Locatives in Runyankore-Rukiga

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Abstract

The locative expressions in Runyankore-Rukiga consist of nouns that can refer to both places and spatial relations, whether they are inherent or derived. Instead of focusing solely on the morphological properties and presentation of locative words, our attention is directed towards locative phrases. These expressions resemble prepositional phrases in terms of their configuration since the locative particle appears before the noun as a separate word. Despite describing spaces rather than objects, these phrases function as nominal expressions and exhibit morpho-syntactic behaviour akin to noun phrases. To support this assertion, we examine Locative Inversion, arguments of negative verbs, and Alternate Locative Agreement patterns in detail. By utilizing type-semantic concepts alongside structural representations, we propose a revised version of the two-layered noun phrase approach initially proposed by Bresnan and Mchombo (1989).
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Keywords: Bantu, Runyankore-Rukiga, locative formation, alternate locative agreement, morpho-syntactic variation

1 Introduction

1.1 The Language
Runyankore-Rukiga\(^1\) is part of Runyakitara which is the standardized name of a language cluster of four dialects spoken in Uganda in zone JE of Guthrie’s (1967-71) classification (Bernsten 1998, Maho 2009). These dialects are Runyankore (JE13, ISO 639-3: nyn), Rukiga (JE14, ISO 639-3: cgg), Runyoro (JE11, ISO 639-2: nyo) and Rutooro (JE12, ISO 639-3: tj). The lexical similarity between Runyankore and Rukiga is 94% according to older accounts such as Ladefoged et al. (1971), while Ethnologue estimates it to be 84%-94% (Simons et al. 2017). Rukiga is the mother tongue of the second-named author,\(^2\) and according to our own observations, the lexical similarity between Runyankore and Rukiga depends on the dialects that serve as basis for the comparison.

1.2 Issues addressed in the paper
This study explores fundamental aspects of locative formation in Runyankore-Rukiga pertaining to locative words and locative phrases, expressions which are omnipresent in the language. Locative prefixes of class 16, 17 and 18 are distinguished by the prefixes ha-, ku- and mu-, respectively, as shown in (1a-c). Notably, the markers of class 16 and 18 may occur as free-standing morphemes,\(^3\), as demonstrated by the forms o-mu and o-mu-ri (highlighted in bold) in (2):

\(^1\) Alternate names for Runyankore are Nkore or Nyankore. Rukiga is also known as Kiga or Chiga. Kiga is so like Nkore that they are treated as dialects of the same language, called Nkore-Kiga (Taylor 1985) or Runyankore-Rukiga.

\(^2\) In addition to mother tongue knowledge, we make use of the following dictionaries and grammars: Morris and Kirwan (1972), Mwene (2004), Orikiriza (2007) and Museveni et al. (2012).

\(^3\) What makes a locative marker free-standing is explained in Section 3.2 where we also show that other words may intervene between the marker and its noun.
Structures (Dryer and Haspelmath 2013).

A reviewer suggests that the difference between the analysis presented in this paper and what is claimed in Taylor’s grammar may hinge on terminological differences. However, Taylor was quite aware that in addition to his PP analysis a nominal analysis was under debate, which he did not consider relevant for his own study, since as he wrote was only considered ‘by Bantuists working in distantly related Bantu languages’ (Taylor 1985: 89).

The lexical element o-mu (class 18) denotes an interior location while a-ha (class 16) indicates a more confined area. Just like omu, aha may occur free-standing, either as a-ha or as a-ha-ri. The latter form ending in -ri is called the suffixed form. Section 4 will examine this distinction between the forms of the locative particle, developing an analysis presented in Section 3. Throughout the paper, we thoroughly examine the categorial status and distribution of both locative words and phrases. Departing from Taylor’s (1985) perspective, which characterises locative phrase as prepositional in nature, we develop our own analysis which sees them as nouns. Another aspect to be explored is ‘inner’ and ‘outer’ agreement in Runyankore-Rukiga whereby demonstratives that follow the internal noun can agree either with the nominal head (inner agreement) or with a locative marker (outer agreement). This duality of NP internal agreement patterns is illustrated in (3) below:

(3) a. **Inner agreement**

O-mu mu-ti o-gu ni-ha-tuur-a=mu e-ki-hunyira

AUG18-18 3-tree DEM-3 PROG-16-live-FV=18 AUG7-7-owl

‘In this tree lives an owl.’

b. **Outer agreement**

O-mu mu-ti o-mu ni-ha-tuur-a=mu e-ki-hunyira

AUG18-18 3-tree AUG18-18 PROG-16-live-FV=18 AUG7-7-owl

‘In this tree lives an owl.’

Bantu locatives have been described extensively, also including inner and outer agreement, employing different approaches (e.g., Meinhof 1941/42, Grégoire 1975, Bresnan & Kanerva 1989, Baker 1992, Demuth & Mmusi 1997, Cocchi 2000, Buell 2007, Creissels 2011, Salzmann 2011, Marten 2012, Caha & Pantcheva 2015, Bloom Ström 2015, and Zeller 2017). The present study aims to contribute to the study of Bantu locatives by providing an analytic description of Runyankore-Rukiga locatives, encompassing the full array of locative expressions, words as well as phrases. The analytic focus of the paper are locative phrases in Runyankore-Rukiga.

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5 The paper frequently refers to Taylor’s grammar. This is not only since it is the best-known grammar of the language cluster, but also because it has informed influential typological work such as the World’s Atlas of Language Structures (Dryer and Haspelmath 2013).
1.3 Methodology

The present study is informed by an open-end corpus of interlinear glossed texts (IGT) which at the time of writing consists of 136,753 words. The texts are either transcriptions of oral narratives, or fragments of newspaper texts from the weekly newspaper Orumuri. We have also digitized sections taken from the novel Abagyenda Bareeba ‘Adventures of travelers’ by Mubangizi (1997). The material has been collected and annotated by several native speakers starting around 2005. Since the paper represents a result of the authors’ effort to curate and analyze this data, some general remarks on linguistic data, and its role in linguistic publications seem in order.

The creation of IGT corpora is in many ways different from the creation of standard corpora. The former is often the result of field work, or like in our case, connected to linguistic graduate work of native speaker annotators. Not least due to the depth of annotation, the work with IGT data is challenging. Several cycles of reannotation may be required before the material can be used as research data (Beermann & Mihaylov 2014, Beermann 2015). We consider it as problematic when scientific ‘data’ is only available as part of a publication. In our view an article like the present one should be accompanied by an independent data resource. In a recent article List and Sims propose a framework for the computer-assisted handling of interlinear glossed text which means to them that the resulting data is ‘findable, accessible, interoperable, and reusable’ (List and Sims 2019: 2). As a first step in that direction, we have extracted 300 sentences from a larger Runyankore-Rukiga corpus and made them available in Dataverse as an XML-resource. For data exchange XML is the standard format, but since linguistic data not only serve in research but also in language teaching and language documentation and revitalization, to only make accessible machine-readable resources does not seem sufficient, as annotated language data should also be available and readable outside academic circles. Therefore, we also present our data on a Mediawiki which serves as an outer layer to our IGT database. Mediawikis are versatile and user-friendly and allow to contextualize and visualize data beyond what can be done in an analytical paper. While publications like the present one necessarily provide a very focused view of the data, linguistic research data is rich in features and therefore complicated. It typically represents a wider range of phenomena than a standard article can address.

When considering the analytical aspect of this paper, we hold the belief that a modular language model serves best when the aim is to closely integrate formal linguistic work and data analysis. In this study, we employ an attribute-value format to represent semantic features (Sections 3 and 4), which we evaluate through an enhanced structural analysis of agreement domains.

1.4 Overview and structure of the paper

Figure 1 below gives an overview of the categories represented in the paper. We distinguish locative words depicted on the left branch of the hierarchy from locative phrases shown on the right branch in Figure 1.

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6 The Runyankore-Rukiga corpus is a documentary linguistic corpus in the sense of Gries and Berez (2017). It consists of linguistic sentence collections as well as transcribed audio and video recordings and narrative texts. Due to its structure and because it is still a small corpus, it does not allow for valid quantitative studies. We can count frequencies in our corpus, but we cannot expect that these findings can be generalized. Also note that the corpus is not annotated for tone.

7 https://dataverse.no/dataverse/root/?q=Beermann

8 https://typecraft.org/tc2wiki/Runyankore-Rukiga_Corpus
We first will discuss words, including topological expressions such as ‘under’ or ‘above’ then turn to locative phrases such as o-mu ky-aro ‘in the village’.

Locative phrases in southern Bantu languages have been categorised as prepositional phrases. (e.g., Marten 2006, Buell 2007, Marten 2010). Creissels (2011) points out that locatives in Tswana (S31a) might have ceased to be integrated into the language’s noun class system. Marten (2012) has investigated Luganda (JE15) locatives and analysed them as noun phrases albeit with notable differences to other noun phrases. Here we present an account of locatives in Runyankore-Rukiga which we classify as nominal expressions.

The article has the following structure: Section 2 examines inherent and derived locative nouns, relational nouns, and locative pronouns. In Section 3, we shift our focus to the right branch of the locative category hierarchy, as depicted in Figure 1. We argue that in Runyankore-Rukiga locative phrases behave morpho-syntactically like noun phrases. We then propose an analytical differentiation between transparent and closed locative noun phrases. The discussion of alternate agreement patterns, which we consider a characteristic of transparent locative noun phrases, is presented in Section 3. Section 4 provides an analysis of pre-modified locative internal noun phrases, which we categorise as closed NPs and finally, Section 5 serves as the conclusion of the paper.
2 Locative words

2.1 Locative nouns

Runyankore-Rukiga has three nominal locative classes, viz. class 16, 17 and 18, marked with the prefixes ha-, ku- and mu- respectively. Ha- (class 16) indicates a confined place, ku- (class 17) a wider area than ha-, while mu- (class 18) refers to a place inside. The three locative class markers can occur as nominal prefixes in the formation of locative nouns. In comparison, Luganda has four locative classes which are marked by wa- (16), ku- (17), mu- (18), and e- (23) (Ashton et al. 1954, Maho 1999). Also, Kinyarwanda has four locative classes which are marked by ha- (16), ku- (17), mu- (18), and i- (25), which is used before place names (represented as class 19 in Ngoboka 2017). Chichewa (Bresnan & Kanerva 1989) and Otjiherero (Marten 2006), just as Runyankore-Rukiga, have three locative classes.

2.1.1 Inherent and derived locative nouns

The concept of an inherent locative noun has received various interpretations and analytic treatments. It is commonly assumed that inherent gender is specified in the lexicon, which aligns with our adopted approach. (see also Givón 1972, Carstens 1991, and Kihm 2005). From a semantic coherence perspective, place-denoting nouns are members of the locative classes, such as the noun a-ha-ntu, ‘place’, and o-ku-zimu which refers to a ‘deep place’. These nouns have the class marker directly prefixed to the root.

Like other Bantu languages, Runyankore-Rukiga includes many nouns that denote places, that belong to non-locative classes of which they are canonical members. Examples are e-i-guru ‘heaven’ (class 5), geehena ‘hell’ (class 9), and e-mi-siri ‘gardens’ (class 4).

Locative nouns can also be derived from nouns of other classes by locative derivation. For instance, the word o-mu-n-da refers to the digestive tube (inside of the stomach) and is derived from the noun e-n-da (class 5) which means ‘stomach’, ‘womb’, or ‘pregnancy’. Likewise, the afore mentioned noun e-i-guru ‘heaven’, which semantically is a place-denoting noun of class 5, can undergo locative derivation and become a locative derivative of class 18 in the form o-mw-i-guru. As a class 18 noun, it denotes a place in heaven. This demonstrates that locative derivation is a regular process wherein the canonical class marker is retained, while a locative prefix is added. However, due to phonological assimilation, derivation can often be intricate. Take o-mw-i-guru, as an example where the augment e- of e-i-guru is dropped and the class 18 marker mu- is prefixed. Through gliding /u/ becomes /w/ due to the following high vowel /i/. The locative class marker precedes the class 5 marker, and as a class 18 noun, it carries the augment o-. The observed morphological regularities in locative derivations play a crucial role in the formation of complex locative phrases which will be discussed in Section 3 and 4 of the paper.

2.1.2 Relational nouns

Relational nouns (Pütz & Dirven 1996, Nurse & Philippson 2006, Levinson 2009) express topological concepts such as ‘yonder’, ‘beneath’, ‘on top’, ‘above’, and ‘under’. They establish a relationship between an entity and a location. For instance, in Runyankore-Rukiga the term aha refers to a confined area (a place), while n-si (class 9) means ‘earth’ (an entity). When combined, they form the relational noun a-ha-n-si which means ‘under’. Relational nouns can join with other nouns using an associate element to form complex noun phrases known as associate or connective phrases (Van de Velde 2013). In our annotations, we refer to the relator as an associative marker (ASSOC). An example of such a construction is illustrated in (4):

(4) e-n-kungu y’-o-mu-gyera
    AUG9-9-bank 9.ASSOC-AUG3-3-river
    ‘river bank (ridge)’
Combinations of a relational noun and a standard noun follow standard connective constructions, where the relational noun is followed by an associative marker, and then the standard noun. Other examples include ahansi y'emeega meaning ‘under the table’ and ahaiguru y’emeega meaning ‘above or on top of the table’. Connective constructions with relational nouns adhere to the general rules of connective noun phrase formation, with the distinction that they denote places. Thus, locative connective constructions are semantically locative expressions but syntactically complex noun phrases following the general pattern [N-associative marker - N-locative].

2.2 Locative pronouns
Locative pronouns, such as the proximal kunu ‘this side’, the medial aho ‘there’, or the distal muru(ya) ‘in the visible distance’, may either accompany nouns, or occur in an adverbial function (Dixon 2003) as they can either modify nouns (5) or accompany verbs (6).

(5) Beitu Kampala o-kw-o no-o-kor-a=yo ki
    but Kampala DEM-17-MED PRES-SM2SG-do-FV=loc23 INTR
    ‘But what kind of job do you do there in Kampala?’

(6) E-n-kyende y-aa-shitam-a o-kw-o?
    AUG9-9-monkey SM10-PSTIM-sit-FV DEM-17-MED
    ‘Did the monkeys sit there?’

Asiimwe (2014: 185) classifies okwo in (5) and (6) as a medial class 17 demonstrative form. In (5) it modifies Kampala. Kampala o-kw-o precedes the verb and thus triggers the locative enclitic -yo (class 23). In cases like (6), okwo has an adverbial function which is one of the described uses of demonstratives cross-linguistically (Himmelmann 1996: 240).

We now turn to locative phrases and questions concerning noun phrase external and internal locative agreement.

3 Locative phrases
3.1 External locative agreement
Locative phrases trigger verb agreement when they occur in a preverbal position, as illustrated in (7), with the locative marking in boldface. Note that in Runyankore-Rukiga, the class 16 ha- prefix is the default subject agreement marker for all the three locative classes.10

(7) a. O-mu n-ju ha-aa-taah-a=mu a-ba-gyenyi
    AUG18-18 9-house SM16-PSTIM-enter-FV=LOC18 AUG2-2-visitor
    ‘In the house, there entered (some) visitors.’

b. A-he-eru ha-ri=yo e-m-bwa
    AUG16-16-outside SM16-COP=LOC23 AUG9-9-dog
    ‘Outside is a dog.’

c. Kampala ha-aa-gw-a=yo e-n-jura ny-ingi
    Kampala SM16-PSTIM-fall-FV=LOC23 AUG9-9-rain 9-much
    ‘In Kampala it has rained a lot.’

9 Taylor calls locative connective NPs ‘prepositional compounds’ (Taylor 1985: 181). He furthermore classifies the associative marker -a and the locative particles aha and omo as prepositions (Taylor 1985: 180).
10 We classify -yo as the locative enclitic for class 23. It is generally assumed that Runyankore-Rukiga lost this class (some Bantu languages still have it, e.g., Luganda). We here assume that -yo is a remnant of this class which is still identifiable as such, although it agrees with the remaining three locative classes. (See also Zeller 2021 for a short discussion about the locative noun classes in the J zone-languages)
In (7a) the fronted underlying object of the verb triggers locative agreement with the verb *-taaha* ‘enter’ in a configuration known as Locative Inversion. As already mentioned above, locative agreement for all locative classes is expressed by the class 16 prefix ha-. We will come back to this point immediately.

(7b-d) show that not only objects in the strict sense but also other complements, when in sentence initial position, may agree with the verb. Only noun phrases can be fronted in this way and between them are the locative phrases, as shown in (7). As is well known, prepositional phrases cannot undergo this inversion,\(^\text{11}\) as shown in (8):

(8) a. A-ka-gyend-a n’-e-gaari
   SM1-PSTRM-go-FV with-AUG9-9.bicycle
   ‘He/she went with a bicycle.’

b. *N’-e-gaari a-ka-gyend-a
   with-AUG9-9.bicycle SM1-PSTRM-go-FV

c. Ya-aa-z-a a-ha kanisa n’e-gaari y-e
   SM1-PSTIM-go-FV AUG16-16 9.church with.AUG9-9.bicycle 9-POSS
   ‘He/she went to church with his bicycle.’

d. *N’egaari y-e ya-a-z-a a-ha kanisa
   with AUG9-9.bicycle 9-POSS SM1-PSTIM-go-FV AUG16-16 9.church

Locative Inversion can be used to show that locative phrases behave morpho-syntactically like other noun phrases. This holds also for negative contexts, as exemplified in (9) and (10):

(9) a. Ti-n-aa-gur-a mw-onyo
    NEG-SM1SG-PSTIM-buy-FV 3-salt
    ‘I have not bought salt.’

b. Ti-n-aa-t-a mw-onyo mu ma-huri
    NEG-SM1SG-PSTIM-put-FV 3-salt 18 6-egg
    ‘I have not put salt in the eggs.’

(10) a. N-aa-gur-a o-mw-onyo
     SM1SG-PSTIM-buy-FV AUG3-3-salt
     ‘I have bought salt.’

b. N-aa-t-a o-mw-onyo o-mu ma-huri\(^\text{12}\)
    SM1SG-PSTIM-put-FV AUG3-3-salt AUG18-18 6-egg

\(^{11}\) The locative phrases in Runyankore-Rukiga are either single words or multi-word expressions of the form [PRTloc Nloc] (modulo modification). It is the latter pattern that makes them in form similar to PPs, and therefore invites a comparison of these different types of phrases also relative to inversion. The language cluster has one uncontested preposition, namely na meaning ‘with’. Our corpus contains 134 sentences containing na, either as a preposition or as a conjunction meaning ‘and’. Only the conjunction can occur sentence initially (6 of 134), e.g. in dialogues. Its meaning in this configuration is ‘and also’.

\(^{12}\) The lack of augment on the inner noun of the locative phrase is explained in Section 3.2 and in Section 4.
‘I have put salt in the eggs.’

(9) shows that noun phrases as well as locative phrases lose their augment after a negative verb. Whenever the nominal does not fall within the scope of a negative operator, as shown in the examples in (10), the augment is obligatory.¹³

Locative Inversion furthermore allows for a closer look at locative agreement patterns. As has been mentioned at the beginning of this section, in Runyankore-Rukiga, locative agreement on the verb is always marked by the class 16 subject marker; the examples in (7) above illustrate the point. In this way the prefix ha- is the default agreement target for all three locative class controllers (7a, b, d).¹⁴ In Chichewa (Bresnan & Mchombo 1995), Luganda (Gregoire 1975) and Bemba (Marten 2010), as well as in other Bantu languages, all three locative classes serve as locative agreement markers on verbal predicates. Runyankore-Rukiga thus belongs to the Bantu languages where the verb and the locative do not agree in the strict sense, since not only the form of the agreement marker but also the feature realised may differ from the feature of the target controller. Yet, ha- is a locative marker and we therefore can still talk about generalised locative agreement.¹⁵ In cases like (7c) where the agreement trigger is not morphologically marked as a locative, and not a member of one of the locative classes, we have a case of semantic locative agreement. Morphologically this is again marked by the prefix ha- and the enclitic =yo which is an endclitic on the verb and which denotes an indefinite place (in the yonder). Endclitics occupy the post-final position in the verbal template (Diercks 2011). Enclitics in East African Bantu languages have been described for Luganda by Ashton et al. (1954) and Marten & Kula (2014), for Lubukusu by Diercks (2011), and for Kinyarwanda by Zeller & Ngoboka (2018). Runyankore-Rukiga has three locative enclitics while there are some languages such as Luganda with four enclitics derived from all the four locative prefixes present in the language (wo, mu, ko, yo).

In this subsection, we have observed that locative nominals, including the alleged prepositional locative phrases in Runyankore-Rukiga, not only exhibit sensitivity to negative verbs but also trigger agreement through locative inversion. Agreement in locative inversion constructions varies across Bantu languages. For Runyankore-Rukiga, we have noted that the class 16 marker ”ha-” is used as a generalized marker for locative agreement in all three locative classes. Like most other East Bantu languages, Runyankore-Rukiga employs enclitics for left-dislocated locative phrases. In such cases the verb requires both the prefix and the enclitic, representing a phenomenon known as Multiple Exponence. Multiple exponence refers to the mapping between meaning and morphological form where one-to-many relationships occur. This topic has received significant attention in recent morphological theoretical literature (Caballero and Inkelas, 2018, and references therein). The presence of locative agreement expressed through both a locative prefix and a locative endclitic on the verb in East Bantu languages presents an intriguing case.

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¹³ Taylor (1985:88-89) lists other contexts in which nouns occur without their augment.

¹⁴ For the notion of agreement controller and agreement target, see (Corbett 2006).

¹⁵ A generalised locative marker is also found in Kinyarwanda, which also uses the class 16 marker as locative agreement marker throughout (Zeller and Ngoboka 2018). In Kinyarwanda, locatives are likewise nominals which can undergo Locative Inversion.
3.2 Internal locative agreement

Similar to external locative agreement discussed in the previous section, noun phrase internal locative agreement is also considered an indication of the locative's nominal status. Internal locative agreement, including its alternating variant, have been noted by Taylor (1985: 86) in the context of Runyankore-Rukiga. Marten (2012) describes the pattern for Luganda, a closely related language to Runyankore-Rukiga. In his analysis, Marten employs a complex syntactic structure where the locative prefix functions as the head and the internal noun phrase serves as its complement. He proposes two distinct underlying syntactic representations, where the agreement target is either within the inner NP (in the same agreement domain as the internal noun) or part of the outer layer as a sister to an intermediate LOC projection. A similar approach has been suggested by Myers (1987) in the derivation of class-marked nouns and verbs in Kilega and Kiswahili, as reported by Bresnan and Mchombo (1995). These approaches share a common idea of modelling alternate agreement through alternative syntactic structures (Marten 2010: 439). Here we would like to suggest an alternative account where the well-formedness of both agreement patterns is accounted for in terms of morphological features. First, we will examine the facts as they appear in Runyankore-Rukiga and then present our analysis.

Demonstratives may either agree with the phrase-initial locative as seen in (11b – outer agreement), or with the internal noun of the locative phrase as in (11a – inner agreement):

(11) Inner agreement
a. o-mu ky-aro e-ki ha-ri=mu e-n-te n-yi-ningi
   AUG18-18 7-village DEM-7 SM16=COP=18 AUG10-10-cow 10-many
   'In this village, there are many cows.'

Outer agreement
b. o-mu ky-aro o-mu ha-ri=mu a-ba-shuma
   AUG18-18 7-village DEM-18 SM16=COP=18 AUG2-2-thief
   'In this village, there are thieves.'

In (11a), the demonstrative is expressed as eki (class 7, proximate), while in (11b), it appears as omu (class 18, proximate). The term "outer" agreement, used to describe the pattern in (11b), originates from discussions about Bantu languages where the locative serves as the outer prefix and the canonical class marker functions as the inner prefix. This term is also applied to languages where the locative is a suffix rather than a prefix (Marten 2012). In Runyankore-Rukiga, the locative formatives ha and mu can exist independently as standalone words. They still carry an augment, just like when they function as bound morphemes. Furthermore, the noun that follows these locative words must also lose its augment (as seen in (10b) and (11)). However, these free-standing locative forms are not simply orthographic variants of the locative prefix. Firstly, the locative noun phrases are not written sometimes as one word and other times as two, although mistakes can occur. Secondly, there may be words intervening between the initial free-standing locative forms and the noun, as illustrated by examples (17) and (18) in Section 4. Lastly, locative phrases like the ones discussed here do not exhibit grammatical variation within the Runyankitara varieties, indicating that the use of freestanding locative morphemes is not a recent ongoing grammatical change.\textsuperscript{18}

\textsuperscript{16} For an overview over the three possible locative internal agreement patterns and their areal distribution in Bantu, see Marten (2012).

\textsuperscript{17} Alternate agreement is also found in Chichewa (Mchombo 2005).

\textsuperscript{18} Still there are some differences: whereas in Runyankore-Rukiga the augment is generally required, in Runyoro-Rutooro, the particle of class 18 optionally takes an augment, e.g., omu nju, 'in the house', and mu nsi 'in the world'. Class 16 locatives however never take an augment, as in ha ntebe 'on the table'. It is not immediately clear what motivates the optional use of the augment with class 18 in Runyoro-Rutooro. A study to capture this microvariation still needs to be conducted. It should be noted that in Luganda, which is spoken in close contact to the languages of the
Bantu languages differ as to which modifiers allow alternate agreement. In Runyankore-Rukiga only the demonstrative is subject to this pattern, while the possessive and the adjectival modifiers agree only with the internal nouns (inner agreement) as shown in (12) for the possessive.

(12) a. Y-aa-t-a a-ma-bara o-mu burauzi y-a-awe
    SM1-PST-IM-pu-put-FV AUG6-6-stain AUG18-18 9.blouse 9-ASSOC-2SG.POSS
    ‘She/he has put stains in your blouse.’

    b. Y-aa-t-a a-ma-bara o-mu burauzi (*mu)-a-awe
    SM1-PST-IM-pu-put-FV AUG6-6-stain AUG18-18 9.blouse 18-ASSOC-2SG.POSS
    ‘She/he has put stains in your blouse.’

One could say that in Runyankore-Rukiga possessives and modifying adjectives are agreement persistent while demonstratives are agreement shifters. It should be noted that modifying adjectives behave differently from predicative adjectives. While the former must agree with the internal noun, as illustrated in (13), predicative adjectives can agree with the locative head as part of the external locative agreement pattern. One such context for locative agreement of predicative adjectives are comparative constructions, as exemplified in (14).

(13) E-ki-tabo ki-ri a-ha meeza e-m-pango
    AUG7-7-book 7-COP AUG16-16 9.table AUG9-9-big
    ‘A/the book is on the big table.’

(14) a. O-mu ru-gundo ni ha-hango ku-kir-a o-mu mu-handa
    AUG18-18 11-road COP 16-big INF-exceed-FV AUG18-18 3-path
    ‘The road is wider than the footpath.’

    b. O-mu ki-kopo ha-funz-ire ku-kir-a o-mu safuriya
    AUG18-18 7-cup 16-restrict-STAT INF-exceed-FV AUG18-18 9.saucepan
    ‘The inside of the cup is smaller than that of the saucepan.’

In (14) *omu expresses the dimension of comparison, as it is the inside of the road or the cup that is compared with the inside of something else which is either wider or smaller, which also explains the two instances of *omu in (14a) and (14b). In (14a) *hango is a pure adjective, a class which behaves like nouns. In (14b) we have a verbal adjective (in the sense of Taylor 1985) which generally behave like verbs. Such adjectives when used predicatively take the form of a relative participle (Taylor 1985: 174). *Funzire in (14b) is such a verbal adjective and the locative agreement might well count more as verbal.

4 Nominal agreement domains

4.1 Locative phrases corresponding to one agreement domain
Although both inner and outer agreement are part of the Runyankore-Rukiga grammar, agreement with the internal noun is the less marked option. Locative agreement only occurs when the speaker wishes to talk specifically about the location. Consider (15), repeating with slight variation the example in (11):

Runyankore-Rukiga cluster, locative particles do not take an augment, e.g. (*o)mu nyumba ‘in the house’, (*o)ku ntebe ‘on the chair’.
(15) a. Inner agreement
O-mu ky-aro e-ki ha-ri=mu e-n-te ny-ingi
AUG18-18 7-village DEM-7 16-COP=18 AUG10-10-cows 9-many
‘In this village, there are many cows.’ (as an epistemic statement)

b. Outer agreement
O-mu ky-aro o-mu ha-ri=mu e-n-te ny-ingi
AUG18-18 7-village DEM-18 16-COP=18 AUG10-10-cows 9-many
‘In this village, there are many cows.’ (as an observation)

In (15), the noun kyaro is in each case followed by a demonstrative. In (15a) it takes the form of the class 7 proximal eki while in (15b) it has the form of the class 18 proximal omu which occurs sentence initial in (15a/b). The demonstrative omu agrees with the locative nominal phrase omu kyaro in (15b). As has been noticed before for other Bantu languages (Taylor 1972, Stucky 1978, Carstens 1991, Marten 2012), alternate agreement patterns lead to different interpretations. This is also evident in Runyankore-Rukiga. Under locative (outer) agreement in (15b), the sentence’s focus is on the location. The speaker might emphasize that the cows are gathered there presently and then proceeds to discuss where they are at night. Conversely, (15a) functions more as an epistemic statement, referring to something known about the village. Even if cows are not visible, it is known that the village owns some.

Our aim is to capture this interpretational difference using semantic terms and evaluate it within the morpho-syntactic context in which it arises. Looking at the semantics first, we will employ Jackendovian-style semantic representations (Jackendoff 1990, 2013), as depicted in Figure 2. As our paradigm case we use the noun phrases omu kyaro eki from (15a) and omu kyaro omu from (15b).

<table>
<thead>
<tr>
<th>Formatives</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>omu (DEM)</td>
<td>Spatial enclosure + proximity (PLACEIN+PROX)</td>
</tr>
<tr>
<td>eki (DEM)</td>
<td>proximity to deictic centre (DEIXIS_PROX)</td>
</tr>
<tr>
<td>kyar (N)</td>
<td>entity [THING]</td>
</tr>
<tr>
<td>omu kyar (N)</td>
<td>place [PLACEIN [THING]]</td>
</tr>
</tbody>
</table>

**Inner agreement**: [PLACEIN [DEIXIS_PROX [THING (village)]]] (15a)

**Outer agreement**: [DEIXIS_PROX [PLACEIN [THING (village)]]] (15b)

**Figure 2 The interpretation of outer and inner locative agreement in Runyankore-Rukiga**

In Figure 2 we employ three functions: [PLACE], [THING] and [DEIXIS]. A PLACE function maps a [THING] into a [PLACE]. THINGs are reference objects; in our case the [THING] refers to a village (kyaro). The [PLACE] function is realised by omu, it ‘type-shifts’ kyar to represent an internal place. The third category is the [DEIXIS] function which encompasses three types of deixis in Runyankore-Rukiga: proximate (PROX), medial (MED), and distal (DIST). In our example both demonstrative forms omu and eki express proximity, as shown in Figure 2. We associate outer agreement with a situation where the deictic function instantiated by the demonstrative omu takes a PLACE as its argument. On the other hand, under inner agreement, the deictic function, instantiated
by the demonstrative *eki*, has narrow scope limited to village. Both demonstratives exhibit morphological agreement with the noun within their scope, highlighting the parallelism between the semantic and morphological structure of the expression. This implies that when "kyaro" (village) falls within the scope of the deictic marker, the demonstrative and the inner noun agree (15a), suggesting that the village itself possesses cows. However, when "omu kyaro" (village) is within the scope of the demonstrative, it agrees with the outer noun, implying an interpretation where cows are located around the village (15b). The morpho-syntactic configuration depicted in Figure 3 below emphasizes the importance of structural proximity for both outer and inner agreement. It is widely recognized that morpho-syntactic rules operate within specific domains, meaning that agreement features must exist in a configuration that enables the agreement target to access them effectively.

Figure 3 provides a visual representation of an agreement domain, utilizing again the phrases *omu kyaro eki* (with class features 7) and *omu kyaro omu* (with class features 18). The configuration is a complex NP featuring an intermediate nominal projection, denoted as N’. The objects enclosed in square brackets represent attribute value matrices, where class features serve as values. The unification process for features follows a bottom-up approach, whereby the class values of the noun and the postnominal modifier (demonstrative) are unified at the intermediate N-level as class 7. However, the class value of the demonstrative *omu* remains distinct as class 18 and does not unify at the N’ level. Unification is a matching process based on features, and N’ serves as an intermediate projection where the unification of the locative feature can still occur at a higher level, where the features of the embedded determiner align with the locative particle. This unification process applies within the defined agreement domain and fails only when incompatible features persist throughout this domain. In a two-layered locative nominal, as illustrated here, class features can also be unified at the highest NP level, resulting in what we refer to as transparent locative phrases, where both the locative and the noun serve as agreement controllers.

In summary, by utilizing Jackendovian semantic representation and a unification-based feature approach, we can effectively capture alternate agreement phenomena in Runyankore-Rukiga. We adopt a standard constituent structure and consider the locative noun phrase as a unified agreement domain, which we term a transparent locative phrase. This scheme allows for multiple agreement patterns and explains the assignment of the augment to the leftmost noun in the locative phrase (as seen in, for example, (10b) in Section 2.2). However, it is important to note that not all locative phrases in Runyankore-Rukiga exhibit transparency. The presence of a demonstrative or certain
quantifiers preceding the internal noun disrupts the agreement patterns observed in transparent locative phrases. We will look at such phrase next.

4.2 Locative phrases corresponding to two agreement domains

So far, we have seen that not only locative words, but also transparent locative phrases constitute a single morphological domain the hallmark of which is the loss of the augment on the internal noun. It is a process that is far more general, as it applies not only to locative but also to other forms of pre-modification as shown by the examples in (16).

(16) a. a-ba-ntu a-ba-ndi
   AUG2-2-person AUG-2-other
   ‘other people’ (Taylor: 55, ex 152a)

   b. a-ba-ndi bantu
      AUG2-2-other 2-person
      ‘other people’ (Taylor: 55, ex 152b)

   c. o-mu n-ju
      AUG18-18 9-house
      ‘in the house’

   d. e- gi n-ju
      DEM-9 9-house
      ‘this house’

(16a, b) show the modifier bandi as pre- and postmodifier, and (16c, d) show pre-modification by a locative particle and by a demonstrative.

As for the general pattern, Asiimwe (2014) notes that it is always the leftmost element of the noun phrase that signals its referential anchoring, while the augments on the postnominal modifiers signal agreement. The question now is what happens when one combines the locative particle with a pre-modified NP. A case in point is (17).

(17) o-mu-ri e-ri(ya) n-ju
    AUG18-18-ri DEM-DIST 9-house
    ‘in this house’

In (17) the demonstrative specifies the noun njú which occurs without augment. The noun is preceded by a demonstrative, which does not carry an augment, as shown by Asiimwe (2014). The phrase-initial locative particle carries the augment o- and appears in its long form with the affix -ri added to the word. While it is not clear how to classify -ri, it can be readily described which role it plays here. -ri occurs when the locative particle precedes an element that does not occur with an augment. Nominal expressions in this category include pronouns, proper names, kinship terms, numerals and some quantifiers as well as a few other nouns (Asiimwe forthcoming). In (17) we have shown that the same also applies to demonstratives preceding the noun.

A structural representation of (17) is the NP adjunction structure as shown in Figure 4. We refer to such configurations as locative NPs with a closed internal NP:

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19 One might inquire whether -ri is perhaps a bound copula root. Ri, next to -ba and ni is one of the copulas of the language. These copulas can occur bound as well as unbound. Taylor (1985: 40) examines the role of ri in the formation of locative pronouns such as the distal locative pronoun muriya ‘in the yonder’ which has the morphological structure muri-ya (mu = 18, -ri- = COP, -ya = DIST). The question whether we are dealing here with the same morpheme is left open.
Figure 4 Agreement in two-layered locative phrase with an internal closed NP.

Figure 4 provides a visual representation of a pre-nominally modified NP for the clause: omuri eriya nju. The modifier is the suffixed form of the locative demonstrative which is omuri. In this configuration outer agreement from within the pre-modified NP is impossible. In Figure 4 this is indicated by the feature matrices in square brackets.

A similar situation, currently not well understood, occurs when a possessive or an adjective preceding the locative phrase. A case in point is "zi-ndi" meaning 'other' which has been placed at the front for emphasis. In these cases, the locative particle remains in its short form, and it is optional whether the subsequent noun carries the augment or not, as indicated by the presence of optionality marking in (18b):

(18)  a. o-mu za-nginx e-n-ju   b. o-mu zi-ndi (e)-n-ju
     AUG18-18 10,GEN-mine AUG10-10-house AUG18-18 10-other AUG10-10-house
     ‘in my houses’               ‘in other houses’

Constructions like (18) need to be looked at further including the tonal as well as the semantic properties of the construction. We also need to establish whether the variation we observe for Runyankore-Rukiga truly holds for all variants within the language cluster.

5 Conclusion
In this study, our main argument is that locatives in Runyankore-Rukiga should be considered as nominal expressions. To gain a comprehensive understanding of the language's locatives, it is crucial to examine its morphology. Thus, we combine the investigation of Runyankore-Rukiga locative words with the examination of locative phrases in this paper. We delve into both inherent and derived locative words, as well as relational nouns that convey topological notions such as 'under' and 'above'. Our analysis reveals that locative phrases should be treated as nominal expressions rather than prepositional phrases. These phrases exhibit characteristics of standard nouns, triggering external locative agreement and behaving consistently in Locative Inversion and with negative verbs.

Throughout this article, we provide insights into the position of Runyankore-Rukiga among other Bantu languages, highlighting the range of cross-linguistic variation that emerges in Bantu locative formation. We explore the phenomenon of alternate agreement patterns, which are also found in other Bantu languages, and propose that locative phrases allowing agreement alternation constitute a single agreement domain. This can be effectively demonstrated using a feature
unification model. Furthermore, in Runyankore-Rukiga, alternate agreement patterns lead to different interpretations of the locative phrase, which we model using a Jackendovian-type semantics. Lastly, we suggest that the long locative particle forms "o-mu-ri" and "a-ha-ri" are used when the internal noun is either pre-modified or cannot take an augment, such as kinship terms. We posit that prenominal specifiers create a closed internal noun phrase in relation to the preceding locative particle, resulting in two agreement domains. Consequently, the postmodifiers within the inner agreement domain can only agree with the internal noun.

Abbreviations used in the paper: *

AFF=affix; \{1\|2\|3\}SG={first|second|third person} singular; ASSOC=associative; AUG=augment; COP=copula; DEM=demonstrative; DIST=distal; FV=final vowel; INF=infinitive; INTER=interrogative; LOC=locative; MED=medial; NEG=negative; PC=pronominal concord; POSS=possessive; PRES=present; PROX=proximal; PST=past; PST\text{IM}=immediate past; PST\text{HST}=historical past; PST\text{RM}=remote past; REL=relative; SBJ=subject; SBJV=subjunctive; STAT=stative.

*We use numbers to represent the Bantu noun classes.

References


