (n'abagoré)
LOC18 12-bed 16.SM-eat-APPL-PASS-FV-LOC18 (by women)
'It's women who eat in bed.'

It is not clear to me why it is not possible to passivize these verbs in formal locative inversion while they are passivizable in semantic locative inversion. Note, however, that if the by-phrase

and the clitic are dropped in (123), the sentence becomes grammatical as shown in (124). In contrast, the dropping of the by-phrase agent in (122) does not yield a grammatical sentence.

- (124) Mu buriri hararirirwa.
mu bu-riri ha-ra-rí-ir-w-a
LOC18 14-bed 16.SM-DJ-eat-APPL-PASS-FV
Lit: 'In bed is eaten.'
Meaning: 'People eat in bed.'

I leave the question of the ungrammaticality of (122) and the marginality of (123) for future work.

I conclude this section with a few remarks on the difference between Tswana-type languages and Kinyarwanda in terms of passivization/impersonal constructions. In the Zulu and Tswana passive constructions in (125) and (126), neither the Theme nor the locative is expressed. As Creissels (2011) argues, these are cases of impersonal constructions that cannot be analyzed as resulting from a process of locative inversion.

- (125) Ku-ya-dans-w-a. [Zulu]
17SM-DJ-dance-PSV-FS
'There is dancing.' (Buell, 2012:25)

- (126) Gó-fitlh-ilwe [Setswana]
17SM-arrive-PRF/PASS
'There has been arrived' (Demuth & Mmusi, 1997: 12)

Constructions similar to the Zulu example in (125) are ungrammatical in Kinyarwanda:

- (127) *Harabyínwa.
ha-ra-byín-w-a
16.SM-DJ-dance-PASS-FV
'There is dancing.'

The sentence in (127) is ungrammatical on both an expletive and a locative reading.

However, a construction corresponding to the Setswana example is grammatical in Kinyarwanda.

- (128) Haragerwa.
ha-ra-ger-w-a
16.SM-DJ-ger-PASS-FV
Not: 'There is arrived.'
Meaning: 'People arrive there/(the place) is arrive at.'

However, (128) does not have an impersonal reading as is the case in Setswana (as can be seen in the translation of (126) and (128)). (128) is acceptable only if *ha-* is a locative agreement marker as is reflected in the translation. If no place is referred to or the place is left implicit, and the sentence is meant to be a mere expletive or an impersonal passive construction without a locative meaning, it becomes unacceptable. This can be explained along the lines of the analysis presented above. Verbs like *-gera* 'arrive' select a locative predicate which can be a full Locative DP or a pro. Thus, in sentences such as (128), the Theme has been absorbed in the passivization process but there is a locative pro in the predicate of the small clause, and it is this pro that gives a locative reading.

Notice again the impossibility of an expletive/impersonal construction in (130) compared to the locative inversion construction in (129).

(129) Harigirwa.
Ha-ra-íig-ir-w-a
16.SM-PRES-study-APPL-PASS-FV
Not: 'There is studying going on.'
Meaning: 'It (the place) is being studied at.'

(130) *Harigwa.
ha-ra-íig-w-a
16.SM-PRES-study-PASS-FV
Intended: 'There is studying.'

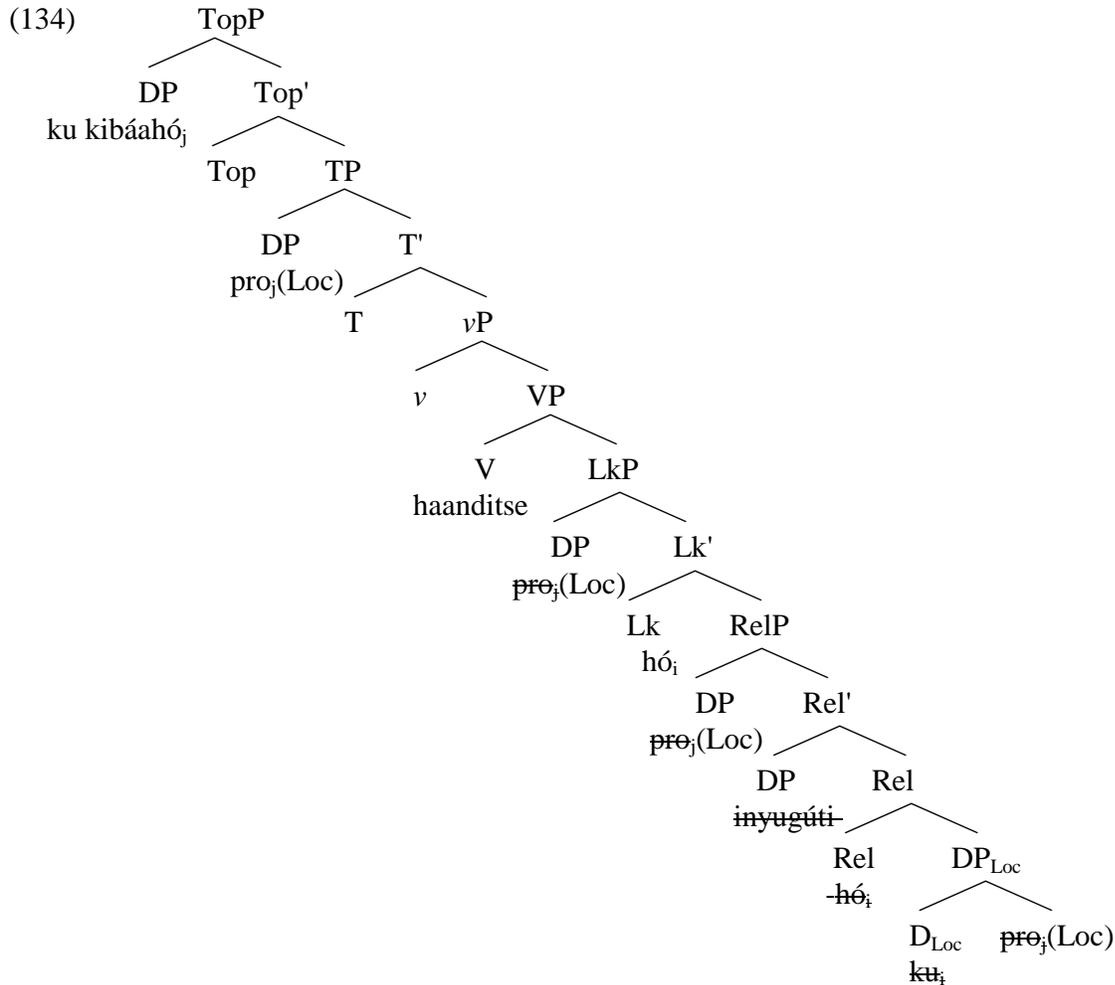
The example in (129) is grammatical because there is a locative pro inside the Relator phrase, which is introduced by the applicative morpheme added to the verb. It is this pro that gives locative interpretation to the passive sentence. It is expected that (130) should be ambiguous between locative and expletive (impersonal) interpretations since the verb does not require a locative complement. Yet none of these interpretations is available; (130) is out on both readings. It is grammatical only if it means that 'it (the place) is being studied', meaning that a place is the direct object of the verb *-íiga* 'study'. This means that the example in (130) can be grammatical like 129 if there is a locative argument (in the form of pro). In other words, if no argument is expressed as in (125) and (126), the sentence becomes ungrammatical. This is an indication that there is a requirement in Kinyarwanda to have at least one argument in a passive construction.

The impossibility of having impersonal constructions with the expletive marker *ha-* as in (130) is further illustrated by the following examples with a transitive verb, in which at least one argument must be maintained:

(131) a. *Haárasómwaga.
ha-á-ra-som-w-aga
16.SM-REM-DJ-read-PASS-IMPRF
'There was being read.'

- (133) a. Umwáarimu yaanditse inyugúti ku kibáahó.
 u-mu-áarimu a-a-aandik-ye i-nyugúti ku ki-báahó
 AUG-1-teacher 1.SM-PST-write-PERF AUG-10.letters LOC17 7-board
 'A teacher has written letters on the board.'

In the discussion of semantic locative inversion in chapter 5, we identified stative constructions which were said to be similar to passive locative inversion. In these constructions, the Agent is suppressed and the verb bears the perfective aspect morpheme *-ye*. Similar constructions in formal locative inversion are derived the same way as the passive constructions we have just discussed. First, a small clause is projected and the complement of the locative D-head is a locative *pro*. In (132), the small clause is a Relator phrase whose subject is the Theme *inyugúti* 'letters', and whose head is realized as the personal pronoun *-ó*. The complement of Rel is a "big DP_{Loc} " whose head *ku-* selects a locative *pro*. After incorporation of the D-head into the Relator head, the locative *pro* moves to the second specifier of RelP. When the Linker phrase projects, the Relator head incorporates into Linker, and *pro* can move to SpecLk. While in the passive, the Agent theta-role is absorbed by the passive morpheme *-w*, it is deleted by the aspectual morpheme *-ye* in the stative construction. Therefore, once the locative *pro* is in SpecLk, it can move to SpecT, since there is no Agent that would block its movement in terms of the MLC, and the vP is not a (strong) phase. The syntactic representation of (132) in (134) looks the same as that of a passive sentence in all relevant respects.



However, although the syntactic representation of stative and passive locative inversion is similar, there are a number of differences between the two constructions. Such differences are the same as those that have been discussed in detail in chapter 5. They are morphological, syntactic and semantic. (See chapter 5 for more details). I briefly summarize them here. Morphologically, the two constructions differ in that the Agent is absorbed by the appearance of the passive morpheme *-w* in the passive and the perfective aspect morpheme *-ye* in stative inversion. Syntactic differences have to do with the Agent and the tense-aspect of these constructions. In stative inversion, the Agent is deleted and cannot be expressed as a by-phrase Agent, but it can optionally appear as an oblique in passive constructions. With regards to tense-aspect, stative constructions appear in limited tenses; given the presence of the perfective aspect morpheme, stative constructions are possible only in the perfective aspect: present perfective, past perfective and future perfective (see the examples in chapter 5). Semantically, in inversion constructions, stativized sentences differ from passivized ones in that the former are possible

only with a restricted number of verbs. These are verbs like *-aandika* 'write', *-óomek* 'stick', *-siiga* 'paint', etc., those verbs that I have referred to as placement verbs, which entail, but do not always require, a goal.

6.8 Kinyarwanda in the typology of locatives in Bantu

This section aims to add Kinyarwanda to the typology of locative inversion in Bantu. The table below is based on Marten (2006: 116), as adapted from Demuth & Mmusi (1997).⁶¹

Table 13: Variation in locative inversion

<i>Language</i>	<i>Constituent Structure</i>		<i>Gramm. Function of SM</i>	<i>Thematic structure</i>	
	<i>Locative Morphology</i>	<i>SM Morphology</i>		<i>Highest Thematic Role</i>	<i>Verb Type</i>
Chichewa	16/17/18	16/17/18	locative	Theme	Unaccusative
Kichaga	-	17/18	locative	Theme	Unaccusative
Chishona	16/17/18	16/17/18	locative	-Agent	all except agent active
		17	expletive		
Setswana	16/17/18	17	expletive	*(Agent +Theme)	all except active transitives
Sesotho	-	17	expletive	*(Agent +Theme)	all except active transitives
Herero	16/17/18	16/17/18	locative	*(Agent + Theme	all except ditransitives
		16	expletive	+ Ben)	
Kinyarwanda	16/17/18/19	16	locative/ expletive	*(Agent + Theme + Ben)	all except active ditransitives

⁶¹ The Kinyarwanda locative inversion added to this typology is formal locative inversion. Being of a different type, semantic locative inversion is not covered by the discussion that follows the table.

From the table above, it can be noticed that Kinyarwanda has only one locative subject marker for all the four locative classes. This distinguishes it from languages such as Chichewa, Chishona and Herero, all of which have a three-way subject marking distinction. It patterns with Setswana in terms of locative morphology in that both languages have several locative markers with only one subject marker. They differ in two respects: Kinyarwanda has four locative markers while Setswana has three, and Kinyarwanda uses class 16 as an expletive marker, while Setswana uses class 17. Kinyarwanda also shares two properties with Herero. In terms of argument structure, both languages allow intransitive and transitive verbs to appear in inversion, but Kinyarwanda adds passivized ditransitives to the argument structure (the information provided by Marten (2006) in the table above implies that ditransitives do not allow locative inversion in Herero, whether passivized or not, but this needs to be confirmed). The second property shared by the two languages is that, unlike the other languages in Table 13, they use class 16 as an expletive marker.

Kinyarwanda differs from the languages in Table 13 above in having a Locative DP *ahaantu* 'place', which is a canonical noun, with an augment, a prefix, and a stem. I have suggested that the class 16 subject marker *ha-* in Kinyarwanda has a dual function: it is a subject marker with locative features, but it can also function as an expletive marker similar to class 17 in Chishona. Unlike similar languages such as Tswana, and despite the lack of subject markers for all locative classes, it was shown above that the locative interpretation is maintained in Kinyarwanda in the absence of a preposed locative expression. This is because the subject marker *ha-* has locative features and agrees with a locative pro that originates inside the small clause I have argued for in this thesis.

It must also be noted here that Kinyarwanda differs from all the languages in the table in that a locative clitic appears on the verb in locative inversion constructions in which a locative moves to SpecT. Given the significance of the locative clitic in the derivation of locative shift and inversion constructions, it is not surprising that locative inversion constructions in Kinyarwanda are interpreted differently from those in similar languages which do not have a clitic.

6.9 Conclusion

This chapter has been devoted to the second type of locative inversion, formal locative inversion. It is built on chapter 4, in which I discuss locative shift, and chapter 5, which deals with semantic

locative inversion. I have provided an analysis of two subtypes of formal locative inversion: inversion with a locative clitic on the verb and inversion without the clitic. In the former type, the clitic results from incorporation of the locative head into the pronominal Relator. I argued that the locative expression is base-generated in SpecTop, while SpecT is occupied by a locative pro originating in the small clause. As such, these constructions maintain a locative reading when the preverbal locative expression is dropped. In contrast, in formal locative inversion constructions without a clitic, I have argued that this is a case of A-bar movement. The locative expression starts as the complement of Rel and moves to the second specifier of Rel from where it can be attracted to SpecTop in the left periphery. SpecT is occupied by an expletive pro, which also triggers the subject marker *ha-* on the verb. Since the same subject marker appears with both locative and expletive pro-subjects, the two types of formal locative inversion look superficially similar and seem to differ only with respect to the occurrence of the locative clitic. However, I have shown that their underlying syntactic representations and derivations are quite different from each other.

Formal locative inversion and semantic locative inversion are similar in many respects, but they also display a number of differences. In terms of similarities, firstly, both constructions have the same argument structure; they are possible with unaccusative, unergative, and transitive verbs and also with passivized ditransitive verbs. Secondly, they involve a small clause, a functional Linker head, and a locative clitic on the verb. (Note however, that whereas the clitic is obligatory in semantic locative inversion, there are formal locative inversion constructions in which it does not appear). Thirdly, in both constructions, the post-verbal subject has the discourse function of being focused; thus it cannot be left implicit, in contrast to what is reported about some other Bantu languages. Finally, both constructions may include an applicative morpheme, which sometimes is obligatory to license the projection of RelP with certain verbs.

These constructions are also different in some respects. In semantic locative inversion, the preposed locative expression agrees with the verb, which is not the case in formal locative inversion. In the latter construction, the verb agrees with either an expletive or a locative pro in SpecT, and the DP_{LocS} are in a left-peripheral topic position.

Also, as far as the derivation of formal locative inversion and semantic locative inversion are concerned, I have shown that both constructions can be explained by the same theoretical assumptions (e.g. small clause projection, incorporation, phase theory, locality conditions, etc.). Formal locative inversion with a clitic and semantic locative inversion differ only in terms of what moves to SpecT. In semantic locative inversion, a Locative DP from a non-locative noun class is the complement of the locative D-head and moves to the subject position in SpecT. In formal locative inversion, the locative D-head selects *pro*, which, like the Locative DP in semantic locative inversion, moves to SpecT. When no clitic appears on the verb in formal locative inversion, the Rel selects a DP_{Loc} which ends in a Topic position in the left periphery by way of A-bar movement.

Finally, the chapter has also contributed to our understanding of formal locative inversion in Kinyarwanda in relation to locative inversion in other Bantu languages.

CHAPTER SEVEN: CONCLUSIONS

7.1 Summary of the findings

This thesis has provided an analysis of locatives and different locative constructions in Kinyarwanda: locative shift, formal locative inversion, semantic locative inversion, and passivized and stativized forms of semantic and formal locative inversion.

In chapter 3, I examined the status of locative markers and locative clitics. It was concluded that locative markers have semantic properties of prepositions, but, syntactically, they are not prepositions. Like prepositions in other languages, locative markers precede a noun and express a spatial, temporal, etc., relation, and also exhibit locational and directional use, which could lead to the assumption that they are prepositions. However, syntactically, they are determiners. Some tests were applied to show that they have the same distribution as augments/demonstratives in Kinyarwanda, which are also of category D.

The morphosyntactic properties of the locative clitics were examined in the same chapter. It was shown that the locative elements *hó*, *mó*, and *yó* exhibit the properties of clitics: they do not attach to a stem; they combine with words; and no other suffix can follow them. This is in line with Zwicky (1985) and Zwicky & Pullum's (1983) claim that clitics close off suffixation. It was also shown that locative clitics are pronouns derived in two ways: either by combining locative markers and the personal pronoun root *-ó* – as is the case for other personal pronouns in different noun classes, or by incorporation of a locative determiner into the pronoun root *-ó*, the head of the small clause. The latter assumption was crucial for the analysis of locative shift and locative inversion in chapters 4, 5, and 6, where it was shown that locative clitics obligatorily appear in locative shift, locative inversion constructions, both semantic and formal inversion, as well as in the stativized and passivized forms of semantic locative inversion. However, locative clitics are optional in formal locative inversion.

One of the main claims defended in this thesis is that all types of locative constructions involve a small clause. In an SVO locative construction, the small clause comprises of the Theme as the

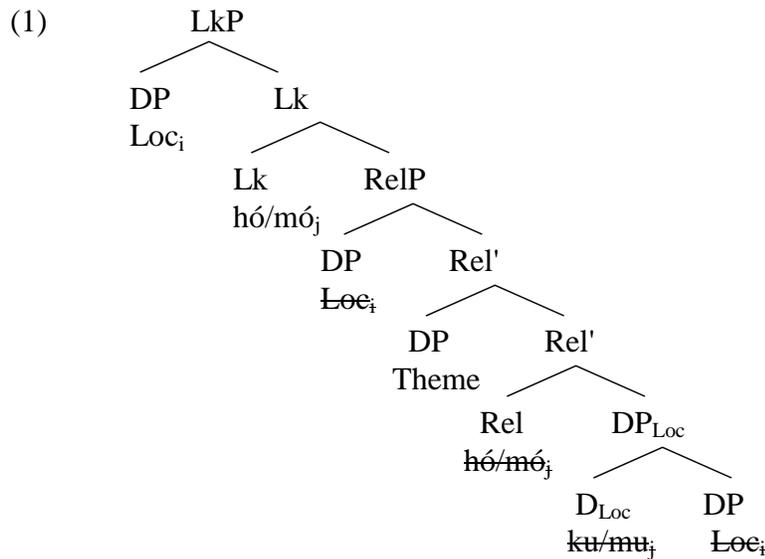
subject and the Locative DP as the predicate. The small clause is of the type [DP DP] where the second DP is a locative expression, which I referred to as the DP_{Loc} . It is headed by a locative determiner (D_{Loc}) selecting an NP. However, in locative shift constructions, which were analyzed in chapter 4 of this thesis, the predicate structure differs from that of an SVO locative construction. It consists in what I have called the "big DP_{Loc} ". This is a case where the locative D_{Loc} exceptionally selects a DP rather than an NP. This kind of selection is a violation of the c-selectional properties of the locative D_{Loc} but the issue is resolved by incorporation of the D_{Loc} into a pronominal relator head. This incorporation also licenses movement of the Locative DP to a position where it can be assigned Case, i.e. SpecLk. For this to be possible, the Locative DP must first move to the edge of RelP where it becomes accessible. Furthermore, the Rel head moves to the Linker head, extending the phase from RelP to LkP.

This analysis has led to the following conclusion: the clitic does not incorporate into the verb, but it is the head of the LkP. It may remain in Lk to derive a locative shift construction in which the locative clitic follows the Locative DP. Alternatively, it may cliticize to the verb at PF to derive the second form of locative inversion in which the clitic appears attached to the verb.

The analysis proposed in this thesis is capable of explaining the asymmetries between the two objects in locative shift. I proposed that the Theme's failure to have primary object properties in locative shift can be explained in terms of phase theory. Since the Linker phrase is a phase, the Locative DP is on its edge and accessible for operations driven by heads outside LkP, but the Theme is trapped inside the phase. I argued that only phase theory can explain the failure of the Theme to be extracted as well as its failure to be object-marked and passivized when the Locative DP is overtly realized in SpecLk. However, I showed that phase theory can also account for cases where the Theme exhibits direct object properties (passivization, object-marking and extraction) when the Locative in SpecLk is phonologically null (a locative pro, or a copy of a moved Locative DP). I suggested that a second phase EPP-feature of Lk can attract the Theme to the second specifier before the Lk phase is completed, which makes it accessible for movement. However, a constraint was proposed: the *Heavy Edge Constraint*. According to this constraint, two specifiers of the LkP phase are only licensed if neither of them is phonologically realized. This implies that when both the Theme and the Locative DP have moved to SpecLk,

both DPs must move away before the next phase is completed. This explains why the Theme cannot undergo any movement operation if an overt Locative DP remains in SpecLk; it can move only when the Locative DP is pro or has also moved from the edge. Therefore, this analysis has enabled me to account for a wide range of data in Kinyarwanda, in contrast to previous accounts, which can explain only some aspects of the issue.

The same analysis based on the small clause also accounts for different types of locative inversion constructions: formal locative inversion (chapter 6), semantic locative inversion (chapter 5), and passivized and stativized forms of semantic and formal locative inversion. Like in the case of Locative shift, all these types of constructions involve a small clause and the projection of the Theme in SpecRel as the subject and the "big DP_{Loc}" as the predicate. It is also from the "big DP_{Loc}" that the Locative DP moves to derive the different types of locative inversion. I have shown that all these constructions are derived by incorporation of the locative D-head into the Rel head and movement of the Locative DP/pro from the small clause to SpecRel and SpecLk. The following syntactic representation is common for all types of inversions as well as for locative shift.



The structure in (1) is the basis of locative shift. It can be expanded with the projection of the VP which merges with *v*, which introduces an Agent in its specifier. When T merges with *v*P, the Agent moves to SpecT, and the locative shift construction is derived.

With regard to semantic locative inversion with an intransitive verb (both accusative and unergative), the Theme/Agent is in SpecRel and the Locative DP has moved to SpecLk following the same process as in locative shift. Since there is no Agent, the structure in (1) can also be expanded by moving the Locative DP to SpecT. This derivation confirms the claim made earlier that an unergative verb can appear in an unaccusative frame if the construction contains a locative expression (Hoekstra & Mulder, 1990; Levin & Rappaport Hovav, 1995; Mendikoetxea, 2006; Mugari & Makaro, 2014).

The structure in (1) can also be expanded to derive semantic locative inversion with a transitive verb. With a transitive verb, the Theme is in SpecRel and the Locative DP moves to SpecLk, following the same process as in locative shift. However, the Locative DP can escape the Linker phase by moving to the edge of vP , but the Heavy Edge Constraint must also be obeyed for vP , which means that the second specifier of vP is only licensed if both the Locative DP and the Agent subject are phonologically null. Because inversion with a transitive verb has been analyzed as a case of heavy NP shift, the Agent in Spec v is extraposed and the Locative DP can now move from the second SpecLk to SpecT so that by the time the next phase is completed, both DPs have moved away from the edge of the vP phase.

The structure in (1) also serves as the basis for semantic locative inversion with stativized or passivized verbs. Since in these kinds of inversion the Agent has been absorbed by the passive or stative morpheme, v does not project a specifier and therefore is not a strong phase, so the Locative DP is free to move to SpecT where it becomes the subject of a stative or passive sentence.

Formal locative also involves the structure in (1) at the initial stage of the derivation. The locative determiner head selects *pro* instead of a full Locative DP. It is this *pro* that undergoes the same movement as the Locative DP in locative shift or semantic locative inversion, to SpecRel, and then to SpecLk. From SpecLk, *pro* continues its way to SpecT. When a full DP_{Loc} is added as a preverbal topic, the result is formal locative inversion.

The parallel between semantic locative inversion and formal locative inversion becomes more apparent when the Locative DP in semantic locative inversion and the locative expression in formal locative inversion are dropped. In both cases, the locative meaning is maintained. In semantic locative inversion, SpecT is occupied by pro which corresponds to the specific class to which the preposed DP belongs, but in formal locative inversion, it corresponds to class 16.

However, the following major differences between the two constructions were highlighted. In formal locative inversion, there is no locative class agreement, but only agreement with respect to an interpretable locative feature. In contrast, in semantic locative inversion, the Locative DP agrees with the verb in its specific non-locative noun class. Similarly, in semantic locative inversion, the Locative DP is in SpecT as the structural subject of the sentence whereas in formal locative inversion, the preverbal locative expression is a topic generated in the left periphery, binding pro in SpecT that originates in the small clause.

The following conclusions were reached regarding the argument structure as well as the use of the applicative in locative inversion. The argument structure of verbs that license semantic and formal locative inversion is the same. Inversion is possible with all types of predicates except active ditransitive verbs. This conclusion enabled me to add Kinyarwanda to the Bantu locative inversion typology. Regarding the use of the applicative in locative constructions, I have shown that there is no dependency of inversion on the applicative. The applicative is used in inverted as well as in non-inverted locative constructions, and its role is only to expand the argument structure of the verb by adding a locative expression.

Some similarities and differences between formal locative inversion and expletive constructions were highlighted. A construction like (2) is syntactically ambiguous between a locative and an expletive construction.

- (2) Hahagaze Yohaáni.
ha-hágarar-ye Yohaáni
16.SM-stand-PERF 1.John
'It is John who is standing (there).'

The construction in (2) has two interpretations, a locative one and an expletive one. As a locative construction, the Relator-head directly takes *pro* as its complement instead of a "big DP_{Loc}". No incorporation takes place, and the locative *pro* doesn't move. SpecT is filled with an expletive, and *ha-* marks expletive agreement. The locative interpretation arises because of the locative *pro* inside the small clause. In contrast, as an expletive construction, the syntax of (2) does not include a small clause, there is no RelP and no locative *pro*, and the Theme is the complement of the verb and remains in situ. SpecT is again filled with an expletive, and *ha-* marks expletive agreement, but there is no locative expression, and hence no locative interpretation.

From a theoretical perspective, three theories have been applied together to account for the properties of different locative constructions: incorporation, the MLC, and phase theory. Incorporation of D_{Loc} into Rel allows the Locative DP/*pro* to be visible for movement and move out of the DP-phase. The MLC accounts for movement of the Locative DP/*pro* (rather than the Theme) from the second SpecRel to SpecLk. Phase theory applies to explain movement of the Locative DP/*pro* from the Relator Phase to the edge of the phase where it is accessible to probes as well as movement of the Theme to the edge of the Lk where it can be attracted to probing heads. Phase theory was also applied to explain why the Theme fails to have object properties when the locative DP is in SpecLk but acquires them once the Locative DP has also undergone movement. The phase impenetrability condition (PIC) predicts that the Theme is trapped inside the phase. However, phase theory can also explain how the Theme can acquire object properties: a second phase EPP feature allows the Theme to move out of the Linker phase to be accessible to external probes and to adopt primary object properties in constructions such as passivization, object-marking and extraction.

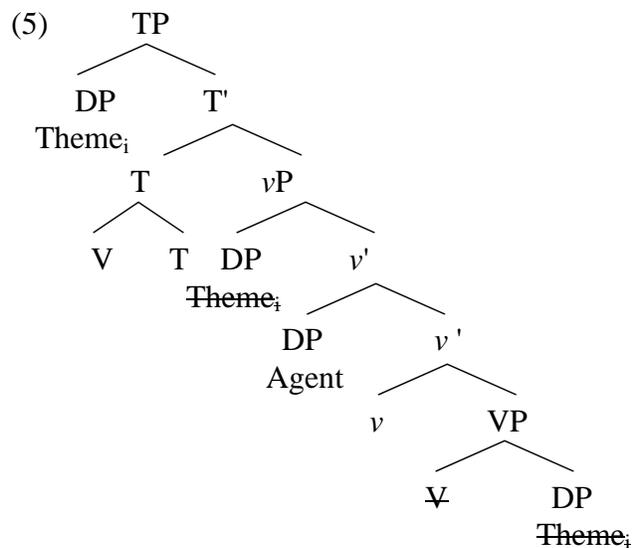
The analysis based on phase theory, which I have adopted to account for different locative constructions, may also be extended to other types of inversion (see Marten and van der Wal (2015) for a comprehensive survey of different types of inversion in Bantu). In addition to the types of locative inversion discussed above, Kinyarwanda has other types of inversion, the most common ones being subject-object reversal (or Theme/Patient inversion in the terminology of

Marten & van der Wal (2015)) and Instrument inversion. Subject-object reversal and Instrument inversion are illustrated by (3b) and (4b), respectively.

- (3) a. Abáana ntibanywá inzogá.
a-ba-áana nti-ba-nyó-a i-n-yogá
AUG-2-children NEG-2.SM-drink-FV AUG-10-alcohol
'Children don't drink alcohol.'
- b. Inzogá ntizinywá abáana.
i-n-yogá nti-zi-nyó-a a-ba-áana
AUG-10-alcohol NEG-10.SM-drink-FV AUG-2-children
Lit: 'Alcohol doesn't drink children.'
'Children don't drink alcohol.'
- (4) a. Abanyámugí bariisha amakanyá.
a-ba-nyámugí ba-rí-iish-a a-ma-kanyá
AUG-2-city.people 2.SM-eat-INST-FV AUG-6-fork
'City people eat with forks.'
- b. Amakanyá ariisha abanyámugí.
a-ma-kanyá a-rí-iish-a a-ba-nyámugí
AUG-6-forks 6.SM-eat-INST-FV AUG-2-city.people
Lit: 'Forks eat with city people.'
'It is city people who eat with forks.'

An interesting hypothesis would be to suppose that the same process that moves the Theme out of the LkP-phase in locative shift constructions or the Locative out of the ν P-phase in transitive locative inversion constructions also allows the Theme/Instrument to move out of the ν P in subject-object reversal/Instrument inversion. While some authors assume that the subject and the object are equidistant in Bantu languages (Ura, 2000), I suggest that in Kinyarwanda the ν P phase has an edge feature/phase EPP-feature that can attract the Theme (Object) to the edge before the phase is completed. From the second specifier of ν P above the Agent, the Theme

could then be attracted to SpecT, hence deriving the construction in (3), whose syntactic representation is shown in (5).



It is also possible that the HEC I have proposed applies here. It could be assumed that in order for the derivation to converge, both the Theme and the Agent must move away from the edge of the vP -phase. Since the Agent is focused in subject-object reversal constructions, I suggest that while the Theme moves to SpecT as the grammatical subject of the sentence, the Agent moves to a focus phrase between TP and vP (Ndayiragije 1999). In this case, the HEC is obeyed because neither of the two DPs is pronounced on the vP edge. The analysis explains why subject-object reversal is only possible with focused subjects: a non-focused subject would remain in Spec v , as in (5), and the HEC would be violated.

Since an Instrument object is not derived by preposition incorporation (Nakamura, 1997), an Instrument inversion construction is derived in the same way as a transitive construction with a direct object. In his analysis of instrumental applicatives, Nakamura (1997: 257) assumes that "the applicative morpheme is verbal, combining with a verb in the lexicon and introducing an additional internal argument into the argument structure of the verb" (see also (Alsina & Mchombo, 1993; Baker, 1988, 1992; Bresnan & Moshi, 1990)). Therefore, (3) and (4) can be derived in the same way, meaning that the structure in (5) corresponds to both (3) and (4). In other words, Instrument inversion does not differ from subject-object reversal constructions;

their derivation involves the same processes, including movement of the Theme/Instrument from inside ν P to the edge of the ν P phase before the phase is completed.

I would suggest, in addition, that the availability of a phase-EPP-feature of ν P in A-movement constructions cannot be generalized across languages. It is rather subject to parametric variation since subject-object reversal is not possible in other languages, including English. For instance, in the sentence "What did he see?", *what* moves first to a second Spec ν , to the edge of the phase, before it moves to SpecC. However, this is a case of A-bar movement, and in English, the edge feature that triggers wh-movement to the edge of ν P is restricted to A-bar movement constructions. The question is why elements moved to the edge in English are not accessible for A-relations and Agree, like they are in Kinyarwanda.

7.2 Areas for further research

In this thesis, I have raised a number of issues, some of which have not been resolved and need further work. I present them in the following points:

The locative clitic: In this thesis, I demonstrated that the locative clitic in Kinyarwanda is a complex head derived by combining the pronominal root *-ó* with the locative marker (*ku-*, *mu-*, and *i-*). Yet similar clitics are found in other languages. For example, the clitic *mo* is found in Lubukusu, which is spoken in Kenya, and in Chitumbuka, spoken in Malawi, two languages that are not geographically close to Kinyarwanda. It is also found in Kirundi, a language that is similar to Kinyarwanda, as well as in some other languages in the Great Lakes region. In all these languages, there is also a corresponding locative marker *mu-*. It would be very interesting to have one general account of locative clitics for all these languages. The study would also address the question whether locative clitics in some of these languages mark agreement, as argued in Diercks (2010) and Carstens & Diercks (2013), or whether they are always derived by incorporation, as I have argued to be the case in Kinyarwanda.

The impossibility of locative shift with class 19: Locative shift is possible with class 17 and 18, but not with class 19. This was illustrated by the grammatical example in (6) and the ungrammatical example in (7) (repeated from chapter 4).

(6) Umwáana yaánditse igikapú hó izína.
 u-mu-áana a-á-aandik-ye i-ki-kapú hó i-zína
 AUG-1-child 1.SM-REM-write-PERF AUG-7-bag LOC 17 AUG-9.name
 'The child wrote the name on the bag.'

(7) *Umucúruuzi yajyaanye Butáre yó umuceri.
 u-mu-cúruuzi a-a-jyaan-ye Butáre yó u-mu-ceri
 AUG-1-trader 1.SM-PST-take-PERF 9.Butáre LOC19 AUG-3-rice
 Intended: 'The trader took the rice to Butare.'

I have suggested that there is a constraint that prevents a proper name of place like *Butare* from being an indirect object. For example, the Locative DP in (6) has moved from the small clause to SpecLk, and the resulting construction is grammatical, but the same movement does not yield a grammatical sentence with class 19, as shown in (7). However, when the element that moves from the small clause to SpecLk is pro rather than a full DP, the sentence corresponding to (7) (cl.19) is grammatical, as is the case for the sentence corresponding to (6):

(8) Umwáana yaánditse**hó** izína.
 u-mu-áana a-á-aandik-ye-hó i-zína
 AUG-1-child 1.SM-REM-write-PERF-LOC17 AUG-5.name
 'The child wrote the name there.'

(9) Umucúruuzi yajyaany**yó** umuceri.
 u-mu-cúruuzi a-a-jyaan-ye-yó u-mu-ceri
 AUG-1-trader 1.SM-PST-take-PERF-LOC19AUG-3-rice
 'The trader took the rice there.'

It is not clear why pro can move to SpecLk in constructions like (9) while a corresponding full DP cannot, (7). More work is needed to explain this phenomenon in more detail.

Alternation between semantic locative inversion and passivized semantic locative inversion: In Kinyarwanda, semantic locative inversion alternates with the passivized form of semantic locative inversion, in which the logical subject is expressed as an oblique, as is shown in the following examples.

- (7) a. Iyi nzira inyuramó abaantu beenshi.
 iyi n-yira i-nyúr-a-mó a-ba-ntu ba-iínshi
 9.DEM 9-street 9.SM-pass-FV-LOC18 AUG-2-people 2-many
 'Many people pass in this street.'
- b. Iyi nzira inyurwamó n' ábaantu beénshi.
 iyi n-yira i-nyúr-w-a-mó ná a-ba-ntu ba-iínshi
 9.DEM 9-street 9.SM-pass-PASS-FV-LOC8 by AUG-2-people 2-many
 'Many people pass in this street.'

The two sentences mean the same, as can be seen in the translation, but there seems to be some difference in terms of information structure. It would be interesting to conduct a study on this topic, focusing on the information structure aspect.

The vowel -o triggered by a locative marker: In chapter 2, we saw that in Kinyarwanda, the vowel *a* that is found in associatives becomes *o* when the associative is followed by a locative marker. Specifically, before a locative expression, the associative *na* appears in the form of *no*. Similarly, the associative *-a* takes the form of *-o* in the same environment, i.e. when followed by a locative expression. This is illustrated by the examples in (10) and (11) (see also chapter 2).

- (10) mu rugó *na/√ nó mu mugí
 mu ru-gó na/no mu mu-gí
 LOC18 11-home ASS LOC18 3-town
 'at home and in town'

- (11) inzu ***za**/√ **zo** mu mugí
 i-n-zu za/zo mu mu-gí
 AUG-10-house 10.ASS LOC18 3-town
 Lit: 'houses of town'

The same vowel *o* appears in Luganda before a locative, and it is also observed in Zulu locatives (see chapter 2). It seems it is not by accident that this vowel surfaces in locative constructions. Further research is needed to account for the syntactic status of this vowel.

Two types of locative inversion versus one: Bantu languages like Kinyarwanda have two types of locative inversion (formal locative inversion and semantic locative inversion), while other Bantu languages have only one type (formal locative inversion). It would be interesting to examine whether in the latter group of languages, one type of locative inversion can express the two meanings conveyed by the two types in the other group of languages.

Maintenance of locative interpretation: It was shown that in locative inversion in Kinyarwanda, there is a locative interpretation when the locative expression is preposed or when the verb bears the clitic or the applicative. In the absence of a preposed locative expression and the clitic/applicative, the locative reading can be maintained or lost. In the latter case, the construction is an expletive one. However, there are also cases where the locative meaning is maintained, depending on the semantics of the verb. This is the case with verbs such as *-gera* 'arrive'. With such verbs, the locative interpretation is always available, even in the absence of the locative clitic and the preposed locative expression. This is illustrated by the examples in (12) and (13) (repeated from chapter (6)):

- (12) Haageze abajuura.
 ha-a-ger-ye a-ba-juura
 16.SM-PST-arrive-PERFAUG-2-thieves
 Lit: 'There have arrived thieves (there).'
 'Thieves have arrived there.'

- (13) Haaje abajuura.
 ha-a-z-ye a-ba-juura
 16.SM-PST-come-PERF AUG-2-thieves
 Lit: 'There have come thieves (there).'
 'Thieves have come.'

While (13) is ambiguous between a locative and an expletive construction, (12) has only a locative interpretation. I have proposed that verbs such as *-gera* have properties that make them maintain the locative reading when the locative expression is dropped in an inversion construction. In contrast, verbs such as *-za* 'come' can have an expletive interpretation in the absence of the clitic and the preposed locative expression. Further work is needed to establish whether this phenomenon is specific to Kinyarwanda or whether it is true across Bantu languages.

Impossibility of passivization of the Locative DP in formal locative inversion: In chapter 5, we saw that the Locative DP can be passivized in semantic locative inversion with intransitive verbs, but it cannot be passivized in formal locative inversion, as illustrated by the following examples (first discussed in chapter 6):

- (14) a. Amatá yaguuwemó n' ísaazi.
 a-ma-ta a-a-gu-w-ye-mó ná i-saazi
 AUG-6-milk 6.SM-PST-fall-PASS-PERF-LOC18 by AUG-9.fly
 Lit: 'The milk was fallen in by a fly.'
- b. *Mu matá haguuwemó n' ísaazi.
 mu ma-tá ha-a-gu-w-ye-mó ná i-saazi
 LOC18 6-milk 16.SM-PST-fall-PASS-PERF-LOC18 by AUG-9.fly
 Lit: 'The milk was fallen in by a fly.'

It was shown that the derivation process is the same for both types of locative inversion, except in the case of semantic locative inversion; SpecT is occupied by a full Locative DP, whereas SpecT in formal locative inversion is occupied by a locative pro. Therefore, it is not clear why

passivization is possible with a Locative DP in SpecT, but impossible when *pro* occupies the same specifier. This contrast needs to be investigated further.

Despite these issues set aside for future work, this thesis has provided a unified account of different locative constructions: locative shift, locative inversion (specifically, formal locative inversion and semantic locative inversion), and related constructions. It has provided a wide range of data that contribute to the understanding of locatives in Kinyarwanda. It contains empirical generalizations that researchers interested in Bantu languages in general and in the Kinyarwanda language in particular can draw on to make further generalizations.

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