Wanga (JE32a)

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1. Introduction and overview

This chapter describes properties of Wanga [iso:lwg], one of 25 languages of the Luyia (Luhya) cluster of western Kenya and eastern Uganda. Wanga is designated JE32a in the Tervuren classification system (Maho 2009). There is high mutual intelligibility between many Luyia varieties (Angogo Kanyoro 1983), but also considerable internal linguistic diversity; see Marlo *et al.* (2018) for a recent classification. The center of the Wanga-speaking area is Mumias town in Kakamega County, close to the geographic center of Luyialand in western Kenya. There are no available estimates of the number of Wanga speakers. The 2009 Kenyan census reports 309,000 members of the Wanga ethnic community, but it is not clear how this figure corresponds to the number of fluent Wanga speakers. In the assessment of our primary Wanga-speaking consultant and research assistant, Alfred Anangwe, Wanga is being learned by children in rural areas, and is used across domains. However, the language is losing ground to Swahili and English, both of which are official languages in Kenya and languages of education at different levels. Anangwe reports that children are forced to speak English at school and may be punished for not speaking English; even in rural areas, children tend to speak Swahili and English to one another.

Following early anthropological studies of the Wanga community (Dundas 1913, Stam 1929), Wanga was the subject of Appleby's (1943) *Luluhya-English vocabulary* and her (1961) pedagogical grammar. Since Appleby's early work, there have been little published research on Wanga, though there is a growing body of unpublished and ongoing research on the language. The published articles are Green & Farris-Trimble (2010) and Green (2012) on morpho-phonological alternations in nouns and Ebarb *et al.* (2014)'s overview of verb tone. There are several unpublished theses on Wanga: one Ph.D. dissertation (Aura in prep), one M.A. thesis (Abdulmajid 2000), and five B.A. theses (Steimel 2014; Senkerik 2016; Raksachat 2017; Frost 2018; Iliakis 2018) that we have supervised. In addition, we are developing a study of Wanga grammar (Diercks *et al.* in prep, a), a collection of Wanga texts (Diercks *et al.* in prep, b), a monograph on Wanga tonology (Green *et al.* in prep, a), and a lexicon (Green *et al.* in prep, b). Our lexicon, which was derived initially by re-eliciting the vocabulary in Appleby (1943), currently contains ~2,100 nominal headwords and ~1,700 verbal headwords, among other entries. The information in this chapter draws on approximately 12 years (2006-2018) of data collection by the authors through several research trips to Kenya, two field methods courses (one in the US and one in Kenya), and numerous questionnaires administered remotely.

In the sections that follow, we highlight the basic properties and points of interest in the phonology (§2), morphology (§3), and syntax (§4) of Wanga. We conclude in §5 by discussing variation we have noted in our study of Wanga grammar.

2. Phonology

In this section, we provide an overview of the Wanga segmental and tonal inventories and notable phonological processes in the language. The vowel and consonant inventories are introduced in §2.1 and §2.2, respectively, and an overview of syllable structure is given in §2.3. Phonological processes involving vowels are treated next, vowel harmony in §2.4, and hiatus resolution in §2.5.

Processes involving consonants are next, as we describe consonant mutations in §2.6 and NC effects in §2.7. We conclude with notes on the tone system in §2.8.

2.1.   Vowels

Wanga has a five-vowel system /i e a o u/ with a length contrast. Compare: *omu-lími* 'farmer,' *omu-léxwá* 'orphan,' *eʃi-lúmi* 'biting insect,' *omu-lóβole* 'elected person,' *omu-lálu* 'madman.' Each vowel has a contrastive long counterpart, e.g., *oxú*[*lémá*][1] 'to be lame' vs. *oxu*[*léémá*] 'to be insufficient,' *oβu-xana* 'music' vs. *oβu-xaána* 'girlhood.'

The length contrast is neutralized to short word-initially and finally. It is neutralized to long before nasal + voiced consonant sequences /a-á-mú-ń[rèer-il-a]/ → *y-á-múú-n*[*deer-eɺ-a*] 'He brought him for me' and via hiatus resolving processes (see §2.5), e.g., /a-mú[èɲ-il-e]/ → *a-mw*[*eeɲ-él-é*] 'He wanted him.' Another instance of lengthening arises in perfective verbs due to imbrication (§3.2.1).

2.2.   Consonants

The Wanga consonant inventory is summarized in (1), omitting *h*, which is marginal (see §2.5). Voicing in obstruents is generally predictable, as voiced obstruents other than *β* appear only after nasals, and voiceless obstruents and *β* appear elsewhere. *nz* is the postnasal realization of *ts*; *p*, which is somewhat rare and found largely in loanwords, and *β* are both realized as *b* after nasals. Although the distribution and alternations these considerations would typically suggest that only voiceless obstruents are in the phoneme inventory, Green & Farris-Trimble (2010) and Green (2012) propose that there is a covert underlying voicing contrast in stem-initial obstruents to account for different realizations of noun class prefixes in cl. 9-10 and cl. 11-10 nouns.

(1)   Wanga consonant inventory

	Labial	Alveolar	Postalveolar	Velar
Stop	p mb	t, ts nd	tʃ ɲdʒ	k ŋg
Fricative	f β	s nz	ʃ	x
Nasal	m	n	ɲ	ŋ
Approximant	w	l, ɺ, r	j	

l and *r* are contrastive; *l* alternates with the lateral flap (*ɺ*) after front vowels, though stem-initial *l* may resist flapping. Liquids alternate with *d* after a nasal. *w* and *j* are contrastive and, along with *h*, are optional realizations of a ghost consonant (§2.5). Glides are also derived from glide formation and epenthesis. Nasal stops contrast at four places *m, n, ɲ,* and *ŋ* but also emerge from place assimilation.

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[1] Throughout this chapter, we identify the boundaries of verb stems with brackets [ ].

2.3. Syllable structure

All Wanga syllables are open: CV anywhere, CVV word-internally. V-only syllables are common but only unambiguously when word-initial; elsewhere, they are preceded by a ghost consonant (§2.5). There are many nasal + voiced obstruent sequences. We do not take a position on the syllabification of NC; see Downing & Mtenje (2017) and references therein discussion of the analytical possibilities. Consonant + glide sequences also occur, often as a result of glide formation; non-final vowels following CG are long, e.g., /ómu-ixó/ → *omw-íⁱxó* 'relative.'

2.4. Vowel harmony

Vowel quality alternations arise from coalescence, e.g., /áβ**a-i**tsa/ → *aβ-**eet**sa* 'friends' and from two harmony processes. First, the vowel of the imperfective suffix -*Vŋg* takes on the identity of the following vowel: /βa[βùkul-**Vŋg**-u-a]/ → *βa[βukul-**uu**ŋg-w-a]* 'They are being taken,' /a-ì[fùmam-**Vŋg**-í-a]/ → *y-ee[fumam-**iiⁿ**dʒ-y-a]* 'He is inverting himself,' /xu-á[kaluxan-**Vŋg**-il-e]/ → *xw-aa[kálúxaan-**ee**ⁿdʒ-e]* 'We were turning around,' /i[fù-its-**Vŋg**-a]/ → *i[fw-iits-**ááŋg**-a]* 'It (cl. 9) is dying.' Second, as is common in Bantu languages (Downing & Mtenje 2017, Hyman 2003), Wanga suffixes beginning with /i/ become *e* after mid vowels (*e* or *o*). Vowel Height Harmony (VHH) is observed in the perfective, applicative, neuter, and iterative extensions in Wanga.

(2) /a[rèer-**il**-e]/   → a[reer-eɺ-e]   'He has brought'
     /a-á-mú[lomalom-**il**-a]/ → y-á-mú[ˈlómálom-eɺ-a] 'He talked for him'
     /oxú[lol-**ix**-a]/   → oxú[lól-éx-á]   'to be seen'
     /oxú[kweet-**ilil**-a]/   → oxú[kwéét-éɺéɺ-á]   'to eat sparingly'

Another type of VHH applies in suffixes beginning with a back/round vowel. For instance, the reversive -*ul* is lowered to -*ol* after a back/round vowel in *oxú[tsóm-**ól**-á]* 'to unsheath,' cf. *oxú[tsóm-á]* 'to sheath,' but -*ul* does not lower after a front/unround mid vowel, e.g., *oxu[réⁱm-**úl**-á]* 'to slash down,' cf. *oxu[réⁱm-á]* 'to cut (with axe, machete).'

2.5. Hiatus resolution and ghost consonants

Hiatus resolution in Wanga is complex, though the basic facts are straightforward. Hiatus typically involves word-internal combinations of two vowels V$_1$+V$_2$, where V$_1$ is a high or low vowel and V$_2$ is unrestricted; there is one instance of a V$_1$ mid vowel in the case of the 2S subject marker *o-*.

In general, when two identical vowels combine, the result is a long vowel of the same quality, e.g., /áβ**a-a**na/ → *aβ-**áan**a* 'children.' A high vowel followed by a non-identical vowel triggers glide formation and compensatory lengthening, e.g., /ox**ú**[**à**y-a]/ → *oxw[**áá**ⁱy-á]* 'to graze,' /tʃ**i**[**à**y-Vng-a]/ → *tʃy[**aa**y-ááŋg-a]* 'They (cl. 10) are grazing.' A low vowel followed by a high vowel triggers coalescence and compensatory lengthening, e.g., /βa[ìβ-Vng-a]/ → *β[**ee**β-ááŋg-a]* 'They (cl. 2) are stealing,' /βa[**ù**mbax-Vng-a]/ → *β[**oo**mbáx-ááŋg-a]* 'They are building.' When low vowels combine with a mid vowel, V$_1$ is deleted and V$_2$ is lengthened, e.g., /βa[èk-Vng-a]/ → *β[**ee**k-ááŋg-a]* 'They (cl. 2) are learning,' /βa[òr-Vng-a]/ → *β[**oo**r-ááŋg-a]* 'They (cl. 2) are basking.'

When V₁ is onsetless and word-initial, an initial glide is inserted: *w* before the 2S subject prefix *o-*, e.g., *w*[*aay-ááŋg-a*] 'You are grazing,' *w*[*iiβ-ááŋg-a*] 'You are stealing,' *w*[*oor-ááŋg-a*] 'You are basking,' and *y* before the cl. 9 subject prefix *i-*, e.g., *y*[*aaj-ááŋg-a*] 'It (cl. 9) is grazing,' *y*[*iiβ-ááŋg-a*] 'It (cl. 9) is stealing,' *y*[*oor-ááŋg-a*] 'It (cl. 9) is basking,' and the cl. 1 subject marker *a-*, e.g., *y*[*aay-ááŋg-a*] 'S/he is grazing,' *y*[*eeβ-ááŋg-a*] 'S/he is stealing,' *y*[*oor-ááŋg-a*] 'S/he is basking.' Outcomes with cl. 9 and cl. 1 subject prefixes are identical, except with roots beginning with a high vowel, due to coalescence when V₁ is /a/.

Vowel hiatus resolution typically involves compensatory lengthening. There is one systematic exception: in the Remote Past, which is characterized by the prefix *a-*; typical hiatus resolution applies, but where one would expect the combination of the subject prefix and *a-* to yield a long vowel, there is a construction-specific vowel-shortening process previously reported for the Luyia variety Tsotso (Dalgish 1986). We assume that *y-á*[*βúkul-a*] 'He took' passes through an intermediate representation *y-áá*[*βúkul-a*] (from /**a-a**[βukul-a]/), which is subject to shortening. Shortening does not reduce all long vowels to a short vowel, however, as the combination of three underlying vowels in /**a-á**[iβilil-a]/ → *y*[*ééβiḷiḷ-a*] 'He forgot' maintains a surface long vowel.

Different hiatus resolving principles may apply across word boundaries. For instance, in /**áxasi o**muláyi/ → *axas' oomuláyi* 'good cousin,' we find deletion rather than glide formation.

There are many superficial exceptions to the rules resolving hiatus, e.g., *xu*[*andík-ááŋg-a*] 'We are writing,' which appears not to undergo glide formation; *βa*[*iim-ááŋg-a*] 'They are hunting,' appears not to undergo coalescence (and also appears to have an onsetless stem-initial long vowel). These roots begin with a ghost consonant and have variable forms that may begin with *y* or *h*, e.g., *βa*[*yiim-ááŋg-a*] ~ *βa*[*hiim-ááŋg-a*]. (A single speaker may produce any of these variants.) Some roots also allow an initial *w*, e.g., *βa*[*yandík-ááŋg-a*] ~ *βa*[*handík-ááŋg-a*] ~ *βa*[*wandík-ááŋg-a*]. Wanga ghost consonants often descend historically from **p*, e.g., *oxu*[*úúˀl-á*] 'beat thoroughly' (cf. Proto-Bantu **púud*[2] 'beat with stick'), *oxu*[*úˀlír-á*] 'hear' (**púdɪk* 'hear'), but others are reconstructed with initial **y*, like most V-initial roots, e.g., *oxu*[*áˀndík-á*] 'to write' (**yandɪk* 'write'), *oxu*[*ááˀmb-á*] 'to catch fire' (**yamb* 'spread (as fire)').

2.6. Consonant Mutation (CM)

Certain consonants mutate before suffixes beginning with a front vowel. There are three general CM alternations: *k* → *tʃ, x* → *ʃ*, and *g* → *dʒ*. The three general types are observed before the perfective, applicative, causative, neuter, and iterative extensions, the final vowel *-e*, and the agentive nominalizer *-i*.

(3) /a-ì[sìiŋg-il-e]/   → y-ee[siindʒ-iḷ-e]   'He has bathed himself'
     /a-li-xá-mú[àndik-il-e]/ → a-li-xa-mw[ááˀndítʃ-íl-e] 'We will write for him'
     /o-xú[fuux-í-a]/   → o-xú[fúúʃ-ý-a]   'to be blown up'
     /o-xú[luuŋg-ix-a]/   → o-xú[lúúndʒ-íx-á]   'to be straight'
     /xu[βèk-e]/   → xu[βetʃ-e]   'Let's shave!'
     /ó-mu-àandik-i/   → o-mu-aaditʃ-i   'secretary'

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[2] Reconstructed forms are from Bastin *et al.* (2002).

There are three other CM alternations producing *s* (*l* → *s, x* → *s, n* → *s*) that arise only before the causative.

(4)   /o-xú[βeel-**il**-í-a]/   →   o-xú[βéélé**s**-ý-a]   'to be sorry for'
      /xu-la-mú[kalu**x**-í-a] tá/   →   xu-la-mu[kálúꜜ**s**-y-á] ꜜtá   'Let's not return him!'
      /o-xú[βòtoox-a**n**-í-a]/   →   o-xu[βóꜜtóóx-á**s**-ý-a]   'to surround'

The agentive *-i* also triggers the *l* → *s* changes in some words, e.g., *omu-les̩-i* 'babysitter,' cf. *oxú*[*lel̩-á*] 'to babysit,' but not others *omu-lol̩-i* 'one who sees,' cf. *oxú*[*lól-á*] 'to see.'

      Though they are independent, CM and VHH often co-occur, e.g., /xu-ì[βèk-**il**-e]/ → *xw-ii*[*βet̩ʃ-el̩-e*] 'We have shaved ourselves'.

2.7.   NC effects

Wanga has four morphemes underlyingly associated with a nasal: 1S subject and object markers and cl. 9-10 noun class prefixes. Each is involved in alternations largely predicated on the manner of the following segment. We describe these using the 1S subject marker. Before a stem-initial voiceless stop, it is *eN*-, with the nasal taking on the place of the stop. The stop is voiced /e**N**[**p**aar-il-e]/ → *e**m***[**b***áár-il̩-e*] 'I thought,' and *β* hardens to *b*: /e**N**[**β**ìix-il-e]/ → *e**m***[**b***iiʃ-il̩-e*] 'I kept.' Compensatory lengthening and glide insertion occur before the 1S object marker, e.g., /a-Ń[tʃam-il-e]/ → ***y-aa-ɲ***[*dʒám-il̩-e*] 'He liked me,' but word-initial vowels are not lengthened before the 1S subject marker or the cl. 9 noun class prefix.

      Before a voiceless fricative, the nasal is deleted: /e**N**[**f**ùk-il-e]/ → *e*[*fut̩ʃ-il̩-e*] 'I made ugali.' Compensatory lengthening occurs even when the nasal does not surface: /β**a**-Ń[xwees-il-e]/ → *β**aa***[*xwéés-el̩-e*] 'They pulled me.'

      Stem-initial /r/ hardens to [d] following the nasal, or the nasal is deleted: /e**N**[**r**eeβ-il-e]/ → *e**n***[**d***ééβ-el̩-e*] ~ *e*[*r̩ééβ-el̩-e*] 'I asked.' Stem-initial /l/ has similar optionality; it hardens to [d], or the nasal is deleted: /e**N**[**l**ak-il-e]/ → *e**n***[**d***át̩ʃ-íl̩-e*] ~ *e*[*l̩át̩ʃ-íl̩-e*] 'I promised.' If there is a nasal in the root, the nasal is deleted, or the /l/ is deleted via Meinhof's Law (Meinhof 1932): /e**N**[**l**aam-il-e]/ → *e*[***n***áám-il̩-e*] ~ *e*[*l̩áám-il̩-e*] 'I prayed.' Meinhof's Law deletes /l/ immediately following a nasal but only affects stem-initial /l/: /e**N**-**l**á[maɲ-a]/ → *e**n**-**d***a[*máꜜɲ-á*] 'I will know.'

      Before vowel-initial stems, the 1S subject marker may be realized *nd*-, *nz*-, or *enz*-. The first two of these are followed by a lengthened stem-initial vowel and the third by a short stem-initial vowel: /e**N**[ìikal-il-e]/ → ***nd***[*iikaal-e*] ~ ***nz***[*iikaal-e*] ~ ***enz***[*ikaal-e*] 'I closed.' A fourth possibility, *eɲ*-, is due to Meinhof's Law: /e**N**[ambux-il-e]/ → *eɲ*[*ambúúʃ-e*] 'I forded.' Further complexities arise with stem-initial ghost consonants (§2.5).

2.8.   Tone inventory

Wanga has two surface tones, High (H) and Low (L), but presents evidence for a three-way underlying tonal contrast: /H/, /L/, and /Ø/ (toneless). Tones associate with the mora as tone bearing unit (TBU). Evidence for the mora is clearest from tone spreading processes like Melodic Doubling where a Melodic H tone spreads rightward by one mora.

(5) /a[ts-íɪl-e]/ → a[ts-íɪl-e] 'He went'
     /a[lím-il-e]/ → a[lím-íɪl-e] 'He cultivated'
     /a[tʃétuluule]/ → a[tʃétúluul-e] 'He poured off liquid'

Most phonetic L tones arise on /Ø/ TBUs, with L inserted by default. However, underlying /L/ is found with some noun tone melodies, the reflexive object marker, and one tonal class of verb roots (historically *H roots synchronically have initial /L/). Ls block H tone assignment (6) and anticipatory tone spreading (7). Toneless TBUs are transparent to these processes.

(6) /Ø/ /xu-la[purux-a] tá/ → xu-la[púrúx-a] tá 'Let's not fly'
     /L/ /xu-la[βùkul-a] tá/ → xu-la[βukul-a] tá 'Let's not take'

(7) HØ /omu-rútʃ-i omu-láji/ → omu-rú‡tʃ' ómú-láyi 'good ruler'
     HL /omu-ráβà omu-láji/ → omu-ráβ' omu-láyi 'good job'

Underlying /H/s participate in Prefix Hop (Odden 2009) while /L/s do not; cf. forms in (8) contrasting the /H/ object marker *mú* -with the /L/ reflexive marker *ì-*. (Neither toneless TBUs nor L TBUs block Prefix Hop.)

(8) /a-mú[βèk-il-e]/ → a-mu[βétʃ-eɪ-e] 'He has shaved him'
     /a-ì[βèk-il-e]/ → y-ee[βetʃ-eɪ-e] 'He has shaved himself'

3. Morphology

In this section, we provide an overview of the structure of nouns (§3.1) and verbs (§3.2), including basic morphological facts, as well as information about lexical and grammatical tonal patterns of each part of speech.

3.1. Nominal system

Wanga has a typical Bantu noun class system that is the basis for agreement patterns within the noun phrase. We provide an overview of the noun class system in §3.1.1, patterns of agreement in §3.1.2, and fundamentals of noun tone in §3.1.3.

3.1.1. Noun classes

There are 20 numbered noun classes in Wanga, which are summarized and exemplified in (9), showing typical singular-plural pairs where appropriate. Each numbered noun class is identified by a prefix complex that includes an augment and a class prefix. The augment and the noun class prefix are typically obligatory, though the augment is absent or variably present in kinship terms and borrowings. The primary classes for nouns are those numbered 1 through 11, and cl. 14 (see Diercks *et al.* (in prep, a) for more information on the semantics of these classes). Diminutives and augmentatives are found in cl. 12-13 and cl. 20-4, respectively, and are derived from nouns in

other classes by replacing the noun's typical prefix morphology. Cl. 15 has the infinitive form of verbs, and locatives are expressed in cl. 16, 17, 18, and 23. Locative prefixes typically replace the noun's augment, though the locative precedes the augment and class prefix in cl. 10 nouns, e.g., *mu-tsii-n-zú* 'in the houses,' cf. *tsii-n-zú* 'houses.'

(9)

1	o-mu-	o-mu-sáatsa	'man'		2	a-βa-	a-βa-sáatsa	'men'
3	o-mu-	o-mu-sáála	'tree'		4	e-mi-	e-mi-sáála	'trees'
5	li-i-	lii-joni	'bird'		6	a-ma-	a-ma-joni	'birds'
7	e-ʃi-	e-ʃi-fuúmbi	'chair'		8	e-fi-	e-fi-fuúmbi	'chairs'
9	i-N-	i-m-bókó	'buffalo'		10	tsi-N-	tsií-m-bókó	'buffalos'
11	o-lu-	o-lu-téɭe	'fingernail'		10	tsi-N-	tsií˩-n-déɭé	'fingernails'
12	a-xa-	a-xa-βwá	'dog (dim.)'		13	o-ru-	o-ru-βwá	'dogs (dim.)'
14	o-βu-	o-βu-ɲáasi	'grass'					
15	o-xu-	o-xu-maɲja	'to show'					
16	a-	a-lw-áaɲi	'outside'					
17	xu-	xuu-n-dúlo	'on the edge'					
18	mu-	mw-ií-˩swá	'in the bush'					
20	o-ku-	o-kú-fúúko	'pocket (aug.)'		4	e-mi-	e-mí-fúúko	'pockets (aug.)'
23	e-	e-lw-áaɲi	'outside'					

There are productive processes for deriving nouns from verbs. Compare the nouns *omu-lim-o* 'job,' *oβu-yaanz-i* 'happiness,' and *omu-xómef-u* 'plump person' with the verbs *oxú*[*lím-á*] 'to dig,' *oxú*[*yáánz-á*] 'to be happy,' and *oxu*[*xó˩mél-á*] 'to be plump.' The final suffix *-i* is an agentive nominalizer, e.g., *omu-kalul-i* 'interpreter,' cf. *oxú*[*kálúl-á*] 'to translate,' and *-o* may represent a patient or instrumental nominalizer, e.g., *ʃi-fuúŋg-o* 'fastener,' cf. *oxu*[*fúú˩ŋg-á*] 'to close.'

3.1.2. Modifier concord

Adjective agreement is formally identical to the noun class morphology of nouns: there is an augment and noun class prefix, and these prefixes are the same as those in (9) above, e.g., cl. 1 *omu-xás' oomu-láyi* 'good woman,' cl. 3 *omú-tok' óớ˩mú-láyi* 'good car,' cl. 6 *amá-yón' áámá-láyi* 'good birds,' cl. 9 *in-zú ˩ín-dáyi* 'good house.'

The numeral/indefinite *-lala* 'one, some' takes an agreement marker that is essentially just the noun class prefix, e.g., cl. 1 *omu-xási **mu**-lala* 'one woman,' cl. 3 *omú-toká **mu**-lala* 'one car,' cl. 6 *ama-yoni **ma**-lala* 'some birds,' cl. 9 *in-zú **n**-dala* 'one house,' but the cl. 5 numeral agreement marker has a variable form, e.g., *lii-yoni **li**-lala* ~ *lii-yoni **e**-lala* 'one bird.'

Demonstratives use a different set of agreement markers, e.g., cl. 1 *omúú-ndú **u**-lyá* 'that person,' cl. 3 *omú-toká **ku**-lya* 'that car,' cl. 6 *amá-yóní **ka**-lya* 'those birds,' cl. 9 *in-zú **i**-lya* 'that house.' Agreeing numerals greater than 1 also show this pattern of agreement, e.g., *amá-yóní **ká**˩-βíɭí* 'two birds,' as do possessives, e.g., *amá-yóní ˩**k**-áaɲdʒé* 'my birds' and associatives.

3.1.3. Tone

There are eight major surface tone patterns exhibited by nouns in our lexicon. Basic characteristics of each are in (10).[3] Additional sub-patterns are derived from these major patterns and depend on morphology (e.g., presence of an augment, stem reduplication, etc.). Patterns A vs. G and E vs. F are distinguishable only phrase-medially.

(10)	**Pattern**	**Melody**		
	A	[Ø	omu-lim-i	'farmer'
	B	H‡[H(H)	eʃí‡-túúyu	'rabbit'
	C	[H(H)‡(H(H))	eʃi-xúú‡mbá	'shield'
	D	[...LH]	i-yaywá	'axe'
	E	HL]	omu-rútʃ-i	'ruler'
	F	HØ]	omu-xási	'woman'
	G	[L...L]	axasi	'maternal cousin'
	H	[H...LH]	omu-físaandú	'orphan'

Most patterns are freely distributed across nouns in any noun class or with any stem shape; however, CV stems are limited to Patterns A, B, and C, and Pattern G is largely limited to kinship terms and borrowings. For more details on noun tone, including exemplification of tonal processes such as Prefix Hop (where the H of a prefix shifts to the right), Meeussen's Rule (deletion of H after H), Reverse Meeussen's Rule (deletion of H before H), and phrasal processes of High Tone Anticipation and High Tone Insertion, see Green *et al.* (in prep).

3.2. Verbal system

As in other Bantu languages, verbs are morphologically complex in Wanga; a position class chart is given in (11). Setting aside relative clause morphology, we identify eight inflectional slots before the root in Wanga verbs. These include two positions for tense markers (the first of which is restricted to the Crastinal Future marker *ni-*), two for negation, and one for aspect, in addition to slots for the subject marker and object markers. Up to three derivational extensions follow the root. These three slots can be followed by an additional aspectual slot, the final vowel, and one or more enclitics. We provide further details on inflectional morphology in §3.2.1 and derivational morphology in §3.2.2. A brief description of verb tone is given in §3.2.3.

(11)	**-8**	**-7**	**-6**	**-5**	**-4**	**-3**	**-2, -1**
	Neg	Tense	Subject	Tense	Aspect	Neg	Object(s)

	0	**+1, +2, +3**	**+4**	**+5**	**+6**
	Root	Derivation	Aspect	Final Vowel	Post Final

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[3] (H) indicates H spreading to a single TBU while (H$_0$) indicates iterative spreading, and … indicates one or more intervening toneless TBUs.

3.2.1. Inflection

Forms of subject and object markers are in (12). The 1S markers have several allomorphs (§2.7); pre-vocalic forms are in parentheses. Object markers generally introduce a /H/ tone that is subject to a rule of Prefix Hop. Subject markers do not appear to be affiliated with an underlying tone, though more research is needed into the possibility of tonal interactions between preverbal material and the verb. Reflexive /ì-/ occupies the position of object prefixes and is the only /L/ OM. Aside from cl. 1 and the cl. 9 OM, the subject and object markers that differ from their noun class prefixes are identical to the demonstrative and possessive agreement markers (§3.1.2).

(12)

Class	SM	OM	Class	SM	OM
1S	eN- (nd-)	Ń- (nz-)	1P	xu-	xú-
2S	o-	xú-	2P	mu-	mú-
1	a-	mú-	2	βa-	βá-
3	ku-	kú-	4	tʃi-	tʃí-
5	li-	lí-	6	ka-	ká-
7	ʃi-	ʃí-	8	fi-	fí-
9	i-	tʃí-	10	tsi-	tsí-
11	lu-	lú-			
12	xa-	xá-	13	ru-	rú-
14	βu-	βú-			
20	ku-	kú-			

Verbs inflect for numerous combinations of tense/aspect/mood/polarity. Morphological templates for affirmative constructions are given in (13), where SM stands for subject marker, √ indicates the root, and the stem is set off by brackets. Wanga verbs are inflected with one of nine numbered Melodic High (MH) tone patterns, plus a few lettered subpatterns. (See Marlo 2013, Odden & Bickmore 2016, and Bickmore to appear for overviews of melodic tone patterns in Bantu languages.) MH patterns in Wanga differ primarily in the position of the (macro)stem targeted by MH association. Some melodic subpatterns differ from others in whether the MH is maintained in phrase-medial position or is deleted. See Green *et al.* (in prep, a) for further description of verbal tone in Wanga.

	Construction	Template	Tone	Wanga	Gloss
(13)	Hodiernal Perfect	SM[√-il-e]	1a	a[léxúúl-iˌl-e]	'He released.'
	Hesternal Perfect	SM-a[√-il-e]	2a	y-aa[léxúúl-iˌl-e]	'He released.'
	Immediate Past	SM-a-xá[√-a]	6b	y-a-xá[léxúúl-á]	'He just released.'
	Remote Past	SM-á[√-a]	1a	y-a[léxuul-a]	'He released.'
	Past Habitual	SM-á[√-Vng-a]	1c	y-a[léxuul-aaŋg-a]	'He used to release.'
	Past Conditional	SM-la[√-a]	7a	βa-la[lexuul-a]	'If they had released'
	Consecutive	ní-SM[√-a]	2c	n-áá⁺[léxúúl-a]	'And then he released.'
	Experiential	SM-a[√-a]xo	9	y-a[léxuul-a]xó	'He has released before.'
	Present	SM[√-a]	2a	a[léxúúl-a]	'He releases.'

Present Progressive	SM[√-Vng-a]	2a	a[léxúúl-aang-a]	'He is releasing.'
Persistive	SM-ʃi[√-Vng-a]	2a	a-ʃi[léxúúl-aang-a]	'He is still releasing.'
Near Future	SM-lá[√-a]	6a	a-lá[léxúúl-á]	'He will release.'
Crastinal Future	ni-SM[√-e]	4	n-aa[lexúúl-e]	'He will release.'
Indefinite Future	SM-li[√-a]	2a	a-li[léxúúl-a]	'He will release.'
Remote Future	SM-li-xá[√-e]	1d	a-li-xa[léxúúl-e]	'He will release.'
Conditional Future	SM-a-xá[√-e]	7b	y-a-xa[lexuul-e]	'He will release.'
Subjunctive	SM[√-e]	4	xu[lexúúl-e]	'Let's release!'
Imperative Singular	[√-a]	5a	[lexuul-á]	'Release!'
Imperative Plural	[√-e]	5b	[lexuul-e]	'Release! (pl)'
Immediate Imperative	xa[√-e]	5a	xa[lexuul-é]	'Now release!'

Constructions inflected with the perfective + final vowel suffix combination *-il-e* undergo patterns of allomorphy known as 'imbrication' (see Morrison this volume). As described for other Luyia varieties (Ebarb & Marlo 2015), the form *-il-e* (or harmonizing *-el-e*) follows CV(V)C bases, e.g., a[*lím-íl-e*] 'He has dug,' and longer bases ending in a long vowel, e.g., *y-aa*[*léxúúl-il-e*] 'He released.' After CV bases, it is *-iil-e* (or *-eel-e*), e.g., a[*ts-ííl-e*] 'He has gone.' After longer bases ending in a short vowel, the final vowel is *-e* and the final vowel of the base is lengthened, e.g., /a-a[sukum-il-e]/ → *y-aa*[*súkúúm-e*] 'He pushed.'

Negation is indicated with the prefix *ʃi-* ~ *si-*, which precedes the subject marker, and the clause-final negative particle *tá* ~ *táawe*. Two other negative markers, *xa-* and *la-*, which follow the subject marker, are encountered in conditionals, imperatives, and relative clauses. See §4.2.

3.2.2. Verb extensions

Causative *-í*, applicative *-il*, reciprocal *-an*, and passive *-ú* are all productive extensions in Wanga. Other extensions in the lexicon include neuter *-ix*, reversive *-ul*, intensive *-ak*, and intensive *-ilil*. Both the causative and passive are associated with a H tone that often interacts with other lexical and inflectional tones. Extended forms alongside unextended forms are in (14) and (15).

(14)	Causative	oxú[kós-ý-a]	'to deceive'	oxú[kós-á]	'to err'
	Applicative	oxú[tʃéénd-él-á]	'to visit'	oxú[tʃéénd-á]	'to walk'
	Reciprocal	oxú[sáámb-án-á]	'to burn each other'	oxú[sáámb-á]	'to burn'
	Passive	oxu[βéꜜk-ẃ-a]	'to be shaved'	oxu[βéꜜk-á]	'to shave'
	Neuter	oxw[ííꜜn-íx-á]	'to become wet'	oxw[ííꜜn-á]	'to dip'
	Reversive	oxw[ááɲ-úl-á]	'to shake off'	oxw[ááɲ-á]	'to scatter'
	Intensive	oxu[lúꜜm-ák-á]	'to chew'	oxu[lúꜜm-á]	'to bite'
	Iterative	oxu[káꜜrááɲdʒ-ílíl-á]	'to fry repeatedly'	oxu[káꜜrááŋg-á]	'to fry'

Long forms of some extensions are found primarily with CV bases, e.g., causative *-is-í*, passive *-iβ-ẃ*, iterative *-il-ilil*, reciprocal *-its-an*, and neuter *-its-ix* (see Marlo 2006 for discussion of this phenomenon in three other Luyia varieties).

(15) Causative   oxu[l-íís-ý-a]   'to feed'   oxu[ly-á]   'to eat'
      Reciprocal oxu[r-íí⸵ts-án-á]   'to fear each other'   oxu[ry-á]   'to fear'
      Passive   oxu[r-íí⸵β-ẃ-a]   'to be feared'   oxu[ry-á]   'to fear'
      Neuter   oxu[l-íí⸵ts-ix-a]   'to be edible'   oxu[ly-á]   'to eat'
      Iterative   oxú[ts-ííl-ílíl-á]   'to continue'   oxú[tsy-á]   'to go'

3.2.3. Tone

Wanga verbs fall into two lexical tone classes: *oxú*[*βál-á*] 'to count' vs. *oxu*[*βá⸵l-á*] 'to get warm (e.g. water).' The first class corresponds to historically *Ø verbs, and the second class corresponds to historically *H verbs. The evidence is complex, but there is reason to analyze the historically *H verbs as synchronically /L/ (see Marlo 2013). The main type of evidence is that throughout the inflectional tonal patterns of Wanga, the stem-initial position of /L/ verbs generally surfaces L and resists the spreading of H. For instance, in the Hodiernal Perfect, the MH targets the stem-initial mora. In /Ø/ verbs, the MH is realized, e.g., *a*[*ts-ííl-e*] 'he went,' but its association is blocked in /L/ verbs because the stem-initial mora is occupied by the lexical L, e.g., *a*[*l-iil-e*] 'he ate.' In cases where the stem-initial syllable of /L/ verbs surfaces H, the H can usually be attributed to a prefix that has undergone Prefix Hop.

4. Syntax

As seen above, Wanga is morphologically agglutinating, with SVO word order and many lexical items bearing robust agreement in noun class with nominals (including concord within noun phrases and clause-level agreement, see §3). As with many other Bantu languages, many syntactic processes are directly mapped onto morphology: for example, argument structure distinctions are manifest in derivational extensions appearing on verbs (§3.2.2), and many (sometimes unexpected) syntactic dependencies are manifest in agreement operations, sometimes on typologically unexpected grammatical categories. In what follows we briefly outline some syntactically notable constructions, as well as some major classes of syntactic constructions that give a sense of the syntactic properties of the language.

4.1. Interrogatives, Clefts, and relative clauses

Interrogatives may be formed with either an *in situ* strategy or an *ex situ* strategy, where the interrogative word is either in the usual position for its thematic role in the sentence (*in situ*) or has moved to the left edge of the clause in a cleft construction.[4]

(16) Maisha   y-aa[som-il-e]   ʃi-(ina)   muu-ŋ-golooβe?
      1.Maisha   1.SM-PST[read-PFV-FV]   7-what   18-9-yesterday
      'What did Maisha read yesterday?'

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(17) ni ʃi-ina *(ʃ-a) Maisha y-aa[som-iɭ-e] muu-ŋ-golooβe?
     COP 7-what 7-COMP 1.Maisha 1.SM-PST[read-PFV-FV] 18-9-yesterday
     'What is it that Maisha read yesterday?'

The *ex situ* interrogative strategy is in fact a focus cleft that is available to focus non-interrogatives as well.

(18) y-a[li]   i-m-busi y-aaɲdʒe y-a   Nafula   y-a[lol-a]
     9.SM-PST[COP] 9-9-goat 9-my   9-COMP   1.Nafula 1.SM-PST[see-FV]
     'It was my goat that Nafula saw.'

In addition, there is a consistent morphosyntactic asymmetry between subject extraction and non-subject extraction in *ex situ* interrogatives, focus clefts, and relative clauses. We illustrate here with interrogatives: a subject question results in no additional morphology aside from the copula (if it is a cleft), whereas an object question cleft in (19) requires a complementizer element that agrees with the clefted object.

(19) (Ni) wiina   (*w-a)   w-a[kor-a]?
     COP   1.who   (*1-COMP)   1.SM-PST[get.lost-FV]
     'Who (is it that) got lost?'

(20) a. Subject question cleft   *AGR-a* **absent**
         ni WH-Subj (*AGR-a) V   Obj

     b. Non-subject question cleft   *AGR-a* **obligatory**
         ni WH-Obj   *(AGR-a) Subj V

4.2. Negation

Wanga expresses negated sentences via a bipartite negation structure that includes one of two verbal prefixes and a clause-final negative particle *tá* ~ *táawe*. Declarative negation is formed by a *ʃi-* prefix on the verb together with *táawe*.

(21) a-βa-ana   ʃi-βa[xol-aaŋg-a]   e-mi-limo taawe
     2-2-child   NEG-2.SM[do-IPFV-FV] 4-4-work   NEG
     'The children are not working (doing work).'

Many interrogative sentences[5] use a second negation marker; however, in a subject question, for example, the *la-* negation prefix must be used, and *ʃi-* cannot be used.

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[5] In fact, this is consistent (to our knowledge) with all sentences that utilize a filler-gap dependency (i.e. A'-movement) including relative clauses and focus clefts.

(22) Ni   wiina o-wu-la[kuɭ-iɭ-e]   a-ma-remwa ta
      COP 1.who 1-1.SM-NEG[buy-PFV-FV]   6-6-banana   NEG
      'Who is it that didn't buy bananas?'

These negation prefixes are not always in a strict complementary distribution, however. For *ex-situ* object questions, for example, either *ʃi-* or *la-* may be used, and some negative subjunctive forms use both.

(23) Nd[eŋ-a]   a-βa-ana   ʃi-βa-la[tsy-a]   taawe.
      1S.SM[want-FV]   2-2-child   NEG-2.SM-NEG[go-FV]   NEG
      'I want the children to not leave.'

An additional strategy for negating certain kinds of constructions is a negative auxiliary. For example, in conditional sentences and in infinitives, the negation system described above is not used, and instead the auxiliary *oxu-βula* 'to lack' is used.

(24) o-xu[βul-a]   o-xu[tsy-a]   xw-a-βa-ana   xu-Ø[siɲ-is-iiy-e].
      15-15[lack-FV]   15-15[go-FV]   15-ASSOC-2-2-child   15.SM-1S.OBJ[anger-CAUS-PFV-FV]
      'The children's not leaving angered me.'

4.3.   Agreeing manner adjuncts

Manner question words and anaphors in Wanga agree with the subject of the sentence.

(25) a-βa-ana   βa[ts-iiɭ-e]   mu-mu-kunda   **βa**-ri.
      2-2-child 2.SM[go-PFV-FV]   18-3-field   2-thus
      'The children went to the field thus (like this).'

(26) Wafula   y-a[maɲ-a]   a-βa-tʃeni   **a**-rie(ena)?
      1.Wafula   1.SM-PST[know-FV]   2-2-guest   1-how
      'How did Wafula know the guests?'

4.4.   Subject Pronoun Doubling

Diercks & Green (2018) report a pattern from Wanga where a small pronoun that is coreferent with the subject of the sentence co-occurs in the sentence with the subject: *subject pronoun doubling* (SPD). The checkmarks below show other possible positions where the pronoun could be placed. The pronoun can appear in only one of these positions at a time.

(27) A-βa-ana   βo   βa[ɲw-eeɭ-e]   (✓)   a-ma-beeɭe   (✓).
      2-2-children   2.they   2.SM[drink-PFV-FV]   6-6-milk
      'The children (that we were talking about) drank the milk.'

Diercks & Green show that both the subject and the pronoun need not be in a single constituent, separated by an evaluative adverb in the example below.

(28) a-ßa-ana   aundi   ßo   ßa[ɲw-eeɟ-e]   a-ma-beeɟe
      2-2-children maybe   2.they   2.SM[drink-PFV-FV] 6-6-milk
      'The children (that we are talking about) maybe drank the milk.'

This subject pronoun doubling requires a discourse-familiar interpretation of the subject; the question and answer diagnostic below demonstrates that an SPD sentence cannot be used to answer a subject question.[6]

(29) Q: Wiina   ß[ool-eɟ-e]?   A: A-ßa-ana   (#ßo)   ß[ool-eɟ-e].
         2.who   2.SM[arrive-PFV-FV]   2-2-children (2.they)   2.SM[arrive-PFV-FV]
         'Who (all) arrived?'   'The children arrived.'

4.5. Complementizer Agreement

Wanga has a complementizer that introduces a complement clause that agrees with the subject of the main clause.

(30) Naanjira   y-aa[suɲdʒ-iɟ-e]   a-ri   a-ßa-ana   ß-aa[ts-iiɟ-e.
      1.Naanjira   1.SM-PST[say-PFV-FV] 1-COMP   2-2-child   2.SM-PST[go-PFV-FV]
      'Naanjira said that the children left.'

For the most part, the Wanga patterns are similar to Bukusu patterns (Diercks 2013): indirect objects (or causees in causative constructions) in the main clause do not intervene in the agreement relation, the agreement is restricted to the most local superordinate subject, and anti-agreement effects cannot occur on the complementizer. One point of variation from Bukusu is that in Wanga, cl. 1 and cl. 2 complementizer agreement can be used as partial agreement forms, agreeing in number alone and not in gender/class: in (31), we see that a cl. 6 subject can trigger cl. 6 agreement on the complementizer, but plural cl. 2 agreement is also possible.

(31) a-ma-ßuuŋgwe   ka[min-aang-a]   ka-ri/ba-ri/*ʔari
      6-6-baboon   6.SM[believe-IPFV-FV] 6-COMP/2-COMP/*ʔ1-COMP

      a-ma-china   ka[tetseɟeɟ-aang-a] a-ba-ana   o-xu[rulux-a]   a-ba-suku.
      6-6-rock   6.SM[prevent-IPFV-FV] 2-2-child 15-15[come.out-FV] 2-2-enemy
      'The baboons believe that the rocks prevent the young being attacked from enemies.'

In contrast, in (32) the cl. 9 subject can trigger cl. 9 or cl. 1 (singular) agreement on the verb, but cannot occur with the cl. 2 *bari*.

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[6] SPD sentences also cannot answer out-of-the-blue questions like, "What happened?"

(32)　i-m-bwa　　i[paar-aang-a]　　　　i-ri/a-ri/*ʔba-ri
　　　　9-9-dog　　9.SM[think-IPFV-FV]　　9-COMP/1-COMP/*ʔ2-COMP

　　　　i-puusi　　y[eeɲ-a]　　　e-ʃi-fwanani　　ʃy-ayo.
　　　　9-cat　　　9.SM[want-FV]　　7-7-toy　　　　7-its
　　　　'The dog thinks that the cat wants its toy.'

Therefore in (30) the plural subject can result in the *bari* form of the complementizer, and in (31) the singular subject is possible with the *ari* form the complementizer, but in neither case is *ari* or *bari* actually representing class 1 or class 2.

5.　Variation

We have observed inter-speaker syntactic variation in Wanga that is similar to patterns of variation observed in other Luyia languages. That is to say, not all speakers of a given language share the same grammatical features, but where there is inter-speaker variation within a language we often see grammatical parallels of *both* varieties in other Luyia languages. So, for example, one of our Wanga consultants has robust complementizer agreement (as described above), similar to the complementizer agreement patterns displayed in Bukusu. Another consultant, however, completely lacks this complementizer agreement construction (similar to other Luyia languages that lack the construction, e.g., Logoori and Tiriki). Likewise, one Wanga consultant has robust subject pronoun doubling (as does a Tiriki consultant and a Logoori consultant), but another Wanga consultant lacks SPD (similar to Bukusu). These same Wanga speakers, however, completely overlap in most other grammatical constructions.

　　　We have seen similar patterns of variation in other Luyia languages. For example, in Logoori, some speakers have distinct pseudo-expletive agreements (see Gluckman & Bowler 2016), but others completely lack those pseudo-expletive agreements. But, we see the same pseudo-expletive agreements for some Tiriki and Wanga speakers, though not for all. Similarly, some Bukusu speakers show robust effects of topic/focus distinctions interacting with object marking in the verb phrase, but others do not share these same interpretations. Nonetheless, similar topic/focus distinctions arise around object marking for some speakers of Logoori and Wanga.

　　　It is therefore somewhat difficult to make a generalization such as "Wanga has complementizer agreement" when clearly some speakers accept and use it robustly but other speakers find it unacceptable. Yet, many of these patterns are clearly deeply 'Luyia,' in that they appear across Luyia languages, even though all speakers within a given variety may not share the same patterns for the same construction. What we report in this section reflects our experiences but does not report a systematic study of variation. To this point, we have not noticed any clear determining sociolinguistic variables (e.g., speaker age, gender, geographic patterns, etc.). We are also unsure to what degree multilingualism of our consultants (whether via fluency or passive knowledge) is responsible for the patterns we are encountering. But for many kinds of grammatical constructions, it is clear that systematic study of variation within and across Luyia languages would provide

fruitful information both clarifying the divergent grammatical patterns and perhaps uncovering sociolinguistic explanations for the patterns of grammatical variation.

Acknowledgments

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