Kinga orthography statement

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1. Consonants

1.1   Grapheme choices

The table below gives the consonant grapheme choices for Kinga (shown in angle brackets) together with the sounds which they represent:

Table 1 Consonant grapheme choices

	Bilabial	Labiodental	Alveolar	Postalveolar/ Palatal	Velar/ Labio-velar	Glottal
Voiceless plosives (aspirated)	p^h \<p>		t^h \<t>			
Voiceless plosives (unaspirated)					k \<g>	
Voiced plosives[1]	b \<b>		d \<d>	ɟ \<j>		
Prenasalised voiced plosives	^{m}b \<mb>		^{n}d \<nd>		^{ŋ}g \<ng>	
Voiceless affricates			t͡s \<ts>			
Voiceless fricatives			s \<s>		x \<k>	h \<h>
Prenasalised voiced fricatives			^{n}z \<nz>			
Nasals	m \<m>		n \<n>	ɲ \<ny>	ŋ \<ng'>	
Approximants		ʋ \<v>	l \<l>	[j][2] \<y>	w \<w>[3]	

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[1] The phonetic properties of these sounds have not been thoroughly investigated, but it should be noted that /b/ and /d/ in particular have the auditory quality of implosives.

[2] This sound is not a phoneme in Kinga, but occurs as the palatalisation of consonants and is therefore included here.

[3] This grapheme is also used to show the labialisation of consonants.

For all sounds except /k/, /t͡s/, /x/, /ⁿz/, /ʋ/ and the syllabic nasals (see the next section), the grapheme chosen is the same as the one used for the same sound in Swahili. The choice of <g> for /k/ and <k> for /x/ was clearly preferred by most Kinga speakers over using <k> for the stop and <kh> for the fricative. This may be due to familiarity with the old orthography, which made the same choices, and also to the fact that /x/ can sometimes be pronounced as the voiceless aspirated fricative [kʰ]. For some speakers these [x] and [kʰ] are in free variation, with [x] occurring more often. For other speakers there is a degree of environmental conditioning and /x/ is more likely to be pronounced as [kʰ] stem-initially, as in [ʋ-xʊ́-kʰina] 'to play', and as [x] stem-medially, as in [ɪ-lí-bɪxɪ] 'tree'. It seems likely that /k/ is a reflex of Proto-Bantu */g/ and that the fricative /x/ is a reflex of Proto-Bantu */k/. The orthography therefore probably reflects an earlier pronunciation of the sounds.

The choice of <ts> for /t͡s/ reflects pronunciation and so does, to a large extent, the choice of <nz> for the voiced prenasalised fricative /ⁿz/. This latter phoneme can be pronounced as [ⁿd͡z], but the frication in the affricate in this pronunciation is particularly strong, which supports the choice of <nz> for the phoneme.

<v> was chosen for /ʋ/ as the language has no /v/, but does have /b/, which ruled out <b>. It should be noted that the choice of <v> means that the same root can have two different spellings according to context:

(1)[4]

a.	akava**v**ʉʉla	[axaʋaʋô:la]	/a-xa-ʋa-ʋʊ:l-a/	he told them
			3SG-NAR-3PL-tell-FV	
b.	akam**b**ʉʉla	[axaᵐbô:la]	/a-xa-mʊ-ʋʊ:l-a/	he told him
			3SG-NAR-3SG-tell-FV	
c.	akam**b**ʉʉla	[axaᵐbô:la]	/a-xa-N-ʋʊ:l-a/	he told me
			3SG-NAR-1SG-tell-FV	

This inconsistency was preferred over introducing a digraph such as <bh>.

1.2 Syllabic nasals

In addition to the symbols given in the table above, Kinga uses the apostrophe to mark syllabic nasals under certain conditions. Other syllabic nasals are unmarked. The table below gives examples of both the marked and unmarked syllabic nasals:

Table 2 Syllabic nasals

Stem-initial consonant	Example		Gloss	Contrast with other consonant
/pʰ/	ʉ**mp**iina	[úm̩pʰiːna]	orphan	-
/tʰ/	**-nt**ova	[-n̩tʰova]	-3SG-hit-FV	-
/k/	ʉ**n'g**atsu	[úŋkatsu]	poor person	<ng> = /ⁿg/
/b/	ʉ**m'b**udi	[úm̩budi]	murderer	<mb> = /ᵐb/
/d/	**-n'd**oova	[-n̩doːva]	-3SG-ask-FV	<nd> = /ⁿd/
/ɟ/	**-n'j**atsa	[-ɲɟatsa]	-3SG-lead_astray-FV	-
/ts/	**-nts**engela	[-n̩tseːⁿgela]	-3SG-build-APPL-FV	-
/s/	ʉ**ns**wɨmi	[-n̩sʷɪːma]	hunter	-
/x/	ʉ**nk**ʉlʉdeeva	[ʊŋxʊlʊdêːva]	king	-
/l/	ʉ**Ml**awi[5]	[ʊm̩láwi]	Levite	-
/j/	ʉ**N'y**ahudi[6]	[ʊn̩jahúdi]	Jew	<ny> = /ɲ/

As the table shows, the principle behind the marking system is that syllabic nasals are only marked with the apostrophe when not doing so would create ambiguity with the orthographic representation of a prenasalised consonant or the palatal nasal /ɲ/. The exception to this is <n'j> as there is no parallel prenasalised equivalent in standard Kinga. /ⁿɟ/ does exist in the Mahanji variety, which is closely related to Kinga, and it was felt that <n'j> therefore helped to make the standard Kinga orthography more inclusive. It was also felt that showing the syllabic nasal clearly helped to show the sound was different from the prenasalised consonant which is represented by <nj> in Swahili. Thus syllabic nasals are marked before the four voiced plosives and the palatal nasal /j/ only. The disadvantage of this system is that it goes against the principle of always representing a sound in the same way, wherever it occurs, regardless of whether there is potential ambiguity. However, the advantage of only marking the syllabic nasals which could otherwise cause ambiguity is that it prevents the redundant use of the apostrophe and limits the number of apostrophes occurring in the orthography. The Kinga system described here is also different from Swahili, which does not mark syllabic nasals at all. This system was rejected for Kinga as the

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[5] This loanword is the only example found so far of <ml>. In other environments a morpheme /mʊ/ before /l/ results in /ⁿd/.

[6] <n'y> only occurs in loanwords.

potential for minimal pairs between syllabic nasals and prenasalised consonants in the language is much greater in comparison with Swahili. This is mainly due to the minimal contrast between first person singular and third person singular objects in verbs with root-initial /b/, /d/ or /k/:[7]

(2)

    a. aka**nd**indʉla   [axaⁿdíːⁿdula]   /a-xa-N-dɪⁿd-ʊl-a/   he released me

                                       3SG-NAR-1SG-close-REV-FV

    b. aka**n'd**indʉla   [axaṇdíːⁿdula]   /a-xa-mʊ-dɪⁿd-ʊl-a/   he released him

                                       3SG-NAR-3SG-close-REV-FV

1.3   Lengthened nasals

When the /mʊ/ prefix for noun class 1 or 3 or the third person singular object morpheme, or the first person singular object morpheme /N/, is prefixed to a stem beginning with a /m/, /n/, /ɲ/ or /h/, the nasal is lengthened and this is shown in the orthography by doubling the nasal symbol:

<p style="text-align:center">Table 3 Lengthened nasals before stem-initial nasals or /h/</p>

Stem-initial consonant	Example		Gloss
/m/	ʉ**mm**osu	[úmːosu]	rich person
	-**mm**anya	[mːaɲa]	-3SG-know-FV
/n/	ʉ**nn**onu	[únːonu]	good (cl.1 or 3)
	-**nn**egela	[-nːekela]	-1SG-fetch_water-APPL-FV
/ɲ/	-**nny**ilila	[-ɲːilila]	-3SG-run-APPL-FV
	-**nny**ong'onyola	[-ɲːoŋoɲola]	-3SG-mock-FV
/h/	ʉ**mm**inza	[ʊmːîːⁿza]	girl
	-**mm**inzila	[-mːɪːⁿzɪla]	-3SG-slaughter-APPL-FV
	-**nny**inzila	[-ɲːɪːⁿzɪla]	-1SG-slaughter-APPL-FV
/ŋ/	-**ng'**omelela	[-ŋˑomelela]	-3SG-peep-APPL-FV

The stem can be a noun, verb or adjective. Note that there is no phonetic or orthographic difference between the first person singular and third person singular object in the environment described above when the stem-initial consonant is a nasal, but there is a difference when the stem-initial consonant is /h/. Also, as shown in the last row of the table above, the velar nasal /ŋ/ is not written ‹nng'› in a comparable environment. A slight lengthening of /ŋ/ is perceived (shown by

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[7] In the case of /k/-initial stems, the contrast is between [ŋk] and [ᵑg] phonetically and ‹n'g› and ‹ng› orthographically.

'), but it is not felt to be as clear as for the other nasals. /ŋ/-initial stems are rare and therefore this environment occurs very infrequently.

Minimal pairs are possible between single and double nasal graphemes:

(3)

a. a**m**anyile	[ámaɲile]	/a-maɲ-il-e/	he thinks
		3SG-know-ANT-FV	
b. a**mm**anyile	[ám:aɲile]	/a-N-maɲ-il-e/	he knows me
		3SG-1SG-know-ANT-FV	
		/a-mʊ-maɲ-il-e/	he knows him
		3SG-3SG-know-ANT-FV	
c. **n**inie	[nínie]	/N-ninie/	one of them (cl. 9)
d. **nn**inie	[n:ínie]	/mʊ-ninie/	one of them (cl. 1 or cl. 3)
e. pa**n**ogye	[pʰánokʲe]	/pʰa-nok-il-e/	it is appropriate
		16-behove-ANT-FV	
f. pa**nn**ogye	[pʰán:okʲe]	/pʰa-N-nok-il-e/	it behoves me
		16-1SG-behove-ANT-FV	
		/pʰa-mʊ-nok-il-e/	it behoves him
		16-3SG-behove-ANT-FV	

Note that agreement prefixes and object morphemes behave differently with respect to stem-initial nasals and /h/. For nouns, only the class 1 or 3 /mʊ-/ prefix creates a lengthened nasal (and not the class 9 or 10 /N-/ prefix), whereas for verbs both the third person singular /mʊ-/ and the first person singular /N-/ object morphemes do.

A second set of environments which creates lengthened nasals in certain morphophonemic contexts involves verb stems beginning with /pʰ/, /tʰ/ or a vowel which are prefixed with the first person singular object morpheme /N/:

Table 4 Lengthened nasals before stem-initial /pʰ/, /tʰ/ or V

Stem-initial consonant	Example		Gloss
/p/[8]	-**mm**oka	[-ɲ:aːⁿda]	-1SG-heal-FV
	-mpoka	[-m̥pʰokʰa]	-3SG-heal-FV
/t/	-**nn**anga	[-n:aːⁿga]	-1SG-help-FV
	-ntanga	[-ⁿtʰaːⁿga]	-3SG-help-FV
/a/	-**nn**yanda	[-ɲ:aːⁿda]	-1SG-answer-FV

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[8] The single C root /-pʰ-/ 'give' is exceptional and does not result in a lengthened /m:/ when prefixed with the first person singular object /N-/.

	-mwanda	[-mʷaːⁿda]	-3SG-answer-FV
/x/	-ng'onga	[-ŋoːⁿga]	-1SG-follow-FV
	-nkonga	[-ŋkʰoːⁿga]	-3SG-follow-FV

As in the environment illustrated by Table 3, a lengthened velar nasal is not written, although a slight lengthening may be perceived, as in the penultimate example in Table 4.

The following pair of examples illustrates how minimal pairs are possible between double nasal graphemes representing the environments described in Table 4 and verb stems beginning with nasal consonants:

(4)

    a. **an**angile   [ánaⁿgile]   /a-naⁿg-il-e/   he has spoiled

                                     3SG-spoil-ANT-FV

    b. **ann**angile   [ánːaⁿgile]   /a-N-tʰaⁿg-il-e/   he has helped me

                                       3SG-1SG-help-ANT-FV

Readers and writers have not reported particular problems with the orthographic rule for syllabic or lengthened nasals.[9]

2. Vowels

2.1 Grapheme choices

The table below gives the vowel grapheme choices for Kinga together with the sounds which they represent:

Table 5 Vowel grapheme choices

		Front	Central	Back
high[10]	degree-1	i iː <i> <ii>		u uː <u> <uu>
	degree-2	ɪ ɪː <ɨ> <ɨɨ>		ʊ ʊː <ʉ> <ʉʉ>

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[9] In 2012 the translators began to distinguish between the sound created by the underlying morphological sequence /mʊ-ʋ/ and /ᵐb/, writing the first as <mmb> and the second as <mb>. This was discontinued as it seemed that the phonetic difference, if one exists, is very slight and this made the rule very difficult for writers. <mb> is now used for both /mʊ-ʋ/ and /ᵐb/.

[10] It is possible that degree-1 vowels could be analysed as [+ATR] and degree-2 vowels as [-ATR] vowels, but a phonetic analysis of the type to determine this has not been carried out.

mid	ɛ ɛː		ɔ ɔː
	<e> <ee>		<o> <oo>
low		a aː	
		<a> <aa>	

Barred vowel symbols were chosen for the degree-2 vowels as they show the similarity between these vowels and the degree-1 vowels, but are also visually more distinct than the use of diacritics (e.g. <ī> and <ū>) would be. The doubling of the grapheme to represent vowel length is standard practice in most Bantu languages.

2.2   Vowel length

The basic principle for the writing of vowel length in Kinga is that vowels which sound long are written long unless they occur in contexts which do not allow a phonemic vowel length contrast. Thus vowel length is not written before the four prenasalised consonants <mb>, <nd>, <ng> and <nz>, nor after labialised or palatalised consonants, when the vowel includes the antepenultimate mora of the word, as these are environments which cause compensatory lengthening:

(5)

a.	ɨkɨvamba	[ʋxʋʋâːᵐba]	to stretch (skin)
b.	indama	[ɨ́ːⁿdama]	calf
c.	ɨkɨpwata	[ʋxʋpʰwâːtʰa]	to make noise
d.	ɨkɨkwagana	[ʋxʋxʷáːkana]	to meet
e.	imyoto	[ɨ́mʲoːtʰo]	fires
f.	ilyagano	[ɪlʲáːkano]	meeting place

Although vowels in these contexts are lengthened, they are not perceived as of the same length as phonemically long vowels and thus the rule of writing them short has some phonetic justification. In particular, vowels which follow labialised or palatalised consonants may be only slightly lengthened, especially if they do not carry a high tone. There are morphophonemic exceptions to the principle of not writing the length in these environments, as will be shown in 2.2.2.3 below.

2.2.1 Vowel length in roots

The perception of the length of phonemically long vowels in Kinga depends on the position of the vowel in the word. Phonemically long vowels which contain the antepenultimate mora of the word (and therefore occur in the penultimate or antepenultimate syllable) are perceived as clearly long. Phonemically long vowels which occur before the antepenultimate mora in the word are perceived

as not as long, but still longer than short vowels in the same position. The decision was made to write these vowels as long vowels. This reflects the perception that the vowels are distinct from short vowels and maintains a consistent visual representation of roots, as the examples below show. In (a) and (b), the root vowel contains the antepenultimate mora of the word, whereas in (c) it occurs before this mora:

(6)

a. ava**ʋʋʋl**e	[aʋáʋʊːle]	/a-ʋa-ʋʊːl-e/	he should tell them
		3SG-3PL-tell-FV	
b. ava**ʋʋʋl**ile	[áʋaʋʊːlile]	/a-ʋa-ʋʊːl-il-e/	he has told them
		3SG-3PL-tell-ANT-FV	
c. aa**ʋʋʋl**ilwe	[aːʋʊˈlílʷe]	/a-a-ʋa-ʋʊːl-u-il-e/ he was told	
		3SG-PST$_2$-tell-PASS-ANT-FV	

In (c) the phonemically long vowel in the second of these syllables is perceived as shorter than the long vowel in the preceding syllable (which is created at a grammatical morpheme boundary), but as longer than a short vowel would be in the same position.[11]

Word-final syllables do not usually contain long vowels. Exceptions which have been found so far are ideophones, such as <tii> 'black', <huu> 'crash' and <swee> 'white'[12], interjections, such as <ehee> 'go on', loanwords such as <buluu> 'blue' and the adverb <ndee> 'thus'.

Two roots have been found which have variable vowel length properties according to their use:

(7)

a. isidege siv**ɨl**ɨ	[isídeke síʋɪlɪ]	/i-si-deke	si-ʋɪlɪ/		two birds
		AUG-10-bird	10-two		
b. ikɨgono ikya v**ɨɨl**ɨ day	[ɪxíkono ɪxʲá ʋɪːlɪ]	/ɪ-xɪ-kono	ɪ-xɪ-a	ʋɪːlɪ/	second
		AUG-7-day	AUG-7-ASS	two	
c. ʋlwa v**ɨɨl**ɨ time	[ʋːlʷá ʋɪːlɪ]	/ʋ-lʋ-a	ʋɪːlɪ/		second
		AUG-11-ASS	two		
d. isidege sid**a**tu birds	[isídeke sídatʰu]	/i-si-deke	si-datʰu/		three

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[11] Some particular lexical items have been noted in which the vowel in the antepenultimate syllables can sound slightly lengthened, but speakers hear it as a short vowel and write it accordingly, e.g. *-pamato* 'one'.

[12] Note that the long vowel in <swee> 'white' is written with a double vowel symbol as although it follows a labialised consonant, it does not include the antepenultimate mora of the word and therefore not in a predictable compensatory lengthening environment.

		AUG-10-bird	10-three	
e. ɨkɨgono ɨkya d**aa**tu	[ɪxíkono ɪxʲá daːtʰu]	/ɪ-xɪ-kono AUG-7-day	ɪ-xɪ-a AUG-7-ASS	daːtʰu/ three	third day
f. ʉlwa d**aa**tu	[ʊːlʷá daːtʰu]	/ʊ-lʊ-a AUG-11-ASS	daːtʰu/ three		third time

The two roots, *-vi(i)li* 'two' and *-da(a)tu* 'three', exhibit the same behaviour. The short vowel form is the default (a and c) and the long vowel form is used after the associative (b-c and e-f), including when the class 11 associative is used without a preceding noun to express an adverbial of frequency (c and f).

2.2.2 Vowel length created at morpheme boundaries

2.2.2.1 Vowel length which occurs in any word position

In far past verb forms (both perfective and imperfective, and including relative constructions), the tense morpheme *a-* follows the subject concord morpheme (which is either V or CV) and creates a long vowel:

(8)

a. **aa**vombile [aːʋóːᵐbile]   /a-a-ʋoːᵐb-il-e/   he worked
                 3SG-PST$_2$-work-ANT-FV

b. **aa**vombaga [aːʋóːᵐbaka]   /a-a-ʋoːᵐb-ak-a/   he was working
                 3SG-PST$_2$-work-IPFV-FV

c. w**aa**hʉmile [waːhʊmile]   /ʊ-a-hʊm-il-e/   you came from
                 2SG-PST$_2$-come_from-ANT-FV

d. w**aa**hʉmaga [waːhʊmaka]   /ʊ-a-hʊm-ak-a/   you were coming from
                 2SG-PST$_2$-come_from-IPFV-FV

e. nav**aa**gʉle [naʋaːkúle]   /na-va-a-kʊl-e/   they did not buy
                 NEG-3PL-PST$_2$-buy-ANT-FV

f. nav**aa**gʉlage [naʋaːkuláke]   /na-va-a-kʊl-ak-e/   they were not buying
                 NEG-3PL-PST$_2$-buy-IPFV-FV

g. av**aa**beelile [aʋaːbéːlile]   /a-va-a-beːl-il-e/   they who refused
                 2.REL-3PL-PST$_2$-refuse-ANT-FV

h. av**aa**beelaga [aʋaːbéːlaka]   /a-va-a-beːl-ak-a/   they who were refusing
                 2.REL-3PL-PST$_2$-refuse-IPFV-FV

This vowel is always written as a long vowel.[13] Note though that it can be perceived as slightly shorter in longer word forms, especially those containing other long vowels, as discussed in relation to (6) above. Note that *ɨvaveetsaga* 'any (cl. 1)' has a superficially similar structure to (h) above, but does not have a lengthened vowel before the root.

When the far past morpheme *a-* precedes a vowel-initial verb stem, there are three vowels at the underlying level, but the resulting surface vowel is only as long as a normal long vowel and therefore is simply written with a double vowel symbol:

(9)

a. nd**ii**tsile	[ⁿdí:tsile]	/ⁿdɪ-a-ɪts-il-e/	I came
		1SG-PST$_2$-come-ANT-FV	
b. **ii**biite	[í:bi:tʰe]	/a-a-ibatʰ-il-e/	he held
		3SG-PST$_2$-hold-ANT-FV	

(See Appendix 2 for examples of these forms contrasted with anterior forms in which the vowel in question is only slightly lengthened and is therefore written short.)

The near future A morpheme *jɨ-* occurs before the subject concord morpheme and therefore only precedes a vowel in the second person singular (for verb stems of certain syllabic structure[14]) and third person singular. In the both of these contexts a long vowel is created and written as such:

(10)

a. jɨw**ii**lya	[ɟʊwi:lʲa]	/ɟʊ-ʊ-i-lʲ-a/	you will eat
		FUT$_{1A}$-2SG-PRES-eat- FV	
b. j**ii**kwitsa	[ɟiːxʷî:tsa]	/ɟʲʊ-i-a-xʊ-ɪts-a/	he will come
		FUT$_{1A}$-PRES-3SG-15-come- FV	
c. j**ii**kɨtsileka	[ɟi:xʊtsílexa]	/ɟʲʊ-i-a-xʊ-tsi-lex-a/	he will leave them
		FUT$_{1A}$-PRES-3SG-OBS-10-leave-FV	
d. j**ii**kɨvootsaaga	[ɟi:xʊʋo:tsâ:ka]	/ɟʲʊ-i-a-xʊ-ʋa-ots-ag-a/	
		FUT$_{1A}$-PRES-3SG-OBS-3PL-baptise-IPFV-FV	
		he will be baptising them	

(See Appendix 2 for examples of the third person singular forms contrasted with present tense forms with a class 9 subject in which the vowel in question is short.)

A third type of vowel length which occurs in any word position occurs when an object concord morpheme precedes a vowel-initial verb stem:

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[13] This statement is true even for compensatory lengthening environments, as will be seen in 2.2.2.3 below.

[14] For verb stems containing more than two morae, the second person singular subject morpheme plus present tense morpheme is realised as /ʋʊ-/ and thus is not vowel-initial.

(11)

a. ʉkʉviilanga	[ʊxʊʋɪlâːⁿga]	/ʊ-xʊ-ʋa-ɪlaːⁿg-a/	to call them
		AUG-15-3PL-call-FV	
b. ʉkʉgiidɨka	[ʊxʊkíːdɪxa]	/ʊ-xʊ-ga-ɪdɪx-a/	to believe them
		AUG-15-6-believe-FV	

See also (10d) above for a further example. Note that the reflexive morpheme *i-* exhibits different behavior from that of the object morphemes. This morpheme surfaces as *i-* before a consonant, as in *ʉkwibuda* 'to kill oneself', and as *ij-* before a vowel, as in *ʉkwijilanga* 'to call oneself'. A long vowel is not created when the reflexive morpheme follows a vowel from another morpheme, as in (a) and (b) below:

(12)

a. akɨjilanga	[axɪɟɪlâːⁿga]	/a-xa-ɪɟ-ɪlaːⁿg-a/	and he called himself
		3SG-NAR-REFL-call-FV	
b. akɨbuda	[axíbuda]	/a-xa-ɪ-bud-a/	and he killed himself
		3SG-NAR-REFL-kill-FV	
c. akɨilanga	[axɪːlâːⁿga]	/a-xa-ɪlaːⁿg-a/	and he called
		3SG-NAR-call-FV	

In contrast, (c) shows how a stem-initial /ɪ-/ is lengthened in the same environment.

Finally, a long vowel is created when a subject concord morpheme is prefixed to a vowel-initial verb in the subjunctive:

(13)

a. **ii**tse	[îːt͡se]	/a-its-e/	he should come
		3SG-come-FV	
b. v**ii**bate	[ʋíːbatʰe]	/ʋa-ibatʰ-e/	τhey should hold
		3PL-hold-FV	

2.2.2.2 Vowel length which is restricted to certain word positions

In contrast to the examples of far past *a-* and near future A *jʉ-* in the previous section, Kinga has some tense morphemes which create vowel length when they occur before a vowel, but only in certain word positions. For the present tense morpheme *i-*, vowel length is only clearly created in the penultimate syllable of the word:

(14)

a. nd**ii**va	[ⁿdîːʋa]	/ⁿdɪ-i-v-a/	I am being
		1SG-PRES-be-FV	

    b. nd**i**mila   [ⁿdíˑmila]   /ⁿdɪ-i-**m**il-a/   I swallow

                                           1SG-PRES-swallow-FV

    c. nd**i**doova   [ⁿdidôːʋa]   /ⁿdɪ-i-**d**oːʋ-a/   I pray

                                           1SG-PRES-pray-FV

If, as in (b), the vowel in question occurs in the antepenultimate syllable of the word and includes the antepenultimate mora of the word, it is slightly longer than a short vowel in the same position, but it was not considered long enough to warrant writing it with a double vowel symbol. If, as in (c), the vowel occurs before the antepenultimate mora of the word, it is perceived as short. These orthographic rules described also apply to present tense verbs containing relative markers.

    The same pattern is seen in negative present tense forms, even though these involve an additional vowel at the underlying level:

(15)

    a. n**ii**va   [nîːʋa]   /na-a-i-v-a/   he is not being

                                           NEG-3SG-PRES-be-FV

    b. n**i**mila   [níˑmila]   /na-a-i-mil-a/   he does not swallow

                                           NEG-3SG-PRES-swallow-FV

    c. n**i**doova   [nidôːʋa]   /na-a-i-doːʋ-a/   he does not pray

                                         NEG-3SG-PRES-pray-FV

    A slightly different pattern can be seen in the behaviour of the reflexive morpheme. This morpheme creates a long vowel with the vowel it follows if it occurs in the antepenultimate syllable (a),[15] but a short vowel elsewhere (b), unless the vowel it follows is the far past morpheme *a-* (c):

(16)

    a. ik**ɨɨ**tema   [ixɪ́ːtʰema]   /a-i-xʊ-ɪ-tʰem-a/   he cuts himself

                                           3SG-PRES-OBS-REFL-cut-FV

    b. **ɨ**temile   [ítʰemile]   /a-ɪ-tʰem-il-e/   he has cut himself

                                           3SG-REFL-cut-ANT-FV

    c. **ɨɨ**temile   [ɪːtʰémile]   /a-a-ɪ-tʰem-il-e/   he cut himself

                                           3SG-PST$_2$-REFL-cut-ANT-FV

    A second type of vowel length which depends on word position involves tense morphemes which have been analysed as underlyingly long because this is how they are pronounced when they occur

---

[15] No examples have been found in which the reflexive morpheme occurs in the penultimate syllable, but it is assumed if it occurred in this position following another vowel, it would be long.

in the penultimate syllable of the word.[16] These morphemes are persistive *pii-*, near past *kaa-*, negative near future B *kaa-*, near future *pii-* and far future *laa-*:

(17)

a. vip**ii**lya	[ʋipʰîːlʲa]	/ʋa-i-pʰiː-lʲ-a/	they are still eating
		3PL-PRES-PERS-eat-FV	
b. ak**aa**le	[axáːle]	/a-xaː-l-e/	he was
		3SG-PST₁-be-FV	
c. nak**aa**lye	[náxaːlʲe]	/na-a-xaː-lʲ-e/	he will not eat
		NEG-3SG-NEG.FUT₁ᵦ-eat-FV	
d. va**pii**lya	[ʋapʰîːlʲa]	/ʋa-pʰiː-lʲ-a/	they will eat
		3PL-FUT₁ᵦ-eat-FV	
e. va**laa**lya	[ʋaláːlʲa]	/ʋa-laː-lʲ-a/	they will eat
		3PL-FUT₂-eat-FV	

These vowels are written as long vowels in this context, in order to reflect pronunciation. The four tense morphemes which behave in this way can be contrasted with the narrative morpheme *ka-* which is analysed as a short vowel at the underlying level:

(18)

a. vak**a**lya	[ʋaxálʲa]	/ʋa-xa-lʲ-a/	and they ate
		3PL-NAR-eat-FV	
b. nak**aa**lye	[náxaːlʲe]	/na-a-xaː-lʲ-e/	he will not eat
		NEG-3SG-NEG.FUT₁ᵦ-eat-FV	

When the tense morphemes containing long vowels occur before the penultimate syllable of the word, the vowels surface as short vowels and are written accordingly:

(19)

a. vip**i**gʉla	[ʋipʰíkʊla]	/ʋa-i-pʰiː-kʊl-a/	they are still buying
		3PL-PRES-PERS-buy-FV	
b. vak**a**gʉlile	[ʋaxakúlile]	/ʋa-xaː-kʊl-il-e/	they bought
		3PL-PST₁-buy-ANT-FV	
c. navak**a**sike	[naʋaxásixe]	/na-ʋa-xaː-six-e/	they will not arrive
		NEG-3PL-NEG.FUT₁ᵦ-arrive-FV	
d. va**pi**gʉla	[ʋapʰíkʊla]	/ʋa-pʰiː-kʊl-a/	they will buy

---

[16] Thus the vowels only surface as long vowels in perfective forms because the addition of an imperfective morpheme means that the vowel of the tense morpheme cannot occur in the penultimate syllable, whatever the type of verb root.

			3PL-FUT$_{1B}$-buy-FV	
e. va**lag**ʉla	[valákʊla]	/va-la:-kʊl-a/		they will buy
		3PL-FUT$_2$-buy-FV	
f. va**k**a**l**ie	[vaxalíe]	/va-xa:-lʲ-il-e/		they ate
		3PL-PST$_1$-eat-ANT-FV	

Example (f) shows with respect to this phenomenon a VV sequence at the end of a word counts as two syllables and therefore the vowel of the tense morpheme is shortened (cf. (18b) where a word-final palatalised consonant plus final vowel *-lye* counts as a single syllable).

2.2.2.3 Vowel length which occurs in compensatory lengthening environments

As noted in section 2.2.2.1, the far past morpheme *a-* creates a long vowel when it follows the vowel of a subject concord morpheme. In the case of verb stems with an initial vowel followed by a prenasalised consonant, this creates a long vowel in a compensatory lengthening environment:

(20)

a. **ii**ngye	[í:ⁿgʲe]	/a-a-iⁿgil-e/		he entered
		3SG-PST$_2$-enter-FV	
b. v**aa**mbɨgye	[va:ᵐbíkʲe]	/va-a-N-vɪk-ɪl-il-e/		they wrote to me
		3PL-PST$_2$-1SG-buy-APPL-ANT-FV	

As shown above, it was decided to write the long vowel in these contexts. This is partly because the vowel sounds longer than a single vowel in a compensatory lengthening environment would sound in the same word position and partly because thereby it is possible to maintain an orthographic distinction with the equivalent anterior forms:

(21)

a. **i**ngye	[î·ⁿgʲe]	/a-iⁿgil-e/		he has entered
		3SG-enter-FV	
b. v**a**mbɨgye	[vâ·ᵐbɪkʲe]	/va-N-vɪk-ɪl-il-e/		they have written to me
		3PL-1SG-buy-APPL-ANT-FV	

Note though that, as shown, there is some length in the relevant vowels in these words.

It is also possible for a long vowel including the far past morpheme to occur following a labialised or palatalised consonant and thus in a compensatory lengthening environment:

(22)

a. mw**ii**biite	[mʷi:bî:tʰe]	/mu-a-ibatʰ-il-e/		you (pl.) held
		2PL-PST$_2$-hold-ANT-FV	
b. mw**i**biite	[mʷí·bi:tʰe]	/mu-ibatʰ-il-e/		you (pl.) have held

			2PL-hold-ANT-FV	
c. nd**yaa**ndile	[ⁿdʲáːⁿdile]	/ⁿdɪ-a-aːⁿd-il-e/		I answered
		1SG-PST₂-answer-ANT-FV	
d. nd**ya**ndile	[ⁿdʲáːⁿdile]	/ⁿdɪ-aːⁿd-il-e/		I have answered
		1SG-answer-ANT-FV	

As in the two previous example sets, in this way an orthographic distinction between the far past and the anterior is maintained.

With the exception of the anterior forms given above, the principle for the writing of long vowels in compensatory lengthening environments is that long vowels are written when they are created at morpheme boundaries in verbs, but not elsewhere. Thus they are not written in roots or at morpheme boundaries in nouns or modifiers,[17] but are written in the first four of the following examples:

(23)

a. al**aa**ndɨla	[áláːⁿdʊla]	/a-laː-aːⁿdʊl-a/		he will change
		3SG-FUT₂-change-FV	
b. ak**aa**nda	[axâːⁿda]	/a-xa-aːⁿd-a/		and he answered
		3SG-NAR-answer-FV	
c. akav**aa**nda	[axaʋâːⁿda]	/a-xa-ʋa-aːⁿd-a/		and he answered them
		3SG-NAR-3PL-answer-FV	
d. **goo**ngeletse	[koːⁿgelétse]	/ka-oⁿgelets-il-e/		τhey should increase
		6-increase.CAUS-FV	
e. ak**a**ndagɨla	[axaⁿdákɪla]	/a-xa-mʊ-lakɪl-a/		and he ordered him
		3SG-NAR-3SG-order-FV	

The last example shows how in contrast a single vowel occurring in a compensatory lengthening environment is not lengthened (unless it includes the antepenultimate mora of the word) and therefore is written as a short vowel.

2.2.2.4 Imbrication and vowel length phenomena in verb extensions

The addition of the anterior suffix *-il* plus final vowel *-e* or *-i* to verbs containing extensions results in a long vowel in the penultimate syllable which is created by imbrication:

(24)

a. apɨlɨh**ii**tse	[ápʰʊlɪhiːt͡se]	/a-pʰʊlɪx-ɪt͡s-il-e/		he has listened

---

[17] For examples of some of these contexts, see (5) above.

3SG-hear-CAUS-ANT-FV

b. amanyiise   [ámaɲiːse]   /a-maɲ-is-il-e/   he has taught[18]

3SG-know-CAUS-ANT-FV

c. tsipʉlɨkiike   [tsípʰʊlɪxiːxe]   /tsi-pʊlɪx-ɪx-il-e/   they have been heard

10-hear-STAT-ANT-FV

d. vadɨtsiiwe   [ʋádɪtsiːwe]   /ʋa-dɪts-u-il-e/   they have been filled

3PL-fill-PASS-ANT-FV

e. tʉtelekiilwe   [tʰʊtʰelexíːlʷe]   /tʰʊ-telex-ɪl-u-il-e/   we have been cooked for

1PL-cook-APPL-PASS-ANT-FV

f. navombiili   [naʋoːᵐbíːli]   /na-a-ʋoːᵐb-ɪl-il-i/   he has not worked for

NEG-3SG-work-APPL-ANT-FV

(See Appendix 2 for examples of some of these forms contrasted with other verb forms in which the vowel in question is short.)

Imbrication occurs not only in stems containing verb extensions, but also in certain lexical items without extensions. In these environments it also results in a long vowel in the penultimate syllable of the word:

(25)

a. gʉsiike   [kúsiːxe]   /kʊ-sik-il-e/   it has arrived

3-arrive-ANT-FV

b. nagʉsiiki   [nakʊsíːxi]   /na-kʊ-sik-il-i/   it has not arrived

NEG-3-arrive-ANT-FV

In addition to the imbrication phenomena shown above, the far past (a) and certain verb forms containing causative extensions (b-d) show penultimate syllable vowel length when suffixed with the imperfective morpheme:

(26)

a. nandɨtsoviigi   [naⁿdɪtsoʋíːki]   /na-ⁿdɪ-xaː-tsoʋ-ak-e/   I was not saying

NEG-1SG-PST$_1$-say-IPFV-FV

---

[18] Note also <ʉmmanyisi> [ʊmːáɲisi] 'teacher', but <imanyiisa> [imaɲîːsa] 'he teaches'. These forms are based on the same stem, <-manyi(i)s->, which contains a causative extension, but have a vowel length difference in the penultimate syllable. This difference may be related to the placement of the high tone. These forms are written according to how the vowel length is perceived and thus the stem is written differently in the two words.

b. aalongotsaaga [aːloⁿgotsâːka] /a-a-loⁿgots-ak-a/ he was ruling

    3SG-PST$_2$-rule.CAUS-IPFV-FV

c. valoosaaga [valoːsâːka] /va-laː-os-ak-a/ they will be nursing

    3SG-FUT$_2$-nurse.CAUS-IPFV-FV

d. golosaagi [kolosâːki] /kolos-ak-i/ straighten! (2PL)

    straighten.CAUS-IPFV-FV

The underlying morphemes given here for the negative near past imperfective (a) have three possible surface realisations: *nandɨkatsovage, nandɨkatsoviigi* and *nandɨtsoviigi*. Note that in the first of these the vowel in the penultimate syllable is short.

2.2.2.5 Other vowel length phenomena

The following words are written with a long vowel although they contain only one vowel in the relevant position at the underlying level:

(27)

a. ɨɨmya [íːmʲa] /ɪ-mʲa/ new

    9-new

b. uume [ʊ́ːme] /ʊ-N-p-e/ you should give me

    2SG-1SG-give-FV

c. aame [áːme] /a-N-p-e/ he should give me

    3SG-1SG-give-FV

d. muume [múːme] /mu-N-p-e/ you (2PL) should give me

    2PL-1SG-give-FV

e. akaama [axâːma] /a-xa-N-p-a/ and he gave me

    3SG-NAR-1SG-give-FV

Words of a similar syllabic structure do not have long vowels in the same position:

(28)

a. ɨlya [ílʲa] /ɪ-lɪ-a/ of

    AUG-5-ASS

b. vave [váve] /va-v-e/ they should be

    3PL-be-FV

Therefore it was decided to write the long vowels as such in the words in (27), even though the length is assumed to be due to a phonetic process rather than an additional underlying vowel.

3. Tone

Kinga is a restricted tone language, with one high tone per (non-compound) word. There are three main possible positions for the high tone in a word: antepenultimate mora (APU), pre-stem initial mora (PSI) and penultimate mora (PU). The first of these patterns is the most common in both nouns and verbs. No lexical minimal pairs for tone have been found. There is one grammatical minimal pair for tone in verbs:

(29)

    a. navakateleke   [naʋaxátʰelexe]   /na-ʋa-xaː-tʰelex-e/   they will not cook

                                                    NEG-3PL-NEG.FUT$_{1B}$-cook-FV

    b. navakateleke   [naʋaxatʰeléxe]   /na-ʋa-xaː-tʰelex-e/   they did not cook

                                                    NEG-3PL-PST$_1$-cook-FV

The two verb forms are segmentally identical, but the negative near future B perfective has the PSI tone pattern and the negative near past perfective has the PU tone pattern. It was felt that as the two verb forms occur infrequently and are likely to be distinguished by the context, it is not necessary to mark the tonal difference in the orthography.

    The affirmative anterior (PSI) and the affirmative far past perfective (APU) are also distinguished tonally, but this is not a minimal difference as there are always segmental differences too. In the case of subject prefixes containing the vowel /a/, the only difference other than tone is in the length of the first vowel:

(30)

    a. **a**vombile   [áʋoːᵐbile]   /a-ʋoːᵐb-il-e/   he has worked

                                              3SG-work-ANT-FV

    b. **aa**vombile   [aːʋóːᵐbile]   /a-a-ʋoːᵐb-il-e/   he worked

                                              3SG-PST$_2$-work-ANT-FV

For some speakers the tonal difference is perceived more clearly than the vowel length difference. The reason for the difficulty in perceiving the vowel length difference may be because the short vowel has a high tone and the long vowel does not. Thus the initial short vowel in (a) is heard as slightly lengthened as it has a high tone and the initial long vowel in (b) is heard as slightly shortened as it does not have a high tone. Despite the difficulty some experience in perceiving the long vowel in the far past, it was felt that distinguishing the two verb forms orthographically by

vowel length alone was preferable to introducing a tone mark and increasing the complexity of the orthography.

4. Morphophonology

4.1 Consonants

The principle of writing changes to segments at the word level is followed. In the case of consonants, these changes can occur to root-initial /ʋ/, /tʰ/, /ts/, /ɟ/, /l/, /x/ and /h/ when they are prefixed with /N-/, which is either the first person singular object morpheme or the class 9 or 10 noun prefix, or to root-initial /ʋ/, /l/ and /h/ prefixed with /mʊ-/, which is either the third person singular object morpheme or the class 1 or 3 noun prefix:[19]

(31)

a.	**imb**ombo	[ɪᵐbô:ᵐbo]	/ɪ-N-ʋo:ᵐbo/	work	*-vombo*
b.	**in**onge	[íno:ᵑge]	/ɪ-N-tʰo:ᵑge/	lump of food	*-tonge*
c.	**inz**iilo	[ɪⁿzî:lo]	/ɪ-N-tsɪ:lo/	clay water pot	*-tsiilo*
d.	**inz**ala	[í:ⁿzala]	/ɪ-N-ɟala/	hunger	*-jala*
e.	**ind**imi	[í:ⁿdimi]	/i-N-limi/	tongues	*-limi*
f.	**ing'**enze	[íŋe:ⁿze]	/ɪ-N-xe:ⁿze/	mouse	*-kenze*
g.	**iny**alutsi	[ɪɲálʊtsi]	/ɪ-N-halʊtsi/	gazelle	*-halutsi*
h.	**umb**ombi	[ʊᵐbô:ᵐbi]	/ʊ-mʊ-ʋo:ᵐbi/	worker	*-vombo*
i.	**und**ongotsi	[ʊⁿdó:ᵑgotsi]	/ʊ-mʊ-lo:ᵑgotsi/	leader	*-longotsi*
j.	**umm**inza	[ʊm:î:ⁿza]	/ʊ-mʊ-hɪ:ⁿza/	girl	*-hinza*

No changes of this kind have been noted at the phrase level in Kinga, with the exception of some locative examples, as shown in (53a-b) in section 5.3.

4.2 Vowels

4.2.1 Vowel harmony

Vowel height harmony is present in verb extensions. As this process takes place at the word level, the surface quality of the vowel is always written. Thus, as shown below, the applicative morpheme can be written as <-il>, <-il> or <-el>:

(32)

a.	ukutikila	[ʊxʊtíxila]	to hit for

---

[19] After class 18 /mu-/ the root-initial consonant is not changed.

b. ᵾkᵾdɨndɨla [ʋxʋdɨ́ːⁿdɪla] to close for

c. ᵾkᵾtsengela [ʋxʋtsɛ́ːⁿgela] to build for

d. ᵾkᵾjavɨla [ʋxʋɟávɪla] to dig for

e. ᵾkᵾholela [ʋxʋhólela] to pick up for

f. ᵾkᵾgᵾlila [ʋxʋkólɪla] to buy for

g. ᵾkᵾsukila [ʋxʋsúxila] to clean for

No changes of this kind have been noted at the phrase level in Kinga.

Note also that the distribution of degree-2 vowels is restricted in Kinga nouns. In CVCV noun stems, if V2 is a degree-2 vowel, V1 must be a vowel of the same quality. Thus all stems ending in a degree-2 vowel contain vowels of only one quality:

(33)

a. ᵾm'bɨkɨ [ómbɪxɪ] /ʋ-mʋ-bɪxɪ/ tree

b. inzwɨlɨ [iⁿzʷîːlɪ] /i-N-ɟʷɪːlɪ/ hair

c. idᵾdᵾ [ídʋdʋ] /i-N-dudu/ moles

d. akakᵾkᵾ [axáxʋxʋ] /a-xa-xʋxʋ/ chick

4.2.2 Labialisation and palatalisation versus vowel adjacency

When a prefix with a degree-1 or degree-2 high vowel precedes certain other vowels, glide formation results and since this process occurs at the word level, it is written accordingly:

(34)

a. mwilola [mʷíˑlola] /mu-i-lol-a/ you (pl.) watch

2PL-PRES-watch-FV

b. ndyagᵾlile [ⁿdʲakólile] /ⁿdɪ-a-kʋl-il-e/ I bought

1SG-PST₂-buy-ANT-FV

When the consonant which precedes a high front vowel is /ɟ/ or /ts/, there is speaker variation[20] in the degree to which the consonant is palatalised. It is felt that the palatalisation of these consonants is a feature of standard Kinga and therefore it is written:

(35)

a. jyᵾmile [ɟʲôːmile] /ɟɪ-ʋm-il-e/ it has dried

9-dry-ANT-FV

b. tsyahᵾmye [tsʲahúmʲe] /tsi-a-hʋm-ɪl-il-e/ they came from

---

[20] It has not been investigated whether this variation is determined by such factors as the age or dialect of the speaker.

10-PST$_2$-come_out-APPL-ANT-FV

An exception to this is the class 1 relative marker /ʊʋɪ/, which contains a degree-2 high front vowel, but does not become /ʊʋʲ/ before a vowel:

(36)

ʉvaadwadile	[ʊʋaːdʷáːdile]	/ʊʋi-a-a-dʷaːd-il-e/	he who was afraid
		1.REL-3SG-PST$_2$-fear-ANT-FV	

Note also that it is possible for lexical stems to contain two adjacent vowels, rather than a labialised or palatalised consonant:

(37)

a. avanuasi	[aʋanúasi]	/a-ʋa-nuasi/	liars
b. ʉkʉnwang'ila	[ʊxʊn^ʷáŋila]	/ʊ-xʊ-n^ʷaŋ-il-a/	to lie to
		AUG-15-lie-APPL-FV	
c. amatang'aniʉla	[amatʰaŋániʊla]	/a-ma-tʰaŋaniʊla/	frogs (type)
		AUG-6-frog	

Although examples (a-b) are related, there is a clear difference in the pronunciation of the relevant segments (perhaps due to the differing tone patterns) and as this is a word-level difference, it is written as pronounced.

When labialisation or palatalisation occurs in the final syllable of the word, it is possible instead to pronounce two adjacent vowels in separate syllables:

(38)

a. avʉʉlilwe	[áʋʊˑlilʷe] ~ [áʋʊˑlilue]	/a-ʋa-ʋʊːl-u-il-e/	he has been told
		3SG-tell-PASS-ANT-FV	
b. tsyahʉmye	[ts̪ʲahúmʲe] ~ [ts̪ʲahúmie]	/tsi-a-hʊm-ɪl-il-e/	they came from
		10-PST$_2$-come_out-APPL-ANT-FV	

As shown, it was decided that words of this kind would be written with a labialised or palatalised consonant, rather than with two adjacent vowels. There are two exceptions to this rule. Firstly, the creation of palatalised consonants in the final syllable of verbs (as in 38b) is written differently when stems end in /n/, /ɲ/ or /ŋ/:[21]

(39)

a. ʉkʉponia	[ʊxʊpʰónʲa]	/ʊ-xʊ-pʰoni-a/	to heal
b. ʉvaponie	[ʊʋápʰonʲe]	/ʊ-ʋa-pʰoni-e/	you should heal them

---

[21] Speaker perception is that /m/ does not belong in this group.

			2SG-3PL-heal-FV	
c. ndɨma**nyie**	[ⁿdímaɲʲe]	/ⁿdɪ-maɲ-il-il-e/	I have learned
		1SG-know-APPL-ANT-FV	
d. ansuu**ng'ie**	[aⁿsúːŋʲe]	/a-N-suːŋ-il-il-e/	he has sent me to
		3SG-1SG-send-APPL-ANT-FV	
e. vatsima**nye**	[ʋatsímaɲe]	/ʋa-tsi-maɲ-e/	they should know them
		3PL-10-know-FV	

Writing the vowel sequence in (a-d) both reflects speaker perception regarding pronunciation and also with respect to the alveolar nasal (a-b) ensures that there is no orthographic confusion with a palatal nasal, as shown in (e) for the sake of comparison.

A second exception concerns verb roots of the syllabic structure C^j or C^w (and not C, as in */-p-/* 'give'), such as */-l^j-/* 'eat' and */-k^w-/* 'fall':

(40)

a. ndɨ**lye**	[ⁿdílʲe]	/ⁿdɪ-l^j-e/	I should eat
		1SG-eat-FV	
b. nandya**lye**	[naⁿdʲálʲe]	/na-ⁿdɪ-a-l^j-e/	I did not eat
		NEG-1SG-PST$_2$-eat-FV	
c. ndɨ**lie**	[ⁿdílie]	/ⁿdɪ-l^j-il-e/	I have eaten
		1SG-eat-ANT-FV	
d. va**gwe**	[ʋák^{w}e]	/ʋa-k^w-e/	they should fall
		3PL-fall-FV	
e. navakaa**gwe**	[naʋaxáːk^{w}e]	/na-ʋa-xaː-k^w-e/	they did not fall
		NEG-3PL-PST$_1$-fall-FV	
f. vaa**gue**	[ʋáːkue]	/ʋa-a-k^w-il-e/	they fell
		3PL-PST$_2$-fall-ANT-FV	

There is a slight pronunciation difference between the surface forms resulting from these roots plus a final vowel /-e/ (a, b, d, e) those resulting from imbrication (c, f) when the anterior morpheme is added.[22] Speakers felt the spellings shown reflected this difference appropriately.

It should also be noted that for some Kinga speakers, /ʋ/ may be labialised as /ʋ^w/:

(41)

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[22] Note that though <avaswe> [aʋás^{w}e] 'the dead' may historically contain the anterior morpheme ('they who have died'), it is pronounced with a labialised consonant in the final syllable.

a. ʉwʉʉke	[úwʊːxe]	~ [ʊʋʷʊːxe]	/ʊ-ʋʊ-ʋxe/	honey
b. ʉkʉtsowa	[ʊxʊts̪ówa]	~ [ʊxʊts̪oʊʷa]	/ʊ-xʊ-tsoʊ-u-a/	to be said
			AUG-15-say-PASS-FV	

It was felt that the more common pronunciation is [w] rather than [ʋʷ] and therefore this is reflected in the orthography.

Finally, the imperative forms of verb roots of the syllabic structure Cʲ or Cʷ are written in the following way:

(42)

a. **liya**	[líja]	/li-a/		eat! (2SG)
		eat-FV		
a. **guwa**	[kúwa]	/ku-a/		fall! (2SG)
		fall-FV		
c. **lii**	[líː]	/li-i/		eat! (2PL)
		eat-FV		
d. **guwi**	[kúwi]	/ku-i/		fall! (2PL)
		fall-FV		

4.2.3 Augments

Kinga nouns have an augment of a single vowel which occurs in certain contexts and not in others. Associatives may also have an initial vowel and its presence appears at least in part to be free variation:

(43)

a. ɨkitabu ɨkya nyamalago	[ɪxítʰabu íxʲa ɲamálako]	the book of the prophet
b. ɨkɨvʉmbʉkʉ kya Vayahudi	[ɪxɪʋʊ́ːᵐbʊxʊ xʲa ʋajahúdi]	the nation of the Jews
c. amafuta aga kwɨbaka	[ámafutʰa aka xʷíːbaxa]	the oil of anointing
d. amasigalɨlo ga mikate	[amasikalílo ka mixátʰe]	the leftovers of the bread

For example, a noun following the associative cannot have an augment, as shown above. However, the presence of the augment on the associative in the phrases above seems to be optional and not affect meaning.

The orthographic rule for the augment is simply to write it wherever it occurs. The question of how its occurrence relates to free variation, grammatical context and any other factors (such as carefulness of speech or speech speed) remains to be investigated further.

5. Word boundaries

5.1   Conjunctions

The conjunction 'and, with' in Kinga has the underlying form /na/ and may be realised as /na/, /nʊ/, /nɪ/ or /ni/, depending on the context in which it occurs:

(44)

a. **na** magasi	[námakasi]	and water (cl. 6)
b. **nʉ** mwana	[nʊ́mʷaːna]	and child (cl. 1)
c. **nɨ** kɨpʉga	[níxɪpʰʊka]	and crowd (cl. 7)
d. **ni** sipʉga	[nísipʰʊka]	and crowds (cl. 8)

The decision was made to write the vowel according to its surface pronunciation and to write it disjunctively from the following word. It is not possible, even in slow and careful speech, to pronounce both the underlying conjunction vowel and the vowel of the following word (*[na ámakasi], *[na ʊ́mʷaːna], etc).

The conjunction is analysed as a clitic as it has the grammatical properties of a word, but is phonologically part of the word it precedes. As such, the option of linking it to the following word by means of a punctuation mark was considered as an option, as in <na-magasi>, <n-amagasi>, <nʉ'mwana> or <n'ʉmwana>, for example. This was not preferred as it was felt that adding a punctuation mark unnecessarily complicated the orthography. Also, nouns occur without their augments in other contexts (such as after an associative or in a vocative construction) and therefore readers are accustomed to recognising the word shape of a noun without its augment. The option of writing the conjunction and the following word as one orthographic word was rejected as it did not give sufficient prominence to the conjunction and was too similar visually to the noun without the conjunction. Furthermore, the conjunctive option was chosen for the additive particle /na/ 'even, as well' and the negative morpheme /na-/ (see section 5.2 below). Choosing a disjunctive option for the conjunction helps to maintain a clear visual distinction between it and the other two morphemes, in the contexts in which they might otherwise be ambiguous (see below in this section and in 5.2).

Note that the disjunctive writing of the conjunction /na/ holds even when it is used with a copula to convey the meaning 'be with' or 'have':

(45)

a. alɨ **na** magasi	[álɪ námakasi]	he has water
b. vaale **ni** sitamu	[ʋáːle nísitʰamu]	they had diseases

There are two categories of exceptions to the rule for writing the conjunction /na/. These categories are personal pronouns and demonstratives:

(46)

a. **nʉ**ʉne	[nʊ́ːne]	with me	cf.	ʉne	[ʊ́ne]	I
b. **nʉ**ʉve	[nʊ́ːʋe]	with you (sg.)	cf.	ʉve	[ʊ́ʋe]	you (sg.)
c. **nʉ** mwene	[nʊmʷêːne]	with him	cf.	ʉmwene	[ʊmʷêːne]	he
d. **nʉ**ʉwe	[nʊ́ːwe]	with us	cf.	ʉwe	[ʊ́we]	we
e. **nʉ**ʉnyie	[nʊ́ːɲie]	with you (pl.)	cf.	ʉnyie	[ʊ́ɲie]	you (pl.)
f. **na** veene	[naʋêːne]	with them	cf.	aveene	[aʋêːne]	they
g. **na**vo	[náʋo]	with them (cl. 2)	cf.	*vo		
h. **na**kyo	[nákʰʲo]	with it (cl. 7)	cf.	*kyo		
i. **na**syo	[násʲo]	with them (cl. 8)	cf.	*syo		
j. **nʉ**ʉjʉ	[nʊ́ːɟʊ]	and this (cl. 1)	cf.	ʉjʉ	[ʊ́ɟʊ]	this (cl. 1)
k. **ni**itso	[níːt͡so]	and these (cl. 10)	cf.	itso	[ít͡so] these (cl. 10)	
l. **na** tsilya	[na t͡sílʲa]	and those (cl. 10)	cf.	tsilya	[t͡sílʲa] those (cl. 10)	
m. **nʉ** vɨ	[nʊ́ʋɪ]	and who (cl. 1)				
n. **nʉ** wʉ	[nʊ́wʊ]	and who (cl. 2)				
o. **nʉ** pwʉ	[nʊ́pʰʷʊ]	and where (cl. 16)	cf.	nʉpwʉ	[nʊ́pʰʷʊ]	even if
p. **nɨ** kya	[níxʲa]	and of (cl. 7)				
q. **na** va	[náʋa]	and of (cl. 2)	cf.	nava	[náʋa] even (cl. 2)	

The disjunctive option was rejected for the combination of /na/ and personal pronoun for the first and second person forms (a-b, d-e). Writing, for example, *<nʉ ne> and *<nʉ ve>, was rejected as in all four instances it creates an orthographic word after the conjunction which does not exist in any other context (*<ne>, *<ve>, *<we>, *<nyie>). The option of writing, for example, *<nʉ ʉne> and *<nʉ ʉve>, was rejected as it gave the misleading impression that the vowels either side of the space should be pronounced individually, rather than as a single lengthened vowel. The third person forms do create existing orthographic words (<mwene>, <veene>, see 5.6) and are therefore written separately from the preceding conjunction (c, f).

The combination of the conjunction /na/ and a proximal or referential demonstrative (which are vowel-initial) results in a pronunciation which does not facilitate disjunctive writing (j-k), for the same reason as explained above in relation to the first and second person pronouns. In contrast, before a distal demonstrative (which is consonant-initial), disjunctive writing is possible (l).

The conjunction /na/ followed by a relative pronoun (m-o) or associative (p-q) is written disjunctively. There is no lengthening of the vowel in the first syllable in examples of this kind, in contrast to what is seen when the conjunction is followed by a vowel-intial pronoun or demonstrative.

The behaviour of the conjunction /na/ 'and' before words is the same as that of /ⁿda/ 'like' in the same contexts and therefore the same orthographic decisions regarding word boundaries have been made:

(47)

a. **ndʉ** mwinyo [ⁿdʊ́mʷiːɲo] like salt   cf.   ʉmwinyo   [ʊ́mʷiːɲo]   salt

b. **ndʉʉne** [ⁿdʊ́ːne] like me   cf.   ʉne   [ʊ́ne]   I

c. **ndʉ** mwene [ⁿdʊmʷêːne] like him   cf.   ʉmwene   [ʊmʷêːne]   he

d. **nda** veene [ⁿdaʋêːne] like them   cf.   aveene   [aʋêːne]   they

e. **ndʉʉlʉ** [ⁿdôːlʊ] like this (cl. 11)   cf.   ʉlʉ   [ʊ́lʊ]   this (cl. 11)

f. **nda** tsilya [ⁿdatsíljа] like those (cl. 10)   cf.   tsilya   [tsílja]   those (cl. 10)

g. **ndʉmwʉ** [ⁿdʊ́mʷʊ] as, like

h. **ndʉwʉ** [ⁿdʊ́wʊ] as, like

When /ⁿda/ precedes a noun, the /a/ vowel is replaced with the augment of the noun and the two words are written disjunctively (a, cf. 44a-d). When /ⁿda/ precedes a first or second person pronoun, the resulting form is written conjunctively (b, cf. 46a-b, d-e). When /ⁿda/ precedes a third person pronoun, the resulting form is written disjunctively (c-d, cf. 45c, f). Proximal and referential demonstratives are treated like first and second person pronouns (e, cf. 46j-k) and distal demonstratives allow for disjunctive writing (f, cf. 46l). Examples (g-h) show two relative pronouns which are used for manner and are superficially similar to (b, e), but contain short vowels in the first syllable and are perceived as single words.

As noted above, there is an additive particle /na/ 'even, as well' in Kinga which is homophonous with both the conjunction /na/ and the negative morpheme /na/. This particle does not directly precede nouns or verbs and as such there are no potential orthographic ambiguity issues in this context. However, some other contexts do create the possibility of orthographic ambiguity between the additive particle and the conjunction. The choice was made to write the additive particle conjunctively in all contexts and thus avoid this ambiguity in the orthography:

(48)

a. **na**ga [naka] even (cl. 6)   cf.   **na** ga   [naka]   and of (cl. 6)

b. **na**pa [napʰa] even (cl. 16)   cf.   **na** pa   [napʰa]   and at

c. **na**kʉ [naxʊ] even (cl. 17)   cf.   **na** kʉ   [naxʊ]   and at/for

d. **na**mu [namu] even (cl. 18)   cf.   **na** mu   [namu]   and in

e. **na**jyʉne [naɟʉːne] even I   cf.   **nʉʉ**ne   [nʊ́ːne]   with me

f. **na**jyʉve [naɟʉʋe] even you (sg.)   cf.   **nʉʉ**ve   [nʊ́ːʋe]   with you (sg.)

g. **na**mwene [namʷeːne] even he   cf.   **nʉ** mwene   [nʊmʷêːne]   with him

h. **na**jyᵾwe	[naɟʲʊːwe]	even we	cf.	**n**ᵾᵾwe	[nʊ́ːwe]	with us
i. **na**jyᵾnyie	[naɟʲʊːɲie]	even you (pl.)	cf.	**n**ᵾᵾnyie	[nʊ́ːɲie]	with you (pl.)
j. **na**veene	[naʋeːne]	even they	cf.	**na** veene	[naʋêːne]	with them
k. **na**va vaanu	[naʋaʋâːnu]	even people	cf.	**na** va vaanu	[naʋaʋâːnu]	and of people

5.2 Negatives

As noted in the previous section, the conjunction /na/ in Kinga is written disjunctively, with certain exceptions. In contrast, the negative morpheme /na-/ is written conjunctively:

(49)

a. **na**mukonga	[namuxôːⁿga]	you (pl.) do not follow
b. **na**twitse	[natʰʷíːtse]	we did not come
c. ɨjɨ **na**nyumba	[ɪɟɪ náɲuːᵐba]	this is not a house
d. aga **na**magasi	[aka námakasi]	this is not water
e. **na**vyᵾla	[naʋʲôːla]	not that one
f. **na**vɨ mwene	[naʋɪmʷêːne]	not him
g. **na**lwa kwɨhɨga	[nalʷaxʷíhɪka]	not of judging oneself

The negative morpheme can be attached to verbs (a-c) and nouns (c-d) and it was agreed that having the same rule for both was desirable. Although the placement of the negative morpheme before the subject agreement morpheme in verbs suggests the morpheme is less fully integrated into the verb than other verbal morphemes, the conjunctive writing rule was still preferred as there is a strong association of the single orthographic word <na> with the conjunction 'and, with', which is reinforced by the parallel conjunction 'na' in Swahili having the same orthographic representation.

The negative morpheme can also be attached to demonstratives (e), pronouns (f) and associatives (g). In all cases it is written conjunctively with the following word.

Note that the form of the negative morpheme is invariable, whereas the conjunction often precedes a word with an augment and its vowel is thus replaced by that augment, resulting in four possible pronunciations, [na], [nʊ], [nɪ] and [ni], corresponding to four possible orthographic representations, <na>, <nᵾ>, <nɨ> and <ni>. Therefore in terms of phonological processes, the conjunction is more closely linked to the following word than the negative morpheme is, which would argue for the opposite writing rule situation than was chosen, namely, conjunctive writing for the conjunction and disjunctive writing for the negative morpheme. It was felt that the perceived "wordness" of the conjunction overruled this consideration.

Note also that for nouns with the augment /a/ (classes 2, 6 and 12), the orthographic rules for the conjunction and the negative morpheme are such that the grammatical difference which is not differentiated at the phonological level is disambiguated orthographically:

(50)

a.	**na**masaago	[namasâ:ko]	not thoughts
b.	**na** masaago	[namasâ:ko]	and thoughts
c.	**na**vaana	[náʋa:na]	not children
d.	**na** vaana	[náʋa:na]	and children

5.3   Locatives

Kinga has three locative clitics: /pʰa/, /xʊ/ and /mu/. These morphemes are phonologically identical to the noun class prefixes for classes 16, 17 and 18 respectively, but functionally and grammatically different:

(51)

a.	**pa**nonu **pa**ngo	[pʰánonupʰâːⁿgo]	the good place is mine (here) (cl. 16)
b.	**kʉ**valasu **kw**ako	[kʰʊ́ʋalasuxʷâːxo]	the white place is yours (there) (cl. 17)
c.	**mu**tiitu **mw**a mwene	[mʊtʰîːtʰumʷamʷêːne]	the dark place is his (inside) (cl. 18)
d.	**pa kɨ**tanda **ky**ango	[pʰaxítʰaⁿdaxʲâːⁿgo]	on my bed (cl. 7)
e.	**kʉ** si̱li̱mi̱la **sy**ako	[kʰʊsilímɪlasʲâːxo]	at your fields (cl. 8)
f.	**mu** ma̱bi̱ki̱ **ga** mwene	[mumábɪxɪkamʷêːne]	in his trees (cl. 6)

Examples (a-c) show how nouns in classes 16, 17 and 18 behave with respect to agreement. As expected, class agreement is shown on the possessive determiner. Similarly, in examples (d-f), the possessive determiner agrees with the noun class. This agreement holds even when the noun is preceded by a locative. It is thus clear whether the morphemes /pʰa/, /xʊ/ and /mu/ are noun class prefixes or locative clitics, both because of the difference in agreement on the possessive determiner and because the prefixes attach to bound noun stems (a-c) and the clitics precede nouns already containing a class prefix (d-f).

The phrase-level function of the locative is also clear from examples (d-f) above. The locative function extends over not just the following noun, but also over its possessive determiner, i.e. over the noun phrase as a whole. The locative is pronounced as a single phonological word with the following noun and together with its phrase-level grammatical function, this argues for its analysis as a clitic.

Writing the locative with a joining punctuation mark was rejected as introducing unecessary symbols into the language. The original preference of the Kinga writers was to write the locatives conjunctively, as <pakɨtanda kyango> 'on my bed', for example. After some years, this decision was changed to a disjunctive rule as the writers became more experienced and began to see the desirability of maintaining a consistent representation of words with the same reference. Thus <(i)kɨtanda> is always the representation of 'bed', regardless of the grammatical context in which it occurs.

There are two main categories of exceptions to the rule of writing locatives disjunctively.[23] The first is that the locative is written together with the following word if the meaning of the whole is idiomatic. The second is that the conjunctive option is used when the disjunctive option would result in a form following the locative which has no meaning in isolation (although perhaps it once did):

(52)

a.	**pav**ʉvalasu	[pʰaʊʊválasu]	openly	cf.	ʉvʉvalasu	whiteness
b.	**k**ʉnsana	[xʊ́ṇsana]	behind	cf.	ʉnsana	back
c.	kʉnsana **k**ʉ n'dala	[xʊ́ṇsana xʊ́ṇdala]	behind the woman			
d.	ʉnsana **gwa** n'dala	[ʊ́ṇsana kʷáṇdala]	(the) woman's back			
e.	**k**ʉnena	[xʊ́nena]	north	cf.	*nena	

Examples (a) and (b) illustrate the first category of exception as they have idiomatic meanings. The agreement properties of (c) and (d) further support the word boundary choices as in both cases the linking element in the phrase (a locative and and asociative respectively) agrees with the previous word as a whole. Example (e) illustrates the second category of exception as removing the locative results in a form which has no meaning in isolation.[24]

The class 18 locative clitic /mu/ may assimilate to the following consonant (following the pattern of the class 1 and 3 prefix /mu-/):

(53)

a.	**m**bwʉmi	[ᵐbʷô:mi]	/mu-ʊʊ-ʊmi/	in life
			18LOC-14-life	
b.	**n**kɨlʉnga	[ṇxɨ́lʊ:ᵑga]	/mu-xɪ-lʊ:ᵑga/	in the country
			18LOC-7-country	

It was felt that the disjunctive writing option was no longer possible in these cases, as the clitic is reduced to a single consonant grapheme. For the sake of orthographic clarity it was decided to use the uncontracted forms (<mu wʉʉmi>, <mu kɨlʉnga>) in the translation. One lexical exception to this rule is the idiomatic expression <mbʉtsenge na mbʉtsenge> 'from town to town', which is written with assimilated locative clitics. Another lexical exception is <mwinyasi> 'in the bush (general reference)' in the phrase <isikanu sya mwinyasi> 'animals of the bush', which contrasts with <mu linyasi> 'in the bush (specific reference)', as in <isikanu sya mu linyasi> 'the animals in the (particular area of) bush'.

It is possible to double a locative clitic before a noun, as in the following examples:

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[23] Additional examples of exceptions can be seen in Table 8 in Appendix 3.

[24] This form can thus be analysed as a class 17 noun.

(54)

    a. **mumu** sigono isyo   [mumusíkono isʲo]   in those days

    b **kʉkʉ** mwene   [xʊxʊmʷêːne]   right at his place

    c. **pa pa**vʉlongolo pa lʉlʉndamano

    [pʰapʰaʊʊlôːⁿgolo pʰalʊlʊ·ⁿdamáno]   right there in front of the meeting

As shown, the decision was made to write the doubled clitic as one word in a context in which a single clitic would be written disjunctively (a-b) and the first clitic separately in a context in which the second clitic is written as part of the following word (c).

    Locative morphemes may precede demonstratives. In such an environment, the rule for the conjunction <na> and <nda> 'like' is followed. That is, the locative is written conjunctively with the demonstrative if it is vowel-initial (a-c) and disjunctively if it is consonant-initial (d):

(55)

    a. **pi**itsi   [pʰîːtsi]   to these (cl. 16 locative, cl. 10 demonstrative)

    b. **kwa**go   [xʷâːko]   for those (cl. 17 locative, cl. 6 demonstrative)

    c. **mwi**lyo   [mʷîːlʲo]   in that (cl. 18 locative, cl. 5 demonstrative)

    d. kʉ tsilya   [xʊtsílʲa]   for those (cl. 17 locative, cl. 10 demonstrative)

For the majority of Kinga speakers the pronunciation shown in (a-c) is the only possible one and therefore the choice for writing was made to reflect this. For speakers of the XXX dialect, it is possible to pronounce the underlying forms of the locative vowels separately from the vowel at the beginning of the demonstrative.

5.4   Copula

Kinga has an emphatic copula which shows noun class agreement. The decision was made to write the copula as a separate word from what follows because it has the grammatical status of an independent word. Furthermore the following word is always able to exist in isolation from the copula:

(56)

    a. ʉmwene **vi** Kilisiti   [ʊmʷêːne ʊɪ xɪlɪsítʰi]   he is Christ

    b. ijyo **jyʉ** mbombo   [íɟʲo ɟʲʊ ᵐbôːᵐbo]   this is work

    c. **wʉ** avo   [wʊ áʊo]   they are those ones

    d. **vi** ʉlya   [ʊɪ úlʲa]   it is that one

    e. **kwʉ** kʉta   [xʷúxʊtʰa]   that is to say

    f. na**kwʉ** kʉta   [naxʷúxʊtʰa]   that is not to say

In the case of nouns (a-b, e-f), the copula is not phonologically affected by the following word in any way. In the case of vowel-initial demonstratives (c-d), it is possible to elide the vowel of the copula, but this is not the pronunciation in careful speech and therefore it was felt that a disjunctive writing option was best.

The copula may also be doubled for emphasis:

(57)

    a. ʉmwene **vi vi** Kilisiti   [ʊmʷêːne ʋɪ ʋí xɪlɪsítʰi]   he is indeed Christ

    b. ijyo **jyʉ vi** mbombo   [ɪɟʲo ɟʲʊ ʋɪ ᵐbóːᵐbo]   this is indeed work

Two common verb forms in Kinga are based on the copula. The first comprises a present tense copula and an infinitive verb, which takes its time reference from a preceding verb, as in the first example below:

(58)

    a. Viimile palya **valikʉ**lola.   [ʋîːmile pʰálʲa ʋalíxʊlola]   They were standing there watching.

    b. **Vali kʉ** lʉkinga   [ʋálɪ xʊlóxɪːⁿga]   They are in the desert

The class 15 (infinitive) noun class prefix /xʊ-/ is homophonous with the class 17 locative clitic /xʊ/, which can also follow a present tense copula, as in (b). The decision was made to write the copula plus infinitive verb form as one word, as shown, as it is perceived as a single verb form, rather than a compound of a copula and infinitive. This also ensures that it is orthographically distinct from a copula followed by a class 17 locative.

A second verb form based on the copula is illustrated below:

(59)

    a. **Vali pa kʉ**lola.   [ʋálɪ pʰáxʊlola]   They are watching.

    b. **Valaava pa kʉ**lima.   [ʋalâːʋa pʰáxʊlɪma]   They will be farming

For this construction it was decided that the copula, locative clitic and infinitive should each be written as single words as each is felt to contribute its usual meaning to the whole. The same decision was made for the locative clitic /pʰa/ when it stands between another verb and an infinitive and conveys intention:

(60)

    a. Wisaawe **pa kʉ**vomba.   [wísaːwe pʰaxúʋoːᵐba]   You have prepared yourself to work.

    b. Vakataama **pa kʉ**lya.   [ʋaxatʰâːma pʰaxúlʲa]   They sat down to eat.

5.5   Associatives

The associative is written disjunctively from the following word:

(61)

	a. ʉndyango **gwa** nyumba	[ʊn̪d̪ʲâːᵑgo kʷáɲuːᵐba]	the house's door
	b. isitabu **sya** mmanyisi	[isit̪ʰábu sʲamːáɲisi]	the teacher's books
	c. **ʉlwa** viili	[ʊlʷáʋiːlɪ]	second time (lit. 'of two')

There are no circumstances under which the /-a/ of the associative is replaced or affected in some way by the initial vowel of the following word.

There are some nouns which are derived from an associative and a following verb or adverb. In these cases the associative is written together with what follows as the construction functions as a regular noun, as in examples (a-d) below:[25]

(62)

	a. **ikya**kʉlya	[ɪxʲaxʊ́lʲa]	food (lit. 'of' + 'to eat')
	b. **ava**kʉkyanya	[aʋaxʊxʲaːɲa]	heavenly ones (lit. 'of' + 'heaven')
	c. **ava**syʉle	[aʋasʲʊːle]	schoolchildren (lit. 'of' + 'school')
	d. **ʉwa**jilweli	[ʊwaɟɪlʷêːli]	truth (lit. 'of' + 'truly')
	e. ʉvʉvaha **ʉwa** jilweli	[ʊʋóʋaha ʊwaɟɪlʷêːli]	true greatness
	f. **apa**kʉgona	[apʰaxʊ́kona]	sleeping place (lit. 'of' + 'to sleep')
	g. apoonu **apa** kʉgonia	[apʰôːnu apʰaxʊkónia]	place for laying someone/something on

Note that examples (d-e) and (f-g) show how in this way the orthography distinguishes between a noun containing an associative and a noun preceded by an associative.

An associative is written conjunctively with a vowel-initial demonstrative (a-b) and disjunctively from a consonant-initial demonstrative (c), following the pattern seen in (55) for locatives:

(63)

	a. wʉʉlya	[wóːlʲa]	of that (cl. 14 associative, cl. 1 demonstrative)
	b. tsʉʉlya	[t͡sóːlʲa]	of those (cl. 17 locative, cl. 6 demonstrative)
	c. kya tsilya	[xʊt͡sílʲa]	of those (cl. 17 locative, cl. 10 demonstrative)

5.6 Pronouns

Possessive pronouns in Kinga are written as single orthographic words with the exception of third person singular and third person plural forms:

(64)

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[25] Additional examples can be seen in Table 9 in Appendix 3.

a.	gw**ango**	[kʷâːⁿgo]	my (cl. 3)
b.	gy**ave**	[kʲâːʋe]	your (sg.) (cl. 4)
c.	ly**a mwene**	[lʲamʷêːne]	his (cl. 5)
d.	gi**itu**	[kîːtʰu]	our (cl. 6)
e.	ki**inyo**	[xîːɲo]	your (cl. 7)
f.	sy**a veene**	[sʲaʋêːne]	their (cl. 8)

The third person forms are made up of an associative and and independent pronoun without its augment (<ʉmwene> 'he', <aveene> 'they') and thus follow the usual disjunctive writing rule for associatives.

Similar exceptional behaviour in third person pronouns can be seen when they are used locatively:

(65)

a.	**kw**ane[26]	[xʷâːne]	my (place)
b.	**kw**ave	[xʷâːʋe]	your (sg.) (place)
c.	**kʉ** mwene	[xʊmʷêːne]	his (place)
d.	**kʉ**miitu	[xʊmîːtʰu]	our (place)
e.	**kʉ**miinyo	[xʊmîːɲo]	your (pl.) (place)
f.	**kʉ** veene	[xʊʋêːne]	their (place)
g.	**kʉ** myaviitu	[xʊmʲaʋîːtʰu]	our (place)
h.	**kʉ** myaviinyo	[xʊmʲaʋîːɲo]	your (pl.) (place)
i.	**kʉ** myavaavo	[xʊmʲaʋâːʋo]	their (place)
j.	**kʉ**myavo	[xʊmʲâːʋo]	their (place)

The third person forms (c) and (f) are made up of a locative clitic and an independent pronoun without its augment. In these forms the locative is written disjunctively. In the other person forms shown in (a-b, d-e), the locative element is written conjunctively. The three plural forms have alternative longer pronunciations, in which the <kʉ> is separated, as in (f-i). The third person plural also has a shortened version of the longer form, as shown in (j). The three singular forms do not have alternative longer pronunciations.

Restrictive (or emphatic) pronouns consist of two orthographic words, the first of which is the basic pronoun:

(66)

a.	ʉne jyʉne	[úne ɟʲúːne]	I alone
b.	ʉve jyʉve	[úʋe ɟʲúːʋe]	you (sg.) alone

---

[26] Neither *<kʉmyango> nor *<kʉmyane> are possible alternative forms.

c. ʉmwene jyʉmwene	[ʊmʷê:ne ɟʲʊmʷê:ne]	he alone
d. ʉwe jyʉwe	[úwe ɟʲú:we]	we alone
e. ʉnyie jyʉnyie	[úɲie ɟʲú:ɲie]	you (pl.) alone
f. aveene vaveene	[aʊ̂ê:ne ʋaʊ̂ê:ne]	they alone
g. avaana vaveene	[áʋa:na ʋaʊ̂ê:ne]	the children alone
h. avaana va veene	[áʋa:na ʋaʊ̂ê:ne]	their children

The last two examples show how in the third person plural, the difference between the restrictive and possessive pronouns is shown orthographically by thee different word boundary choices.

See also the examples of additive and accompanitive pronouns in example (47), section 5.1.

The examples below show how possessive pronouns are written disjunctively from the word which they modify unless they have been assimilated into the lexical item (b, d) or do not show the usual noun class agreement (f, g):

(67)

a. ʉdaada	[ʊdá:da]	father
b. ʉdadaa**jo**	[ʊdadá:ɟo]	your (sg.) father
c. ʉkaaka	[ʊxá:xa]	brother
d. ʉkakaa**je**	[ʊxaxá:ɟe]	his brother
e. ʉdada**jiitu**	[ʊdadɟí:tʰu]	our father (cl. 1a noun, cl. 9 modifier agreement)
f. ʉdada**jiinyo**	[ʊdadaɟí:ɲo]	your (pl.) father (cl. 1a noun, cl. 9 modifier agreement)

Note here also how the vowel length always remains in the penultimate syllable of the word.

A further type of pronominal form can be seen in the next examples:

(68)

a. ʉwe **twɨ** vooni tupʉlɨka	[úwe tʰʷɪʊ̂:ni tʰupʰúlɪxa]	we are all listening
b. **nyɨ** vaanu va kʉ Yelusalemu	[ɲɪʋâ:nu ʋaxʊjelusalému]	you (pl.) people of Jerusalem

It was decided to write these forms disjunctively as they precede fully formed words.

5.7 Reduplication

Reduplicated word forms are written conjunctively if they are partial reduplications (a-f) or when the reduplicated element in isolation does not exist (g) or has another meaning (h),[27] and disjunctively if they are full reduplications in which the meaning of the whole is clearly related to the meaning of the reduplicated element (i-m):[28]

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[27] *(ɨ)ng'aani* [íŋa:ni] means 'argument, strife'.

[28] Additional examples can be seen in Table 10 in Appendix 3.

(69)

a.	siisi isi	[síːsi ísi]	these very ones (cl. 8, proximal)
b.	kɨikyo ɨkyo	[xíːxʲo íxʲo]	that very one (cl. 7, referential)
c.	gaagalya	[kaːkálʲa]	those very ones (cl. 6, distal)
d.	lɨlino lɨno	[lílɪnolíno]	right now
e.	valɨkwɨgumbagumba	[valɪxʷɪkʊᵐbakûːᵐba]	they were hitting themselves
f.	vigendagenda	[vikeⁿdakêːⁿda]	they walk
g.	molamola	[molámola]	slowly
h.	ng'aning'aani	[ŋaníŋaːni]	fast
i.	vɨle vɨle	[vʊlévʊle]	the same (way)
j.	kwoni kwoni	[xʷonixʷôːni]	everywhere
k.	vani vani	[vanívani]	four by four
l.	padebe padebe	[pʰadébepʰadébe]	little by little
m.	kavɨlɨ kavɨlɨ	[xavílɪxavílɪ]	from time to time

5.8   Compound Words

Compound words are usually written disjunctively, except when the meaning of the whole is idiomatic in some way. This rule can be illustrated with examples constructed using <-nya>, which indicates possession:[29]

(70)

a.	avanya kisa	[avaɲáxisa]	compassionate ones (people)
b.	ɨnya bɨɨba	[ʊɲábʊːba]	leper
c.	ɨmuunu ɨnya bɨɨba	[ʊmûːnu ʊɲábʊːba]	person with leprosy
d.	avaanu avanyapanzi	[avâːnu avaɲapʰâːⁿzi]	pagans (lit. 'people with outside')
e.	avanyamalago	[avaɲamálako]	prophets
f.	ɨnyambɨda	[ʊɲáᵐbʊda]	murderer
g.	ɨnya kɨtsilika	[ʊɲaxʊt͡sílixa]	fainting person
h.	ɨnya maka	[ʊɲamáxa]	strong one (person)
i.	ɨnyamaka	[ʊɲamáxa]	almighty

There is no phonological difference between the forms written disjunctively and those written conjunctively. In both cases <-nya> is part of a phonological word with the following noun and the lack of augment on the noun shows its unity with the preceding morphemes. The choice between the two writing options is based instead on the meaning of the construction as a whole. If

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[29] Additional examples can be seen in Table 11 in Appendix 3.

there is no idiomatic meaning, the disjunctive option is chosen. As examples (a-c) show, this holds both for <-nya> used as a noun and as the modifier of a noun. Example (d) illustrates the conjunctive writing option for a construction with idiomatic meanings. Example (e) is understood to belong to the same group as (d), even though <amalago> is a noun meaning 'prophecy'. This seems to be because <avanyamalago> does not mean simply 'those with prophecy', but 'those who have the job of prophesying'. Examples (f) and (g) are derived from verb stems (<-bʉda> 'kill' and <-tsilika> 'faint' respectively). The type represented by (f) is written conjunctively as the second part cannot stand alone as a word, whereas the type represented by (g) is written disjunctively as the second part is an infinitive, which can stand alone as a word. Finally, the decision was made to contrast (h) <ʉnya maka> 'strong one (person)', which is a transient description applied to a person, with (i) <ʉnyamaka> 'almighty', which is an immutable description of God, by means of a different word boundary decision.

A construction with a similar meaning uses <-ene> instead of <-nya>. When class 1 or 2 noun class prefixes attach to <-ene> in this construction, this part of the compound is then formally identical with the third person pronouns <ʉmwene> 'he' and <aveene> 'they'. In order to avoid ambiguity with pronouns in isolation, the compounds are thus written disjunctively:

(71)

a.	ʉmwenembombo	[ʊmʷenémboːᵐbo]	worker (lit. 'owner-work')
b.	ʉmwenenyumba	[ʊmʷenéɲuːᵐba]	house owner
c.	avenembwa	[avéneːᵐbʷa]	dog owners
d.	ʉwenekɨlʉnga	[ʊwenéxɪlʊːŋga]	citizenship (lit. 'ownership-country')

Note that the status of the compound as a single phonological word is clear from the shortened first <e> vowel in (c) and (d).

The examples below illustrate other kinds of noun compounds:[30]

(72)

a.	avalovasomba	[avalóvasôːᵐba]	fishermen (lit. 'catcher-fish')
b.	ʉndahambeju	[ʊⁿdaháᵐbeɟu]	sower (lit. 'planter-seed')
c.	ʉntulanongwa	[ʊɳtʰulánoːŋgʷa]	sinner (lit. 'doer-sin')
d.	ʉntengaligoha	[ʊɳtʰeⁿgalíkoha]	soldier (lit. 'preventer-war')
e.	inzilamalekano	[ɪⁿzɪlamaléxano]	crossroads (lit. 'road-leaving each other')
f.	atulile inongwa	[átʰulile ínoːŋgʷa]	he has sinned
g.	itenga iligoha	[itʰêːⁿga ɪlíkoha]	he prevents war
h.	ʉlʉkololwango	[ʊlʊxololʷâːŋgo]	my relative (lit. 'clan-my')
i.	ʉlʉkolo lwango	[ʊlúxolo lʷâːŋgo]	my clan

---

[30] Additional examples can be seen in Table 12 in Appendix 3.

Examples (a-d) are derived from a verb stem and a noun and (e) is derived from two nouns. These compounds are written conjunctively. Examples (f) and (g) show the same lexical stems as (c) and (d) respectively, but functioning as a verb and object and thus written disjunctively. Example (h) is derived from a noun and a possessive modifier. Its meaning is idiomatic, which supports the decision to write it conjunctively. When the same string is understood literally, it is written disjunctively, as in (i).

Nouns which contain an element showing that the referent belongs to the same set as the speaker are written conjunctively:

(73)

a.	avavombivajyango	[aʋaʋoᵐbiʋaɟʲâːⁿgo]	my fellow workers
b.	ʉmwɨdɨkinnino	[ʋmʷɪdɪxin:íno]	your fellow believer
c.	ʉm'bosunnine	[ʋm̩bosun:íne]	his fellow blind person
d.	aVayahudivajiitu	[aʋajahudiʋaɟîːtʰu]	our fellow Jews
e.	ʉdadajiinyo	[ʋdadaɟíːɲo]	your (pl.) father
f.	avakʉngwavajyavo	[aʋaxʋⁿgʷaʋaɟʲâʋo]	their fellow prisoners
g.	avajyango	[aʋaɟʲâːⁿgo]	my fellows
h.	ʉnnine	[ʋn:íne]	his fellow
i.	ʉn'jiinyo	[ʋɲɟîːɲo]	your (pl.) fellow
j.	jiinyo	[ɟîːɲo]	your (pl.) (cl. 9)
k.	avakʉngwa vajyavo	[aʋaxʋⁿgʷaʋaɟʲâʋo]	the prisoners are their fellows

Note that the modifier part of the compound can also be used as a noun (g-i). When used this way as a singular noun, the second person plural form (i) contains a class 1 prefix (<n->) and therefore differs from how it appears in some compounds, such as (e). If a compound such as (e) were written disjunctively, the modifier would look like a class 9 modifier (j). If a compound such as (f) were written disjunctively, it would be ambiguous with a NP (copula) NP construction, as in (k).

5.9   Other word boundary issues

The relative pronoun in Kinga is written disjunctively when it has the shape VCV, as in (a, c, e, f) below, and conjunctively otherwise, as in (b, d):

(74)

a.	ʉvɨ itambʉlwa	[úʋɪ itʰaːᵐbúlʷa]	who is called
b.	ʉvitambʉlwa	[ʋʋitʰaːᵐbúlʷa]	who is called
c.	ʉwʉ vaatambʉlwagwa	[úwʋ ʋaːtʰaᵐbʋlʷágʷa]	who were called
d.	avatambʉlwagwa	[aʋatʰaᵐbʋlʷágʷa]	who were called
e.	ʉpwʉ aale	[úpʰʷʋ áːle] ~ [ʋpʰʷâːle]	where he was
f.	ndɨ ndɨlɨ mbanda	[ⁿdɪ ⁿdɪlí ᵐbaːⁿda]	I who am a servant

37

Examples (b) and (d) are shortened forms of (a) and (c) respectively.

The examples below show how *kɨtsɨla* 'without' is written separately from a following word:

(75)

    a. kɨtsɨla mwana   [xɪtsɪlá mʷaːna]   without a child

    b. vatsɨla lwidɨko   [ʋatsɪla lʷídɪxo]   without faith

Quantifiers are normally written disjunctively from the nouns which they modify, but one exception is the expression shown in (a) below, which combines a Swahili noun and a Kinga modifier for a specific meaning (cf. (b)):

(76)

    a. sikutsooni   [sixutsôːni]   forever

    b. isigono syoni   [isíkono sʲôːni]   all days

The usual meaning of *vʉki* is 'what kind, what sort' and it is written disjunctively from the noun which it follows, as in (a) below. However, when it follows a copula and has an idiomatic meaning, as in (b), the two grammatical words are written as one orthographic word:

(77)

    a. vʉviivi vʉki   [ʋʊʋîːʋi ʋóxi]   what badness

    b. alivʉki na veene   [alíʋʊxi naʋêːne]   he belongs to them

Example (a) below shows how *-vʉli* 'how' is orthographically attached to the preceding verb (comparable to *-je* in Swahili). This reflects how it is pronounced together with the verb (which can be seen by the placement of the high tone), in contrast with the class 14 present tense copula which is segmentally similar but for the quality of the final vowel, as shown in (b):

(78)

    a. ʉmanyilevʉli?   [ʊmaɲiléʋʊli]   how do you know?

    b. vʉlɨ   [vólɪ]   it (cl. 14) is

The remaining examples illustrate some word boundary issues with constructions including some form of copula or auxiliary verb:

(79)

    a. wʉ jɨlɨwo   [wʊɟɪlíwo]   this is how it is

    b. nawʉ jɨlɨwo   [nawʊɟɪlíwo]   this is not how it is

    c. ndawʉ jɨlɨwo   [ⁿdawʊɟɪlíwo]   this is how it is

    d. ndʉwʉ jɨlɨwo   [ⁿdʊwʊɟɪlíwo]   like how it is

    e. valɨwo   [valíwo]   they are like this

    f. alɨ vʉvʉle   [alɪ ʋʊóʋle]   he does not have

    g. vave ʉta   [váʋe útʰa]   they should be like

    h. vavyʉta   [váʋʲutʰa]   they have been like

i. ɨpya wikava [úpʰʲa wíxaʋa] you will get

j. ndɨpya ndinywela [ⁿdípʲa ⁿdíɲʷela] I will drink from

Note in (a-e) that *-lɨwo* is written each time as a separate word together with its agreement prefix. In (f) the negative *vɨvɨle* is written disjunctively. Examples (g) and (h) both include the particle *ɨta* 'like', but are written differently with respect to the word boundary in order to reflect pronunciation. The natural pronunciation of (g) maintains the separation of the two words, but (h) cannot pronounced as two words, although speakers may be aware that it comes from *vavye ɨta.* Examples (i-j) illustrate a construction composed of two inflected verbs, which both show subject agreement. Consequently this construction is written as two words.[31]

6. Loan words and foreign names

Loan words from Swahili and English are written according to how they are most naturally pronounced in Kinga:

(80)

a. ikɨtabu [ɪxítʰabu] book (Sw. kitabu)

b. ifalaasi [ɪfalâːsi] horse (Sw. farasi)

Foreign names are treated in the same way, with phonemes which do not occur in Kinga sometimes replaced by similar phonemes which do:

(81)

a. **Z**aka**l**iya [zakʰalíja] Zechariah (Sw. Zakaria)

b. **Sh**eba [ʃéba] Sheba (Sw. Sheba)

Note, for example, that <l> replaces <r> in example (a). However, although Kinga has no /z/ and no /ʃ/, these sounds are considered pronounceable and not foreign, so they are retained in examples (a) and (b) respectively.

The following examples illustrate issues concerning the pronunciation of adjacent vowels in foreign names:

(82)

a. Betis**ai**da [betisaída] Bethsaida (Sw. Bethsaida)

b. ɨSim**io**ni [simióni] Simeon (Sw. Simeoni)

c. Sin**ai** [sinái] Sinai (Sw. Sinai)

d. ɨGal**iyo** [ʋkalíjo] Gallio (Sw. Galio)

e. aVafalis**ayo** [aʋafalisájo] Pharisees (Sw. Mafarisayo)

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[31] Examples of minimal pairs relating to word boundary decisions can be seen in Table 13 in Appendix 3.

    f. Samal**iya**   [samalíja]   Samaria (Sw. Samaria)

    g. ʉMal**iya**mu   [ʊmalijámu] Mary (Sw. Mariamu)

    h. ʉMes**iya**   [ʊmesíja]   messiah (Sw. mesiya)

    i. ʉMat**aayo**   [ʊmatʰâːjo] Matthew (Sw. Matayo)

    j. ʉFal**ao**   [ʊfaláo]   Pharaoah (Sw. Farao)

Examples (a-c) show how Kinga allows word-medial adjacent vowels in the pronunciation of foreign words and how the orthography reflects this. (Native Kinga words rarely allow adjacent vowels, as shown in section 4.2.2 above).

    Examples (d-i) include a glide between two vowels which would otherwise be adjacent. The orthographic form reflects the intuitions of Kinga speakers. In some cases this intuition seems to be affected by Swahili pronunciation and spelling, as in (i) in comparison with (j).

7. Capitalisation

Proper nouns in Kinga behave like nouns in most classes in that they carry an augment in most grammatical contexts. As this augment is not always present, it was decided to capitalise the first letter after the augment in proper nouns. Thus if the noun has a prefix, the capitalised letter is at the start of the prefix. If the noun has no prefix, the capitalised letter is at the start of the root:

(83)

    a. ʉNkinga   [ʊn̩xîːŋga]   Kinga person

    b. aVabena   [aʋabéna]   Bena people

    c. ɨKiswahɨlɨ   [ɪxɪsʷahílɪ]   Swahili language

    d. ʉVʉkinga   [ʊʋʊxîːŋga]   quality of being Kinga

    e. ɨYelusalemu   [ɪjelusalému]   Jerusalem

    f. ʉYɨɨsʉ   [ʊjîːsʊ]   Jesus

The augment is not present if the proper noun is part of a vocative or if it follows an associative or a locative clitic. If the noun follows the conjunction <na>, the augment replaces the <a> of the conjunction. Thus in all these cases the initial letter of the word is capitalised:

(84)

    a. Gwe Yɨɨsʉ, ʉnnange!   [kʷe jîːsʊ ʊ́n̩ːaːŋge]   Jesus, help me!

    b. ʉmwana va Alufayo   [ʊ́mʷaːna ʋa alufájo]   son of Alphaeus

    c. kʉ Yelusalemu   [xʊjelusalému]   in Jerusalem

    d. nʉ Yɨɨsʉ   [nʊjîːsʊ]   and Jesus

If a proper noun occurs at the start of a sentence, the augment (if it is present) is capitalised as well as the regular capital letter which follows the augment:

(85)

    a. Ʉyeesu akɨsaja.   [ʊjîːsʊ axísaɟa]   Jesus prayed.

The principles described here also apply when a common noun is capitalised because it is a unique referent, or part of a phrase describing a unique referent:

(86)

    a. ɨKulongwi ɨNonu   [ɪxulóːⁿgʷi ínonu]   Good News
    b. Ʉmwana va Muunu itsile. [úmʷaːna ʋa mûːnu ítsile]   The Son of Man has come.

For the sake of consistency it was decided that the principle of capitalising the first letter after the augment should apply to nouns and adjectives, including when they occur phrase-medially and have an augment which is always present, as in example (a).

The examples below show some capitalisation decisions which relate to specific lexical items:

(87)

a. ʉLʉdeeva lwa Kʉkyanya	[ʊlʊdêːʋa lʷa xúxʲaːɲa]	kingdom of heaven
b. ʉNyamaka Gooni	[ʊɲamáxa kôːni]	Almighty (as a title for God)
c. Kʉnena	[xʊséna]	North
d. Kʉsika	[xʊsíxa]	South
e. Kʉvʉhʉmo wa Litsʉva	[xʊʋóhʊmo wá litsʊʋa]	East
f. Kʉvʉseemo wa Litsʉva	[xʊʋʊsêːmo wá litsʊʋa]	West
g. Pakyakʉvilʉka	[pʰaxʲaxʊʋílʊxa]	Saturday
h. Pamulʉngʉ	[pʰamulôːⁿgʊ]	Sunday
i. ikɨdugala ikya Mizeituni	[ɪxɪdúkala ɪxʲa mizeitʰúni]	Mount of Olives
j. Waholilwe ʉYiisʉ	[waholílʷe ʊjîːsʊ]	AD (lit. 'after Jesus was born')
k. Wanaholilwi ʉYiisʉ	[wanaholílʷi ʊjîːsʊ]	BC (lit. 'before Jesus was born')

The word <ʉLʉdeeva> 'kingdom' is capitalised when it refers to God's kingdom, as in (a). Similarly <ʉNyamaka Gooni> 'Almighty' is capitalised when it is used as a title for God, as in (b). Compass points (c-f) and days of the week (g-h) are capitalised, but not names of mountains, such as shown in (i). The verb in the phrases used to refer to AD and BC is capitalised (j-k). Additional examples are given in Table 14 in Appendix 4.

It was decided to prefer sentence case over title case for titles where possible, in order to simplify the capitalisation issues:

(88)

    a. Ʉyiisʉ ikʉvasaja avaana.   [ʊjîːsʊ ixʊʋasáɟa áʋaːna]
       Jesus blesses the children.
    b. Ʉyiisʉ vikʉm'beela kʉ Nasaleti. [ʊjîːːsʊ ʋixʊm̩bêːla xʊnasalétʰi]

They reject Jesus at Nazareth.

8. Free variation

8.1   Contractions

The translation work contains examples of the following words both as their full forms and as their contracted forms:

(89)

a. ɨvatambɨlwagwa	[ʋʋatʰaᵐbʊlʷákʷa]	he who was called
~ ɨvɨ aatambɨlwagwa	[úʋɪ a:tʰaᵐbʊlʷákʷa]	
b. ikange ~ kange ~ akange	[íxa:ᵑge] ~ [xâ:ᵑge] ~ [áxa:ᵑge]	again
c. ɨlweli ~ jɨlweli	[ɪlʷê:li] ~ [ɟɪlʷê:li]	truly
~ tsa jɨlweli	[t͡saɟɪlʷê:li]	
d. kɨmiitu ~ kɨ myaviitu	[xʊmî:tʰu] ~ [xʊmʲaʋî:tʰu]	our (place)
e. jɨlya ~ ɨlya	[ɟílʲa] ~ [ílʲa]	that (cl. 9)
f. tsilya ~ ilya	[t͡sílʲa] ~ [t͡sílʲa]	those (cl. 10)
g. kyɨlya ~ kyɨla	[xʲúlʲa] ~ [xʲúla]	of (cl. 7) that one (cl. 1)
h. pawiipi ~ piipi	[pʰáwi:pʰi] ~ [pʰî:pʰi]	near
i. -sajiwa ~ -sajwa	[-saɟiwa] ~ [-saɟʷa]	be blessed
j. -longotsiwa ~ -longotswa	[-loᵑgot͡siwa] ~ [-loᵑgot͡sʷa]	be lead

In contrast, for the following forms an attempt has been made to use only the uncontracted forms in the translation work. The examples illustrate the contractions possible in relative clauses (a-c), nouns preceded by the class 18 locative <mu> (d-e) and *kɨtsila* 'without' followed by an infinitive (f-g):

(90)

a. ɨvɨ aale	[úʋɪ â:le]	he who was
*ɨvyale	[ʋʋʲâ:le]	
b. ɨpwɨ aatye	[úpʰwʊ á:tʲe]	when he said
*ɨpwatye	[ʊpʰwá:tʰʲe]	
c. wɨ aholilwe	[wʊ aholílʷe]	when he was born
*waholilwe	[waholílʷe]	
d. mu wɨɨmi	[múwʊ:mi]	in life
*mbwɨmi	[ᵐbʷû:mi]	
e. mu vaanu	[muʋâ:nu]	amongst people
*mbaanu	[ᵐbâ:nu]	

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f. kɨtsila kʉlʉta   [xɨ́tsila xʊ́lʊtʰa]   without going
   *kɨtalʉta   [xɪtʰálʊtʰa]

g. kɨtsila kʉvomba   [xɨ́tsila xʊʋô:ᵐba]   without doing
   *kɨsitavomba   [xɪsitaʋô:ᵐba]

For further examples of possible free variation regarding full and contracted forms, see section 4.2.3 above on augments and associatives.

8.2 Lexical choices

The following examples illustrate possible free variation in lexical choices:

(91)

a. inyumba nyongosu   [íɲu:ᵐba ɲo:ᵑgósu]   many houses
∼ inyumba nyolosu   [íɲu:ᵐba ɲolósu]

b. isilʉnde syango   [ísilʊⁿdesʲâ:ᵑgo]   my legs
∼ isilʉnde syane   [ísilʊⁿdesʲâ:ne]

Currently, <-ongosu> is being used rather than <-olosu> for 'many' in the translation work, but free variation in possessive roots, as in (b), is being allowed. In addition to the first person singular forms shown, there are also two possible roots for second person singular (<-ave>, <-ako>), first person plural (<-itu>, <-awe>) and second person plural (<-inyo>, <-anye>). In some contexts, only one of the two options is allowed and in others free variation is possible. For example, with respect to the first person singular, only <-ane> is found in class 16-18 locative agreements and only <-ango> is found in addressing people.

9. Punctuation and other decisions not related to spelling

A comma is not used between two inflected verbs when they refer to a single event:

(92)

a. vakambʉʉla vakata   [ʋakʰaᵐbô:la ʋaxátʰa]   they told him saying
b. akahega akalʉta   [axáheka axálʊtʰa]   he left going

In the translation work, all numbers are always written out in words. Any number higher than five is also written in bracketed digits after the number word, unless it has already occurred in the same subsection or it occurs in a title or footnote keyword.

Appendix 1: Record of orthography meetings

6th July 2005, Makete: The initial orthography proposal was presented and agreed upon by the language committee.

23rd September 2014, Makete: Community approval of orthography from reviewers' committee. Two minor changes agreed: *tsy-* to be written (see (35) in 4.2.2) and -C- roots plus anterior to be written -VV to contrast with subjunctive (see (40) in 4.2.2).

Appendix 2: Minimal pairs involving vowel length created at morpheme boundaries

Table 6 Vowel length minimal pairs involving anterior and far past

avalolile 'he has watched them'	[aválolile] a-ʋa-lol-il-e 3SG-3PL-watch-ANT-FV	*ANT*
aavalolile 'he watched them'	[aːʋalólile] a-a-ʋa-lol-il-e 3SG-PST$_2$-3PL-watch-ANT-FV	*PST$_2$*
av**a**lolile[32] 'those who have watched'	[aválolile] a-ʋa-lol-il-e 2.REL-3PL-watch-ANT-FV	*REL + ANT*
aʋ**aa**lolile 'those who watched'	[aʋaːlólile] a-ʋa-a-lol-il-e 2.REL-3PL-PST$_2$-watch-ANT-FV	*REL + PST$_2$*
nd**i**tsile 'I have come'	[ⁿdíˑtsile] ⁿdɪ-its̯-il-e 1SG-come-ANT-FV	*ANT + V-initial root*
nd**ii**tsile 'I came'	[ⁿdíːtsile] ⁿdɪ-a-its̯-il-e 1SG-PST$_2$-come-ANT-FV	*PST$_2$ + V-initial root*
ingye 'he has entered'	[íˑᵑgʲe] a-iᵑgil-e 3SG-enter-FV	*ANT + VNC-initial root*
iingye 'he entered'	[íːᵑgʲe] a-a-iᵑgil-e 3SG-PST$_2$-enter-FV	*PST$_2$ + VNC-initial root*
ambɨgye	[áˑᵐbɪkʲe]	*ANT + 1SG*

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[32] *avalolile* 'he has watched them' and *avalolile* 'those who have watched' are homophones.

'he has written to me'	a-N-ʋɪk-ɪl-il-e 3SG-1SG-write-APPL-ANT-FV	
aamb**i**gye 'he wrote to me'	[aːᵐbíkʲe] a-a-N-ʋɪk-ɪl-il-e 3SG-PST₂-1SG-write-APPL-ANT-FV	*PST₂ + 1SG*
mw**i**biite 'you have held'	[mʷíˑbiːtʰe] mu-ibatʰ-il-e 2PL-hold-ANT-FV	*ANT after Cʷ*
mw**ii**biite 'you held'	[mʷiːbîːtʰe] mu-a-ibatʰ-il-e 2PL-PST₂-hold-ANT-FV	*PST₂ after Cʷ*
ndy**a**ndile 'I have answered'	[ⁿdʲáˑⁿdile] ⁿdɪ-aːⁿd-il-e 1SG-answer-ANT-FV	*ANT after Cʸ*
ndy**aa**ndile 'I answered'	[ⁿdʲáːⁿdile] ⁿdɪ-a-aːⁿd-il-e 1SG-PST₂-answer-ANT-FV	*PST₂ after Cʸ*
aman**yi**se 'he should teach'	[amáɲise] a-maɲ-is-e 3SG-know-CAUS-FV	*CAUS + SBJV*
aman**yii**se 'he has taught'	[ámaɲiːse] a-maɲ-is-il-e 3SG-know-CAUS-ANT-FV	*CAUS + ANT*
amwing**i**tse 'he should bring him in'	[amʷiːⁿgítse] a-mʋ-iːⁿgil-its-e 3SG-3SG-enter-CAUS-FV	*CAUS + SBJV*
amwing**ii**tse 'he brought him in'	[amʷíːⁿgiːtse] a-mʋ-iːⁿgil-its-il-e 3SG-3MSG-enter-CAUS-ANT-FV	*CAUS + ANT*
amanyi**k**ike 'he should be known'	[amaɲíxixe] a-maɲ-ix-ix-e 3SG-know-STAT-STAT-FV	*STAT + SBJV*
amanyik**ii**ke 'he has been known'	[ámaɲixiːxe] a-maɲ-ix-ix-il-e 3SG-know-STAT-STAT-ANT-FV	*STAT + ANT*
voots**i**we	[ʋóːtsiwe]	*PASS + SBJV*

'they should be baptised'	ʋa-ots-u-e 3PL-baptise-PASS-FV	
vootsiiwe[33] 'those who were baptised'	[ʋo:tsî:we] ʋa-a-ots-u-il-e 3PL-PST$_2$-baptise-PASS-ANT-FV	*PASS + PST$_2$*
navombili 'he has not worked'	[naʋo:ᵐbíli] na-a-ʋo:ᵐb-il-i NEG-3SG-work-ANT-FV	*ANT(NEG)*
navombiili 'he has not worked for'	[naʋo:ᵐbí:li] na-a-ʋo:ᵐb-ɪl-il-i NEG-3SG-work-APPL-ANT-FV	*APPL + ANT(NEG)*
wamalile 'when he finished'	[wamalíle] wʋ-a-mal-il-e 14.REL-3SG-finish-ANT-FV	*REL + 3SG + ANT[34]*
waamalile 'you finished'	[wa:málile] ʋ-a-mal-il-e 2SG-PST$_2$-finish-ANT-FV	*2SG + PST$_2$*
widindile 'you have fasted'	[wídɪːⁿdile] ʋ-i-dɪnd-il-e 2SG-REFL-close-ANT-FV	*ANT + REFL*
wiidindile 'you fasted'	[wɪ:díːⁿdile] ʋ-i-a-dɪnd-il-e 2SG-REFL-PST$_2$-close-ANT-FV	*PST$_2$ + REFL*
ʉwavalekile 'those whom he left'	[ʋwaʋaléxile] ʋwʋ-a-ʋa-lex-il-e 2.REL-3SG-3PL-leave-ANT-FV	*REL + SBJ*
ʉwaavoniike 'that which was visible'	[ʋwa:ʋóni:xe] ʋwʋ-ʋʋ-a-ʋon-ix-il-e 14.REL-14-PST$_2$-see-STAT-ANT-FV	*REL + PST$_2$*
ʉvitsile 'he who has come'	[ʋʋíˑtsile] ʋʋɪ-a-its-il-e 1.REL-3SG-come-ANT-FV	*REL + SBJ*

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[33] This only forms a minimal pair with the example above if the word occurs without the initial vowel, as for example when it follows *na* 'and'.

[34] Note that although two vowels are adjacent at the underlying level in the first syllable, the surface form of this vowel is not lengthened and is therefore written as a short vowel.

ʉviitsile 'he who came'	[ʊʋíːtsile] ʋʋɪ-a-a-its-il-e 1.REL-3SG-PST₂-come-ANT-FV	REL + PST₂

Table 7 Other vowel length minimal pairs

jivomba 'it works'	[ɟiʋôːᵐba] ɟɪ-i-ʋoːᵐb-a 9-PRES-work-FV	*9 + PRES*
jiivomba 'he will work'	[ɟiːʋôːᵐba] ɟʲʊ-a-i-ʋoːᵐb-a FUT₁ₐ-3SG-PRES-work-FV	*FUT₁ₐ + 3SG*
akagɨdika 'and he was cut'	[axakídɪxa] a-xa-kɪd-ɪx-a 3SG-NAR-cut-STAT-FV	*root*
akagɨɨdika 'and he believed them'	[axakíːdɪxa] a-xa-ka-ɪdɪx-a 3SG-NAR-6-believe-FV	*OBJ + V-initial root*
tʉkagana 'and we loved'	[tʰʊxákana] tʊ-xa-kan-a 1PL-NAR-love-FV	*NAR*
tʉkaagana 'and we met'	[tʊxáːkana] tʊ-xa-akan-a 1PL-NAR-meet-FV	*NAR + V-initial root*
akɨmbɨle 'he should run'	[axíːᵐbɪle] a-xɪːᵐbɪl-e 3SG-run-FV	*root*
akɨɨmbɨle 'he should go and read to'	[áxɪːᵐbɪle] a-xa-ɪːᵐb-ɪl-e 3SG-ITV-read-APPL-FV	*ITV + V-initial root*
ilya 'those'	[ílʲa]	*DEM (cl. 10)*
iilya 'he eats'	[íːlʲa] a-i-lʲ-a 3SG-PRES-eat-FV	*PRES*
nago 'and it'	[náko] na-ko	*and + PRO*

		and-6	
naago 'and those'	[ná:ko] na-ako and-6.DEM.REF		*and*+DEM
navo 'and them'	[návo] na-ʋo and-2		*and*+PRO
naavo 'and those'	[ná:ʋo] na-aʋo and-2.DEM.REF		*and*+DEM
ampe 'he should give him'	[âm̩pʰe] a-mʋ-p-e 3SG-3SG-give-FV		*SBJV*
naampe 'he did not give him'	[nǎːm̩pʰe] na-a-a-mʋ-p-e NEG-3SG-PST2-give-FV		*PST₂*
ʉw**ɨ**gane 'desire, will'	[ʋwíkane] ʋ-wʋ-ɪ-kan-e AUG-14-REFL-love-NOM		*REFL*
ʉw**ɨɨ**mɨlo 'reason'	[ʋwǐ:mɪlo] ʋwʋ-ɪm-ɪl-o		*V-initial stem*

Appendix 3: Lists of word boundary examples and exceptions (with Swahili translations)

Table 8 Locatives including *pa-*, *kʉ-* or *mu-* which are written conjunctively

16 pa-		17 kʉ-		18 mu-	
Location					
pagati	*katikati*	kʉgati	*ndani*	cf. mu n'gati[35]	*ndani*
pagatinagati	*katikati*				
pakyanya	*juu*			mukyanya	*juu*
pananena	*juu*	kʉnanena	*juu*		
pantwekyanya	*utosini*				
panzi	*nje*	kʉnzi	*nje*		

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[35] This appears to contain two class 18 locative morphemes. The second is assimilated into the root.

pavʉlongolo	*mbele*	kʉvʉlongolo	*mbele*	mbʉlongolo	*mbele*
pavʉtale	*mbali*	kʉvʉtale	*mbali*		
pawiipi	*karibu*				
		kʉndyo	*kulia*		
		kʉnsana	*nyuma*	munsana	*nyuma*
		Kʉnena	*Kaskazini*		
		Kʉsika	*Kusini*		
		Kʉvʉhʉmo wa Litsuva	*Mashariki*		
		Kʉvʉseemo wa Litsuva	*Magharibi*		
Time					
Pakɨhaano	*Ijumaa*				
pakɨlo	*usiku*				
pakɨlogati	*usiku wa manane*				
Pakyakʉvilʉka	*Jumamosi*				
pamihe	*jioni*	kʉmihe	*jioni*		
Pamulʉngʉ	*Jumapili*				
pamuunyi	*mchana*				
pavʉsiku	*asubuhi*				
		kʉmbele	*baadaye*		
Metaphor					
pamiiho[36]	*mbele*	kʉmiiho	*usoni*		
pavʉtiitu	*faraghani*	kʉvʉtiitu	*sirini*		
pavʉvalasu	*wazi*				
Other					
pavʉnonu	*pazuri; kwa anasa*				
pavʉvalatse	*patakatifu*				
pavʉvʉle	*bure*				
		kwimali[37]	*kutokwa na damu*		

[36] Note that an associative following *pamiiho* may show either class 6 agreement (*ga*) or class 16 agreement (*pa*), suggesting that it is becoming grammaticalised as a locative noun.

[37] This is an example of class 5 prefix reduction as the base noun is *ɨlimali*.

					ndʉgelo[38]	*majaribuni*

Table 9 Conjunctively written words containing associatives

avampelela	*Wakristo* cf. avaanu va mpelela *watu wa kanisa*
avapanzi	*wapagani*
avavejangi	*waovu*
ɨkyakʉlya	*chakula* cf. isiinu sya kʉlya *vitu vya kula*
ɨkyakʉnywa	*kinywaji*
ɨkyɨleelo	*ya leo* e.g. ɨkɨgono ɨkyɨleelo *siku ya leo*
isyavʉpe	*sadaka*
ʉlwalɨno	*kwa hivi sasa*
ʉlwandʉlʉ	*utafsiri*
ʉmwakwɨmɨlamwo	*sababu ya msingi*
ʉwajɨlweli	*ukweli*
vankɨkolo	*wanaukoo*

Table 10 Reduplications

Complete		**Partial**	
gɨdatu gɨdatu	*mitatu mitatu*	ing'ʉmbʉng'ʉmbʉ	*ufokoni, guba*
kwabaasa kwabaasa	*kupapasa papasa*	kɨdwivudwivu	*chemichemi*
kwoni kwoni	*kote kote*	mamɨndumɨndu	*kigeugeu*
matuli matuli	*vipande vipande*	nagwanoganogage	*sikutamani*
mola mola	*pole pole*	nigalamukagalamuka	*hageukigeuki*
mpamato mpamato	*mmoja mmoja*	nkyanyakyanya	*juu juu*
mwene mwene	*peke yake*	-nyalʉbogaaboga	*ya kijani*
mwoni mwoni	*kila mahali*	ʉkwɨvoniavonia	*kujionyesha*
padebe padebe	*kidogo kidogo*	ʉlʉnaludegandega	*isiyolegea*
sihaano sihaano	*vitano vitano*	vaagendagendaga	*walikuwa wakipitapita*
sikosa sikosa	*vifungu vifungu*	valɨkwɨgumbagumba	*wakawa wakijipigapiga*
sipʉga sipʉga	*makundi makundi*	vigendagenda	*wanatembeatembea*
vanni vanni	*wanne wanne*	vʉdekedeke	*udhaifu*
vavɨlɨ vavɨlɨ	*wawili wawili*	vʉvʉle vʉle	*vivyo hivyo*

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[38] This is a contraction of *mu lʉgelo* and was preferred in the contracted form in the Lord's Prayer as people are used to pronouncing it this way.

veene veene	*wenyewe*		
vongosu vongosu	*wengi kiasi*		
vᵾle vᵾle	*vile vile*		
With vowel length differences shown			
ndetindeeti	*namna gani*	akahanyaahanya	*akarukaruka*
ng'aning'aani	*haraka*	likelaakela	*pakanga*
sitsosiitso	*zaidi sana*	ᵾkᵾhamahaama	*kuhamahama*
vuguuvugu	*tetesi*		
wɨmawɨɨma	*haraka*		

Table 11 Conjunctively written compounds containing *-nya-*

ɨgɨnyakaswike	*zilizochakaa*
ɨjɨnyakaswike	*iliyochakaa*
ɨnyalᵾbogaaboga	*kijani*
ɨnyanyeke	*kijivujivu*
ɨnyavᵾvengi	*urujuani*
avanyamalago	*manabii*
ᵾnyakwandᵾla	*mwenye kutafsiri*
avanyakɨvaga	*watumishi*
avanyambuda	*wauaji*
avanyalᵾdeeva	*wa ukoo wa kifalme*
avanyapanzi	*wapagani ('wenye nje')*
avanyakatale	*wazee ('wenye zamani')*
avanyalᵾkolo	*ndugu ('wenye ukoo')*
avanyavᵾngᵾngᵾ	*mapacha*
ɨMinyavᵾngᵾngᵾ	*mapacha*
ɨkɨnyalwangᵾla	*kiti cha enzi*
aganyavᵾganulu	*mafafanuzi*
ᵾNyamaka	*Mwenyezi (cf. ᵾnya maka mwenye nguvu)*
ɨNyanza ɨNyamwinyo	*Bahari ya Chumvi*

Table 12 Conjunctively written compounds

avadeenyandagɨlo	*wavunja sheria*
avalovasomba	*wavuvi*
avamanyanondwe	*wajuzi nyota*

avanamuunu	*ndugu*
avatengaligoha	*wapiga vita*
avatsenganyumba	*wajenga nyumba*
avavombambiivi	*watenda mbaya*
aveenekwo	*wenyeji*
avenekɨlʉnga	*wenyeji*
avenelʉdeeva	*wamiliki wa ufalme* (cf. avanyalʉdeeva *watawala*)
avenembwa	*wenye mbwa*
avenenajyo	*wamiliki*
avenevʉtsenge	*wenyeji*
budikapkʉpamato	*tisa*
ɨkɨswalitumbu	*siri*
ɨnengaligoha	*ngao*
itsyenelibɨkɨ	*ya asili ya mti*
mu lʉgasimbale	*pembeni mwa maji*
mu lʉkanzimbale	*kandokando*
pantwekyanya	*utosini*
ʉlʉkololwango	*ndugu yangu*
ʉmbombambombo	*mfanya kazi*
ʉmwenekɨlimɨla	*mwenye shamba*
ʉmwenembene	*mmiliki mavuno*
ʉmwenembombo	*mwenye wajibu*
ʉmwenemeeli	*mmiliki wa meli*
ʉmwenenkanda	*mwenye mkanda*
ʉmwenenyumba[39]	*mwenye nyumba*
ʉmwenevʉhaale	*mwenye urithi*
ʉndahambeju	*mpanda mbegu*
ʉndekalʉleko	*mtoa wosia*
ʉndʉtanzɨla	*mpita njia*
ʉntegʉlan'dala	*bwana arusi*
ʉntengaligoha	*mpiga vita*
ʉntulanongwa	*mtenda dhambi*
ʉnyukangʉvʉ	*mtengenezaji wa ngozi*

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[39] ʉ*mwenenyumba* is understood as the house owner, whereas ʉ*nya nyumba* may be the owner or someone currently in possession of the house, such as a tenant.

ɨwenekɨlɨnga	*uraia*

Table 13 Word boundary minimal pairs

mulɨ va Kɨlɨsiti	*nyinyi ni wa Kristo*	mulɨ Vakɨlɨsiti	*nyinyi ni Wakristo*
alɨtile mu kɨvavombela	*ameenda kuwatendea*	mukɨvavombela	*mnawatendea*

Appendix 4: Capitalisation

Table 14 Capitalisation decisions made for the Kinga New Testament

Titles for God/Jesus/Holy Spirit[40]		
(Good) Teacher/Rabbi	Mmanyisi	
Advocate/Helper	Ntangɨli	*Jhn 14:17, but lower case in 1 Jn 2:1 when it is a description of Jesus.*
Almighty One / Majesty (Heb 1:3)	Ngɨlɨve ɨNdɨti	
Alpha (Rev 22:13)	Alufa	
Amen	Ameni	
Beginning (Rev 22:13)	Vɨtengɨlɨlo	
Beloved	ɨn'gane	
Chosen one of God	ɨvahalilwe nɨ Ngɨlɨve	
Creator	ɨMpeli	
dearly loved/beloved Son	ɨn'gane	
Eloi	Eloi	
End (Rev 22:13)	Vɨmalɨlo	
Father	Daada	
God	Ngɨlɨve	
God of grace	Ngɨlɨve ɨnya lɨhɨngɨ	
good shepherd	ɨN'dɨimi ɨNnonu	
great shepherd	ɨN'dɨimi ɨNdɨti	
Great King	Nkɨlɨdeeva ɨNdɨti	

[40] Note that many examples in the first section of the table (such ɨmbaha 'lord, sir', ɨmmanyisi 'teacher', ɨmpoki 'saviour', ɨmwana 'son', ɨndongotsi 'ruler', ɨnkɨlɨdeeva 'king' and ɨntwa 'lord, sir') are only capitalised when referring to Jesus and occur in their lower case forms with other referents in the New Testament.

Head (Col 2:19)	Kilisiti	
his Spirit (Eph 3:16)	uMepo va mwene	
Holy One (Act 2:27)	uMbalatse	*Not capitalised when a description not a title (e.g. Eph 4:24)*
Holy Spirit	uMepo uMbalatse	
I AM	Une Neene ndi Ndilikwo	
Judge (Jas 5:9)	uMmigi	*helps to show divine ref*
King	uNkuludeeva	
King of ages (1 Ti 1:17)	uNkuludeeva untsila vusililo	
King of Israel	uNkuludeeva va Vaisilahili	
King of kings (Rev 19:16)	uNkuludeeva va vakuludeeva	
King of the Jews	uNkuludeeva va Vayahudi	
Lamb of God	Kakolo va Nguluve	
Last (Rev 22:13)		
Lion (Rev 5:5)	uNgalamu va kivumbuku kya Yuuda	
Lord	uNtwa uMbaha	*Depends!*
Lord of lords (Rev 19:16)	uNtwa va vatwa	
Majestic Glory (2 Pe 1:17)	unya wiimikiwa uvuluti	
Master	uNtwa	
Mighty One	uNguluve uNyamaka Gooni	
mighty Saviour	uMpoki unya maka	
Most High	uNguluve uNduti va syoni	*unguluve unduti for Artemis*
my Chosen One	uvahalilwe nu Nguluve	
Omega (Rev 22:13)	Omega	
only Ruler	uNyamaka mpamato jyujwa mwene	
Overseer of your souls (1 Pe 2:25)	uNdoleeli va numbula tsiinyo	
Presence (Heb 9:2)		
Prince/ Leader	Mbaha	
Righteous One/ Faithful (Rev 19:11)	Mmuugu N'golosu	

Rock (1 Cor 10:4)	ʉlʉnalaawe	
Root of David (Rev 5:5)	lʉjungu lwa nkʉlʉdeeva ʉDavʉdi	
Ruler	ʉNdongotsi	
Saviour/Deliverer	ʉMpoki	
Shepherd (Matt 26:31)	ʉn'diimi	
Son	Mwana Nswambe	*Mat 28:19*
Son of David	Mwana (va nkʉlʉdeeva ʉ)Davʉdi	*e.g. Mat 21:9*
son of David	lʉjungu/kikolo/mwana… Davʉdi	*e.g. Mat 22:45*
Son of God	Mwana va Ngʉlʉve	
Son of Man	Mwana va Muunu	
Son of the Blessed One	ʉMwana va Ngʉlʉve ʉMwimikiwa	
Son of the Most High	ʉNgʉlʉve ʉNdʉti va syoni	
Sovereign (1 Ti 6:15)	ʉNyamaka mpamato jyʉjwa mwene	
Sovereign Lord	ʉNdongotsi ʉNdʉti	
Spirit of God	Mepo va Ngʉlʉve	
Spirit of your Father (Mat 10:20)	Mepo va Dadajiinyo	
True (Rev 19:11)	Jilweil	
unique One		
Word	ʉLimenyu	
Other titles		
apostle	mpositili	
Bride (Rev 21:9)	ʉmminza ʉvi itegʉlwa	
Caesar	Kaisali	
Cephas	Lʉnalaawe	
David the King/king	ʉnkʉlʉdeeva ʉDavʉdi	
Death (Rev 20:14)	Vʉswe	*cf. vʉswe for place*
Destroyer (Rev 9:11)	Mbejangi	*Presented as name.*

destroying angel (1 Cor 10:10, Heb 11:2)	ʉnsuung'wa ʉmbejangi	
Epicureans	Vaepikuleo	
enemy Satan	ntavangwa ʉSetano	
Father Abraham	daada Abulahamu	
Governer Felix	ʉmbaha va kilʉnga ʉFeliki	
Great Power	Maka Malʉti	
Hades (Rev 20:14)	kʉ vʉswe	
Herod the king/King Herod	ʉnkʉlʉdeeva ʉHelode	
John the Baptist	ʉYohana ʉMwotsi	
King Agrippa	ʉnkʉlʉdeeva Agilipa va Viili	
Legion	Legioni	
most excellent Felix	ʉmwimikiwa Feliki	
most excellent Festus	ʉmwimikiwa Fesito	
most excellent Theophilus	mwimikiwa Tiofilo	
Niger	Ntiitu	
Prophet (Jn 1:21)	Nyamalago	
priests	vateeketsi	
Sanhedrin	Sanihedilini	
Solomon (king not mentioned)	nkʉlʉdeeva ʉSolomoni	
Son of Encouragement/son of Encouragement	ʉndʉme ʉnya lʉtseeso	
Stoics	Vasitoiki	
the Assassins (Acts 21:38)	avabudi	
the Twelve	vakongi va Yiisʉ kitsigo na vavili	
the Twin	Vʉngʉngʉ	
the Zealot	N'zelote	
unknown god/Unknown God	kwa ngʉlʉve ʉvi nimanyikika	
Wormwood (Rev 8:11)	Vʉkali	
Your Majesty	ʉnkʉlʉdeeva viitu ʉmbaha	

	ᵾNgᵾlᵾve ᵾNdᵾti	
Holy places		
ark of the covenant	iLisandᵾka lya Lwɨding'ano	
his Kingdom throne	kɨnyalwangᵾla kya mwene kya Lᵾdeeva	
Holy Place	Pavᵾvalatse	
Most Holy Place	Pavᵾvalatse Siitso	
Tabernacle/tent of witness	iheema jya kᵾvavonia ᵾkᵾta ᵾNgᵾlᵾve alɨ paninie navo	
Temple/temple	ᵾVᵾvalatse wa Ngᵾlᵾve (temple itself) tembile (building complex)	
outer court	Lᵾvanza lwa Vanyapanzi	
Landmarks		
Adriatic Sea	nyanza jya Adiliya	
Asia Minor	Asiya ɨNdebe	
Red Sea		
island of Cyprus	kɨlᵾnga kya Kipulo	
Jordan River	lᵾgasi ᵾlwa Yolodani	
Kidron Valley	ikɨhᵾlᵾ kya Kiduloni	
Mount Gerizim/Sinai	kɨdugala kya Sinai	
Mount of Olives	kɨdugala ɨkya Mizeituni	
Mount Zion	kɨdugala kya Sayuni	
pool of Siloam	lisiva lya Silohamu	
Red Sea	nyanza jya Shamu	
Sea of Galilee/Genesaret/Tiberias	nyanza jya…	
Kingdoms/military		
Father's Kingdom/kingdom of their Father	Lᵾdeeva lwa Daada	
Imperial Regiment/Augustan Cohort	kɨpuga kya vasikali avaloleeli va Kaisali Agusito	

his Kingdom/kingdom	ᵾLᵾdeeva lwa mwene	
Italian Regiment	Lipᵾga lya mu Italiya	*Not "an" Italian regiment.*
Kingdom of Heaven/kingdom of heaven	Lᵾdeeva lwa Kᵾkyanya	*kᵾkyanya not capitalised when not in this phrase (same as Neno).*
Kingdom/kingdom of God	Lᵾdeeva lwa Ngᵾlᵾve	
Kingdom/kingdom of Satan	ᵾlᵾdeeva lwa mwene	
Roman Empire	lᵾdeeva lwa K�syooma	

	Other locations	
Areopagus	Aleopago	
Beautiful Gate	Ndyango ᵾNnonu	
Fair Havens	Kyɨmo Kɨnonu	
Field of Blood	Kɨlɨmɨla kya Nkisa	*First noun capitalised (cf. mountain examples), following other translations.*
Place of the/a skull/The Skull	Liheela lya Ntwe	
Sheep Gate	Ndyango gwa Ng'olo	
Solomon's Colonnade/ colonnade of Solomon	Lyeve lya Solomoni	
Stone Pavement	Waalo wa Maganga	
Straight Street	lᵾkɨndɨ lwa nyumba ᵾlutambᵾlwa Lᵾgolosu	
Synagogue of Freed Slaves	Lisinagogi lya Vovopolwa	*Specific referent*
synagogue of the Jews	lisinagogi lya Vayahudi	*General referent*
the Appian Way	Soko jya Apiyo	
The Three Taverns	Nyumba iDatu tsa Vahenza	
the Treasury	kikong'olo kya kᵾlahɨla	

	Special feasts/days	
fasting festival	kyaka kya kwɨdɨnda ᵾkᵾlya	*description of Yomu Kipuli*
Festival of Dedication	kyaka kya Vayahudi kya kᵾkᵾmbᵾka ᵾkwɨmɨka tembile ᵾkᵾ kᵾ Yelusalemu	*description rather than name*

Festival of Pentecost	kyaka kya Pentekositi	
Festival of Shelters	kyaka kya Syeve	
Festival of Unleavened Bread	kyaka kya Mikate Ɨgɨtsila Kɨlʉve	
Holy Communion	Siinu iSivalatse	
Passover meal	Siinu iSivalatse	
Passover	ɨkyakʉlya kya kyaka kya Pasaka	
sabbath	Sabato	
Scripture/Gospel/other		
Bible	Bibilia	
Book of the Law (Gal 3:10)	kɨtabu kya ndagɨlo	
book of life	kɨtabu kya wʉʉmi	
Christianity	Vʉkɨlɨsiti	
Christians	Vakɨlɨsiti	
Corban (Mk 7:11)	Kolibani	
Day (1 Cor 3:13)	ɨkɨgono kɨlya ɨkya vʉhɨgi	
denarius	dinali	
God's law	ɨndagɨlo tsa Ngʉlʉve	
God's word	ɨlimenyu lya Ngʉlʉve	
Good News/good news	iLɨvangɨli	*Not capitalised in Gal 1:8 where it does not refer to true Gospel.*
Holy, holy, holy (is the Lord God Almighty)	vɨ Mbalatse, vɨ Mbalatse, vɨ Mbalatse	*Not usual approach to description, but felt right to translators.*
Hosiana	Hosanna	
mana	manna	
old/new covenant	lwɨding'ano ʉlʉlaala/ʉlʉpya	
Old/New Testament (in notes)	Lwɨding'ano ʉLʉlaala/ʉLʉpya	
Scriptures	Vʉvɨge ʉVʉvalatse	
Septuagint	Seputuajenta	
talent	talanta	
the Law (1 Cor 9:8)	ndagɨlo tsa Moose	
the Prophets (Rom 3:21)	vʉvɨge wa vanyamalago	

	kɨtabu kya (va)nyamalago	
the Way	Nzɨla	
Torah	sitabu sya ndagɨlo tsa Moose kɨtabu kya Moose	

Appendix 5: Record of additions and changes to orthography decisions

2014-11-21 Kinga orthography statement

First version of the document. Put together by Helen Eaton with input from Saul Lwilla and Zakayo Swallo.

2018-02-23 Kinga orthography statement

Revisions and additions made after linguistic check of New Testament.

Those present during check: Saul Lwilla, Zakayo Swallo, Helen Eaton

Issue	Reference	Comment
Lengthened nasals	1.3	Separated lengthened nasals from syllabic nasals and put in new section for the sake of clarity. Gave further examples of environments which create lengthened nasals.
Vowel length	2.2.2.1	Removed some exceptions which proved not to be after further investigation. Added explanation of vowel length behaviour of the reflexive morpheme.
Conjunctions	5.1	Added examples of relative pronouns and associatives.
Locatives	5.3	Added examples of demontratives.
Capitalisation	7	Removed exception about writing <ii> as <I> when capitalised. Revised Biblical examples to reflect New Testament decisions.
Punctuation	9	Added section for punctuation decisions and non-spelling related decisions such as how to write out numbers.
Appendix 2	Vowel length minimal pairs	Added further examples to both tables.
Appendix 3	Word boundaries	Added tables of examples and exceptions.
Appendix 4	Capitalisation	Added table of examples of capitalisation decisions for the New Testament.