Incorporating Location in Argument Structure: The Lubukusu Locative Clitic

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1. Introduction

In a variety of syntactic contexts involving locative phrases in Lubukusu (Bantu), a locative agreement marker appears suffixed to the verb, illustrated by the postverbal –*mo* in (1).

(1)   mu-mu-siru, ku-mw-iti   kw-a-kw-ile-**mo**[1]   [Lubukusu]
         18-3-forest   3-3-tree   3SM-PST-fall-PST-18LM   **Locative Clitic**
         'In the forest a tree has fallen.'

This paper examines the morphosyntax of this locative clitic, describing the syntactic contexts in which it is licensed (§2) in addition to examining its various lexical restrictions (§3). Section 4 then proposes a syntactic projection (termed 'Location Phrase') in order to account for both the syntactic and lexical-semantic properties of the clitic. Before this, however, the following sub-sections provide some relevant background on basic Lubukusu morphosyntax and the existing research on Bantu clitic-like elements.

1.1. Profile of Lubukusu

Lubukusu (Bantu J.30) is spoken in the Western province of Kenya by approximately 550,000-800,000 people, and belongs to the Luyia subgroup of Bantu languages, of which it has been estimated that there are at least 23 different dialects spoken in Western Kenya and Eastern Uganda (Marlo 2009).[2] Before coming to the subject matter of this paper, it is first necessary to briefly establish some background on noun class agreements in Lubukusu. Bantu noun classes are theoretically equivalent to

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[1]Regarding glossing: cardinal numbers in glosses (e.g. 6OM) represent noun class (i.e. genders) and are all third person. The numbers 1 and 2 together with a number-marking (e.g. 1pl) are used for first and second person. SM stands for subject marker; OM stands for object marker; LM stands for locative marker (referred to as the locative clitic in this paper); PROG represents progressive aspect; HAB represents habitual aspect; TNS represents a non-specified tense morpheme; LOC represents a non-specified locative morpheme; AP or APPL represents applicative (APPL form retained from other sources); FV stands for final vowel; PERF represents perfective aspect.
[2] Estimates vary widely as to the number of Lubukusu speakers: see Mutonyi (2000) and Lewis (2009) for a few. Lubukusu has also been reclassified from its Guthrie classification of E31c to J30 in Lewis (2009), and JE31c in Maho (2008). Previous work on Lubukusu has mainly included phonological, morphological, and documentation work (Austen 1974a,b; De Blois 1975; Downing 2004; de Wolf 2005; Mutonyi 1996, 2000; Marlo 2009; Marlo et al 2008), though there has been some work on the syntax of Lubukusu (Austen 1974a; Wasike 2002, 2007; Bell 2004; Diercks 2010, 2011; Sikuku 2011).

grammatical gender, and noun class agreement may be iterated across a clause. Noun class agreement in many Bantu languages is iterated across many different categories; the example from Swahili in (2) illustrates this for demonstratives, adjectives, and verbal agreement forms (class 7 *kitabu* 'book' in (a), and class 8 vitabu 'books' in (b)).

(2) a. **Ki**-tabu hi-**ki** **ki**-kubwa **ki**-me-anguka   [Swahili]
        7-book   this-7   7-big   7SM-PERF-fall
        'This big book fell.'

    b. **Vi**-tabu hi-**vi** **vi**-kubwa **vi**-me-anguka
        8-book   this-8   8-big   8SM-PERF-fall
        'These big books fell.'

Mutonyi's (2000: 6) summary of Lubukusu noun classes is recreated in part as (3), showing different noun classes in which nouns may occur in Lubukusu along with their corresponding morphological forms. Note the every nominal form in Lubukusu bears two noun class prefixes, referred to here as the pre-prefix and the prefix.

(3)   Lubukusu noun class morphology

Class	Preprefix	Prefix	Example	Gloss
1	o-	mu-	omwana	'child'
2	ba-	ba-	babaana	'children'
3	ku-	mu-	kumukhono	'arm/hand'
4	ki-	mi-	kimikhono	'arms/hands'
5	li-	li-	lilyaanda	'ember'
6	ka-	ma-	kamaanda	'embers'
7	si-	si-	sisyaangu	'sponge'
8	bi-	bi-	bibyaangu	'sponges'
9	e-	N-	eendubi	'basket'
10	chi-	N-	chiindubi	'baskets'
16 (Locative 'at')	a-		amulyaango	'at/near the door'
17 (Locative 'on')	khu-		khumulyaango	'on the door'
18 (Locative 'in')	mu-		mumulyaango	'in the door'

Of particular relevance to this paper are the locative noun classes 16-18. The proto-Bantu locative noun classes persist in Lubukusu: class 16 *pa, class 17 *ku, and class 18 *mu are realized as the prefixes *a-*, *khu-*, and *mu-* in Lubukusu; a locative phrase is formed by affixing the locative pre-prefix onto a noun, effectively replacing the lexical noun class pre-prefix of that noun, as is shown in (4).[3]

(4) a. **ku**-mu-lyaango   'door'   [Lubukusu]
        3-3-door   (Mutonyi 2000)
    b. **a**-mu-lyaango   'near the door'
        16-3-door
    c. **khu**-mu-lyaango   'on the door'
        17-3-door
    d. **mu**-mu-lyaango   'in the door'
        18-3-door

Once a NP is made into a locative by one of the locative pre-prefixes, any agreement relations that it enters into will realize the locative features (i.e. class 16-18), rather than the noun's lexical noun

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[3]According to Bukusu orthographic convention, I represent the voiceless velar fricative [x] with the digraph 'kh'.

class. Therefore, for example, example (d) *mumulyaango* will trigger class 18 agreements on a verb rather than class 3 agreements.[4]

With respect to verbal forms, Lubukusu for the most part attends to the general Bantu pattern of affix placement, which is schematized in (5) (Marten 2009a; cf. Meeusssen 1967):

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

The schema in (5) shows that the subject marker (SM) is generally the first verbal morpheme (though it is preceded in some cases by negation) and is followed by the tense marker, the object marker (OM), and the verb root. Various suffixes may occur either on the root or in the final position, but what concerns us in this paper is the post-final position, #8, where the locative clitic occurs. Repeating the example from (1) here, it is clear that the Lubukusu verbal structure follows the general Bantu template closely. Note in particular that the locative clitic occurs in the post-final position and agrees in class 18 with the class 18 locative phrase that is left-dislocated in this example.

(6)   mu-mu-siru, ku-mw-iti kw-a-kw-ile-**mo**   [Lubukusu]
      18-3-forest   3-3-tree   3SM-PST-fall-PST-18LM
      'In the forest a tree has fallen.'

This lays out the necessary morphosyntactic background on Lubukusu; the next sub-section considers the theoretical literature relevant to the questions that are tackled in section 2.

1.2. Theoretical Background: Clitics in Bantu

There is a long and complicated literature on the morphology and syntax of clitics, perhaps most well-known in the literature on Romance, but also in the Bantuist tradition as well. Within the realm of Bantu syntax, much of the focus has been on whether object markers that appear on verbs can be considered incorporated pronouns, agreement morphemes, or clitics. The core claim, dating to Bresnan and Mchombo (1987), is that for languages where the object marker is an incorporated pronoun, postverbal object noun phrases are in fact dislocated when they co-occur with the object marker. This is in contrast to languages whose object markers are in fact agreement morphemes, where the postverbal object noun phrases occur *in situ*.

This line of inquiry extends to the present in works like (Henderson 2006) and (Riedel 2009), among others. As Riedel discusses, while some languages (e.g. Swahili and Sambaa) have been argued to have object agreement (Baker 2008, Bresnan and Mchombo 1987), others like Haya, Chichewa, Northern Sotho, and Zulu have been claimed to not have agreement (Baker 2008, Bearth 2003, Bresnan and Mchombo 1987, Byarushengo et al. 1976, Demuth and Johnson 1990, Duranti and Byarushengo 1977, Mchombo 2004, van der Spuy 1993, Zerbian 2006).[5] Riedel herself argues that the diagnostics for distinguishing agreement vs. pronominal incorporation are too mixed, claiming instead that all object-marking is agreement. Thus the question of the syntactic status of object markers is still a major topic of research, and from this fact it is clear that additional data from additional languages are needed to clarify both the empirical generalizations and the range of empirical variation that arise cross-linguistically.[6]

It is in this context that work on the Lubukusu locative clitic becomes relevant. To my knowledge, relatively little work has been done on the nature of postverbal locative clitics like the one discussed

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[4]Unless explicitly noted, all data in the paper are Lubukusu. Data from other languages are introduced and labeled as such. Tone marking has been omitted.

[5] For an excellent overview of the literature to date, see Riedel (2009).

[6] This work is already well-underway, of course, exemplified by Marten, Kula, and Thwala (2007), Marten and Kula (2009), and Beaudoin-Lietz et al. (2004).

here for Lubukusu; they have been reported in other languages (e.g. Lunda and Kinyarwanda, as discussed below), but they have not received nearly as much attention in the literature as object markers.[7] Therefore, this paper serves multiple purposes: to systematically document the syntactic properties of the Lubukusu locative clitic, but also to address the question of agreement markers vs. incorporated pronouns, as it is clear that in Lubukusu the locative clitic shows different properties than the object marker does, requiring an analysis that distinguishes the two of them. This approach helps to clarify the analysis of the locative clitic and provides further insight into the range of variation in non-subject marking that occurs in Bantu, and the conclusions about the locative clitic point to deeper generalizations about the nature of the syntactic licensing of locations in verbal argument structures.

2. Some Syntactic Properties of the Lubukusu Locative Clitic[8]

This section surveys the syntactic properties of the locative clitic in Lubukusu. The properties of the object marker are discussed as a point of contrast, with the purpose of clarifying the syntactic status of both, though a more in-depth treatment of the object marker in Lubukusu is beyond the scope of this paper.

2.1. Similarities between locative clitic and object marker

This section examines a variety of data regarding the nature of the locative clitic in comparison to the object marker. As will be shown, these morphemes share some properties, but diverge with respect to others, suggesting different theoretical analyses for the two. As is shown in (7), the locative clitic may pronominalize a locative phrase, but its presence rules out the occurrence of an *in situ* locative phrase. The same is true for the object marker in (8), which is impossible with an *in situ* NP object (this is a point of variation from other Bantu languages, with Swahili as a prominent example: see Riedel 2009).

(7) ku-mw-iti kw-a-kw-ile-**mo**   (*mu-mu-siru)   [Lubukusu]
     3-3-tree 3SM-PST-fall-PST-**18LM** 18-3-forest   **Locative Clitic**
     'A tree fell in there.'

(8) Tegan a-a-**ba**-p-ile   (*ba-ba-ndu)   **Object Marker**
     1Tegan 1SM-PST-**2OM**-hit-PST (*2-2-people)
     'Tegan hit them.'

There are, however, certain cases where it is in fact possible for the locative clitic to co-occur with a locative phrase. One of these is in the event that the locative phrase is dislocated, as was shown in (1), repeated here as (9). Again, the object marker shows parallel properties, as the object marker can co-occur with a left-dislocated object in (10).

(9) mu-mu-siru, ku-mw-iti kw-a-kw-ile-**mo**   [Lubukusu]
     18-3-forest 3-3-tree 3SM-PST-fall-PST-18LM   **Locative Clitic**
     'In the forest a tree has fallen.'

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[7] See also (Dalgish 1976) and (den Dikken 2006) for discussion of a related Luyia dialect (Olutsootso) that has a similar locative clitic, though the extent of the empirical and theoretical investigation of its character is limited in those works.

[8] This paper is based on a portion of my dissertation (Diercks 2010), and some of these basic data also appear in (Diercks 2011). For ease of exposition, (Diercks 2011) adopted a more basic analysis of the Lubukusu locative clitic than is advocated in this paper. This work is an extension of the ideas that were first considered in those two works.

(10)   <u>ba-ba-ndu</u>, Tegan a-a-**ba**-p-anga   **Object Marker**
        2-2-people 1Tegan 1SM-PST-2OM-hit-HAB
        'People, Tegan hits (them) (regularly).'

The locative clitic and the object marker therefore have some similar properties; they occur with left-dislocated triggering phrases, but are in complementary distribution with those phrases in their base positions. As the next section will show, however, the parallels do not extend to all contexts.

2.2. Differences between the object marker and the locative clitic
2.2.1. Extraction Contexts

Despite the aforementioned similarities between the locative clitic and the object marker, there are significant differences. The first diagnostic comes from extraction contexts: unlike the object marker, which is illicit with an extracted object, the locative clitic may co-occur with an extracted locative phrase. Example (11) shows that the locative clitic may co-occur with a clefted locative phrase, whereas in (12) the object marker is ruled out in the event that the object is clefted.

(11)   mw-a-ba   <u>mu-nju</u> ni-mwo ba-ba-ana ba-a-funa-**(mo)**   lu-u-saala   [Lubukusu]
        18SM-PST-be 18-house COMP-18 2-2-child   2SM-PST-break-18LM 11-11-stick
        'It was in the house that the children broke the stick.'   **Locative Cleft**

(12)   lw-a-ba   <u>lu-u-saala</u> ni-lwo   ba-ba-ana ba-a-(***lu**)-funa   **Object Cleft**
        11SM-PST-be 11-11-stick COMP-11 2-2-child   2SM-PST-11OM-break
        'It was the stick that the children broke.'

The relative clauses in (13) and (14) show a similar contrast, as the locative clitic may occur in a relative clause where the locative is the head of the relative clause, shown in (13), but the object marker cannot occur in an object relative clause, as demonstrated in (14):

(13)   Mu-nju ni-mwo Peter a-la-bona-(**mo**)   ba-ba-andu   [Lubukusu]
        18-house COMP-18 1Peter 1SM-FUT-see-18LM 2-2-people   **Locative Relative Clause**
        'the house in which Peter will see the people'

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

The data from both relative clauses and clefts demonstrate that the locative clitic and the object marker differ with respect to their presence in extraction of their corresponding agreement-triggering phrase: the object marker is ruled out in the presence of an extracted object, but the locative clitic is possible with an extracted locative.

2.2.2. Co-Occurrence of Object Marker and Locative Clitic

Despite the differences in extraction contexts, it might still be argued that the locative clitic and the object marker are just different morphosyntactic realizations of object agreement, but there are reasons to think that these are in fact different morphosyntactic elements. As is shown in the statement and response in (15) and (16), the object marker and locative clitic can co-occur in the same sentence.

(15)   ba-soreeri khe-ba-enja   chi-ndemu mu-si-wanja …   [Lubukusu]
        2-boy   PROG-2SM-look.for 10-snakes   18-7-field   (Statement)
        'The boys are looking for snakes in the field.'

(16) … ba-a-**chi**-nyola-**mo**   (Response)
        2SM-PST-**10OM**-find-**18LM**
        'They found them (in) there.'

If the locative clitic and the object marker were both realizations of the same syntactic unit (e.g. object agreement realized in different morphological positions) we would expect them to be in complementary distribution, but as (16) shows, this is not the case.

   Furthermore, it is not the case that the postverbal clitic position is a second object marker (i.e. a morphological position that realizes any secondary object of the verb). Rather, I will argue that the locative clitic position in Lubukusu is dedicated solely to locative phrases. Evidence for this conclusion arises in comparison to other Bantu languages with different properties, where the postverbal position is available both for locative marking and object marking: examples from Lunda are given in (17)b and (17)c, respectively.[9]

(17) a. mu-mbanda   wu-a-sh-il-a   ka-ánsi ka-báka mu-i-hébi   [Lunda]
          1-woman   1SM-TNS-put-APPL-FV 1-child   12-corn   LOC-5-basket
          'The woman put the corn for the child in the basket.'

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

      c. mu-mbanda wu-a-**mu**-sh-il-a-**ku**   mu-i- hébi   **Second-Object Marker**
          1-woman   1SM-TNS-1OM-put-APPL-FV-12OM LOC-5-basket
          'The woman put it for the child in the basket.'   (Kawasha 2007)

Despite the apparent similarity in (17)b of the postverbal clitic to the Lubukusu locative clitic, example (17)c shows that the postverbal clitic position may also be used to pronominalize a secondary object in Lunda (*ka-báka* 'corn'). In contrast, the postverbal clitic position in Lubukusu is not available as a second-object marker; (19) attempts to pronominalize the objects from (18):

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

(19)   o-mu-khaasi a-a-mu-il-il-a-(***bi/*byo**)   mu-jikoni
        1-1-woman   1SM-PST-1OM-take-AP-FV-8OM   18-kitchen
        'The woman took them for him to the kitchen.'   (*second object unexpressed*)

   It is possible to utilize the postverbal clitic position in a similar syntactic context, but only in the event that it pronominalizes a locative phrase, as is the case in (20). Secondary objects in Lubukusu need not be overt—they are simply not realized in the verbal morphology in any way.

(20)   o-mu-khaasi a-a-**mu**-il-il-a-**mo**   [Lubukusu]
        1-1-woman   1SM-PST-1OM-take-AP-FV-18LM
        'The woman took them for him to there.'   (*second object unexpressed*)

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

The data discussed in this sub-section point to the conclusion that the locative clitic is distinct from the object marker (as it co-occurs with it), and that it is designated solely to agree with locative phrases, that is, it cannot pronominalize/agree with a non-locative phrase.

2.3. Obligatoriness of Locative Clitic in Locative Inversion Constructions

An additional empirical context in which the Lubukusu locative clitic appears is in locative inversion constructions. Bantu languages are well-known for their distinctive locative inversion constructions, where in the prototypical case subject agreement on the verb is controlled by the fronted locative phrase (Bresnan 1994, Baker 2008, Carstens 2005, Kinyalolo 1991, Marten 2006, among many others). As discussed in (Diercks 2011), Lubukusu has two different forms of locative inversion. I refer to the first as *repeated agreement*, as in this form of locative inversion both the subject marker and the locative clitic agree with the fronted locative phrase (as is shown in (21)).

(21)   **mu**-mu-siiru   **mw**-a-kwa-**mo**   ku-mu-saala   [Lubukusu]
      18-3-forest   18SM-PST-fall-18LM 3-3-tree   **Repeated Agreement**
      'In the forest fell a tree.'

I refer to the second form of locative inversion in Lubukusu as *disjoint agreement* locative inversion; in this case, subject agreement is with the postverbal subject and only the locative clitic obligatorily agrees with the fronted locative phrase. In essence, the verb agrees with both the preverbal locative phrase and the postverbal logical subject.

(22)   **mu**-mu-siiru   <u>kw</u>-a-kwa-**mo**   <u>ku-mu</u>-saala   [Lubukusu]
      18-3-forest   3SM-PST-fall-18LM   3-3-tree   **Disjoint Agreement**
      'In the forest fell a tree.'

In (Diercks 2011) I demonstrate based on diagnostics such as subject extraction, adverb placement, and presentational constructions that these constructions have two different structures. Specifically, the fronted locative phrase shows subject properties in repeated agreement locative inversion, but exhibits non-subject properties in disjoint agreement location inversion. Based on this and other evidence, I conclude that the structures of these constructions are those given in (23), where the locative phrase in the repeated agreement construction is in subject position, but in the disjoint agreement construction it is in a left-peripheral position (and the logical subject occurs in the structural subject position):

(23)   <u>Structure of Lubukusu Locative Inversion</u>
      Repeated agreement   [TP LOC T-V [vP SUBJ ~~V~~ ~~LOC~~]]
      Disjoint agreement   [CP LOC C-V [TP SUBJ … [vP ~~SUBJ~~ ~~V~~ ~~LOC~~]]]

Therefore, in the disjoint agreement construction the locative clitic occurs with a left-dislocated locative phrase, as was the case in (9) above. The interesting case for our purposes here is the repeated agreement construction, where the locative clitic occurs with a non-dislocated phrase – in this construction, the locative phrase has raised into subject position. This shows that the locative may occur with displacement to both argument positions and non-argument positions: the implications of these structural configurations are discussed in the following sections.

2.4. Intermediate Discussion: Syntactic Properties

The morphosyntactic properties of the locative clitic that have been discussed to this point are summarized below in (24):

(24)   Properties of Lubukusu Locative Clitic
         a.   Agrees only in locative noun class, with locative phrases
         b.   Impossible with an *in situ* locative phrase
         c.   Occurs with left-dislocated locative phrase
         d.   Optionally possible with an extracted locative phrase
         e.   Obligatory occurs in both locative inversion constructions

The fact that the locative clitic and the object marker show similar properties with respect to properties (b) and (c) might seem to suggest that they are theoretically identical. The bifurcation of properties between them in extraction contexts suggests that they are different morphosyntactic elements, however, as the object marker is illicit in object extraction but the locative clitic is possible in locative extraction.

Based on all of this evidence, then, I propose that the Lubukusu object marker is an incorporated pronoun, and the locative clitic is an agreement morpheme that is designated for locative noun class agreement. Furthermore, I propose that the locative clitic arises on a separate functional head from the position where the object marker arises. This functional head designated for locative agreement does not bear a full set of unvalued phi-features, but rather bears only unvalued locative features.[10] Crucially, in order to account for the fact that the locative clitic does not occur with an *in situ* locative phrase, I assume that heads in Bantu agree only with structurally higher phrases (Baker 2008, Carstens 2005, Collins 2004, Kinyalolo 1991). This conclusion is reinforced by the fact that the locative clitic co-occurs with a locative subject in repeated agreement locative inversion. If the locative clitic were to be considered pronominal, under standard assumptions of pronominal antecedence the locative in subject position would be a too-local relationship with the locative clitic (Chomsky 1981).

3. The Locative Clitic and Lexical Selection

Building on the conclusion that the locative clitic is an agreement morpheme, this section explores the properties of the locative clitic with reference to the verbs it may occur with. The evidence suggests that in order to trigger agreement with the locative clitic, a locative phrase must have a thematic relationship with the predicate, either selected directly by the verb or introduced via an applicative. As can be seen in (25) and (26) with the verb *–ra* 'put', when the locative phrase is an argument it may be pronominalized by the locative clitic.

(25)   Joni   a-a-ra   sii-tabu   khu-mesa   [Lubukusu]
        John   1SM-PST-put   7-book   17-table
        'John put the book on the table.'

(26)   Joni   a-a-ra-**kho**   sii-tabu
        John   1SM-PST-put-17LM   7-book
        'John put the book there.'

This is in contrast to sentences where the locative phrase is clearly an adjunct, as in (27) with the verb *–andika* 'write'. In these cases, it is possible to pronominalize the locative on the verb, but only in the event that the verb bears an applicative morpheme, as in (28). Example (29) shows that the locative interpretation is impossible in the event that the locative clitic appears without the applicative.

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[10]It is unclear whether there is a separate feature (e.g. LOC, as compared to GENDER) which includes the subset of phi-features of classes 16-18 (the Bantu locative noun classes), or whether a head may simply bear unvalued features designated for specific feature designations (equivalent to unvalued FEMININE in Romance). This second option seems less palatable, as Bukusu retains productive agreement between three different noun classes rather than one single noun class, but I sat aside this issue for future research.

(27)　Joni　a-a-ndika　　e-barua　khu-mesa　　　　　　　　　　　[Lubukusu]
　　　　John　1SM-PST-write　9-letter　17-table
　　　　'John wrote a letter on the table.'

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

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

　　　These same facts are replicated in the examples below. With unergative verbs that carry some locative sense (and therefore can be taken to select a locative phrase in some way), the locative clitic is possible. This is demonstrated for *–suna* 'jump' in (30)-(31).

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

(31)　o-mw-ana　　a-a-suna-**mo**
　　　　1-1-child　　1SM-PST-jump-**18LM**
　　　　'A child jumped in(to) there.'

In contrast to the previous examples, unergative verbs that carry no (inherent) sense of location only license the locative clitic in the event that an applicative morpheme is present, which is evident by the contrast between (33) and (34).

(32)　e-nyuni　y-emb-(el)-a　　　　khu-mu-saala　　　　[Lubukusu]
　　　　9-bird　9SM-PST.sing-AP-FV-17LM　17-3-tree　　　　**Non-locative Unergative Verb**
　　　　'A bird sang on/in a tree.'

(33)　khu-mu-saala, e-nyuni　y-emb-**el**-a-kho
　　　　17-3-tree　　9-bird　9SM-PST.sing-**AP**-FV-17LM
　　　　'On a tree, a bird sang.'

(34)　*?khu-mu-saala, e-nyuni　y-emb-a-kho
　　　　　17-3-tree　　9-bird　9SM-PST.sing-FV-17LM
　　　　'on a tree, a bird sang.'

　　　The generalization that arises, then, is that a locative phrase must be selected by the verb in order to be pronominalized with a locative clitic in Lubukusu. This is the same pattern that has been found to hold for locative inversion constructions as well, as shown in (35) from (Diercks 2011), where locative inversion is prohibited in non-locative unergatives without the applicative.

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[11] The availability of the locative clitic as a (partitive) temporal modifier is a matter for future investigation, but it is a widespread usage of the *–kho* morpheme (homophonous with the class 17 locative clitic). As seen in the examples here, however, the locative clitic and the temporal clitic have different distributions. The *–kho* clitic may also be used in interrogatives as a means of making a question less direct, in this case serving a pragmatic function. I leave it to future research to determine what relationship there is (if at all) between the different functions of the *–kho* morpheme.

(35) Availability of Lubukusu Locative Inversion[12]

Thematic Structure	Unaccus, (e.g. arrive)	Come/ Go	LOC unerg. (e.g. jump)	Non-LOC with applic	Unergative w/o applic	Transitive unergative
Disj. agr	✓	✓	✓	✓	*	*
Rep. agr	✓	*	*	*	*	*

This is perhaps not surprising, given that the locative clitic is obligatory in Lubukusu locative inversion, but it provides further support for the generalization that locative phrases must be selected by verbs as locative arguments in order to be licitly realized by the locative clitic on the verb.

It must be noted, however, that despite the fact that a phrase must be selected by a verb in order to trigger agreement with the locative clitic, not any selected locative phrase may do so. Specifically, locative subjects do not necessarily trigger agreement with the locative clitic. As was discussed above, in repeated agreement locative inversion constructions the locative clitic agrees with the grammatical subject (i.e. a phrase triggering subject agreement):

(21) **mu**-mu-siiru   **mw**-a-kwa-**mo**   ku-mu-saala   [Lubukusu]
      18-3-forest   18S-PST-fall-18L   3-3-tree   **Repeated Agreement**
      'In the forest fell a tree.'

When a locative phrase is both the logical (i.e. thematic) subject and the grammatical subject, however, it triggers subject agreement *without* the appearance of the locative clitic.

(36) a. **muu**-soongo   **mu**-kha-maliie   [Lubukusu]
        18-pot   18SM-FUT-be.black   (Wasike 2007)
        'The inside of the pot will become dirty.'

    b. **khu**-luuchi   **khu**-kha-siimbe
       17-river   17SM-FUT-overgrow
       'The riverside will become bushy.'

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

The fact that the subjects in (36) - (37) trigger subject agreement but do not trigger the locative clitic suggests that the underlying thematic role of the locative phrase is relevant to the availability of the locative clitic. Though the locative clitic must agree with a noun phrase with locative noun class features, it does not do so with ANY locative phrase (particularly, not one which is introduced as an external argument) – it may only agree with a locative phrase that is designated by the verb's thematic structure as a location. That is to say, though (36) - (37) have locative subjects that are selected by the verb, those verbs do not require that their subjects be locations, they just happen to be so in those data. Compare this fact with the fact that –*ra* 'put' in (25) and (26) necessarily selects a location (i.e. a place) as one of its internal arguments; the generalization that emerges from the data presented here is that the locative clitic may only occur in the event that its antecedent locative phrase is lexically-selected by the verb. The next section presents an analysis which incorporates these facts, as well as the facts discussed in §2 above.

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

4. Analysis: A Locative-licensing Projection

The analysis proposed here builds on the phrase structure proposed by Bowers (1993, 2002). In this framework predication is accomplished by a Predication Phrase (PredP), one instantiation of which is *v*P (which introduces the external argument). Likewise, the Transitivity Phrase is the licenser of accusative Case and the locus of the semantic sense of transitivity, occurring below PrP/*v*P.[13] Bowers claims that objects (in English) raise to Spec, TrP, in a manner similar to subjects raising to Spec, TP. My proposal is that the locative clitic which arises in Lubukusu is the product of agreement on the head of a Location Phrase (LocP), the locative-licensing equivalent of the Transitivity Phrase. The resultant phrase structure is diagrammed in (38), locating the LocP between *v*P and and VP, similar in position to the low locative applicative proposed by Buell (2005):[14]

(38)
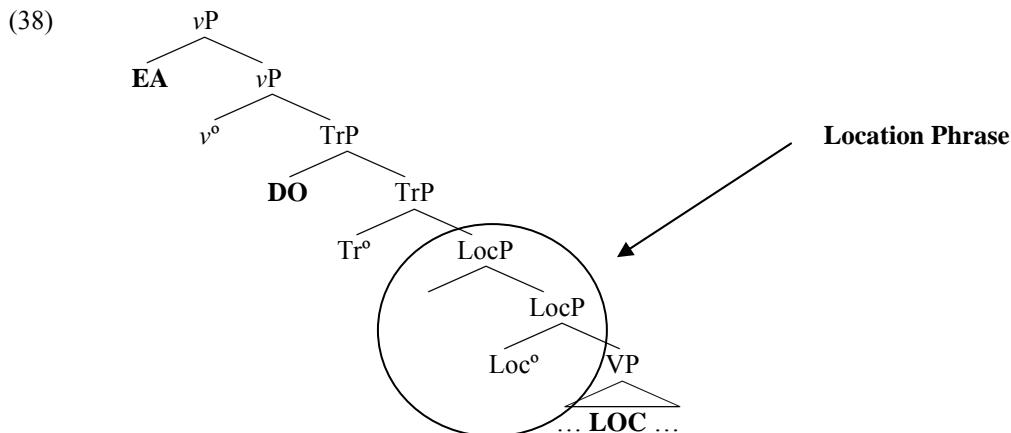
On this account, LocP licenses locative phrases (e.g. GOALs) in the same manner that TrP licenses direct objects (e.g. PATIENTs). Therefore in addition to its agreement properties, LocP has the semantic function of contributing the locative meaning of a verb.

Given that Principles and Parameters theorizing has long held that argument NPs must be licensed (e.g. Chomsky 1981, 2000), it is significant that locative phrases in (at least some) Bantu languages are noun phrases, not prepositional phrases.[15] By hypothesis, these NPs must be licensed in a manner similar to object NPs, in contrast to languages where locative phrases are introduced (and licensed) by prepositions. Therefore I claim that the locative clitic arises as an agreement relation between the Loc° head and the locative phrase, but the morphophonological realization of locative agreement is a word-final clitic morpheme, so the agreement is realized postverbally.[16]

Bowers (2002) proposes that the Transitivity Phrase helps define the argument structure of a verb. Just as an unaccusative verb has been argued either to have no *v*P, or a non-thematic *v*P, Bowers claims that only transitive verbs (including impersonal transitives) have a TrP. Following this line of thinking, I propose that LocP is present only in verbs which license locative arguments, so that its presence/absence helps define the argument structure of a particular verb. Its licensing and Case-

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[13] TrP is roughly equivalent to AgrO, but with a higher semantic load and positioned lower than is commonly assumed (though see Ura 1996 and Runner 2000). Bowers (2002) draws on evidence including short object movement creating postverbal VP adverbs, transitive impersonal constructions, and impersonal passives, as well as giving an analysis for *got*-passives and middle constructions.

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

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

[16] This conclusion is supported by the fact that agreement with a locative patient/theme (e.g. *I like the inside of the house)* results in the locative clitic, rather than a locative object marker. Presumably, all non-subject locative agreements in Lubukusu are morphologically specified as (postverbal) clitics.

checking properties necessarily vary between languages, however, as some languages license goal phrases via prepositions, rather than by structural Case.

There is at least one critical difference between the projection proposed here and the TrP of Bowers (2002). Bowers claims that objects always raise to Spec, TrP, and that they are Case-licensed in that position. My claim, however, is that LocP does not have as strict of a locality requirement, such that a locative phrase may be present *in situ* within the VP at Spellout. This is an empirical necessity, because if Locº is the locus of the agreement realized as the locative clitic, presumably if a locative phrase raised to Spec, LocP, it would trigger agreement, and V-T raising (which I assume is standard in Lubukusu, as in many Bantu languages) would create the illicit word order of SUBJ VERB-LC LOC that is shown to be unacceptable in (7).

5. Conclusions, and further research

The previous section proposed a locative-licensing Locative Phrase as the locus of the locative clitic in Lubukusu. The chart in (39) revisits the properties of the locative clitic introduced in (24), adding the properties that were discussed in §3.

(39)   Evaluating the Location Phrase analysis

Properties of Lubukusu Locative Clitic	Location Phrase Analysis
a. Agrees only in locative noun class, with locative phrases	Locº in Lubukusu restricted to class 16-18 φ-features (i.e. locatives)[17]
b. Impossible with *in situ* locative phrase c. Occurs with left-dislocated locative phrase	Agree in Lubukusu targets a structurally higher phrase
d. Obligatorily occurs in locative inversion constructions	LocP is present to license the locative phrase, movement to subject position triggers agreement
e. Locative clitic only licit when the locative phrase is selected	LocP is only present in verbs licensing locative arguments
f. External argument locative phrases do not occur with locative clitic	LocP licenses internal locative arguments (e.g. goals)

The chart above summarizes the empirical properties of the Lubukusu locative clitic in the left column, with the explanatory mechanism that comes with the Location Phrase analysis in the right column. Line (a) addresses the restriction of the locative clitic to locative agreements, which is explained on the plausible assumption that the Locº head of the Location Phrase in Lubukusu is restricted to locative phi-features.

Lines (b) –(d) in (39) explicitly rely on a particular understanding of the nature of agreement in Bantu languages. A large line of research has proposed that heads in Bantu may only enter an Agree with a structurally higher phrase (though theorists differ as to which operation occurs first, movement or agreement: cf. Baker 2008, Carstens 2005, Collins 2004). The lack of agreement with an *in situ* locative phrase is therefore consistent with the Location Phrase analysis proposed here, as long as this 'Upward Agreement Hypothesis' is adopted for Bantu (and specifically, Lubukusu) agreement.

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[17] See Béjar and Rezac (2009).

This raises a critical theoretical question, however: how are the unvalued phi-features of Locº valued in the event that the locative phrase remains *in situ*? If LocP is an argument-licensing projection (as the preceding evidence necessitates), it is surely present when the locative phrase is *in situ* and no locative clitic appears on the verb. One option is to assume that unvalued phi-features are optionally present on Locº, but this leaves us with the unpalatable stipulation that the unvalued phi-features are present when the locative argument moves *ex situ*, but absent when it remains *in situ*. An option is to adopt the argument that locative phrases in fact do move to Spec, LocP in all cases, and the phi-features of Locº are always valued, but that when the locative phrase occurs in situ, it is the lower copy of the phrase that is pronounced (cf. Bobaljik 2002, among many others). This still requires the added assumption, however, that agreement morphemes are only realized phonologically when their triggering phrase is pronounced in a higher position (essentially, moving Baker's 2008 'upward' agreement parameter to the post-syntactic morphology). It is a serious question whether an approach along those lines is any more explanatory, but resolving this question is a matter for future research.

Lines (e) and (f), on the other hand, have to do with the restriction of agreed-with locatives to thematically selected locative phrases. As the right-column shows, the nature of the proposed Location Phrase accounts for these empirical properties. The definition of the Location Phrase as a locative-licensing projection similar to the Transitive Phrase therefore explains why adjoined locatives do not show the same properties with respect to the locative clitic; those verbs do not require the presence of a Location Phrase. A similar point can be made for the examples of locative subjects in (36) and (37): because there is no selected location, there is no LocP, so the locative clitic is not present.[18]

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

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[18] An anonymous reviewer raises the question of whether this analysis requires that the locative phrase be c-commanded by Locº (or be reconstructable under it), since the locative clitic does not agree with external arguments. Testing this would require a syntactic context where there is 1) a locative phrase as an external argument, and 2) a LocP within the *v*P (meaning that the verb licenses a locative internal argument). The data here do not help us, and most cases where a location is licensed as an external argument are likely stative, non-agentive contexts where the verb would not select a location as an internal argument as well. One potential diagnostic context is if stative predicates can occur with a locative external argument and an applicative on the verb licensing a (separate) locative phrase as an internal argument. If, as would be expected, the locative clitic still can only agree with the internal locative argument, this might provide evidence that Locº does in fact have to c-command its locative argument at some point, which could possibly bring about an argument for Agree as prior to Move in Bantu agreements, supporting Carstens' (2005) and Collins' (2004) accounts (*contra* Baker 2008). The difficulty would be in finding appropriate applicative constructions, a task which I leave to future research.

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