

Relative Clauses without CPs in Luganda¹

Marjorie Pak

University of Pennsylvania

1 Introduction

It is typically assumed that relative clauses (RCs) are ‘full clauses,’ involving \bar{A} -movement of a relative pronoun or null operator to the clause-peripheral position Spec,CP (Chomsky 1977, etc.). This assumption is consistent with several key properties of English RCs, including: (i) the fact that relative pronoun (when overt) *precedes* the RC subject (1a); (ii) the fact that the complementizer *that* (when overt) also appears in the expected position before the RC subject (1b); and (iii) the fact that RC extraction has the usual properties of \bar{A} -movement: leaves a gap, allows cyclic cross-clausal movement (1c), obeys island constraints (1d), and allows movement across an intervening noun phrase (*Mary* in (1e)), unlike in e.g. passivization.

- (1) a. the cornbread $_{CP}$ [**which**_i $_{C}$ [\emptyset] $_{TP}$ [**Mary** ate t_i]]]
b. the cornbread $_{CP}$ [Op_i $_{C}$ [**that**] $_{TP}$ [**Mary** ate t_i]]]
c. the cornbread that John thinks that Mary ate
d. *the cornbread that John met the woman who ate
e. the cornbread Op_i that John fed **Mary** t_i
cf. A-movement: *the cornbread_i was fed **Mary** t_i

The idea that English RCs are full CPs on the one hand and \bar{A} -movement structures on the other is not controversial. What I will be questioning here, however, is whether \bar{A} -movement – specifically relativization – cross-linguistically *entails* a full clause structure. Since the CP label is not required for the purposes of semantic computation, as long as there is a relative pronoun at the top of the structure and a trace below (Heim and Kratzer 1998:89), we can at least entertain the possibility that RCs come in different sizes.

This paper looks closely at relativization in Luganda, a Bantu language spoken in Uganda. Based primarily on phonological evidence – namely, the fact that tone-spread freely crosses the boundary between a RC and a main clause

even though it is systematically blocked across ‘other’ clause boundaries – I argue for the hypothesis in (2):

- (2) **Reduced-clause hypothesis for Luganda RCs:** Luganda RCs are reduced, sub-CP structures, involving \bar{A} -movement to a position lower than CP.

The hypothesis in (2) is consistent with Luganda RC word order, which is typologically unusual insofar as the subject *precedes* the relative-marker (§2), and is corroborated by syntactic evidence as well (§5). Implications and alternative proposals are considered in §§4–6.

2 Background on Luganda RCs

Luganda RCs are distinguished by the obligatory presence of a relative marker – a segmental piece at the left edge of the verb – as well as, in some tenses, an additional H tone on the verb. (The relative marker is glossed as ‘rel’ in the examples here and is represented as a verbal prefix, although nothing hinges on this assumption; see Hyman and Katamba 2005 for discussion.) The form of the relative marker depends on the type of RC: if the subject is extracted, the relative marker is simply an ‘initial vowel’ (*e-*, *a-*, or *o-*) that harmonizes with the following mora; if the object is extracted, the relative marker is a noun-class concord piece agreeing with the RC head, followed by the vowel /e/.

- (3) a. Non-relativized declarative:
 abawala ba-a-luka emikeeka
 2.girl 2-pst-plait 4.mat
 ‘The girls plaited the mats.’
- b. Subject RC:
 n-daba abawala a-ba-a-luka emikeeka
 1s-see 2.girl rel-2-pst-plait 4.mat
 ‘I see the girls who plaited the mats.’
- c. Object RC:
 emikeeka abawala gye-ba-a-luka te-gi-gasa
 4.mat 2.girl 4.rel-2-pst-plait neg-4-be.of.use
 ‘The mats the girls plaited are unsuitable.’ (Ashton et al. 1954:144)

Unlike English, Luganda does not allow an option of pronouncing a complementizer (e.g. *nti*, *nga*) within a RC.

Notice that when the RC contains its own overt subject (e.g. (3)c)), the relative marker obligatorily *follows* the subject. This word order is also used in Ikalanga (Letsholo 2002), but it is fairly unusual both cross-linguistically and within Bantu; in the more familiar Bantu cases described in Demuth and Harford

(1999) and others, either the relative marker is an ‘independent word’ *preceding* the subject, or the relative marker is a prefix on the verb and there is subject-verb inversion. What crucially distinguishes Luganda and Ikalanga from other Bantu languages is that there is *never* any overt functional material above the subject within a RC – i.e., consistent with (2), there is no evidence from the word order that RCs are CPs.

RC verbs are distinguished from main-clause verbs not only by the appearance of the relative marker but also by the expression of negation. As shown in (4)a, main-clause negation is done with a ‘peripheral *te-*’ prefix that appears at the leftmost edge of the verb (before subject-agreement). In RCs, however, peripheral *te-* is unavailable and negation is expressed instead with a prefix *-ta-*, which *follows* subject-agreement ((4)b-(4)c; Ashton et al. 1954:144).

- (4) a. abasajja **te**-ba-a-leeta emigugu jjo
 2.man **neg**-2-pst-bring 4.bundle yesterday
 ‘The men didn’t bring the bundles yesterday.’
- b. abasajja a-ba-**ta**-a-leeta migugu jjo
 2.man rel-2-**neg**-pst-bring 4.bundle yesterday
 ‘the men who didn’t bring bundles yesterday’
- c. emigugu abasajja gye-ba-**ta**-a-leeta jjo
 4.bundle 2.man 4.rel-2-**neg**-pst-bring yesterday
 ‘the bundles that the men didn’t bring yesterday’

Interestingly, peripheral *te-* is also unavailable in infinitives (which require *-ta-*, like RC verbs) and subjunctives (which require periphrastic negation with *okulema* ‘to fail to’). This basic split between negation in main clauses on the one hand, and negation in infinitives, subjunctives, and RCs on the other, is a recurring pattern in Bantu (see e.g. Güldemann 1999). I provisionally assume that there are two positions for sentential negation in the clause, as proposed in Ngonyani 2002 and Letsholo 2002, and that infinitives, subjunctives, and RCs are alike in that the higher NegP is unavailable – perhaps because these kinds of ‘clauses’ are missing the topmost levels of functional structure (2). In the next section we will see some further evidence that RCs pattern with infinitives and subjunctives, and unlike main clauses, in terms of apparent clause size.

3 Phonological Evidence for the Non-CP Hypothesis

So far I have shown that the word order and morphology of Luganda RCs make the reduced-clause hypothesis in (2) at least feasible; in this section I provide clear support for this hypothesis from the phrasal phonology. As we will see, H tones freely spread across RC-main clause junctures even though they are systematically blocked from spreading across other clause boundaries. The

reduced-clause hypothesis in (2) accounts for this pattern naturally while maintaining a restrictive, transparent view of the syntax-phonology interface (§4), and is moreover corroborated by syntactic evidence (§5).

3.1 Tone spread: the basic pattern

On the surface, Luganda syllables are H, L or HL. The distribution of surface tones is largely predictable if it is assumed that (i) each mora is underlyingly either H or \emptyset (toneless), and (ii) the full range of H, L and HL tones is derived by a series of *word-internal* and *phrasal* tone-assignment rules (Hyman 1982; Hyman and Katamba 1990/1991, 1993). For current purposes, the important point is that some words are composed entirely of toneless morphemes and thus get their surface tones at the phrasal level. The phrasal tone rule we will be focusing on here is:

- (5) **High Tone Anticipation (HTA):** A word-level H tone spreads *leftward* through toneless moras onto preceding words within the domain, stopping short of the first mora of the domain.

Syllables that are still toneless after HTA and other phrase-level rules apply get default L.

Consider first the examples in (6), which show HTA application within a single clause. The only underlying H tone in these utterances is on the first mora of *kaawa* ‘coffee’ (underlined); *Mukasa*, *omulenzi*, and *a(mu)gulira* are all underlyingly toneless. In (6)a, the H on *kaawa* spreads leftward through the indirect object *omulenzi* onto the verb, but the preverbal subject *Mukasa* surfaces with all L tones, indicating that it is in a separate HTA domain. In (6)b, where the indirect object *omulenzi* is left-dislocated (and associated with an obligatory object prefix on the verb), both the indirect object and the subject form their own HTA domains and surface with L tones.²

- (6) a. (Mùkàsà) (à-gúl-ír-á ómùlénzì kááwà)
 1.Mukasa sbj1-buy-appl-fv 1.boy 1a.coffee
 ‘Mukasa is buying the boy coffee.’
- b. (Mùkàsà) (òmùlénzì) (à-mú-gúl-ír-á kááwà)
 1.Mukasa 1.boy sbj1-obj1-buy-appl-fv coffee
 ‘Mukasa is buying the boy some coffee.’

(In (6) and subsequent examples, HTA domains are demarcated with parentheses and the ‘source’ underlying H tone is underlined.)

As demonstrated by (6) and as pointed out by Hyman (1982, 1990), the basic pattern found in utterances containing a single clause is as follows:

- (7) In utterances containing a single clause:
- items preceding the verb – preverbal subjects, left-dislocated objects, and topic adverbials – each form their own HTA domain;
 - the verb groups together with following objects and modifiers into a single HTA domain.

3.2 Tone spread in multi-clausal structures

If an utterance contains more than one verb, there are two basic possibilities – either each verb heads a clause that individually follows the pattern in (7) (‘phonological independence’), or the two verbs group together for the purposes of HTA, along with any following arguments or modifiers (‘phonological dependence’). The first pattern is found when both clauses are (by hypothesis) full CPs, in either a complementation or an adjunct structure.

- (8) a. (òmulenzi) (à-gàmbà) (nti) (Mùkàsà) (y-à-géèndà)
 1.boy sbj1-say comp 1.Mukasa sbj1-pst-go
 ‘The boy says that Mukasa went.’
- b. (Wálúsimbi) (à-lòwòòzà) (à-yîmbà)
 1.Walusimbi sbj1-think sbj1-sing
 ‘Walusimbi thinks s/he’s singing.’
- c. (ò-léká) (Mùkàsà) (à-káàba)
 2s-leave Mukasa sbj1-cry
 ‘You leave as Mukasa cries.’/ ‘You leave with Mukasa crying.’
- d. (òmulenzi) (à-náá-sèká) (òmulimi) (bw’-à-yîmbà)
 1.boy sbj1-fut-laugh 1.farmer cond-sbj1-sing
 ‘The boy will laugh if the farmer sings.’

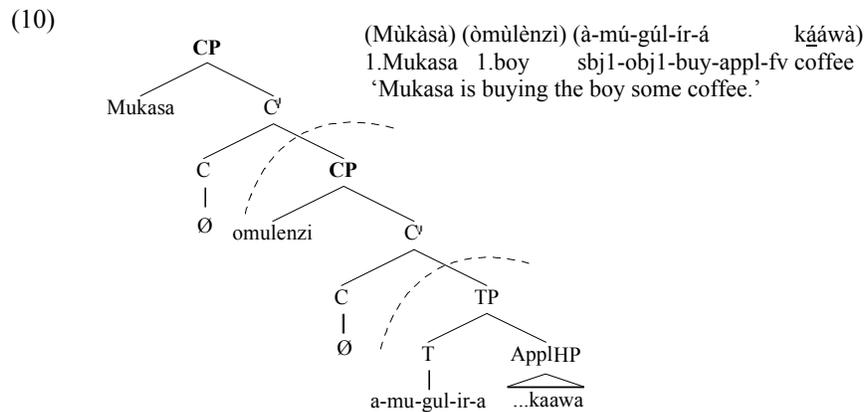
(8)a-(8)b show clausal complements of the verbs ‘say’ and ‘think.’ The embedded verb in ‘say/think’ complements is morphologically identical to a main-clause verb – it is fully tensed and takes peripheral *te-* negation (not indicated here). The embedded clause correspondingly forms its own domain for the purposes of HTA – even if it consists of only a single word, as in (8)b. Examples (8)c-(8)d show that the ‘phonological independence’ pattern also occurs in certain kinds of adjunct structures. Although the secondary predicate in (8)c and the *if*-clause in (8)d each contain their own subject, the underlying H tone on the verb does not spread leftward, indicating that the verb has formed its own HTA domain.

The basic generalization so far is that Luganda HTA domains are sensitive to two kinds of syntactic boundaries: (i) boundaries between clauses, and (ii) boundaries between items at the left *edge* of each clause. A similar pattern has been reported for phrasal phonological rules in Kinande (Hyman 1990), Tohono

O’odham (Hale and Selkirk 1987, Phillips 1996), Slave (Rice 1987), and San Mateo Huave (Pak 2007), and can be accounted for straightforwardly under the direct spellout-based proposal in (9):

- (9) **Direct spellout-based proposal for Luganda HTA:**
- Syntactic structures are built up and spelled out in phases, or designated subparts, rather than all at once.
 - Full spellout is triggered at each CP; material at the CP *edge* (C and Spec,CP) is spelled out on a separate cycle.
 - Luganda HTA applies directly to the fully spelled-out, linearized output of each CP phase.³

Main-clause preverbal subjects and left-dislocated objects are assumed to be in Spec,CP (see Letsholo 2002 for arguments in favor of this analysis); and sentences with multiple preverbal constituents are assumed to have multiple recursive CPs, each of which is spelled out separately.



As noted at the beginning of this section, there are some structures in which two verbs group together for HTA, instead of forming separate domains (the ‘phonological dependence’ pattern). The embedded ‘clause’ in these cases, however, can be plausibly argued to be a *reduced*, sub-CP structure which, in accordance with (9), automatically undergoes spellout with the next-higher CP instead of by itself. Phonological dependence is typically observed in infinitival and subjunctive complements of ‘want’ and ‘going to’ – core members of the class of restructuring predicates cross-linguistically (Wurmbrand 2001):

- (11) a. (à-yágál’ ókú-yîmbà)
 sbj1-want inf-sing
 ‘S/he wants to sing.’

- b. (Wálúsimbi) (à-jjá kú-kwàtà lwèwùnzikà)
 1.Walusimbi sbj1-come inf-hold 1a.bananas
 ‘Walusimbi is going to hold the bananas.’
- c. (nj-ágál’ ómúlénzí á-wándík-ér-ê Mùkàsà èbbálúwà)
 1s-want sbj1-boy sbj1-write-appl-subj 1.Mukasa 5.letter
 ‘I want the boy to write Mukasa a letter.’

3.3 Tone spread in RCs

Somewhat surprisingly, the phonological dependence pattern is also found with RCs in Luganda. This is true even if the RC contains its own subject (e.g. (12)a, b, d) – the H tone on the RC verb spreads leftward through the RC subject and the head NP, all the way up to the main-clause verb:

- (12) a. (nj-ágál’ ékítábó ómúlénzí kyé-y-á-lábà)
 1s-like 7.book 1.boy 7.rel-sbj1-pst-see
 ‘I like the book that the boy saw.’
- b. (Wálúsimbi) (à-gúlá lúmóóndé Mùkàsá gw’-á-géndà òkù-wá)
 1.Walusimbi sbj1-buy 1a.potato 1.Mukasa 1.rel-sbj1-go inf-give
 àbálénzí)
 2.boy
 ‘W. is buying the potatoes that Mukasa is going to give the boys.’
- c. (Bábíryè) (à-yágál’ ómúntú é-y-á-wá Wálúsimbi nnàwólòvù)
 1.Babirye sbj1-like 1.person rel-sbj1-pst-give 1.W. 1.chameleon
 ‘Babirye likes the person who gave Walusimbi a chameleon.’
- d. (nj-ógérá kú-mbátá ómúlímí zé-y-á-n-dágà)
 1s-talk loc-10.duck 1.farmer 10.rel-sbj1-pst-1s-show
 ‘I’m talking about the ducks that the farmer showed me.’

If the proposal in (9) is on the right track, then the pattern in (12) must be taken as an indication that Luganda RCs, like infinitival and subjunctive complements of restructuring predicates, are *smaller than CPs* and thus do not get spelled out independently. I provisionally assume that Luganda RCs have the structure in (13), where the T(ense) head drives \bar{A} -movement of a null operator to an outer Spec,TP and the relative-marker is a piece of agreement inflection inserted on the verb. Other structures – e.g. a Kaynian head-raising structure – would work equally well for our purposes, as long as the RC is smaller than a CP. In §4 I consider and reject two alternative proposals that maintain the idea that ‘true’ RCs are always CPs, and in §5 I show that the current reduced-RC proposal has independent syntactic support.

- (13) $_{NP}$ [emikeeka $_{TP}$ [Op_k $_{TP}$ abawala $_i$ $_{T}$ [$_{T}$ gye $_{Agr}$ -ba-a-luka $_j$] $_{VP}$ [t_i t_j t_k]]]]
- 4.mat 2.girl 4.rel-2-pst-plait
 ‘the mats that the girls plaited’

4 Alternative Proposals

4.1 Are Luganda RCs really \bar{A} -movement structures?

One possibility we might consider at this point is that Luganda RCs do not involve \bar{A} -movement, but rather some other kind of displacement mechanism. For example, we could hypothesize that Luganda RCs involve A-movement, as suggested by Bhatt (1998) for English subject infinitival relatives, where it is argued that the subject undergoes local, string-vacuous raising out of a reduced AspP structure. This kind of proposal would allow us maintain the idea that ‘true’ (i.e. A-bar) relativization cross-linguistically requires a CP.

It turns out, however, that Luganda RCs do have the classic properties of \bar{A} -movement. First, unlike in passivization, no relativized-minimality violation is incurred if the moved phrase ‘crosses’ multiple NP interveners; i.e., it is not the case that only the closest c-commanded argument can be extracted (cf. Rizzi 1990). Notice the grammaticality contrast between the RC in (15) and the passive in (16)a, where intervening noun phrases are boldfaced:

- (14) n-a-lis-iza ekijiiko omwaana obutungulu
 1s-pst-feed-appl 7.spoon 1.child 14.onion
 ‘I fed the child onions with a spoon.’
- (15) Mukasa y-a-gul’ obutungulu Op_i bwe-n-a-lis-iza **ekijiiko omwaana** t_i
 Mukasa sbj1-pst-buy 14.onion 14.rel-1s-pst-feed-appl 7.spoon 1.child
 ‘Mukasa bought the onions that I fed to the child with a spoon.’
- (16) a. *obutungulu_i bw-a-lis-iz-ibwa **ekijiiko omwaana** t_i
 14.onion 14-pst-feed-appl-pass 7.spoon 1.child
 ‘Onions were fed to the child with a spoon.’
 b. cf. (ok) ekijiiko_i ky-a-lis-iz-ibwa t_i omwaana obutungulu
 7.spoon 7-pst-feed-appl-pass 1.child 14.onion
 ‘A spoon was used to feed the child onions.’

Furthermore, unlike e.g. left-dislocation, Luganda relativization (i) leaves a gap and (ii) is subjected to island constraints – two well-known diagnostics for \bar{A} -movement (Chomsky 1977). The RCs in the (b) examples below are ungrammatical (see also Walusimbi 1996) – whether or not the object marker is inserted as an attempted resumption strategy – but the left-dislocation sentences in the (c) examples (which require a co-indexed object marker) are fine.⁴

- (17) a. omulenzi y-ebaka bwe n-a-mu-som-er-a ekitabo
 1.boy sbj1-sleep when 1s-pst-obj1-read-appl-fv 7.book
 ‘The boy fell asleep when I read him the book.’

- b. * nj-ogera ku-kitabo omulenzi kye-y-ebaka bwe n-a-(ki)-mu-som-era
 1s-talk loc-7.book 1.boy 7.rel-sbj1-sleep when 1s-pst-7-obj1-read-appl
 Lit: ‘I’m talking about the book that the boy fell asleep when I read
 (it) to him.’
- c. ekitabo kino, omulenzi y-ebaka bwe n-a-ki-mu-som-era
 7.book 7.dem 1.boy sbj1-sleep when 1s-pst-obj1-read-appl
 ‘This book, the boy fell asleep when I read it to him.’
- (18) a. n-a-sanga omusomesa gwe-tw-a-wa ebimuli
 1s-pst-meet 1.teacher 1.rel-1p-pst-give 8.flower
 ‘I met the teacher we gave flowers to.’
- b. * Walusimbi y-a-gula ebimuli be-n-a-sanga omusomesa
 Walusimbi sbj1-pst-buy 8.flower 8.rel-1s-pst-meet 1.teacher
 gwe-tw-a-(bi)-wa
 1.rel-1p-pst-8-give
 Lit: ‘W. bought the flowers I met the teacher we gave (them to).’
- c. ebimuli bino, n-a-sanga omusomesa gwe-tw-a-bi-wa
 8.flower 8.dem 1s-pst-meet 1.teacher 1.rel-1p-pst-8-give
 ‘These flowers, I met the teacher we gave (them to).’

4.2 Modeling the syntax-phonology interface

Under the proposal in (9) – and indeed within any model of the syntax-phonology interface where phonological domains are closely related to syntactic structures (e.g. many versions of prosodic hierarchy theory (Selkirk 1986, Nespor and Vogel 1986)) – the tone-spread patterns reported in §3 are taken as an indication that Luganda RCs are reduced, sub-CP structures. More explicitly:

- (19) **Proposal for Luganda RC spellout:**
- Unlike main clauses, Luganda RCs do not contain a CP layer of structure. (RC subjects correspondingly move only to Spec,TP.)
 - Spellout is triggered at each CP. Since a Luganda RC does not have a CP, it does not get spelled out until the next-higher CP is reached.
 - HTA applies directly to the fully spelled-out contents of each phase; thus, RCs automatically group together phonologically with the next-higher clause.

It is quite difficult to see how the phonological facts reported here could be explained without the reduced-clause hypothesis. If we wanted to maintain the idea that Luganda RCs were CPs, we might argue that RCs have a distinguishing feature (e.g. [+rel]) in C, and that there is a special provision that Luganda spellout ignore any [+rel] CP. However, this kind of provision would represent a major departure from the idea that the phrasal phonology does not distinguish

among particular morphosyntactic features like [+rel], [+def], etc. – a central idea in the prosodic hierarchy theory literature (see e.g. Inkelas and Zec 1995:536–537) and also a basic assumption in phase theory. If we allowed the phrasal phonology to ignore [+rel] CPs, we would open the door for similar cases of feature-sensitivity that are never actually attested – e.g., phonological rules that are blocked *only* at [-fin] CPs/TPs and nowhere else (see Pak 2007, forthcoming for further discussion).

It should also be pointed out that RCs are not phonologically dependent cross-linguistically: as noted above, Huave (Pak 2007), Kinande (Hyman 1990), and Tohono O’odham (Hale and Selkirk 1987) have phrasal tone rules whose domains look much like Luganda HTA domains, but RCs in these languages *do* phrase separately. The idea that the phonological dependence of Luganda RCs can be attributed to a special provision in the syntax-phonology mapping, rather than to the size of the RC, will therefore not be considered further here.

5 Prediction: No Position for Spec,CP Items within a RC

If it is true that Luganda RC subjects are in Spec,TP and that there is no CP projection above it, then we make the following prediction: any material that can *only* be in Spec,CP will not be able to occur within a Luganda RC. This prediction appears to be borne out. Certain topic adverbs cannot precede the subject within a RC – supporting the idea that the Spec,CP position is absent:

- (20) a. Mukasa a-lowooza nti **mpozzi** omulenzi y-a-bba olulagala
 1.Mukasa sbj1-think comp maybe 1.boy sbj1-pst-steal 11.leaf
 ‘Mukasa thinks that maybe the boy stole the banana leaf.’
 b. nj-ogera ku-lulagala (***mpozzi**) omulenzi lwe-y-a-bba
 1s-talk loc-11.banana.leaf maybe 1.boy 11.rel-3s-pst-steal
 ‘I’m talking about the banana leaf that (maybe) the boy stole.’
- (21) a. **oku-mala essaw’ emu** Musoke y-a-kwata omulenzi
 inf-finish 9.hour 9.two 1.Musoke sbj1-pst-hold 1.boy
 ‘For two hours Musoke held the boy.’
 b. nj-agal’ omulenzi (***oku-mala essaw’ emu**) Musoke gwe-y-a-kwata
 1s-like 1.boy inf-finish 9.hour 9.two Musoke 1.rel-sbj1-pst-hold
 ‘I like the boy that (for two hours) Musoke held.’

Similarly, some speakers reject object-fronting internal to a RC (22), even though the (18)c counterpart, where the fronted object appears in *matrix* Spec,CP, is uniformly accepted. This contrast is exactly what we expect under the assumption that (i) fronted/left-dislocated objects are in Spec,CP, and (ii) Luganda RCs are smaller than CPs.⁵

- (22) ?? n-a-sanga omusomesa **ebimuli bino** gwe-tw-a-bi-wa
 1s-pst-meet 1.teacher 8.flower 8.dem 1.rel-1p-pst-8-give
 Lit: ‘I met the teacher who these flowers, we gave (them to).’

6 Conclusion

The hypothesis explored here is that the confluence of word-order and morphosyntactic (negation) factors in Luganda RCs may allow speakers to analyze Luganda RCs as reduced, non-CP structures, much like restructured complement infinitives. The tone-spread data presented in §3 were taken as a confirmation of the reduced-RC hypothesis. An important implication of this finding is that \bar{A} -movement can be driven by syntactic heads that do *not* also trigger phonological spellout (cf. Chomsky 2004). An alternative analysis of the findings reported here – one where [+rel] CPs are stipulated to ‘suppress’ spellout in Luganda – was considered and rejected. The advantage of the current analysis is that it allows us to maintain a view of the syntax-phonology interface where constituent size and constituent structure are the main factors in determining how utterances are spelled out, without requiring any special provisions for particular morphosyntactic features.

Notes

- ¹ For helpful comments and discussion I am indebted to Rajesh Bhatt, David Embick, Larry Hyman, Tony Kroch, Rolf Noyer, and participants in the Fall 2007 syntax reading group at Penn and the 2007 Syntax- Phonology Interface in the Northeast (SPINE-3) workshop at Cornell. I would also like to thank Sanyu Kakoma, Sara Mukasa, and Rosemary Vonjo for their extensive contributions as linguistic informants. All errors are of course my own.
- ² Left-dislocated objects can either precede or follow a preverbal subject. In either case, the subject and the left-dislocated object each form their own HTA domain.
- ³ For a comparison between the direct spellout-based approach used here and a prosodic-hierarchy based approach, where Luganda HTA would apply to a prosodic constituent like the Intonational Phrase rather than directly to the output of spellout, see Pak (forthcoming) and Rice (1987).
- ⁴ Wh-questions, another potential displacement structure, are done either with the wh-word in situ (*walaba ani?* (you-saw who?)) or with a clause-initial wh-word followed by a RC (probably a cleft or pseudocleft, e.g. *ani gwe-walaba?* (who 1.rel-you.saw ‘Who is it you saw?’)). The latter structure appears to pattern with RCs with respect to \bar{A} -movement diagnostics.
- ⁵ One of my consultants has accepted examples like (22). I assume that for this speaker, and possibly for all speakers under certain discourse conditions, fronted objects can be pronounced in Spec,TP as well as Spec,CP. Independent diagnostics for the two positions remain to be explored.

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Marjorie Pak
 Department of Linguistics
 University of Pennsylvania
 Philadelphia, PA 19104-6305
 mpak@ling.upenn.edu