

On the left periphery of the Kirundi noun phrase¹

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1. Overview

- In this talk, we give an overview of the Kirundi noun phrase, including an analysis of the augment, demonstratives and locatives.
- Previous analyses have argued that augments and demonstratives occupy the same structural position, namely D (e.g., Ndayiragije et al., 2012). Others have argued that locatives, too, are in D (e.g., Ngoboka, 2017).
- We re-examine these claims and suggest that the left periphery of the Kirundi NP should be modeled in a more intricate way to capture important differences.

2. Background

- Kirundi nouns in citation form consist of an augment (V-), a noun class prefix (C(V)-) and a noun stem.³

(1)	a.	umugoré u-mu-goré AUG-1-woman 'woman'	b.	igikeré i-ki-keré AUG-7-frog 'frog'	c.	izúuba i-Ø-zúuba AUG-5-sun 'sun'
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- Augmented nouns are underspecified for definiteness. They are compatible with both indefinite and definite readings.

(2)	Izúuuba	ryaabónetse.
	i-Ø-zúuba	ry-a-abónetse
	AUG-5-sun	5S-PST-appear
		'The sun appeared.'

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³ Unless otherwise indicated, examples will be given in Kirundi orthography with slight modifications for representing vowel length and tone. The orthography corresponds to the IPA with the following exceptions: <c> = /tʃ/, <j> = /dʒ/, <sh> = /ʃ/, <y> = /j/. Class numbers refer to Bantu noun classes (e.g., Katamba, 2003; Van de Velde, 2019).

(3) Igikeré n'iinká birashitse.
 i-gi-keré na i-n-ká bi-ra-shikye
 A-7-frog and A-9-cow 8S-DJ-arrive.PFV
 'A frog and a cow just arrived.'

- The augment is obligatorily present on nouns with the exception of those preceded by demonstratives or locatives.

(4) a. iki gití b. mu cáari
 iki ki-tí mu ki-áari
 DEM.PROX.7 7-tree in 7-nest
 'this tree' 'in a nest'

- Demonstratives obligatorily precede nouns, while other modifiers come after the nouns they modify.⁴

(5) a. kírya gití b. *igití kírya
 kírya gi-tí i-gití kírya
 DEM.DIST.7 7-tree 7-tree DEM.DIST.7
 'that tree' Intended: that tree

(6) a. inká yaanje b. *yaanje inká
 i-n-ká i-aanje i-aanje i-n-ká
 AUG-9-cow 9-1SG.POSS 9-1SG.POSS AUG-9-cow
 'my cow' Intended: my cow

3. The augment and demonstratives

- We propose that the basic structure of the Kirundi noun phrase consists of a root, the class prefix in an *nP* projection, and the augment in an *DP* projection.
- We motivate the augment being a syntactic projection due to its phonological behaviour; it adds a marked syllable with no onset (e.g., Itô, 1989) to an otherwise unmarked consonant-initial word.
- Augments are a characteristic feature of nouns. For example, infinitive verbs can be subjects, but the verb shows default class 8 agreement. The nominalized form of the same verb, which is identical except for the addition of an augment, triggers class 15 agreement on the verb.

(7) a. Kwéemera biragooye.
 ku-éemera bi-ra-gooye
 INF/15-believe 8S-DJ-be.difficult.PFV
 'Believing is difficult.'

b. Ukwéemera kuragooye.
 u-ku-éemera ku-ra-gooye
 AUG-15-believe 15S-DJ-be.difficult.PFV
 'Faith is difficult.'

⁴ An exception to this is the element *-ndi* ('other, another, more') which can occur in either position.

- That is, the augment coincides with the presence of phi-features.
 - Demonstratives are pronouns in Kirundi (Zorc & Nibagwire, 2007, p. 169). As with personal pronouns, they are specified for phi-features. That is, they trigger appropriate agreement on a verb without need for a head noun.
- (8) Uyu yacuumvye umutsíma.
 uyu a-a-cuumvye u-mu-tsíma
 DEM.PROX.1 1S-PST-bake.PFV AUG-3-bread
 ‘This woman baked some bread.’
- Many previous analyses of the augment in Kirundi have argued that both augments and demonstratives are in D due to them being in complementary distribution (e.g., Ndayiragije et al., 2012).
 - However, we argue on phonological and syntactic grounds that augments and demonstratives occupy different positions.
 - Phonologically, augments are clitics. They cannot be used independently of their host, and they are unstressed.
- (9) a. Amagi araryóoshe.
 a-ma-gi a-ra-ryóoshe
 AUG-6-egg 6S-DJ-be.good.PFV
 ‘The eggs taste nice.’
- b. *A araryóoshe.
 a a-ra-ryóoshe
 AUG 6S-DJ-be.good.PFV
 Intended: These (eggs) taste nice.
- Demonstratives, on the other hand, are prosodic words. They all have at least two moras, satisfying word minimality, are stressed and can be used independently.
- (10) ama araryóoshe.
 ama a-ra-ryóoh-ie
 DEM.PROX.6 6S-DJ-be.good-PFV
 ‘These (eggs) taste nice.’
- Syntactically, demonstratives and augmented nouns behave asymmetrically with respect to locatives. Locatives take on a special form before demonstrative-noun sequences which are incompatible with augmented nouns.
- (11) a. kuri iyi nká b. *kuri inká
 kuri iyi n-ká ku i-n-ká
 on DEM.PROX.9 9-cow on AUG-9-cow
 ‘on this cow’ Intended: on this cow
- Due to these differences and apparent internal morphological complexity of demonstratives, we propose that demonstratives are in Spec, DP, while the augment is in D. This is in line with argumentation in Alexiadou et al. (2007, pp. 108-109).

- The complementary distribution of demonstratives and augments is thus not due to them occupying the same structural position but to the Doubly-Filled Comp Filter (Chomsky & Lasnik, 1977).
- To sum up, both the augment and demonstratives are associated with the spell-out of phi-features inside the DP. The augment’s phonological status, as discussed in Shanks (2022), is also that of a last-resort measure.

4. Locatives and linkers

- An issue for our analysis is a third element that appears to be in complementary distribution with augments and demonstratives: namely, locatives.

(12) a.	mu murima	b. ku bavyéeyi	c. i Bujumbura
	mu mu-rima	ku ba-vyéeyi	i bu-jumbura
	in 3-field	to 2-parent	in 14-Bujumbura
	‘in the field’	‘to the parents’	‘in Bujumbura’

- This fact motivates Ngoboka (2017) to claim that locative markers in Kinyarwanda (Great Lakes Bantu) are in D.
- Placing locatives in D would mean that locative phrases are DPs. However, DPs and locative phrases have different distributions; locative phrases cannot fill argument positions, and they can attach to the verb without a linker.

(13)	Umugore	yaracuumvye	umutsíma
	u-mu-gore	y-a-ra-cuumvye	u-mu-tsíma
	AUG-1-woman	3SG.S-PST-DJ-bake.PFV	AUG-3-bread
	mu gatóondo	keejó.	
	mu ga-tóondo	k-a ejó	
	in 12-morning	12-of yesterday	
	‘A woman baked bread yesterday morning.’		

(14)	Aya	mafiriti	yakaraanze	*(na) Dawudi.
	aya	ma-firiti	a-a-karaang-w-e	na Dawudi
	DEM.PROX.6	6-fry	1S-PST-fry-PASS-PFV	LK David
	‘These fries were fried by David.’			

- Another distinction is in terms of conjunction. Locative phrases are conjoined with the conjunction *no*, which is also used to conjoin infinitives, as opposed to *na*, which is used to conjoin DPs.

(15)	Mbeega ugiye	[kw’iisokó	no	kw’iishuúre]?
	mbeega u-giye	ku i-sokó	no	ku i-shuúre
	Q	2SG.S-go.PFV	and	on AUG-school
	‘Are you going to the market or to school?’			

(16)	Ndakúunda	[kwiruka	no	gucápa].
	n-ra-kúunda	ku-iruka	no	gu-cápa
	1SG.S-DJ-like	INF-run	and	INF-draw
	‘I like to run and to draw.’			

(17) [Benirida **na** Wiri] baarababazanye ejó.
 Benirida **na** Wiri ba-a-ra-babar-i-an-ye ejó
 Benilde **and** Willie 2S-PST-DJ-hurt-CAUS-RECIP-PFV yesterday
 ‘Benilde and Willie hurt each other yesterday.’

- We conclude that it would be more appropriate to analyze locative phrases as PPs. However, this does not provide an answer for the lack of augments in locative phrases. Contrary to Ndayiragije et al. (2012), we propose that the augment in a DP projection is in fact present in locative phrases.
- We motivate this by pointing to asymmetries between demonstrative-noun and locative-noun sequences. In particular, the fact that the class 5 augment is often not dropped in locative phrases; this never occurs in demonstrative phrases.

(18) a. iyi modoka b. mw’iimodoka
 iyi modoka mu i-Ø-modoka
 DEM.PROX.5 car in AUG-5-car
 ‘this car’ ‘in a car’

- We posit that locative PPs are syntactically phrases (Abels, 2012) and that the vowel hiatus caused by the adjacent locative (*mu, ku, i*) and augment vowel is resolved destructively (e.g., Newell & Piggott, 2014).
- However, this does not allow us to account for asymmetries between locative and linker phrases, both of which resemble PPs. Linker phrases retain an overt expression of the augment, suggesting a syntactic difference between the two structures.

(19) a. kuu nká b. n’iinká
 ku 9-ká na i-n-ká
 on 9-cow with AUG-9-cow
 ‘on a cow’ ‘with a cow’

- We assume that linker phrases function to license DPs, since they introduce the agent of a passive, applicative arguments and DP possessors.

(20) a. Umugoré arakúundana **n’umuhuúngu.**
 U-mu-goré a-ra-kúund-an-a **na u-mu-huúngu**
 AUG-1-woman 1S-DJ-love-RECIP-FV **LK AUG-1-boy**
 ‘The woman and the boy love each other’

b. Ha-ri umutíma **w’umugeenzi.**
 Ha-ri u-mu-tima **w-a u-mu-geenzi**
 16S-COP AUG-3-heart **3-of AUG-1-friend**
 ‘There is a heart of a friend.’

- Due to their role in licensing, we suggest that linkers may occur in K, licensing DPs when they are not licensed by a verb. However, this leads to a phonology-syntax paradox.
- Phonologically, locatives appear to be structurally closer to the augment than linkers. This structural distinction would capture why locative-augment vowel hiatus is resolved destructively, while linker-augment hiatus preserves the augment.

- Syntactically, however, we are proposing that linkers are in the extended DP, a position that is significantly closer to the augment in D than that of a preposition.
- While we do not have a solution for this issue, future direction will include asymmetries between syntactic and phonological cliticization (e.g., Klavans, 1985; Nespor, 1999).

5. Conclusion

- We have argued that the augment, as well as demonstratives, in Kirundi represents the spell-out of the phi-features of the noun phrase.
- We also demonstrated that demonstratives and the augment are not the same head, with demonstratives occupying Spec, DP, while the augment is the head of the DP.
- Turning to PPs, we presented an initial analysis of asymmetries between locatives and linkers. However, more work is required to determine the status of these two sets of elements. Nevertheless, we posited that locative phrases are truly PPs, while linker phrases may be KPs.

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