

Lubukusu Anaphora Sketch*
Version 3.1 ++
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1.0 Introduction

Although Lubukusu possesses certain standard features of the Narrow Bantu anaphora pattern, it is one of the most articulated Bantu systems we know of to date, insofar as there are a great variety of strategies for achieving anaphoric readings (coconstruals) and some surprising combinations, by comparison with what has been written about some of the other Narrow Bantu languages. Familiar Narrow Bantu features include a reflexive marker (RFM) that is a prefix to the verb stem and a suffix reciprocal marker (RCM) which are both (most typically) in complementary distribution with a pronominal object marker (OM). The RFM and RCM are anteceded by a local subject and the OM cannot be. These strategies also occur in a wide variety of patterns that interact with other non-affixal strategies and with each other. As a result of the many interactions between strategies, the pattern of anaphora in Lubukusu may provide a window into some interesting distinctions between lexical types and anaphoric forms, as well as distinctions between lexical, syntactic, semantic and pragmatic effects.

The interaction of strategies can be seen where they occur in combination and where the presence or absence of one appears to exclude or facilitate the presence of another. The RFM, for example can sometimes co-occur with the RCM, but also with what appears at first to be a disambiguating or reinforcing anaphoric form AGR-*eene* (the AGR of AGR-*eene* stands for both the noun class pre-prefix and prefix while -*eene*,

means ‘own’ or ‘owner’ in non-anaphoric contexts). The prefixes agree with the noun class and person of the antecedent. Essentially the same form appears in a reciprocal phrase (*Agr-eene khu Agr-eene*), although there are some interesting details with respect to the second AGR-*eene* discussed in 4.2. The reciprocal phrase can, and most typically must, cooccur with the RCM, and/or even with the RFM in certain contexts. Similarly, AGR-*eene* can, and, for locally bound interpretations, must, co-occur with the RFM (and even occasionally with the RCM). However AGR-*eene* can also appear without the RFM, in which case it is either in a PP with a local antecedent, or it does not have a local antecedent. Where more than one form combines to achieve an anaphoric reading, we will call the markers working together a ‘combination marker’ where these are largely the sum of their parts, once matters of focus, emphasis, and relational interpretation are taken into account (this is the way ‘combination marker’ is used in the Afranaph database). The issues become quite empirically complex, and so we cannot hope to provide here more than a guide to some of the major phenomena and some useful generalizations, most of them with interesting exceptions that open new possibilities that are largely beyond the scope of this essay.

2.0 Affixal Markers: RFM and RCM

Before we examine all of these interactions, it is useful to establish a few generalizations about the distribution of the RFM and the RCM in the absence of the other markers. Those familiar with other Bantu languages will find these forms very familiar in both their form and core distribution, but in Lubukusu, there are some interesting wrinkles that might not be expected based on analyses of how these affixes work in other Bantu languages.

Morphologically, the behavior of the RFM and RCM in Lubukusu is quite consonant with the general Narrow Bantu pattern. The RFM, glossed as *-i-* in our examples [Note N1] is an affix that appears to the immediate left of the verb root in what appears to be the same morphological slot as an OM. The RCM *-an-* is a suffix that appears amongst the verb extensions, but its position can vary with respect to certain other extensions, such as Causative [Note N2] and Applicative. The usual observation that is made about Narrow Bantu languages is that the RCM appears to contrast with the RFM insofar as the RCM appears to be a detransitivizer (e.g., Mchombo, 2006), although there will be much more to say about this. The RCM and the RFM are both invariant with respect to agreement, although the RFM appears to have allomorphs, or else is submerged in complex morphology, in the context of certain clausal types to be (briefly) discussed in (2.2).

There are certain robust generalizations that seem to be true of most Narrow Bantu languages where these affixes appear. We break down the general complementarity of argument expression and affixation into the set of statements in (1).

- 1) If a verb V can be prefixed by an OM corresponding to thematic argument A of V, then
 - a) V can host an RFM in complementary distribution with an OM corresponding to A
 - b) V can host an RCM in complementary distribution with an OM corresponding to A
 - c) The RFM and the RCM are in complementary distribution if both correspond

- to A.
- d) The OM is in complementary distribution with a referring expression corresponding to A.
 - e) The OM is in complementary distribution with pronouns or non-referring expressions corresponding to A.
 - f) The RFM and the RCM are in complementary distribution with non-referring expressions corresponding to A.

We will see that in Lubukusu, (1a,b) are respected completely, except for certain grooming verbs (or maybe just one) where either the RFM or RCM or both are possible even though an OM is not (see 2.1.4), and this sort of exception is not uncommon in Bantu languages. By contrast, (1d) is always respected in Lubukusu. There are instances where (1c) is not respected in Lubukusu, as discussed in 2.2, and (1e,f) are productively disrespected, but we leave discussion of (1d-f) to section 5. All of the relations described in (1) are local relations between something on the verb and something that is, or is part of, the complement of the verb.

We assume for now that the interpretations associated with the RFM and RCM are typical of the semantics usually assigned to reflexive and reciprocal interpretations, although we shall have more to say about their interpretation in 5.4.[Note N3]

2.1 Coargument and Clausal Locality

Two generalizations that are widely respected in Bantu languages, namely (2) and (3), are also always respected in Lubukusu, although there are cases where (very plausible) analytic assumptions must be made to preserve the generalizations.

2) The antecedent of an RFM or an RCM is always a (local) subject.

3) The RFM and the RCM cannot correspond to a prepositional object.

Locality for (2) means the first subject that c-commands the argument represented by the affix, and as long as there is at least one subject in a clause, the antecedent of the RFM and the RCM will always be a clausemate, but the analytic assumptions necessary to support (2) are discussed in 2.1.1.

A prepositional object as referred to in (3) corresponds to the argument of a preposition P where P is morphologically independent of the verb. The preposition *khu*, which has many translations in English depending on its lexical context, is selected, for example, by the verb *-kachul-*, ‘tell’, and in this situation, where *knu* means ‘about’, the RFM can be achieved by AGR-*eene* alone (and if the applicative promotes the non-reflexive argument, then the RFM is excluded, presumably because it conflicts with the non-reflexive direct object).

ID1262

Yohana ekachulila Maria khumweene

*Yohana a-a-i-kachul-il-aMariakhuo-mu-eene

YohanaSM.c1-PST-RFM-tell-APPL-fv Mariaon c1-c1-own

John told Mary about himself.

ID1263

Billi akhukachulila efwe khu fwabeene

Billi a-a-khu-kachul-il-a

efwe khu fwa-b-eene

Billi SM.c1-PST-OM.c2.1st-tell-APPL-fv us on 1st-c2-own
 Bill told us about ourselves.

If what might otherwise be an oblique argument is promoted to direct object by the addition of an applicative extension (e.g. ID1268), or by the incorporation of a preposition attached in verb stem final position, as in ID1257-1258 (see, e.g. ID1257 and ID1320), [Note N4] then an OM is possible and therefore the RCM and RFM are also possible for the applicative or promoted object in accordance with (1a,b).

There are, however, some cases where an RFM co-occurs with AGR-*eene* in a prepositional object position with a resulting reflexive reading,

ID1256

Yohana eloma khu mweene

Yohana a-a-i-lom-a khu o-mu-eene

Yohana SM.c1-PST-RFM-speak-fv on c1-c1-own

John spoke about himself

Cases where the RFM can correspond to a prepositional object deserve more study, since they do not always correspond to prepositional objects that can be alternatively realized as an OM alone, unless the preposition is incorporated.

2.1.1 Causatives and subjects

An event described by a verb can be causativized in Bantu by the addition of one (or more) verb suffixes, with the result that the cause of the event described by the verb is added as an argument of the verb. The complexities of the causative affix(es) in Lubukusu are largely outside of our concern in this anaphora sketch, but instances where a transitive verb is causativized are particularly interesting, since the notion ‘local subject’ in (2) is not trivial under these circumstances. Thus for a transitive verb $V(x, y)$, where x is an agent and y a patient, the causativized version $V+Caus(c, x, y)$ allows for two possible ‘subjects’, both the cause c and the agent x . However, the construction appears to involve only one verb root and the x argument does not behave like a subject, insofar as it can be represented by an OM. Consequently, the RCM or RFM in complementary distribution with the OM that corresponds to x can only be anteceded by the causative argument c , and this appears to be true.

ID3706

Bakhasi banywesya babaana kamabeele

Ba-khasi ba-a-nyw-esy-a ba-ba-ana ka-ma-beele

c2-woman SM.c2-PST-drink-CAUS-fv c2-c2-children c6-c6-milk

The women made the children drink milk.

ID3711

Bakhasi benywesya kamabeele

Ba-khasi ba-a-i-nyw-esy-a ka-ma-beele

c2-woman SM.c2-PST-RFM-drink-CAUS-fv c6-c6-milk

The women made themselves drink milk.

ID3713*Bakhasi baanywesiyana kamabeele*

Ba-khasi ba-a-nyw-esy-an-a ka-ma-beele
 c2-woman SM.c2-PST-drink-CAUS-RCM-fv c6-c6-milk

The women made each other drink milk.

Moreover, if the transitive object *y* is what the RFM or RCM corresponds to, then the antecedent is the full *x* argument and not the *c* argument.

ID3716*Wekesa apanya babaana kimirwe*

Wekesa a-a-p-an-y-a ba-b-aana ki-mi-rwe
 Wekesa SM.c1-PST-hit-RCM-CAUS-fv c2-c2-child c4-c4-head

Wekesa caused the children to hit their heads against each other.

ID3717*Wekesa apisyana babaana kimirwe*

Wekesa a-a-p-is-y-an-a ba-b-aana ki-mi-rwe
 Wekesa SM.c1-PST-hit-CAUS-RCM-fv c2-c2-child c4-c4-head

Wekesa caused the children to hit their heads against each other.

In ID3716 and ID3717, *x* is *babaana* which antecedes the RCM. The RCM representing the *y* argument also allows specification of the inalienably possessed body part (*kimirwe*) that suffers the action of the verb. The force of causation is sensitive to RCM-Caus ordering. When the RCM precedes the causative, as in ID3716, *c* is the ‘direct’ force, while it is more ‘indirect’ if the causative comes first (see database commentary on ID3717). It is not at all clear that the CAUS affix that precedes the RCM is the same affix as the one that follows it, and so it is possible that the difference in the force of direct/indirect force of causation is due to properties of distinct affixes rather than the reordering of the same one, but whether the force of causation is direct or indirect, the generalization would seem to be that the agent of the causativized verb (the *x* argument) should count as a subject to satisfy (2).

Another context where the agent (*x*) of the causativized verb can act as a subject arises when the OM corresponds to the *x* argument of the causativized verb, and either the RFM or the RCM also occurs on the verb, as in ID3718 and ID3719.

ID3718*Wekesa abapisiyana kimirwe*

Wekesa a-a-ba-p-is-y-an-a ki-mi-rwe
 Wekesa SM.c1-PST-OM.c2-hit-CAUS-RCM-fv c4-c4-head

Wekesa made them hit each other’s heads.

ID3719*Wekesa amwilisya busuma*

Wekesa a-a-mu-i-l-is-y-a bu-suma [Note N5]
 Wekesa SM.c1-PST-OM-RFM-feed-CAUS-fv c14-maize.meal
 Wekesa made him feed himself on maize meal.

In instances such as these, the co-occurrence of OM and RCM and OM and RFM, respectively, is possible because the RFM and the RCM in these sentences are not competing to represent the agent argument of the causativized verb *x*, which is the one that the OM represents. Notice also that the OM does not match *kimirwe* in class in ID3718, which we expect since *kimirwe* corresponds to the inalienable possessum of the *y* argument represented by the RCM. The issue concerning verb adicity that arises here, where the RCM corresponds to an inalienably possessed argument, as in ID3716, ID3717, and ID3718, is postponed until 2.1.4.

If the *x* argument and the cause arguments are both subjects and the *x* argument is closer, one might expect that the presence of the *x* argument would prevent the cause argument, *c*, from anteceding the *y* argument, and where the *x* argument is an OM, this appears to be true. There are, however, instances where the *y* argument of the causativized verb can be directly anteceded by *c*. One such case seems to involve a change in the argument structure of the causativized verb, such that the former subject is rendered as an adjunct.

ID5020

Wekesa ekhupisya khu baana
 Wekesa a-a-i-khup-is-y-a khu ba-ba-ana
 Wekesa SM.c1-PST-RFM-beat-Caus-fv to c2-c2-children
 Wekesa made the children beat himself.

Cases like these suggest, then, that ‘beat’ is treated like a passive verb stem, in the sense that its direct object is no longer separated from the cause subject by an intervening subject (i.e., the subject position has been voided in favor of an adjunct position - reminiscent of the *faire-par* causatives in French, for example). Further exploration of this construction is necessary to make support for such an analysis convincing, but if so, then the *x* argument is not an intervener in these cases for independent reasons.

On the other hand, it seems that there is clear evidence that *x* blocks *c* from anteceding for RFM, but not for RCM.

ID5021

Abelisisya busuma.
 a-a-ba-i-li-(is)-is-y-a bu-suma
 SM.c1-PST-OM.c2-RFM-eat-(CAUS-)CAUS-fv c14-maize.meal
 He made them feed *himself / themselves maize meal.

ID5022

Basoleeli bamulisisyana busuma.
 Ba-soleeli ba-a-mu-li-is-is-y-an-a bu-suma
 c2-boy SM.c2-PST-OM.c1-eat-CAUS-CAUS-RCM-fv c14-maize.meal
 The boys made him feed each other maize meal

ID5023*Abalisisya omweene busuma.*

a-a-ba-li-is-isy-a o-mu-eene bu-suma
 SM.c1-PST-OM.c2-eat-CAUS-CAUS-fv c1-c1-own c14-maize.meal
 He made them feed himself maize meal.

ID5024*?Basoleeli bamulisisya babeene khu beene busuma.*

Ba-soleeli ba-a-mu-li-is-isy-a ba-b-eene khu
 c2-boy SM.c2-PST-OM.c1-eat-CAUS-CAUS-fv c2-c2-own on
 ba-b-eene bu-suma
 c2-c2-own c14-maize.meal

The boys made him feed each other maize meal.

The RFM in ID5021 is excluded if it is anteceded by the *c* argument, presumably because the OM, corresponding to the *x* argument, intervenes, but the *x* argument can antecede the RFM. A similar structure with the RCM in ID5022, where the (double) causative insures all the arguments are thematically assigned, is acceptable. The absence of an intervention effect induced by the *x* argument here seems to be made possible because they argument corresponds to an extension (the RCM) rather than a prefix (like the RFM). Moreover, the meaning blocked for ID5021 is permitted for ID5023 where AGR-*eene* appears corresponding to the *y* argument, but where it is not associated with any affix on the verb (e.g., there is no RFM). Normally, AGR-*eene* cannot have a coargument antecedent in the absence of the RFM (it can have a non-coargument antecedent), unless it is a prepositional object (see 4.1). Thus *omweene* in ID5023 must not count as a coargument of the *c* argument, which is only true if the *x* argument is an intervener. Although the phrasal reciprocal corresponding to the *y* argument in ID5024 is odd, this is not surprising insofar as the phrasal reciprocal almost never occurs on its own without the RCM.

To summarize, whether (2) succeeds or not depends on our analytic assumptions about the transitive agent argument *x*. We must assume that *x* is a subject insofar as it can antecede the *y* argument of the transitive verb embedded under the causative. If we assume that *x* does not count as a subject, then an RFM or RCM corresponding to *y* cannot be anteceded by *x*, contrary to fact. Moreover, the *x* argument acts like an intervening subject for binding of an RFM when RFM=*y*, but, somewhat unexpectedly, *x* does not intervene to block binding of an RCM by *c* (ID5022). For unbounded AGR-*eene*, which can be non-local, the intervention wouldn't block coconstruction, although the presence of the intervener may be necessary to permit it. Thus the generalization in (2) is supported for the most part if both the agent argument of the causativized verb and the cause argument are treated as subjects. The insensitivity of the RCM to intervention by *x* in this context is thus an unexplained surprise. Any theory of causatives or of subjects, then must address these issues. Furthermore, if one were to maintain that the antecedent of the RFM or RCM is always a clausemate, then additional analytic assumptions are required for *c* to antecede *x*, which it generally can antecede, or *y*, which it generally cannot. The view favored here is that different kinds of complementation permit access to

the embedded clause, but that clausal boundaries remain significant, and as we shall see, perhaps more so in the case of epistemic verb ECM and object control.

With respect to the RCM, being to the right or left of a given affix can affect interpretation. The RCM can appear either before the causative extension (ID3716, ID1345, ID3722) or after it (e.g., ID3717, ID3724) and before the applicative extension (e.g. ID1310, ID1542 ID3720) or after it (e.g., ID3721)..

2.1.2 Epistemic verbs, perception verbs, and their complement subjects

There is another class of cases where additional analytic assumptions are required to insure that (2) holds generally. In Lubukusu, certain epistemic verbs, not all, and perhaps certain perception verbs, not all, participate in a construction that is traditionally called an ‘object raising’ or ‘Exceptional Casemarking’ (ECM) construction) in the literature of generative grammar. In constructions such as these, the subject of a non-finite clausal complement behaves more like a direct object syntactically, even though it is thematically selected by the complement verb or predication and not by the perception or epistemic verb. The relevant fact in Lubukusu (and other Bantu languages that have this construction, see, for example, perception verbs in the Kinande anaphora sketch, Mutaka and Safir, 2007, which is on this site), is that the argument corresponding to the clausal complement subject of the embedded verb can appear as an OM, RFM or RCM on the matrix epistemic verb, even though that argument is only selected by the subordinate verb. Examples of this kind with epistemic verbs are illustrated below.

ID1573

Yohanna ebukula omweene khuba omumiliyu

Yohanna a-a-i-bukul-a o-mu-eenekhu-b-ao-mu-miliyu
 John SM.c1-PST-RFM-consider-fv c1-c1-own c15-be-fv c1-c1-smart
 John considers himself (to be) smart.

ID3769

Basaani babukulana (khuba) balwaala

ba-saani ba-a-bukul-an-a (khu-b-a) ba-lwaal-a
 c2-man SM.c2-PST-consider-RCM-fv c15-be-fv SM.c2-sick-fv
 ‘The men considered each other sick’

ID3770

Basaani bebukula (khuba) balwaala

ba-saani ba-a-i-bukul-a (khu-b-a) ba-lwaal-a
 c2-man SM.c2-PST-RFM-consider-fv c15-be-fv SM.c2-sick-fv
 ‘The men considered themselves sick’

ID3768

Basaani bekombana bafwe

ba-saani ba-ikomb-an-a ba-fw-e
 c2-man SM.c2-expect-RCM-fv SM.c2-die-SUBJ
 ‘The men expect each other to die’

ID5092

Basaani bekombana khuba bafwa

ba-saani ba-ikomb-an-a (khu-b-a) ba-fw-a
c2-man SM.c2-expect-RCM-FV c15-be-fv SM.c2-die-fv
'The men expect each other to be dying'

Notice that in the first of these examples, the complement to *-bukul-* is an infinitive (c15) complement without subject agreement and that *omumiliyu* has the form of a nominal that shares the noun class of the AGR-eene that corresponds to its antecedent. The apparent adjectives (they may be verbs) in ID3769 and ID3770 need not be mediated by a c15 infinitive (as in English small clause constructions) but the verblike 'die' can co-occur with *khuba*, which raises mysteries about the verbal status of *bafwa* that we will not explore here. ID3768 shows that the RCM can appear on the matrix verb even if the complement is subjunctive.

Constructions such as these must be analytically distinguished from object control predicates for two reasons. First, object control verbs involve two sets of selectional restrictions, one set assigned to the structural direct object of the matrix verb, and a separate set assigned to the complement clause subject, where the latter is analyzed as a silent argument, PRO, in Principles and Parameters approaches. The verb *-reeb-*, 'ask', in this context is a request for action addressed to the men and would be inappropriate if addressed to a rock, which means that *-reeb-* selects for the addressee argument. The verb *-eles* meaning 'give' also selects for a subject. The verb *ikomb* does not select for an individual in the examples above, but for a state of affairs, the subject of which is determined solely by the lower predicate (e.g., *-omumilyu-*, 'smart' in ID1573). The analysis for object control is schematically presented in (4a) and the analysis of ECM-type complementation is schematically presented in (4b). A Lubukusu example that illustrates object control is ID1577.

- 4a) [The women asked [the men]_i [PRO_i to give the books to [each other]_i]]
 b) [The men consider [themselves to be smart]]

ID1577

Bakhasi barebile basaani khuhelesyana bitabu

Ba-khasi ba-reeb-il-e ba-saanikhu-elesy-an-ya bi-tabu
c2-woman SM.c2-ask-TNS-fv c2-man c15-give-RCM-fv c8-book
ba-b-eene ne ba-b-eene
c2-c2-ownwith c2-c2-own
(The) women asked (the) men to give the books to each other.

The second reason the control and epistemic complements should be distinguished is that the complement predicates of the epistemic verbs in ID3768, ID3769 and ID 3770 bear subject agreement corresponding to the noun class of the subject of the matrix clause, which would be consistent with the assumption that the object anaphor (either RCM or RFM) on the matrix verb corresponds to the subordinate subject, and these anaphors are in turn bound by the matrix subject. The agreement of the subordinate predicates in ID3769, ID3770, and ID3768 should shift to the noun class of the matrix OM if the matrix verb bears an OM of a different noun class, as it does in ID5025 (the OM is c2 and

‘bad’ shows c7 agreement) across an infinitive form of ‘to be’. Similarly when the subject of the complement predicate is overt, the complement predicate agrees with it, even across an infinitive, as in ID5026.

ID5025

Basaani basibukula khuba simayaanu

Ba-saani	ba-a-si-bukul-a	khu-b-a	si-mayaanu
c2-man	SM.c2-PST-OM.c7-consider-fv	c15-be-fv	c7-bad

The men considered it ugly. (where 'it' is of c7)

ID5026

Basaani babukula etwiika khuba emayaanu

Ba-saani	ba-a-bukul-a	e-twiika	khu-b-a	e-mayaanu
c2-man	SM.c2-PST-consider-fv	c9-giraffe	c15-be-fv	c9-bad

The men considered the giraffe ugly.

There are certain respects in which the analysis of epistemic ECM verbs mirrors our analysis of causativized verbs and one important respect in which it does not. For example, an OM corresponding to the complement subject can antecede an RFM or an RCM on the embedded verb, just as in the causative cases, though of course the complement is embedded in an infinitive.

ID5027

Bamwikomba khukhwiyira

Ba-mu-ikomb-a	khu-khu-i-ir-a
SM.c2-OM.c1-expect-fv	c15-c15-RFM-kill-fv

They expect him to kill himself.

ID5028

Abekomba khukhwirana

A-ba-ikomb-a	khu-khu-ir-an-a
SM.c1-OM.c2-expect-fv	c15-c15-kill-RCM-fv

He expects them to kill each other.

As remarked in 2.1, if the agent of the causativized verb is an OM, the added cause argument can sometimes antecede the RCM corresponding to the direct object of the causativized verb, which we do not expect if (2) is correct. However, the anomaly noticed for causativized verbs with respect to (2) does not have a parallel in the ECM construction – the complement subject is always an intervener for local anaphoric connections between the matrix subject and the complement object RCM.

ID5029

Bamubukula khubiyilana

*Ba-a-mu-bukul-a	khu-biyil-an-a
SM.c2-PST-OM.c1-consider-fv	c15-hate-RCM-fv

They consider him to hate each other.

Perception verbs can also bear affixes corresponding to arguments identified with subordinate clause predicates, and once again the question is whether the complementation structures are of the object control type or if they are more like ECM complements.

ID3774

Basaani bebona nge bebeena

Ba-saani ba-a-i-bon-a nge ba-ibeen-a
 c2-men SM.c2-PST-RFM-saw-FV as SM.c2-bleed-FV
 The men saw themselves bleeding.

ID3775

Basaani babonana ne bebeena

Ba-saani ba-a-bon-an-a ne ba-ibeen-a
 c2-men SM.c2-PST-saw-RCM-FV when SM.c2-bleed-FV
 The men saw each other while bleeding.

ID3776

Basaani babonana nge bebeena

Ba-saani ba-a-bon-an-a nge ba-ibeen-a
 c2-men SM.c2-PST-saw-RCM-FV as SM.c2-bleed-FV
 The men saw each other bleeding.

The morphemes *nge* and *ne* in these examples appear to introduce adjunct clauses, yet the RCM and the RFM are on the matrix perception verb. Again we need to consider whether these affixes are thematic direct objects of 'see' controlling empty subject positions in the clause that follows, or if they are only thematic subjects of the complement (or adjunct) clause. The interpretive possibilities can be suggestive; Is it the case that what the men saw was 'themselves/each other bleeding' (an event) or did they just see each other, and at that time they were bleeding? In the latter interpretation, it is not necessary for the men to know that they are bleeding (or each to know that the other one is) - perhaps only the utterer of the sentence knows that - so on the direct object interpretation, the men may not see any blood, whereas on the first interpretation, the event interpretation, they must have. Since these two sentences permit the event interpretation, there are open questions about the position and status of the forms *nge* and *ne*, since these examples behave in this respect like ECM structures, even though the complement clauses permit subject agreement. Interested readers should compare this discussion to that of similar examples in Kinande discussed in the Kinande anaphora sketch (Mutaka and Safir, 2007).

The main point we would like to make here is that (2) can only be maintained if the RCM and RFM on the matrix ECM verbs is analyzed as a 'subject' in a way that is structurally specific enough to predict the right results. If the RCM or RFM on the perception verb is not associated directly with the complement subject, then it is not clear how these forms could correspond to argument positions at all (given the event interpretations of their complements). This sort of relation between the subject of a

matrix verb and its complement subject is usually taken to be a mark of a productive syntactic process rather than a lexical one.

There are a number of additional issues to be explored with respect to these structures, including the independence of the events and tenses of the subordinate clauses, questions of agreement (e.g., compare the discussion of similar constructions in the Kinande anaphora sketch) and, of course, the exact structural assumptions involved, but more specific proposals of this kind are beyond the scope of this essay.

2.1.3 Comitative constructions

Yet another respect in which (2) might be challenged concerns the comitative constructions, where the post-verbal *ne*-phrase contains an argument that is semantically interpreted as part of the subject. In these cases a singular structural subject, can support reciprocal readings where agreement on the verb is plural, as in ID5156, but where agreement is singular, the reciprocal interpretation is still possible (indeed Lubukusu 'meet' is an inherently reciprocal verb with the reciprocal affix lexically bound to a root that is meaningless without it),

ID5156

Yohana bakanana ne Billi

Yohana ba-a-kanan-a ne Billi
John SM.c2-meet-fv with Bill
John and Bill met each other.

ID5030

Yohana akanana ne Billi.

Yohanaa-a-kanan-a ne Billi
John SM.c1-PST-meet-fv with Bill
John and Bill met each other.

The RFM is also possible in comitative constructions of this kind, but the comitative does not add to the subject to create a plural antecedent when agreement is singular. Rather there are two varieties of singular reflexive readings, one which adds to the object of the verb and the other which is interpreted as an instrumental.

ID3725

Wanjala esiima ne Wafula

Wanjala a-i-siim-a ne Wafula
Wanjala SM.c1-RFM-like-fv with Wafula
*Wanjala and Wafula like themselves.
Wanjala likes himself and he also likes Wafula.
#Wanjala likes himself by use of Wafula

ID3726

Wanjala ekhinga no omwaana

Wanjala a-a-i-khing-a ne o-mu-aana
Wanjala SM.c1-PST-RFM-defend-fv with c1-c1-childd

‘Wanjala shielded himself with a child.’ Or
 Wanjala defended himself with the child (child present, not a shield)
 *Wanjala and the child defended themselves.’

It is possible, however, to have a plural reflexive reading with a singular subject if agreement is c2, which is plural for humans.

ID5031

Wanjala besiima ne Wafula.

Wanjala ba-i-siim-a ne Wafula

Wanjala SM.c2 -RFM-like-fv with Wafula

Wanjala and Wafula like themselves.

One difference between ID3726 and the plural reflexive reading for ID5031 is that ID3726 requires a distributed reflexive reading, while ID5031 favors a group reading.

A brief digression to clarify what we mean by a split antecedent is perhaps useful here. The subject+comitative phrase antecedents should not be confused with the usual ‘split antecedent’ phenomena, where more than one thematic argument can count as an antecedent. By contrast, the subject and the comitative phrase correspond to a single thematic argument. True split antecedents are permitted for AGR-*eene* bound locally in the absence of an RFM, but not for RFM or RCM.[Note N6]

ID1285

Wekesa akachulila Marko khu beene

Wekesa a-a-kachul-il-a Marko khu ba-b-eene

Wekesa SM.c1- PST -tell -APPL-fv Marko on c2-c2-own

Wekesa told Marko about themselves.

It might appear in some circumstances that the RFM or RCM on a subordinate verb can take a split antecedent where the absent subject of the subordinate verb corresponds to more than one antecedent in the higher clause, as in the examples below.

ID3814

Wanjusi aboleela omukhasiwewe ali yenyekha besiime (babeene)

Wanjusi a-a-boleel-a o-mu-khasi o-wewe a-li ya-enyekh-a

Wanjusi SM.c1-PST-tell-fv c1-c1wife c1-his c1-that it-supposed-FV

ba-i-siim-e ba-b-eene

SM.c2-RFM-love-SUBJ c2-c2-own

Wanjusi told his wife that they are supposed to love themselves.

ID3815

Wanjusi aboleela omukhasi wewe ali yenyekha basiimane

Wanjusia-boleel-a o-mu-khasi o-wewe a-li ya-enyekh-a ba-siim-an-e

Wanjusi SM.c1-PST-tell-fv c1-c1-wife c1-his c1-that it-supposed-fv SM.c2-love-RCM-fv

Wanjusi told his wife that they are supposed to love each other.’

This appears, however, to be a case of pro-drop, where a null pronominal subject is

picking up the split antecedent, and the null subject pronoun is inducing agreement on the subordinate SM, with the result that the RFM and RCM are in fact locally anteceded by a plural in the lower clause. The fact that the subject of the lower clause could be any human plural in the discourse, not necessarily the antecedents in the matrix clause, provides additional evidence for the view that the null subject acts like an ordinary pronoun.

Returning now to antecedency in the comitative construction, one might try to argue that the real antecedent for the RFM and RCM in these constructions is the agreement marker (SM) on the verb, insofar as whenever the class of the SM does not match that of the structural subject, it is the agreement morpheme that determines the acceptable interpretations for the reflexives and reciprocals. The distributed reflexive reading for ID3726 already suggests this is an insufficient approach, but the point deserves more attention, because the comitative construction already poses interesting issues for the nature of agreement which are independent of anaphora. One might hope that whatever determines how agreement is computed in these constructions would produce the class of antecedents that predict the readings permitted for the RFM and the RCM.

Most Bantu languages have comitative structures of this kind, especially where a plural subject contains nominals that do not form plurals of the same class, and so something has to give. In cases where both conjuncts are human, the agreement (SM) on the verb is class 2, which would be expected for a plural human subject. However, when conjoined nouns belong to classes that take different plurals, Lubukusu uses the class 8 prefix (see table 1 of AQ3.5.1), as described in AQ3.5.2, or else forms a comitative construction. For the comitative construction, either agreement matches the subject alone, or agreement is c2 for a singular human subject and another singular in the *ne* phrase or else c8 agreement is used.[Note N7] These possibilities are all available for verbs marked with the RCM to form successful reciprocal interpretations. In ID1547, the subject is singular with a comitative phrase and the SM is c2, while in ID1363, the subject is singular with a comitative phrase and the SM is c8. C8 for SM agreement is favored for a comitative structure with a verb+RCM, but there are cases where the singular is possible (see ID1346, ID1364).

ID1547

Yohana baakanana babeene ne babeene ne Billi

Yohana	ba-a-kanan-a	ba-b-eene	ne	ba-b-eene	ne	Billi
John	SM.c2-PST-meet-fvc2-c2-own	with	c2-c2-own	with	Bill	

John and Bill met each other and each other only.

ID1363

Omwaana byasiimana nende embwa

O-mu-ana	bi-a-siim-an-a	nende	e-mbwa
c1-c1-child	SM.c8-PST-like-RCM-fv	with	c9-dog

The child and the dog like each other.

ID1346

Wekesa apana ne Wanjala.

Wekesa a-a-p-an-a ne Wanjala
 Wekesa SM.c1-PST-fight-RCM-fv with Wanjala
 Wekesa and Wanjala fought each other.

ID1364

Omwaana asiimana nende embwa

O-mu-ana a-a-siim-an-a nende e-mbwa
 c1-c1-child SM.c1-PST-like-RCM-FV with c3 9-dog
 The child and the dog liked each other.

Insofar as it is possible to have singular c1 agreement on the SM and still have a reciprocal reading, it cannot be the case that the SM agreement is the sole determinant of how the RCM is anteceded - some notion of plurality that includes the contribution of the comitative argument must still be part of the calculation that provides a plural antecedent for the RCM (see also the mild contrast that arises where combination markers, RFM+RCM are used, as in ID3752 vs. ID3753).

The comitative construction in Lubukusu thus raises interesting questions about how antecedents are calculated when the unique structural antecedent available does not appear to do the job. In particular, it would appear that notions of antecedency based on the Agree relation (as in Reuland, 2001, 2011, Heinat, 2008, and Hicks, 2009) will not be sufficient for the RCM. On the other hand, the RCM does not show any agreement for phi-features (person, number or gender) and may not fall under Agree for that reason, but then the locality of the affix will still need an account. Thus the pattern of anaphora for RFM and RCM in comitative constructions remains an interesting challenge to the notion 'antecedent by a structural subject'. These issues deserve further study.

2.1.4 RFM and RCM in inalienable possession constructions

A separate set of issues, somewhat familiar in light of patterns in other Bantu languages, arise for both the RFM and the RCM with respect to apparent non-coarguments of the verb that can sometimes be understood reciprocally or reflexively in contexts of inalienable possession.

There are a small set of cases in Lubukusu, but a set not unfamiliar when compared with other Bantu languages, where an RFM or RCM can correspond to an inalienable possessor in a gestural 'quasi-reflexive' construction as in, for example, Cinsenga (ID464 and ID762), Ikalanga (ID143) and Kinande (ID89 and ID844). For Lubukusu we have ID1312.

ID1312

Basaanibechanuwakamachune
 ba-sani ba-a-i-chanu-a ka-ma-chune
 c2-man SM.c2-PST-RFM-comb-fv c6-c6-hair
 (The) men combed their own hair.

ID1337

Paulo erema kumukhono kwewe.

Paulo a-a-i-rem-a ku-mu-khono (ku-ewe)
 Paulo SM.c1-PST-RFM-cut-FV c3-c3-hand (c3-his)

Paul cut his hand.

In the examples above, a missing possessor in the post-verbal nominal is construed with the reflexive on the verb. Moreover, it is possible for these examples to leave out the RFM and still have a reflexive reading with respect to the inalienable possessor of the hand. The use of an OM instead of an RFM also allows an inalienable possession reading, but then it is not the subject's hair or hand that is combed or cut, respectively.

The verb *-saab-*, 'wash', however, is both inherently reflexive and does not allow an OM in place of the RFM unless it bears a causative affix. When the causative affix is present, however, the inalienable reading for 'legs' is then possible with the OM as its (only possible) antecedent.

ID5032

Wekesa (e)asaaba bikele

Wekesa a-a-(i)-saab-a (bi-kele)

Wekesa SM.c1-PST-RFM-wash-fv c8-leg

Wekesa washed his legs.

ID5033

**Wekesa amusaaba bikele*

Wekesa a-a-mu-saab-a (bi-kele)

Wekesa SM.c1-PST-OM.c1-wash-fv c8-leg

Wekesa washed his (other person's) legs.

ID5034

Wekesa amusabisya bikele

Wekesa a-a-mu-saab-isy-a (bi-kele)

Wekesa SM.c1-PST-OM.c1-wash-CAUS-fv c8-leg

Wekesa washed his (other person's) legs.

The issues that arise here involve assumptions about how lexical semantic arguments are projected onto syntactic structures, and we will return to such issues in section 2.2.2. However, it is enough to notice that several issues concerning the role of affixes and the arguments they correspond to need to be explored in greater detail. In particular, it is not obvious that the RCM can be seen as a detransitivizing element if it can cooccur with what appears structurally to be a direct object.

ID1308

Basaani bachanuwana kamachune

Ba-sani ba-a-chanu-an-a ka-ma-chune

c2-manSM.c2-PST-comb-RCM-fv c6-c6-hair

(The) men combed each other's hair.

It is possible, perhaps, to argue for possessor raising (promotion of a possessor to an object position), or for the apparent object as a prepositional adjunct, but both of these analyses require additional assumptions we will not enter into here (but see, for example,

Simango, 2007 for relevant discussion of Chichewa), other than to point out that in ID1310, the reciprocal acting on a benefactive argument as opposed to a possessor also results in a missing argument place. Thus ID1308 should not be analyzed as an applicative structure, since that option exists with a different syntax and morphology. Whatever the right analysis is, however, part of the story must explain why it is not possible for the OM to represent the same arguments, and this is why we suggest that the lexical semantics must play a role. [Note N8]

2.2 Contrasts between RFM and RCM

The contrast between extensions (such as the RCM) and preverbal markers, sometimes regarded as clitics (e.g., the OM and the RFM) has sometimes been cast as one between components, where the RCM, because it affects valence, has been argued to be lexical, while the RFM and OM are treated as syntactic (e.g., by Mchombo, 2004, and literature cited there), though others have treated the RCM as syntactic as well (e.g., Baker, 1988). The usual issues that arise for reasoning based on ordering are relevant here (e.g., if causative affixation is achieved by a lexical process, then an affix inside of it must be so formed, but if causative is formed by a syntactic process, then an affix outside of it must be syntactically formed, etc.). Agreement affixes are taken to be syntactic because the morphology is configurationally contingent, and this appears to be uncontroversial. The literature exploring the lexical/morpho-syntactic boundaries is rich, including work by Chomsky (1970) Wasow (1977), Baker (1988) Simango (1999), amongst many others. For a recent treatment of the issues, see Embick and Marantz (2008) and references cited there.

The issues for RFMs and RCMs and their interaction with verb extensions are different, in that the position of the RFM left-adjacent to the verb root is essentially invariant, but the position of the RCM, itself an extension, appears to vary depending on the extensions it co-occurs with, as noted with respect to causative affix(es) in 2.1.1. The ordering interactions of RCM with other verb extensions, such as passive and applicative as well as causative is a topic too big for this essay, but it is clear that the same ordering ambiguities do not arise for the RFM. [Note N9]

We have already seen that antecedent intervention effects in the causative treat the two affixes differently, insofar as the subject of the verb embedded under CAUS intervenes to block the cause from being the antecedent of the RFM, but it does not block the RCM. By contrast, the comitative structure treated them similarly, insofar as both could be anteceded by an apparently singular subject (if the comitative argument is added in it is plural) and singular subject agreement.

There are some ways in which the two affixes behave alike in Lubukusu in contrast to reports about their counterparts in other Bantu languages. For example, Mchombo (2004:106) comparing reflexive versions with Sells, Zaenen and Zecs (1983:187) reports the following contrast in Chichewa;

- | | | | |
|---|--------------------------|------------|--------------|
| 5) Alenje | á-ma-dzi-nyóz-á | ku-pósá | asodzi |
| c2.hunter | SM.c2-hab-RFM-despise-fv | inf-exceed | c2.fisherman |
| The hunters despise themselves more than the fishermen. | | | |
| 6) Alenje | á-ma-nyóz-án-á | ku-pósá | asodzi |
| c2.hunter | SM.c2-hab-despise-RCM-fv | inf-exceed | c2.fisherman |
| The hunters despise each other more than the fishermen. | | | |

While (5) permits a reading “The hunters despise themselves more than they despise the fisherman”, the parallel reading for (6), “The hunters despise each other more than they despise the fishermen’ is not possible, that is, while (5) allows a sloppy and a strict reading, (6) only allows the sloppy reading: “The hunters despise each other more than the fishermen despise each other.” By contrast, in Lubukusu there is no such asymmetry between ID5035 and ID5036, both the RFM and the RCM permit transitive interpretations in ellipsis contexts.

ID5035

Basaani bebiyila babeene khukhila bakhasi

Ba-saani ba-a-i-biyil-a (ba-b-eene) khu-khil-a ba-khasi
c2-man SM.c2-PST-RFM-hate-fv c2-c2-own c15-defeat-fv c2-woman

The men hated themselves more than the men hated the women.

The men hated themselves more than the women hated themselves.

ID5036

Basaan babiyilana khukhila bakhasi

Ba-saani ba-a-biyil-an-a (ba-b-eene) khu-khil-a ba-khasi
c2-man SM.c2-PST-hate-RCM-fv c2-c2-own c15-defeat-fv c2-woman

The men hate each other more than the men hate the women.

The men hate each other more than the women hate each other.

Mchombo takes the result of the test in Chichewa to show that the RCM is a detransitivizing affix, but if their test shows what he thinks it does, then the RCM is not a detransitivizing affix in Lubukusu.

Another context that is supposed to distinguish the behavior of the RFM from the RCM are nominalized constructions. Mchombo (2004:116-117) reports for Chichewa that the RCM can appear in nominals but the RFM cannot, presumably because the c12 affix in Chichewa attaches directly to the root, allowing no space for other prefixes, such as the RFM. The issues seem different in Lubukusu depending on what is taken to be a nominalization. Nominalized verbs of c5 that bear the *li-* prefix also can be reflexivized with a reflexive morpheme *-li-* (homophonous to the c5 prefix, or perhaps c5+c5-RFM, *li-li-i*) to form reflexively interpreted nouns like *lilibiiyila* 'self-hatred' from *libiiyila* 'hatred' and *lilipaanga* 'self-organization' from *lipaanga* 'organization' (see ID1340 and ID1341 for examples embedded in sentences). These c5 nominalizations can be formed with the RCM as well as with the RFM.

ID5067

Lilyeitaala lye babaana

Li-li-i-itaal-a li-a ba-b-aana
c5-c5-RFM-kick-fv c5-of c2-c2-child

Children’s self-kicking

ID5069

Liliitaalana lye babaana

Li-li-itaal-an-a li-a ba-b-aana

c5-c5-kick-RCM-fv c5-of c2-c2.child
Children's kicking of each other

It could be, however, that c5 does not replace all the prefixes the way Chichewa c12 does, and it could also be that the rich pre-prefix-prefix system of Lubukusu changes the equation by allowing for more prefixing morphology in these contexts. In any case, manner nominals are rendered with c5 in Lubukusu, and so we cannot perform the same test as in Chichewa (Lubukusu – c12 is diminutive or derogatory).

ID5093

Khwakachula khu lifwara lyomundu

Khu-a-kachul-a khu li-fwar-a li-a o-m-undu
SM.c2.1st-PST-talk-fv about c5-dress-fv c5-of c1-c1-person
We talked about the way to dress oneself

There are similar phenomena for c15 *khu*-nominals, which look more like infinitives or gerunds, and employ the infix *-khwe-* to achieve reflexive readings (possibly c15-c15-RFM, *khu-khu-i*) as in the infinitive-like subject of ID1342 and the desiderative verb complement in ID1296.

ID1342

Khukhwimanyisya khwa Andrea omweene khwasiimisya omwaalimu

Khu-khu-i-many-isy-a khu-a Andrea o-mu-eene
c15-c15-RFM-know-CAUS-fv c15-of Andrew c1-c1-own
khu-a-sim-isi-a o-mu-aalimu
SM.c15-PST-please-CAUS-fv c1-c1-teacher
Andrew's introduction of himself impressed the teacher.

ID1296

Sol enya khukhwifumya

Sol a-eny-a khu-khu-i-fumy-a
Sol SM.c1-want-fv c15-c15-RFM-praise-fv
Sol wants to praise himself.

There are some properties to take note of here. First, the antecedent of the reflexive in ID1342 appears to be *Andrea* even though *Andrea* does not appear to c-command *-khwe-*, and in this respect, c15 nominalizations are like c5 nominalizations in Lubukusu. In ID1296, we once again see what could be analyzed as a control structure, or else the antecedent of the RFM is not local. As indicated above, it may be appropriate to regard *-khwe-* as simply an allomorph of the RFM conditioned by a doubling of the *khu-* prefix in infinitives and it is possible that the same analysis could be extended to *-li-* in class 5 nominals.[Note N10] The form of the RCM is unchanged in the context of *khu-* infinitives such as the object control structure in ID1577.

ID1577

Bakhasi barebile basaani khuhelesyana bitabu.

Ba-khasi ba-reeb-il-e ba-saani khu-elesi-an-a bi-tabu
 c2-woman SM.c2-ask-TNS-fv c2-man c15-give-RCM-fv c8-book
 ba-b-eene ne ba-b-eene
 c2-c2-own with c2-c2-own

(The) women asked (the) men to give the books to each other.

In other words, class 15 nominals do not distinguish the RCM and the RFM except for the morphological shape of the RCM is affected. (It is notable, however, that complement infinitives, unlike the subject ones that agree with the SM, do not introduce the subject with c15-of). [Note N11]

Finally, since the RCM is an extension and the RFM is not, it is possible to get more than one RCM if the verb is interlaced with other extensions that increase the number of arguments that can be represented, with attendant changes of meaning (see Sikuku, 2011:93-4 for some basic ordering cases). Verbs expanded with causative and applicative suffixes, for example, can permit more than one RCM. ID5130 shows the verb *-lum-* ‘bite’ can be simply affixed with a single RCM and that structure can be causativized with the orders in ID5131 and ID5132. [Note N12]

ID5130

Babaana balumana

Ba-baana ba-a-lum-an-a
 c2-child SM.c2-PST-bite-RCM-fv
 The children bit each other

ID5131

Omulosi alumisyana babaana

o-mu-losi a-a-lum-isi-an-a ba-baana
 c1-c1-witch c1-PST-lum-CAUS-RCM-fv c2-child
 The witch caused the children to bite each other. (indirect)

ID5132

Omulosi alumanisya babaana

o-mu-losi a-a-lum-an-isi-a ba-baana
 c1-c1-witch SM.c1-PST-bite-RCM-CAUS-fv c2-child
 The witch caused the children bite unspecified. (direct)

Two other issues arise here which we essentially set aside. First, the role of the causing argument is less direct in ID5131, perhaps insofar as the cause argument is applied to the event, whereas in ID5132, the cause is acting directly on the agent of the caused event. Second, the position of the RCM before the CAUS extension somehow permits ID5132 to have an antipassive sort of reading, whereby the children are caused to bite unspecified others, while ID5131 only permits a reciprocal reading. This suggests that the RCM is homophonous with the antipassive, as has been argued to be the case in other Bantu languages (e.g., Ndayiragije, 2006). With this in mind, consider the examples below where more than one RCM appears.

ID5133*Omulosi alumanisyana babaana*

o-mu-losi a-a-lum-an-isi-an-a ba-baana

c1-c1-witch SM.c1-PST-bite-RCM-CAUS-RCM-fv c2-child

The witch made the children bite each other.

ID5134

Babaana balumanisyana

ba-baana ba-a-lum-an-isi-an-a

c2-child SM.c2-PST-RCM-CAUS-RCM-fv

The children made each other bite each other

ID5135

Omulosi alumanisyanilana babaana

o-mu-losi a-a-lum-an-isi-an-il-an-a

ba-baana

c1-c1-witch SM.c1-PST-bite-RCM-CAUS-RCM-APPL-RCM-fv

c2-child

The witch made the children bite each other for each other

In ID5134 we see the an unremarkable result insofar as the two RCMs correspond to two possible arguments, the first RCM corresponding to the object of ‘bite’ and the second to the subject of ‘bite’, where both RCMs are ultimately anteceded by *babaana*. With the addition of the applicative in ID5135 to the event of the children making each other bite each other, a third RCM corresponding to the benefactive object is also possible, however, the addition of *babaana*, the children, to the mix, it appears that we now have too many arguments, in that the second RCM would appear to correspond to the children. This may have to do with the possibility of antipassive interpretation in ID5132, but we leave consideration of these matters for future work. However, the appearance of the RCM distributed between CAUS and APPL in these examples seems to make the RCM a wildcard with respect to extension ordering.

These different orderings for the RCM deserve richer analysis, particularly in light of the discussion of high and low applicatives (see Pylkannen, 2008, and McGinnis and Gerdts, 2004) in the general literature, and in the literature on Bantu (see, for example Baker, 1988, Hyman, 2003, and Good, 2005), but for now it is enough to observe that the interleaving of the RCM with other extensions yields changes in meaning that are not determined by RFMs in the same way, since RFMs are not extensions.

3.0 Verb-specific anaphora: Inherent reflexives and reciprocals

There are certain verbs that are semantically understood to be reflexive or reciprocal even though they are not marked conventionally by the RFM or the RCM. These are verbs that can or must occur without an OM or any direct object, yet are understood reflexively, or else the object does not correspond to the argument in the reflexive or reciprocal relationship with the subject. Examples in English of the first kind are verbs like *dress* and *argue* which can appear without direct objects, in which case they only support reflexive and reciprocal readings (e.g., *The boys argued*), respectively.

Lubukusu has limited classes of verbs of both kinds, that is to say, cases where a verb can be understood to be reflexive in the absence of either the RFM or AGR-*eene*.

Consider ID1402, ID1410 and ID1414.

ID1402

Don abeka

Don a-a-bek-a

Don SM.c1-PST-cut-fv

Don shaved himself.

ID1410

Omukhana aakhala kamatere

O-mu-khana a-a-khal-a (ka-ma-tere)

c1-c1-girl SM.c1-PST-cut-fv c6-c6-nail

The girl cut her nails herself.

ID1414

Omukhana aafutula kamaru

O-mu-khana a-a-futul-a (ka-ma-ru)

c1-c1-girl SM.c1-PST-pierce-fv c6-c6-ear

(The) girl pierced her ears herself.

The verb 'cut' without an object or an RFM in ID1402 does not mean to cut oneself, rather it means to shave, and the absence of the RFM introduces an indirect causative reading, i.e., 'to have one's beard shaved'. The verbs for cutting nails and piercing ears, moreover, do not need an RFM to trigger a reflexive reading. Only some verbs that involve applying a blade to a body part also behave in this way, as mentioned in the last paragraph. For example, the verb for 'dress' is inherently reflexive in this sense, insofar as '*Wanjala afwaara*' without the RFM means 'Wanjala dressed himself'. It appears that for virtually all verbs that include doing something to a part or the whole of one's body, the RFM is optional as a marker of reflexivity, but this comes with some degree of ambiguity. The ambiguity is stronger in some verbs (such as 'wash') than in others. The matter remains open to further exploration.

One respect in which Lubukusu null object reflexives are distinct from many other Bantu languages is that it is not necessary to add a transitivizing verb extension for these verbs to take reflexives or direct objects, unlike, for example, certain verbs of grooming in Kinande and Cinsenga (as discussed in Mutaka and Safir, 2007). On the other hand, the verb-*saab-*, 'wash', discussed in 2.1.4, does require the presence of a causative (or transitivizing) affix to have a non-reflexive reading with the OM. Interesting analytic and theoretical questions lurk behind these facts, insofar as English inherently reflexive verbs have been treated as derived from their transitive counterparts (e.g., in Reinhart and Siloni, 2005), but languages like Kinande, seem to show a morphological derivation in the opposite direction, that is, a transitivizing affix is necessary for an inherently reflexive verb to be interpreted as transitive (e.g., having a reciprocal or non-coconstrued object, or having an RFM). Should Lubukusu inherent reflexives be treated as having an abstract transitivizer along the lines of what is overt in

Kinande, or should they be treated as having the same relation that such verbs in English do to their transitive counterparts (if that is really different)? These questions also remain open.

However, it may be the case that the interpretations of these verbs in Lubukusu are not quite parallel to the inherently reflexive ‘wash’ and ‘dress’ cases in other Bantu languages. All of the Lubukusu candidate verbs seem to involve acting on an inalienably possessed body part that can optionally appear, in the case of nail-cutting and ear-piercing, as the object. This suggests another possible analysis, namely, that there are no null object lexically reflexive verbs in Lubukusu, but there are verb-specific cases where the RFM can represent the possessor of a missing direct object possessum. [Note N13]

There are also interesting interpretive differences between the use of RFM with an inalienably possessed object and an (optionally) missing possessor, as permitted by certain verbs, such as *-rem-*, which means ‘cut’ as in ID1336 and ID1337.

ID1336

Paulo arema kumukhono kwewe

Paulo a-a-rem-a ku-mu-khono ku-ewe
 Paulo SM.c1-pST-cut-fv c3-c3-hand c3-his
 Paul cut his hand.

ID1337

Paulo erema kumukhono (kwewe)

Paulo a-a-i-rem-a ku-mu-khono (ku-ewe)
 Paulo SM.c1-PST-RFM-cut-fv c3-c3-hand (c3-his)
 Paul cut his hand.

In this case the absence of the RFM and the presence of the possessor strongly favors an intentional interpretation (e.g., he cut his hand because he wanted to have a scar), whereas the use of the RFM with an optionally missing possessor strongly favors an unintentional or accidental interpretation. These structures also bring into play the various interactions between AGR-*eene* and the reciprocal phrase, on the one hand, and the RCM and the RFM, on the other (see section 5.4). So, for example, ID5158, which combines the RFM and the reciprocal phrase, permits either a distributed reflexive interpretation or a reciprocal one (the RFM+reciprocal phrase combination is rare in our database, but deserves further scrutiny).

ID5158

Basaani bechanuwa kamachune babeene khu beene

Ba-sani ba-a-i-chanu-a ka-ma-chune ba-b-eene khu ba-b-eene
 c2-man SM.c2-PST-RFM-comb-fv c6-c6-hair c2-c2-own on c2-c2-own
 (The) men combed their own hair.
 (The) men combed each other’s hair.

There are also some verbs that are lexically (inherently) reciprocal, and these have an RCM-like morpheme that is attached to the verb root where the root has no meaning on its own, or has a different meaning on its own, as in ID1313 and ID1314. The verb

inga, for example, literally means ‘stretch’ while *ingana* means ‘argue’ (see also Note N3). The verb *-akanan-* ‘meet’, is another example of a verb that has no independent meaning if the apparent RCM *-an-* is subtracted from it. Also, no RCM can occur with such verbs except the one that already exists in the root (on the presence of the reflexive and the reciprocal phrase, see 5.4).

ID1551

Yohana ne Maria bakanana ne babeene khu beene
 Yohana ne Maria ba-a-akanan-a ne ba-b-eene khu b-eene
 John and Mary SM.c2-PST-meet.RCM-fv with c2-c2 on c2-own
 John and Mary met with each other

However, the use of RFM with *ne+Agr-eeene* has a reflexive meaning, showing that the reciprocal is sublexical, insofar as it does not require a reciprocal interpretation when a syntactically active RFM is present.

ID5139

Yohana ne Maria beyakanana ne babeene
 Yohana ne Maria ba-a-i-akanan-a ne ba-b-eene
 John and Mary SM.c2-PST-RFM-meet.RCM-fv with c2-c2-own
 John and Mary met with themselves

The occurrence of the RFM or the RCM on the verb that takes an inalienably possessed object raises some non-trivial issues about the nature of transitivity for these verbs. Since in these cases, the RFM and RCM correspond to an argument internal to what appears to be the direct object, either the anaphoric markers do not correspond to direct objects in these constructions, or these constructions do not treat the inalienably possessed nominal as a direct object, but rather as some other sort of argument or else as an adjunct. If the nominal headed by the possessum is indeed a direct object, then it cannot be said of the RCM, for example, that it has the effect of detransitivizing the verb it attaches to. It also challenges the view, already weakened by the ECM analyses discussed earlier, that the RFM is always anteceded by a coargument. Some sort of promotion of possessor to object analysis would produce the right result, when the markers are overt, but the status of the remaining material of the possessum would remain analytically underdetermined. One could imagine some sort of abstract possessum incorporation that has the effect of promoting the possessor to direct object, whereby the incorporation would have the effect of creating a complex predicate (e.g., ‘x hair-combed y’). Alternatively, one could try to support an analysis on analogy with English *Mary punched John in the nose*, where it is unambiguously John’s nose that sustains the blow, but *his nose* is not necessary, but restricts the target. This analysis looks more remote for a verb meaning *comb*, but we will be content here to merely point out the possibilities, alert the reader to the fact that similar issues arise for other Bantu languages, and leave the matter to further research.

4.0 Non-affixal markers

Lubukusu has two non-affixal markers, AGR-*eene* and the reciprocal phrase, which can, under limited circumstances, achieve reflexive and reciprocal readings in clausemate contexts where the RFM and RCM are not available. These markers also play a significant role in permitting disambiguation as to antecedents and emphasis, affirmation or focus on anaphoric readings. The non-affixal markers do not occur on verbs, but can instead occur in close construction with verbs in the manner of arguments, as prepositional objects, and may also appear in adjunct positions, where their readings have an adverbial or contrastive character. Part of the discussion of the non-affixal markers is reserved for section 5 which discusses the combination strategies where these markers very typically occur.

4.1 AGR-*eene* alone

The AGR-*eene* form is employed in a variety of ways. It can be used as an emphatic adverbial reflexive, it can serve to affirm a reflexive reading, it can be a long distance and discourse dependent, and in certain circumstances it can form a reflexive reading on its own. In non-anaphoric contexts, like ID1358 it appears that that -*eene* may mean ‘owner’, a familiar type of anaphoric atom (see Safir, 1996, 2004).

ID1358

Omweene bikapo alya busuma

O-mu-eene bi-kapo a-a-li-a bu-suma
 c1-c1-own c8-basket SM.c1-PST-eat-fv c14-maize.meal

The owner of baskets ate maize meal.

As with most nouns in Lubukusu, the -*eene* noun is preceded by two noun class affixes, the pre-prefix (which is usually the agreement that occurs on modifiers of the noun) and the prefix; these two prefixes match each other for noun class (except the locative) and also agree with the noun class of the antecedent of AGR-*eene*. The noun ‘child’, *omwaana*, for example, has the morpheme breakdown *o-mu-aana* and is glossed c1-c1-child, just as the c1 form for AGR-*eene* is *omweene*, or *o-mu-eene*. The c2 form for ‘child’, meaning ‘children’ is *babaana* which breaks down as *ba-b-aana* and when AGR-*eene* agrees with a c2 antecedent it is *babeene* (for agreement paradigms, see table 1 of AQ 3.5.1). Thus the AGR-*eene* form consists of three morphemes, the pre-prefix, the noun classmarker, and the ‘own’ morpheme. Similarly, in classes 4 and 6, the preprefixes *ki-* and *ka-* are used as agreement affixes respectively, so the AGR-*eene* forms for these classes are *kimyeene* and *kameene* respectively, and the latter is illustrated in ID1425, where *kameene* co-occurs with the RFM.

ID1425

Kamashini keng’oona kameene

Ka-mashini ka-a-i-ng’oon-a ka-ma-eene
 c6-machine SM.c6-PST-RFM-make-fv c6-c6-own

(The) machines built themselves.

However, a different picture exists in cases of locative nouns and 1st and 2nd person personal pronouns. The 1st and 2nd person personal pronouns derive their class

markers from Class 1 and Class 2, but the agreement affix corresponds to a form similar to the free pronoun. The 1st person singular pronoun is *ese* and the AGR-*eene* form will be *samweene*, where the breakdown is *sa-mu-eene* glossed 1st-c1-own. See tables 2 and 3 in the AQR for details. Predictably, the pre-prefixes for the locative nouns are used as agreement markers (*khu-nju khu-layi-* ‘on the house is good’), but with the lack of a prefix, the general form *-bu-* indicating ‘place’ is used. Class 16 will then have *khubweene*, class 17a, *abweene*, and so forth. Perhaps this should even be evidence to reconsider the distinction made between the ‘place’ classes, assuming instead that they use the same class because they share a class affix, but this matter goes beyond the scope of our inquiry.

It is notable that AGR-*eene* can show modification agreement, as illustrated by ID1457, where *lilyeene* shows c5 agreement matching the possessive pronoun. Here *lilyeene* must be understood as a disambiguator, insofar as it favors the local subject as the antecedent for the possessive pronoun (although a discourse prominent individual could be the antecedent in the right context). (See also ID1452 for a similar example with c7 modification and no modification agreement).

ID1457

Mayi waNicki akusya litoka lyewe lilyeene

Mayi o-wa Nicki a-a-kus-ya li-toka li-ewe li-li-eene
 Motherc1-of Nick SM.c1-PST-sell-fv c5-car c5-his c5-c5-own
 Nick’s mother sold his (own) car.

Whether or not AGR-*eene* has the status of an argument or an adjunct appears to depend on its syntactic context and we will have more to say about this later. AGR-*eene* clearly seems to have the status of an argument when it occurs in the absence of the RFM, and in examples like ID1350.

ID1350

Wekesa apa omweene

Wekesa a-a-p-a o-mu-eene
 Wekesa SM.c1-PST-beat-FV c1-c1-own
 Wekesa beat him/*himself.

In the latter case, AGR-*eene* does not act as an anaphor, at least with respect to locality restrictions, but rather behaves like a pronoun with respect to Principle B, at least in direct object position, that is to say, *omweene* cannot be coconstrued with *Wekesa* in ID1350. Unlike emphatic reflexives in a number of other Bantu languages, AGR-*eene* is not sensitive to animacy as long as it agrees with its antecedent as in ID1425 and it fails where it does not agree. However, where AGR-*eene* does not have a sentential internal antecedent, the interpretation is often ‘the owner’ salient in discourse.

If not associated with the same logical argument as an affix on the verb (where it appears with OM+AGR-*eene* or RFM+ AGR-*eene*, to be discussed later), AGR-*eene* behaves like the UD-forms characterized in Safir (2004) as sometimes anaphoric forms that can act like discourse sensitive pronominals. AGR-*eene* has these properties, insofar as it can pick out any focused individual in the domain of discourse, including those

outside the sentence, as in ID1350 and ID1367. AGR-*eene* can have a non-commanding sentence-internal antecedent and it can also occur in apparent subject position (Lubukusu is subject pro-drop, insofar as the subject is optional, but the subject marker, SM, is always obligatory) as, for example, in ID1609. The use of AGR-*eene* rather than a pronoun in contexts where RFM and AGR-*eene* are not in combination favors a sentence internal antecedent, but we will return to this question in section 6.

Although AGR-*eene* cannot form a reflexive reading with the local subject when it is a direct object (in the absence of an RFM), [Note N14] without the RFM, AGR-*eene* may have an extra-sentential antecedent or AGR-*eene* without the RFM allows coreference with the subject antecedent (and a full pronoun in the same position would not). It can form a reflexive reading with the subject if it is the object in a PP selected by the verb as in ID1435, though some prepositional objects are not so easily coconstructed with the subject (e.g., ID1420 and ID1431). In this respect, AGR-*eene* contrasts with a full pronoun: *niye* cannot be coconstructed with *John* in ID1259.

ID1435

Yohana akachulila Maria khu mweene

Yohana	a-a-kachul-il-a	Mariakhu	o-mu-eene
Yohana	SM.c1-PST-talk-APPL-fv	Mary about	c1-c1-own

John told Mary about himself.

ID1259

Yohana aloma khu niye

Yohana	a-lom-a	khu	niye
Yohana	SM.c1-PST-speak-fv	on	pron.c1

John spoke about him.

It should be noted, however, that using AGR-*eene* alone for prepositional objects is considered somewhat awkward and formal and is often avoided by introducing an infinitival phrase with an RFM+AGR-*eene* strategy, as in AS4 (discussed in 5.1). [Note N15]

Somewhat surprisingly, it is possible for AGR-*eene* to form a reflexive reading with the subject just in case the subject is 1st or 2nd person, as in ID1476.

ID1476

Ewe wabona wamweene

Ewe	wa-a-bon-a	wa-mu-eene
You	SM.c1.2 nd -PST-see-fv	2 nd -c1-own

You saw yourself.

This is possibly a result of the indexicality of 1st (and 2nd) person, but it does not follow from this that the RFM is not necessary to indicate that the object must be coconstructed with the subject. The matter deserves more study.

One interesting contrast between the RFM strategy and the AGR-*eene* alone in this regard is that the latter strategy supports split antecedents, as in ID1640 (see also ID1285) as long as it is not in immediate postverbal position, where it can only be

coconstrued with the local subject in the presence of the RFM (excepting 1st and 2nd person). Notice that since the pronouns for ‘about’ and ‘to’ are the same, the sentence is ambiguous.

ID1640

Ozzie akachula khu Harriet khu beene

Ozzie a-a-kachul-a khu Harriet khu ba-b-eene

Ozzie SM.c1-PST-talk-fv about Harriet to c2-c2-own

Ozzie talked about Harriet to themselves.

Ozzie talked to Harriet about themselves.

In this respect AGR-*eene* acts the way pronominals do. By contrast, the RFM does not support split antecedents of this kind, except in cases such as ID1284 where a comitative structure is introduced, as discussed in 2.1.3. As the possibility of the split antecedent suggests, it is also possible for the AGR-*eene* to be coconstrued with a coargument direct object, as in ID1441.[Note N16]

ID1441

Maria okesya Hali khumweene

Maria a-a-okes-ya Hali khu o-mu-eene

Mary SM.c1-PST-show-fv Hal to c1-c1-own

Mary showed Hal to himself

Additional contexts where the AGR-*eene* can achieve local anaphoric interpretations without the RFM include cases where the argument position anaphoric to the subject is embedded in the object, as in ID1324 or in ID1449 (but with the presence of a related possessive pronoun), when the anaphoric argument position is in an adjunct PP, as in ID5090, or when the anaphoric argument is the second object of a causativized verb (e.g., the Z argument of ‘X verb-cause Y Z’) and is dependent on the causal subject, as in ID3707 (these are essentially from Sikuku, 2011:113)

ID1324

Bakhulundu bahulila chimbakha khubeene

Ba-khulundu ba-a-ulil-a chi-mbakha khu ba-b-eene

c2-priest SM.c2-PST-hear-fv c10-story on c2-c2-own

The priests heard stories about themselves.

ID5090

?Maria abona endemu enyuma womweene

Maria a-a-bon-a e-ndemu e-nyuma wa o-mu-eene

Mary SM.c1-PST-see-fv 9-snake c23-behind of c1-c1-own

Mary saw a snake behind herself.

ID3707

Petero apya Wanjala omweene

Petero a-a-p-y-a Wanjala o-mu-eene

Petero SM.c1-PST-beat-CAUS-fv Wanjala c1-c1-own
Peter made Wanjala beat him.

If AGR-*eene* co-occurs with the subject of an intransitive verb, then it has adverbial force, and must be treated as an adjunct as ID1351 illustrates and it can modify the subject directly, in which case it cannot co-occur finally, as illustrated in ID3750.

ID1351

Wekesa acha omweene
?Wekesaa-a-ch-a o-mu-eene
WekesaSM.c1-PST-go-fv c1-c1-own
Wekesa went himself.

ID3750

*Wekesa omweene acha engo *omweene*
Wekesa o-mu-eene a-a-ch-a engo o-mu-eene
Wekesa c1-c1-own SM.c1-PST-go-fv home c1-c1-own
Wekesa himself went home *himself.

In examples like ID3750, the emphatic reflexive can mean that Wekesa personally went home, that Wekesa went home without assistance, or that Wekesa, as opposed to somebody else, went home. These are all readings that are possible in English for the translations of ID1351 and ID3750, but the additive that is possible in English is not possible in Lubukusu, e.g., where the speaker assumes that it would be surprising for the addressee to hear that Wekesa was amongst those who went home, and wants the addressee to understand that Wekesa is also in the set of those who went home.

We will return to the adverbial usage of AGR-*eene* in 5.1 where it is shown that the AGR-*eene* in combination with the RFM is distinct from the adverbial AGR-*eene*, at least in terms of what it means and where it can occur.

4.2 The reciprocal phrase alone

The reciprocal phrase AGR-*eene khu* AGR-*eene* would literally translate ‘AGR-own on/to/for AGR-own’, or perhaps ‘them on/to/for them’, since AGR in this phrase is always plural form (i.e., it is always a noun class that characterizes pluralities), as would be expected given what it means. Notice that the AGR-*eene* after *khu* lacks the pre-prefix, however. It is a general property of the preposition *khu* that it suppresses the pre-prefix of the nominal that follows it (or perhaps it acts like a locative noun class marker and displaces the pre-prefix, as suggested to us by Mark Baker, personal communication). In any case, the absence of the pre-prefix is not limited to this expression as ID5136 shows.

ID5136

Basaanibachamulalasyamulala
ba-saani ba-ch-a (o)-mu-lala sya mu-lala
c2-man c2-leave-fv c1-c1-one ASSOC c1-one
The men left one by one (or left one after the other)

Although there might be some temptation to analyze the reciprocal phrase in the manner of French *l'un sur l'autre*, where the preposition can vary, in Lubukusu, only the preposition *khu* in this construction is associated with a consistently reciprocal reading (on *ne*, see below).

The distribution of the reciprocal phrase when it is not in combination with another anaphoric marker recalls the distribution of AGR-*eene* when it is not in such a combination. For example, the reciprocal phrase cannot normally form a reciprocal reading with the local subject when it is in direct object position unless the RCM is present (or in some cases, the RFM).

ID1379

**Bob ne Billi baabona babeene khu beene*

Bobne	Billi	ba-a-bon-a	ba-b-eene	khu	b-eene
BobandBill	SM.c2-PST-see-fv		c2-c2-own	on	c2-own

Bob and Bill saw each other.

The only apparent counterexample arises where the reciprocal phrase is associated with the subject of an inherently reciprocal verb, which suggests that the lexically incorporated reciprocal marker on this verb is what makes this possible (since, as shown in 5.2, RCM+reciprocal phrase is a successful strategy for locally anteceded direct objects).

ID1543

Bakhasi baakanana babeenekhu beene

Ba-khasi	ba-a-kanan-a	(ba-b-eene	ne	ba-b-eene)
c2-women	SM.c2-PST-meet-fv	(c2-c2-own	with	c2-c2-own)

The women met each other.

Like AGR-*eene*, when the reciprocal phrase is in prepositional object position, it is possible for the reciprocal phrase to induce a reciprocal reading in the absence of a verb affix, although the result is not perfect.

ID1325

?Nibo baalekha bihanwa ebweeni we babeene khu beene

Nibo	ba-a-lekh-a	bi-anua	e-bweni	we	ba-b-eene	khu	b-eene
They	SM.c2-PST-leave-fv	c8-presents	in-front	of	c2-c2-own	on	c2-own

They left presents in front of each other.

However, slightly deeper embedding does not succeed.

ID1323

**Bakhulundu bahulila chimbakha khu beene khu beene*

Ba-khulundu	ba-a-ulil(-an)-a	chi-mbakha	khu	ba-beene	khu
c2-priest	SM.c2-PST-hear-RCM-fv	c4-stories	on	c2-c2-own	on
	ba-b-eene				
	c2-c2-own				

Priests heard stories about each other.

On the other hand, the reciprocal phrase can successfully create a reciprocal interpretation with the causer of a causative, bypassing the agent of the caused event.

ID5024

?*Basoleeli baamulisisya babeene khu beene busuma*

Ba-soleeli ba-a-mu-li-is-is-y-a ba-b-eene khu
 c2-boy SM.c2-PST-OM.c1-eat-CAUS-CAUS-fv c2-c2-own on
 ba-b-eene bu-suma
 c2-c2-own c14-maize.meal

The boys made him feed each other maize meal

AGR-*eene* and the reciprocal phrase also contrast in certain contexts. For one thing, there is no adverbial adjunct reading for the reciprocal phrase (see Sikuku, 2011, 114), but this is no surprise, since it is hard to imagine what it would mean.

ID1352

**Basoleeli baacha babeene khu beene*

Ba-soleeli ba-a-ch-a ba-b-eene khu ba-b-eene
 c2-boy SM.c2-PST-go-fv c2-c2-own on c2-c2-own

Boys went each other.

Unlike the surprising success of AGR-*eene* in object position when it is anteceded by a 1st or 2nd person plural, the reciprocal phrase is not acceptable in the same context.

ID5162

**Efwe khwabona fwabeene khu beene*

Efwe khw-a-bon-a fwa-b-eene khu fwa-b-eene
 We SM.c2.1st-PST-see-fv 1st-c2-own on 1st-c2-own

We saw each other.

It is unclear what to make of this last contrast between the phrasal reciprocal and AGR-*eene*, since both non-affixal markers agree with their antecedents. The matter deserves further study.

4.3 The exclusive phrase alone

The exclusive phrase is another symmetric expression in Lubukusu which has the form nominal-Preposition-nominal where the two nominals are the same. The preposition *ne*, ‘with’, can also occur in a sequence of the form AGR-*eenene* AGR-*eene* and like the reciprocal phrase, the agreement must match that of the argument it is associated with, (see note N8 on the comitative construction) but the exclusive phrase differs from *babeene khu beene* in several ways (the exclusive phrase corresponds to ‘R2-AGR-*eene* in Sikuku, 2011). First, the second AGR-*eene* in the *ne*-phrase is complete, insofar as the class pre-prefix is also present. Second, the *ne*-phrase more typically means ‘x and only x’ for the thematic argument it modifies, as in ID5138 and ID5139, and the sentence final

exclusive phrase can only modify the object (even if it were to agree with the subject). Third, it can be singular, consistent with what it means, and fourth, again consistent with the difference in meaning, the exclusive phrase can appear as an adjunct on a subject, whereas the reciprocal phrase cannot.

ID5138

Wekesa omweene ne omweene abona babaana
 Wekesa o-mu-eene ne o-mu-eene a-a-bon-a ba-b-aana
 Wekesa c1-c1-own with c1-c1-own SM.c1-PST-see-fv c2-c2-child
 Wekesa and he only saw the children.

ID5139

Babaana babona Wekesa omweene ne omweene
 ba-b-aana ba-a-bon-a Wekesa o-mu-eene ne o-mu-eene
 c2-c2-child SM.c2-PST-see-fv Wekesa c1-c1-own with c1-c1-own
 The children saw Wekesa and him only.

ID5140

**Babaana babeene khu beene babona Wekesa*
 ba-b-aana ba-b-eene khu ba-b-eene ba-a-bon-a Wekesa
 c2-c2-child c2-c2-own with c2-c2-own SM.c2-PST-see-fv Wekesa
 The children each other saw Wekesa.

It is not clear that the exclusive phrase can fill the subject or argument slot, since, even in ID5137, it is possible that it is an adjunct on a pro subject associated with the SM (since Lubukusu is a pro-drop language), but the exclusive phrase must agree with the SM in this instance (where c10 includes pluralities of (some) animals). On the other hand, where the exclusive phrase is a prepositional object, it appears to fill an argument position in much the fashion of AGR-*eene*, and when it does it can take split antecedents, as illustrated in ID1642, or, like a pronoun, a discourse antecedent is possible.

ID5137

Ching'ene ne ching'ene chalisya ching'ana chacho
 chi-ng'-eene ne chi-ng'-eene chi-a-lisy-a chi-ng'-ana chi-a-chi-o
 c10-c10-own with c10-c10-own SM.c10-PST-feed-fv c10-c10-baby c10-ASSOC-
 c10-c10-POSS
 "They and they alone fed their babies"

ID1642

Ozzie akachulila Harriet ke babeene ne babeeme
 Ozzie a-kachul-il-a Harriet ke ba-b-eene ne ba-b-eene
 Ozzie SM.c1-talked-APPL-fv Harriet of c2-c2-own with c2-c2-own
 Ozzie talked to Harriet concerning themselves and only themselves.
 Ozzie talked to Harriet concerning them and only them.

As an adjunct, the exclusive phrase is usually sensitive to locality effects the way modifiers are, but when it is an argument, its agreement seems to be determined by what is understood to be its antecedent (but see note N8 on comitative structures).

The exclusive phrase occurs in combination with most of the other markers, and is included here as it is a useful tool in gauging the syntactic status of the other non-affixal markers.

5.0 Combination Markers

One of the striking features of the pattern of anaphora in Lubukusu is that the markers we have distinguished above often cooccur where both markers are associated with the same argument position. When markers act together in this way, we call them 'combination markers' (and this is a term we use in the Afranaph Database). As an empirical precaution, each combination is treated as a separate strategy in our data collection and elicitation in order to explore the differences between the combinations, but one would hope that a more compositional approach might succeed in computing the meaning and use of the combination strategies from the meanings and morphosyntax of the co-occurring forms. We do not attempt such a comprehensive explanation, but we do suggest some plausible directions for such a theory and we have tried to organize the evidence here in a way that will permit further work on these issues.

5.1. RFM+AGR-*eene*

When AGR-*eene* cooccurs with the RFM it is always construed with the local subject and it is almost always optional. The relationship between the RFM and AGR-*eene* is limited quite generally by the generalizations stated in (7) and (8).

7) AGR-*eene* cannot render a reflexive reading without an RFM when an RFM is possible for the same thematic argument.

8) When AGR-*eene* appears immediately after verb+RFM, the interpretation of AGR-*eene* is bound to that of the RFM.

The only exception to generalization (7) that we have noted so far concerns 1st and 2nd person antecedents. If an RFM is excluded in certain positions (any position that is not a direct object position or a derived direct object position, but see the discussion of inalienable possession), AGR-*eene* can achieve an anaphoric reading, but it appears then to play a disambiguating role (just as it does non-locally), much as *John loves his own mother* insures that the pronoun picks *John* as its antecedent in English (see, for example, ID1451). As noted in 4.1, a local anaphoric reading is achieved by Agr-*eene* alone where both the argument is introduced by a preposition that does not incorporate (compare ID1256 and ID1257) and an RFM is impossible (compare ID1261 and ID1262). It was also noted in 4.1, however, that the AGR-*eene* alone was not a favored strategy, and so ID1435 might be avoided by using a locution like ID5038, although this does not sound too natural.[Note N17]

ID5038

Yohana akachulila Maria khukhwehusu omweene

Yohana a-a-kachul-il-a Maria khu-khu-i-husu o-mu-eene

Yohana SM.c1-PST-tell-APPL-fv Maria c15-c15-RFM-concern c1-c1-own

Yohana told Maria concerning himself.

In this case, the antecedent of AGR-*eene* is ambiguous, but it must be coconstrued with either the matrix subject or object by virtue of the presence of the RFM. It seems plausible to assume here that the PRO subject of the infinitive is controlled either by the subject or the object, the RFM is construed with the PRO subject, and AGR-*eene* varies according to the value of PRO that the RFM is associated with. More emphasis makes AGR-*eene* more likely to be coconstrued with the matrix subject (and hence subject control).

Although there are many contexts where the RFM is sufficient to form a reflexive reading and the presence of AGR-*eene* associated with it is completely optional, there is at least one context where AGR-*eene* appears to be required. Suppose there is a situation in which the men in question are supposed to speak the praises of others, but the questioner knows these men are so vain that they cannot help themselves, and so the questioner asks, ‘They didn’t end up praising themselves, did they?’ The answer to this question after ‘yes’ would be ID1534 and not ID5141, though both are acceptable in other contexts.

ID1534

Bakhasi befumya babeene

Ba-khasi	ba-a-i-fumy-a	ba-b-eene
c2-woman	c2-PST-RFM-praise-fv	c2-c2-own

The women praised themselves.

ID5141

Basaani befumya

Ba-saani	ba-a-i-fumy-a
c2-men	c2-PST-RFM-praise-fv

The women praised themselves.

We consider this usage of RFM+AGR-*eene* to be ‘affirmative’. The affirmative usage can be distinguished from the emphatic reflexive usages, in that the immediate postverbal position seems to be the position of the affirmative, where nothing intervenes between RFM-verb and AGR-*eene*. The contrast between ID5053 and ID5142 provides evidence for this conclusion, insofar as AGR-*eene* does not have to have an emphatic reading when it precedes the exclusive phrase, as in ID5053, but it only has an emphatic reading when the exclusive phrase intervenes between the verb and AGR-*eene*, as in ID5142. Notice that a pause is required between the two final phrases in both examples, though ID5142 is more clumsy, but acceptable in a plausible context (e.g., the women normally help themselves and themselves only, but they usually do it indirectly, but in this case they helped themselves and themselves only, personally).

ID5053

Bakhasi beyeeta babeene babeene ne babeene

Ba-khasi	ba-a-i-yeet-a	ba-b-eene,	ba-b-eene	ne	ba-b-eene
c2-women	SM.c2-PST-RFM-help-fv	c2-c2-own	c2-c2-own	with	c2-c2-own

The women helped themselves and themselves only.

ID5142

Bakhasi beyeta babeene ne babeene babeene

Ba-khasi ba-a-i-yeet-a ba-b-eene ne ba-b-eene ba-b-eene
c2-woman SM.c2-PST-RFM-help-fv c2-c2-own with c2-c2-own c2-c2-own

The women helped themselves and themselves only, personally.

Thus we conclude that what we will call the affirmative use of RFM+AGR-*eene* is distinct from the emphatic use and appears in a syntactically distinct position, one in close construction with the RFM-verb.

5.2 RCM+reciprocal phrase

The role of the reciprocal phrase is similar to that of AGR-*eene* occurring optionally in sentences where it corresponds to an argument that has been bound by the RCM. The reciprocal phrase generally participates in generalizations (9) and (10), parallel to (7) and (8), respectively.

9) The reciprocal phrase cannot render a reciprocal reading without an RCM where an RCM is possible for the same thematic argument.

10) When the phrasal reciprocal appears after verb+RCM, the interpretation of the reciprocal phrase is bound to that of the RCM.

A typical case is ID1305, where the presence of the reciprocal phrase is optional, but if the RCM is missing, the sentence is unacceptable.

ID1305

Bakhasi babonananga babeene khu beene

Ba-khasi ba-bon-an-ang-a ba-b-eene khu b-eene
c2-woman SM.c2-see-RCM-HAB-fv c2-c2-own on c2-own

Women see each other.

As shown earlier in 4.2, the reciprocal phrase can induce a reciprocal reading without the RCM when it is in a PP and bound by a local subject, but otherwise it is usually dependent on the presence of the RCM.

As in the case of AGR-*eene*, the force of the reciprocal phrase immediately after verb+RCM can be affirmative, and as a result, the presence of the reciprocal phrase is required in examples like ID5143 in the same context mentioned for AGR-*eene*, namely, a situation in which the women in question are supposed to speak the praises of others, but the questioner knows these women are so vain that they cannot help themselves, and so the questioner asks, ‘They didn’t end up praising each other, did they? Is that what they did? The answer to this question after ‘yes’ would require the presence of the reciprocal phrase, as in ID5143.

ID5143

Bakhasi baafumyana babeene khu beene

Ba-khasi ba-a-fumy-an-a ba-b-eene khu ba-b-eene
c2-woman c2-PST-praise-an-fv c2-c2-own on c2-c2

The women praised each other.

We have already seen that the phrasal reciprocal cannot modify a subject as an exclusive phrase can and so it is perhaps not surprising that the reciprocal cannot occur after an exclusive phrase (ID5160), where it would have to be interpreted as an adjunct, although the opposite order is possible, as in ID5051 (but ID5050 would be preferred).

ID5160

**Bakhasi baayeetana babeene ne babeene babeene khu beene*

Ba-khasi ba-a-yeet-an-a ba-b-eene ne ba-b-eene, ba-b-eene
 c2-woman c2-PST-praise-an-fv c2-c2-own with c2-c2-own c2-c2-own
 khu ba-b-eene
 on c2-c2-own

The women helped each other and each other only.

ID5051

?Bakhasi baayetana babeene khu beene babeene ne babeene

Ba-khasi ba-a-yeet-an-a ba-b-eene khu ba-b-eene,
 c2-woman SM.c2-PST-help-RCM-fv c2-c2-own on c2-c2-own
 ba-b-eenene ba-b-eene
 c2-c2-own with c2-c2-own

Women helped each other and each other only.

ID5050

Bakhasi babeene ne babeene baayetana babeene khu beene

Ba-khasi ba-b-eene ne ba-b-eene ba-a-yeet-an-a ba-b-eene khu b-eene
 c2-woman c2-c2-own with c2-c2-own SM.c2-PST-help-RCM-FV c2-c2-own on c2-own

Women and the women only helped each other.

Similarly, if the AGR-*eene* and the reciprocal phrase co-occur in a sentence, then the AGR-*eene* must have adverbial force, whether it directly modifies the subject or appears finally, and AGR-*eene* cannot precede the reciprocal phrase post-verbally either.

ID5048

Bakhasi babeene baayetana babeene khu beene

Ba-khasi ba-b-eene ba-a-yeet-an-a ba-b-eenekhu ba-b-eene
 c2-woman c2-c2-ownSM.c2-PST-help-RCM-FV c2-c2-own on c2-c2-own
 Women themselves helped each other'

ID5049

Bakhasi baayetana babeene khu beene, babeene

Ba-khasi ba-a-yeet-an-a ba-b-eenekhu ba-b-eene,ba-b-eene
 c2-womanSM.c2-PST-help-RCM-FV c2-c2-own on c2-c2-own c2-c2-own
 Women themselves helped each other'

ID5161

**Bakhasi baayeetana babeene babeene khu beene*

Ba-khasi ba-a-yeet-an-a ba-b-eene ba-b-eene khu ba-b-eene
 c2-woman SM.c2-PST-help-RCM-fv c2-c2-ownc2-c2-ownon c2-c2-own
 Women themselves helped each other

5.3 More on the structural position(s) of AGR-*eene* and the reciprocal phrase

We know from examples where AGR-*eene* and the reciprocal phrase occur alone in prepositional object position that there is reason to believe that these markers can fill argument positions in the way that an r-expression might. However, this does not ensure that when these markers are in combination with affixes that they inhabit argument positions in those cases. If so, we might regard the affixes as a form of agreement marker associated with the argument position filled by the non-affixal anaphoric markers. Alternatively, it could be assumed that the affixes are sufficient to saturate the argument structure of the verbs they attach to and the non-affixal anaphoric markers are in fact adjuncts, not found in direct object position, for example, but perhaps adjoined to VP or IP. There is some evidence favoring the view that the two phrasal anaphors are actually in the object argument position, or at least a position inside of adverbial uses of AGR-*eene* and the exclusive phrase.

The analysis of bound and free pronominal elements in Bantu languages has always generated debate, part of which concerns the categorization and classification of such elements. Buell (2005), who explores Zulu morphosyntax, supports the treatment of verbal affixes as agreement elements rather than incorporated pronouns. He bases his evidence on ellipsis in cases of conjoined clauses. Buell argues that Zulu counterpart of ID3751 permits a nonspecific interpretation whereby the two bananas eaten by Nekesa are different from those eaten by Wanjala, and he contends that this suggests for Zulu that the OM is an agreement affix related to the elided object of the second conjunct. However, ID3721 does not permit this interpretation.

ID3751

Wekesa aalya kamatoore kabili ne Wanjala yeesi akalya

Nekesa a-a-ly-a ka-ma-tore ka-bili ne Wanjala ye-esi
 Nekesa SM.c1-PST-eat-fv c6-c6-banana c6-two and Wanjala AGR-also
 a-ka-ly-a
 SM.c1-OM.c6-ate-fv

Nekesa ate two bananas, and Wanjala also ate them.

The OM in the second conjunct of ID3751 is obligatory and it has a specific interpretation as should be the case if it is a pronoun. The only interpretation is a pragmatically implausible one where the two bananas eaten by Nekesa are the same ones eaten by Wanjala. Assuming pronominal status for the OM is consistent with the fact that the OM cannot co-occur with a referring expression associated with the same thematic argument of the verb.

ID3731

Wekesa aapa omwaana

Wekesa a-a-p-a o-mu-aana
 Wekesa SM.c1-PST-beat-fv c1-c1-child

Wekesa beat (a) child.

ID3732

**Wekesa aamupa omwaana*

Wekesa a-a-mu-p-a o-mu-aana

Wekesa SM.c1-PST-OM.c1-beat-fv c1-c1-child

Wekesa beat (a) child'

On the other hand, a freestanding pronoun can co-occur with an OM, AGR-*eene*, can co-occur with an OM, but neither the freestanding pronoun nor AGR-*eene* is required to do so. As we have already seen, though AGR-*eene* after OM-verb must be associated with the OM (just as non-adverbial AGR-*eene* must be associated with an RFM, if there is one, on the verb it immediately follows). The combination pronoun+AGR-*eene* cannot be coconstructed with the subject, just as an OM alone (ID3734) or a pronoun alone (ID5039) or the combination OM+pronoun (ID3733) cannot be bound by the local subject (i.e., a Principle B effect).

ID3734

Wekesa aamupa

Wekesa a-a-mu-p-a

Wekesa SM.c1-PST-OM.c1-beat-FV

Wekesa beat him.

ID5039

Wekesa aapa niye

Wekesa a-a-p-a niye

Wekesa SM.c1-PST-beat-FV him

Wekesa beat him.

ID3733

Wekesa aamupa niye

Wekesa a.-a-mu-p-a niye

Wekesa SM.c1-PST-OM.c1-beat-FV him

Wekesa beat him.

The restriction against a referring expression associated with an RFM is preserved for answers to wh-in-situ questions. For example, when the direct object is questioned and the OM can be present, and if the OM is present, the answer cannot be an r-expression, but it is allowed to be either a pronoun or AGR-*eene*.

ID3735

Wekesa aapa naanu? Omwaana/niye

Wekesa a-a-p-a naanu? O-mu-aana/ niye.

Wekesa SM.c1-PST-beat-fv who? c1-c1-child / him

Whom did Wekesa beat?.A child.

ID3736

?*Wekesa aamupa naanu? *Omwaana/niye*

Wekesa a-a-mu-p-a naanu? *O-mu-aana/ niye.

Wekesa SM.c1-PST-OM.c1-beat-fv who? c1-c1-child/ him.

Whom did Wekesa beat? A child/ Him.

If we assume that an r-expression is in argument position when there is no OM on the verb, then it appears that there is evidence that nothing can intervene between the direct object and the verb, as illustrated in ID3739/ID3740, where an adverb is not allowed to intervene. The point here is that even when the OM is present, the wh-pronoun (as AGR-*eene* would) behaves as if it is a direct object, not as if it is an adjunct, because in the latter case, we might expect the more liberal word order to be licit.

ID3737

**Wekesa aapa likolooba omwaana*

Wekesa a-a-p-a likolooba o-mu-aana

Wekesa SM.c1-PST-beat-fv yesterday c1-c1-child

Wekesa beat (a) child yesterday.

ID3738

Wekesa aapa omwaana likolooba

Wekesa a-a-p-a o-mu-aana likolooba

Wekesa SM.c1-PST-beat-fv c1-c1-child yesterday

‘Wekesa beat (a) child yesterday.

ID3739

**Wekesa aamupa likolooba niye*

Wekesa a-a-mu-p-a likolooba niye

Wekesa SM.c1-PST-OM.c1-beat-fv yesterday him

Wekesa beat him yesterday.

ID3740

Wekesa aamupa niye likolooba

Wekesa a-a-mu-p-a niye likolooba

Wekesa SM.c1-PST-OM.c1-beat-fv him yesterday

Wekesa beat him yesterday.

AGR-*eene* in combination with the RFM can now be seen as the analogous pattern to OM in combination with an independent pronoun. As we have already seen, non-indexical person AGR-*eene* cannot form a reflexive reading in immediate postverbal position, but it is optional when the RFM is present or the RFM cannot be used. Since there is no verb in the answer to the question in ID3744, AGR-*eene* is a possible answer.

ID3744

Wekesa aasiima naanu? Omweene

Wekesa a-siim-a naanu? o-mu-eene
Wekesa SM.c1-love-fv whom? c1-c1-own
Whom does Wekesa love? Himself.

ID3745

**Wekesa esiima naanu? omweene*
Wekesa a-i-siim-a naanu?o-mu-eene
Wekesa SM.c1-RFM-love-fv whom? c1-c1-own
Whom does Wekesa love? Himself.

ID3746

?Wekesa esiima lukali omweene
Wekesa a-i-siim-a lukali o-mu-eene
Wekesa SM.c1-RFM-loves-fv much c1-c1-own
Wekesa loves himself much.

ID3747

Wekesa esiima omweene lukali
Wekesa a-i-siim-a o-mu-eene lukali
Wekesa SM.c1-RFM-loves-fv c1-c1-own much
Wekesa loves himself much.

The failure of ID3745 is not surprising, since the form of the question with the RFM precludes an informative answer. Here we note further that the contrast between AGR-*eene* adjacent to the verb and intervention is not as sharp as it is for the examples with independent pronouns and r-expressions, but this may be because there seems to be an alternative structure where AGR-*eene* is an adverbial adjunct as noted in 5.1 and 5.3.[Note N18]

Data of exactly the same sort can be produced for the reciprocal phrase in relation to the RCM, given that the phrasal reciprocal cannot form a reciprocal reading in the immediate postverbal position unless an RCM is present, in which case it is optional (see, for example, ID5040, ID5041 and ID5042). One difference is that the question in ID5043 requires a *ne*-phrase as an answer (perhaps because this is a kind of comitative structure).

ID5043

**Babaana basiima naanu? Babeene khu beene*
ba-b-aana ba-siim-a naanu? ba-b-eene khu ba-b-eene
c2-c2-child SM.c2-love-fv whom? c2-c2-own on c2-c2-own
Who do the children love? Each other.

ID5044

?Babaana baasiimana ne naanu? Ne babeene khu beene
ba-b-aana ba-siim-an-a ne naanu? neba-b-eene khu ba-b-eene
c2-c2-childSM.c2-love-RCM-fv with whom?withc2-c2-own on c2-c2-own
Who do the children love? Each other.

Adverbial intervention between verb+RCM and the reciprocal phrase seems less jarring than such intervention between RFM+verb and AGR-*eene*, but it is dispreferred.

ID5045

?*Babaana baasiimana lukali babeene khu beene*

ba-b-aana ba-siim-an-a lukali ba-b-eene khu ba-b-eene
 c2-c2-childSM.c2-love-RCM-fv muchc2-c2-own on c2-c2-own
 The children love each other much.

ID5046

Babaana baasiimana babeene khu beene lukali

Ba-b-aana ba-siim-an-a ba-b-eene khu ba-b-eene lukali
 c2-c2-child SM.c2-love-RCM-fv c2-c2-own on c2-c2-own much
 The children love each other much.

The evidence that RCM+reciprocal phrase parallels RFM+AGR-*eene* suggests that verb+RCM as fully transitive such that the RCM either does not, by itself, saturate an argument of the verb or that it does not de-transitivize the verb. This analysis contrasts with analyses that have been offered for some other Bantu languages, as mentioned in section 2. On this account, the RFM and the RCM are more like agreement markers in Lubukusu, or at least have that role optionally, even though they are neutral for noun class morphology. If we were to assume a null pronominal object is licensed when these markers appear, it is possible to treat both markers uniformly as agreement markers (or filling that slot), but we will not decide this question here. It is particularly notable, however, that the degree of ‘referentiality’ of the object cannot exceed that of the verb affix, which is to say that a pronoun cannot co-occur with the RFM or the RCM, but AGR-*eene* and the phrasal reciprocal can, and a pronoun or AGR-*eene* can co-occur with an OM, but a non-pronominal r-expression cannot.

5.4 Mixed combinations of markers

It is no surprise that combinations like RFM+AGR-*eene* and RCM+reciprocal phrase yield reflexive and reciprocal interpretations, respectively, since there is no conflict between the meanings of the parts for each combination, but Lubukusu also permits what appear to be mismatches between the parts of a combination marker. The mismatches include RFM+RCM, RFM+reciprocal phrase, and RCM+AGR-*eene*.

For example, unlike AGR-*eene*, the reciprocal phrase can support a local reciprocal reading in certain cases where the RFM is also present, but the reading appears to be additive. The interpretation in such cases might be described as follows: Given a group consisting of x, y, and z, the primary reading is that x helps x, y helps y, and z helps z, and it is possible that the phrasal reciprocal only enhances this. The reciprocal reading that x may help y, y help z, etc., is a bit more remote, but still possible, and it is not possible if the phrasal reciprocal is absent (ID1312).

ID5094

Basaani bechanwa kamachune babeene khu beene

Ba-sani ba-a-i-chanu-a ka-ma-chune ba-b-eene khu ba-b-eene

c2-man SM.c2-PST-RFM-comb-fvc6-c6-hair c2-c2-ownon c2-c2-own
 (The) men combed their own/each other's hair.

By comparison, AGR-*eene* does not normally appear where it corresponds to the same argument as an RCM to yield a reflexive reading; Rather, in cases where AGR-*eene* and the RCM cooccur, the result is typically a reciprocal reading.

ID1546

Yohana baabonana babeene ne Billi

Yohana ba-bon-an-a ba-b-eene ne Billi
 John SM.c2-PST-see-RCM-fv c2-c2-own with Bill

John and Bill saw each other.

So the presence of the RCM alone or in combination almost always requires a reciprocal interpretation, but the presence of the RFM does not always require a uniquely reflexive interpretation when in combination with a reciprocal phrase, as summarized in (11).

11) Where the RCM is acceptable, the reading must be at least reciprocal

12a) Where the RFM is acceptable, the reading is at least reflexive except

b) where the RFM is in combination with a reciprocal phrase or RCM.

The last part of (12b) is determined by (11), and we can see the effect of it in examples like ID2052, which have a ‘mixed’ interpretation where an exclusive phrase is in combination with the RFM and the result is that the reading allows the union of reflexive and reciprocal relations – what we call the ‘mixed’ reading (and the presence of AGR-*eene* or the reciprocal phrase is optional and does not appear to influence the class of possible readings).

ID1533

Bakhasi beyeeta babeene/ babeene khu beene

Ba-khasi ba-a-i-yeet-a (ba-b-eene/ ba-b-eene khu ba-b-eene)
 c2-woman SM.c2-PST-RFM-help-fv c2-c2-own/ c2-c2-own on c2-c2-own

The women helped each other and themselves.

The translation here requires some clarification, insofar as it can mean i. that each woman helps all (or almost all) of the women, excluding herself, ii. that each woman helps all (or almost all) of the women, including herself, iii. that each woman helps at least some of the other women, iv. that the women together as a group help the women together as a group, or v. that each woman helps one of the women other than herself, such that all of the women are helped by one of the others. The reading in i. (without the parentheses is the strong reciprocal reading, and ii. with parentheses and iii. and v. are also considered weak reciprocal readings (see, for example, Dalrymple et. al (1994) and Dalrymple et. al (1998)). [Note N19]The group reflexive reading in iv. would appear to be very close to the reading in ii., which is the one we refer to as mixed, and may not be distinguishable from it in practice. That ii. may account for iv. is especially interesting in light of the fact that ID1533 cannot receive an interpretation where each woman helps herself (distributed reflexive). This suggests that the mixed reading of such sentences (which will depend in part on the choice of verb, such that the activity in question is one that can plausibly be

both reciprocal and reflexive) is the addition of reflexive relations to the reciprocal relations for the members of the set denoted by the antecedent (*bakhasi*).

Thus even where reciprocity is an obligatory aspect of a reading in a sentence where the RCM or phrasal reciprocal is found, it appears that the RFM does not have to be completely overridden. More typically, a reflexive relation is simply added to the reciprocal relation when the RFM co-occurs with both the RCM. If the RCM were missing in ID1533 (without a reciprocal phrase), then the sentence must be interpreted reflexively only (cf. ID1538 in note N19). If the RFM is missing, then the reflexive relation is not part of a possible reading, i.e. readings ii. and iv. are not possible.

Adapting a term from the literature on plurals, let us say that a relation R 'covers' a set if every member in the set is in relation R. The following generalizations appear to hold of RFM+RCM examples like ID1533 where the relations designated by RFM and RCM cover the same set assigned to two thematic arguments.

13a) All the reflexive and reciprocal relations that cover the set and do not necessarily conflict are possible interpretations.

b) Reflexive readings that are exclusive of reciprocal readings are not permitted.

c) Reciprocal readings that exclude reflexive readings are permitted.

These non-conflicting interpretations raise interesting questions as to how the compositional semantics of reciprocity is to be modeled, insofar as reciprocity for the RCM must place every member in the covered set with another or every other member of the set, but we leave the matter open.

It appears to be the case that affirmative *AGR-eene* and the reciprocal phrase never cooccur, and certainly never do so where they are coconstrued with the same argument slot. If they are actually found in the same argument position, then it is predicted that they cannot co-occur, but we might expect that *AGR-eene* and the reciprocal could co-occur insofar as *AGR-eene* can occur in both adjunct and argument position (and they do). However, if *AGR-eene* and the reciprocal phrase are both adjuncts on a (possibly null) argument, then it is predicted that it is possible to have more than one, and this seems false, where the *AGR-eene* is affirmative. Thus it is not necessary to consider mixed interpretations for sentences with reciprocal phrase and affirmative *AGR-eene* in combination, as this combination does not occur for what appear to be syntactic reasons.

5.4.1 More on a surprising co-occurrence: RFM+RCM

The range of possible interpretations of RFM+RCM structures is somewhat surprising, but the co-occurrence of these affixes independently surprising from a syntactic point of view. Two competing analyses of the structural role of the RFM have been discussed here as well as two analyses of the structural role of RCM. One analysis of the RFM treats it as a pronoun related to an adjunct when there is a non-r-expression co-occurring with it, i.e., *AGR-eene* or a reciprocal phrase. The other theory, introduced in 5.3, treats the RFM as an agreement marker, or at least an affix that has the same thematic status, but one that cannot co-occur with an r-expression. In either theory, the RFM bears a unique relation to the direct object position, or at least to the argument that it is in relation to. Similarly, the RCM was evaluated for the same agreement analysis in 5.3, but as introduced in 2.2, it has been analyzed as a detransitivizing suffix in other

Bantu languages, such as Chichewa, as in work by Mchombo (2004). Mchombo's arguments extend beyond co-occurrence with an OM, and we will not review those arguments here (though parallel argumentation for Lubukusu deserves attention. See Sikuku (2011) for some arguments on the status of the RFM and RCM in Lubukusu). Neither of these theories would predict that the RFM and RCM could co-occur associated with the same thematic argument, but such a co-occurrence would be especially damaging for a view that treats the RCM as a detransitivizer and the RFM as a pronominal form representing the thematic object of a transitive verb, as these positions are inconsistent with the existence of RFM+RCM structures. Although the RFM and RCM never co-occur with an OM associated with the same thematic argument, we have already seen that the RCM and RFM can co-occur associated with the same argument, as illustrated in ID1329 and ID1539, which both allow the mixed reading.

ID1329

Nibo befwocholananga babeene khu beene

Nibo	ba-i-fwochol-an-ang-a	ba-b-eene	khu	ba-b-eene
They	SM.c2-RFM-criticize-RCM-HAB-fv	c2-c2-own	on	c2-own

They always criticize each other.

ID1539

Bakhasi bekhosyana babeene khu beene

ba-khasi	ba-a-i-khosy-an-a	ba-b-eene	ne	ba-b-eene
c2-woman	SM.c2-PST-RFM-photograph-RCM-fv	c2-c2-own	with	c2-c2-own

(The) women photographed each other.

The co-occurrence of the RFM and the RCM appears to be somewhat productive, which suggests that something general must be said about at least one of the affixes which does not require of it that it represent or suppress an argument of the verb stem on which it occurs.[Note N20]

6.0 Long distance anaphora and perspectival effects

Long distance anaphora in Lubukusu is generally possible with the use of independent pronouns as well as the SM and the OM (assuming that the SM and OM are either pronouns or the visible agreement related to null pronominals). In these cases, the anaphoric interpretation is not obligatorily sentence internal and so it is possible for such pronouns to refer to other salient individuals in the discourse intra- or extra-sententially, up to the limitations of clausemate anaphora (Principle B effects). For example, pronouns can only be used anaphorically within the clause in positions where an RFM is not possible, such as in oblique prepositional phrases, and there the AGR-*eene* form is generally preferred for the anaphoric reading.

While Lubukusu lacks morphologically marked logophoric pronouns, that is, pronouns that indicate that their antecedent is a reported speaker or experiencer, there are cases where the interpretation of AGR-*eene*, when it is not a clausemate with its antecedent, is sensitive to marking on the matrix verb. Normally, when AGR-*eene* is not in combination with an RFM and is in (or related to an OM in) an argument position embedded in the complement of a propositional attitude verb (a verb of thought,

judgment or saying), the favored interpretation is with the matrix subject, or failing that, with some other sentence internal antecedent, although this is not required, depending on other contextual factors of salience (that is, an extra-sentential antecedent is also possible).

When the matrix propositional attitude verb has an applicative marker and an RFM, however, then the AGR-*eene* must be coconstructed with the matrix subject (the agent of the propositional attitude, or APA) If the understood antecedent of the applicative is the APA, the applicative affix can also be omitted, but the presence of the RFM on the matrix propositional attitude verb, enabled by applicative, as in ID3818, or without it as in 3819, insures that construal of the OM+AGR-*eene* will be with the APA.

ID3818

Jack ekanakanile ali Lisa amanyile ali Wendy amusiima omweene

Jack a-a-i-kanakan-il-e a-li Lisa a-many-il-e a-li Wendy

Jack SM.c1RFM-thinks-APP-fv c1-that Lisa SM.c1-know-tns-fv c1-that Wendy
a-mu-siim-a o-mu-eene

SM.c1-OM.c1-like-fv c1-c1-own

Jack thought for himself that Lisa thinks that Wendy likes him (him=Jack)

ID3819

Jack ekanakane ali Lisa amanyile ali Wendy amusiima omweene

Jack a-a-i-kanakan-e a-li Lisa a-many-il-e a-li Wendy

Jack SM.c1-PST-RFM-think-fv c1-that Lisa SM.c1-know-tns-fv c1-that Wendy
a-mu-siim-a o-mu-eene

SM.c1-OM.c1-like-fv c1-c1-own

Jack thought (for) himself that Lisa thinks that Wendy likes him.

If an OM occurs with the applicative marker on the matrix verb, then the AGR-*eene* form will be coconstructed with the matrix applicative object only (not Jack) in ID5057 and ID5058.

ID5057

Jack amumanyile ali George amusiima omweene

Jack a-mu-many-il-e a-li George a-mu-siim-a o-mu-eene

Jack SM.c1-OM.c1-know-APPL-fv c1-that George SM.c1-OM.c1-like-fv c1-c1-own

Jack knows (on his behalf) that George likes him.

ID5058

Jack amukanakanile ali Lisa amanyile ali Wendy amusiima omweene

Jack a-a-mu-kanakan-il-e a-li Lisa a-many-il-e a-li

Jack SM.c1-PST-OM.c2-think-APPL-fv c1-that Lisa SM.c1-know-TNS-fv AGR-that
Wendy a-mu-siim-a o-mu-eene

Wendy SM.c1-OM.c1-like-fv c1-c1-own

Jack thought (on his behalf) that Lisa knows that Wendy likes him.

In other words, the thoughts being reported are not those of Jack but somebody else's seen through Jack, in both ID5057 and ID5058. In these cases, AGR-*eene* is not allowed to be free. This phenomenon deserves further study, but we will leave it here for future research.[Note N20]

7.0 Concluding remarks

The Lubukusu anaphora patterns are rich and highly articulated in a way that presents us with problems and opportunities for linguistic analysis and theorizing. The syntactic and semantic effects of co-occurring anaphoric markers in particular are challenging both with respect to certain departures from more familiar generalizations about Bantu anaphora (e.g., that the RCM and the RFM cannot co-occur and correspond to the same argument slot) and the nature of mixed interpretations (e.g., where the anaphoric relations among set members must be the sum of two mappings, one reciprocal and one reflexive). The proper definition of subjecthood is also particularly challenging, when causative, perception verb, epistemic and comitative constructions are taken into account. Moreover, the role of the RFM and RCM affixes with respect to the saturation of thematic arguments deserves more scrutiny, if the arguments presented here about the position of AGR-*eene* and full pronouns in direct object position are correct when these forms co-occur with the RFM or RCM. Many other questions, large and small remain open, and we hope that we have at least scratched the surface, so that future research can probe more deeply.

Notes

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++ The data presented in this document is based on the intuitions of Justine Sikuku which he has confirmed in many questionable cases with those around him, principally Hellen Sikuku. Since so many of the judgments involve evaluations of comparative acceptability of particular interpretations, it is important to have a base line of interpretations established for a particular consultant to know if comparisons are possible or revealing, and so broader polling techniques were not desired for this data set. All the Lubukusu examples presented here are presented with the ID numbers that uniquely identify them in the Afranaph database and can be accessed by opening the database, clicking on 'simple search', entering the ID number in the 'Sentence ID' box, and then clicking on 'search' We also acknowledge the absence of tone marking on any of the examples presented here. We expect to remedy this deficit in a later version of the paper.

Note N1. Evidence in support of this argument is both historical and empirical (language internal), as discussed in Sikuku (2011). The most straight forward language factors that support the *-i-* hypothesis include imperative formation and consonant precedence context. Imperative formation is a crucial factor mainly because the

imperative forms of verbs normally represent the basic structure without any modifications. Consider the data below:

ID5059

ibona
i-bon-a
RFM-see-fv
See yourself.

ID5060

isiima
i-siim-a
RFM-like-fv
Like yourself.

ID5061

ihana
i-an-a
RFM-give-fv
Give yourself (out).

The realization of the RFM is *-i-* in such imperatives, and because the form is not preceded by any other phoneme, then it is the basic reflexive realization. Notice that ID5061 has a verb beginning with *-a-* yet the structure of the RFM remains unaffected.

Other supporting evidence comes from contexts with consonants alone before the RFM. This is quite significant because in typical language situations, vowels coming before any morpheme are much more likely to affect the adjacent phonemes. Typical examples are shown below where the 1st and 2nd person singular subject markers precede the RFM respectively. In both cases, the RFM is underlyingly *-i-*.

ID5062

Nisiinganga
n-i-siing-ang-a
SM.c1.1st-RFM-wash-HAB-fv
I wash myself (habitually).

ID5063

Wisinganga
w-i-siing-ang-a
SM.c1.2nd-RFM-wash-HAB-fv
You wash yourself (habitually).

The situation is however quite different in the examples below where there is an intervening vowel.

ID5064

Neesiinganga

n-a-i-siing-ang-a

SM.c1.1st-PST-RFM-wash-HAB-fv

I washed myself. (habitually)

ID5065

Weesiinganga

w-a-i-siing-ang-a

SM.c2.2nd-PST-RFM-wash-HAB-fv

You washed yourself. (habitually)

The past tense morpheme represented by *-a-* before the RFM lowers the representation of the RFM to *-e-*. This therefore means that *-e-* is marked in special contexts especially those with lower vowels. On the other hand, historical evidence is found in other Bantu languages where there is a representation that is much closer to *-i-* than *-e-*. e.g Kiswahili *-ji*, CiNsenga- *zi*, Digo- *dzi*, e.t.c.

Note N2. Cooccurrence of the RCM with the passive is unacceptable if they are adjacent to each other. Mutonyi (2000) reports only two examples of this kind, but still they are quite doubtful.

Note N3. There are limited cases where the RCM appears to have an ‘antipassive’ like reading of the sort described by Ndayiragije (2006) for Kirundi. Lubukusu ID3720 can have the translation given, even with a singular subject, as in ID3729. It is antipassive-like because it is as if the direct object were syntactically but not semantically suppressed, much like the agent in a passive structure.

ID3720

Babaana bapanila kumukaati

ba-b-aana ba-a-p-an-il-a

ku-mu-kaati

c2-c2-child SM.c2-PST-fight-RCM-APPL-fv c3-c3-bread

The children fought (each other or other people) for/with bread.

ID3729

Wanjala aapanila sicholong’o

Wanjala a-a-p-an-il-a

si-cholong’o

Wanjala SM.c1-PST-fight-RCM-APPL-fv c7-mallet

Wanjala fought (other people) with a mallet.

Note N4. The preposition in question appears always to be *khu-*, which, when it is stranded without an object (incorporated, we believe, but the verb to which it is adjacent), appears as *-kho*. The preposition *khu* is literally translated as ‘on’, but is used for English prepositions meaning ‘to’, ‘about’, ‘for’ and ‘on’. Sometimes, benefactive ‘for’ may be expressed by the applicative suffix *-il*.

Note N5. For reasons we do not understand, the OM and RFM cannot be reversed in ID3719 to mean 'Wekesa made himself feed her'. See note N9. Marlo (2010) argues that the RFM is more phonologically tied to the verb than the OM, so it tends to be always closer to the verb.

Note N6. See, however, discussion of the combination strategy, RFM+AGR-*eene*, which permits a split antecedent, at least in one case (ID1284).

Note N7. Young (2005) provides a useful, detailed description and analysis of the Lubukusu comitative construction. He reports that Lubukusu conjunctions of DPs of unlike noun classes (unless they are class 1 conjoined with class 2) require the comitative construction and does not mention the use of class 8 to avoid the comitative, but we suspect it is generally available.

Note N8. We have investigated comitative constructions in some detail and there appear to be some interesting phenomena of agreement and interpretation that the construction permits us to explore. Reciprocal phrases and exclusive phrases, for example, appear to be sensitive to the noun class of the SM, but the RCM and the RFM somewhat less so, probably because their agreement is invariant. Our research on these questions is ongoing.

Note N9. There are instances, however, where the RFM and the OM co-occur, and in these cases, where there is more than one potential ‘object’ for a verb (causative, applicative, and other double object structures) it is not obvious that all the potential patterns immediately preceding the root, OM-RFM, RFM-OM, OM-OM and RFM-OM can occur. See Sikuku, forthcoming, for an examination of these issues.

Note N10. The reduplication of *-khu* appears to be triggered by stems that are vowel initial. The verb *-inyukha* (stand) for example has an initial vowel and therefore with the addition of the infinitive *-khu* there is reduplication that results in *khukhwinyusya*. Similarly, the insertion of the RFM on an otherwise consonant initial verb such as *fumya* triggers similar reduplication to become *khukhwefumya*. For the sake of argument, we take the RFM in infinitives to be similar to the normal one i.e. *-i-*. We take the RFM to act as a stem initial vowel so that whenever an infinitive is added, reduplication is triggered by the RFM vowel. (See Mutonyi (2000) for a detailed analysis of reduplication patterns in Lubukusu).

Class 5 nominals probably work the same way. Consider the nominalization of *-siima* and *-itaala* (notice that the former begins with a consonant while the latter has an initial vowel).

ID5066

Liliisiima lye babaana

Li-li-i-siim-a li-a ba-b-aana
 c5-c5-RFM-like-fv c5-of c2-c2-child
 Children’s self-liking

ID5067

Liliitaala lye babaana

Li-li-i-itaal-a li-a ba-b-aana
 c5-c5-RFM-kick-fv c5-of c2-c2-child
 Children’s self -kicking

ID5068

Lisiimana lye babaana

Li-siim-an-a li-a ba-b-aana

c5-like-RCM-fv c5-of c2-c2-child
Children’s liking of each other

ID5069

Lilitaalana lye babaana

Li-li-itaal-an-a li-a ba-b-aana
c5-c5-kick-RCM-fv c5-of c2-c2-child
Children’s kicking of each other

Note N11. There are also deverbal nominals in Lubukusu that refer to agents and patients. These deverbal nominals can have the RFM embedded in them. See Sikuku (2011: 62-65).

Note N12. We include ID5130 to distinguish it from verbs like *-pan-*, ‘fight’, which appear to have an inherent reciprocal attached to the stem, *-p-*. See ID3721-3724 for facts that parallel those below with respect to possible interpretations. See also section 3 for discussion of inherently reciprocal verbs.

Note N13. For English and other Bantu languages, null object inherent reflexives contrast with the same verbs taking overt reflexives, in that the null object inherent reflexives do not support proxy readings. In Lubukusu, however, this cannot be checked, since even the RFM does not support proxy readings (see AQ 3.8). Further research testing verbs that are not lexically reflexive is in order.

Note N14. There are examples like ID5056, but the interpretation of these examples suggests that AGR-*eene* and the RFM represent different arguments, to yield a ‘meditative’ interpretation, e.g., ‘John spoke about himself to himself’, but it can also mean ‘John spoke about himself to some other person’ where AGR-*eene* is picking up a discourse antecedent. So this does not appear to be a true counterexample to the observation that the RFM does not normally associate with an unincorporated prepositional object argument.

ID5056

Yohana eloma khu mweene

Yohana a-a-i-lom-a khu o-mu-eene
Yohana SM.c1-PST-RFM-spoke-fv on c1-c1-own
John spoke about himself.

Note N15: See ID1430 where it appears that a reflexive interpretation cannot be achieved by AGR-*eene* in a *-khu-* indirect object position, but the true double object construction for the same verbs in ID1438 yields a reflexive reading successfully with the RFM (and AGR-*eene*). This would seem to suggest that the double object construction with the RFM outcompetes the object-Prepositional object structure with AGR-*eene*. Even in the competition system of Safir (2004) this is not expected, but it might also be compatible, perhaps more so, with the competition system proposed by Bresnan (1998), who allows whole phrases to compete to support anaphoric readings. On the other hand, it is not at all clear why the double object construction should be preferred to represent an anaphoric dependency over the DP-PP alternative. It is speculated in AQ 4.1.2.1 that a thematic condition blocks the formation of a reflexive reading for the prepositional object

structure for some such verbs, but it is not clear why such a condition should exist. We leave the matter open.

Note N16. AGR-*eene* must not precede its antecedent, it would appear from ID1442, and especially the comparison between ID1445 and ID1447, where the antecedent and AGR-*eene* are in separate PPs. This does not seem consistent with a c-command only account. On the other hand, AGR-*eene* can be the subject of a verb reflexivized with the RFM, as in ID1516, ID1604.

Note N17. Author Sikuku suggests that ID5038 shows grammatical and lexical influence from Kiswahili. Consider the following Kiswahili sentence:

i. Yohana a- li-mu-ambia Maria ku-ji-husu (mwenyewe)

Yohana SM.c1-Tns-OM.c1-tell Maria c15-RFM-concern AGR-own

‘Yohana told Maria concerning himself’

Here, the RFM is strictly bound by the matrix subject, not the object. However, if the OM is used instead of the RFM in the c15 clause, then the usual Principle B effects come into play. Strictly speaking, structures of type i are uncommon in Lubukusu. More typical are structures like ID5070, where AGR-*eene* can take either the subject or Maria as its antecedent.

ID5070

Wekesa aboleela Maria khu mweene

Wekesa a-a-bol-il-a Maria khu o-mu-eene

Wekesa SM.c1-PST-tell-APPL-fv Maria about c1-c1-own

Wekesa told Maria about himself/herself

Note N18. Typically AGR-*eene* can be used as an adverbial adjunct only once per clause. Consider below the contrast between ID1349 and ID1350..

ID3748

Wekesa amusiima niye omweene

Wekesa a-mu-siim-a niye o-mu-eene

Wekesa SM.c1-OM.c1-love-fv him c1-c1-own

Wekesa loves him himself.

ID3749

Wekesa omweene esiima omweene

Wekesa o-mu-eene a-i-siim-a o-mu-eene

Wekesa c1-c1-own SM.c1-RFM-love-fv c1-c1-own

Wekesa himself loves himself.

ID3750

Wekesa omweene aacha engo (*omweene)

Wekesa o-mu-eene a-a-ch-a engo o-mu-eene

Wekesa c1-c1-own SM.c1-PST-go-fv home c1-c1-own

Wekesa himself went home (*himself).

It would appear that ID3749 is expected to be acceptable only if we assume *omweene* is

in direct object position, not an adjunct, while in ID3750, where the second *omweene* does not correspond to an argument position, it is one adjunct too many (though *omweene* can be an adjunct sentence finally). On the other hand, the functions of these instances of *omweene* are different in ID3749, the first being emphatic and the second affirming coconstrual, so perhaps the lack of functional overlap that is all that is to be noted here. Similar data holds for the exclusive phrase. More exploration is warranted.

ID5071

Babaana babeene ne babeene basiimana babeene khu beene

Ba-b-aana ba-b-eeene ba-b-eeene ba-siim-an-a ba-b-eeene khu ba-b-eeene

c2-c2-child c2-c2-own with c2-c2-own SM.c2-love-RCM-fvc2-c2-own on c2-c2-own

The children and the children alone love each other.

ID5072

**Babaana babeene ne babeene bacha engo babeene khu beene*

Ba-b-aana ba-b-eeene ba-b-eeene ba-a-ch-a engo ba-b-eeene khu b-eeene

c2-c2-child c2-c2-own with c2-c2-own SM.c2-PST-go-fv home c2-c2-own on c2-own

The children themselves went home.

Note N19. There are also weak reflexive readings for plural antecedents. For example, ID1538 permits readings whereby i. each woman photographed all of the women, including herself (perhaps an elaboration of the group reading in iv.) ii. each woman photographed at least some of the other women (weak group reading), iii. each woman photographed herself (distributed reflexive), and iv. the women together as a group photographed the women together as a group. It cannot mean that v. each woman photographed all (or almost all) of the women, excluding herself, or that vi. each woman photographed one of the women other than herself, such that all of the women were photographed by one of the others. Both v. and vi. are reciprocal readings that cannot be mistaken for reflexive ones.

ID1538

Bakhasi bekhosya babeene

Ba-khasi ba-a-i-khos-ya ba-b-eeene

c2-woman SM.c2-PST-RFM-photograph-fv c1-c1-own

(The) women photographed themselves.

Note N20: There are some puzzling cases, such as ID1553, where the co-occurrence of RFM, RCM and the reciprocal phrase permit a prepositional indirect object to be licensed, though the example is not fully acceptable. We would not expect a prepositional object to be compatible with the RCM or the RFM to form a reflexive reading. This appears to be rare in Lubukusu, possible only in certain limited environments. The presence of the APPL affix appears to play a role. See the discussion in AQ section 2.4.3.5. The construction deserves more study.

Note N20. Notice that the complementizers agree with the matrix subject of the subordinate clause in which they occur. This is why in ID3817, complementizer agreement correlates with the matrix verb that selects the clause. However construal

remains with the OM whose thoughts are being reported. For a close study of these effects, see Diercks (2010).

ID3817

Jack abakanakanile ali babaana bamanyile bali Wendy abasiima babeene

Jack a-ba-kanakan-il-e a-li ba-b-aana ba-many-il-e

Jack SM.c1-OM.c2-think-APPL-fv c1-that c2-c2-child SM.c2-know-Tns-fv

ba-li Wendy a-ba-siim-a ba-b-eene

c2-that Wendy SM.c1-OM.c2-like-fvc2-c2-own

Jack thought for them that the children think that Wendy likes them'

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