

A reference grammar of Nimivefati

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Contents

1	Language context	2
2	Phonology	3
2.1	Consonants	3
2.2	Vowels	4
2.3	Tone	4
2.4	Phonotactics	4
3	Lexicon	5
3.1	Word classes	5
3.2	Constructing words	5
3.3	Orthography	6
4	Morphology and syntax	6
4.1	Verbal paradigm	6
4.2	Nouns	9
4.3	Basic Clauses	10
5	Pragmatics: metaphors	11
6	Glossed text from “The Perfect Nine”	12

1 Language context

Nimivefati is the language of a hypothetical tribe with up to 20,000 members in Mid-Africa, whose members and ancestors have lived near the Congo River basin for thousands of years. Nimivefati speakers trade with the Congolese, and in the last decade, the introduction of technology through that trade route has made many believe that Nimivefati will not survive the near future: Nimivefati is an example of a language that loses its expressive power when digitally represented, and youngsters increasingly speak Swahili. As a result, Nimivefati is expected to diverge from its historical character in the future and lose some of its expressiveness. Idiosyncratic features of Nimivefati that are only understood when given the sociocultural context—and are thus most likely to be lost—are based on three pillars: respect for nature, respect for each other, and attention to individuals' perception. Respect for nature becomes apparent in the lexicon, for instance, through lexeme families grouping words associated with the earth, and through figures of speech that represent abstract concepts using nature-related metaphors. Respect for each other is shown through the attention to other interlocutors that is required due to the inclusion of age-restricted rules, for who would, or would not use Nimivefati's click consonants. Attention to individuals' perception is shown through the interplay of emotions and language, for instance through click consonant changes for specific emotions, or the fact that mental states are expressed using inalienable possession, grammatically. The nature of the language implies that conversations are mostly held in social situations: Nimivefati speakers work in silence but converse loudly after dinner.¹ Certain features of the conlang grammar that follows are modifications of features observed in existing Bantu or Khoisan languages, and Figure 1a illustrates where in Africa one could find those languages.

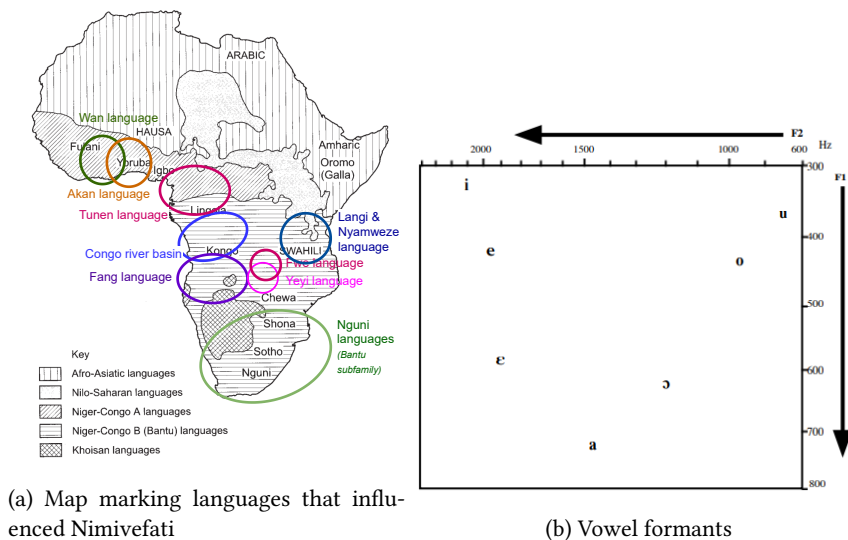


Figure 1: Illustrations in support of the understanding of Nimivefati's features: (a) provides a map modified from [Batibo \(2005\)](#) marking the geographical locations of languages from which Nimivefati borrows features in the conlang grammar. (b) illustrates a hypothetical vowel formant chart, which is a modified version of the chart from the Fang language ([Maddieson and Sands, 2019](#)).

¹Constructing Nimivefati is a research endeavour for the author, who aims to learn more about the different languages of mid- and southern-Africa and to investigate ways in which existing languages can go beyond just being written words (which is how technology tends to treat language) and are influenced by and inseparable from cultures, social contexts and the emotional states of humans ([Majid, 2012](#)). Features encountered along the way are brought together in Nimivefati. However, some creative freedom is assumed: not all of these features are likely to appear in a Congolese language, given their geographical dispersion. Moreover, some hypothetical features are invented as part of the thought process of what makes language human instead of technical.

Table 1: Pulmonic consonants in Nimivefati.

		Bilabial	Alveolar	Palatal	Velar	Glottal
Nasal	voiced	m	n		ŋ	
Plosive	voiceless	p	t		k	
	voiced	b	d		g	
Affricate	voiceless		tʃ			
	voiced		dʒ			
Fricative	voiceless	f	s			h
	voiced	v				
Approximant	voiced		l	j	w (labiovelar)	

2 Phonology

2.1 Consonants

Pulmonic consonants The consonant system has evolved over time to a modestly sized system with 18 regular consonants and four click consonants. The pulmonic consonants are provided in Table 1. Firstly, Nimivefati has three common *nasal* consonants. Then, in its *plosives*, Nimivefati contrasts three places of articulation—as is common in the world’s languages in general (Maddieson and Zonneveld, 1986)—and shows a contrast between voiceless and voiced plosives. In terms of *fricatives*, there are multiple voiceless and only one voiced fricative. Voiced fricatives are harder to produce and therefore rarer since they require the generation of turbulence noise while also achieving the right pressure across vocal folds to voice the consonant (Stevens, 1971). Furthermore, there are three approximants: the liquid /l/—Bantu languages commonly have one liquid (Maddieson and Zonneveld, 1986)—and /j/ and /w/.

What is odd about the consonant system is the fact that it contains *affricates*, which are relatively rare, considering that they are hard to produce and are created from other sounds (Żygis et al., 2012). Hypothetically, these may have entered the language as a result of the diachronic process of *spirantisation*.² This is a remnant of Proto-Bantu, and can be seen in some other Bantu languages, as well. Proto-Bantu contained unusually high vowels (i.e. with low formants) /i/ and /u/, that, when preceded by voiceless plosives led to the development of these affricates (Maddieson and Sands, 2019), e.g. /b^hi/ transformed into /bz^hi/, and /t^hu/ transformed into /ts^hu/. Nimivefati no longer has these vowels, but does still have two affricates (and, of course, the plosives that they are derived from).

Click consonants Apart from these pulmonic consonants, Nimivefati has four click consonants, similar to the Fwe language (Gunnink, 2018):

- Voiceless oral click: /^k/ (with cognate consonant k)
- Voiced oral click: /^g/ (with cognate consonant g)
- Voiceless prenasalised click: /^m/ (with cognate consonant m)
- Voiced nasalised click: /ⁿ/ (with cognate consonant ŋ)

The production of a click consonant involves the creation of two closures using the tongue, entrapping some air between these closures. Then the tongue is lowered to increase pressure, and upon the release of the closures, a click is produced (Maddieson and Sands, 2019). Click consonants are classified according to a place of articulation (release type) as well as phonation and manner of articulation. In Nimivefati, there is a contrast in the voicing and nasalisation. The place of articulation (or the click type) is not used

²The process through which a plosive changes while using the same location of articulation (Żygis et al., 2012).

Table 2: Vowels in Nimivefati.

	Front (unrounded)	Central (unrounded)	Back (rounded)
Close	i i:		u u:
Close-Mid	e e:		o o:
Close-Mid	ɛ ɛ:		ɔ ɔ:
Open		a a:	

contrastively and may even change from family to family, although the dental type is the most frequent (and is thus represented above). There is an exception, which is that when Nimivefati speakers want to express anger, they will use the lateral click type //, as has previously been observed in the Yeyi language (Seidel, 2008).

Click consonants are not usually present in Bantu languages, and are assumed to be a linguistic residue from pre-historic contact between Bantu and Khoisan languages. Between 5,000 and 1,500 years ago, Bantu speakers moved from Northern and Central-Africa towards Southern Africa (Bostoen, 2018), where contact with Khoisan languages led some languages to adopt the clicks. In Nimivefati, the click consonants have a (hypothetical) sociolinguistic role related to, but different from, the *hlonipha*³ custom in Nguni speakers (Herbert, 1990). Only older Nimivefati speakers would use the click consonants, and younger speakers are expected to avoid them, but only when speaking to older interlocutors. As such, consonant deformation is an inter-generational custom of respect. The social custom implies that speakers use cognate consonants for these clicks, such as /g/ for /^ǀ/, where the consonant-click consonant pairs are similar to pairs observed in typical click loss in Khoisan languages (Traill and Vossen, 1997).

2.2 Vowels

Nimivefati's vowels are indicated in Table 2, and a hypothetical vowel chart is presented in Figure 1b. /i/, /a/ and /u/ are the most frequently occurring vowels, likely due to the fact that these vowels have the largest contrast between one another, which facilitates faster comprehension.

The phonological system contains short and long vowels, where the vowel lengthening makes a phonemic difference. Phonemic vowel lengthening has been hypothesised to be a feature of Proto-Bantu (Hyman, 2019b), and the presence in Nimivefati is a remnant of that. Lengthening can be used as a mechanism for derivation, where semantically related words are phonemically distinguished in their vowel lengths. For instance, consider /t̪sono/ ('good') and /t̪so:no/ ('bad').

2.3 Tone

Similar to other Bantu languages, Nimivefati has a two-tone system (Greenberg, 1948) that implies that tone can be used to create a phonemic difference. In Nimivefati, this mostly functions as a grammatical device to distinguish tense and mood in verbs and is mentioned in §4.1.

2.4 Phonotactics

The phonotactical patterns used to generate nouns and verbs are taken from patterns for proto-Bantu, described by Hyman (2019a): CV(V)CV, CV(V) and VCV for nouns and CV(V)CV for verbs. We use the patterns used for nouns for adjectives and adverbs, as well, and form conjunctions, postpositions, quantifiers and pronouns using CVCV, VCV, CV, V. Here, V is a vowel, C is a consonant or a nasal followed by a consonant. For nouns, these building blocks can be compounded to create longer and more complex nouns.

³Hlonipha is a custom in which, out of respect towards her husband and his family, a married woman would avoid pronouncing the names (or the syllables) of male in-laws (Herbert, 1990).

Table 3: Personal pronouns in Nimivefati.

Person	Subjective		Objective		Possessive	
	Singular	Plural	Singular	Plural	Singular	Plural
1	mi	mida	imi	imida	mili	maja
2	ni	na	ini	ina	nila	nala
3	ŋi	ŋida	iŋi	iŋida	ŋila	ŋila

Table 4: A subset of the lexicon, illustrating how certain words have the same roots, grounded in Nimivefati speakers’ respect for nature.

Earth		Water		Air		Fire	
piko	create/dig (v.)	afam	water	keno	air(n.)/fly(v.)	e:ki	fire
pikolu	creator	afamoko	rain (lit. small water)	kenokakuki	sky	e:kuiki	smoke
pikoja	created	afamahu	river (lit. long water)	keno ^h i	bird	me:ki	burn (destructive)
pikobiamona	earth	afamiku	sea (lit. big water)			meki	burn (non-destructive)
pikobi	ground	afa:miku	flood			e:kilu	arsonist
pikopi	sand	afalu	swimmer				
pikopiahuh	beach (lit. long sand)	afaluta	fish (lit. water animal)				

3 Lexicon

3.1 Word classes

Nimivefati knows the following word classes: verbs, (proper) nouns, pronouns, demonstratives, quantifiers, adverbs, adjectives and postpositions. Demonstratives and adjectives are attached to nouns; demonstratives are prefixes, while adjectives are suffixes.

3.2 Constructing words

To create a lexicon using the phonology laid out in the previous section, phonemes are first assigned different likelihoods. As previously mentioned, /i/, /a/ and /u/ are considered the most frequent vowels. The remaining consonants and vowels are ordered by frequency in the world’s languages as reported by PHOIBLE (Moran et al., 2014). Afterwards, a Gusein-Zade distribution is applied over them, such that the first vowel/consonant is the most frequent and the last one is the least frequent. The frequency of phonemes within a language and the age at which language learners acquire them appear to correlate positively with the usage of phonemes across languages, which is why this seems a reasonable approach (Edwards et al., 2015). To generate the words using these phonemes, the Python tool Lexifer was used (Annis, 2015). Table 7 provides a subset of the Swadesh list filled out for Nimivefati, and Table 3 contains the pronouns used.

In generating nouns and verbs, a couple of considerations play a role. Firstly, the stative verbs contain, relatively speaking, many click consonants. Recall that these undergo consonant deformation if a younger speaker communicates with an older speaker.

Secondly, Nimivefati speakers’ respect for nature is reflected in the derivational morphology, since there are groups of words whose root is one of the four elements of water, fire, earth and air. Water-related words contain /afa/ (e.g. /afam/ which means ‘water’), earth-related words contain /piko/ (such as /pikobi/, which means ‘ground’, or /pikopi/, which means ‘sand’), air-related words contain /keno/ (e.g. /kenokakuki/ which means ‘sky’), and fire-related terms contain /eki/ (e.g. /e:ki/ which means ‘fire’). Table 4 provides a range of examples.

Thirdly, the table illustrates how vowel lengthening can be a mechanism for derivation as well, considering that, in Nimivefati, vowel lengthening will often be used to distinguish the perceived va-

lence of a situation: compare the neutral /afamiku/ ('sea') to the negatively valenced /afa:miku/ ('flood').

Fourthly, these examples also illustrate how certain nouns can be derived from other morphemes through *compositional* processes, considering that adjectives are suffixes that can attach to a noun, and nouns, in general, can be compounded. Table 4 provides examples: /afamoko/ ('rain', literally 'small water'), /afamahu/ ('river', literally 'long water'), /afaluta/ ('fish', literally 'water animal'), /pikopiahuh/ ('beach', literally 'long sand'). At the same time, the table also illustrates *non-compositional* types of derivation through the pattern of /pikolu/ ('creator'), /afalu/ ('swimmer') and /e:kilu/ ('arsonist') that all form a noun by combining the root with /lu/, in spite of the fact that /lu/ itself is not interpretable.

Finally, the lexicon is influenced by the social context of inhabitants of the Congo River basin. For instance, as indicated in Table 7, there are not too many ways to discuss the cold, given the Congolese climate, meaning that 'cold', 'snow' and 'ice' are expressed in a similar way, namely as /tsu:fa/. At the same time, droughts and fires are of a bigger concern than cold, making the distinction between /me:ki/ ('burn', e.g. suffering from fires) and /meki/ ('burn', e.g. when cooking) a very relevant one.

3.3 Orthography

Bantu languages are most often written in the Latin script. In terms of the orthography, we aim to adhere to the manual laid out for Bantu languages by Schroeder (2008), and there are a few matters requiring specific attention: Firstly, the lengthening of vowels requires marking if this is phonemic. The orthographic representation of a lengthened vowel would simply involve writing the letter twice. For instance, /e:/, would be written as <ee>. Secondly, /i/ and /u/ are written as <y> and <w>, respectively, when preceding a different vowel. Thirdly, although click consonants in Bantu languages are usually written using pulmonic consonants, we adopt the Khoisan custom of using the IPA click symbols, instead. Otherwise, the presence of the click consonants could more easily go unnoticed. The lack of a richer orthography is one example of how the expressiveness of a language is comprised when recording it in written or digitalised form (since most keyboards resist the usage of foreign characters). Fourthly, a similar issue applies to the orthographic representation of the velar nasal /ŋ/. Certain west-African languages will use the IPA symbol in written language <ŋ>, but that keeps one from digitalising the language as is. Instead, we opt for a different but equally expressive option: <ñ>. Finally, affricates /t͡s/ and /d͡z/ can simply be written as <ts> and <dz>.

4 Morphology and syntax

4.1 Verbal paradigm

Nimivefati is an agglutinative language that expects morphemes to fill specific slots in the general verb form. Unlike many other agglutinative languages, Niger-Congo languages use both suffixes and prefixes (Pereltsvaig, 2020), as is the case in Nimivefati's data structure for verbs, that will contain markers in the following order, that is adapted from the Tanzanian language Langi (Dunham, 2004). Notice that not all markers ought to be present in well-formed phrases.

1. Negation marker
2. Subject markers
3. Tense, aspect, mood (TAM) markers
4. Object markers
5. Root
6. TAM markers (only in case of the imperative mood, TAM markers appear here)

Negation The verb is negated by including a negation in the first position. That negation would generally be /ba/ ('not'), but could also be a different negation, such as /bibi/ ('never').

Table 5: Example verbal paradigm for the verb /mafa/ ('swim').

mood	tense	aspect	1SG	2SG	3SG	1PL	2PL	3PL
IND	REM.PST	-	mitàimafa	nitàimafa	ñitàimafa	midatàimafa	natàimafa	ñidatàimafa
IND	REM.PST	PFV	mitàinòmafa	nitàinòmafa	ñitàinòmafa	midatàinòmafa	natàinòmafa	ñidatàinòmafa
IND	REM.PST	PROG	mitàihidimafa	nitàihidimafa	ñitàihidimafa	midatàihidimafa	natàihidimafa	ñidatàihidimafa
IND	REM.PST	HAB	mitàijanemafa	nitàijanemafa	ñitàijanemafa	midatàijanemafa	natàijanemafa	ñidatàijanemafa
IND	REM.PST	PERS	mitàivejijafa	nitàivejijafa	ñitàivejijafa	midatàivejijafa	natàivejijafa	ñidatàivejijafa
IND	REC.PST	-	minuamafa	ninuamafa	ñinuamafa	midanuamafa	nanuamafa	ñidanuamafa
IND	REC.PST	PFV	minuanòmafa	ninuanòmafa	ñinuanòmafa	midanuànòmafa	nanuanòmafa	ñidanuanòmafa
IND	REC.PST	PROG	minuahidimafa	ninuahidimafa	ñinuahidimafa	midanuahidimafa	nanuahidimafa	ñidanuahidimafa
IND	REC.PST	HAB	minuujanemafa	ninuujanemafa	ñinuujanemafa	midanuujanemafa	nanuujanemafa	ñidanuujanemafa
IND	REC.PST	PERS	minuavejijafa	ninuavejijafa	ñinuavejijafa	midanuavejijafa	nanuavejijafa	ñidanuavejijafa
IND	IM.PST	-	mitáimafa	nitáimafa	ñitáimafa	midatáimafa	natáimafa	ñidatáimafa
IND	IM.PST	PFV	mitáinòmafa	nitáinòmafa	ñitáinòmafa	midatáinòmafa	natáinòmafa	ñidatáinòmafa
IND	IM.PST	PROG	mitáihidimafa	nitáihidimafa	ñitáihidimafa	midatáihidimafa	natáihidimafa	ñidatáihidimafa
IND	IM.PST	HAB	mitáijanemafa	nitáijanemafa	ñitáijanemafa	midatáijanemafa	natáijanemafa	ñidatáijanemafa
IND	IM.PST	PERS	mitáivejijafa	nitáivejijafa	ñitáivejijafa	midatáivejijafa	natáivejijafa	ñidatáivejijafa
IND	PRS	-	mimafa	nimafa	ñimafa	midamafa	namafa	ñidamafa
IND	PRS	PROG	mihidimafa	nihidimafa	ñihidimafa	midahidimafa	nahidimafa	ñidahidimafa
IND	PRS	HAB	mijanemafa	nijanemafa	ñijanemafa	midajanemafa	najanemafa	ñidajanemafa
IND	PRS	PERS	mivejijafa	nivejijafa	ñivejijafa	midavejijafa	navejijafa	ñidavejijafa
IND	FUT	-	miàtimafa	niàtimafa	ñiàtimafa	midà:timafa	na:timafa	ñidà:timafa
IND	IM.FUT	-	miátimafa	niátimafa	ñiátimafa	midá:timafa	na:timafa	ñidá:timafa
IMP	PRS	-	mimafà:ti	nimafà:ti	ñimafà:ti	midamafà:ti	namafà:ti	ñidamafà:ti
IMP	PRS	PROG	mimafà:tihidi	nimafà:tihidi	ñimafà:tihidi	midamafà:tihidi	namafà:tihidi	ñidamafà:tihidi
IMP	PRS	HAB	mimafà:tijane	nimafà:tijane	ñimafà:tijane	midamafà:tijane	namafà:tijane	ñidamafà:tijane
IMP	PRS	PERS	mimafà:tiveji	nimafà:tiveji	ñimafà:tiveji	midamafà:tiveji	namafà:tiveji	ñidamafà:tiveji

Subject and object markers For the subject marker, the subjective personal pronouns introduced in §3 in Table 3 act as pronominal prefixes. The object markers are slightly different and are also introduced in Table 3. Nimivefati adheres to nominative-accusative alignment in that the same morphological marking is used for the subject of intransitive verbs and for the subject of transitive verbs, whereas the object of transitive verbs has a different marking. This is common among Bantu languages, although some might argue that they display split ergativity due to the possibility to reverse subject-object roles (Morimoto, 2006), but Nimivefati is quite rigid and does not allow that. There is no case marking on the nouns; the only way in which this alignment is displayed in the language is in the subject and object markers.

Nimivefati is a pro-drop language that allows dropping the subject and object pronouns if they can be unambiguously inferred from the verb—e.g. Swahili also allows dropping such pronouns (Deen, 2001). The usage of these markers, the drop of personal pronouns and the usage of negation are illustrated in Example 1.

- (1) *ba-mi-Ø-ini-^sluja*
 NEG-1SG.SBJ-PRS-2SG.OBJ-know
 I don't know you

Tense Nimivefati has six different tenses. When performing interlinear glossing, these will be marked according to the abbreviations as introduced by Croft (2002), to which we add the IM tag representing the *imaginary*:

- The remote past (REM.PST): The remote past indicates events that occurred longer than multiple months ago, but the exact border between the remote and recent past would differ per speaker. It is indicated with /tài/.
- The recent past (REC.PST): The near past concerns event that occurred within the last few months.

It is indicated with /nua/.

- The imaginary past (IM.PST): When speaking of certain genres of folklore, such as fairy tales, epic poetry or myths, one would use the imaginary past. The imaginary past is like the remote past, but with a tonal difference.

It is indicated with /tái/.

- The present (PRS): The present simple does not have a tense marker.
- The future (FUT): The future does not explicitly distinguish between events that are likely to be near or further away, but one can use the present if a future event is coming up very soon.

It is indicated with /àti/.

- The imaginary future (IM.FUT): The imaginary future can be used to discuss events one envisions but that may not occur. For instance, when pouring out a blessing over your friend, hoping that they will find the love of their life and live happily ever after, you would use this tense. The imaginary future is pronounced as the future tense, but with a tonal difference.

It is indicated with /áti/.

Aspect Nimivefati has the following aspects:

- Perfective (PFV): This aspect is marked with /nɔ/, and can be combined with the past tenses only. It emphasises that a certain event is completely finished, and is illustrated in Example 2a.
- Progressive (PROG): This aspect is marked with /hidi/, and is a specific type of *imperfective* aspect that suggests an activity is ongoing. It combines with the present and past tenses, and is illustrated in Example 2b.
- Habitual (HAB): This imperfective aspect is marked with /ɲane/ and suggests a certain activity occurs on a regular basis. It combines with the present and past tenses, and is illustrated in Example 2c.
- Persistent (PERS): This imperfective aspect is marked with /veɲi/ and can roughly be interpreted as the English adverb ‘still’. It is an uncommon aspect, in general, but common among Bantu languages (Crane and Persohn, 2019). It combines with the present and past tenses, and is illustrated in Example 2d.

- (2) a. *mi-tài-nɔ-biumi*
1SG.SBJ-REC.PST-PFV-hunt
I recently hunted.
- b. *mi-Ø-hidi-biumi*
1SG.SBJ-PRS-PROG-hunt
I am hunting.
- c. *mi-Ø-ɲane-biumi*
1SG.SBJ-PRS-HAB-hunt
I go hunting regularly.
- d. *mi-Ø-veɲi-biumi*
1SG.SBJ-PRS-PERS-hunt
I am still hunting.

Mood Nimivefati distinguishes between the following moods:

- The indicative mood does not require additional mood markers.
- The imperative mood is formed by including the TAM markers in position 6 only, and using the markers of the future tense to express the imperative in the present. We will illustrate an example of this in the sections that follow (specifically, Example 11).

Table 6: Noun classes in Proto-Bantu and two existing Bantu languages (Nyamweze, Swahili), along with Nimivefati's noun classes.

Class	Proto-Bantu	Nyamweze	Swahili	Nimivefati	Meaning	Plural class
1	mu	mu	m	mu	people	2
2	ba	βa	wa	wa	people	-
3	mɔ	mu	m	mu	<i>fire, earth</i>	4
4	mɪ	mi	mi	ma	<i>fire, earth</i>	-
5	i	i	ji/∅	li	<i>water, masses</i>	6
6	ma	ma	ma	ma	<i>water, masses</i>	-
7	kɪ	ki	ki	ki	artefacts, tools	8
8	bi	shi	vi	si	artefacts, tools	-
9	N	N/∅	N/∅	∅	<i>air, loanwords, proper nouns</i>	10
10	N	N/∅	N/∅	∅	<i>air, loanwords, proper nouns</i>	-
11	kɔ	lu	u	lu	long things, abstracts	10
12	ka	ka	<i>absent</i>	ka	emotions, mental states	2
13	tɔ	tu	<i>absent</i>	tu	no clear semantics	6
14	bɔ	βu	<i>absent</i>	bu	no clear semantics	6
15	kɔ	ku	ku	ku	infinitives	10
16	pa	ha	pa	ha	locatives	10
17	kɔ	ku	ku	ku	animals	6
18	mɔ	mu	mu	mu	no clear semantics	10

- The interrogative mood is not marked on the verb, but, instead, involves a change of tone on the last syllable of a sentence.

Table 5 illustrates how the different tenses, aspects and moods lead to an extensive verbal paradigm for the verb /mafa/ ('swim').

4.2 Nouns

Bantu languages have an atypical system for nouns in that there are many more noun classes than in other language families (such as the Indo-European ones, which usually mark up to three genders). These classes are similar to gender, but there can be even more than 20 of them. Which class a noun belongs to depends on its meaning and not on its phonological features. Nonetheless, it is hard to draw clear semantic boundaries for which nouns belong in one class or another; Table 6 gives generic indications for some of the classes (taken from Marten, 2021). Across different Bantu languages, many of the same classes are used, which is assumed to be due to their common ancestor (Proto-Bantu). Individual languages have slight differences in the exact prefixes used, of which two are shown in Table 6 (Nyamweze and Shwahili), along with the prefixes used in Nimivefati. The amount of prefixes has been hypothesised to be related to the age of the language, where younger languages diverge more strongly from Proto-Bantu. There are separate classes for singular and plural nouns, and classes 1-2, 3-4, 5-6, 7-8 and 9-10 are paired. Classes 11-18 have their plural classes among 2, 6, and 10, which is further detailed in the table. The class meanings from Marten (2021) are adapted to accommodate Nimivefati, by introducing new meanings (class 12 representing mental states), and assigning the nature-based categories to classes.

How are these prefixes used in sentences? Nouns are marked based on their class by adding a nominal prefix to the noun's stem. In Nimivefati, the prefixes are of a CV pattern, with the exception of some classes that have a zero prefix. Three examples for Nimivefati are shown in Examples 3-5.

- (3) *li-afamahu*
NP5-river
river
- (4) *ku-luta*
NP17-animal
animal
- (5) *wa-mula*
NP2-woman
women

4.2.1 Noun modifiers

Typically, numerals, adjectives, demonstratives, possessives and verbs must also be marked with the nominal prefix of the noun they agree with, but in Nimivefati, adjectives and demonstratives are suffixes and prefixes, respectively, that attach to the noun they agree with. Therefore, we do not repeat the nominal prefix for adjectives and demonstratives (see Example 6). Example 7 illustrates how a numeral would need marking.

- (6) *mo-li-afamahu-eki*
DEM.PROX.SG-NP5-river-warm
this warm river
- (7) *mu-kesame mu-abi*
NP1-man NP1-one
one man

For possessive modification, Nimivefati has two morphosyntactically distinct constructions to express alienable and inalienable possession, as is commonly observed in the world's languages (Van de Velde, 2020; Croft, 2022). Inalienable possession applies to body parts, kinship terms, but also other nouns that are inseparable from a person, including emotions and mental states, as is observed in Akan and Kiswahili (Quarshie, 2016). Alienable possession is constructed using a postposition (see Example 8, akin to the English 'house of mine'), whereas inalienable possession is constructed using a possessive pronoun (see Example 9, akin to the English 'my father', or Example 10 that illustrates how an emotional state is considered inseparable from the person).

- (8) *ki-samaka ki-mili a*
NP7-house NP7-my of
my house
- (9) *mu-mili mu-wipaja*
NP1-my NP1-father
my father
- (10) *lu-mili lu-moikima*
NP12-my NP12-sadness
my sadness

4.3 Basic Clauses

Nimivefati has an SOV word order for all tenses. This is rare among Bantu languages but is not unheard of—e.g. consider the Tunen language with that word order (Mous, 1997). In accordance with Jakobson's

theory of implicational universals (Lyovin et al., 2016), Nimivefati thus also has postpositions. In Nimivefati, noun modifiers, however, typically follow the noun, as is the case for adjectives, numerals and relative clauses. Exceptions to that rule include demonstratives, possessives, and question words (e.g. whose, which). This has previously been observed for Tunen (Mous, 1997), and the flexibility of demonstratives, specifically, has been more widely observed for other Bantu languages, as well (Wald and Gibson, 2018).

Independent clauses As illustrated in previous sections, declarative clauses are characterised by the default word order of Nimivefati, that is SOV. Imperative clauses are an exception in that they display SVO word order for emphasis (adopted from Tunen, Mous, 1997). Example 11 contains such an imperative clause. Notice that TAM markers are in a different position in the imperative mood, as previously introduced (§4.1).

- (11) *iŋi-mu-^g/Ema-àti mu-e:ki*
 3SG.OBJ-NP3-fear-PRS.IMP NP3-fire
 Fear the fire!

Interrogative clauses, such as Example 12, are not explicitly marked except for the usage of tone through a rising intonation on the final syllable. Wh-clauses place the wh-word in the final position, as shown in Example 13, which questions when in the imaginary future, the earth will be freed (literally, ‘fly’). Earth is a proper noun, which is a noun that receives an empty marker (see §4.2).

- (12) *ni-Ø-mafa gapa ni-Ø-^g/ujá*
 2SG.SBJ-PRS-SWIM how 2SG.SBJ-PRS-know
 Do you know how to swim?

- (13) *Ø-pikobiamona ŋi-Ø-áti-keno guwa*
 NP9-earth 3SG.SBJ-NP9-IM.FUT-fly when
 When will the earth fly? / (fig.) When could the earth ever be free?

Postpositional phrases (PP) do not act as verbs’ objects do, they will follow the verb they modify—e.g. see Example 14. This has previously been observed for locative PPs in Tunen, as well (Mous, 1997).

- (14) *mida-Ø-ŋane-dabi mu-pikopiahu ta*
 1PL.SBJ-PRS-HAB-walk NP3-beach on
 We are frequently walking on the beach.

Subordinate clauses Subordinate clauses adhere to the SOV word order, as is illustrated in Examples 15 and 16. Notice that in Example 15, the relative clause follows the noun as previously stated.

- (15) *mu-kesame huwi ku-luta ŋi-nua-iŋi-ku-jo:^gŋa ŋi-mu-àti-nugu hopa*
 NP1-man who NP17-animal 3SG.SBJ-REC.PST-3SG.OBJ-NP17-kill 3SG.SBJ-NP1-FUT-come today
 The man who killed the animal will come today.
- (16) *mu-piku Ø-pikobiamona ŋi-mu-tái-iŋi-Ø-me:ki mi-Ø-^g/uja*
 NP1-man NP9-earth 3SG.SBJ-NP1-IM.PST-3SG.OBJ-NP9-burn 1SG.SBJ-PRS-know
 I know that man burnt the earth. / (fig.) I know that humans destroyed the earth.

5 Pragmatics: metaphors

A metaphor is generally a comparison of the form “A is B”, that suggests a transfer to A of aspects commonly ascribed to B (Lakoff and Johnson, 2008), where A is the target domain that is typically more

abstract, whereas B is the source domain that is usually more concrete. In Nimivefati, the four nature elements play a role in the metaphors used, and several examples have been included in this grammar:

- **Air:** air is representative of freedom, as birds are free in the sky. In Example 13, we saw an example of that, that questions when the earth will be free using the source domain of air through the verb /keno/ (‘fly’).
- **Fire:** fire is seen as dangerous since it can kill crops. Example 16 makes that explicit by comparing the way people use the earth as burning the earth.
- **Water:** water would be used for movement metaphors in Nimivefati. As the water flows, so could humans run, for instance.
- **Earth:** in the glossed text, in Example 19 you will see an example of an earth-related metaphor. The sand is used to describe that rage is subsiding, it becomes loose. More generally, earth represents groundedness and calmness.

6 Glossed text from “The Perfect Nine”

This glossed text is based on an excerpt from the book “The Perfect Nine” written by Ngũgĩ wa Thiong’o. The story discusses how nine daughters form the start of nine clans in Kenya. I manipulated the English text from the book to display various features of Nimivefati. When the story starts, assume a group of people is seated on the ground around a campfire. The daughters’ suitors approach, and they are angry. Then Mumbi, the daughters’ mother, sings and reminisces.

Notice that /gela/ (‘singing’) in Example 18 is an infinitive represented as a noun. In Example 19, /njida/ has been dropped as the subject of the verb /kiva/ (‘lay’) because there is already a subject marker on the verb. Notice that there is a metaphor in the same sentence that describes the subsiding of the rage as rage turning into sand.

- (17) *Ø-wangui lu-gelaka ñi-Ø-Ø-hidi-ñi-lu-gela*
 NP9-wangui NP11-song 3SG.SBJ-NP9-PRS-PROG-3SG.OBJ-NP11-sing
 Wangui is singing a song.

- (18) *mu-bavoli ku-gela njida-mu-Ø-ñi-ku-kuaba*
 NP1-others NP15-sing 3PL.SBJ-NP1-PRS-3SG.OBJ-NP15-inherit
 (lit.) The others inherit the singing / (fig.) The others join in.

- (19) *lu-sa:ma:ka wa-kesame a mu-pikopi ñi-lu-Ø-hidi-ñi-mu-mido iwi*
 NP11-rage NP2-man of NP3-sand 3SG.SBJ-NP11-PRS-PROG-3SG.OBJ-NP3-become and
si-dile:mi njida-Ø-ñida-si-kiva mu-pikobi ta
 NP8-sword 3PL.SBJ-PRS-3PL.OBJ-NP8-lay NP3-ground on
 (lit.) The men’s rage is turning into sand and they lay the swords on the ground. / (fig.) The men’s rage subsides and they put the swords on the ground.

Next, the text describes a brief dialogue between Mumbi and Gikuyu, that is audible to the characters that surround them. Mumbi is older than Gikuyu. Normally the verb /^gluja/ (‘know’) requires a click consonant. However, in Example 23, Gikuyu is the younger interlocutor of the two, so Gikuyu uses the cognate consonant /g/ instead of the click consonant /^g/, as was introduced in §2.1. Example 21 uses the imaginary past tense considering that Mumbi did not literally create the items listed, it is a metaphor to describe her role as mother.

- (20) *εke Ø-mumbi ηi-Ø-Ø-jĩṣo*
 then NP9-mumbi 3SG.SBJ-NP9-PRS-speak
 Then Mumbi speaks.
- (21) *ka-mili ka-tabaka Ø-mumbi ηi-ka-Ø-iηi-Ø-daⁿⁱli* , *si-semiηi*
 NP12-my NP12-name NP9-mumbi 3SG.SBJ-NP12-PRS-3SG.OBJ-NP9-hear , NP8-pot
mi-tái-iηida-si-piko , *ka-atawia mi-tái-iηi-ka-piko*
 1SG.SBJ-IM.PST-3PL.OBJ-NP8-create , NP12-character 1SG.SBJ-IM.PST-3SG.OBJ-NP12-create
ivi lu-pikoja mi-tái-iηi-lu-piko
 and NP11-creation 1SG.SBJ-IM.PST-3SG.OBJ-NP11-create
 “My name sounds like Mumbi, I created the pots, I created the character and I created the created.”
- (22) *Ø-gikuyu ηi-Ø-Ø-jĩṣo*
 NP9-gikuyu 3SG.SBJ-NP9-PRS-speak
 Gikuyu speaks.
- (23) *Ø-mumbi huwi wa-mabihi ηi-Ø-Ø-ηane-iηi-wa-guja* *ηi-àti-jĩṣo* *mida*
 NP9-mumbi who NP2-wisdom 3SG.SBJ-NP9-PRS-HAB-3SG.OBJ-NP2-know 3SG.SBJ-FUT-speak we
fe
 to
 “Mumbi who often knows wisdom (fig. wise things) will speak to us.”
- (24) *εke Ø-mumbi ηi-Ø-Ø-jĩṣo*
 then NP9-mumbi 3SG.SBJ-NP9-PRS-speak
 Then Mumbi speaks.

Now, Mumbi shares about her life experiences and life lessons. In Example 25, the adjective /kitu/ (‘perfect’) is attached to the noun since Nimivefati only knows adjectival suffixes, and /pikusamaka/ (‘womb’, literally ‘human house’) is a compound noun. Example 26 uses a negation /ba/ (‘not’). Examples 27-28 are written using the imaginary past and the imaginary future since the inheritance is not a literal inheritance but a spiritual one. In Example 27 we do not drop the subject for extra emphasis. Finally, Examples 25 and 26 illustrate the different types of possessives since a body part is indicated using inalienable possession (/mumili mupikusamaka/ meaning ‘my womb’) whereas possession of a house is indicated using the syntactic structure for alienable possession (/lusamaka lumili a/ meaning ‘house of mine’).

- (25) *Ø-ebu-kitu mi-tái-iηi-Ø-mama* *mu-mili mu-pikusamaka upe*
 NP9-nine-perfect 1SG.SBJ-REM.PST-3SG.OBJ-NP9-nourish NP1-my NP1-womb in
 “I nourished the perfect nine in my womb.”
- (26) *ki-samaka ki-mili a upe mu-mu:deηi mu-ebu a ba-ηi-mu-àti-pi:ba*
 NP7-house NP7-my of in NP1-blood NP1-nine of NEG-3SG.SBJ-NP1-FUT-spill
 “In my house, the blood of the nine will not spill.”
- (27) *mida mida-tái-kuaba wa-piku-jigu fi*
 we 1PL.SBJ-IM.PST-inherit NP2-human-same from
 “We all have descended (lit. inherited) from the same humans.”

- (28) *mu-ŋila mu-pikuba eḏza mida-áti-mama* , *mida-áti-puiti* ,
 NP1-their NP1-humanity which 1PL.SBJ-IM.FUT-nourish , 1PL.SBJ-IM.FUT-cherish ,
mida-áti-wilo mida-tái-iŋi-mu-kuaba
 1PL.SBJ-IM.FUT-pass 1PL.SBJ-IM.PST-3SG.OBJ-NP1-inherit

“We inherited their humanity which we cherish, nourish and pass on.”

In the following two examples, which are rather philosophical, we would like to highlight the change in the click consonant. As described in §2.1, speakers tend to use the lateral click to indicate anger, which is why a lateral click is introduced in /^le:ḥsi/ (‘destroying’). Note that in Example 29 /ku-jo:^lla ku-maja a/ (‘our death’) is an alienable possession construction, and thus not a typical PP, but a regular object that precedes the verb.

- (29) *gepu huwi ku-jo:^lla ku-maja a ŋida-Ø-iŋi-ku-doiha ŋida-Ø-veŋi-dabi*
 nonetheless who NP15-kill NP15-our of 3PL.SBJ-PRS-3SG.OBJ-NP15-want 3PL.SBJ-PRS-PERS-walk
mida ta
 we on

“Nonetheless, they who want our death are still walking among us.”

- (30) *ku-^le:ḥsi lu-koki-oko ŋi-ku-Ø-iŋi-lu-mido mu-kesame huwi*
 NP15-destroy NP11-matter-small 3SG.SBJ-NP15-PRS-3SG.OBJ-NP11-become NP1-man who
lu-ho:pisu ŋi-Ø-iŋi-lu-doiha ŋalo oḑo ku-^le:ḥsi lu-koki-pujawe
 NP11-yesterday 3SG.SBJ-PRS-3SG.OBJ-NP11-want for but NP15-build NP11-matter-hard
ŋi-ku-Ø-iŋi-lu-mido mu-kesame huwi lu-hopisu ŋi-Ø-iŋi-lu-doiha
 3SG.SBJ-NP15-PRS-3SG.OBJ-NP11-become NP1-man who NP11-tomorrow 3SG.SBJ-PRS-3SG.OBJ-NP11-want
ŋalo
 for

(lit.) “Destroying becomes a small matter for the man who wants yesterday, but building becomes a hard matter for the man who wants tomorrow” / (fig.) “To destroy is easy work for those who live in the past, but building something requires hard work from someone longing for a better future.”

Finally, we would like to repeat this text using the orthographic representation, for which the rules have been laid out in §3: Wangui lugelaka ñihidiñilugela. Mubavoli kugela ñidamwiñikukwaba. Lusaa-maaka wakesame a mupikopi ñiluhidiñimumido ivi sidileemi ñidaiñidasikiva mupikobi ta. eke Mumbi ñijitso. “Kamili katabaka mumbi ñikaiñidali, sisemiñi mitáiiñidasipiko, kaatawya mitáiiñikapiko ivi lupikoja mitáiiñilupiko.” Gikuyu ñijitso. “Mumbi huwi wamabihi ñiñaneñiwaluja ñyàtjitso mida fe.” eke Mumbi ñijitso. “Ebukitu mitáiiñimama mumili mupikusamaka upe. Kisamaka kimili a upe mumuudeñi mwebu a bañimwàtipiiba. Mida midatáikwaba mupikujigu fi. Muñila mupikuba edza midáátimama, midáátipuiti, midáátiwilo midatáiiñimukwaba. Gepu huwi kujoo^lla kumaja a ñidaiñikudoiha ñidaveñidabi mida ta. Kuleetsi lukokyoko ñikwiñilumido mukesame huwi luhoopisu ñiiñiludoiha ñalo oḑo kuletsi lukokipujawe ñikwiñilumido mukesame huwi luhopisu ñiiñiludoiha ñalo.”⁴

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⁴The author is very happy that they are not a native speaker in this language, it seems incredibly complicated to learn.

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Table 7: A subset of the swadesh list for Nimivefati, providing words that span a total of 10 categories, grouped by part of speech tag.

ID	Word	Phonemic	Gloss	Part of Speech	Category
1	iki	iki	big	adjectival suffix	property
2	ahu	ahu	long	adjectival suffix	property
6	oko	oko	small	adjectival suffix	property
10	eki	eki	warm	adjectival suffix	property
11	N/A	N/A (described using /tsu:fa/)	cold	adjectival suffix	property
15	tsono	t̄sono	good	adjectival suffix	property
16	tsoono	t̄so:no	bad	adjectival suffix	property
24	afa	afa	wet	adjectival suffix	property
111	pikobyamona	pikobiamona	earth	proper noun	environment
114	kenokakuki	kenokakuki	sky	proper noun	environment
31	luta	luta	animal	noun	animal
32	afaluta	afaluta	fish	noun	animal
96	nodzama	nodzama	flower	noun	environment
102	afam	afam	water	noun	environment
103	afamoko	afamoko	rain	noun	environment
104	afamahu	afamahu	river	noun	environment
109	pikopi	pikopi	sand	noun	environment
116	tsuufa	t̄su:fa	snow	noun	environment
117	tsuufa	t̄su:fa	ice	noun	environment
118	eekwiki	e:kuiki	smoke	noun	environment
120	eeki	e:ki	fire	noun	environment
124	mula	mula	woman	noun	human
125	kesame	kesame	man (adult male)	noun	human
126	piku	piku	man (human being)	noun	human
189	abi	abi	one	noun (cardinal number)	quantifier
190	epa	epa	two	noun (cardinal number)	quantifier
84	atsi	ātsi	with	conjunction	conjunction
85	ivi	ivi	and	conjunction	conjunction
86	so	so	if	conjunction	conjunction
136	joolla	jo: ⁿ lla	kill	verb	impact
144	piko	piko	dig	verb	impact
149	mafa	mafa	swim	verb	motion
150	keno	keno	fly	verb	motion
160	lega	ⁿ lega	see	verb	perception action
161	dali	da ⁿ li	hear	verb	perception action
162	luja	^ʒ luja	know	verb	perception action
163	lami	^k lami	think	verb	perception action
164	tetse	tetse	smell	verb	perception action
165	lema	^ʒ lema	fear	verb	perception action
167	lomi	^ʒ lomi	say	verb	perception action
168	mi	mi	I	pronoun	person
169	ni	ni	you (sl)	pronoun	person
170	ñi	ɲi	he/she	pronoun	person
171	mida	mida	we	pronoun	person
172	na	na	you (plural)	pronoun	person
173	ñida	ɲida	they	pronoun	person
174	mo	mo	this	pronoun	person
175	no	no	that	pronoun	person
178	huwi	huwi	who	pronoun	person
176	mito	mito	here	adverb	person
177	mita	mita	there	adverb	person
182	gapa	gapa	how	adverb	person
183	ba	ba	not	adverbial prefix	quantifier
145	atsu	ātsu	at	postposition	location
146	upe	upe	in	postposition	location
87	sovi	sovi	because	postposition	conjunction