# Categorizing adpositions in Kîîtharaka

Peter Muriungi CASTL, University of Tromsø

#### Abstract

In this paper, I discuss the categorial status of Kîîtharaka adpositions. I demonstrate that there are two main classes of adpositions (to be referred to as Class A and Class B). Class A adpositions are syntactic heads and they belong to the functional category P. Class B adpositions are a phrasal P category with a nominal component. They therefore spell out a more complex structure than adpositional heads do. This bipartition of Kîîtharaka Ps is based on (i) optionality of complements, (ii) case assignment, (iii) modification, (iv) recoverability of content, (v) movement, and (vi) derivational morphology.

#### 1. Introduction

This paper explores the rather impoverished, yet interesting adpositional system of Kîîtharaka. I show that there are two classes of adpositions (i) adpositional heads such as na 'with',  $k\hat{r}i$  'dir' and ni 'loc' (Class A) and (ii) phrasal adpositions such as *rungu* 'under', *rûteere* 'beside' or 'on the side', among others (Class B). The bipartition is based on a wide range of distributional facts — syntactic, semantic and morphological.

This paper is organized as follows. In section 2, I lay out the adpositional classes of Kîîtharaka, showing the exhaustive list of each class. Section 3 compares Class A adjositions with Class B adjositions indicating the systematic differences in the two classes. Here, I examine optionality of complements, case assignment and the possibility of P stranding. By the end of this section, I will take it as given that Class A adpositions are quite different from Class B adpositions. In section 4, I compare nouns and Class B adpositions. The main goal of this section will be to establish the category of Class B adpositions. Here, I will show the productive variety of modification that goes into nouns and its meagre availability in Class B adpositions. This section will also draw on facts from recoverability of content and derivational morphology to tease apart nouns from Class B adpositions. Section 5 shows how Class B adpositions fit into the overall PP system of Kîîtharaka. Here, I will show that despite their nominal origin, Class B adpositions have a distribution strikingly similar to that of PPs. Thus they are more adpositional than nominal. On this basis, I will conclude that they are *phrasal adpositions*. The last section summarizes

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the findings of the paper, exploring what the implications are for syntactic theory for claiming that Class B adpositions are phrasal. I will relate the presence of a phrasal P category to conflation, incorporation prior to lexical insertion (Baker 2003) or post-syntactic insertion of lexical categories for non-terminals (Michal Starke, p.c.).

# 2. Setting the scene: Kîîtharaka adpositional system

## 2.1. Class A adpositions

Like other Bantu languages (see e.g. Baker 2003 for Chichewa), Kîîtharaka has a very poor adposition system. Exhaustively, there are three serious candidates for Class A adpositions — two prepositions na 'with', and  $k\hat{r}\hat{r}$  'to', and one postposition ni 'loc'.<sup>1</sup>

# 2.1.1. Kîrî

 $K\hat{r}\hat{r}$  expresses direction and can only be used with displacement verbs, as seen in (1).<sup>2</sup> Furthermore,  $k\hat{r}\hat{r}$  requires its object, a goal or source, to be animate. Note that animacy here is not in its strictest sense. Thus a body or organization run by people such as a government or insurance company can also be a complement of  $k\hat{r}\hat{r}.^3$ 

(1)	a.	Maria n-a- ir -ir -e ntûmwa $k\hat{i}r\hat{i}$ mw-arimû/
		1Maria F-SM1-take-PERF-FV 9message DIR 1- teacher/
		thirikaarî
		9 government
		'Maria took the message to the teacher/government'
	b.	Maria n-a- gwat-ir -e ntûmwa ku-uma $k\hat{i}r\hat{i}$ mw-
		1Maria F-SM1-hold -PERF-FV 9message 15-come DIR 1-
		arimû/ kampuni j-a incuaransi
		teacher/9company 9-AS 9insurance
		'Maria got/received a message from the teacher/from the insur-
		ance company'

<sup>&</sup>lt;sup>1</sup>The bulk of other prepositional functions, among them bene/malfactive, instrumental, locative and circumstantial, are carried out by the applicative in Kîîtharaka. I do not discuss the applicative construction in this paper. There are also the i/n morphemes which occur on "demoted" subjects of passives and which resemble the focus marker in allomorphy: *i* occurring when it precedes a consonant-initial DP, and *n* a vowel-initial DP. I do not discuss them in this paper either.

<sup>&</sup>lt;sup>2</sup>Other verbs that can be used with  $k\hat{i}r\hat{i}$  include ugia 'run', thi 'go', ingirita 'roll',  $th\hat{u}ngutha$  'jump',  $tind\hat{i}ka$  'push'.

<sup>&</sup>lt;sup>3</sup>Glosses are as follows: F (focus marker), SM (subject agreement), PRES (present), PERF (perfective), ST (stative), CSI (inner causative), PASS (passive), FV (final vowel), DIR (direction), DEG (degree), LOC (locative), AS (associative marker), RP (resumptive pronoun), PS (personal pronoun), Q (question particle), HAB (habitual), PN (near past), OM (object marker), PREF (prefix). A numeral on a noun indicates the class of the noun, a numeral on an agreement morpheme, modifier or pronoun indicates agreement with a noun of a particular class. ^ indicates the tense vowels.

- c. Ka-ana ga- gû- kiny -a kîrî ngina/ \*î-kûmbî/ 12- child SM12-PRES-arrive-FV DIR 9mother/5-granary/ \*jiiga 5stone
  'The child has reached the mother/the granary/the stone'
  d. Maria a- kû- ger -a mû-biira kîrî John/\*î-kûmbî/ 1Maria SM1-PRES-throw-FV 3- ball DIR John/ 5-granary/
  - \*jiiga
  - 5 stone

'Maria has thrown the ball to John(/\*the granary/\*the stone)'

Observe that when  $k\hat{i}r\hat{i}$  'dir' is used with a non-directed verb such as *ina* 'sing' or 'dance', the sentence is ungrammatical.

(2) \*Ka-ana i- ka- in -ir -e *kîri* a-geni 12- *child* F-SM12-*sing.dance*-PERF-FV DIR 2-*guest* 'The child sang and danced to the guests'

Kîîtharaka  $k\hat{i}ri$  resembles English to in that it can express comparison (but here the animacy requirement goes).<sup>4</sup>

- (3) I prefer mangoes to oranges
- (4) I-m- beend-eet -e ma-embe  $k\hat{i}r\hat{i}$  ma-cunkwa F-1PS-like- STAT-FV 6- mango DEG 6- oranges 'I like mangoes more than oranges'

Directional  $k\hat{i}r\hat{i}$  therefore imposes the following requirements.

- (5) a. The complement of  $k\hat{i}r\hat{i}$  must be animate
  - b. The directional feature of  $k\hat{i}r\hat{i}$  must be matched with a directional feature of the verb.

# 2.1.2. Na

Na 'with' is used to introduce instruments and accompaniments, (6), and is homophonous with the conjunction 'and', (7).

- (6) a. Maria a- kû- ûrag-a njoka na mû-ragi
  1Maria SM1-PRES-kill -FV 9snake with 3- stick
  'Mary has killed the snake with a stick'
  - b. Maria a- kû- ûj -a *na* John 1*Maria* SM1-PRES-*come*-FV *with John* 'Mary has come with John'

 $<sup>^{4}</sup>$ In a strictly decompositional system of PPs such as that adopted in Koopman (2000) and extended in den Dikken (2003), one might argue that directional prepositions merged in Path<sup>0</sup> can move to DegPath<sup>0</sup> hence indicating degree.

(7) Maria a- rug -ir -e nkima na a- ta -a rû-jî 1Maria SM1-cook-PERF-FV 10 food and SM1-fetch-FV 11-water'Maria cooked food and fetched water'

## 2.1.3. Ni

Ni expresses location, (8), but a *ni*-marked DP can be used to express direction in the presence of some motion verbs, (9).

- (8) a. Maria a- mami î- kurungu-ni 1Maria SM1-sleep 5-cave -LOC 'Maria is sleeping in the cave'
  b. Maria a- in -ir -e ndagaca-ni 1Maria SM1-sing-PERF-FV bridge -LOC 'Maria sang on the bridge'
- (9) Maria n-a- ug -iir -i -e î- kurungu-ni 1Maria F-SM1-run-PERF-CSI<sub>pseudo</sub>-FV 5-cave -LOC 'Maria ran in/into the cave'

# 2.2. Class B adpositions

Class B adpositions, like Class A, form a closed class. The full list of members is given in Table 1. Adpositional elements bearing the same noun class morphology are put under each other in the table.

Adposition	Translation	Adposition	Translation
nyuma	behind	î-gûru	above/on top
9behind		5-top	
mbere	in front	ru-ungu	under
9front		11-under	
nja	out/outside	rû-teere	beside/on the side
9out		11-beside	
nkona	bottom	ga-tîgatî	between/centre
9bottom		12-centre/between	
ndeni	inside	ka-thengengani	on the edge
9inside		12-edge	
		karibû	near/next to
		near	

Table 1: Class B adpositions

# 3. Comparing Class A and Class B adpositions

# 3.1. Optionality of complement

Class A adpositions differ from Class B adpositions in various ways. A Class A adposition must have a complement (cf. (10), (11), (12)), but all Class B adpositions can occur with or without a complement, (13) and (14).

(10)	<ul> <li>a. ✓ John n-a- urag-ir -e nyoka na ka-jiû 1 John F-SM1-kill -PERF-FV 9snake with 12-knife 'John killed the snake with a knife'</li> <li>b. *John n-a- urag-ir -e nyoka na 1 John F-SM1-kill -PERF-FV 9snake with ('John killed the snake with')</li> </ul>
(11)	<ul> <li>a. √Maria n-a- ir -ir -e ntûmwa kîrî mw-arimû 1Maria F-SM1-take-PERF-FV 9message DIR 1- teacher 'Maria took the message to the teacher'</li> <li>b. *Maria n-a- ir -ir -e ntûmwa kîrî 1Maria F-SM1-take-PERF-FV 9message DIR ('Maria took the message to')</li> </ul>
(12)	<ul> <li>a. √Maria a- mami î- kurungu-ni 1Maria SM1-sleep 5-cave- LOC 'Maria is sleeping in the cave'</li> <li>b. *Maria a- mami ni 1Maria SM1-sleep LOC ('Maria is sleeping in')</li> </ul>
(13)	<ul> <li>a. √Maria a- kari ru-ngu rw-a ndagaca 1Maria SM1-sit 11-under 11-AS 9bridge</li> <li>'Maria is sitting under the bridge'</li> <li>b. √Maria a- kari ru-ngu 1Maria SM1-sit 11-under</li> <li>'Maria is sitting under [of some place]'</li> </ul>
(14)	<ul> <li>a. √Maria a- ciat -ir -e rû-teere rw-a î- kurungu 1Maria SM1-sweep-PERF-FV 11-side 11-AS 5-cave 'Maria swept the side of the cave'</li> <li>b. √Maria a- ciat -ir -e rû-teere 1Maria SM1-sweep-PERF-FV 11-side 'Maria swept (on) the side [of something]'</li> </ul>

# 3.2. Adjacency to the complement

Class A adjositions must be adjacent to their complement when *in situ*, Class B adjositions can be separated from their complement by modifiers.

- (15) a. John a- mami rû-teere [Compl rw-a î-kurungu] 1 John SM1-sleep 11-side 11-AS 5-cave 'John is sleeping on the side of the cave'
  b. John a- mami rû-teere rû-ra rû-ngî [Compl rw-a 1 John SM1 sleep 11 side 11 that 11 other 11 at her
  - 1John SM1-sleep11-side11-that 11-other11-ASî-kurungu]5-cave'John is sleeping on the other side of the cave'

Similar facts are observed with P stranding. In the strictest sense, the locative ni cannot be stranded. It must always be pied-piped by its complement in topic and focus constructions (cf. (16) and (17) respectively).<sup>5</sup> Not even a resumptive pronoun (RP) will enable ni to allow P stranding, ((16c) and (17c)).

(16)	a. √Î-kurungu- <i>ni</i> , Maria n-a- mami 5- <i>cave</i> - LOC 1 <i>Maria</i> F-SM1-sleep 'In the cave, Maria is sleeping'
	b. *Î-kurungu, Maria n-a- mami - <i>ni</i> 5-cave 1Maria F-SM1-sleep LOC
	('The cave, Maria is sleeping in')
	c. *Î-kurungu, Maria a- mami <i>rîo-</i> ni 5- <i>cave 1Maria</i> SM1-sleep 5RP-LOC
(17)	('The cave, Maria is sleeping in it') $(M \cap A)$
(17)	a. √N-îî-kurungu- <i>ni</i> Maria a- mami F-5- <i>cave</i> - LOC 1 <i>Maria</i> SM1-sleep
	'It is in the cave that Maria is sleeping' b. *N-îî-kurungu Maria a- mami - <i>ni</i>
	F-5-cave 1Maria SM1-sleep LOC
	('It is the cave that Maria is sleeping in') c. *N-îî-kurungu Maria a- mami <i>rîo- ni</i>
	F-5-cave 1Maria SM1-sleep 5RP-LOC
-	('It is the cave that Maria is sleeping in it')

The other prepositions na 'with' and  $k\hat{i}ri$  'dir' cannot also strictly be severed from their complement. Thus they can either be moved together with their complement, or, when separated from their complement, be obligatorily resumed in topic and focus constructions.<sup>6</sup>

<sup>&</sup>lt;sup>5</sup>Topics in Kîîtharaka are moved sentence initially and are severed from the rest of the clause by a pause. On the other hand, focus and wh-constructions may appear sentence initially or after the subject. In addition, focus constructions, unlike topics, are introduced by the focus marker, which has two allomorphs — n prevocalically and i preconsonantally (see Muriungi 2005 for details).

<sup>&</sup>lt;sup>6</sup>The fact that prepositons cannot be stranded in Kîîtharaka but must either be piedpiped with the topicalized or focalized noun or be resumed possibly indicates that PPs are strong phases in Kîîtharaka (Abels 2003).

- (18) [Topic with  $k\hat{i}r\hat{i}$ ]
  - a.  $\sqrt{K\hat{r}\hat{r}}$  mw-arimû, Maria n-a- ir -ir -e ntûmwa DIR 1- teacher 1Maria F-SM1-take-PERF-FV 9message 'To the teacher, Maria took the message'
  - b. √Mw-arimû, Maria n-a- ir -ir -e ntûmwa kîrî-wee
    1- teacher 1Maria F-SM1-take-PERF-FV 9message DIR-1RP
    'The teacher, Maria took the message to him/her'
  - c. \*Mw-arimû, Maria n-a- ir -ir -e ntûmwa  $k\hat{r}\hat{r}$ 1- teacher 1Maria F-SM1-take-PERF-FV 9message DIR ('The teacher, Maria took the message to')
- (19) [Focus with  $k\hat{i}r\hat{i}$ ]
  - a.  $\sqrt{1-k\hat{i}r\hat{i}}$  mw-arimû Maria a- ir -ir -e ntûmwa F-DIR 1- teacher 1Maria SM1-take-PERF-FV 9message 'It is to the teacher that Maria took the message'
  - b.  $\sqrt{I}$ -mw-arimû Maria a- ir -ir -e ntûmwa  $k\hat{i}r\hat{i}$ -wee F-1- teacher 1Maria SM1-take-PERF-FV 9message DIR-1RP 'It is the teacher that Maria took the message to him/her'
  - c. \*I-mw-arimû Maria a- ir -ir -e ntûmwa *kîrî* F-1- *teacher* 1*Maria* SM1-*take*-PERF-FV 9*message* DIR ('It is the teacher that Maria took the message to')
- (20) [Topic with with]
  - a.  $\sqrt{Na}$  ka-jiû, John n-a- urag-ir -e nyoka with 12-knife 1John F-SM1-kill -PERF-FV 9snake 'With a knife, John killed the snake'
  - b.  $\checkmark$  Ka-jiû, John n-a- urag-ir -e nyoka na- ko 12- knife 1John F-SM1-kill -PERF-FV 9snake with-12RP 'The knife John killed the snake with it'
  - c. \*Ka-jiû, John n-a- urag-ir -e nyoka na 12- knife 1 John F-SM1-kill -PERF-FV 9snake with ('The knife, John killed the snake with')
- (21) [Focus with with]<sup>7</sup>
  - a.  $\sqrt{I}$ -ka-jiû John a- urag-ir -e nyoka *na* ko F-12-*knife* 1*John* SM1-*kill* -PERF-FV 9*snake with*-12RP 'It is a knife that John killed the snake with it'
  - b. \*I-ka-jiû John a- urag-ir -e nyoka na F-12-knife 1John SM1-kill -PERF-FV 9snake with ('It is a knife that John killed the snake with')

<sup>&</sup>lt;sup>7</sup>Independently, the option where the focus marker would be attached to the fronted with PP is ruled out because of the requirement in Kîîtharaka that the focus marker be immediately followed by a noun class marked X. For  $k\hat{r}\hat{r}$ , there is a possibility that it is a combination of the class 7 prefix  $k\hat{r}$  and the locative copula  $r\hat{r}$  but I will not go into the details here.

When we examine Class B however, we observe that they can be stranded in an A-type movement transformation. (22a) gives an example of a Class B adposition with its complement. In (22b) and (22c), the complement is moved together with the Class B adposition in topic and focus constructions, and this confirms that they form a constituent. In (22d), the associative preposition is deleted, and this time the complement (Ground DP) appears before the Class B adposition. With this latter structure, the Class B adposition cannot be moved together with the complement, (22e) and (22f), confirming that constituency has changed.

- (22) a. Maria n-a- burabur-ir -e nkona j-a ka-raî 1*Maria* F-SM1-*wiped* -PERF-FV 9*bottom* 9-AS 12-*pan* 'Maria wiped the bottom of the pan'
  - b. Nkona j- a ka-raî, Maria n-a- (mî)- burabur-ir -e 9bottom 9-AS 12-pan 1Maria F-SM1- OM9-wiped -PERF-FV 'The bottom of the pan, Maria wiped it'
  - c. I- nkona j- a ka-raî Maria a- burabur-ir -e F-9bottom 9-AS 12-pan 1Maria SM1-wiped -PERF-FV 'It is the bottom of the pan that Maria wiped'
  - d. Maria n-a- burabur-ir -e ka-raî nkona 1*Maria* F-SM1-*wiped* -PERF-FV 12-*pan* 9*bottom* 'Maria wiped the pan on the bottom'
  - e. \*Ka-raî nkona Maria n-a- burabur-ir -e 12- pan 9bottom 1Maria F-SM1-wiped -PERF-FV ('The pan on the bottom, Maria wiped')
  - f. \*I- ka-raî nkona Maria a- burabur-ir -e F-12-pan 9bottom 1Maria SM1-wiped -PERF-FV ('It is the pan on the bottom that Maria wiped')

Note that individually, the Ground and the Class B adposition in (22d) can be moved, for example under focalization, (23).

(23) a. I- ka-raî Maria a- burabur-ir -e nkona F-12-pan 1Maria SM1-wiped -PERF-FV 9bottom 'It is the pan that Maria wiped on the bottom'
b. I- nkona Maria a- burabur-ir -e ka-raî F-9bottom 1Maria SM1-wiped -PERF-FV 12-pan 'It is on the bottom that Maria wiped the pan'

Assuming that something like UTAH holds (Baker 1988), the most obvious account for the alternation from (22a) (with the associative marker) to (22d) (without the associative marker) is case-based. Withdrawal of the associative marker leaves the DP complement without case, thus it has to move to a case position in a manner analogous to the passive transformation. Whether this conjecture is right or wrong need not concern us here. What I am trying to show is that at least a complement of Class B

adposition can move away from it.

(24) Class A adpositions cannot be stranded; Class B adpositions can

#### 3.3. Case assignment

The adjacency requirement is possibly related to another property —that Class A adpositions assign case, while Class B adpositions cannot. In fact when a Class B preposition takes a Ground argument, it obligatorily must be followed by the case assigning associative marker a which agrees with the head noun. The full agreement paradigm with the associative a is given in Table 2.<sup>8</sup>

Adposition	As Agr	Translation	Adposition	As Agr	Translation
nyuma	j-a	behind	î-gûru	rî-a	above
9behind	9-AS		5-top	5-AS	on top
mbere	j-a	in front	<i>ru</i> -ungu	rw-a	under
9front	9-AS		11-under	11-AS	
nja	j-a	out	rû-teere	rw-a	beside
9out	9-AS	outside	11-beside	11-AS	on the side
nkona	j-a	bottom	ga-tîgatî	k-a	between
9bottom	9-AS		12-centre	12-AS	centre
ndeni	j-a	inside	ka-thengengani	k-a	on the edge
9inside	9-AS		12-edge	12-AS	
			karibû	na	near
			near	with	next to

Table 2: Class B adpositions and associative agreement

The associative marker is also found in possessive constructions, arguably with the same function — that of assigning case to the second noun, the possessor (cf. (25) and (26)).

- (25) ga-tîgatî k- a metha 12-centre 12-AS 9table
  'The centre of the table'
- (26) gî-kombe ki-a Maria 7- *cup* 7- AS 1*Maria* 'Maria's cup'

That a is a case assigner is evident from the observation that the associative marker can only take a bare noun as its complement, not a noun with an

 $<sup>^8</sup>Karib\hat{u}$  is the only Class B adposition that does not agree; it takes the preposition na (with) instead.

overt preposition. This observation calls to mind Stowell's Case Resistance Principle — a case assigning category cannot bear case (Stowell 1981).<sup>9</sup>

(27) Gî-kombe kî- rî ga-tîgatî k- a metha(\*-ni) 7- cup SM7-be 12-centre 12-AS table -LOC 'The cup is at the centre of the table'

To sum up: I have shown in this section that Class A and Class B adpositions are syntactically distinct. Class A adpositions must have a complement, must be adjacent to their complement (cannot be stranded) and are case assigners. On the other hand, Class B adpositions only optionally have a complement, can have material intervening between them and their complements, can be stranded and they are not case assigners. Class A adpositions therefore seem to have the properties typical of adpositions in other languages. I assume therefore that they truly belong to category P. Table 3 summarizes the distinction between Class A and B.

Table 3: Class A and Class B Ps compared

Class	Optional complement	P stranding	Adjacent complement	case
Class A	*	*	$\checkmark$	$\checkmark$
Class B	$\checkmark$	$\checkmark$	*	*

The difficult task now remains of establishing the categorial status of Class B adpositions. In the next section, I provide the distributional differences between Class B adpositions and nouns. I draw on data on modification, recoverability of content, movement and derivational morphology to show that Class B adpositions cannot be nouns in the strict sense of the word. Since there is no obvious, even marginal, similarity between Class A adpositions and nouns, I will not dwell on their distinction in the next section.

## 4. Comparing Class B adpositions and nouns

An obvious reason for thinking that Class B adpositions are different from nouns is that they form a closed class (see Table 1). On the other hand, nouns are an open class. The behaviour in modification structures, recoverability of content, A-movement, and derivational morphology further establishes the point — if Class B adpositions are nouns at all, then they must be malnourished nouns.

 $<sup>^9</sup>$ See however Koopman (2000) footnote 27 for a Dutch example of a P taking a PP complement. Overall, however, the case Resistance Principle seems to be operative in a number of languages (cf. Aboh 2005 for Kwa.)

## 4.1. Modification in nouns and Class B adpositions

Nouns in Kîîtharaka can take a wide range of postnominal modifiers, and a small number of prenominal modifiers which come in the following neutral order.

The following sentences demonstrate by transitivity this neutral order.

- (29) Maria a- ri- ij -îît -e ma-buku ma-ma ma-kwa ma-1Maria SM1-PERF-steal-STAT-FV 6- book 6- this 6- mine 6tano ma-tune m-a ma-thabu five 6- red 6- AS 6- math 'Maria had stolen these five red books of mine of mathematics' (N>Dem>Gen>Num>Adj>AsP)
- (30) John a- ra- gur-ir -e ma-buku m-a ma-thabu ma-ra 1 John SM1-PN-buy-PERF-FV 6- book 6- AS 6- math 6- that ma-ra- ij -îît -w -e m-onthe 6- PN-steal-STAT-PASS-FV 6- all
  'John bought all the books of mathematics that were stolen' (N>AsP>Rel>Q)
- (31) a. Kinya kîra mw-arimû n-a- kû- ri patî -ni even every 1- teacher F-SM1-SM17-be party-LOC 'Even every teacher was at the party'
  - b. Maria a- keth-ir -i -e kinya kîra mw-arimû 1*Maria* SM1-greet-PERF-CSI-FV even every 1- teacher 'Maria greeted even every teacher' (Focus>Quantifier)

One clear point of similarity between nouns and Class B adpositions is that both take associative phrases marked with the associative marker aas complements. Other lexical categories such as adjectives and verbs do not. Furthermore, like nouns, all Class B adpositions are modifiable with the exhaustive focus particles  $ak\hat{i}$  'only' and nka 'alone'. These particles obligatorily follow the phrase that they associate with.<sup>10</sup>

 $<sup>^{10}</sup>$  The Class B adposition  $karib\hat{u}$  'near' or 'next to' does not behave like any other of the Class B adpositions in any way. We saw already that instead of taking associative agreement it takes the preposition na 'with'. Karîbu never also displays any nominal properties. Thus it cannot be modified by any of the nominal modifiers.

(32) Maria a- th-ir -e ndeni akî/ yo- nka 1*Maria* SM1-go-PERF-FV 9*inside only*/9PR-*alone* 'Maria went inside only'

The particles  $ak\hat{i}$  'only' and nka 'alone' in Kîîtharaka are actually very relevant in this context because they require that the category they associate with be a noun. Thus a VP or an adjective with regular prefixal verbal morphology such as subject agreement cannot be what the exhaustive focus particles  $ak\hat{i}$  'only' and nka 'alone' associate with, as illustrated in (33) and (34). In order for adjectives and verbs to be focused with exhaustive  $ak\hat{i}$  and nka, they must first be nominalized with Class 15  $k\hat{u}$ , (33b) and (34b), and appear in the traditional predicate cleft construction.<sup>11</sup>

akî/ gu-nka (33)a. \*Maria n-û- mûûgî 1Maria F-SM1-PREF1-intelligent only/15-alone ('Maria is only intelligent') b. √I-kû-ûgia akî/ gu-nka Maria a- rî mû-F-15-intelligent only/15-alone 1Maria SM1-be PREF1ûgî intelligent 'It is only intelligent that Maria is' (34)a. \*Maria n-a- rug -ir -e akî/ gu-nka 1Maria F-SM1-cook-PERF-FV only/15-alone ('Maria only cooked') b.  $\sqrt{I-k\hat{u}}$ -ruga akî/ gu-nka Maria arug -ir F-15-cook only/15-alone 1Maria SM1-cook-PERF-FV 'It is only cooking that Maria did'

Undoubtedly therefore, Class B adpositions have a small share of nouniness.

But when it comes to other nominal modifiers, nouns and Class B adpositions start to part ways. The strange fact is that no sweeping statement can be made for all Class B adpositions. The adpositions  $r\hat{u}teere$  'beside' or 'on the side' and *rungu* 'under' are the most nominal like. More precisely,  $r\hat{u}teere$  'beside', 'on the side' is the most nominal probably because it refers to some physical space — the sides of the table (four of them for example), the sides of the sea. Thus  $r\hat{u}teere$  can take all the nominal modifiers (note that in (35)  $r\hat{u}teere$  'beside, 'on the side' appears in the plural form — the singular marker is ru (Class 11), the plural is n (Class 10) (see section 4.4 for details). Taking the plural is further confirmation of its nominal status. I give below a few of the modifiers that  $r\hat{u}teere$  takes.

<sup>&</sup>lt;sup>11</sup>Note that the focus particle nka 'alone', which always agrees with the NP it associates with, suggests the obligatoriness of a nominal associate because it bears Class 15 pronominal agreement. The agreement that nka 'alone' takes is the strong pronoun. Aki 'only' does not agree with the associate.

(35)John n-a--i -e nteere ino thamb-ir i- nva a. 1 John F-SM1-wash -PERF-CSI-FV 10 side 10 this 10-four ntune ci- on he  $10red \ 10-all$ 'John washed all these four red sides [of the table, for example]' (Dem, Num, Adj, Q) Kinya kîra rû-teere i- rukû-rî na ki-ngarurî b. even every 11-side F-SM11-17-be with 7-scorpion 'Even on every side [of something] there was a scorpion' (focus, quantifier)

The same degree of tolerance for modification will hold for *rungu* 'under' when it refers to a physical location, for example, the underspace of a granary, but not an abstract space, for example the underspace of a tree.

Since different granaries can have different underspaces, it is possible to modify 'under' in this context with *all* 'all'.

(36) Maria n-a- ciat -ir -e ndungu ci-onthe 1*Maria* F-SM1-sweep-PERF-FV 10under 10-all 'Maria swept all the unders [of something]'

Demonstratives are much more felicitous with Class B adpositions in yes/no and rhetorical questions.

(37)	a.	Gi-ciati kî- rî nja î- no anga
		7- broom SM7-be 9out 9-this Q
		'Is the broom here outside?'
	b.	Nkaarî n-î- rî mbere/ nyuma î- no kana
		9vehicle F-SM9-be 9in.front/9behind 9-this Q
		'Is the vehicle here in front/behind?' (I can hear some noise)

When Class B adpositions take adjectives, the adjective forces a reading where it modifies some non-overt noun (see Carstens 1991 for a related observation for Chichewa)

(38)	a.	?Maria	n-a-	ngarang	gar-ir	-е	ru-ngu	$\hat{ru-tune}$
		1Maria	F-SN	11-scrub	-Pl	ERF-FV	11-under	$\cdot 11$ -red
		'Maria	scruł	bed a red	$\operatorname{spot}$	on the	under [of	some place]'
	b.	?Maria	a-	mam-ir	-е	î-gûrû	rî-jerû	-
		1Maria	SM1	-sleep-per	F-FV	5-top	5-white	
		'Maria	slept	on a white	e thin	ng on th	ne top [of	something]'
							-	-

Adjectival modification therefore prefers to go with nouns, not PPs or PP-like things (Class B adpositions).

As far as I can tell, no Class B adposition other than  $r\hat{u}teere$  'beside', 'on the side' can take modifiers such as numeral, every, even, also. Even relative clauses are really odd with Class B adpositions.

#### 4.2. Recoverability of content

I demonstrated in section 3.3 that possessive structures and complements of Class B adpositions are introduced by the associative case assigner. Some relevant examples are given in (39) and (40) for the associative marker in possessive and Class B structures respectively.

- (39) Maria a- gû- tûmir-a gî-kombe *ki-a* Musa 1*Maria* SM1-PRES-*use* -FV 7- *cup* 7- AS 1*Musa* 'Maria has used Musa's cup'
- (40) Maria a- mami î- gûrû ri-a metha 1Maria SM1-sleep 5-top 5- AS 9table
  'Maria is sleeping/lying on top of the table'

The head noun in the possessive construction can be deleted if its content is recoverable from context, (41), but even when the context is salient for Class B adpositions, they cannot be deleted, (42).

- (41) ✓ Maria a- rî- tûmir-a ki-a Musa 1Maria SM1-PRES-use -FV 7- AS 1Musa 'Maria is using of Musa's [class 7 object]'
- (42) \*Maria a- mami ri-a metha 1Maria SM1-sleep 5- AS 9table
  ('Maria is sleeping/lying [somewhere] of the table')

In fact, the phrase without the possessee can be focused and thus fronted in (41), but the phrase without the Class B element cannot, (42).

- (43) √I- ki-a Musa Maria a- gû- tûmir-a F-7- AS Musa 1Maria SM1-PRES-use -FV 'It is [something of class 7] of Musa's that Maria is using'
  (44) \*I- rî-a metha Maria a- mami
  - F-5-AS 9table 1Maria SM1-sleep ('It is [somewhere] of the table that Maria is sleeping/lying')

This is strange given that there are potentially many nouns of class 7 that can be possessed and that agree with the associative marker, while there is only one Class B adposition 'on top' that has class 5 agreement. The possibility here might be that only items that can refer, and consequently bear a referential index (cf. Baker 2003), can be resumed. Class B adpositions cannot therefore be true nouns.

## 4.3. A-movement properties

It is common knowledge that nouns trigger agreement on verbs and nominal modifiers in Bantu. An example with verbal agreement is given in (45).

(45) <u> $T\hat{u}$ -ana i-  $\underline{t}\hat{u}$ - ring-ir -e mû-biira 12- child F-SM12-kick-PERF-FV 3- ball 'The children kicked the ball'</u>

The same is true of some Class B adpositions. They agree with the verb when they are used as subjects (cf. also (35b)).

(46) ga-tîgatî ka- rî na rûko mîno 12-centre SM12-be with dirt very
'The centre [of some thing] is very dirty'

The same is true of other adpositions such as  $r\hat{u}teere$  'beside'  $\hat{g}\hat{u}r\hat{u}$  'on top' and rungu 'under'. Other Class B adpositions such as nyuma 'behind', nkona 'bottom', ndeni 'inside' are a bit marginal with their own noun Class Agreement. The locative class 17 agreement is much more acceptable.

(47) Ndeni ?j-/ kw- î na rûko mûno
9inside SM9-/SM17-be with dirt very
'The inside [someplace] is very dirty'

Like nouns, Class B adpositions can undergo A-movement in passive constructions. Again for these constructions, there is great preference for locative agreement, except for  $r\hat{u}teere$  'beside', 'on the side' and  $\hat{i}g\hat{u}r\hat{u}$  'on top'.

- (48) a. Rû-teere i- $\sqrt{r\hat{u}}/\sqrt{g\hat{u}}$  ciat -ir -w -e 11- side F- SM11/ SM17-sweep-PERF-PASS-FV The inside [of something] was swept'
  - b.  $\hat{I}$ -g $\hat{u}$ r $\hat{u}$  i- $\sqrt{r}\hat{l}/\sqrt{g}\hat{u}$  ciat -ir -w -e 5-top F-SM5/SM17-sweep-PERF-PASS-FV The top [of something] was swept'
  - c. Nyuma (n-?î)/ √(i-gû-) ceng -ir -u -e
    9behind F-SM9/ F-SM17-cut.grass-PERF-PASS-FV
    'The behind was cleared/cut of grass'

## 4.4. Derivational morphology

Some Class B adpositions are like nouns in that they can be pluralized (cf. also (35a) and (36) for *rûteere* 'beside' and *rungu* 'under' respectively).

(49) a. ga-tîgatî 12-centre/between 'centre/between'
b. tû-tîgatî 13-centre/between

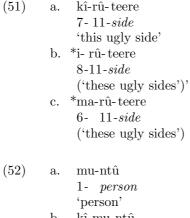
'centres/betweens'

Other Class B adpositions are potentially unpluralizable because the plural would mean something else.  $^{12}$ 

(50) a. î- gûrû 5-top 'on top'
b. ma-gûrû 6- top '\*tops/√legs'
c. ngûrû 10top '\*tops/√ugly thin legs'

Other forms such as *nkona* 'bottom' are pluralizable without any change in noun class morphology, the effects of the plural being seen when it takes an associative phrase for example. And the other Class B prepositions just can't be pluralized: *mbere* 'in front', *nyuma* 'behind', *nja* 'outside', *ndeni* 'in side', *karibû* 'near', *kathengengani* 'on the edge'.

In Bantu, nouns already bearing a class prefix can be preprefixed to form augmentatives. Augmentatives usually express bigness, often with some negative or derogatory connotation. When it comes to formation of augmentatives, only *rûteere* 'beside' can. Even then, the extremely nominallike *rûteere* does not have the productivity of nouns which can have singular and plural derogatives (cf. (50) and (51) with (52) for a regular noun).<sup>13</sup>



kî-mu-ntû
7-1- person
'this big/ugly person'

 $<sup>^{12}</sup>$ The same point could be made for English; *beside* and *besides*, *on the front* and *on the fronts* (war zones).

 $<sup>^{13}</sup>$  Derogatives in Kîîtharaka are formed by pre-prefixing class 7/8 prefixes  $k\hat{i}$  and  $\hat{i}$ , and class 6 prefixma.

```
c. i- mu-ntû
8-1- person
'these big/ugly people'
d. ma-mu-ntû
6- 1- person
'these big/ugly people'
```

Furthermore, only 'on the side' can take a pre-prefix to form a diminutive; even then, the plural diminutive is unavailable.

(53) a. ka-rû-teere 12-11-side 'on this narrow side'
b. \*tû-rû-teere 13-11-side ('on these narrow sides')

Summing up: I have shown in this section that Class B adpositions and nouns seem to cluster together in being able to take associative phrases as complements and in being modifiable by the exhaustive focus particles  $ak\hat{i}$ 'only' and nka 'alone'. I have however demonstrated that despite this fact, there are other things that point to dissimilarity. Except for the striking nominal  $r\hat{u}teere$  'beside', 'on the side', the productivity of other Class B adpositions with nominal modification, A-movement, or derivational morphology was either shown to be severely restricted, marginal, or even nonexistent. In fact even for the best nominal candidate rûteere 'on the side', 'beside', plurals with derogatives and diminutives were shown to be nonexistent. All these facts point in the same direction — Class B adpositions are not nouns, but they potentially have a nominal ancestry. Synchronically, these facts suggests that Class B elements must either contain an overt or a null preposition. This would account for the mixed nominal and PP behaviour of Class B (see section 6 for a theoretical speculation based on spell out and conflation).

Thus far, I have shown that Class A adpositions belong to a functional category P. I have also shown that Class B adpositions are not nouns, at least not full DPs. One might therefore legitimately ask: why do you call Class B things adpositions? Why are they not a species of nouns for example? The next section shows that Class B elements occur in a variety of contexts that are typical of prepositional phrases. In a sense to be made precise in the last section, Class B adpositions are condensed PPs.

# 5. Comparing Class B adpositions and PPs

Class B adpositions show properties typical of prepositional phrases, not shared by nouns and other lexical categories. For example only PPs and 'here' and 'there' occur as the complement of the 3rd person, present tense

copula. Class B adpositions are also fine in this context but nouns, adjectives and verbs are not.

(54)	a.	7
		1 <i>Maria</i> SM1- <i>be Nairobi/school</i> 'Maria is in Nairobi/ in school' (Bare Place PP)
	b.	
	5.	1Maria SM1-be 14here
		'Maria is here' (Here)
	c.	
		1 Maria sm1-be 14 there
		'Maria is there' (There)
	d.	Maria a- rî r-ungu/ ru-teere/ ga-tîgatî/ nyuma/
		$1 Maria \ { m SM1-be} \ 11-under/11-beside/12-between/9 behind/$
		mbere
		9 in. front
		'Maria is under/beside/between/behind/in front' (Class B)
	e.	*Maria a- rî mû- ajie
		1 <i>Maria</i> sm1-be pref14-sick
		('Maria is sick') (Adjective)
	f.	*Maria a- rî mw-arimû
		1Maria SM1-be 1- teacher
		('Maria is a teacher') (Noun)
	g.	*Maria a- rî kû-ruga
		1Maria SM1-be 15-cook
		('Maria is cooking') (Verb)

Like other members of the P family, Class B adpositions occur in locative inversion structures. Nouns and other categories cannot.

- (55) a. I- kûmbi-ni i- kû- mam-ag -a mbea nyinî mûno F-granary F-SM17-sleep-HAB-FV 10mouse many very
   'In the granary sleep many mice' (NI-PP)
  - b. Nairobi i- kû- mam-ag -a mbea nyinî mûno 17*Nairobi* F-SM17-*sleep*-HAB-FV 10*mouse many very* 'In Nairobi sleep many mice' (Place)
  - c. Aga i- kû- mam-ag -a mbea nyinî mûno here F-SM17-sleep -HAB-FV 10mouse many very 'Here sleep many mice' (Here)
  - d. Aara i- kû- mam-ag -a mbea nyinî mûno there F-SM17-sleep-HAB-FV 10mouse many very 'There sleep many mice' (There)

- e. R- ungu/ rû- teere/i- gûrû/ ga-tîgatî/ nja i- kû-11-under/11-side/ 5-on.top/12-between/9outside F-SM17mam-ag -a mbea nyinî mûno sleep -HAB-FV 10mouse many very 'Underneath/on the side/between/outside sleep many mice' (Class B)
- f. \*John i- kû- mam-ag -a mbea nyinî mûno John F-SM17-sleep -HAB-FV 10mouse many very ('On John sleep many mice') (NP)

Class B adpositions and other members of the P family can be complement of *iga* 'put', which requires an obligatory PP complement, but ordinary nouns and other lexical categories cannot.

1John F-SM1-put-PERF-FV 5-book 5-cave- LOC	
'John put the book in the cave' (NI-PP)	
b. John n-a- ig -ir -e î- buku cukuru	
1 John F-SM1-put-PERF-FV 5-book school	
'John put the book in school' (Bare Place)	
c. John n-a- ig -ir -e î- buku aga	
1John F-SM1-put-PERF-FV 5-book here	
-	
'John put the book here' (Here)	
d. John n-a- ig -ir -e î- buku aara	
1John F-SM1- $put$ -PERF-FV 5- $book$ there	
'John put the book there' (There)	
e. John n-a- ig -ir -e î- buku ru-ngu/ rû-teere/i-	
1John F-SM1-put-PERF-FV 5-book 11-under/11-side/ 5-	-
$g\hat{u}\hat{r}\hat{u}$ / $ga-t\hat{g}at\hat{i}$ / $ndeni$	
on.top/12-between/9inside	
- / /	
'John put the book underneath/on the side/between/in	nside
(Class B)	
f. *John n-a- ig -ir -e î-buku metha	
1 John F-SM1-put-PERF-FV 5-book table	
'John put the book table' (NP)	

Like other prepositional phrases, Class B adpositions are modifiable by *here* and *there*. Modification by 'here' and 'there' forces obligatory use of class 17 locative morphology.

(57)	a.	Aga cukuru	kû-	rî na	mati	mûno
		$here \ 5school$	SM17-	be with	vegetation	very
		'Here in scho	ol is a	lot of	vegetation'	(Bare NP)
				1 .		· .

b. Aga mu-roo -ni kû- rî na mati mûno here 3- river-LOC SM17-be with vegetation very 'Here at the river is a lot of vegetation' (Here NI-PP)

- c. Aara gî-tandani-ni kû- rî na ma-buku maingi mûno there 3- bed -LOC SM17-be with 6- book 6many very 'There on the bed are very many books' (There NI-PP)
- d. Aga ru-ngu \*rû- rî/ kû- rî na rûko muno here 11-underneath SM11-be/SM-be with dirt very 'Here underneath is very dirty' (Here Class B)
- e. Aara ru-ngu \*rû- rî/kû-rî na rûko muno there 11-underneath SM11-be/SM-be with dirt very 'There underneath is very dirty' (There Class B)

When Class B adpositions, other PPs and 'here' and 'there' are modified by *ngwa* 'self,' a location is singled out.

(58)	a.	Karaî ka- rî î- gûrû rîo- ngwa/ru-ngu ruu- ngwa/ga-
		1pan SM12-be 5-top PS5-self/ 11-under PS11-self/ 12-
		tîgatî ko-ngwa
		between 12-self
		'The pan is right on top/under/between'
	b.	Maria a- rî cukuru jo- ngwa
		1 Maria SM-be 9school 9PS-self
		'Maria is right in school' (Bare PP)
	c.	Ka-raî ka- rî aga ao- ngwa
		12- pan SM12-be 14here PS12-self
		'The pan is right here' (Here)

On the other hand, when ngwa 'self' is used with a noun, the interpretation is that the referent of the DP is alone.

(59) Maria a- ak -ir -e nyomba wee- ngwa 1Maria SM1-build-PERF-FV 9house PRON1-self
'Maria built the house herself'
'Maria built the house alone'

Without doubt therefore, Class B things are more members of the P family than the N family.

## 6. The analysis

# 6.1. What needs to be explained

The preceding sections have led us to two main conclusions. One is that Class B elements are actually phrasal. It's no wonder therefore that they can undergo phrasal A-bar movement such as topicalization and focalization.

(60) Ndeni, Maria n-a- (mî-) ciat -ir -e
9inside 1Maria F-SM1-OM9-sweep-PERF-FV
'The inside [of something], Maria swept it'

(61) I- ndeni Maria a- ciat -ir -e
F-inside 1Maria SM1-sweep-PERF-FV
'It is the inside [of something] that Maria swept'

The other conclusion is that Class B adpositions are a kind of hybrid lexical category between N and P. Like nouns, Class B adpositions can be modified by the exhaustive focus particles  $ak\hat{i}$  'alone' and ngwa 'alone'. Like PPs, they appear under 3rd person, present tense copula, as the complement of put (see section 5 for details).

The big questions we need to answer therefore are (i) why are Class B elements phrasal (ii) what is the source of the hybrid syntactic category status?

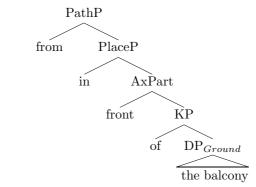
# 6.2. The syntactic source of the hybrid category

I argue in this section that the hybrid category either has a source in conflation Baker (2003) or post-syntactic insertion of Class B elements for a PP or a relational noun structure (Michal Starke, p.c.).

In order to see what happens in Kîîtharaka, let us first put in place the structure of PP. Here I will assume along with Koopman (2000), den Dikken (2003), Svenonius (2004), and Svenonius (2005-6) that the structure of PPs is more articulated. An English phrase, such as (62), thus has the structure in (63) (I leave the specifiers out since rarely are both the specifier and the head activated at the same time, Starke 2001).

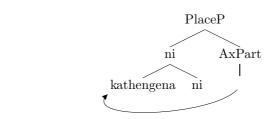
(62) from in front of the balcony

(63)



The structure proper has the following 3 main components — PathP, with Path<sup>0</sup> hosting directional prepositions such as *to* and *from*, PlaceP, Place<sup>0</sup> hosting locative prepositions such as *on* and *in* and the AxPart, which hosts Class B adpositions such as 'top', 'front', 'between' etc.

In Kîîtharaka, two Class B adpositions occur with the locative postposition ni,  $nde\underline{ni}$  'inside' and  $kathengenga\underline{ni}$  'on the edge'. This suggests that the head of AxPart moves and adjoins to the locative postposition in the overt syntax.



I will assume here that this is the general case. Thus even for the Class B elements that do not have an overt P, they involve movement of the AxPart head to a null  $P_{loc}$  but this time prior to lexical insertion, producing a kind of phrasal adposition. Class B items are therefore inserted to realize both AxPart and  $P_{loc}$ . This will account for much of the PP behaviour of Class B (section 5). The remnants of nouniness are perhaps a consequence of the fact that  $P_{loc}$  is null. Recall that the most nominal Class B items such rûteere 'beside', 'on the side' do not have an overt  $P_{loc}$  ni.

Another way to approach the ambiguity in Class B is to assume that Class B elements are a complex of features, say,

(65)  $+P_{loc}$ , +relational noun

The hybrid category status of Class B would follow from the nature of post-syntactic insertion in a Starkean way.

(66)  $\alpha$ , a lexical item, is inserted into  $\beta$ , a syntactic constituent, iff the features of  $\alpha$  are a superset of the features of  $\beta$ 

(65) will therefore be inserted both when there is a PP structure, or a relational noun since in both cases the features of  $\alpha$  are a superset of those of  $\beta$ . The ambiguity in Class B would therefore follow from the fact that they realize either a full PP structure or shrink to a bare relational noun.

I leave a choice between a Baker-style conflation and a Starkean shrinking for future research.

# 7. Conclusion

(64)

In this paper, I have argued that Class A adpositions are syntactic heads, and clearly belong to the functional category P. On the other hand, I have argued following Baker (2003) that Class B adpositions portray mixed properties because they involve conflation — incorporation into a null P head prior to lexical insertion. In a Starkean architecture, I have hinted that Class B items are a hybrid category because they can be inserted in structures ambiguous between a PP and a bare relational noun.

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