A-Movement and Intervention Effects in Luganda

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1. Introduction

Luganda, a Bantu language spoken primarily in Uganda, has a construction with many of the hallmark features of a passive – an argument that would normally be an object precedes and agrees with the verb, while the agent follows it (if expressed at all); also a special passive -(ib)w- suffix is used.

(1) a. ACTIVE: abaana ba-a-sang-a ekitabo
   2.children 2-pst-find-ind 7.book
   ‘The children found the book.’

   b. PASSIVE: ekitabo ky-a-sang-ibw-a abaana
      7.book  7-pst-find-pass-ind 2.children
      ‘The book was found by the children.’

However, Luganda passives differ from English passives in at least one important respect – a difference that is traditionally known under the rubric of asymmetric vs. symmetric passives (Bresnan & Moshi, 1990; Marantz, 1993; Woolford, 1993). In languages with asymmetric passives (e.g. English, Chichewa, Swahili), only the first object in a double-object construction – here, the indirect object (IO) – can be passivized (2). The ungrammaticality of (2c) is often attributed to a constraint on A-movement that bans agreement or attraction ‘across’ an intervening argument – whether this is stated in terms of Relativized Minimality (Rizzi 1990), Shortest Move or the Minimal Link Condition (Chomsky, 1995) – as schematized in (3).

(2) a. John fed the rabbits some corn.
   b. [The rabbits] were fed t some corn.
   c. * [Some corn] was fed the rabbits t.

(3) A-movement can only attract the closest c-commanded DP to the target.
   a. (ok) \[ DP_i ... [ DP_P ... DP_i ] \]

   b. * \[ DP_i ... [ DP_P ... DP_P ] \]

In ‘symmetric-passive’ languages (e.g. Luganda, Haya, Kinyarwanda), however, either object can be passivized (4) – even though the word order in the active is strictly S-V-IO-DO.

(4) a. Walusimbi y-a-lis-a akamyu kasooli
   1.Walusimbi sbj1-pst-feed-ind 12.rabbit 1.corn
   ‘Walusimbi fed the rabbit corn.’ (S-V-IO-DO)

   b. [akamyu] ka-a-lis-ibw-a t kasooli
      12.rabbit 12-pst-feed-pass-ind 1.corn
   ‘The rabbit was fed corn.’ (IO-V-DO)

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2 Like many other Bantu languages, Luganda is pro-drop, SVO, with a system of 20+ noun classes (glossed as numerals here) and obligatory subject-agreement on finite verbs.

The existence of symmetric-passive languages like Luganda presents an interesting problem for theories of A-movement locality. Is the idea that A-movement cross-linguistically obeys the constraint in (3) simply incorrect? Or, alternatively, is it possible that the Luganda sentences in (4) are not derived by the same means as the English passives in (2), and that this difference allows them to apparently elude the constraint in (3)?

I will argue for a version of this second alternative for Luganda. Specifically:

(5) **PROPOSAL**: There are two distinct passive-like operations available in Luganda.

a. One has the principal features of an English passive – a ‘weak’ vP, with no external argument projected, so that the closest object raises to T.

b. The other involves a change in word order – enabling a DP to ‘skip over’ exactly one other DP via a ‘leap-frogging’ operation (Doggett, 2004; McGinnis, 2001, 2002, 2004; Ura, 2000) – without changing the capacity of the verb to license an external argument (i.e. no agent-demotion or agent-suppression).

This approach, discussed in more detail in §3, will allow us to maintain a strict version of (3). We will see that it explains why passivized arguments in Luganda may skip over at most one other argument (§2), and that it explains some otherwise mysterious properties of passives with ‘demoted agents’ in Luganda (§4). Further questions and predictions are addressed in §5.

2. The generalization: at most one intervener

The symmetric-passive pattern holds across a range of double-object structures in Luganda, including both (i) ditransitive verb roots (e.g. *wa* ‘give,’ *lis* ‘feed,’ *lag* ‘show’) (see (4)) and (ii) verbs marked with an *applicative* -ir/-is- suffix (see (6)). Verbs in this latter class do not necessarily indicate a transfer of possession between the two objects – in other words, Luganda has both low and high applicatives by Pylkkänen’s (2002) diagnostics.

(6) a. n-a-kwat-ir-a omusawo eddagala 1s-pst-hold-appl-ind 1.doctor 5.medicine ‘I held the medicine for the doctor.’ (V-IO-DO)

b. omusawo y-a-kwat-ir-w-a eddagala sbj1-pst-hold-appl-pass-ind 5.medicine ‘The doctor had the medicine held for him.’ (IO-V-DO)

c. eddagala ly-a-kwat-ir-w-a omusawo 5.medicine 5-pst-hold-appl-pass-ind 1.doctor ‘The medicine was held for the doctor.’ (DO-V-IO)

(7) Applicative structures (McGinnis, 2004; Pylkkänen, 2002):

a. **LOW APPLICATIVE**: \[vP[v\,ApplL[v\,IO\,ApplL[\,DO]]]]

b. **HIGH APPLICATIVE**: \[vP[v\,ApplH[v\,IO\,ApplH[\,vP[v...DO]]]]]

As noted above, one way to explain the grammaticality of the theme-passives in (4c) and (6c) might be to loosen or abandon the shortest-move assumption in (3) – i.e., to argue that (3) is not a defining property of A-movement cross-linguistically. There is in fact some precedent for this idea. In some work, for example, it is assumed that any DP could in principle be attracted to T, contra (3), and that the difference between asymmetric- and symmetric-passives has to do with the way Case is assigned. Specifically, the idea is that in asymmetric-passive languages only the IO can get structural Case, while in symmetric-passive languages the DO and the IO are equally eligible to receive structural Case (see e.g. Marantz, 1993; Seidl, 2001; Woolford, 1993).
Another line of work has maintained a version of (3), but in a somewhat relaxed form – e.g. by arguing that any DPs within the same minimal domain are *equidistant* from the target (Anagnostopoulou, 2003; Chomsky, 1995). (A minimal domain of a head X includes the internal arguments and specifiers of X, plus any internal arguments and specifiers of heads in a head-movement chain with X.)

When we look beyond simple double-object structures, however, it becomes apparent that these Case- and equidistance-based approaches miss an important generalization for Luganda:

(8) Luganda passivization allows at most one DP to intervene between T and the DP it attracts.

Consider for example the following three-object structure, which is created by combining a ditransitive verb root like *lag* ‘show’ with an instrumental applicative -is- suffix. The instrumental argument can precede the IO and DO in the active (a) – but the DO can no longer be passivized when the instrument precedes the IO (b-i), (c-ii). (On the other hand, the instrument and the IO can both be passivized ((b-ii), (c-i), (d)).

(9) a. Walusimbi y-a-lag-is-a omuggo abaana omusomesa
   1.Walusimbi sjbl-pst-show-appl-ind 3.stick 2.child 1.teacher
   ‘Walusimbi showed the children the teacher with a stick.’ (S-V-INSTR-IO-DO)

b. omusomesa y-a-lag-is-ibw-a omuggo abaana
   1.teacher sbj1-pst-show-appl-pass-ind 3.stick 2.child
   i. * ‘The teacher was shown to the children with a stick.’ (teacher = DO)
   ii. ok ‘The teacher was shown the children with a stick.’ (teacher = IO)

c. abaana ba-a-lag-is-ibw-a omuggo omusomesa
   2.child 2-pst-show-appl-pass-ind 3.stick 1.teacher
   i. ok ‘The children were shown the teacher with a stick.’ (children = IO)
   ii. * ‘The children were shown to the teacher with a stick.’ (children = DO)

d. omuggo gw-a-lag-is-ibw-a abaana omusomesa
   3.stick 3-pst-show-appl-pass-ind 2.child 1.teacher
   ‘A stick was used to show the children the teacher.’

Assuming that (9a) looks something like (10), it is difficult to see what would prevent the DO from being passivized under the Case- or equidistance-based proposals above. (Why would IO but not DO belong to the same minimal domain as T?)

(10) nj-oger-a ku musomesa gwe  

The generalization, then, is that while Luganda passives are less constrained than English passives, they are still apparently subjected to strict locality principles – suggesting that we do not want to give up (3) entirely. Notice that the ‘at most one intervener’ restriction in (8) does not apply in relativization, indicating that Ā-movement and A-movement are subjected to distinct locality constraints.

(11) nj-oger-a ku musomesa gwe  

1s-talk-ind loc 1.teacher 1.rel 1s-pst-show-appl-ind 3.stick 2.child
‘I’m talking about the teacher that I showed to the children with a stick.’ (teacher = DO)
3. Another possibility: leap-frogging

Doggett (2004), McGinnis (2001, 2002, 2004), and others (see also Lee, 2005; Jeong, 2007; Ura, 2000), argue that double-object theme passives in Haya and Kinyarwanda are produced by an extra EPP feature that can occur on the phase heads strong v or ApplH (but not ApplL, which is presumably not a phase head). This EPP feature causes the DO in a theme passive to ‘leap-frog’ to outer Spec.ApplHP, just above the IO in the inner specifier, thus making the DO accessible for passivization at the higher vP level. The idea is that we get apparent violations of (3) only in cases where an argument moves over an existing specifier into a higher specifier of the same head. (The inner specifier, here IO, does not count as an intervener because there is no way it could be attracted by the ApplH head it c-commands.)

(12) Leap-frogging in a theme passive: ‘The medicine was held for the doctor.’ (see (6))

The advantage of the leap-frogging treatment is that it achieves the desired effect – inversion of exactly two arguments – while preserving the shortest-move hypothesis in (3).

(13) Two-step derivation of a theme passive:

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Returning to the ‘low-applicative’ ditransitive verb roots wa ‘give,’ lag ‘show,’ etc. (cf. (4c)), I assume that these verbs in fact have the option of appearing in a low or high applicative structure. Leap-frogging is permitted in the latter case, since ApplH is a phase head (McGinnis, 2002). Notice that these verbs can freely occur without the IO in Luganda, consistent with the idea that they can optionally have the same monotransitive syntax as e.g. ‘hold’ in (12):

(14) a. Kasedde y-a-w’ ekitabo
   1.Kasedde sb1-pst-give 7.book
   ‘Kasedde gave (somebody) a book.’

b. Kasedde y-a-lag’ ekifaanyani
   1.Kasedde sb1-pst-show 7.picture
   ‘Kasedde showed (somebody) a picture.’

In the three-object structure in (10), however, the verb root can only be a low applicative, due to an independent ban on recursive high applicatives in Luganda. (A verb like kwat-ir- ‘to hold for’ cannot combine with an instrumental argument, unlike the ditransitive verb root lag ‘show’ in (9).) Passivization across two intervening arguments, as in (9b-i) and (9c-ii), is then correctly ruled out: the only head that
can have an extra EPP in (10) is ApplH, and this ApplH will only be able to attract the closest argument: IO.

The leap-frogging treatment takes care of the symmetric-passive puzzle we started out with, and has the additional advantage of accounting for the ‘at most one intervener’ restriction we saw with Luganda three-object verbs. This approach raises some questions, though. For example, if leap-frogging is available in the grammar, we might ask if it occurs in additional contexts. There is no obvious reason why leap-frogging should be restricted to ApplHP complements of weak \( \nu \)Ps – strong \( \nu \), in particular, is another head that we might expect to trigger leap-frogging. In the next section we will see evidence for \( \nu \)-level leap-frogging – and we will see that the ‘at most one intervener’ restriction holds in this context as well.

4. The external argument (EA) in a Luganda passive

Doggett (2004), based on the data reported in Duranti & Byarushengo (1977), proposes that ‘demoted agents’ in the Bantu language Haya are actually arguments in Spec,\( \nu \)P – and that they can accordingly ‘get in the way’ for the purposes of A-movement. In this section I show that Luganda patterns very similarly to Haya with respect to the behavior of the ‘demoted agent,’ thus providing additional support for Doggett’s proposal and for the existence of leap-frogging in general.

Unlike in many other Bantu languages, the ‘demoted agent’ in a Luganda passive (i) is not marked by a preposition (Ashton et al., 1954; Ssekiryango, 2006), and (ii) precedes other postverbal arguments.

A similar pattern is found in Haya (Duranti & Byarushengo, 1977). Accordingly, Doggett (2004) proposes that the overt external argument (EA) in a Haya double-object passive is an argument in Spec,\( \nu \)P rather than an adjunct, and that leap-frogging is at work here as well (16). I adopt this same basic proposal for Luganda, but extend it to all passives. In other words, I assume that all EA-passives in Luganda – including passives of both single-object (17) and double-object verbs (16) – involve movement across EA in Spec,\( \nu \)P.

If this analysis is on the right track, we might expect to find additional evidence that the EA is an argument, rather than e.g. an adjunct PP with a null preposition. This point cannot be established for Haya based on the data provided in Duranti & Byarushengo (1977), but the Luganda facts included below clearly demonstrate that EAs in passives behave differently from true adjuncts.

First, while many postverbal adjuncts (e.g. locative and temporal) are freely ordered with respect to each other in Luganda passives, EAs are fixed – they must precede a locative or temporal adjunct:
(18) a. Nakato y-a-fuumb-a ekinnyanja ku-muliro ku-saande
   Nakato sbj1-pst-cook-ind 7.fish loc-fire loc-Sunday
   ‘Nakato cooked the fish on the fire on Sunday.’

   b. Nakato y-a-fuumba ekinnyanja ku-saande ku-muliro
   ‘Nakato cooked the fish on Sunday on the fire.’

(19) a. ekinnyanja ky-a-fuumb-ibwa Nakato ku-saande ku-muliro
    7.fish 7-pst-cook-pass Nakato loc-Sunday loc-fire
    ‘The fish was cooked by Nakato on Sunday on the fire.’

   b. ekinnyanja ky-a-fuumb-ibwa Nakato ku-muliro ku-saande
    ‘The fish was cooked by Nakato on the fire on Sunday.’

   c. * ekinnyanja ky-a-fuumb-ibwa ku-muliro Nakato
   d. * ekinnyanja ky-a-fuumb-ibwa ku-saande Nakato

   In this respect the EA in a passive behaves very differently from a right-dislocated subject in an active:

(20) a. ekinnyanja a-ki-fuumb-a
    7.fish sbj1-obj7-cook-ind
    ‘The fish, she cooked it on the fire, Nakato.’

   b. ekinnyanja a-ki-fuumb-a
   ‘The fish, she cooked it on Sunday, Nakato.’

   Some manner adverbs can come between a passive verb and an EA, but crucially, these same adverbs
   can also appear between an active verb and an object (suggesting that they are left-adjointed to vP):

(21) a. ebbaluwa y-a-wandiik-ibw-a
    9.letter sbj-pst-write-pass-ind
    ‘The letter was written quickly by the students later on.’

   b. abasomi ba-a-wandiika
   ‘The students wrote the letter quickly later on.’

   There is also some phonological evidence that the passive verb and the EA are in a close structural
   relationship. Luganda has a phonological rule of L-Tone Deletion (LTD), which deletes a L tone and
   creates a H-tone plateau between two words that are underlyingly HL. This rule does not apply between
   just any two adjacent HL words, but only between words in a particularly close syntactic relationship
   (Hyman, 1982; Pak, 2008). For example, LTD consistently applies between a verb and an object (22a),
   but not between a verb and a right-dislocated subject (22b). On the other hand, LTD does apply between
   a passive verb and an EA (22c):

(22) a. n-a-fúumb-à nnavólòvu (nàfúúmbà nnáwólòvu)
    1s-pst-cook-ind 1.chameleon
    ‘I cooked the chameleon.’

   b. y-a-fúumb-à nnavólòvu (yáfúúmbà) (nnáwólòvu)
   sbj1-pst-cook-ind 1.chameleon
    ‘It cooked (something), the chameleon.’

   c. obútúngulu bw-a-fúumb-ibw-a nnavólòvu (òbútúngùlù) (bwàfúúmbòbwà nnáwólòvu)
    14.onion 14-pst-cook-pass-ind 1.chameleon
    ‘The onions were cooked by the chameleon.’

   This array of facts is not what we would expect if the ‘demoted agent’ were an adjunct on par
   with the English by-phrase. Instead, the Luganda EA is showing up where we would expect to see it
   if it had remained in Spec,vP. This means that Luganda (and presumably also Haya) EA-passives are
very different from English passives, insofar as they do not involve any kind of agent suppression or agent demotion. Instead, Luganda and Haya EA-passives have a normal 'strong vP' syntax, but with an additional component – leap-frogging – that changes the order of the EA and the first object.

We have now identified an additional context for leap-frogging in Luganda, beyond the double-object theme-passive we started with (13). Notice that there is no ‘weak’ passive vP involved in (16) or (17). The next-higher level of structure above the strong vP in these structures is TP, and the object simply raises from its outer-Spec,vP position to Spec,TP.³

If it is true that Luganda EAs are arguments in Spec,vP, as shown in (16)–(17), then this argument should potentially count as an intervener in double-object structures. In other words, we should expect to find the following asymmetry:

(23) Prediction: If an EA is expressed in a double-object passive...
   a. the IO can be passivized ‘across’ the EA: IO₄ [ SBJ [ IOP DO ]]
   b. ... but the DO cannot: * DO₄ [ SBJ [ IO DO₄ ]]

This prediction is borne out – as in Haya (Duranti & Byarushengo, 1977), the EA cannot be expressed in a theme passive.

(24) a. omwana y-a-lag-ibw-a (Nakato) ekifaanyani
    1.child sbj1-pst-show-pass-ind 1.Nakato 7.picture
   ‘The child was shown a picture (by Nakato).’

   b. ekifaanyani ky-a-lag-ibw-a (*Nakato) omwana (*Nakato)
      7.picture 7-pst-show-pass-ind (Nakato) 1.child (Nakato)
   ‘The picture was shown to the child (*by Nakato).’

(25) a. omusawo y-a-wandiik-ir-wa (*?Mukasa) ebbaluwa
    1.doctor sbj1-pst-write-appl-pass 1.Mukasa 9.letter
   ‘The doctor was written a letter to (?*Mukasa).’

   b. ebbaluwa y-a-wandiik-ir-wa (*Mukasa) omusawo (*Mukasa)
      9.letter sbj9-pst-write-appl-pass (Mukasa) 1.doctor (Mukasa)
   ‘The letter was written to the doctor (*by Mukasa).’

(26) a. abaana ba-a-w-ebw’ (omusajja) ekitabo
    2.child 2-pst-give-pass 1.man 7.book
   ‘The children were given the book (by the man).’

   b. ekitabo ky-a-w-ebw’ (*omusajja) abaana (*omusajja)
      7.book 7-pst-give-pass 1.man 2.child (1.man)
   ‘The book was given to the children (*by the man).’ (SK050708)

The fact that there are some passives where the EA cannot be expressed at all suggests that it can still ‘get in the way’ for the purposes of A-movement locality – just as we expect if the current account is on the right track. Notice that manner adverbs like mangu ‘fast’ and bulungi ‘well’ do not count as interveners – further evidence that overt EAs in passives are arguments rather than adjuncts:

(27) [ekifaanyani]₄ ky-a-lag-ibw-a bulungi omwana t₁
    7.picture 7-pst-show-pass-ind well 1.child
   ‘The picture was shown to the child well.’

³ One implication of this analysis is that the passive -(ib)w- suffix cannot be ‘replacing’ the EA in Luganda (cf. (Baker et al., 1989)), since it appears in contexts where the EA is overtly expressed in Spec,vP. Rather, the passive suffix in Luganda seems to signal some kind of ‘alternative agreement’ – cases where T agrees with a DP that started out as a vP complement rather than a vP specifier. See Embick (2003) for additional cases where passive morphology is used in contexts that do not involve agent suppression as it is typically understood.
5. Further questions and conclusion

So far we have seen that the EPP feature that triggers leap-frogging in Luganda can occur on either ApplH (12) or strong $v$ ((16)–(17)). A follow-up question we could ask is whether both strong $v$ and ApplH could have EPP within a single derivation, resulting in a kind of ‘cyclic leap-frogging’:

(28) a. $vP{Musoke\ kwat-ir\ ApplH[\ omusawo\ eddagala]}$
    1.Musoke hold-appl 1.doctor 5.medicine
    ‘Musoke hold(s) the medicine for the doctor.’

b. $vP{Musoke\ kwat-ir\ ApplH[\ eddagala,\ ApplH[\ omusawo\ eddagala]}$

c. $vP{eddagala,\ vP{Musoke\ kwat-ir\ ApplH[\ eddagala,\ ApplH[\ omusawo\ eddagala]}]}$

But the sentences that would result from such a derivation (after the verb and subject have raised out of $vP$) are uniformly ruled out – the DO cannot be passivized in a high applicative if the EA is overt:

(29) a. eddagala ly-a-kwat-ir-w-a (*Musoke) omusawo
    5.medicine 5-pst-hold-appl-pass-ind 1.Musoke 1.doctor
    ‘The medicine was held for the doctor (*by Musoke).’

b. ente z-a-kam-ir-w-a (*Walusimbi) abalimi
    10.cow 10-pst-milk-appl-pass-ind 1.Walusimbi 2.farmer
    ‘The cows were milked for the farmers (*by Walusimbi).’

The only way to express the EA in a passive in such examples is to ‘de-applicativize’ the verb and use a prepositional form to introduce the beneficiary:

(30) ente z-a-kam-ibw-a Walusimbi kulw’ abalimi
    10.cow 10-pst-milk-pass-ind 1.Walusimbi for 2.farmer
    ‘The cows were milked for the farmers by Walusimbi.’

The same pattern holds in Haya (Duranti & Byarushengo, 1977). The descriptive generalization seems to be that there can be at most one instance of leap-frogging per strong $vP$ – or, stated somewhat differently, leap-frogging only applies in Luganda if the derived outer specifier immediately goes on to agree with T. Why should this be the case?

One possibility is that the extra EPP feature that drives leap-frogging is inherited from T, and that this kind of feature-inheritance is phase-bounded. The idea would be that T can pass down its EPP feature to the next-lower phase head – i.e., up to (but not past) the next strong $v$ or ApplH. This treatment would automatically limit the number of extra EPP features (and hence the number of leap-frogging applications) to one, as desired. At the same time, it raises a number of questions about ‘look-ahead’ assuming a bottom-up cyclic spellout model – somehow leap-frogging must take place at the ApplHP phase level before the next-higher phase containing T has been built.

Notice that the look-ahead problem only arises if it is assumed that all phase heads uniformly trigger full spellout, as suggested in Chomsky (2004). Another possibility, however, is that the array of diagnostics that are associated with ‘phase-hood’ – availability of reconstruction sites, island constraints, phonological effects – do not always converge on the same set of heads. It could, for example, be the case that $v$ and ApplH count as phase heads insofar as they can drive movement/Agree operations, but nevertheless do not trigger full spellout (unlike C, for example). In other words, it could be that some heads (e.g. $v$, ApplH) have a subset of phase-head properties, while others (e.g. C) have the full array. While this idea remains to be explored in depth, there is some phonological support for the idea that ApplH does not trigger full spellout. In a high-applicative IO-V-DO passive, the verb groups together with the following DO for the phonological rule of LTD (see (22)) – even though the DO is presumably in the complement of the ApplH phase head (see Pak, 2008, ch. 5 for further discussion):

(31) a. abânnâ bâ-kwât-ir-w-a ApplH[omusawo liewunzikâ]
    2.child 2-hold-appl-pass-ind 1.banana
    ‘The children are having the bananas held for them.’

b. → (abânnâ) (bâkwâtrwâ liewunzikâ)
The connection between phase-hood, phonological spellout, and movement/Agree relations is an important question for future work; see Pak (2008) for some discussion. In this paper, my primary goal has been to show that passives in Luganda have two separate sources – a ‘typical’ weak-P passive, where no external argument is projected, and an additional ‘leap-frogging’ structure that has the effect of allowing an argument to skip over exactly one other argument. The new data presented here provide additional support for the leap-frogging treatment of symmetric-passives proposed in Doggett (2004), McGinnis (2004), and others, since leap-frogging is also shown to be implicated in single-object structures with overt external arguments. Crucially, each step of movement involved in these derivations obeys the shortest-move constraint in (3), and the idea that A-movement is cross-linguistically blocked by intervening arguments can accordingly be maintained.

References
