

## Aspectual Classes of Verbs in Nyamwezi



# ASPECTUAL CLASSES OF VERBS IN NYAMWEZI

Ponsiano Sawaka Kanijo



UNIVERSITY OF GOTHENBURG

*To my mother Margreth Nyamizi Bernard*

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The picture of a mango tree on the cover represents the original name of Tabora region, an area where Nyamwezi is spoken. This area was originally called *Unyanyembe* (from the Nyamwezi word *inyembé* ‘mango’) due to the huge ancient mango trees, which were grown by long-distance traders (Joynson-Hicks, 1998, p. 136).

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## Abstract

This dissertation deals with the classification of verbs in Nyamwezi, a Bantu language spoken in central-west Tanzania. The major aims of this study have been twofold: first, to classify Nyamwezi verbs into different aspectual classes, and second, to present a variety of tests that were used as evidence for a verb's aspectual class membership. The data for the analysis and classification of verbs in this study were collected using a variety of fieldwork techniques mostly direct elicitation (sentence translation from questionnaires) and contextual elicitation (testing the acceptability of a construction based on a range of imaginary discourse contexts provided to the consultant). Other techniques that were used to collect data were informal or conversational interviews, back translation and digital recordings of oral narratives and conversations.

In classifying verbs into aspectual classes, this study has adopted Botne and Kershner's (2000) framework. This framework classifies verbs into aspectual classes based on three successive phases: ONSET (representing the phase leading up to the change), NUCLEUS (representing the change itself; it can also be represented as a lead-up phase if the verb lacks an onset) and CODA (representing the result state). In this framework, verbs are classified based on the number of phases they encode and on the semantic properties of the encoded phases, i.e., based on whether the phases are punctual/durative or dynamic/static.

The phasal structures encoded by Nyamwezi aspectual classes are determined using various diagnostic tests. Some of these tests are based on checking the interpretational differences or co-occurrence restrictions of a given verb with either grammatical aspect constructions (grammatical aspect tests) or lexical items, such as *-andya* 'start', *-oya* 'stop', *-mala* 'finish' and *hadoóhádó* 'slowly' (lexical tests). Other tests are based on checking the interpretational differences or co-occurrence restrictions of the verb with tense markers and time adverbials (tense and time adverbial tests). Most of these tests give results that to a large extent are similar to those observed in other studies on aspectual classes in Bantu languages. Other tests give results which cannot be generalized to other Bantu languages. This is because these tests do not test exactly the same thing in all languages. The differences between aspectual classes shown by the diagnostic tests will hopefully have an implication for an overall typology of aspectual classes.

KEYWORDS: Nyamwezi, aspectual class, phasal structure, diagnostic test

# Abstract in Swedish

Denna avhandling behandlar klassificering av verbets aspekt i nyamwezi, ett bantuspråk som talas i den västra delen av centrala Tanzania. Avhandlingen har två syften: dels att dela in nyamweziverb i olika aspektklasser (aktionsarter), dels att diskutera och analysera de test som brukar användas för sådan verbklassificering. Vid insamling av språkexempel har olika fältmetoder använts, huvudsakligen olika slags elicitering av tal (som då spelats in) och skrift, både regelrätta översättningsövningar från swahili (det överregionala standardspråket i Tanzania) till nyamwezi och så kallad kontextuell elicitering; det senare innebär att intervjuaren ber informanten bedöma och eventuellt modifiera en konstruktion i en rad olika grammatiska sammanhang. Även återöversättning har tillämpats. Det innebär att informanter ombeds utgå ifrån meningar på nyamwezi (målspråket) och översätta dessa tillbaka till swahili. Excerptering har även förekommit löpande och på förekommen anledning i samband med informella intervjuer och möten med informanter.

För att klassificera verbets aspekt har denna studie antagit Botne och Kershners (2000) ram. Detta ramverk klassificerar verb i aspektuella klasser baserade på tre på varandra följande faser i den betydelse som ett verb kan uttrycka: ONSET (fasen fram till förändringen), NUCLEUS (förändringsfasen) och CODA (tillståndet efter förändringen). I detta ramverk urskiljs olika verbklasser dels på basis av vilka faser de över huvud taget uttrycker, dels på basis av de semantiska egenskaperna inom en aktuell fas. Faserna kan exempelvis kategoriseras som punktliga eller durativa, och statiska eller dynamiska.

För att ta reda på vilka faser verben i nyamwezi uttrycker och på vilket sätt fasuttrycken varierar sinsemellan används olika diagnostiska test. Testen syftar till att visa tolkningsskillnader och begränsningar när tempus- och aspektmarkörer eller fristående ord kombineras med olika verb. I praktiken genomförs detta genom att verifiera kompatibiliteten av verbet med 1) aspektmarkörer, 2) fristående aspektuella ord såsom *andya* 'börja', *-oya* 'stanna', *-mala* 'sluta' och *hadoóhádó* 'långsamt', och 3) tempusmarkörer i kombination med tidsadverbial. Många av de tester som använts ger resultat som i stor utsträckning liknar dem som observerats i andra studier av klassificeringen av verbets aspektklasser i bantuspråk. Andra tester ger emellertid resultat som inte kan generaliseras till andra bantuspråk. Det beror på att dessa test helt enkelt inte kan testa exakt samma sak på alla språk. Den omständigheten reser i sin tur den mer generella frågan hur man skulle kunna formulera en aspektklassypologi för mänskliga språk.

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# SYMBOLS AND ABBREVIATIONS

## Symbols

- segmentable morpheme boundary
- = clitic boundary
- semantically segmentable elements in the metalanguage rendered by a single element in the object-language
- . word/morpheme boundary of elements in the metalanguage rendered by a single element in the object-language
- ' liaison
- ˈ high tone
- // phonemic representation
- / contrastive or variant items, categories, etc.
- § section
- ∅ no overt element or function
- # infelicitous
- ? infelicitous for some speakers
- > leads to/becomes
- < from source
- < > equal to
- [] context

## Abbreviations

1,2,3 ...	Noun class	NAR	Narrative
1,2,3 SG/PL	Person	NEG	Negative
ACP	Agreement class prefix	NEUT	Neuter
ADV	Adverb	NOM	Nominative
ADJ	Adjective	NP	Nominal prefix
APPL	Applicative	NUM	Numeral
AUG	Augment	O	Onset phase
AUX	Auxiliary	OP	Object prefix
C	Coda phase	OPT	Optative
CAUS	Causative	OV	Object version
CONS	Consecutive	PASS	Passive
CON	Connective	PER	Persistent
CPL	Completive	PERF	Perfect
DAT	Dative	PFV	Perfective
DEM	Demonstrative	PL	Plural
EXCL	Exclamatory word	PREHOD	Pre-hodiernal past
Ext.	Verbal extension	POSS	Possessive
FIRSTH	First hand evidentiality	POSTHOD	Post-hodiernal future
FUT	Future	PoT	Post-terminative
FV	Final vowel	PST	Past
GEN	Genitive	R	Reference time
HAB	Habitual	RECP	Reciprocal
HAB_PST	Past habitual	REFL	Reflexive
IMM_PST	Immediate past	REM_PST	Remote past
HOD_FUT	Hodiernal future	SEP	Separative
HOD_PST	Hodiernal past	SG	Singular
IMP	Imperative	SP	Subject prefix
IMPF	General imperfective	STAT	stative construction
INC	Inceptive	TAM	Tense, aspect, mood
INF	Infinitive	TA	Tense, aspect
IT	Itive	UT	Utterance time
LOC	Locative	VB	Verb base
N	Nuclear phase		



# 1 Introduction and Background

## 1.1 Introduction

This study deals with the classification of verbs in Nyamwezi, a major Bantu language spoken in the central-western area of Tanzania, mostly in the area of Tabora. This chapter introduces the study. It first presents the goals and motivations of the study, as well as its contributions to the study of lexical aspect, grammatical aspect and tense (§ 1.2). The second section, § 1.3, provides an overview of previous research on the Nyamwezi language. The third section, § 1.4, provides some introductory notes on the language and its speakers. This section also provides information about dialects of Nyamwezi. The next section, § 1.5, provides linguistic information about Nyamwezi. The linguistic information presented in this section serves to provide the background to the main goals of this study. Following this section, § 1.6 describes the fieldwork methods employed to collect the Nyamwezi data. The last section, § 1.7, presents an outline of the rest of the thesis.

## 1.2 Research goals and the contributions of the study

There are two main goals addressed in this study. The first goal is to classify Nyamwezi verbs with respect to the internal temporal structures of the events they denote. In the literature on aspectology (e.g., Kearns, 2000; Rothstein, 2004), these temporal structures are referred to as aspectual classes (also lexical aspects (e.g., Olsen, 1994), verb aspects (e.g., Dowty, 1979), Aristotelian aspects (e.g., Binnick, 1991), situation types/aspects (e.g., Smith, 1997), aktionsart (e.g., Garey, 1957; Goedsche, 1940) or aspect<sub>2</sub> (Sasse, 2002)). The motivation for this goal is that many grammatical descriptions of aspect (and also tense) in Bantu (e.g., Beaudoin-Lietz, 1999; Nurse, 2008) and across many languages (e.g., Hewson & Bubenik, 1997) tend to focus mainly on the description of grammatical aspect (i.e., aspectual properties characterized by inflectional morphology), and give less attention to the description of lexical aspect. Furthermore, as Seidel (2008, p. 268) states, descriptions of individual languages that address lexical aspect tend to use a categorization which is mainly based on Vendler's (1967) classification of English. However, recent research reveals that

some of Vendler's classes are not fine-grained enough to satisfactorily categorize aspectual classes, not only in English, as shown in Croft (2012) and Walková (2012, 2013), but also across many languages (see Bar-el (2015); Crane and Fleisch (forthcoming)). A review of Vendler's work and other works that have closely applied Vendler's conceptual schemata is given in Chapter 3 (§ 3.2).

The second main goal of this dissertation is to present a variety of tests used to determine a verb's aspectual class membership. For the purposes of this study, I am particularly interested in developing tests that reveal a clear distinction between the different aspectual classes rather than relying entirely on English-based tests, some of which have been claimed to give misleading results (see Walková (2012, 2013)). The tests developed in this study were adapted from previous work on aspect in Bantu languages, particularly from Kershner (2002), Botne (2008), Persohn (2017a, 2017b) and Crane and Fleisch (forthcoming). Others were developed specifically for this investigation of Nyamwezi.

Overall, this dissertation aims to contribute to typological studies on lexical aspect and studies on tense and grammatical aspect. As already noted, aspectual classes appear to be central to understanding different uses of tense, aspect and mood markers (see Crane (2011); Kamp and Reyle (1993); Lusekelo (2016); Mreta (1998), among others). Furthermore, as Bar-el (2015, pp. 83–86) notes, aspectual classes can be difficult to categorize based on data collected by questionnaires designed to explore tense, aspect and mood (TAM) systems. The tests for aspectual classes developed in this study can act as a starting point for fieldworkers to investigate boundaries between different groups of verb categories in other languages, particularly in Bantu languages where the study of lexical aspect has received relatively little attention compared to European languages.

### **1.3 Previous research on Nyamwezi**

Previous research on the Nyamwezi, particularly on the grammar, is minimal. The bulk of the material published on this language focuses on anthropology. Research works that focus on the grammar are dated, e.g., Cottini (1914) and Jonsson (1949). The most recent work on Nyamwezi grammar is that of Maganga and Schadeberg (1992). Although this work is of limited scope (i.e., it only provides an overview of the basic grammatical structures of Nyamwezi), it has been a useful reference for the present study. The discussion of the tense, aspect and mood (TAM) system in Maganga and Schadeberg's work is taken as a point of departure in the current study (see Chapter 1). Furthermore, some of the data

presented in the current study were taken from the narrative texts presented in the second part of Maganga and Schadeberg's work.

Other linguistic works on Nyamwezi that have been cited in the current study include Masele (2001), Masele and Nurse (2003), Roth (2013) and Maho (2009). These studies have described the distribution of Nyamwezi dialects (see § 1.4.3) and have also discussed the classification of languages in zone F.

## **1.4 Language background**

### **1.4.1 The Nyamwezi language and its speakers**

Nyamwezi is an F.22 Bantu language (Guthrie, 1967–1971; Maho, 2009) spoken in the central-western part of Tanzania, in the area of Tabora (see FIGURE 1 below). The language is also spoken in neighbouring areas such as Kigoma, Rukwa, Shinyanga, Mwanza, etc. Estimates of the numbers of speakers vary between 1,470,000 (Gary & Fennig, 2018) and 796,339 (Rugemalira et al., 2009, p. 114) According to Gary and Fennig (2018), 73% of the 1,470,000 speakers live in the Tabora area, while according to Rugemalira et al. (2009, p. 114) 796,339 is the number of speakers living in the Tabora area. Nyamwezi is vigorously used by all generations. Most speakers are bilingual in Swahili, and they can speak English and the languages of neighbouring ethnic groups, especially those related to Nyamwezi, such as Sukuma (F.21), Sumbwa (F.23), Kimbu (F.24) and Bungu (F.25). These languages are similar to Nyamwezi in that they share some phonological and tonal innovations, such as the retention of a seven-vowel system (see § 1.5.1.1), tone shifting rules (see § 1.5.1.3), etc. These languages also share lexical innovations. See Masele and Nurse (2003) for a detailed discussion of these and other linguistic features shared by zone F languages. In the map below, language names are italicized.



Figure 1: The Nyamwezi speaking area and its neighbours<sup>1</sup>

## 1.4.2 On the name Nyamwezi

The name *Nyamwezi* is said to originate from the word *mwezi*, which in both Nyamwezi and Swahili means ‘moon’. There are various explanations for why this name is used to refer to the language and the people who speak Nyamwezi. Livingstone (1894), as cited in Abrahams (1967, p. 2), argues that the name is attached to the people because they wore crescent-shaped pendants around their necks. Bösch (1930), also cited in Abrahams (1967, p. 2), argues that the name denotes the western direction from which the Nyamwezi came to the east coast for trade. In addition to this, Nurse and Maganga (1979) argue that the name was given to Nyamwezi speakers during the trade caravans in the 1860s. During this period, a caravan would leave Tabora at the new moon to arrive at the Bagamoyo coast at the next new moon. Since this was a regular occurrence, the Zalamo (people from the coast) started teasing the caravans, calling them *wa-nya-mwezi*

<sup>1</sup> I created this map from <https://yourfreetemplates.com/free-tanzania-editable-map/>

(from Swahili verb *ku-nya* ‘to-defecate’ and the noun *mwezi* ‘the moon’), to mean “the people who excrete the moon” or “people of the moon”, because their arrival at the coast nearly always coincided with the new moon (Nurse & Maganga, 1979, p. 57). We can conclude that the name Nyamwezi is not a name chosen by Nyamwezi speakers themselves. The name was given by outsiders. The name by which the Nyamwezi speakers called themselves in pre-colonial times is not known.

### 1.4.3 Nyamwezi dialects

Nyamwezi, like other Bantu languages spoken in Tanzania<sup>2</sup>, is a minority language in the sense that it is restricted to non-formal domains. In this regard, the dialectal variations described in this section do not address the distinction between what is referred to as “standard language” (the standard dialect of a particular language) and non-standard dialects. This is because all dialects are equally important in terms of their social, political and cultural considerations.

The total number of Nyamwezi dialects varies from one author to another. According to Maho (2009, p. 44), there are eleven dialects of Nyamwezi, including Galagaanza, Mweri, Konongo, Nyanyeembe, Takama, Nangwila, Ilwana, Uyui, Rambo, Ndaala and Nyambiu. Maho’s classification does not offer any linguistic evidence for the dialectal differences. Masele (2001, p. 1), based on lexical similarities and tone, identifies four dialects of Nyamwezi. These include Nyanyeembe, Dakama, Galagaanza and Konongo. As shown on the map in FIGURE 2 below, the Nyanyeembe dialect is spoken in the south-east of the Tabora district. It is bordered to the south by the Konongo dialect and to the north-west by Galagaanza. The Dakama dialect is spoken in the area just north of Tabora. Due to their geographical proximity, the Dakama dialect (and even just Nyamwezi in general) is considered very similar to Sukuma. However, as noted by Maganga and Schadeberg (1992, p. 11) Nyamwezi speakers are aware of this dialect continuum, and they recognise that Nyamwezi and Sukuma are two distinct ethnic identities, each with its own language.

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<sup>2</sup> This excludes Swahili, which is a national and an official language in Tanzania.



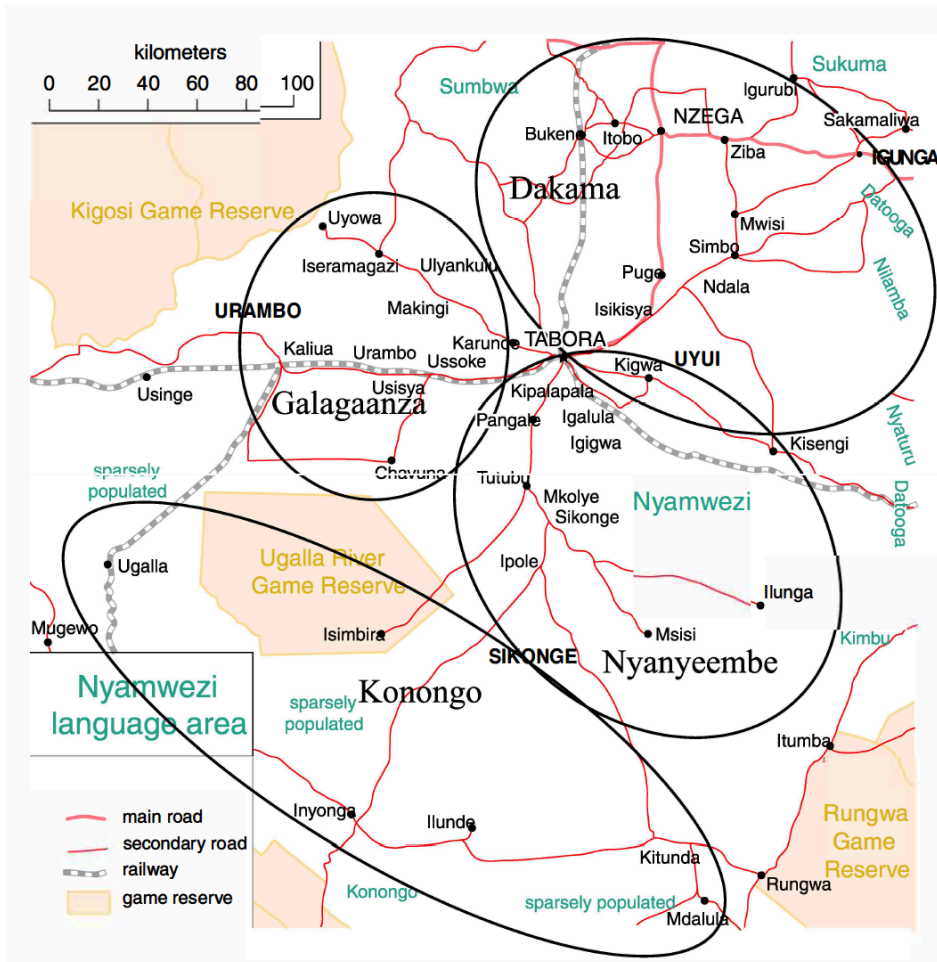


Figure 2: Nyamwezi dialects based on Masele’s (2001) classification. Modified from Roth (2013, p. 129)

In contrast to Masele (2001), Roth (2013, p. 125), based on lexical and phonological evidence gathered by SIL International, proposes three dialects of Nyamwezi, namely Tabora, Sikonge and Urambo-Usoke. According to him, Dakama (which is referred to as Ndala lect by Maganga and Schadeberg (1992)) should be considered a variety of Sukuma, because there is a rough linguistic border which separates this dialect from Sukuma. Although his evidence is based on linguistic data, he still believes that this claim requires further investigation. This is because his analysis was arrived at based only on phonological features and lexicostatistics from a relatively short wordlist (see Roth, 2013, p. 136).

Comparative studies on lexical tone, grammatical tone and tense and aspect morphology in the same varieties are still needed to validate this claim. Until we have further evidence, the Dakama dialect is still regarded as a dialect of Nyamwezi, and the main focus of the current study has been directed towards this dialect. The main reason for choosing the Dakama dialect is my familiarity with this dialect and the areas where it is spoken. I am not a native speaker of this dialect, but I have a native-like comprehension of it, and I can speak a little. I was born in Tabora, and I grew up hearing this dialect spoken at home and in the community. Another reason for choosing the Dakama dialect is the availability of scholarly language consultants (especially Margreth Bernard and Michael Shija), who were very patient and interested during the data collection process. I also have a close relationship with these consultants; Margreth is my mother and Shija is my wife's co-worker. Advantages of working with people that I have a close relationship is their availability and interest in the project. Also, they are more likely to speak naturally because we know each other very well. A close relation also reduces the chances for the language consultants to feel nervous or uncomfortable.

## **1.5 Grammatical sketch**

This section gives the background grammatical information about Nyamwezi needed to follow the data presented in the remainder of this study. The section is divided into three subsections. The first subsection (§ 1.5.1) presents the phonological system of Nyamwezi. Specifically, this subsection describes the phoneme inventory and some phonological alternations affecting these phonemes. This subsection also describes the tonal system of Nyamwezi and the orthography used in the rest of the study to transcribe the data. The second subsection (§ 1.5.2) describes the nominal morphology of Nyamwezi. The last subsection (§ 1.5.3) provides some information about Nyamwezi verbal morphology. The phonological and morphological information presented in these sections is very brief as it is intended only to help understand the data described in this study. Details can be found in Maganga and Schadeberg (1992).

### **1.5.1 Basic phonology**

#### **1.5.1.1 Vowel phonemes**

Nyamwezi is considered to be one of the Bantu languages that bears a strong resemblance to proto-Bantu, both phonologically and morphologically (Nurse, 1999, p. 29; Schadeberg, 2003, p. 143). The language has retained a seven-vowel system from proto-Bantu, comprising /a/, /e/, /i/, /ɪ/, /o/, /u/ and /ʊ/ and their long counterparts /aa/, /ee/, /ii/, /ɪɪ/, /oo/, /uu/ and /ʊʊ/. These vowels are displayed in

FIGURE 3 below. The seven-vowel system is widely attested in Bantu languages, especially in Eastern Bantu (Hyman, 2003, p. 43). Other Bantu languages, such as Swahili (Bantu G.42), have a reduced five-vowel system which is a historical result of a merger of a close front vowel /i/ with the near close /ɪ/ and a close vowel /u/ with /ʊ/ (see Dimmendaal, 2011, p. 18).

	Front	Back	Front	Back
<b>Close</b>	i	u	ii	uu
<b>Near-close</b>	ɪ	ʊ	ɪɪ	ʊʊ
<b>Open-mid</b>	e	o	ee	oo
<b>Open</b>	a		aa	

Figure 3: The vowel inventory of Nyamwezi

(Maganga & Schadeberg, 1992, p. 26)

In Nyamwezi, the difference between short and long vowels is also contrastive. This is shown in TABLE 1 below. In this table, combinations of two identical vowels indicate long vowels. An acute accent (´) marks high tones; low tones are left unmarked.

Table 1: Distinction between short and long vowels in Nyamwezi

Vowels	Example	Gloss	Example	Gloss
/i/-/ii/	<i>nina</i>	‘squeeze’	<i>niíná</i>	‘mother’
/ɪ/-/ɪɪ/	<i>kí</i>	‘be not’	<i>kíí</i>	‘what’
/e/-/ee/	<i>mhelá</i>	‘rhinoceros’	<i>mheélá</i>	‘fee’
/a/-/aa/	<i>βaβá</i>	‘tickle’	<i>βaáβá</i>	‘father’
/u/-/uu/	<i>kumyá</i>	‘be surprised’	<i>kuúmya</i>	‘take/get hold’
/ʊ/-/ʊʊ/	<i>tolá</i>	‘hit’	<i>toóla</i>	‘put’
/o/-/oo/	<i>doto</i>	‘wet/flesh’	<i>dooto</i>	‘second-born twin’

In addition to phonemic vowel length (shown in TABLE 1 above), vowel lengthening may also occur in Nyamwezi due to two phonological processes: vowel coalescence (two non-identical vowels merge into a single long vowel) and glide formation<sup>3</sup>. Vowel coalescence is exemplified in (1) and glide

<sup>3</sup> Glide formation occurs when the first vowel in the sequence is a (near-)close front vowel: /i/ or /ɪ/ (which is turned into a glide /y/) or a (near-)close back vowel: /u/ or /ʊ/ (which is turned into a glide /w/). Glide formation is accompanied by compensatory lengthening of the second vowel.

formation in (2). These processes are widely attested in Bantu languages (see Hyman, 2003 for an overview).

- (1) a. *aliiβa*  
a-**lii**-iβ-a  
1SP-IMPF-steal-FV  
‘S/he is stealing’
- b. *alaana*  
a-**lii**-an-a  
1SP-IMPF-shout-FV  
‘S/he is shouting’
- (2) a. *alɪkazyánikɪla*  
a-**lii**-ka-zí-**anikɪ**l-a (i + a = yaa)  
1SP-IMPF-IT-10OP-hang\_out\_to\_dry-FV  
‘S/he will go and hang out (e.g., a piece of clothing) to dry’
- a. *alɪtwaámbilija*  
a-**lii**-tú-**ambilij**-a (u + a = waa)  
1SP-IMPF-OP1PL-help-FV  
‘S/he is helping us’

Vowel coalescence and glide formation occur not only within words but also across word boundaries. Vowel coalescence is illustrated in (3) below, where the vowel /á/ of the word *nzoka* ‘snake’ is deleted before the initial vowel of the following word. Glide formation is exemplified in (4), where the vowel /u/ of the word *ngokw* ‘baboon’ is changed to a glide. In this study, vowel coalescence and glide formation across word boundaries are indicated with an apostrophe at the end of the first word.

- (3) *nzok'*      *iiβili*  
*nzoká*      **i**-βili  
10NP.snake 10ACP-two  
‘two snakes’
- (4) *ngokw'*      *iiβili*  
*ngokw*      **i**-βili  
10NP.baboon 10ACP-two  
‘two baboons’

### 1.5.1.2 Consonant phonemes

The consonant inventory of Nyamwezi, modified from Maganga and Schadeberg (1992, p. 15), is summarized in TABLE 2 below using the International Phonetic Alphabet (IPA). Voiceless sounds are placed to the left of their voiced counterparts.

Table 2: The consonant inventory of Nyamwezi

	Bilabial	Labial-dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Plosives	p b		t d			k ɡ	
Nasals	ɱ m		ɲ n		ɲ	ŋ	
Fricatives	β	f v	s z	ʃ			h
Affricates					tʃ dʒ		
Lateral app.			l				
Approximants	w				j		

Examples of Nyamwezi consonants are listed in TABLE 3 below. In this list, the spelling (orthography) and their corresponding phonetic transcriptions (IPA) are given. The symbols used in this study are shown in the third column.

Table 3: Examples indicating different consonants

Orthography	IPA	Symbols used in the present study	Example	Gloss
p	/p/	p	<i>pi</i>	‘black’
b	/b/	b	<i>behá</i>	‘smoke’
t	/t/	t	<i>igóta</i>	‘be(come) full’
d	/d/	d	<i>nedekú</i>	‘cold’
k	/k/	k	<i>okála</i>	‘be(come) full’
g	/g/	g	<i>kígolo</i>	‘anthill’
f	/f/	f	<i>kofáá</i>	‘to die’
v	/v/	v	<i>nzovu</i>	‘elephant’
s	/s/	s	<i>sílili</i>	‘below’
z	/z/	z	<i>zeenga</i>	‘build’
sh	/ʃ/	sh	<i>fikà</i>	‘arrive’
bh	/β/	β	<i>maβuú</i>	‘ashes’
h	/h/	h	<i>ogóha</i>	‘be afraid’
l	/l/	l	<i>loómbá</i>	‘ask for’
y	/j/	y	<i>yoola</i>	‘pick up’
ch	/tʃ/	ch	<i>βátʃá</i>	‘burn’
j	/dʒ/	j	<i>dʒuka</i>	‘bury’
w	/w/	w	<i>waalwaa</i>	‘beer’
nyh	/ɲ/	nyh	<i>mɲjáá</i>	‘young girl’
ny	/ɲ/	ɲ	<i>ɲaala</i>	‘be(come) dry’
mh	/ɱ/	mh	<i>naamála</i>	‘old person’
m	/m/	m	<i>mzimú</i>	‘ancestor’s spirit’

Orthography	IPA	Symbols used in the present study	Example	Gloss
nh	/ŋ/	nh	<i>nḡṽ</i>	'person'
n	/n/	n	<i>numa</i>	'back'
ng'h	/ŋ/	ng'h	<i>ḡá</i>	'give'
ng'	/ŋ/	ŋ	<i>ḡoombe</i>	'cattle'

### 1.5.1.3 Tone system

As already demonstrated briefly in some of the examples in the previous section, Nyamwezi has two basic surface tones: low (unmarked) and high (marked with an acute accent). Lexical tone contrasts differentiate the meanings of lexical items, as exemplified in (5) below. (5a) indicates examples of lexical tone in nouns, (5b–c) examples of lexical tones in verbs and (5d–e) examples of lexical tones that change nouns into verbs.

#### (5) Lexical tone

- |    |                                |             |                                |                        |
|----|--------------------------------|-------------|--------------------------------|------------------------|
| a. | <i>kitaámbo</i> <sub>(N)</sub> | 'sacrifice' | <i>kitaambo</i> <sub>(N)</sub> | 'hind leg (of animal)' |
| b. | <i>-koonda</i> <sub>(V)</sub>  | 'knead'     | <i>-koónda</i> <sub>(V)</sub>  | 'be kind'              |
| c. | <i>-laámba</i> <sub>(V)</sub>  | 'lick'      | <i>-laamba</i> <sub>(V)</sub>  | 'be(come) hard'        |
| d. | <i>lwaalá</i> <sub>(N)</sub>   | 'finger'    | <i>-lwaála</i> <sub>(V)</sub>  | 'be(come) sick'        |
| e. | <i>liiná</i> <sub>(N)</sub>    | 'name'      | <i>-liína</i> <sub>(V)</sub>   | 'climb'                |

In addition, grammatical tone patterns are associated with particular tenses, aspects and moods, as exemplified in (6) below. Example (6) shows a contrast between an immediate past construction, which is indicated by a high tone on the pre-root tense marker (6a), and a remote past construction, which is indicated by a high tone on the final vowel *-á* (6b) (see the underlying representations in the second line). In (6a), the high tone in the first syllable of the root *-gṽla* 'buy' in the surface representation (italicized) is a result of the principle of high tone shift discussed shortly.

- (6) a. *waagóla*  
 ṽ-á-gṽl-a  
 1SP-PST-buy-IMM\_PST  
 'S/he has just bought (it)'
- b. *waagólá*  
 ṽ-a-gṽl-á  
 1SP-PST-buy-REM\_PST  
 'S/he bought (it long ago)'

Furthermore, as discussed in Schadeberg (1989) and Maganga and Schadeberg (1992), there are two main tone rules which characterize the grammatical system

of Nyamwezi: high tone shift and high tone spread<sup>4</sup>. The description of these tone rules in the following paragraph is summarized from Schadeberg (1989) and Maganga and Schadeberg (1992).

As noted above, in high tone shift, the underlying high tone is realized not on the vowel to which it belongs lexically, but one mora further to the right, as exemplified in (7a–b) below. High tone shift, however, is blocked if the target for shift is a monosyllabic (low) tone root, as in (7c), or a (low) CVVC root, as in (7d). Note that high tone shift is not blocked by CV-roots that carry a high tone, as in (7e).

(7) High tone shift in Nyamwezi

- |    |             |   |                  |                      |
|----|-------------|---|------------------|----------------------|
| a. | ku-tóma     | > | <i>kɔtomá</i>    | ‘to send’            |
| b. | ku-léeta    | > | <i>kɔleéeta</i>  | ‘to bring’           |
| c. | ku-zí-sha   | > | <i>kɔzisha</i>   | ‘to grind it’        |
| d. | ku-βá-kooβa | > | <i>kɔβákooβa</i> | ‘to search for them’ |
| e. | ku-βá-pá    | > | <i>kɔβapá</i>    | ‘to give them’       |

Any word-final high tone can spread to the next word. This newly created high toned syllable must be separated from the preceding original high toned syllable by a word boundary (Maganga & Schadeberg, 1992, p. 45). This is demonstrated in (8a–b) below. However, as shown in (8c), a word-final rising tone is simplified to low when the next word begins with a high tone. As with high tone shift, high tone spread is blocked when a second word is a monosyllabic stem, as shown in (8d).

(8) High tone spread in Nyamwezi

- |    |                    |   |                         |               |
|----|--------------------|---|-------------------------|---------------|
| a. | mikilá + miliihú   | > | <i>mikilá miliihú</i>   | ‘long tails’  |
| b. | mapeémbé + maliihú | > | <i>mapeémbé máliihú</i> | ‘long horns’  |
| c. | matwií + máliihú   | > | <i>matwi máliihú</i>    | ‘long ears’   |
| d. | kobehá + ŋo        | > | <i>kobehá ŋo</i>        | ‘No smoking!’ |

These tone rules are illustrated by much of the data presented in this study.

## 1.5.2 Nominal morphology

In Nyamwezi, as in most other Bantu languages (see Katamba, 2003; Maho, 1999; Van de Velde, 2019 for an overview), nouns minimally consist of a stem

<sup>4</sup> These tone rules also characterize the tone system of TAM in many other Bantu languages (see Downing, 2011; Marlo, 2013).

plus a class prefix, as exemplified in (9) below. In this example and throughout this study, the class prefix is abbreviated as NP; the number preceding it indicates the specific class to which the noun belongs.

- (9) a. *mgeni*                      b. *βageni*  
       mu-geni                        βa-geni  
       1NP-guest                    2NP-guest  
       ‘guest’                        ‘guests’

In addition, prefixed noun stems can also occur with an optional element called an “augment” or “preprefix”. The augment consists of one of the vowels /ɪ/, /o/ or /a/. The quality of the augment vowel depends on the vowel of the noun class prefix, i.e., they must agree in both being either front or back or low/open (see TABLE 4). The augment is generally used to express definiteness or specificity, as exemplified in (10a) below. This means that nouns without an augment, as in (10b), are usually interpreted as indefinite, although this is not always the case. In example (10) and throughout this study, the augment is abbreviated as AUG.

- (10) a. *aβageni*                    *βiizíílé?*  
       a-βa-geni                    βa-á-iz-íle  
       AUG-2NP-guest    2SP-PST-come-PREHOD  
       ‘Did the guests come? (the guests you and I know)’
- b. *βageni*                    *βiizíílé?*  
       βa-geni                    βa-á-iz-íle  
       2NP-guest    2SP-PST-come-PREHOD  
       ‘Did (any) guests come?’

In Nyamwezi, nouns are categorized into 18 noun classes on the basis of the prefixes they take (see TABLE 4 below). Some of these classes can be further differentiated into subclasses (see Maganga & Schadeberg, 1992). The nouns in classes 1–10 and 12–13 contain paired sets of singular/plural noun classes. Odd numbers are used for classes that contain singular nouns and even numbers for plural classes. Nouns in classes 9 and 10 take the same form in both the singular and the plural. The basic form of the class prefixes of these noun classes is a homorganic nasal. The nasal assimilates to the place of articulation of the initial consonant of the noun stem. Nouns in class 11 take their plural forms from class 10. In Bantu languages, nouns that belong to the same class often have some degree of semantic coherence (Hendrikse & Poulos, 1992), although not all noun classes have complete coherence in their membership. In TABLE 4 below, the semantic characteristics of each noun class in Nyamwezi are given in the



comments box. These semantic characteristics are based on Hendrikse and Poulos' (1992) analysis.

Table 4: Noun classes in Nyamwezi

Class	AUG	NP	Examples	Comments
1	u-	mu- nyw-	<i>omgeni</i> 'the guest' <i>omnho</i> 'the person' <i>onywaaná</i> 'the child'	human beings
2	a-	βa-	<i>aβageni</i> 'the guests' <i>aβanhó</i> 'the people' <i>aβaaná</i> 'the children'	pl. of class 1
3	u-	mu- nyw-	<i>omkilá</i> 'the tail' <i>omuhógó</i> 'the cassava' <i>onywaanzi</i> 'the vein'	body parts, plants and natural phenomena
4	i-	mi- my-	<i>mikilá</i> 'the tails' <i>mihógó</i> 'the cassava' <i>myaanzi</i> 'the veins'	pl. of class 3
5	i-	i- li-	<i>iishiimbá</i> (< i-ishiimba) 'the lion' <i>iigú</i> (< i-igú) 'the egg' <i>liiinó</i> 'the tooth'	animals, insects and body parts
6	a-	ma-	<i>amashiimbá</i> 'the lions' <i>magú</i> 'the eggs' <i>amiinó</i> 'the teeth' <i>amaβeélé</i> 'the milk'	pl. of class 5, liquids
7	i-	ki- ch-	<i>ikiseme</i> 'the vessel' <i>ikyoombelé</i> 'the manner of talking' <i>ikiswahili</i> 'the Swahili language' <i>icheeyo</i> 'the broom'	tools, instruments, mannerisms and languages
8	i-	shi- ch-	<i>ishiseme</i> 'the vessels' <i>icheeyo</i> 'the brooms'	pl. of class 7
9	i-	N-	<i>mzoká</i> 'the snake' <i>mbazu</i> 'the rib' <i>mbasaá</i> 'the axe'	animals, body parts, tools and instruments
10	i-	N-	<i>mzoká</i> 'the snakes' <i>mbazu</i> 'the ribs' <i>mbasaá</i> 'the axe' <i>mgolo</i> 'the mountains' <i>mbwii</i> 'white hair' <i>mgoye</i> 'the ropes'	pl. of class 9 and 11
11	u-	lo-	<i>ologolo</i> 'the mountain' <i>olobwii</i> 'a white hair' <i>ologoye</i> 'the rope'	long and/or thin entities
12	a-	ka-	<i>akabadó</i> 'the spot' <i>akagoso</i> 'the squirrel' <i>akaaná</i> 'a small child'	small things; used as diminutive and pejorative

Class	AUG	NP	Examples	Comments
13		tu-	<i>otobadó</i> ‘the spots’ <i>otogoso</i> ‘the squirrels’ <i>otwaaná</i> ‘the small children’	pl. of class 12
14	o-	βo-	<i>oβololo</i> ‘the bitterness’ <i>oβozikú</i> ‘at night’ <i>oβoláβó</i> ‘flowers (coll.)’ <i>owiikólé</i> ‘the resemblance’	abstracts and collectives
15	o-	ku-	<i>okolma</i> ‘to farm’ <i>okozugá</i> ‘to cook’	verbal infinitives
16	a-	ha-	<i>ahakaayá</i> ‘at home (near)’	locative prefix
17	o-	ku-	<i>okokaayá</i> ‘at home (far)’	locative prefix
18	o-	mu-	<i>om(u)kaayá</i> ‘inside the home’	locative prefix

As is typical for Bantu languages, Nyamwezi nouns are combined with modifiers, such as adjectives, numerals, demonstratives, possessives and connectives, to form a noun phrase. These modifiers generally agree with the head noun by taking the same noun class prefix, as exemplified in (11) below (ACP stands for the agreement class prefix). In these examples, the noun *βageni* ‘guests’ belongs to class 2, marked by the prefix *βa-*. The same prefix occurs on all other words which modify the noun, as well as on the verb.

- (11) a. *βageni βaβilí βáliihú*  
βa-geni βa-βílí βa-liihú  
2NP-guest 2ACP-two.NUM 2ACP-tall.ADJ  
*βaashikaga*  
βa-á-shik-ag-a  
2SP-PST-arrive-HOD\_PST-FV  
‘Two tall guests (have) arrived’
- b. *aβa βageni βaaneé*  
a-βa βa-geni βa-a-né  
2NP-these.DEM 2NP-guest 2ACP-ø-my.POSS  
‘These are my guests’
- c. *βanhø βaá kwaandya kwiiza taanzaniya*  
βa-nhø βaá kwandya ku-iz-a taanzaniya  
2NP-person CON first INF-come-FV Tanzania  
‘The first people who came to Tanzania’

Cases like (11) above, illustrate what is referred to as “alliterative concord” in Bantu linguistics, i.e., the same noun class prefix occurs on the head noun and its modifiers as well as on the verb (see Katamba, 2003, p. 111). In Nyamwezi, as

in other Bantu languages, there are also cases where the noun and its modifiers plus the verb do not have alliterative concord. This is exemplified in (12) below. In this example, the agreement class prefixes (ACPs) on modifiers and the subject prefix (SP) on verb are not identical to the one on the head noun they agree with.

- (12) *mgeni waaneé (β)ómó*  
**mu**-geni **o**-a-né **(β)**ó-mó  
**1NP**-guest **1ACP-ø**-my.POSS **1ACP**-one  
*aliiz' íigolo*  
**a**-laa-iz-é **i**golo  
**1SP**-POSTHOD-come-FV tomorrow  
 ‘My one guest will come tomorrow’

TABLE 5 below, created from Maganga and Schadeberg (1992), shows agreement paradigms for the Nyamwezi noun class system. The table lists the noun class prefix(es) for each noun class (as in TABLE 4 above). It also lists the agreement prefixes marked on the adjectives (ADJ), numerals (NUM), possessives (POSS), connexives (ASS) and the two demonstrative (DEM) forms (this and that). The agreement prefixes marked on the verb (subject and object markers) are discussed in the next section, particularly in § 1.5.3.1. (See Maganga and Schadeberg (1992, pp. 57–96) for a broad discussion of the Nyamwezi noun class system.)

Table 5: Noun classes in Nyamwezi

Class	NP	ADJ	NUM	POSS	CON	DEM	
						This	That
1	mu- ηw-	mu-	(β)o-	waa-	waa-	oyo	oyo
2	βa-	βa-	βa-	βaa-	βaa-	aβa	aβo
3	mu- ηw-	mu-	gø-	gwaa-	gwaa-	ugo	ugo
4	mi- my-	mi-	i-	yaa-	yaa-	iyi	iyø
5	i-	(l)i-	li-	lyaa-	lyaa-	ili	ilo
6	ma-	ma-	a-	gaa-	gaa-	aya	ayo
7	ki- ch-	ki-	ki-	chaa-	chaa-	iki	icho
8	shi- ch-	shi-	shi-	shaa-	shaa-	ishi	isho
9	N-	N	yi-	yaa-	yaa-	iyi	iyø
10	N-	N	i-	jaa-	jaa-	izi	ijø
11	lo-	lo-	lo-	lwaa-	lwaa-	olo	olo
12	ka-	ka-	ka-	kaa-	kaa-	aka	ako

Class	NP	ADJ	NUM	POSS	CON	DEM	
13	tɔ-	tɔ-	tɔ-	twaa-	twaa-	ɔtɔ	ɔto
14	βɔ- w-	βɔ-	βɔ-	waa-	waa-	ɔβɔ	ɔβo
15	kɔ-	kɔ-	kɔ-	kwaa-	kwaa-	ɔkɔ	ɔko
16	ha-	ha-	-	haa-	-	aha	aho
17	ku-	ku-	-	kwaa-	-	-	ɔko
18	mu-	mu-	-	mwaa-	-	ɔmu	ɔmo

### 1.5.3 Verbal morphology

Nyamwezi, like most Bantu languages (see Nurse (2003) and Nurse and Devos (2019) for an overview), has a highly agglutinative verbal structure. The morphological structure of the verb in Nyamwezi, shown in (13) below, modified from Maganga and Schadeberg (1992, p. 97), is similar to that of other Bantu languages. A verb contains many grammatical affixes, including subject and object agreement prefixes (abbreviated as SP and OP, respectively), tense-aspect-mood (TAM) prefixes and suffixes, negative prefixes (NEG), as well as many derivational suffixes, commonly known as verbal extensions (Ext.) in the Bantu literature (see e.g. Schadeberg & Bostoen, 2019). Verbal extensions typically denote applicative, causative, reciprocal, passive, etc. The final vowel (FV) (e.g., *-a* in the affirmative) serves to indicate mood. The post-final slot is occupied by the final enclitics.

(13) The structure of verb forms in Nyamwezi

SP+ NEG + TAM + IT + OP + Root + Ext. + TAM + TAM/FV + Post-final

The description of the form(s) and function(s) of each of the grammatical elements in the verbal structure above proceeds as follows: § 1.5.3.1 describes subject and object prefixes, § 1.5.3.2 tense, aspect and markers, § 1.5.3.3 the itive marker, § 1.5.3.4 negative markers, § 1.5.3.5 verbal extensions, § 1.5.3.6 final vowel markers and § 1.5.3.7 post-final vowel markers. In each section, before presenting the description of a particular grammatical marker(s), the verbal template in (13) above will be repeated and the markers discussed highlighted in bold.

### 1.5.3.1 Subject and object agreement prefixes (SP and OP)

**SP**+ NEG + TAM + IT + **OP** + Root + Ext. + TAM + TAM/FV + Post-final

Nyamwezi is typical of Bantu languages (see Nurse (2008) for an overview) in having both subject and object prefixes for the first and second persons singular and plural, as well as for each of the third person noun classes. Subject and object prefixes for first and second persons are given in TABLE 6 and TABLE 7 below, respectively. Subject and object prefixes for each noun class are given in TABLE 8. Note that the subject and object prefixes for classes 1 and 2 mark the third singular and plural persons, respectively. The tones for subject prefixes for noun classes 1, 4, 9, 16, 17 and 18, as described in Maganga and Schadeberg (1992, p. 101), are underlyingly low, whereas for other classes and for all persons they are high. The object prefixes for singular persons and for class 1, also cited in Maganga and Schadeberg (1992, p. 101), are underlyingly low, whereas those for plural persons and for all other noun classes are high. It is important to mention that, irrespective of these generalizations, the tones of the subject prefixes in some tense and aspect constructions are neutralized (this will be described in Chapter 1).

Table 6: Subject prefixes for singular and plural persons

	Singular	Plural
1	ná-	tó-
2	ó-	mú-

Table 7: Object prefixes for singular and plural persons

	Singular	Plural
1	ni-	tó-
2	ko-	mú-

Table 8: Subject and object prefixes for noun classes

Noun class	Subject prefixes	Object prefixes
1	a-/o-	mu-
2	βá-	βá-
3	gó-	gó-
4	yí-	yí-
5	lí-	lí-
6	gá-	gá-
7	kí-	kí-
8	shí-	shí-
9	yí-	yí-
10	zí-	zí-

Noun class	Subject prefixes	Object prefixes
11	ló-	ló-
12	ka-	ká-
13	tó-	tó-
14	βó-	βó-
15	kó-	kó-
16	ha-	há-
17	ku-	kó-
18	mu-	mú-

Generally speaking, subject prefixes, unlike object prefixes, are obligatory in all forms of verbal constructions, except in the imperative form (of the second person singular), where the subject prefixes are omitted. This is exemplified in (14) below (see also § 2.6).

- (14) *kooβágá*  
kooβ-**ag**-á  
find-IMP-FV  
‘(You.sg) find (it)!’

As shown in TABLE 6, there are two subject prefix markers for the third person singular (or noun class 1): *a-* and *u-*. The former occurs when it precedes a consonant, as shown in (15) below, and the latter when it precedes a vowel, as in (16). The latter marker may also appear as a glide (*w*) when it precedes a vowel which is not identical to it, as in (17).

- (15) *alugakóóβα*  
**a**-lII-gá-kooβ-a  
**1SP**-IMP-6OP-search-FV  
‘S/he is looking for them’
- (16) *úuyúúgυla*  
**u**-u-yúu-gυl-a  
**1SP**-CONS-INC-buy-FV  
‘...(and then) s/he started to buy’
- (17) *waayúúgυla*  
**u**-á-yúu-gυl-a  
**1SP**-PST-INC-buy-FV  
‘S/he has just started to buy’

Before closing this section, it is important to state that apart from object prefixes for noun classes and for first and second persons singular and plural, Nyamwezi

has a reflexive prefix *-í-*. This prefix is used in the slot of the object marker, as shown in (18) below. In Nyamwezi, as in many other Bantu languages (see Marlo, 2015 for an overview), the reflexive prefix does not show morphosyntactic agreement with person-number or noun class features of the subject. As such, the same marker (*-í-*) is used for both singular and plural subjects, as in (18a) and (18b), respectively.

- (18) a. *wiibúdága* *haméeza*  
 ó-á-í-bud-ag-a ha-méeza  
 1SP-PST-REFL-hit-HOD\_PST-FV LOC.16NP-9NP.table  
 ‘S/he hit her/himself on the table’
- b. *βiibúdága* *haméeza*  
 βá-á-í-bud-ag-a ha-méeza  
 2SP-PST-REFL-hit-HOD\_PST-FV LOC.16NP-9NP.table  
 ‘They hit themselves on the table’

### 1.5.3.2 TAM categories

SP+ NEG + **TAM** + IT + OP + Root + Ext. + **TAM** + **TAM**/FV + Post-final

The TAM-marking morphemes, as shown in the verbal structure above, occupy three different positions, i.e., the pre-root, post-root and final vowel slot. TAM markers are the central focus of this study. These markers are used as diagnostic tests for determining differences among aspectual classes (see Chapters 4 and 6). A general overview of the affirmative TAM marking morphemes in Nyamwezi is given in TABLE 9 below, modified from Maganga and Schadeberg (1992, pp. 103–104).

Table 9: TAM formatives of affirmative constructions in Nyamwezi

	SP	TAM	Root	TAM	TAM/FV	example	gloss
Immediate past	ó	á	mal		a	<i>w-aa-mál-a</i>	‘S/he has just finished’
Hodiernal past	ó	á	mal	ag	a	<i>w-aa-mál-ag-a</i>	‘S/he finished (earlier today)’
Pre-hodiernal past	ó	á	mal		íle	<i>w-aa-mál-ilé</i>	‘S/he finished (yesterday or before)’
Remote past	ó	a	mal		á	<i>w-aa-mal-á</i>	‘S/he finished (long ago)’
Hodiernal future	a	ko	mal		a	<i>a-ko-mal-a</i>	‘S/he will finish (today or later)’

	SP	TAM	Root	TAM	TAM/FV	example	gloss
Post-hodiernal future	a	laa	mal		é	<i>a-laa-mal-é</i>	'S/he will finish (tomorrow or later)'
Narrative	a	ka	mal		a	<i>a-ka-mal-a</i>	'... (and) s/he finished'
Consecutive	o	o	mal		a	<i>ó-o-mal-a</i>	'... (and then) s/he finished'
Inceptive	o	(-á-)yóo	mal		a	<i>w-aa-yóo-mal-a</i>	'S/he is about to finish'
General imperfective	a	li	mal		a	<i>a-li-mal-a</i>	'S/he is finishing'
Habitual	a	ko	mal	ag	a	<i>a-ko-mal-ag-a</i>	'S/he usually finishes'
Past habitual	o	a	mal	ag	é	<i>w-aa-mal-ag-é</i>	'She used to finish'
Persistentive	a	taá	li			<i>a-taá-li</i>	'S/he is still (X-ing/X-ed)'
Stative	a		mal		íle	<i>a-mal-ilé</i>	'S/he is finished'
Optative	a		mal		(e)é	<i>a-mal-eé</i>	'May s/he finish!'
Hortative	a		mal	ag	(e)é	<i>a-mal-ag-eé</i>	'S/he should finish!'
Habitual hortative	a	laa	mal	ag	é	<i>a-laa-mal-ag-é</i>	'S/he should always finish!'
Imperative			mal	ag	á	<i>mal-ag-á</i>	'(You.sg) finish (it)!'

Given their importance in this study, the functions of each of the TAM morphemes above are briefly discussed in Chapter 1.

Before closing this section, it should be pointed out that other languages, mostly Amerindian languages of America, in addition to TAM-marking morphemes, have a distinct grammatical category (i.e., affixes, clitics or particles) which indicates evidentiality. Evidentiality is the linguistic means of encoding the speaker's source of information of a given statement and his/her attitudes toward the factuality of that information (Chafe & Nichols, 1986). Most African/Bantu languages, including Nyamwezi, do not have a distinct grammatical category which indicates evidentiality (see de Haan, 2013)). However, in Nyamwezi, and in other Bantu languages such as Ikoma/Nata/Isenya [JE.45] (Roth, 2018), evidentiality can be expressed through tense and aspect markers, especially in the context where these markers denote readings which overlap. Evidentiality in Nyamwezi is discussed in Chapter 1, § 2.5.



### 1.5.3.3 Itive marker (IT)

SP+ NEG + TAM + **IT** + OP + Root + Ext. + TAM + TAM/FV + Post-final

In the verbal template given above, an itive marker is indicated with *-ka-*. This marker typically adds the meaning ‘go and’ or ‘going to’ to the basic meaning of a particular tense or aspect construction, as exemplified in (19) below.

- (19) *alɪkagɔla*  
a-ɪɪ-**ka**-gɔl-a  
1SP-IMPFF-**IT**-buy-FV  
‘S/he will go and buy (it)’

In this study, the itive marker is described as an exponent of prospective aspect. That is, it is used to describe an event that occurs subsequent to a given reference time. This reference time can be the time of speaking, as in example (19) above. A discussion of the itive as a marker of prospective aspect is given in § 2.4.1 in Chapter 1.

### 1.5.3.4 Negative marking (NEG)

SP+ **NEG** + TAM + IT + OP + Root + Ext. + TAM + TAM/FV + Post-final

In Nyamwezi, affirmative constructions are negated using the prefix *-ká-*, which co-occurs with TAM markers in the pre-root position in some constructions and not in others. In some TAM constructions, the negative *-ká-* may also be realized as *-kú-* or *-ú-*. An overview of negative constructions in Nyamwezi is given in TABLE 10 below (see also Maganga & Schadeberg, 1992, p. 107). Note that in the negative optative, hortative and imperative, the negative formative has a low tone.

Given that the negative marker *-ká-* interacts differently with different TAM markers, this marker will be discussed in Chapter 1, where a broad discussion of TAM markers is provided.

Table 10: The TAM formative of negative constructions in Nyamwezi

	SP	NEG	TAM	Root	TAM	TAM/FV	example	gloss
NEG past	a	ká		mal		ile	<i>a-ka-mál- -íle</i>	'S/he hasn't finished'
NEG HOD FUT	a	ká	o	mal		a	<i>a-kó-o- mal-a</i>	'S/he won't finish (later today)'
NEG POST-HOD FUT	a	ká	laa	mal		eé	<i>a-ká-laa- mal-eé</i>	'S/he won't finish (tomorrow or later)'
NEG IMPF	a	ká	o	mal	ag	a	<i>a-kó-o- mal-ag-a</i>	'S/he is not finishing'
NEG HAB	a	ká		mal	ag	á	<i>a-ka-mál- ag-á</i>	'S/he never finishes'
NEG optative	a	ka	a	mal		(e)é	<i>a-ka-a- mal-ee</i>	'May s/he not finish'
NEG hortative	a	ka	a	mal	ag	(e)é	<i>a-ka-a- mal-ag-é</i>	'S/he shouldn't finish'
NEG IMP	ó	ka	a	mal		(e)é	<i>o-ká-a- mal-eé</i>	'Don't finish'

### 1.5.3.5 Verbal extensions

SP+ NEG + TAM + IT + OP + Root + **Ext.** + TAM + TAM/FV + Post-final

As shown in the verbal structure above, verbal extensions (also called derivational affixes) occupy the position after the verb root in Nyamwezi. In this language, as in other Bantu languages, verbal extensions have different functions. Following Hyman (2007) (see also Mchombo, 2004), the functions of verbal extensions in Nyamwezi can be categorized into three: (i) those that increase the number of noun phrases (NPs) (valency increase): applicative and causative; (ii) those that reduce the number of NPs (valency decrease): passive, neuter (stative) and associative (comitative and reciprocal); and (iii) those that are neutral ((re-)orienting action): reversive (separative). Examples illustrating the functions of verbal extensions are given in TABLE 11 below. See Maganga and Schadeberg (1992, pp. 147–170) and Lodhi (2002) for further discussion of these extensions.

Table 11: The verbal extensions in Nyamwezi

Extension	Examples
Applicative	<i>zwaál-il-a</i> ‘dress for’ < <i>zwaál-a</i> ‘get dressed’ <i>zeeng-el-a</i> ‘build for’ < <i>zeeng-a</i> ‘build’
Causative	<i>se-ch-a</i> ‘cause to laugh’ < <i>sek-a</i> ‘laugh’ <i>da-sh-a</i> ‘make angry’ < <i>dak-a</i> ‘be(come) angry’ <i>ɔ-j-á</i> ‘wash/bath’ < <i>og-a</i> ‘take a bath’ <i>lí-f-a</i> , ‘feed’ < <i>ly-áá</i> ‘eat’
Passive	<i>βon-w-á</i> ‘be seen’ < <i>βon-á</i> ‘see’ <i>hay-íw-a</i> ‘be gossiped about’ < <i>hay-a</i> ‘say’
Neuter (Stative)	<i>βiúnz-ík-a</i> ‘be broken’ < <i>βiúnz-a</i> ‘break’ <i>non-ek-a</i> ‘be sweet’ < <i>non-a</i> ‘be(come) sweet’
Associative (Reciprocal)	<i>gaβ-aan-a</i> ‘share’ < <i>gaβ-a</i> ‘divide’ <i>sek-an-a</i> ‘laugh at one another’ < <i>sek-a</i> ‘laugh’
Reversive (Separative)	<i>βis-ót-a</i> ‘find out’ < <i>βis-a</i> ‘hide’ <i>chiβ-ol-a</i> ‘make a hole through s.th’ < <i>chiβ-a</i> ‘block a hole’

Verbal extensions, like TAM markers, indicate different semantic behaviours, i.e., their co-occurrence restrictions and/or interpretational differences are determined by the semantics of the verbs. For example, the neuter (or stative) suffix *-ik-/-ek-* is only compatible with verbs of breaking and cutting (verbs of destruction), such as *-βiúnz-a* ‘break’ > *-βiúnz-ík-a* ‘be broken’ and *-tiná* ‘cut, chop’ > *-tin-ík-a* ‘snap (as of rope), and experiencer verbs, such as *-non-a* ‘be(come) sweet’ > *-non-ek-a* ‘be sweet’. In these verbs, the neuter suffix, as noted by Schadeberg (2003, p. 75), indicates that the subject is potentially or factually experiencing a certain state. This is further exemplified in (20) below.

- (20) *méeza yaaneé yaaβiúnzíkaga*  
*méeza yi-a-né yi-á-βiúnz-ík-ág-a*  
 9NP-table 9ACP-ø-POSS1SG 9SP-PST-break-NEUT-HOD\_PST-FV  
 ‘My table is broken’

The meanings denoted by verbal extensions based on the semantics of the verbs are not within the scope of this study.

### 1.5.3.6 Final vowel (FV)

SP+ NEG + TAM + IT + OP + Root + Ext. + TAM + TAM/FV + Post-final

In Nyamwezi, the final vowels, as will be discussed in § 2.6 of Chapter 1, serve largely to indicate mood. In this language, as in other Bantu languages, there are three types of final vowels: *-a*, *-e* and *-i*. The final vowel *-a* occurs mostly in indicative contexts and in singular imperatives, as exemplified in (21a) and (21b),

respectively. The final vowel *-e* occurs in subjunctive moods (optative and hortative), in imperative verbs containing an object prefix, and in the negative post-hodiernal future, as exemplified in (22a), (22b) and (22c), respectively. The final vowel *-i* occurs in plural imperatives, as in (23).

- (21) a. Indicative                      b. Singular imperative

<i>aligola</i>	<i>golagá!</i>
a-lɪ-gol-a	gol-ag-á
1SP-IMPF-buy-FV	buy-IMP-FV
‘S/he is buying (it)’	‘(You.sg) buy (it)!’

- (22) a. Optative                      b. Imperative added an object prefix

<i>aguleé</i>	<i>mgólilagé!</i>
a-gol-é	mú-gol-il-ag-é
1SP-buy-FV	1OP-buy-APPL-IMP-FV
‘May s/he buy (it)’	‘Buy (it) for her/him!’

- |                              |              |
|------------------------------|--------------|
| c. <i>alaaniwííl’</i>        | <i>ígolo</i> |
| a-laa-ni-wííl-é              | igolo        |
| 1SP-POSTHOD-OP1SG-tell-FV    | tomorrow     |
| ‘S/he will tell me tomorrow’ |              |

- (23) Plural imperative

*golagí*  
gol-ag-í  
buy-IMP-FV  
‘(You.PL) buy (it)’

Another morpheme that occurs in the final position in Nyamwezi, and in most Bantu languages, is *-ile* (discussed in § 2.2.1.3 and 2.4.6). This morpheme is bimorphemic (it comprises *-il* and *-e*), because verbal extensions such as the passive may occur inside it, as exemplified in (24) below. The *-ile* morpheme, when occurring with the pre-root tense marker *-a*, indicates a pre-hodiernal past reading, and when occurring without this marker, it indicates a resultative and/or stative present reading. Examples illustrating these readings will be discussed in § 2.2.1.3 and 2.4.6, respectively.



questionnaires), contextual elicitation (testing the acceptability of a construction based on the range of imaginary discourse contexts provided to the consultant), back translation, informal interviews and digital recordings of oral narratives and conversations. The last subsection (§ 1.6.3) describes the data processing and analysis techniques.

### **1.6.1 Language consultants**

In this study, a total of five language consultants (four females and one male) participated in the data collection. Their ages ranged from thirty-eight to sixty-four. All consultants were born in Tabora in the areas of Puge, Isikisya and Ndala (see FIGURE 2), and they grew up speaking Nyamwezi (Dakama dialect) as their primary language and Swahili as a lingua Franca. One consultant, in addition to Nyamwezi and Swahili, had a sound knowledge of English. Since the first questionnaire (used in the first fieldwork trip) had English sentences (to be translated into Nyamwezi) it was easier and very helpful for me to work with the consultant who spoke English. In interviews and discussions, Swahili was most often used as the medium of interaction. Occasionally, Nyamwezi was also used. Since I have a native-like comprehension of Nyamwezi and I speak Swahili as a native speaker, it was easy for me to monitor the Swahili influence on Nyamwezi. In addition, the data were given by older speakers. Working with older speakers is one of the factors suggested in the literature that could help to avoid the influence of the lingua Franca (the language of communication) to the target language (the investigated language) (see Sakel & Everett, 2012, p. 28). Another technique suggested by Bower (2008, p. 89), which was also adopted during elicitation, was that whenever I suspected a Swahili word or construction in Nyamwezi data from one consultant, I marked it and asked the other consultants to check its validity.

### **1.6.2 Data collection**

The data for this study were collected over a total of three research trips to Tabora, Tanzania. The first trip took place in July 2016. During this time, I collected information about the culture, traditions and history of the Nyamwezi speakers. During this first trip, I also collected information about the TAM system of the language, based on Dahl's (1985, 2000) tense and aspect questionnaires and a TAM questionnaire developed by the Languages of Tanzania Project (LoT) at the Department of Languages and Linguistics at the University of Dar es Salaam. Since Dahl's questionnaires were written in English, I had to help the consultants who did not speak English to translate the contextual descriptions and sentences included in the questionnaires into Swahili, and then ask them to provide the Nyamwezi constructions. These questionnaires helped to identify different affixes marking tense and aspect categories in Nyamwezi (see Chapter

1 for a discussion of these markers). Other interesting findings that came out of these questionnaires were that a single TAM marker or construction could be used to denote more than one reading. The differences between these readings were mainly due to the class of the verb (particularly non-change-of-state and change-of-state verbs). This can be exemplified by the construction referred to as the hodiernal past in this study (see more in § 2.2.1.2). This construction indicates a (hodiernal) past tense reading in non-change-of-state verbs, as in (26), and present or continuing state reading in change-of-state verbs, as in (27).

- (26) [Context: A knows that B was going to meet A’s brother but not when. A asks B: You MEET my brother (yet)? B: (Yes,) I MEET him.]<sup>5</sup>

*niiβónágá* *náwée*  
 ná-á-í-βón-**ag-a** ná-weé  
 1SG-PST-REFL/RECP-see-HOD\_PST-FV 1SG-him/her  
 ‘I (have) met with him’

- (27) Do you think the king will go to sleep? (Yes,) he BE TIRED.

*mtemi* *waazóβaga*  
 mu-témi *u-á-zóβ-ag-a*  
 1NP-king 1SP-PST-be(come)\_tired-HOD\_PST-FV  
 ‘The king is tired (Lit. s/he has become tired)’

The difference in meaning caused by the interaction between TAM markers and semantic verb classes turned out to be an interesting area of research. To investigate it, I created a questionnaire that comprised different types of verbs, with each verb being inflected with different types of tense, aspect and mood markers (see, e.g., TABLE 13 below).

Table 13: A sample of a questionnaire

Verb	IMPF	Interpretation	comments
<i>-lila</i> ‘cry’	a-lɪ-lil-a		
<i>-ja</i> ‘go’	a-lɪ-j-a		
<i>-kolóla</i> ‘cough’	a-lɪ-kolól-a		
<i>-saata</i> ‘be(come) sick’	a-lɪ-saat-a		

This questionnaire comprised 68 verbs that were systematically chosen from Levin (1993). Levin classifies over 3,000 English verbs according to shared

<sup>5</sup> Dahl (1985) uses uninflected forms in capital letters for the target tense/aspect/mood forms in the questionnaire in order to avoid undue English influence.

meaning and syntactic behaviour. In choosing verbs, I aimed to select verbs which belong to the thematic groups given in (28) below<sup>6</sup>. To my knowledge, the verbs from these groups represent the semantic properties of the verbal lexicon of the language under study.

- (28) Thematic groups of verbs included in the questionnaire
- a. Physical processes and changes, e.g., *-gma* ‘be(come) fat’ and *-seβa* (intr.) ‘boil’
  - b. Perception, emotions and intellectual activity, e.g., *-βoná* ‘see’, *-togwá* ‘love, like, wish, be pleased’ and *-mana* ‘(come to) know’
  - c. Psychological states, e.g., *-daka* ‘be(come) angry’
  - d. Motion, e.g., *-ja* ‘go’ and *-peela* ‘run’
  - e. Change-of-position, e.g., *-ikala* ‘sit’, *-laála* ‘fall asleep/sleep’ and *-laángá* ‘get stuck up high’
  - f. Labour and everyday life, e.g., *-zeenga* ‘build’, *-imbá* ‘sing’, *-seka* ‘laugh’, *-lyáá* and *-ditema* ‘tremble’
  - g. Communication, e.g., *-lomeela* ‘talk, chat’ and *-βoója* ‘ask’
  - h. Weather, e.g., *-gilima* ‘thunder’

During the second field trip in July 2017, a questionnaire that comprised different types of verbs inflected with different types of tense, aspect and mood markers was used. The language consultants were basically asked to do two things: first, to judge the acceptability of each construction by marking with # all unacceptable or infelicitous constructions, and second, to write the interpretations of all acceptable constructions in Swahili. The consultants were also asked, although not required, to write (in the comment box) anything else they might want to say about the meaning of the construction. This might include statements about context, alternative ways of saying things, etc. Each consultant was required to fill in the questionnaire independently; afterwards, the consultant and I discussed the data to get a more accurate understanding of the meanings of the constructions.

Within the research process, it soon became evident that some TAM markers did not provide interpretational differences for each verb included in the questionnaire. So, the few TAM markers that were noted as indicating interpretational differences during the second field trip, plus lexical items such as ‘start’, ‘stop’, ‘finish’ and ‘slowly’ and other constructions, were added to a new questionnaire to elicit data regarding verb categorization. The same

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<sup>6</sup> Phasal or aspectual verbs are not included in the list because they are used as diagnostic tests for determining a verb’s class membership (see Chapter 5).



procedures explained above were employed to collect the data: each language consultant was asked to interpret and write the meaning of each construction in the questionnaire, and to write any additional information about the constructions. A list of all of the verbs investigated and their interpretations with TAM markers, the four lexical items ('start', 'stop', 'finish' and 'slowly') and other constructions are given in Appendix 1.

Although the questionnaires helped in many ways to identify the classes of verbs in Nyamwezi, there were also some limitations. The major limitation observed during data collection is that some language consultants had difficulties to either with judging the acceptability of some constructions in the questionnaire or with identifying other possible readings apart from the basic (general) reading of those constructions. As is generally understood, eliciting the function and possible readings of a grammatical construction is often not easy, because the meaning of a construction is usually context-dependent. As Matthewson (2004, p. 370) states, the meaning of a construction is often not accessible by simply asking questions of the form 'what does X mean?' Or 'is X accepted?' Matthewson (2004) and Bar-el's (2015) elicitation strategies were employed to assist language consultants in judging the acceptability and range of meanings of the constructions in the questionnaires. One of these strategies is the use of nonverbal stimuli such as drawings and physically acting out situations. For example, to determine whether an aspectual verb *-oya* 'stop', used with activity verbs like *-ishijá* 'play, dance', indicates that the event is discontinued, a series of drawings showing a person who plays and then stops can be shown to the consultant. Similarly, several drawings showing the person walking towards a particular point and being very close to the final point can be shown to the consultant to help him/her to determine whether the general imperfective is compatible with an achievement verb such as *-shika* 'arrive'. The other strategy pointed out by Matthewson (2004) is to explain a range of imaginary discourse contexts to the language consultant and ask her/him to say if a particular construction can be used. Back translation, as suggested by Bloom Ström and Petzell (in press), was also a very useful strategy during data collection (but it was not a primary strategy). In this strategy, the language consultant is normally asked to translate the utterance from the target language back into the source language. Applying this strategy in my research, a consultant was also asked to translate a Nyamwezi construction into Swahili (or English) so as to see if s/he understood the context of use of that particular construction, and also to get a better picture of how Nyamwezi is similar to or different from Swahili (or English). It was an added advantage in the application of these strategies that I am a speaker of all three languages.

Another limitation related to the use of questionnaires to elicit data is that sometimes one or two language consultants agree on the use or applicability or grammaticality of the given construction while others disagree. The conversational interview style proposed by Crane and Fleisch (forthcoming) was very helpful in this case. In this interview style, more than one language consultant is involved in determining the meaning of a construction. In this way, consultants often come up with suggestions of contexts where initially rejected constructions would be felicitous. For example, one of my consultants rejected the occurrence of the verbs *-ɲwaaá* ‘drink’ and *-lyaaá* ‘eat’ with the formative referred to as the stative construction in this study (see § 2.4.6 and 4.3). This construction occurs naturally with change-of-state verbs to denote an ongoing state resulting from a past change-of-state, as exemplified in (29) below. In this example, the stative construction describes how the current state of affairs resulted from boiling water at a stove, i.e., the water is hot.

- (29) *gaséβilé*  
*gá-Ø-seβ-ile*  
 6SP-PST-boil-STAT  
 ‘It (e.g., the water) is boiled/hot (now)’

*-ɲwaaá* ‘drink’ and *-lyaaá* ‘eat’ are not change-of-state verbs; thus, one of my consultants considered their occurrence with the stative construction impossible. However, the other consultants provided contexts where these verbs can be accepted with the stative construction. For example, they said that *-ɲwaaá* ‘drink’ is accepted with the stative construction in contexts such as (30) below, where the stative construction refers to the current state of a child (who is suffocating) after taking an overdose of a drug. Similarly, they said that *-lyaaá* ‘eat’ is accepted with the stative construction in contexts such as (31) where, the stative construction refers to the current state of a cow (who is vomiting) after consuming fresh cassava leaves which are poisonous to cattle. The use of the stative construction in these verbs is similar to that exemplified with the verb *-seβa* (intr.) ‘boil’ in (29) above. The co-occurrence of *-ɲwaaá* ‘drink’ and *-lyaaá* ‘eat’ with the stative construction in these contexts was also accepted by the consultants, who initially judged this co-occurrence as infelicitous.

- (30) *aywiúlé*                                  *maaβogotá*  
*a-Ø-ɲw-ile*                                  *ma-βogóta*  
 1SP-PST-drink-STAT    6NP-medicine  
 ‘S/he has drunk (or used) some medicine (i.e., S/he has taken an overdose)’

- (31) *lililé*                                      *maakayeéβa*  
 lí-ø-l-ile                                      ma-káyeeβa  
 5SP-PST-eat-STAT    6NP-fresh\_cassava\_leaves  
 ‘It (e.g., the cow) has eaten fresh cassava leaves (which is why it is vomiting)’

In general, the questionnaires, contextual elicitation, back translation and informal or conversational interviews have contributed to a large amount of elicited data regarding verb categorization. However, in order to include a diversity of data in this research, particularly more natural data, I also collected oral narratives such as stories, folktales and songs. Some of these oral narratives I recorded myself from my consultants; others were taken from the Global Recordings Network<sup>7</sup>. The narrative texts found in a Nyamwezi grammar book by Maganga and Schadeberg (1992) were also included in the corpus. Although Nyamwezi is an oral language, many speakers are also able to write the language based on their knowledge of Swahili. Hence, I also collected a few short online written text messages. The quality of this data was checked by the language consultants who participated in this study. The number of collected narrative texts and their sources are shown in TABLE 14 below. In general, oral narratives and narrative texts collected in this study provided a better understanding of how verbs in Nyamwezi work.

Table 14: Collected narrative texts on Nyamwezi

Source	Text type	Number
Fieldwork	Stories/folktales	3
	Songs	4
	Online text messages	10
Maganga and Schadeberg (1992)	Traditional story	2
	Expository texts	2
	Proverbs	10
Global Recordings Network	Narrative texts	2

### 1.6.3 Data processing and analysis

Recall from § 1.6.2 that in this study the data were collected through questionnaires (which were followed by further elicitation questions and discussions about contexts) and digital recordings of oral narratives and conversations. There were two types of questionnaires. The first type includes Dahl’s (1985, 2000) questionnaires and a questionnaire designed by the

<sup>7</sup> The Global Recordings Network is an online repository of audio recordings of Bible stories and evangelistic messages translated into more than 6,300 languages (<http://globalrecordings.net/en/>).

Languages of Tanzania Project (LoT). These questionnaires were used to collect TAM data. The second type includes a questionnaire that was designed to elicit information about the verbal categorization. In all data collected using Dahl's (1985, 2000) and LoT's questionnaires, the verbs were given a detailed morphological analysis. In this way, it was easier to identify the forms and functions of different morphological affixes, particularly TAM affixes. All data from a questionnaire that was designed to elicit information about the verbal categorization was organized in a table. Verbs which denote similar interpretations with different TAM markers, and lexical items such as *start*, *stop*, *finish* and *slowly*, were put in the same group. The groups were named based on the semantic characteristics shared by verbs in that particular group (see Appendix 1). In all narratives and online written texts, I only wrote down the constructions which are relevant to the analysis of tense and aspect and the semantics of verbs given in this study.

## 1.7 Dissertation outline

The remainder of this dissertation is organized as follows:

Chapter 1 presents a brief discussion of Nyamwezi TAM affixes in the affirmative and negative constructions. Chapter 3 provides a sketch of the aspectual classes of verbs in Nyamwezi. It also provides an outline of the tests employed in this study to show the distinction between different types of aspectual classes. The tests discussed are divided into three groups: (i) grammatical aspect tests – check the interpretation or acceptability of occurrence of the verb with certain grammatical aspectual markers; (ii) lexical tests – check the interpretation or acceptability of occurrence of the verb with certain lexemes (such as *start*, *stop*, *finish* and *slowly*); and (iii) tense and time adverbial tests – check the interpretation or acceptability of occurrence of the verb with tense markers or time adverbials. Each of these types of tests is discussed in a separate chapter of this dissertation: Chapters 4, 5 and 6. Lastly, Chapter 7 presents a summary of the findings, and suggests areas for further research.



## **2 Outline of tense, aspect and mood marking in Nyamwezi**

### **2.1 Introduction**

This chapter aims to provide a broad description of the form and function(s) of the verbal markers used to express tense, aspect and mood (TAM) categories in Nyamwezi. Furthermore, it aims to provide the TAM markers of the negative counterpart of each TAM marker. In this study, most of these categories, as noted in § 1.5.3.2, are used as diagnostic tests for determining differences among aspectual classes. So the description in this chapter serves as a background for a general discussion of aspectual classes in Chapters 4, 5 and 6. In this chapter, I will also discuss the concept of “evidentiality”, and the way it is expressed in Nyamwezi.

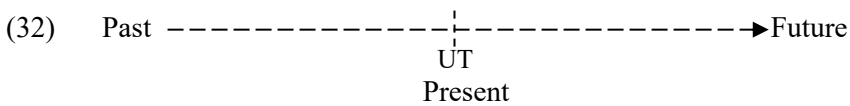
Previous works have described Nyamwezi TAM markers (and the grammar in general) (Jonsson (1949) and Maganga and Schadeberg (1992), among others). Overall, the description in these works is very short. The meaning(s) and usage of TAM markers are generally not provided. Indeed, Maganga and Schadeberg state that “we have not investigated the precise meaning of each tense” (1992, p. 104). So the description of the TAM markers in this chapter and the rest of the dissertation, apart from serving as a background for a discussion of aspectual classes, is the first analytical description including the semantics of the Nyamwezi TAM system.

The remainder of this chapter is structured as follows. § 2.2 presents a description of the verbal markers used to express past and non-past tenses (present and future); § 2.3 presents a description of the past tense markers in narrative texts; § 2.4 describes the aspectual markers; § 2.5 describes the way tense and aspect markers are used to express evidentiality; § 2.6 describes the mood markers; § 2.7 describes the negation of the affirmative constructions; and lastly, § 2.8 presents a summary of the main points of this chapter.

### **2.2 Tense marking in Nyamwezi**

Tense, as defined by Comrie (1985, p. 9), is a grammatical category that deictically refers to the time of the event denoted by the verb in relation to a certain temporal reference point. This reference point is usually the time of

speaking (utterance time (UT)), but in subordinate clauses, this reference point is usually referred to as the “evaluation time”, because it does not necessarily coincide with the time of speaking (see Cover & Tonhauser, 2015). The interpretation of tenses in this study is evaluated with respect to their relationship to UT. Based on this conceptualization, Nyamwezi can be analysed as a two-way tense system (a past vs. non-past tense system), i.e., it distinguishes between past tenses, which refer to events that occur before UT, and non-past tenses, which refer to events that overlap with the UT (present tenses) and those that occur after the UT (future tenses). This difference is schematically modelled in a timeline in (32) below which runs from left to right. The timeline is divided into three temporal regions: past, present and future, with UT as the focus (see Comrie, 1985; Reichenbach, 1947, among others).



Nyamwezi, like most Bantu languages (see Nurse, 2008 for an overview), has many tense markers. As noted in TABLE 9 in § 1.5.3.2, this language distinguishes four types of past tenses, namely immediate past (IMM\_PST), hodiernal past (HOD\_PST), pre-hodiernal past (PREHOD) and remote past (REM\_PST), and two types of future tenses, namely hodiernal future (HOD\_FUT) and post-hodiernal future (POSTHOD). Generally, the dividing point for these tenses is between today (hodiernal) and before/after today (pre-/post- hodiernal), as schematically shown in FIGURE 4 below. In the schema below, the hodiernal domain references the time within the same day of the speech event, while the pre-/post- hodiernal domain references the time outside today. This can be yesterday, last month, etc. (pre-hodiernal) or tomorrow, next month, etc. (post-hodiernal).

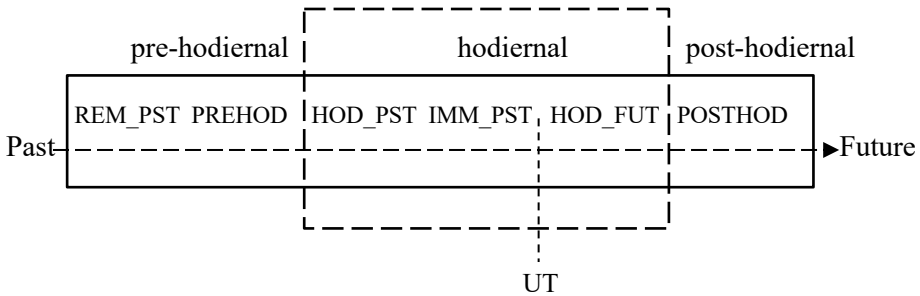


Figure 4: The distribution of the past and future tenses in Nyamwezi

It is important to note that, although the differences between these tenses are generally linked to the hodiernal vs. pre-/post- hodiernal distinction, there are cases where the hodiernal past/future tenses are used to express pre-/post-hodiernal events (see for instance examples (42) and (43) in § 2.2.1.2). These cases will be noted in the discussion of the functions and uses of each of the tense categories in the following sections. Note also that the tonal realization of tense (and also aspect) constructions in Nyamwezi is very complex. As noted in § 1.5.1.3, the tonal realization is usually influenced by high tone shift and high tone spread, i.e., some underlying tones are deleted or added to specific positions in the verb, depending on the inflection. These tone rules characterize most of the data presented in the following section.

## 2.2.1 Past tenses

As noted in the previous section, Nyamwezi has four past tenses: immediate past, hodiernal past, pre-hodiernal past and remote past. The interpretations of these tenses can be distinguished based on their degrees of remoteness from the UT and on the lexical semantics of verbs in question. The interpretations that result when these tenses interact with different verb classes are discussed in Chapter 6, particularly in § 6.2.1 and 6.2.2. The discussion in this chapter is limited to the temporal readings distinguished by remoteness.

Before launching into a discussion of temporal readings denoted by the Nyamwezi past tenses, it should be noted here that the expression of these tenses (and also other tenses) makes use of verbal affixes which can be added before the verb root (and any preceding object marker (OP) or itive marker (IT)), after the verb root (or extensions) and in the final vowel slot, as shown in the verbal template, repeated from (13) in Chapter 1, as (33) below.

(33) The structure of verb forms

SP+ NEG + TAM + IT + OP/INF + [Root + Ext.] + TAM + TAM/FV + Post-final

In this regard, all TAM constructions that combine affixes before and after the verb root will be presented using a template form [pre-root TAM]-VB-[post-root TAM]-[final vowel] (as commonly used in the study of Bantu tense and aspect). In this template, VB stands for the verbal base, i.e., a formative that includes the verb root and/or derivational suffixes (extensions). In (33) above, the VB is put in square brackets.

The four past tenses, shown in TABLE 15 below, are expressed by a combination of affixes before and after the verb root or VB, as well as tone.



Table 15: Past tense constructions

	SP	TAM	Root or VB	TAM	TAM/FV	example
Immediate past	o	á	mal		a	<i>w-aa-mál-a</i> 'S/he finished (just now)'
Hodiernal past	o	á	mal	ag	a	<i>w-aa-mál-ag-a</i> 'S/he finished (earlier today)'
Pre-hodiernal past	o	á	mal		íle	<i>w-aa-mál-íle</i> 'S/he finished (yesterday or before)'
Remote past	o	a	mal		á	<i>w-aa-mal-á</i> 'S/he finished (long ago)'

All past tense constructions exemplified in TABLE 15 above occur with the pre-VB tense marker *-a-*. In an immediate past, hodiernal past, and pre-hodiernal past, this marker has a high tone, while in the remote past it has a low tone. Regarding its function, I suggest that this pre-VB tense marker can be analysed as a marker of past reference (see Nurse (2008, p. 82) for a similar observation). Evidence that the pre-VB tense marker *-a-* marks past time reference is demonstrated in (34) and (35) below. When *-a-* occurs with *-íle* it marks pre-hodiernal past, as in (34). But when it is absent, *-íle* denotes a stative present reading, as in (35). This reading refers to an ongoing state, not to a completed state.

(34) *waalaálílé*  
o-á-láal-íle  
1SP-PST-sleep-PREHOD  
'S/he slept (yesterday or before)'

(35) *alaálílé*  
o-ø-láal-íle  
1SP-PST-sleep-STAT  
'S/he is asleep'

A similar distinction is shown in the habitual constructions in (36) and (37) below. In (36), the presence of a pre-VB tense marker *-a-* indicates a past habitual reading, whereas its absence in (37) indicates a present habitual reading.

- (36) *waazogagé* *kílá lóshikó*  
 u-a-zog-ag-é *kílá ló-shíko*  
 1SP-PST-cook-HAB\_PST-FV every 11NP-day  
 ‘S/he used to cook everyday (i.e., s/he was cooking every day in the past)’
- (37) *akozogaga* *kílá lóshikó*  
 a-ko-zog-ag-a *kílá ló-shíko*  
 1SP-HAB-cook-HAB-FV every 11NP-day  
 ‘S/he cooks everyday’

With these introductory remarks, we can now proceed to the discussion of the four types of past tenses in Nyamwezi. Note that Nyamwezi does not make a clear distinction between past tenses and perfective aspect, as each of the past tense constructions also marks perfective aspect, i.e., it can be used to refer to an event that is seen as a completed whole. Botne and Kershner (2008) make a similar argument regarding the functions of the two simple past tenses in Ekoti (Bantu, P.30): recent past and remote past. They show that both pasts function as perfective in this language.

### 2.2.1.1 Immediate past

As noted in TABLE 15 (in the previous section), an immediate past is marked by the *-á-VB-a* construction. This construction comprises a pre-VB tense marker *-á-* and a final vowel *-a*. Semantically, this construction describes an event that was completed a few seconds/minutes/hours prior to the UT, as exemplified in (38).

- (38) a. *mbulá yaátóla*  
 mbulá yi-á-tól-á  
 9NP.rain 9SP-PST-rain-IMM\_PST  
 ‘It has just rained’
- b. *naágógóla háaha dó*  
 ná-á-gá-gól-a háaha dó  
 1SG-PST-6OP-buy- IMM\_PST righ\_now only/just  
 ‘I have just bought them’

In vowel initial roots/bases, the subject prefix is realized as a glide (*w-*), and the pre-VB tense marker *-á-* (PST) coalesces with the vowel of the initial stem, as in (39) below.

- (39) *wíngá*   *háaha*     *dó*  
         *ɔ-á-ing-a*                                   *háaha*     *dó*  
         1SP-PST-leave-IMM\_PST   *righ\_now*   *only/just*  
         ‘S/he has just left’

In change-of-state verbs, the immediate past carries an assertion of a continued state, i.e., it describes an event which is completed but its results are still seen in the present time. This is exemplified in (40) below.

- (40) a. *gaaséβa*  
         *gá-á-séβ-a*  
         6SP-PST-boil-IMM\_PST  
         ‘It (e.g., the water) has just boiled (ASSERTS It is hot)’
- b. *waashika*  
         *ɔ-á-shik-a*  
         1SP-PST-arrive-IMM\_PST  
         ‘S/he has just arrived’

### 2.2.1.2 Hodiernal past

As noted in TABLE 15 (in § 2.2.1), the hodiernal past is expressed by the *-á-VB-ag-a* construction. This construction comprises the pre-VB tense marker *-á-*, the post-VB tense marker *-ag-* and the final vowel *-á*. Semantically, the hodiernal past, like the immediate past, refers to an event that was completed on the same day of speaking. Unlike the immediate past, which refers to an event that was completed a few seconds or a few hours ago, the hodiernal past refers to an event that was completed earlier in the day of speaking, as exemplified in (41) below.

- (41) a. *wímbágá*   *díiyó*  
         *ɔ-á-imb-ag-á*                                   *díiyó*  
         1SP-PST-sing-HOD\_PST-FV   *morning*  
         ‘S/he sang this morning’
- b. *wímbágá*   *líimíí*  
         *ɔ-á-imb-ag-á*                                   *líimíí*  
         1SP-PST-sing-HOD\_PST-FV   *daytime*  
         ‘S/he sang this afternoon’

Note that in some contexts, the hodiernal past does not say anything about when the event was completed. This is exemplified in (42) below. In this example, the

hodiernal past is ambiguous: it either denotes that the subject passed away earlier on the same day, or that the subject passed away before the day of speaking, but the speaker didn't know until today.

- (42) [A: Have you heard the news? B: No what happened? A: the king BE KILLED (alt: They KILL the king)] From Dahl's (1985) questionnaire.

*mtemi waaβólagúgwá*  
 m-témi o-á-βólag-ag-w-a  
 1NP-king 1SP-PST-kill-HOD\_PST-PASS-FV

1. 'The king was killed (earlier today or a short while ago)'
2. 'The king was killed (before today, but I didn't know until today)'

A clear context of the use of the hodiernal past to refer to an event that did not happen earlier on the same day, but long ago, is when the speaker wants to express surprise. This is exemplified in (43) below. In this example, the subject became fat long ago, but the speaker didn't know, so s/he is surprised. The use of the hodiernal past to refer to events that happen earlier than the day of speaking has also been noted in Mbugwe (Bantu, F.34) (Wilhelmsen, 2018, p. 163) and Fwe (Bantu, K.402) (Gunnink, 2018, p. 308). Botne and Kershner (2008) also provide examples.

- (43) [Exclaimed by the speaker when encountering someone that s/he hasn't seen for a very long time]

*waagínaga* *yee!*<sup>8</sup>  
 o-á-gín-ag-a yee  
 2SG-PST-be(come)\_fat-HOD\_PST-FV EXCL  
 'You are/have become fat(ter)!'

Apart from the pragmatic interpretations of the hodiernal past construction, exemplified in (42) and (43) above, this construction can also be used to refer to the result of a past or previous event, as exemplified in (44) below. This reading occurs for all verbs that encode a result state (see § 5.2 in Chapter 5 for a detailed discussion).

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<sup>8</sup> This culturally means that someone looks healthy.

- (44) *ishiimbá-góósh'*    *iihána*    *liikalágá*  
 i-shiimbá-goóshá    i-hána    lí-á-iikal-ag-a  
 5NP-lion-male    5ACP-big    5SP-PST-sit-HOD\_PST-FV  
*há-gatr*    *yáá-nzila*  
 ha-gatr    yaa-nzila  
 LOC.16NP-middle    CON-9NP.path/road  
 ‘A big male lion is sitting in the middle of the path/road’

From Maganga and Schadeberg’s (1992, p. 205) story about a woman and a lion.

### 2.2.1.3 Pre-hodiernal past

As shown in TABLE 15 (in § 2.2.1), the pre-hodiernal past in Nyamwezi is expressed by the *-á-VB-ile* construction. This construction comprises the pre-VB tense marker *-á-* and the final suffix *-ile*. Unlike the immediate and hodiernal past, the pre-hodiernal past is a general past tense construction referring to events that occurred any day before today, i.e., yesterday, last week or month or year, or even longer ago. Examples illustrating this tense are given in (45) below.

- (45) a. *waagágólilé*    *mazóólí*  
 ʊ-á-gá-gól-íle    mazóólí  
 1SP-PST-6OP-buy-PREHOD    day\_before\_yesterday  
 ‘S/he bought them the day before yesterday’
- b. *igolo*    *twaazéngílé*    *hádoó*  
 igolo    tú-á-zeeng-íle    hadóó  
 yesterday    1PL-PST-build-PREHOD    a\_bit  
 ‘Yesterday, we built a bit’
- c. *waagólilé*    *kale*  
 ʊ-á-gól-íle    kale  
 1SP-PST-buy-PREHOD    long\_ago  
 ‘S/he bought (it long ago)’

It should be noted here that in the pre-hodiernal past (and also the stative construction; see § 2.4.6), the suffix *-ile* can also be realized as *-il-w-e*, *-ije* and *-íile*. In longer roots of the form CVC<sub>w</sub>, the glide /w/ is infixes within the suffix *-ile*, as exemplified in (46). The form *-ije* occurs in verb roots that end in the sequence Cy, as in (47). Monosyllabic verb roots select a variant of *-ile* with a long vowel, as in (48) (see Maganga & Schadeberg, 1992 for discussion).

(46) *igolo waakólitwé noó*  
*igolo ɔ-á-kól-íl-w-e noó*  
 yesterday 1SP-PST-be(come)\_drunk-PREHOD-PASS-PREHOD very  
 ‘Yesterday, s/he got very drunk’

(47) *waanwaambijé*  
*ɔ-á-mu-amby-íle*  
 1SP-PST-1OP-help-PREHOD  
 ‘S/he helped her/him (yesterday or before)’

(48) *waalílé ójja kókalaála*  
*ɔ-á-l-íle ɔ-ɔ-j-a kɔ-ka-láal-a*  
 1SP-PST-eat-PREHOD 1SP-CONS-go-FV INF-IT-sleep-FV  
 ‘S/he ate then s/he went to sleep (yesterday or before)’

The pre-hodiernal past, like the hodiernal past, can also be used to refer to an ongoing state/process resulting from a past event, as exemplified in (49) below. Generally, this reading occurs in verbs which encode a result state, although it can be cancelled (see § 6.2.2 in Chapter 6 for a detailed discussion).

(49) *liigóondíl’ íigolo*  
*lí-á-í-goond-íle igolo*  
 5SP-PST-REFL-be(come)\_bent-PREHOD yesterday  
 ‘It (e.g., the iron bar) became bent yesterday (IMPLIES it is bent)’

#### 2.2.1.4 Remote past

The remote past and the immediate past (discussed in § 2.2.1.1) are both expressed with the *-a-VB-a* construction. The difference between the two tenses is that, in the immediate past construction, there is a high tone on the pre-VB tense marker (*-á-VB-a*), while in the remote past there is a high tone on the final vowel (*-a-VB-á*). The tonal differences denoted by these tenses are exemplified in (50) below (cf. the underlying representations).

(50) a. Immediate past  
*waagóla*  
*ɔ-á-gól-a*  
 1SP-PST-buy-IMM\_PST  
 ‘S/he has just bought (it)’

- b. Remote past  
*waagulá*  
 ɔ-a-gul-á  
 1SP-PST-buy-REM\_PST  
 ‘S/he bought (it long ago)’

Semantically, the remote past is used to refer to a time period which is considered to be far away from the time of speaking. This time period can be a long time ago, as in (51) below, where the speaker refers to the time s/he was born, or a few days ago, as in (52).

- (51) *koweeleelo*            *twiizá*  
 kɔ-weeleelo            tó-a-iz-á  
 LOC.17NP-world    1PL-PST-come- REM\_PST  
*kwijá*  
 kɔ-ij-a  
 INF-while\_away\_the\_time-FV  
 ‘We came into the world (long ago) to while away the time’

- (52) [Q: Did John come to look for me last week?]

<i>waakokoóbá</i>	<i>noó,</i>	<i>waalí</i>	<i>he?</i>
ɔ-a-kó-kooβ-á	<i>noó</i>	ó-a-lí	he?
1SG-PST-1OP2SG-find- REM_PST	very	2SG-PST-AUX	where

‘(Yes) He looked for you, where were you?’

The remote past, like other past tenses, can also be used to refer to the present state resulting from a past event (although this reading can be cancelled), as in (53) below.

- (53) *waamaná*  
 ɔ-a-man-á  
 1SP-PST-(come\_to\_)know-REM\_PST  
 ‘S/he has come to know (long ago) (IMPLIES s/he knows now)’

## 2.2.2 Present tense

In Nyamwezi, there is no distinctive morphological element that is used to mark the present tense. This tense is usually expressed with aspectual markers, especially the general imperfective (*-lu-VB-a*), as exemplified in (54) below. The discussion of the general imperfective as an aspectual category is given in § 2.4.3 in this chapter and in § 4.2 of chapter 4.

- (54) a. *alɪtómámɪla*                      *nhoβola*  
a-**ɪɪ**-tómam-ɪl-a                      nhoβola  
1SP-**IMPF**-work-APPL-FV    Tabora  
‘S/he works/is working in Tabora’
- b. *alɪsómela*                                  *βóláya*  
a-**ɪɪ**-som-ela                                  βóláyá  
1SP-**IMPF**-study/read-APPL-FV    Europe  
‘S/he studies/is studying in Europe’

The present tense can also be expressed with the stative construction (-*ø*-VB-*ile*), as exemplified in (55) below. This reading occurs only with non-perception stative and change-of-state verbs. See more about the stative construction in § 2.4.6 in this chapter and in § 4.3 in Chapter 4.

- (55) a. *wiikalilé*                                  *Táánzaniya*  
*ø-ø*-ikal-**ile**                                  Táánzaniya  
1SP-**PST**-stay/live-**STAT**    Tanzania  
‘S/he lives/is living in Tanzania’
- b. *alaálilé*  
a-*ø*-láal-**ile**  
1SP-**PST**-sleep-**STAT**  
‘S/he is asleep’

### 2.2.3 Future tenses

Recall from § 2.2 that in Nyamwezi the future tenses are categorized into two types: hodiernal future and post-hodiernal/distant future. As shown in TABLE 16 below, these tenses, like the past tenses, are generally expressed by a combination of affixes before and after the verb base.

Table 16: Future tense constructions

	SP	TAM	Root or VB	TAM	TAM/FV	example
Immediate past	a	kɔ	mal		a	<i>akomala</i> ‘S/he will finish (today or later)’
Hodiernal past	a	laa	mal		é	<i>alaamaleé</i> ‘S/he will finish (tomorrow or later)’



The interpretation of the two types of future tenses, like that of the past tenses, can be distinguished based on their degrees of remoteness from the UT. This is discussed further in the following subsections.

### 2.2.3.1 Hodiernal future

As noted in TABLE 16 above, the hodiernal future tense is expressed by the formative *-kɔ-* (also *-ɔ-* and *-kw-*), which is prefixed to the verb base. This tense situates the event after the UT, within the same day of speaking, as exemplified in (56)–(58) below. (56) refers to an event that will happen very soon today, (57) and (58) to events that will happen later today.

(56) *akɔshika*                      *háaha*      *dó*  
a-**kɔ**-shik-a                      háaha      dó  
1SP-**HOD\_FUT**-arrive-FV      right\_now      only/just  
‘S/he will arrive soon (i.e., in a couple of minutes)’

(57) *leel’ áákɔsola*                      *mpini*              *gw’ íígeembe*  
leeloó a-**kɔ**-sol-a                      m-píni              gwa i-geembe  
today 1SP-**HOD\_FUT**-take-FV      3NP-handle      CON 5NP-hoe  
‘S/he will take the handle of the hoe (later) today’

(58) *ɔ(k)ɔlyáá*                      *βózikó*  
a-**kɔ**-ly-aá                      βózikó  
2SG-**HOD\_FUT**-eat-FV      14NP.night  
‘You will eat (late) in the evening (lit. at night)’

The hodiernal future, although it typically expresses an event that will occur later today, is also commonly used to express a future event that will take place tomorrow or later, as exemplified in (59) and (60) below. This tense can also be used to express motion towards a purpose/goal, as shown in (61).

(59) *tokwíilómeela*                      *naáβoo*  
tó-**kɔ**-í-lomeel-a                      naa=them  
1PL-**HOD\_FUT**-REFL-talk-FV      CON=them  
‘We will talk to them (soon, or later)’

- (60) *mookón áákwumbola mamidé*  
 moókóno a-ko-imbul-a ma-mi-dégé  
 this\_year 1SP-HOD\_FUT-harvest-FV 6NP-4NP-maize  
*míngí nóó*  
 ma-ingí nóó  
 6ACP-many very  
 ‘S/he will harvest a lot of maize this year’
- (61) *βakoja kokagola myeendá*  
 βa-ko-j-a ko-ka-gul-a mi-énda  
 2SP-HOD\_FUT-go-FV INF-IT-buy-FV 4NP-piece\_of\_clothing  
 ‘They will go to buy clothes’

### 2.2.3.2 Post-hodiernal future

As shown in TABLE 16 (in § 2.2.3), the post-hodiernal future is expressed with the *-laa-VB-é* construction. This construction comprises the pre-VB tense marker *-laa-* (also realized as *-l-*) and the morpheme *-é* in the final vowel slot. This construction, unlike the hodiernal future, situates the event outside the hodiernal domain. It is used to refer to an event which will take place tomorrow or later. The post-hodiernal future interpretation is emphasized by the use of temporal adverbials such as *igolo* ‘tomorrow’, exemplified in (62) below, *maazóólí* ‘the day after tomorrow’, exemplified in (63), and *ηwaakíízó* ‘next year’, exemplified in (64).

- (62) *alaaniwííl’ íigolo*  
 a-laa-ni-wííl-é igolo  
 1SP-POSTHOD-OP1SG-tell-FV tomorrow  
 ‘S/he will tell me tomorrow’
- (63) *tolíílómeelé naáβoó maazóólí*  
 tó-laa-í-lomeel-é naa=them maazóólí  
 1PL-POSTHOD-REFL-talk-FV CON=them the\_day\_after\_tomorrow  
 ‘We will talk to them the day after tomorrow’
- (64) *nalaájé ηwaakíízó*  
 na-laa-j-é ηwaakíízó  
 1SG-POSTHOD-go-FV next\_year  
 ‘I will go next year’

As noted in the previous section, the hodiernal future can also refer to an event planned/expected for tomorrow or later (see examples (59) and (60)). Its use can

be distinguished from that of the post-hodiernal future based on what Botne (2012, p. 546) calls epistemic value, i.e., based on the probability of occurrence of the event. The hodiernal future is commonly used if one is certain, whereas the post-hodiernal future if one is less certain. The same contrast is noted in Sukuma (F.21), a neighbouring language to Nyamwezi (see Batibo, 1985, p. 270).

It is important to note that in Nyamwezi, as is common in other Bantu (see Nurse, 2008) and non-Bantu languages (see Bybee, Perkins, & Pagliuca, 1994), the (hodiernal/post-hodiernal) future meaning can also be expressed with the general imperfective aspect, as exemplified in (65) and (66) below, and in rare cases by the stative construction, as in (67).

(65) *lumi            nalíflomeela            naáweé*  
*lumi            na-**li**-lomeel-**a**            naá=weé*  
 afternoon 1SG-**IMPF**-talk-**FV** CON=her/him  
 ‘I will (am going to) talk to her/him in the afternoon’

(66) *mookónó    nalízeenga            nuúmbá*  
*mookónó    ná-**li**-zeeng-**a**            nuúmbá*  
 this\_year 1SG-**IMPF**-build-**FV** house  
 ‘I will build (am building) a house this year’

(67) *igolo            najítulé            ndáála*  
*igolo            ná-**ø**-j-**ile**            ndáála*  
 tomorrow 1SG-**PST**-go-**STAT** Ndala  
 ‘I will go (am going) to Ndala tomorrow’

Based on the data collected, there is no difference in meaning between the future meanings expressed with the hodiernal or post-hodiernal future constructions and those expressed with the general imperfective or stative construction.

## 2.3 Narrative constructions

In Nyamwezi, there are two types of narrative constructions: *-ka-* (glossed as NAR) and *-u-* (glossed as CONS). As shown in (68) below (taken from Maganga and Schadeberg’s (1992, p. 199) narrative text), the marker *-ka-* is typically used for the narrative descriptions of past events, while *-u-* is used for the description of sequential events in storylines, as shown in (69).

- (68) *βáali*                      *βálihó*                      *βáánhw'*                      *aaβo*  
 βa-a-lɪ                      βa-lí-hó                      βa-nhɔ                      aβo  
 2SP-PST-AUX    2SP-AUX-LOC.16NP    2NP-person    DEM  
*βakalm'*                      *iilaále*                      *βóvliháamba ...*  
 βa-ka-lɪm-a                      ilaále                      βa-ɔ-lɪ-háám-b-a ...  
 2SP-NAR-cultivate-FV    5NP-farm    2SP-CONS-5OP-plant-FV  
 ‘There once were some people who cultivated a farm, and they  
 planted...’
- (69) *tóondiima*    *tóontolá*  
 tó-ɔ-mu-díim-a    tó-ɔ-mu-tol-á  
 1PL-CONS-OP.2PL-catch-FV    1PL-CONS-OP.2PL-beat-FV  
*tóopeela*  
 tó-ɔ-peel-a  
 1PL-CONS-catch-FV  
 ‘(then) we caught her/him, beat her/him and ran (away)’

When the narrative markers *-ka-* and *-ɔ-* occur together in the same construction, as exemplified in (70) below (also in (68) above), *-ka-* is prefixed to the first verb root (*-yóombá* ‘walk’ in (70) below) to initiate the narration and *-ɔ-* is prefixed to the rest of the verb roots in the text.

- (70) From Dahl’s (1985) questionnaire [Q: Do you know what happened to my brother yesterday? A: He told me himself]

*akayóombá* ηwiipoólú *kwiimáníila*, *óopaand'* iiyoká *lyóonlumá*  
*kómgoɔ*, *óólítól'* íiwe, *lyóofaá*

a-ka-yóomb-á                      mu-i-poólú                      ko-imaniɪl-a  
 1SP-NAR-walk-FV    LOC.18NP-5NP-forest    INF-get\_accustomed-FV  
 ɔ-ɔ-paand-a                      i-yoká                      lɪ-ɔ-mu-lúm-a  
 1SP-CONS-step-FV    5NP-snake    5SP-CONS-1OP-bite-FV  
 ku-mu-góɔ                      ɔ-ɔ-lí-tól-a                      i-we  
 LOC.17NP-3NP-leg    1SP-CONS-5OP-beat-FV    3NP-stone  
 lɪ-ɔ-f-aá  
 5SP-CONS-die-FV

‘He **walked** in the forest. Suddenly, he **stepped** on a snake. It **bit** him on the leg. He **took** a stone and **threw** at the snake. It **died**.’

Nowadays, *-ka-* (but not *-ɔ-*) has developed a tense-like function and can commonly be used to refer to a past event outside narrative descriptions. It is commonly used for a past event completed yesterday or before, as shown in (71)

below (cf. the pre-hodiernal past in § 2.2.1.3), or for a past event completed a long time ago, as in (72) (cf. the remote past in § 2.2.1.4). However, the narrative *-ka-* cannot be used to refer to a past event completed earlier today. Only the hodiernal past can be used. The sentences in (71) and (72) are not the first sentence of a narrative.

(71) *igolo to-ka-zeeng-a hádoó* (cf. example (45b))  
*igolo tó-ka-zeeng-a hadoó*  
 yesterday 1PL-NAR-build-FV a\_bit  
 ‘Yesterday, we built a bit’

(72) *akagola* (cf. example (50a))  
*a-ka-gol-a*  
 1SP-NAR-buy-FV  
 ‘S/he bought (it long ago)’

## 2.4 Aspect marking in Nyamwezi

Having discussed the tense and narrative constructions, I will turn to a discussion of aspect marking. Within the study of aspect, many linguists make a distinction between grammatical aspect and lexical aspect. Grammatical (or inflectional) aspect, also known as viewpoint aspect (Smith, 1997) or aspect proper (Binnick, 1991), is concerned with aspectual distinctions such as perfective, imperfective and progressive, encoded mostly through inflectional morphology. Lexical aspect is concerned with properties of eventualities (such as dynamicity, punctuality, telicity, etc.) expressed by the verb’s lexical meaning. These properties, as Filip (2012, p. 722) states, have to do with the presence of some end, limit or boundary in the lexical structure of certain classes of verbs and its absence in others. In this section, I will restrict my discussion to the first type of aspect (grammatical aspect). The second type (lexical aspect) is discussed in detail in the rest of the chapters in this dissertation (Chapters 3, 4, 5 and 6). Note that grammatical aspect and lexical aspect do not act independently. There is a strict correspondence relationship between them. See § 3.3.2 for a detailed discussion of how these types of aspect interact.

Grammatical aspect, as Comrie (1976, p. 3) defines it, refers to different ways of viewing the internal temporal constituency of an event. Aspectual distinctions in this perspective mainly contrast perfective aspect, in which a speaker views an event as a completed whole, with imperfective aspect, in which the speaker views the internal structure of the event. Apart from perfective/imperfective distinctions, the aspectual landscape contains other widely attested categories,

such as prospective aspect (*S/he is going to cry*), inceptive aspect (*S/he starts crying*) and retrospective aspect (*S/he has just cried*). Hewson and Bubenik (1997, p. 14) represent these aspectual categories using a model modified from Guillaume (1929), as shown in FIGURE 5 below.

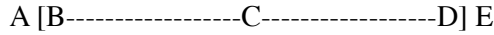


Figure 5: Ordering of aspectual categories

According to Hewson and Bubenik (1997), the square brackets in FIGURE 5 above symbolize the beginning and the end of the event. The letters A through E represent the five cardinal positions: A—before the event begins, B—at the beginning, C—between the beginning and the end, D—at the end of the event, and E—after the end, in the result phase. The aspectual categories can then be linked to these landmarks: A marks prospective aspect, with the position preceding the event proper; B marks inceptive aspect, with the event just beginning; C marks imperfective aspect (e.g., progressive, habitual and persistive), indicative of the medial portion of the event; D marks perfective aspect, where the event is viewed as a whole (or completed); and E marks retrospective aspect, following the event proper. Most of the types of grammatical aspect noted by Hewson and Bubenik (1997) can be found in Nyamwezi. The grammatical aspect categories in this language are given in TABLE 17 below. These grammatical aspects are morphologically expressed by affixes on the main verb or on an auxiliary verb.

Table 17: Aspect constructions

	SP	TAM	IT	Root or VB	TAM	TAM/FV	example
Prospective or itive	a	li	ka	mal		a	<i>a-li-ka-mal-a</i> 'S/he is going to finish'
Inceptive	o	(-á-)yóo		mal		a	<i>w-aa-yóo-mal-a</i> 'S/he is about to finish'
General imperfective	a	li		mal		a	<i>a-li-mal-a</i> 'S/he is finishing'
Habitual	a	ko		mal	ag	a	<i>a-ko-mal-ag-a</i> 'S/he usually finishes'
Past habitual	o	a		mal	ag	é	<i>w-aa-mal-ag-é</i> 'S/he used to finish'
Persistive	a	táá		li			<i>a-táá-li</i> 'S/he is still (X-ing)'
Stative	a			mal		íle	<i>a-mal-íle</i> 'S/he is finished (e.g., with this task)'

As noted in § 2.2.1, Nyamwezi does not clearly make a distinction between past tenses and perfective aspect. In this language, perfective aspect is expressed with past tense constructions, and therefore is not listed in TABLE 17 above. Note that in this study, the term imperfective is used in two senses: (i) as the counterpart to the perfective; and (ii), as an overt marker or category. As noted in TABLE 17 above, I adopt the term “general imperfective” from Nurse (2008) to refer to the aspectual marker/category and keep the term “imperfective aspect” to refer to the counterpart to perfective aspect. Note also that retrospective aspect (marked with *-ile*; also *-ire*, *-ite*, *-ide* or *-i*) is frequently analysed as perfect, anterior, perfective or completive across Bantu languages (see Nurse, 2008 for a discussion), but it does not play this role in Nyamwezi. In Nyamwezi, the *-ile* construction (the last category in TABLE 17 above) is analysed as a stative construction (see § 2.4.6 for discussion).

Before embarking on the discussion of the aspectual constructions listed in TABLE 17, it is important to note that in Nyamwezi there are no dedicated affixes for aspectual or tense contrasts noted in other Bantu languages, such as past imperfective, present imperfective, future imperfective, present habitual, future habitual, future perfective, and so on. These contrasts are generally expressed periphrastically with the auxiliary verbs *-koβii* ‘to be’ and *-li* ‘to be’, combined with an inflected main verb. (See Maganga and Schadeberg (1992) for a discussion of these constructions.)

### 2.4.1 Prospective aspect

Prospective aspect refers to an event that occurs subsequent to a given reference time (Matthews, 1997). As noted in § 1.5.3.3, prospective aspect in Nyamwezi is expressed by the so-called itive (IT) or *-ka-* *movendi*<sup>9</sup>, which adds the meaning ‘go and’ or ‘going to’ to the basic meaning of a particular tense or aspect construction. This marker can freely be combined with any tense or aspect marker. In examples (73), (74) and (75) below, the itive marker is combined with the pre-hodiernal past, general imperfective and hodiernal future tense, respectively.

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<sup>9</sup> See Maganga and Schadeberg (1992, pp. 107–108) for more examples of this marker, and for its contrast with the narrative marker *-ka-*.

- |  |    |   |
|--|----|---|
| <p>(73) <i>waagólilé</i><br/>         ɔ-á-gól-íle<br/>         1SP-PST-buy-PREHOD<br/>         ‘S/he bought (it yesterday<br/>         or before)’</p> | vs | <p><i>waakágokilé</i><br/>         ɔ-á-<b>ka</b>-gól-íle<br/>         1SP-PST-<b>IT</b>-buy-PREHOD<br/>         ‘S/he went (yesterday or before)<br/>         and bought (it)’</p>  |
| <p>(74) <i>alɪgola</i><br/>         a-lɪ-gól-a<br/>         1SP-IMPF-buy-FV<br/>         ‘S/he is buying (it)’</p>                                     | vs | <p><i>alɪ<b>ka</b>gola</i><br/>         a-lɪ-<b>ka</b>-gól-a<br/>         1SP-IMPF-<b>IT</b>-buy-FV<br/>         ‘S/he will go and buy (it)’</p>                                    |
| <p>(75) <i>akogola</i><br/>         a-kú-gól-a<br/>         1SP-HOD_FUT-buy-FV<br/>         ‘S/he will buy (it later today)’</p>                       | vs | <p><i>ak<b>o</b>ka<b>g</b>ola</i><br/>         a-kú-<b>ka</b>-gól-a<br/>         1SP-HOD_FUT-<b>IT</b>-buy-FV<br/>         ‘S/he will go and buy (it later<br/>         today)’</p> |

The itive marker can also be combined with mood markers. This is exemplified in (76) below, where the itive marker is combined with the imperative suffix.

- |  |    |  |
|--|----|--|
| <p>(76) <i>zugagá</i><br/>         zug-<b>ag</b>-á<br/>         cook-IMP-FV<br/>         ‘(You.sg) cook (it)!’</p> | vs | <p><i>kazogagé</i><br/>         ka-zug-ag-é<br/> <b>IT</b>-cook-IMP-FV<br/>         ‘(You.sg) go and cook’</p> |
|--|----|--|

## 2.4.2 Inceptive aspect

As the term suggests, the inceptive aspect (also called inchoative or ingressive) refers to the start of the event or to a point just before the start of the event. In some Bantu (e.g., Swahili) and non-Bantu languages (e.g., Swedish), the inceptive is marked lexically by the word which is translated in English as ‘begin, start’. Many Bantu languages, including Nyamwezi, mark the inceptive both periphrastically and as a verbal affix. In this section, I will discuss the inceptive aspect as a verbal affix. See § 5.2 of Chapter 5 for the discussion of the periphrastic lexical verb construction expressing inceptive aspect.

As shown in TABLE 17 (in § 2.4), the inceptive aspect is marked by the prefix *-yóó-*. This formative must co-occur with some other tense and aspect marker in the pre-VB slot to express different temporal readings. The tense and aspect markers that prototypically occur with the inceptive prefix *-yóó-* are the past tense *-á-* (77), the consecutive *-ɔ-* (78), the general imperfective *-lɪ-* (79), the narrative *-ka-* (80), the hodiernal future *-kú-* (81), and the post-hodiernal



future construction *-laa-VB-é* (82). These tense markers occur before the inceptive prefix.

- (77) *waayóógola* (completive)<sup>10</sup>  
 ɔ-á-yóɔ-gɔl-a  
 1SP-PST-INC-buy-FV  
 ‘S/he has just started to buy (it)’
- (78) *óuyóógola* (consecutive)  
 ɔ-ɔ-yóɔ-gɔl-a  
 1SP-CONS-INC-buy-FV  
 ‘...(and then) s/he started to buy (it)’
- (79) *alɪyóógola* (general imperfective)  
 a-ɪɪ-yóɔ-gɔl-a  
 1SP-IMPF-INC-buy-FV  
 ‘S/he is starting to buy (it on a regular basis)’
- (80) *akayóógola* (narrative)  
 a-ka-yóɔ-gɔl-a  
 1SP-NAR-INC-buy-FV  
 ‘...(and) s/he started to buy (it)’
- (81) *akoyóógola* (hodiernal future)  
 a-ko-yóɔ-gɔl-a  
 1SP-HOD\_FUT-INC-buy-FV  
 ‘S/he will start to buy (it in the near future) (ALSO s/he will be buying)’
- (82) *alaayóógolá*<sup>11</sup> (post-hodiernal future)  
 a-laa-yóɔ-gɔl-a  
 1SP-POSTHOD-INC-buy-FV  
 ‘S/he will start to buy (it in the distant future) (ALSO s/he will be buying)’

---

<sup>10</sup> Although the pre-stem tense marker *-á-* refers to a past event which is completed in the past, in this case it co-occurs with the inceptive aspect to refer to an incomplete event. The same was noted by Maganga and Schadeberg (1992, p. 106).

<sup>11</sup> Note that in Nyamwezi, when the post-hodiernal future is combined with the inceptive *-yóɔ-*, the final vowel *-é* becomes *-á*. The post-hodiernal future is marked by the *-laa-VB-é* construction.

Semantically, the inceptive aspect in Nyamwezi denotes two different types of interpretations: inchoative (starting to X), exemplified in (83) below, and proximate (be about to X), exemplified in (84).

- (83) *waayóúzwaála*  
 ɔ-á-**yóo**-zwáal-a  
 1SP-PST-**INC**-get\_dressed-FV  
 ‘S/he has just started to dress or put on (a garment)’

- (84) *waayiikala*                      *haasí*  
 ɔ-á-**yóo**-ikal-a                      ha-sí  
 1SP-PST-**INC**-sit-FV    LOC.16NP-ground  
 ‘S/he is just about to sit down’

The two interpretations of the inceptive aspect above vary mostly on the basis of the lexical aspect of the verb. See § 4.5 in Chapter 4 for a detailed discussion of the interaction of the inceptive aspect with verbs from different aspectual classes.

### 2.4.3 General Imperfective

This section discusses the imperfective aspect, an aspectual category which represents a situation as incomplete or unbounded. As noted in § 2.4, I will refer to this aspectual category as “general imperfective”. In Nyamwezi, the general imperfective (as shown in TABLE 17) is expressed with the prefix *-li-*, which in the previous work on Nyamwezi is referred to as progressive aspect (Maganga and Schadeberg, 1992, p. 121). Contrary to Maganga and Schadeberg, I argue that the prefix *-li-* is best analysed as a general imperfective. This is because (i) it can occur with different types of verbs, and (ii), it denotes a wide variety of different aspectual interpretations: ongoing (85), inchoative (86), stative present (87), immediate and/or near future (88) and (89), and habitual/generic reading (90) (see also Appendix 3).

- (85) *alimba*                              *kisogá*  
 a-**li**-imb-a                              kí-sóga  
 1SP-**IMPV**-sing-FV    7ACP-good  
 ‘S/he is singing well (now and in general)’

- (86) *galíiseβa*  
 gá-**li**-seβ-a  
 6SP-**IMPF**-boil-FV  
 ‘It (e.g., the water) is coming to the boil (i.e., it is heating up or getting hot)’

- (87) *lilimoonda*  
 li-**li**-moond-a  
 5SP-**IMPF**-be\_soft-FV  
 ‘It (e.g., the mattress) is soft (now)’
- (88) *lilifaá!*  
 lí-**li**-f-aá  
 5SP-**IMPF**-die-FV  
 ‘It (e.g., the dog) is about to die!’
- (89) *alimb’*                      *iigolo*  
 a-**li**-mb-a                      igolo  
 1SP-**IMPF**-sing-FV tomorrow  
 ‘S/he will sing tomorrow’
- (90) *alutwimbíla*                      *kilá*    *lóshíkó*  
 a-**li**-tú-imb-il-a                      kilá    lo-shíkó  
 1SP-**IMPF**-OP1PL-sing-APPL-FV every 11NP-day  
 ‘S/he sings to us every day’

This contrasts with the progressive aspect which, as we find in English, typically patterns more with dynamic verbs (rather than statives) to express an ongoing reading, as shown in (91).

- (91) a. Emma is running  
 b. #Emma is knowing the answer

In the literature, a tendency for a particular aspectual marker to express more than a progressive or ongoing interpretation is generally taken as evidence that the marker denotes the imperfective aspect rather than the progressive (see Bybee et al., 1994, pp. 125–144; Nurse, 2008, pp. 136–143).

The interpretations of the general imperfective with different types of verbs are discussed in § 4.2 in Chapter 4.

## 2.4.4 Habitual aspect

Habitual aspect is another type of imperfective aspect which refers to a repeated event that describes a characteristic property of the subject or an event (Bertinetto & Lenci, 2012, p. 861). As shown in TABLE 17, there are two constructions that express habitual aspect in Nyamwezi: *-ko-VB-ag-a* and *-a-VB-ag-é*.

The *-ko-VB-ag-a* construction comprises the pre-VB TAM marker *-ko-*, the post-VB TA marker *-ag-* and the final vowel *-a*, and it is generally used to express a habitual reading in the present time, as in (92) below.

- (92) *akoʒogaga*                      *kilá*    *lóshikó*  
*a-ko-zog-ag-a*                      *kilá*    *ló-shíko*  
 1SP-HAB-cook-HAB-FV    every    11NP-day  
 ‘S/he cooks everyday’

In contrast, the *-a-VB-ag-é* construction comprises the pre-VB TA *-a-*, the post-VB TA *-ag-* and the final vowel *-é*. This construction is used to express a habitual reading in the past time, as shown in (93).

- (93) *waazogagé*                      *kilá*    *lóshikó*  
*o-a-zog-ag-é*                      *kilá*    *ló-shíko*  
 1SP-PST-cook-HAB\_PST-FV    every    11NP-day  
 ‘S/he used to cook everyday’

The two habitual constructions may also be used to express general truths. This is exemplified in (94) and (95) below.

- (94) [Q. What kind of sound do cats make?]

*gakóhílaga*                      *naáβó*  
*gá-ko-lil-ag-a*                      *naáβó*  
 6SP-HAB-cry-HAB-FV    meow  
 ‘They meow’

- (95) [Q. What sound did your cats make when they were hungry?]

*gaalílagé*                      *naáβó*  
*gá-a-lil-ag-é*                      *naáβó*  
 6SP-PST-cry-HAB\_PST-FV    meow  
 ‘They meowed’

## 2.4.5 Persistent aspect

The persistent aspect expresses an event that started before UT, and is still ongoing (Nurse, 2008, p. 24). In Nyamwezi, the persistent aspect is expressed by a morpheme *-táá-* which is prefixed to the copula *-li* used as an auxiliary. This construction is unmarked for tense and aspect but can be inflected for subject, as illustrated in (96) below.

- (96) a. *ataáli*  
a-*táá-li*  
1SP-PER-AUX  
‘S/he is still or not yet ...’
- b. *βataáli*  
βa-*táá-li*  
2SP-PER-AUX  
‘They are still or not yet ...’

In Nyamwezi, as in other Bantu languages (e.g., Kagulu (Petzell, 2008), Manda (Bernander, 2017), Nyakyusa (Persohn, 2017b), among others), the persistive construction can be combined with verbs inflected with other tense/aspect constructions, especially the general imperfective and the stative construction. When combined with the general imperfective aspect, the persistive construction expresses that an event is still ongoing at reference time or still takes place regularly, as exemplified in (97) below. When combined with the stative construction, it indicates that the state or result state of the preceding situation still holds at UT, as in (98). There is also a strong assumption that the event will come to an end at some point in the future.

- (97) *ataál’*                    *ááliɽzwaála*  
a-*táá-li*                    a-*li*-zwáal-a  
1SP-PER-AUX   1SP-IMPF-get\_dressed-FV  
1. ‘S/he is still getting dressed or putting on (a garment)’  
2. ‘S/he still dresses or puts on (the same garment) (regularly)’

- (98) *ataál’*                    *áázwaálilé*  
a-*táá-li*                    a-*ø*-zwáal-*íle*  
1SP-PER-AUX   1SP-PST-get\_dressed-STAT  
‘S/he is still dressed or wearing (a garment)’

The persistive construction, when combined with a verb in the infinitive, negates the continuity of the event, i.e., it indicates that the event has not (yet) started, as in (99). There is also a strong assumption that the event will start at some point in the future.

- (99) *ataál’*                    *óókɔzwaála*  
a-*táá-li*                    *ɔ*-*ku*-zwáal-a  
1SP-PER-AUX   AUG-INF-get\_dressed-FV  
‘S/he has not yet dressed or worn (a garment)’

The persistive construction combined with general imperfective aspect or the stative construction shows different behaviours with verbs from different aspectual classes. See § 4.4 of Chapter 4 for a discussion of this aspect.

## 2.4.6 Stative construction

In Nyamwezi, there are two constructions which involve the suffix *-ile*. As well as with the pre-hodiernal past, discussed in § 2.2.1.3, the suffix *-ile* is used in what I call the stative construction: *-ø-VB-ile*. In Maganga and Schadeberg (1992) (and most of the studies on tense and grammatical aspect) this construction is referred to as perfective aspect. However, as stated in § 2.4, this construction can best be analysed as a stative construction (see also Kanijo, to appear-b). There are two pieces of evidence for analysing *-ø-VB-ile* as a stative construction. The first is that this construction occurs commonly with stative verbs, change-of-state (or achievement) verbs and other verbs which have an entailed (result) state<sup>12</sup> and express a present or continuing state reading, as exemplified in (100), (101) and (102) below.

- (100) *aginilé*  
a-**ø**-gin-**ile**  
1SP-PST-be(come)\_fat-STAT  
'S/he is fat'
- (101) *gaséβilé*  
gá-**ø**-seβ-**ile**  
6SP-PST-boil-STAT  
'It (e.g., the water) is boiled/hot'
- (102) *nhalaanga zishílé*  
nhalaanga zí-**ø**-sh-**ile**  
10NP.peanut 10SP-PST-grind-STAT  
'The peanuts are ground'

Non-stative verbs are generally unacceptable with this construction, as shown in (103) below.

- (103) #*asekilé*  
a-**ø**-sek-**ile**  
1SP-PST-laugh-STAT  
Intended: 'S/he is (in the state of) laughing'

However, it should be noted here that motion verbs with a directional interpretation and a goal (location phrase) such as *-ja* 'go (somewhere)'

---

<sup>12</sup> Analyses of *-ile* as a stative morpheme can be found in other Bantu languages like Totela (K.41) (Crane, 2012b, 2013) and Fwe (K.402) (Gunnink, 2018).

and *-peela* ‘run (to something)’<sup>13</sup> are exceptions to this generalization. With these verbs, the stative construction indicates an ongoing process. This reading is best translated using the progressive aspect in English, as shown in (104) below.

- (104) *apeelilé*                      *kojaa*    *komadóká*  
a- $\emptyset$ -peel-**ile**                      k $\emptyset$ -j-a    k $\emptyset$ -ma-d $\emptyset$ óká  
1SP-PST-run-STAT    INF-go    LOC.17NP-6NP-shop  
‘S/he is running towards the shops’

See § 4.3 of Chapter 4 for a detailed discussion of the interpretation of the stative construction with different verb classes.

The second piece of evidence for analysing *- $\emptyset$ -VB-ile* as a stative construction comes from deverbal adjectives. One of the most common ways of forming deverbal adjectives in Nyamwezi is to attach the suffix *-ú* to a verb, as illustrated in (105) below. As explained in Maganga and Schadeberg (1992, p. 176), this suffix typically derives verbs whose English translation is ‘be X’ or ‘become X’. Most of these verbs are classified as statives or changes-of-state (achievements) in this study, and, as we have seen in examples in (100) and (101), these verbs prototypically occur in the stative construction.

- |       |                            |   |                                |
|-------|----------------------------|---|--------------------------------|
| (105) | <b>Deverbal adjectives</b> |   | <b>Verbs</b>                   |
| a.    | <i>-gmuú</i> ‘thick, fat’  | < | <i>-gma</i> ‘be(come) fat’     |
| b.    | <i>-sebuú</i> ‘boiled/hot’ | < | <i>-seβa</i> (intr.) ‘boil’    |
| c.    | <i>-βozuú</i> ‘rotten’     | < | <i>-βola</i> ‘be(come) rotten’ |
| d.    | <i>-duúhú</i> ‘blunt’      | < | <i>-duúha</i> ‘be(come) blunt’ |

In all these examples, the derivational suffix *-ú* expresses ‘the acquisition of a certain quality/state’. These adjectives, when used attributively, denote the same kind of meaning as their source verbs in the stative construction, as exemplified in (106) below.

- |          |                       |       |                                 |
|----------|-----------------------|-------|---------------------------------|
| (106) a. | <i>mgmuú</i>          | means | <i>agmilé</i>                   |
|          | mu-gin-ú              |       | a- $\emptyset$ -gin- <b>ile</b> |
|          | NCP1-be(come)_fat-ADJ |       | 1SP-PST-be(come)_fat-STAT       |
|          | ‘A fat (woman)’       |       | ‘She (woman) is fat’            |

---

<sup>13</sup> These verbs are referred to as directionals in this study (see § 3.4.1.1).

b. <i>liβozuú</i>	means	<i>liβólilé</i>
li-βoz-ú		lí-ø-βol-íle
NCP5-be(come)_rotten-ADJ		5SP-PST-be(come)_rotten-STAT
‘A rotten (mango)’		‘It (the mango) is rotten’

The tendency for deverbal adjectives to express a reading which is similar to that of the verbs inflected with *-ø-VB-íle* construction is good evidence that this construction should be analysed as a stative construction.

## 2.5 Evidential expressions

Recall from § 1.5.3.2 in Chapter 1 that Nyamwezi, like other Bantu languages, does not have a distinct grammatical marker which indicates evidentiality. As defined in § 1.5.3.2, evidentiality is the linguistic means of encoding the speaker’s source of information for a given statement and his/her attitudes towards the factuality of that information (Chafe & Nichols, 1986). The source of the information might be that the speaker saw the event happen, or heard it, or was told about it by someone else. For example, in Cherokee (an Iroquoian language), the suffix *-aʔi* (exemplified in (107)) is used if the speaker perceived the action or state described by the verb with one of the senses, while *-eʔi*, in (108), covers information acquired in some other way.

(107) *wesa u-tlis-aʔi*  
 cat it-run-FIRSTH\_PST  
 ‘A cat ran’ (I saw it running)

(108) *u-wonis-eʔi*  
 he-speak.NON\_FIRSTH\_PST  
 ‘He spoke’ (someone told me)  
 (Aikhenvald, 2004, pp. 26, 27)

In languages which incorporate evidentiality as a grammatical category (like Cherokee above), evidentiality is often differentiated from tense, aspect and mood (TAM). TAM concerns relationships of events to time and reality, while evidentiality is a category whose primary function is that of indicating the source of the information. However, not every language has a dedicated affix or clitic that indicates evidential source, as shown in (107) and (108) above. In other languages, evidentiality marking is fused with other categories, mostly tense-aspect markers. As discussed in Aikhenvald (2003, 2004), grammatical categories such as the perfect, resultative and past tenses can each acquire a secondary evidential-like meaning. For example, in Georgian, the perfect



(glossed as PERF) can be employed to talk about a past event which the speaker did not himself witness but which he assumes took place based on some present result, as shown in (109).

- (109) *varken-s*      *ianvr-is*      *rva-s*      *p'irvel-ad*  
 Varsken-DAT January-GEN 8-DAT first-ADV  
 ( $\phi$ -)u-c 'am-eb-i-a      *šušanik'-i*  
 (he-)OV-torture-TS-PERF-her Shushanik'-NOM  
 'Varsken apparently first tortured Shushanik on 1st January'  
 (Hewitt, 1995, as cited in Aikhenvald, 2004, p. 113)

Most African/Bantu languages, including Nyamwezi, do not have a distinct grammatical category which indicates evidentiality (see de Haan, 2013)). These languages are similar to Georgian (exemplified above) in which evidentiality is expressed through tense-aspect markers (see e.g., Crane, Hyman, & Tukumu, 2011; Roth, 2018). Nyamwezi (see Kanijo, to appear-a) incorporates a kind of evidentiality system which is similar to that of Ikoma/Nata/Isenya (Bantu, JE.45) (Roth, 2018). In these languages, the evidential meanings come to light, especially, when the temporal readings of two tense-aspect markers overlap. I will illustrate this point in Nyamwezi using the stative grammatical aspect (- $\emptyset$ -VB-*ile*), the hodiernal past tense (-*á*-VB-*ag-a*) and the general imperfective aspect (-*lii*-VB-*a*). In some contexts, these grammatical constructions tend to denote temporal readings that overlap, especially when they are used in stative and/or change-of-state verbs with an entailed result state, such as -*βola* 'be(come) rotten' and -*zwaála* 'get dressed', and some non-stative/change-of-state verbs such as -*ja* 'go' and -*peela* 'run'. For example, as shown in (110) below, both the stative construction and the hodiernal past are used to denote a present state and/or resultative reading. In a resultative reading, the event described in the predicate took place in the past, but its results continue.

- |  |     |  |
|--|-----|--|
| (110) Stative construction                     |     | Hodiernal past   |
| a. <i>azwaálilé</i>                            | < > | <i>waazwaálága</i>   |
| a- $\emptyset$ -zwáal- <b>íle</b>              |     | u- <b>á</b> -zwáal- <b>ag-a</b>  |
| 1SP-PST-get_dressed-STAT                       |     | 1SP-PST-get_dressed-HOD_PST-FV   |
| 'S/he is dressed in or wearing<br>(a garment)' |     | 'S/he is dressed in or wearing (a<br>garment) (Lit. s/he got dressed)' |

b. <i>lβólilé</i>	< >	<i>lyaaβólága</i>
lí- <b>ø</b> -βol- <b>íle</b>		lí- <b>á</b> -βol- <b>ag-a</b>
5SP-PST-be(come)_rotten-STAT		5SP-PST-be(come)_rotten-HOD_PST-FV
‘It (e.g., the mango) is rotten		‘It (e.g., the mango) is rotten’ (Lit. it has become rotten)’

The difference in meaning between the stative construction and the hodiernal past in (110) is attributable to evidential distinctions. That is, the stative construction is generally unacceptable in the context where the speaker has visual access to the occurrence of the event; thus (111) below is infelicitous, and (113) is felicitous. In contrast, the hodiernal past is acceptable whether the speaker has visual access to the event, as in (112), or not, as in (114).

[Context: J tells K that the child (who both J and K see) is wearing a dirty cloth]

(111) Stative construction

<i>#ɣwaaná</i>	<i>ɣonoyo</i>	<i>azwaálilé</i>
mu-ána	mu-noyo	a- <b>ø</b> -zwáal- <b>íle</b>
1NP-child	1ACP-DEM	1SP-PST-get_dressed-STAT
<i>ɣwéndá</i>		<i>gwáá mákoó</i>
mu-énda		gwáá mákoo
3NP-piece_of_clothing	CON	dirt

Intended: ‘This child is wearing a dirty cloth’

(112) Hodiernal past

<i>ɣwaaná</i>	<i>ɣonoyo</i>	<i>waazwaálága</i>
mu-ána	mu-noyo	o- <b>á</b> -zwáal- <b>ag-a</b>
1NP-child	1ACP-DEM	1SP-PST-get_dressed-HOD_PST-FV
<i>ɣweendá</i>		<i>gwáá mákoó</i>
mu-énda		gwáá mákoo
3NP-piece_of_clothing	CON	dirt

‘This child is wearing a dirty cloth’

[Context: J tells K that s/he encountered a child wearing a dirty cloth]

(113) Stative construction

<i>naasáángága</i>		<i>azwaálilé</i>
ná-á-saang-ag-a		a- <del>o</del> -zwáal-íle
1SG-PST-find-HOD_PST-FV		1SP-PST-get_dressed-STAT
<i>ɲwééndá</i>		<i>gwáá mákoo</i>
mu-énda		gwáá mákoo
3NP-piece_of_clothing	CON	dirt

‘I found her/him wearing a dirty cloth’

(114) Hodiernal past

<i>naasáángága</i>		<i>waazwaálága</i>
ná-á-saang-ag-a		o-á-zwáal-ag-a
1SG-PST-find-HOD_PST-FV		1SP-PST-get_dressed-HOD_PST-FV
<i>ɲweéndá</i>		<i>gwáá mákoo</i>
mu-énda		gwáá mákoo
3NP-piece_of_clothing	CON	dirt

‘I found (encountered) her/him wearing a dirty cloth’

Apart from the stative construction and the hodiernal past, the stative construction and the general imperfective may also denote temporal readings that overlap. This is exemplified in (115) below, using the non-stative or change-of-state verbs *-ja* ‘go’ and *-peela* ‘run’. In these verbs, the stative construction and the general imperfective can be used to refer to an event which is generally conceived as being in progress at the time of speaking.

(115) Stative construction

a. <i>aziilé</i>	< >	General imperfective
a- <del>o</del> -j-íle		<i>aluja</i>
1SP-PST-go-STAT		a-lu-j-a
‘S/he is going home’		1SP-IMPF-go-FV
		‘S/he is going home’
b. <i>apeelilé</i>	< >	<i>alupeela</i>
a- <del>o</del> -peel-íle		a-lu-peel-a
1SP-PST-run-STAT		1SP-IMPF-run-FV
‘S/he is running		‘S/he is running
(e.g., towards the shops)’		(towards the shops)’

The difference in meaning between the two constructions is that the stative construction (as in (113)) is only used in contexts where the speaker refers to an

event to which s/he does not have visual access, as in (116); thus, (118) is unacceptable. In contrast, the general imperfective construction does not require a specific context. It can be used in both visual and non-visual contexts, as shown in (117) and (118), respectively.

[Context: The speaker is outside the house and cannot see (or hear the footsteps of) the person who said s/he is going inside the house to switch off the light. The speaker then reports:]

(116) Stative construction

<i>aziilé</i>	<i>kokazimá</i>	<i>tála</i>
a- <b>ø</b> -j- <b>íle</b>	ku-ka-zím-á	tála
1SP-PST-go-STAT	INF-IT-extinguish-FV	9NP.lamp

‘S/he is going to switch off the light.’

(117) General imperfective

<i>aliija</i>	<i>kokazimá</i>	<i>tála</i>
a- <b>li</b> -j-a	ku-ka-zím-á	tála
1SP-IMPV-go-FV	INF-IT-extinguish-FV	9NP.lamp

‘S/he is going to switch off the light.’

[Context: The speaker is sitting on the couch. Suddenly, s/he sees a child who is walking towards a light switch.]

(118) Stative construction

<i>#lolagáa!</i>	<i>aziilé</i>	<i>kokazimá</i>	<i>tála</i>
lol-ag-a	a- <b>ø</b> -j- <b>íle</b>	ku-ka-zím-á	tála
look-IMP-FV	1SP-PST-go-STAT	INF-IT-extinguish-FV	9NP.lamp

Intended: ‘(You.sg) look! S/he is going to switch off the light.’

(119) General imperfective

<i>lolagáa!</i>	<i>aliija</i>	<i>kokazimá</i>	<i>tála</i>
lol-ag-a	a- <b>li</b> -j-a	ku-ka-zím-á	tála
look-IMP-FV	1SP-IMPV-go-FV	INF-IT-extinguish-FV	9NP.lamp

‘(You.sg) Look! S/he is going to switch off the light.’

In Bantu languages, the use of the stative construction to refer to non-eyewitness events is also noted in Sukuma (Bantu, F.21) (see Nurse, 2008, p. 166), a closely related language to Nyamwezi and Ikoma/Nata/Isenya (see Roth, 2018, p. 89). In these languages, the stative construction is analysed as perfect(ive) aspect.

Before closing this section, it is important to note that the difference in acceptability between the stative construction and the hodiernal past or general imperfective, when their temporal readings overlap, can also be attributed to epistemic differences. The use of the stative construction indicates doubt about the assertion, while the hodiernal past and general imperfective indicate the factuality of the assertion. Evidence for this comes from the way these constructions interact with constructions containing *gíti* ‘as (if), like’. This word is used if the speaker is uncertain about the truth of the assertion (or when making a statement about probability). It generally sounds odd with the hodiernal past, as exemplified in (120), and with the general imperfective, as in (122), but is fine with the stative construction, as in (121). This means that there is a close connection between the meaning of *gíti* ‘as (if), like’ and the stative construction, as they both indicate that the speaker’s confidence in the expressed proposition is uncertain. Thus they can co-occur. Since the hodiernal past and general imperfective are employed when the speaker is certain about the factuality (truth) of assertion, they sound odd with *gíti* ‘as (if), like’.

(120) Stative construction

<i>gíti</i>	<i>azwaálílé</i>		<i>ɲwééndá</i>
<i>gíti</i>	<b>a-ø-zwáal-íle</b>		mu-énda
like	1SP-PST-get_dressed-STAT		3NP-piece_of_clothing
	<i>gwáápé</i>		
	gɔ-a-pé		
	3ACP-ø-white		
	‘S/he looks as if s/he is wearing a white cloth’		

(121) Hodiernal past

# <i>gíti</i>	<i>waazwaálága</i>		<i>ɲwééndá</i>
<i>gíti</i>	<b>ɔ-á-zwáal-ag-a</b>		mu-énda
like	1SP-PST-get_dressed-HOD_PST-FV		3NP-piece_of_clothing
	<i>gwáápé</i>		
	gɔ-a-pé		
	3ACP-ø-white		
	‘S/he looks as if s/he is wearing a white cloth’		

(122) Hodiernal past

# <i>gíti</i>	<i>alɲja</i>	<i>kokazimá</i>	<i>tála</i>
<i>gíti</i>	<b>a-lɲ-j-a</b>	kɔ-ka-zím-á	tála
like	1SP-IMPF-go-FV	INF-IT-extinguish-FV	9NP.lamp
	‘S/he looks as if s/he is going to switch off the light’		

## 2.6 Mood marking in Nyamwezi

This section gives a brief overview of various inflectional markers of mood which occur in many of the examples used in this study. As such, it is pertinent to define them, albeit briefly.

Nyamwezi, like other Bantu languages, has inflectional markers which indicate mood. These markers, as defined by Nurse (2008, p. 44), represent the speaker's attitude towards the status or factuality of the utterance. There are four markers indicating mood in Nyamwezi. Following Maganga and Schadeberg (1992), these markers are named optative, hortative, habitual (HAB) hortative, and imperative, and are exemplified in TABLE 18 below. The optative mood is generally used to express hopes and wishes. In contrast, the hortative mood is used to express more urgent requests and/or polite or softened commands. Habitual hortative, as the term suggests, expresses that 'X should be done continuously'. Lastly, the imperative mood expresses commands.

Table 18: Mood markers in Nyamwezi

	SP	TAM	Root or VB	TAM	TAM/FV	example
Optative	a		mal		(e)é	<i>a-mál-eé</i> 'May s/he finish!'
Hortative	a		mal	ag	(e)é	<i>a-mál-ag-eé</i> 'S/he should finish!'
HAB hortative	a	laa	mal	ag	é	<i>a-laa-mal-ag-é</i> 'S/he should always finish!'
Imperative			mal	ag	á	<i>mal-ag-á</i> '(You.sg) finish (it)!'

## 2.7 Negation of affirmative constructions in Nyamwezi

Before presenting a summary of the main points of this chapter, it is worth describing the formative used to negate affirmative constructions in Nyamwezi. The description of this formative is given in the following paragraphs.

In Nyamwezi, negation is marked using the prefix *-ká-*, which may also be realized as *-kó-*. In some constructions, this formative replaces the TAM marker in the pre-VB position while in others it co-occurs with a TAM marker. Another complexity involving the negative prefix *-ká-* is that in some constructions it either changes the formative of the final suffix, or adds a new formative which is absent in the affirmative construction. (123) below gives an overview of negative

constructions with their affirmative counterparts. (124) presents cases of syncretism. In these cases, a single negative construction is shared by more than one affirmative construction. TAM constructions that are not listed in (123) and (124) below either lack negative constructions or their negation is expressed periphrastically.

(123) Affirmative and negative constructions

	<i>Affirmative</i>	<i>Negative</i>
Habitual	- <i>ku</i> -VB- <i>ag-a</i>	- <i>ká</i> -VB- <i>ag-a</i>
General imperfective	- <i>li</i> -VB- <i>a</i>	- <i>kó+u</i> -VB- <i>ag-a</i>
Post-hodiernal future	- <i>laa</i> -VB- <i>é</i>	- <i>ká-laa</i> -VB- <i>é</i>
Hodiernal future	- <i>ku</i> -VB- <i>a</i>	- <i>kó+u</i> -VB- <i>a</i>
Hortative	-VB- <i>ag-(e)é</i>	- <i>ka-a</i> -VB- <i>ag-é</i>

(124) Syncretism in negation

	<i>Affirmative</i>	<i>Negative</i>
Immediate past	- <i>á</i> -VB- <i>a</i>	- <i>ká</i> -VB- <i>ile</i>
Hodiernal past	- <i>á</i> -VB- <i>ag-a</i>	- <i>ká</i> -VB- <i>ile</i>
Pre-hodiernal past	- <i>á</i> -VB- <i>ile</i>	- <i>ká</i> -VB- <i>ile</i>
Remote past	- <i>a</i> -VB- <i>á</i>	- <i>ká</i> -VB- <i>ile</i>
Narrative	- <i>ká</i> -VB- <i>a</i>	- <i>ká</i> -VB- <i>ile</i>
Stativizer	-VB- <i>ile</i>	- <i>ká</i> -VB- <i>ile</i>
	<i>Affirmative</i>	<i>Negative</i>
Optative	-VB- <i>(e)é</i>	- <i>ka-a</i> -VB- <i>é</i>
Imperative	-VB- <i>ag-á</i>	- <i>ka-a</i> -VB- <i>é</i>

Examples illustrating each of the negative constructions in (123) and (124) are given in the following paragraphs. As shown in (123) above, in the habitual construction the negative prefix *-ká-* replaces the TAM marker *-ku-* in the pre-VB position, and maintains the TAM marker *-ag-* and the final suffix *-a* in the post-VB position. This is exemplified in (125) below.

	<i>Affirmative constructions</i>	<i>Negative constructions</i>
(125)	<i>akonipaága</i>	<i>akanipaága</i>
	<i>u-ku-ni-p-ag-aá</i>	<i>a-ká-ni-p-ag-aá</i>
	1SP-HAB-OP1SG-give-HAB-FV	1SP-NEG-OP1SG-give-TAM-FV
	‘S/he always give me (something)’	‘S/he always doesn’t give me (anything)’

As shown in (123), in the general imperfective construction, the negative *-ká-* is realized as *kó*. This formative co-occurs with the TAM marker *-u-* in the pre-VB position. Like the habitual construction, the negative of the general imperfective construction takes the TAM marker *-ag-* in the post-VB position and retains the final suffix *-a*. An example illustrating negation of the general imperfective construction is given in (126).

<i>Affirmative constructions</i>	<i>Negative constructions</i>
(126) <i>alunipaá</i>	<i>akóonipaága</i>
u-lu-ni-p-aá	a-ká-u-ni-p-ag-aá
1SP-IMPV-OP1SG-give-FV	1SP-NEG-TAM-OP1SG-give-TAM-FV
‘S/he is giving me (something right now)’	‘S/he is not giving me (something right now)’ or ‘S/he never gives me (anything)’

As shown in (123), in the post-hodiernal future, hodiernal future and hortative constructions, the negative *-ká-* co-occurs with the TAM markers in the pre-VB position, as also exemplified in (127), (128) and (129). In a hodiernal future tense construction, the negative *-ká-* is realized as *-kó-* and the hodiernal future tense marker *-ku-* is realized as *-u-*.

<i>Affirmative constructions</i>	<i>Negative constructions</i>
(127) <i>alaanipeé</i>	<i>akáalaanipeé</i>
u-laa-ni-p-éé	a-ká-laa-ni-p-eé
1SP-POSTHOD-OP1SG-give-FV	1SP-NEG-POSTHOD-OP1SG-give-FV
‘S/he will give me (something tomorrow or later)’	‘S/he will not give me (anything) tomorrow or later)’
(128) <i>akonipa</i>	<i>akóonipaá</i>
a-ko-ni-p-a	a-ko-ko-ni-p-aá
1SP-HOD_FUT-OP1SG-give-FV	1SP-NEG-HOD_FUT-OP1SG-give-FV
‘S/he will give me (something)’	‘S/he will not give me (anything)’
(129) <i>anipaágé</i>	<i>akaanipaágé</i>
a-ni-p-ag-é	a-ká-a-ni-p-ag-é
1SP-OP1SG-give-HORT-FV	1SP-NEG-TAM-OP1SG-give-HORT-FV
S/he should give me (something)’	‘S/he shouldn’t give me anything)’

As shown in (124), in all past tense construction, the negative *-ká-* appears together with the suffix *-ile*. The negative *-ká-* replaces the TAM markers in the pre-VB position, while the suffix *-ile* replaces the TAM markers in the post-VB



position. Examples illustrating the negation of the affirmative past tense constructions are given in (130) and (131) below, using the immediate past (130) and hodiernal past (131) constructions.

	<i>Affirmative constructions</i>	<i>Negative constructions</i>
(130)	<i>waanípa</i> ɔ-á-ni-p-a 1SP-PST-OP1SG-give-IMM_PST ‘S/he has just given me (something)’	<i>akanípile</i> a-ká-ni-p-íle 1SP-NEG-OP1SG-give-FV ‘S/he hasn’t given me (anything)’
(131)	<i>waanípaaga</i> ɔ-á-ni-p-ag-a 1SP-PST-OP1SG-give-HOD_PST-FV ‘S/he gave me (something earlier today or a short while ago)’	<i>akanípile</i> a-ká-ni-p-íle 1SP-NEG-OP1SG-give-FV ‘S/he didn’t give me (anything earlier today or a short while ago)’

Both optative and imperative constructions are negated in the same way, as exemplified in (132) and (133) below. In these constructions, the negative prefix *-ká-* occurs with the TAM marker in the pre-VB position, although the affirmative constructions do not have the pre-VB TAM marker. Note that in the imperative construction (133), the imperative formative *-ag-* of the affirmative construction does not appear in the negative imperative.

	<i>Affirmative constructions</i>	<i>Negative constructions</i>
(132)	<i>anípeé</i> a-ni-p-eé 1SP-OP1SG-give-OPT ‘May s/he give me (something)’	<i>akaanípeé</i> a-ká-a-ni-p-eé 1SP-NEG-TAM-OP1SG-give-OPT ‘May s/he not give me (anything)’
(133)	<i>nípaágé</i> ni-p-aag-é 1SP-OP1SG-give-IMP-FV ‘(You.SG) give me (something)’	<i>okáanípeé</i> ó-ká-a-ni-p-eé 2SG-NEG-TAM-OP1SG-give-FV ‘(You.SG) don’t give me (anything)’

## 2.8 Summary

This chapter provided an overview of the tense, aspect and mood categories of Nyamwezi. The tense categories describe when an event happens in relation to the time of utterance (UT), i.e., whether it happens before the UT (past tense) or after the UT (future tense)? In contrast, aspectual categories describe how an

event can be viewed in relation to time. For example, can it be viewed as (still) ongoing (imperfective aspect) or completed (perfective aspect)? Or can it be viewed as a repeating event (habitual aspect) or did it happen just once? The description of aspectual categories show that Nyamwezi does not make a clear distinction between past tense and perfective aspect. In this language, past tense markers can also be used to express perfective aspect. Mood categories, in contrast to tense and aspect, represent the speaker's attitude towards the status of the utterance, i.e., whether the utterance expresses hopes/wishes (optative mood), urgent requests (hortative mood), commands (imperative mood) or habitual requests (habitual hortative).

This chapter has also discussed the way tense and aspect markers can be used to express evidentiality, and has described narrative and negative constructions in Nyamwezi. The description of the negative constructions in this language shows that the relationship between affirmative and negative formatives is generally not a straightforward one.

In the next chapters, especially Chapters 4 and 6, most of the TAM markers described in this chapter will be employed as diagnostic tests for determining differences encoded in the meaning of the verb.



## **3 Aspectual classification of verbs in Nyamwezi**

### **3.1 Introduction**

This chapter introduces the analysis of verbs in Nyamwezi in terms of their aspectual classification. Analyses of aspectual classes are many and varied. Some analyses (e.g., Vendler, 1967) adopt a framework which defines aspectual classes using three binary semantic features: dynamic vs. stative, punctual vs. durative, and telic vs. atelic (or bounded vs. unbounded). Others (e.g., Botne & Kershner, 2000) adopt a framework in which aspectual classes are defined (or distinguished) using a combination of binary semantic features and three types of temporal phases (an initial phase, a middle phase and a final phase). This study adopts the second type of framework to distinguish Nyamwezi aspectual classes. Before embarking on the description of these classes, I will provide an overview of the approach that defines aspectual classes using only binary semantic features, and explain why this framework is insufficient for characterizing event structures of verbs in Bantu languages in general and Nyamwezi in particular (§ 3.2). Then, in § 3.3, I will discuss the theoretical framework adopted in this study (that of Botne & Kershner, 2000), and show how this framework is better suited for the analysis of Nyamwezi aspectual classes. The description of Nyamwezi aspectual classes (with examples) is given in § 3.4. Linguistic diagnostic tests that will be used to determine the differences between these classes are presented in § 3.5. The chapter ends with a brief summary of the main points (§ 3.6).

### **3.2 An analysis of aspectual classes using binary semantic features**

#### **3.2.1 Vendler's aspectual classification**

For the last 35 years, Vendler's (1967) aspectual classification has been one of the most influential theories in the study of lexical aspect, especially in English. In Vendler's analysis, aspectual classes of English are categorized into four classes: STATIVES (e.g., *know* and *love*), ACTIVITIES (e.g., *run*), ACHIEVEMENTS (e.g., *win the race*), and ACCOMPLISHMENTS (e.g., *draw a*

*circle*). Further examples of verbs in these classes are given in (134) below from Dowty (1979, pp. 54; 66–69).

(134) <b>States</b>	<b>Activities</b>	<b>Achievements</b>	<b>Accomplishments</b>
<i>believe</i>	<i>walk</i>	<i>notice/spot</i>	<i>make a chair</i>
<i>understand</i>	<i>swim</i>	<i>find/lose</i>	<i>build a house</i>
<i>be happy</i>	<i>push a cart</i>	<i>reach</i>	<i>paint a picture</i>
<i>desire</i>	<i>drive a car</i>	<i>die</i>	<i>recover from illness</i>
<i>resemble</i>	<i>cry</i>	<i>cool/warm</i>	<i>dig a hole</i>
<i>hear</i>	<i>dance</i>	<i>fall asleep</i>	<i>eat a sandwich</i>
<i>want</i>	<i>vibrate</i>	<i>become fat</i>	<i>destroy</i>

Vendler’s classes are generally defined or distinguished based on three binary semantic features: dynamicity or stativity, punctuality or durativity and telicity or boundedness, as shown in (135) below (See also Smith (1991, 1997), Kearns (2000) and Rothstein (2004)).

(135)	<b>Dynamic</b>	<b>Punctuality</b>	<b>Telicity</b>
States	–	–	–
Activities	+	–	–
Achievements	+	+	+
Accomplishments	+	–	+

Adapted from Kearns (2000, p. 204) (see also Smith, 1991, p. 20)

As shown above, dynamicity distinguishes dynamic events, which contain internal changes from one moment of time to another, from non-dynamic (or static) events, which are unchanging from moment to moment. Punctuality distinguishes durative events, which last for some time, from punctual (or non-durative) events, which do not take more than a moment in time. Telicity (also called boundedness) distinguishes between telic or bounded events, which are “completed” or have a natural finishing point, from atelic or unbounded events, which do not have an inherent natural finishing point.

Apart from these semantic features, Vendler’s classes are typically diagnosed based on their interactions with temporal modifiers, and with tense and aspect. Some examples of these tests are given in (136) below, from Dowty (1979, p. 60).

- (136) a. Occurs with *in X* time adverbial (i.e., *take X* time to V)  
 b. Occurs with *for X time* adverbial (i.e., *spend X* time V-ing)  
 c. Occurs with the progressive

- d. Occurs with *almost*
- e. The progressive entailment test
- f. Occurs as the complement of *stop/finish*

The *in X time* and *for X time* adverbials are used to distinguish statives and activities (atelic verbs) from accomplishments and achievements (telic verbs). As shown in (137a–b) below, statives and activities are generally acceptable with *for X time*, but not *in X time*. In contrast, achievements and accomplishments are generally acceptable with *in X time*, but not *for X time*, as shown in (137c–d). All examples below are from Walková (2012, p. 502).

- (137) a. John loved Mary *for/in* two years (stative)  
 b. John walked *for/?in* an hour (activity)<sup>14</sup>  
 c. John painted a picture *in/?for* an hour (accomplishment)  
 d. John noticed the painting *in/?for* a few minutes (achievement)

The progressive aspect is used to distinguish activities and accomplishments from statives and achievements. As shown in (138a–b) below, activities and accomplishments are acceptable with the progressive, whereas statives and achievements are not, as in (138c–d). Statives are unacceptable with the progressive because they describe events that do not contain internal changes (they are non-dynamic). Achievements are unacceptable with the progressive due to their punctual/non-durative nature. All examples below are from Walková (2012, p. 501).

- (138) a. John is running (activity)  
 b. John is building a house (accomplishment)  
 c. #John is knowing the answer (stative)  
 d. ?John is noticing a stranger (achievement)

The *almost* test distinguishes accomplishments from the other aspectual classes. As shown in (139) below, only accomplishments are ambiguous with *almost*, i.e., they either mean that the event did not occur at all (as in other classes) or the event occurred but did not reach completion. All examples below are from Walková (2012, p. 502).

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<sup>14</sup> *John walked in an hour* is acceptable if it is interpreted as an accomplishment verb (something like ‘John walked his usual route in an hour’) but not as an activity verb.

- (139) a. John almost loved Mary MEANS he did not love her (stative)  
 b. John almost walked MEANS he did not walk (activity)  
 c. John almost painted a picture MEANS (i) he did not paint at all, or (ii), he painted but did not finish (accomplishment)  
 d. John almost noticed the painting MEANS he did not notice the painting (achievement)

The progressive entailment test distinguishes activities from accomplishments. As shown in the examples in (140) below, from Kearns (2000, p. 216), in activities (140a), the progressive entails that the event reached its endpoint, but this entailment is not available in accomplishments, as shown in (140b). Statives and achievements generally do not allow the progressive; thus, their occurrence with the entailment test is unacceptable.

- (140) a. John was walking in the park ENTAILS John walked in the park  
 b. John was building a house DOES NOT ENTAIL John built a house

Accomplishments are the only class of verbs which encode both a duration and an endpoint. As such, only accomplishments can occur as the complement of *finish*. All other classes are infelicitous with *finish*. This is exemplified in (141) below, citing Walková (2012, p. 502).

- (141) a. John finished painting a picture (Accomplishment)  
 b. #John finished loving Mary (Stative)  
 c. #John finished walking (Activity)  
 d. #John finished noting the painting (Achievement)

The aspectualizer or phasal verb *stop*, like the progressive, requires its complement to have duration. Thus, it is not acceptable with achievements. This is illustrated in (142) below, citing examples from Walková (2012, p. 502).

- (142) a. John stopped loving Mary  
 b. John stopped walking  
 c. John stopped painting the picture  
 e. #John stopped noticing the painting

Most subsequent work on aspectology has modified Vendler's classes by adding other classes. For example, Smith (1991, 1997) adds a class of SEMELFACTIVES (e.g., *hit*, *hop* and *wink*), which resemble accomplishments and achievements in being bounded. Semelfactives, unlike these classes, are non-dynamic, i.e., they do not describe minimal moments of change between one state of affairs and another. Semelfactives also resemble achievements in describing events that are

punctual.<sup>15</sup> Other works on aspectology have subclassified some of Vendler's classes further. For example, Kratzer (1995) and Olsen (1994, 1997) distinguish between INDIVIDUAL-LEVEL statives (such as *be tall* and *contain*) and STAGE-LEVEL (such as *be sick* and *be available*). The distinction between the two classes is that the former denotes permanent states and the latter temporary states. Other works have reduced the number of Vendler's classes, for example; Dowty (1986) makes no distinction between achievements and accomplishments. He refutes the distinction that achievements are punctual and accomplishments are durative based on the fact that criteria that are used to distinguish these classes do not systematically show this distinction. For example, the progressive test is a typical test used to distinguish achievements from accomplishments, as shown in (138) above. That is, achievements are said to be incompatible with the progressive, whereas accomplishments are compatible. However, there are cases where the progressive can also occur with achievements, as shown in (143) below (from Kearns, 2000, p. 217).

- (143) a. John was dying when the doctor arrived  
b. Jones was winning for the first three laps  
c. Flight 34 is now arriving at Gate 19

### 3.2.2 Problematizing Vendler's aspectual classification

In general, Vendler's analysis and the analyses given in neo-Vendlerian work such as that of Dowty (1979, 1986) and Smith (1991, 1997) view aspectual classes as a sort of calculus, defined by contrasting binary features such as [ $\pm$  dynamic], [ $\pm$  punctual], [ $\pm$  telic], etc. These features are usually taken as primitives of the theory. Furthermore, as noted in Tatevosov (2002, p. 322), there is a common assumption that the notions on which Vendler's classes are based are universal (see e.g., Chelliah & de Reuse, 2011). As such, they are not subject to cross-linguistic variation. If this were the case, one would expect that in every language the verbs would fall into the Vendlerian classes as established for English. But, in fact, this is not the case. Johanson (1996, p. 173) has identified one case in which languages such as English and Turkic languages differ. Turkic languages have many so-called two-phase verbs, i.e., verbs which refer to both a change-of-state and a result state of that change, e.g., 'come to sleep' + 'sleep', while English has almost no such verbs. Ebert (1995) has noted a similar observation in a number of Asian languages. The same observation has also been

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<sup>15</sup> Note that semelfactives can be interpreted as durative verbs, in which case a single event such as *hit* can be interpreted as denoting a series of repeated events (as in *The baby hit the tabletop* (repeatedly)).



made in many of the recent works on lexical aspect in Bantu languages (e.g., Botne, 2003, 2008, 2010; Botne & Kershner, 2000; Crane & Fleisch, forthcoming; Gunnink, 2018; Kershner, 2002; Lusekelo, 2016; Persohn, 2017a, 2017b; Seidel, 2008, among others). In these languages, most of the two-phase verbs, also referred to as inchoatives (Botne & Kershner, 2000) or changes-of-state (Botne & Kershner, 2008; Crane, 2011; Crane & Fleisch, forthcoming), are analysed as events which encode a coming-to-be phase (e.g., get angry) and resultant state phase (being angry). These verbs are interpreted as ongoing states when inflected with the present tense or imperfective aspectual morphology and as present states when inflected with the perfect(ive) aspect. This distinction is illustrated by the isiNdebele (Bantu, S.44) examples in (144a) and (144b), from Crane and Fleisch (forthcoming) (glosses adapted).

(144) isiNdebele (Bantu, S.44; Crane & Fleisch, forthcoming)

a. *ngi-ya-kwat-a*

1SG-**IMPF**-get\_angry-FV

‘I am getting angry’ (ongoing state)

b. *ngi-kwat-ile*

1SG-get\_angry-**PFV**

‘I am angry’ (present state)

In Bantu languages, some of the two-phase verbs (e.g., *love*) do not lexically encode a coming-to-be phase leading up to the state change. When used with imperfective or present tense, such verbs are interpreted as indicating a future or habitual reading, as exemplified in (145) below from Nyakyusa (Bantu, M.31). Examples are cited from Persohn (2017b, p. 132) (glosses adapted).

(145) Nyakyusa (Bantu, M.31; Persohn, 2017b)

*i-ko-hobok-a*

1SP-**PRS**-be(come)-happy-FV

1. ‘S/he will become happy’

2. ‘S/he becomes happy (e.g., on each particular occasion)’

The fact that present tense or imperfective aspectual morphology denotes an ongoing state reading and perfect(ive) aspect denotes a present state reading in isiNdebele (as also found in other studies on lexical aspect in Bantu languages) is generally taken as a piece of evidence that change-of-state or inchoative verbs such as *get angry* in (144) above encode two phases: a coming-to-be and a result state. Those in which the imperfective aspect denotes a future or habitual reading,

such as *be(come) happy* in the Nyakyusa data in (145), are regarded as verbs which lack a coming-to-be phase.

As Dowty (1979, p. 88) and Hay, Kennedy, and Levin (1999, p. 127) have shown, it is problematic to define two-phase verbs using only binary semantic features. I will illustrate this point using the Nyamwezi verb *-gma* ‘be(come) fat’ (which is equivalent to *-kwata* ‘get angry’ in isiNdebele). This verb displays both telic and atelic interpretations. In the telic sense, this verb denotes a single transition to an end state (be fat) which is defined only by comparison to the prior state (become fat). In the atelic sense, the verb denotes a durative event which is defined by either the prior state (become fat) or the end state (be fat). That is, each of the senses of *-gma* indicates a separate process: “become fat” indicates part of an unbounded process and “being fat” indicates part of a culminated process (someone can be fat and still be getting fat(ter)). The point of change from one state to another is subjectively defined by the speaker.

Binary semantic features generally work well if they are used to define verbs which encode “simple” events. By simple events, I mean those which do not encode more than one phase, such as activity verbs (*sing* in English), which encode only process, and stative verbs (*know* in English), which encode only a state. As noted in Crane and Fleisch (forthcoming), for verbs which encode more than one phase, binary semantic features cannot be used to define an eventuality as a whole; instead, they can be used to define a particular phase. For example, in a verb such as *-gma*, which encodes a coming-to-be phase, ‘become fat’, and a result state phase, ‘be fat’, binary semantic features, say dynamicity, can be used to determine which of the two phases is dynamic and which is non-dynamic. In *-gma*, both phases, the coming-to-be and the result state, are dynamic. Evidence for this comes from the interpretation of this verb with the general imperfective aspect, which can either modify the coming-to-be phase or the result state phase, as shown in (146) below.

(146) *alugma*

a-III-gm-a

1SP-IMPF-be(come)\_fat-FV

1. ‘She is getting fat (i.e., s/he has not reached the point where the speaker thinks s/he is fat)’ (coming-to-be reading)
2. ‘S/he is getting fatter’ (i.e., s/he is already fat and still getting fatter)’ (result state reading)

A verb such as *-zwaála* ‘get dressed’ resembles *-gma* ‘be(come) fat’ in encoding a coming-to-be phase (getting dressed) and a result state phase (being dressed). Unlike *-gma*, where both phases are dynamic, in *-zwaála* only the coming-to-be

phase is dynamic<sup>16</sup>. The result state phase is non-dynamic. Evidence for this comes from the interpretation of this verb with the general imperfective aspect, which only modifies the coming-to-be phase, as exemplified in (147) below.

- (147) *ahizwaála*  
a-**h**-zwáal-a  
1SP-IMPf-get\_dressed-FV  
'S/he is getting dressed or putting on (a garment)'

In conclusion, the three semantic features dynamicity, punctuality and telicity are insufficient to classify the aspectual classes of verbs without considering the phases encoded by these verbs. This is because a single verb may encode more than one phase, and each of the two phases may denote different internal structures (i.e., dynamic/non-dynamic or punctual/durative). This is why, in most studies on lexical aspect in Bantu languages (e.g., Botne, 2003, 2008; Botne & Kershner, 2000; Crane, 2011, 2013; Crane & Fleisch, forthcoming; Kershner, 2002; Persohn, 2017a, 2017b), both phases and binary semantic features have been considered necessary in defining aspectual classes of verbs. In Bantu languages, a framework which combines both phases and binary semantic features to classify verb classes has been developed by Botne and Kershner (2000)<sup>17</sup>. This framework is discussed in the following section, and it has been used in the present study to classify verbs into different aspectual classes.

### 3.3 Phasal analysis of aspect

#### 3.3.1 Botne and Kershner's model

Botne and Kershner (2000), following Freed (1979), propose a framework which defines aspectual classes of verbs based on a model that takes into account three potential phases of an event: an initial inceptive phase (named onset), a middle phase (called nucleus) and a final phase (coda)<sup>18</sup>. This model is schematically shown in FIGURE 6 below.

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<sup>16</sup> Note that *-gma* 'be(come) fat' also differs from *-zwaála* 'get dressed' in encoding a phase which denotes a point of change from one state to another. The different phases encoded by these verbs are named differently (see § 3.4.2.1 and 3.4.1.2).

<sup>17</sup> See Sasse (2002, pp. 222–225) and Croft (2012, pp. 48–52) for detailed discussions of other similar frameworks.

<sup>18</sup> These three phases are akin to the components of syllable structure.

Onset (O)	Nucleus (N)	Coda (C)
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Figure 6: Phase representation

In this model, the nuclear phase constitutes the characteristic and prominent feature of the event. The onset phase is a coming-to-be phase. The coda phase denotes a state of being resulting from the occurrence of the event (sometimes this phase is therefore referred to as a result(ant) state phase (see Persohn, 2017b)). All aspectual classes have a nuclear phase. The onset and coda phases are optional: they may or may not be lexically encoded by every aspectual class. In this regard, verbs are classified based on whether they encode an onset phase and/or coda phase, and also based on the semantic characteristics of the encoded phases (i.e., whether these phases are durative or punctual). Based on this framework, Botne and Kershner (2000) differentiate between inchoative verbs (Vendler’s achievements) and non-inchoative verbs (Vendler’s activities, accomplishments and statives) in Zulu (Bantu, S.42). These classes differ primarily in how they treat an event nucleus, i.e., non-inchoatives (such as *-sebenza* ‘work’) have a durative (or extended) nucleus and optional onset and coda phases, whereas inchoatives (such as *-guga* ‘become cold’) have a punctual nucleus and an obligatory coda phase (result state). The difference in event/phasic structure (modified from Botne and Kershner) is represented in FIGURE 7 and FIGURE 8 below: Durativity is indicated by placing the N under the column, as in FIGURE 7, and punctuality by placing the N under the line that separates columns, as in FIGURE 8. Parentheses indicate optionality.

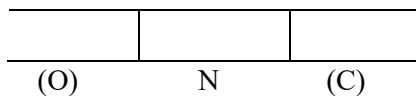


Figure 7: The phasic structure of inchoatives

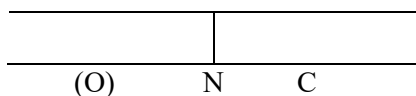


Figure 8: The phasic structure of non-inchoatives

Using this framework, Botne (2003, 2008, 2010) subclassifies Vendlerian achievements into four classes: acute, inceptive, transitional, and resultative. All the classes are similar in that they encode a punctual nucleus that denotes a change of state. They differ from one another in whether or not they encode an onset and/or coda phase, as shown in (148) below. Examples of verbs in each of

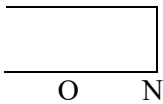
these classes are taken from Botne's (2008) analysis of Ndali (Bantu, M.301) verbs.

(148) Ndali (Bantu, M.301; Botne, 2008)

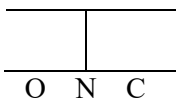
- a. Acute: punctual nucleus alone  
 Examples: *-cheetwa* 'be late' and *-fika* 'arrive'



- b. Inceptive: durative onset plus punctual nucleus  
 Example: *-pola* 'heal (intr.)'



- c. Transitional: durative onset, punctual nucleus plus coda  
 Example: *-fwa* 'die'



- d. Resultative: punctual nucleus plus coda  
 Example: *-hoboka* 'be happy'

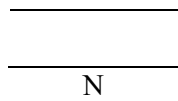


Based on the same framework, Botne (2008) defines Vendlerian activities as an aspectual class which encodes only a durative nuclear phase, whereas accomplishments encode a durative nuclear phase and coda phase. In his analysis, he distinguishes two types of accomplishments: simple and transitional accomplishments. The two types differ in that the former encodes a punctual coda phase (a point of culmination) while the latter encodes a durative coda phase (a point of culmination plus result state). In Botne's approach, Vendlerian statives are analysed as not possessing any internal structure (i.e., they lack phasal structure). The schematic representations of Ndali (Bantu, M.301) verbs in these classes are given in (149) below.

(149) Ndali (Bantu, M.301; Botne, 2008)

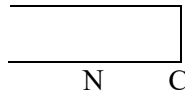
a. Activity: durative nucleus alone

Example: *-lima* ‘cultivate, hoe’ or *-kama* ‘milk’



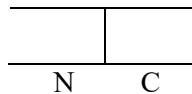
b. Simple accomplishment: durative nucleus plus punctual coda

Example: *-pota* ‘defeat’



c. Transitional accomplishment: durative nucleus plus durative coda

Example: *-fwaala* ‘dress’ or *-fuula* ‘undressed’



d. Stative: structureless

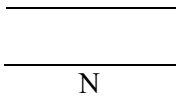
Example: *-gona* ‘love’

Other analyses of aspectual classes in Bantu languages that have adopted Botne and Kershner’s framework include Kershner (2002) for Sukwa (Bantu, M.20), Seidel (2008) for Yeyi (Bantu, R.41), Crane (2011, 2013) for Totela (Bantu K.41), Lusekelo (2016) for Swahili (Bantu G.42), Persohn (2017b) for Nyakyusa (Bantu, M.31) and Gunnink (2018) for Fwe (Bantu, K.402). In most of these studies, the classes of verbs described are very similar to those described in Botne’s works. However, some of these studies have either modified Botne’s classes by subdividing some of the classes further, or by reducing/reinterpreting the classes. For example, in Kershner’s (2002) analysis of Sukwa, verbs with a phasal structure like that of activities (these verbs are referred to as duratives in Kershner’s analysis) are further distinguished based on whether a nuclear phase denotes a longer duration (extended duratives), a shorter duration (instantaneous duratives) or regular cycle/repetitions (periodic duratives). Schematic representations of these classes are given in (150) below.

(150) Sukwa (Bantu, M.20; Kershner, 2002)

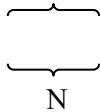
a. Extended duratives

Example: *-saba* ‘swim’



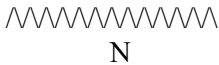
b. Instantaneous durative

Example: *-baya* ‘kick’



c. Periodic durative

Example: *-tetema* ‘shiver’



In Seidel’s (2008) analysis of Yeyi, the inceptive class of achievement verbs defined in Botne’s analysis of Ndali is not attested. Similarly, Persohn (2017b) argues against a class of stative verbs (“structureless” statives) in Nyakyusa. The reason for Seidel (2008) and Persohn (2017b) not including these classes in their analyses is that there are no diagnostic tests that can be used as evidence for differentiating these classes from other change-of-state verbs (achievements). Crane (2011, 2013), unlike Seidel (2008) and Persohn (2017b), argues for a class of statives in Totela. However, different from Botne (2008) who defines statives in Ndali as structureless events, Crane (2011, p. 36) defines statives in Totela (e.g., *-bona* ‘see’) as a class of verbs that encode a durative nucleus (just like Botne’s activities (see (149a)). In her analysis, she subdivides statives in Totela into two types, namely perception (e.g., *-bona* ‘see’) and “true” statives (e.g., *-pona* ‘live’). See Crane (2011, pp. 36; 125–127; 184–185) for more discussion of these classes.

Some scholars have argued that the classification of verbs in Bantu languages should not only consider the internal characteristics of the phases encoded by verb classes (such as punctuality and dynamicity) but also the semantic roles of the arguments surrounding the verb. For example, Fleisch (2000), in his classification of Lucazi (Bantu, K.13) verbs (based on categorizations in Sasse

(1991) and Breu (1984, 1994)), has shown that the verbs in this language can be distinguished not only based on their phasal structures but also on whether or not their subjects have control over the events expressed by the verbs. Thus, in his three major classes (actions, processes, situations), the difference between actions (e.g., *-iza* ‘come’) and processes (e.g., *-móna* ‘see’) is that the former describe events that are under the control of the subject (agentive/controlling subject), while the latter describe events that are not under the control of the subject (non-agentive/controlling subject). However, in Nyamwezi, as will be shown later in this chapter, some aspectual classes include verbs which have both agentive and non-agentive subjects. As such, the criterion of subject control does not systematically determine a verb’s aspectual class membership in every Bantu language.

In the following section, I will discuss some of the diagnostic tests used to determine the phasal structures encoded by verb classes developed in the previous literature on lexical aspect in Bantu languages. These tests were also adopted in the present study to classify Nyamwezi verbs.

### **3.3.2 Tests for distinguishing aspectual classes defined using Botne and Kershner’s framework**

Botne and Kershner’s (2000) framework is one of a number of theories that adhere to the so-called bi-dimensional approach. As Sasse (2002) has shown, this approach distinguishes two types of aspectual analysis: lexical aspect (cf. Sasse’s (2002) aspect<sub>2</sub>) and grammatical aspect (cf. Sasse’s (2002) aspect<sub>1</sub>). Lexical aspect corresponds to what is referred to as aspectual class in this study, and as we have already seen in the previous section, this type of aspect is concerned with the classification of verbs’ meanings based on three successive phases: onset (coming-to-be), nucleus and coda (result state). Thus, some verbs are defined as encoding only a nucleus which denotes an ongoing process (e.g., activities), while others encode a combination of a nucleus and coda phase (e.g., accomplishments), or a combination of an onset phase, a nucleus and a coda phase (e.g., transitional achievements). In contrast with lexical aspect, grammatical aspect, also called viewpoint aspect (Smith, 1997), is concerned with aspectual distinctions such as perfective, imperfective and progressive, encoded mostly through inflectional morphology.

In the group of approaches implementing bi-dimensionality (including Botne and Kershner’s (2000) approach), the dominant paradigm is what Sasse (2002, p. 222), drawing on Bickel (1997), labels “Radical selection theories” (see also Croft, 2012, p. 50). In these theories, the two types of aspect (grammatical aspect and



lexical aspect) are understood as standing in a strict correspondence relationship, i.e., grammatical aspects are treated as phase selectors which “pick out” the matching phases of the underlying phase structure and relate them to the point of reference<sup>19</sup>. Thus, in Botne and Kershner’s framework, for verbs encoding only a durative nucleus (like activities or extended duratives in Kershner’s (2002) analysis), or those encoding both a durative nucleus and durative coda phase (like transitional accomplishments), the imperfective aspect (or progressive or present tense) is analysed as picking out the nucleus, because this is the phase which indicates that an event is in its development stage (it has not yet reached its final point; the event is not completed). This is exemplified in (151) below (glosses adapted).

(151) Sukwa (Bantu, M.20)

- a. *a-ku-sab-a*                      *mu-nyaanja*<sup>20</sup>                      (Activity)  
 1SP-**IMPF**-swim-FV    18NP.LOC-9NP.lake  
 ‘S/he is swimming in the lake (now)’  
 Kershner (2002, p. 45)

b. Ndali (Bantu, M.301)

- a-ku-fwáal-a*                      (Transitional accomplishment)  
 2SP-**IMPF**-dress-FV  
 ‘S/he is dressing (now)’  
 Botne (2008, p. 99)

In both activities (or extended duratives in Kershner’s term) and transitional accomplishments, the corresponding perfective (or completive) aspect is analysed as denoting that the nuclear phase is completed, thereby giving a past tense or completive reading, as in (152) below. Since transitional accomplishments, in addition to a nucleus, encode an extended coda phase (see a schema in (149c)), in this class the perfective (or completive) aspect is also described as picking out the coda phase to express that the event has passed through the nuclear phase, and has now reached the resultant coda phase. This is exemplified in (153) (glosses adapted).

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<sup>19</sup> Other bi-dimensional approaches, such as that of Smith (1991, 1997), are conceptually closely related to radical selection theories. See Sasse (2002, pp. 225–226) for a discussion of how these approaches are similar to radical selection theories.

<sup>20</sup> Note that the imperfective morphology in this example encodes other meanings (future and habitual). I have omitted these meanings as they are not relevant to the point made in this example (see Kershner, 2002 for discussion).

- (152) Sukwa (Bantu, M.20)  
*a-ø-sab-ite*                      *mu-nyaanja*                      (Activity)  
 1SP-TAM-swim-CPL 18NP.LOC-9NP.lake  
 ‘S/he swam in the lake (earlier today)’  
 Kershner (2002, p. 46)

- (153) Ndali (Bantu, M.301)  
*a-fuul-ite*                      (Transitional accomplishment)  
 1SP-undress-CPL  
 1. ‘S/he undressed (earlier today)’  
 2. ‘S/he is undressed’  
 Botne (2008, p. 99)

The phasal structures encoded by verb classes can be further demonstrated using other constructions such as the persistive aspect plus a complement inflected for imperfective aspect. For example, in Ndali, Botne (2008) argues that in verbs which encode only a durative nucleus (such as activities, e.g., *kama* ‘milk’) and those which encode an onset and a punctual nucleus (such as inceptive achievements, e.g., *-pola* ‘heal (intr.)’), the persistive plus imperfective construction selects a nucleus or an onset – in the case of inceptive achievements – to denote that the event is still ongoing. This is exemplified in (154a) and (154b), respectively.

- (154) Ndali (Bantu, M.301)  
 a. *a-kaa-lí*                      *a-kú-kam-a*                      (Activity)  
 1SP-PER-COP 1SP-IMPF-milk-FV  
 ‘S/he is still milking’  
 Botne (2008, p. 97)
- b. *chi-kaa-lí*                      *chi-kú-pol-a*                      (Inceptive achievement)  
 7NP-PER-COP 7SP-IMPFV-heal-FV  
 ‘It is still healing’  
 Botne (2008, p. 100)

In contrast, in Ndali verbs that encode a punctual nucleus plus coda (such as resultative achievements, e.g., *-hoboka* ‘be happy’), the persistive construction is unacceptable because these verbs encode an event which lacks an onset (or a coming-to-be phase).

The difference between aspectual classes which encode a durative nucleus and those which encode a punctual nucleus and lack an onset phase can also be

demonstrated for inceptive aspect. For example, in Fwe (Gunnink, 2018), verbs with a durative nucleus, such as activities (referred to as dynamic verbs by Gunnink), denote an inchoative reading with inceptive aspect, as exemplified in (155a), while those with a punctual nucleus and no onset, such as resultative achievements, denote a proximate reading, as in (155b). The former reading indicates that an event is starting, while the latter indicates that an event is about to happen. As shown in (155c) below, in Fwe, an inchoative reading is also demonstrated by verbs that encode an onset phase plus a punctual nucleus, such as resultative achievements.

(155) Fwe (Bantu, K.402)

- a. *abó*                *shibahika*        (Activity)  
 a-bó                *shi*-ba-hik-á  
 AUG-DEM    INC-1SP-cook-FV  
 ‘They started cooking’  
 Gunnink (2018, p. 379)

- b. *ánsuí*                *shayífwá*        (Resultative achievements)  
 e-nswí                *sha*-i-fw-á  
 AUG-9NP.fish    INC-9SP-die-FV  
 ‘The fish is about to die’  
 Gunnink (2018, p. 379)

- c. ... *shendínúna*                (Transitional achievements)  
*she*-ndi-nun-á  
 INC-1SG-become\_fat-FV  
 ‘I am starting to get fat’  
 Gunnink (2018, p. 379)

Some studies have noted that some grammatical constructions not only test whether a verb denotes a punctual or durative event, but also whether it denotes a permanent or temporary event. Crane and Fleisch (forthcoming) propose that, in isiNdebele, change-of-state verbs (corresponding to achievements in Botne’s analysis) can be differentiated based on whether the coda phase denotes a temporary or permanent result state. As shown in (156) below, this distinction is testable in this language. Changes-of-state which encode temporary result states are compatible with the persistive construction, inflected for perfective aspect, as shown in (156a) below, while those which encode a permanent result state are not, as shown in (156b).

(156) isiNdebele (Bantu, S.44; Crane & Fleisch, forthcoming)

a. *u-sa-lamb-ile* (temporary event)

1SP-PER-get\_hungry-PFV

‘S/he is still hungry’

b. *#inja i-sa-f-ile* (permanent event)

9NP.dog 9SP-PER-die-PFV

Intended: ‘#The dog is still dead’

The permanency or irreversibility of the result state also provides a semantic test for aspectual distinctions in English. For example, Croft (2012) used this semantic criterion to differentiate between transitory statives (e.g., *be open*, as in *the door is open*) from permanent statives (e.g., *be shattered*, as *the window is shattered*), and reversible achievements (e.g., *the door opened*) from irreversible achievements (e.g., *the window shattered*). As we will see later in this chapter, verbs in Nyamwezi can also be differentiated based on the permanency or irreversibility of the result state.

The phasal structures encoded by verb classes are not only diagnosed by grammatical aspects (imperfective, perfective, persistive and inceptive) but also by aspectualizers (also called Aktionsart verbs or phasal verbs) such as *start*, *stop*, and *finish*, adverbials such as *slowly* and other non-tense constructions. For example, Kershner (2002) shows that, in Sukwa, *-leka* ‘stop, cease’ selects the internal sub-phase of the nucleus in a durative event (activities) to denote the interruption of an event, as exemplified in (157a) below, whereas with verbs which encode a punctual nucleus plus a coda phase (resultative achievements), *-leka* ‘stop’ is infelicitous, as in (157b), because (i) they lack an onset, and (ii), the nucleus (point of transition) is short, i.e., it does not denote a process that can be said to cease.

(157) Sukwa (Bantu, M.20)

a. *a-aa-lek-a* *paku-sab-a* ... (Activity)

1SP-PoT-cease-FV LOC.INF-swim-FV

‘S/he stopped (temporarily) swimming ...’

Kershner (2002, p. 214)

- b. #*a-aa-lek-a*      *paku-howok-a*      (Resultative achievement)  
 1SP-PoT-cease-FV    LOC.INF-be\_happy-FV  
 ‘S/he stopped being happy’  
 Kershner (2002, p. 216)

In Crane and Fleisch’s (forthcoming) analysis of isiNdebele verbs, the adverbial *buthaka* ‘slowly’ differentiates those verbs which encode both a durative and dynamic nuclear phase (e.g., activities) from those which do not encode this phase (e.g., resultative achievements). Verbs which encode a durative and dynamic nucleus are acceptable with *buthaka* ‘slowly’, as shown in (158a) below, while those which do not encode this type of phase are unacceptable with this adverbial, as in (158b).

(158) isiNdebele (Bantu, S.44; Crane & Fleisch, forthcoming)

- a. *uSipho*      *u-cul-a*      *buthaka*      (Activity)  
 AUG-Sipho    1SP-sing-FV    slowly  
 ‘Sipho sings slowly’
- b. #*u-lamb-a*      *buthaka*      (Resultative achievements)  
 1SP-get\_hungry-FV    slowly  
 Intended: ‘S/he gets hungry slowly’

In Persohn’s (2017b) analysis of Nyakyusa verbs, a distinction between aspectual classes which encode an inherent endpoint (coda phase), such as accomplishments, and those which do not encode this phase, such as activities, can also be diagnosed using the time-span phrase ‘take X time’. In this language, in verbs which encode an inherent endpoint, *take X time* describes the time that elapses before the culmination of the event, as shown in (159a), whereas in those which do not encode an inherent endpoint, the phrase *take X time* describes the time that elapses before the beginning of an event named by the verb, as in (159b) below. Note that in this language verbs which do not encode an inherent endpoint can be reinterpreted as encoding an endpoint, in which case *take X time* does describe the time that elapses before the culmination of the event.

(159) Nyakyusa (Bantu, M.31; Persohn, 2017b)

- a. *σ-mh-bine*      *eeg-ile*      *a-ka-balilo*      (Activity)  
 AUG-1NP-ill    1SP.take-PFV    AUG-12NP-time  
*a-ka-tali*      *σ-kv-pon-a*  
 AUG-12NP-long    AUG-15NP.INF-recover-FV  
 ‘A/the sick person has taken a long time to recover’

- b. *eeg-ile*      *a-ka-balilo*      *a-ka-tali*      (Accomplishment)  
 ISP.take-PFV    AUG-12NP-time    AUG-12NP-long  
*u-ko-mog-a*  
 AUG-15NP.INF.dance-FV
1. ‘S/he took a long time to (begin to) dance’
  2. ‘S/he took a long time to finish dancing (at a social event)’

To conclude, this section has presented Botne and Kershner’s (2000) framework, the theoretical framework adopted in this study and many studies on lexical aspect to classify verbs into different aspectual classes. This framework classifies verbs based on three temporal phases: onset (coming-to-be phase), nucleus (point of transition; also represented as a lead-up phase if the verb lacks an onset) and coda (result state phase). In this framework, verbs are distinguished based on the number of phases they encode and on the internal characteristics of these phases, i.e., whether these phases are punctual/durative or dynamic/static. Furthermore, this section has presented diagnostic tests developed for other studies to demonstrate the phasal structures encoded by different aspectual classes.

Before embarking on the classification of Nyamwezi aspectual classes, it should be noted here that, although the current study has adopted Botne and Kershner’s (2000) framework to classify Nyamwezi verbs into different aspectual classes, one cannot assume that aspectual classes motivated for other Bantu languages based on Botne and Kershner’s framework will also be found in Nyamwezi. In the following section, while presenting a preview of Nyamwezi aspectual classes, I will also highlight cases where Nyamwezi differs from other Bantu languages.

### 3.4 Aspectual classes in Nyamwezi

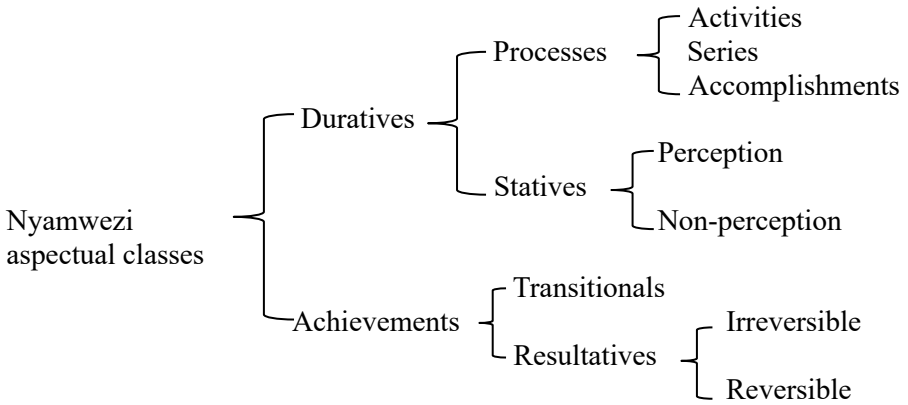
Adopting Botne and Kershner’s (2000) framework, verbs in Nyamwezi can first be broadly classified into two aspectual classes: DURATIVES and ACHIEVEMENTS. In other studies, the latter is also referred to as “punctive” (Kershner, 2002) or “change-of-state” (Crane, 2011; Seidel, 2008). In Nyamwezi, I will show that the primary distinction between duratives and achievements is that the former include verbs that encode a durative (or extended) nuclear phase (such as *-mbá* ‘sing’, *-koloma* ‘snore’, *-boná* ‘see’, *-sha* (intr.) ‘grind’, etc.), while the latter include verbs which encode a punctual nucleus (e.g., *-faá* ‘die’, *-gma* ‘be(come) fat’, *-gwa* ‘fall down’, etc.). In other words, achievements encode a punctual change from one state to another. The distinction between duratives and achievements can be clearly diagnosed in English by the durative verb *dance* and the achievement verb *die* when they occur with the phrase “in the midst of”. This phrase (based on its meaning) selects the peak of

the nuclear phase. A verb like *dance* is durative because one can say *she is in the midst of dancing*. In contrast, *#she is in the midst of dying* is not acceptable because the nuclear phase of the event is punctual.

Note that the difference between duratives and achievements as stated here is similar to that of inchoatives vs. non-inchoatives given in Botne and Kershner (2000) (see § 3.3.1). However, I do not adopt the terms inchoative vs. non-inchoative because in Botne and Kershner, non-inchoative is used not only to refer to verbs that do not encode a punctual change-of-state nuclear phase but also to verbs that do not encode a result state coda phase. In my analysis, the term durative is only used to designate verbs that do not encode a punctual change-of-state nucleus. Some of these verbs can encode a result state coda phase (for example accomplishments; see § 3.4.1.2).

Nyamwezi duratives and achievements each include a number of subclasses which can also be further sub-divided. To start with, duratives can be classified into two subtypes: PROCESSES and STATIVES. Processes can be further subclassified into three types: ACTIVITIES (e.g., *-imbá* ‘sing’), SERIES (e.g., *-kolóla* ‘cough’) and ACCOMPLISHMENTS (e.g., *-zwaála* ‘get dressed’, and statives into two: PERCEPTION (e.g., *-boná* ‘see’) and NON-PERCEPTION (e.g., *-saata* ‘be sick’). Achievements, like duratives, can be divided into two classes, named (following Botne (2003)) TRANSITIONALS and RESULTATIVES. The former includes verbs such as *-gma* ‘be(come) fat’. The latter includes verbs which in turn can be subclassified, following Croft (2012), into IRREVERSIBLE achievements (e.g., *-faá* ‘die’) and REVERSIBLE achievements (e.g., *-gwa* ‘fall down’). All Nyamwezi aspectual classes are summarized in (160) below and discussed in § 3.4.1 and 3.4.2. Detailed diagnostics motivating these classes are developed in Chapters 4, 5 and 6. The goal of this section is to introduce the phasal structures or representations for each aspectual class and to show how the phasal approach encodes the semantic distinctions. This is therefore an overview or preview of my results.

(160) Nyamwezi aspectual classes



Before embarking on the discussion of phasal structures for each aspectual class, a few words should be said about the notations used to represent these structures. In this study, the timeline, represented using a line running from left to right across the phases (as in the figures below), will be used to indicate the internal characteristics of the phases (such as durativity, dynamicity, repetitions). This line will be represented in three different ways: (i) as a dotted line when it indicates dynamicity, as in FIGURE 9, (ii) as a solid line when it indicates non-dynamicity, as in FIGURE 10, and (ii), (following Kershner, 2002) as a zig-zag line when it indicates repetitions or multiple occurrences of an event, as in FIGURE 11.

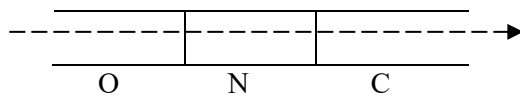


Figure 9: The phasic structure of dynamic events

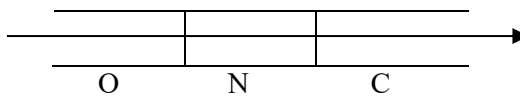


Figure 10: The phasic structure of non-dynamic/static events

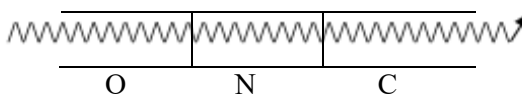


Figure 11: The phasic structure of a repeated event



### 3.4.1 Durative verbs

The section on durative verbs is divided into three subsections. Each subsection discusses durative verbs which display similar phasal structures: activities and series (§ 3.4.1.1), perception and non-perception statives (§ 3.4.1.3), and accomplishments (§ 3.4.1.2).

#### 3.4.1.1 Activities and series

Activities, as Vendler (1967) defines them, include verbs that describe processes whose duration is unlimited in principle. This includes verbs such as *-imbá* ‘sing’, *-lila* ‘cry’, *-seka* ‘laugh’, *-ishijá* ‘play, dance’, *-lomeela* ‘talk, chat’ and *-behá* ‘smoke’. Activities also include verbs such as *-ja* ‘go’, *-peela* ‘run’, *-shooka* ‘return’ and *-iza* ‘come’, which in this study are referred to as “directionals”. These verbs behave somewhat differently from other activities, as will be shown in § 4.3.4. In contrast to activities, series (see Freed, 1979) include verbs that encode multiple (or repeated) occurrences that are viewed as a single event, e.g., *-ditema* ‘tremble’, *-koloma* ‘snore’ and *-dakúna* ‘chew’. Kershner (2002) refers to these verbs as periodic duratives (see § 3.3.1). Series also include verbs such as *-kolóla* ‘cough’ and *-lumá* ‘bite’, which in other studies are referred to as semelfactives (Smith, 1997) or instantaneous (Kershner, 2002). These verbs (*-kolóla* ‘cough’ and *-lumá* ‘bite’) are generally not associated with any duration (they refer to a single event), but when interacting with grammatical aspect such as the general imperfective they can invoke an iterative reading (see (161) below), which does have temporal duration. This diagnostic test is discussed further in § 4.2.1.

- (161) *áɪɪkolóla*  
a-ɪɪ-kólol-a  
1SP-IMPF-cough-FV  
‘S/he is coughing (continuously or serially)’

As noted in § 3.3.1, in Botne and Kershner’s (2000) model, both activities and series can be described as aspectual classes which do not lexically encode the initial (onset) and final (coda) phases. These classes encode only a durative nuclear phase, which indicates ongoing processes (as in activities) or ongoing repetitions (as in series). The phasal structures of activities and series are schematically represented with *-imbá* ‘sing’ and *-kolóla* ‘cough’ in FIGURE 12 and FIGURE 13, respectively. In FIGURE 12, the timeline is represented using a dotted line running from left to right to indicate dynamic changes. In FIGURE 13, following Kershner (2002), the timeline is represented using a zig-zag line to indicate repeated or multiple occurrences of an event.

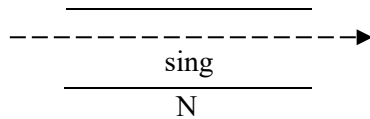


Figure 12: The phasal structure of activities

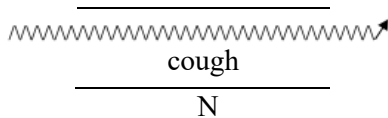


Figure 13: The phasal structure of series

The fact that both activities and series lack a coda phase can be diagnosed with a stative construction (described as perfective or completive aspect in other studies), which is infelicitous with verbs in these classes. This construction, as discussed in detail in § 4.3, generally occurs with change-of-state verbs, especially those which encode a result state (coda) phase, but not with activity and series verbs.

That activities denote ongoing processes while series verbs denote ongoing repetitions can be diagnosed using the adverbial *hadoóhádó* ‘slowly’. This adverbial is acceptable with activities (as in *wimbílé hadoóhádó* ‘S/he sang slowly’) because the verbs in this class denote a continuous/gradual process. Series verbs are infelicitous with *hadoóhádó* because they encode separate events, as will be demonstrated in detail in § 5.5.1.

### 3.4.1.2 Accomplishments

In Vendler’s (1967) analysis, accomplishments represent a class of verbs (such as *draw a circle*) which encode a process that leads up to a culmination (i.e., they are durative and telic). As noted in § 3.3.1, Botne (2008) distinguishes between two types of accomplishments in Ndali: simple accomplishments (e.g., *-pota* ‘defeat’) and transitional accomplishments (e.g., *-fuula* ‘undressed’). See also Persohn’s (2017b) analysis of Nyakyusa. Simple accomplishments (as described by Vendler) encode a process that leads to a culmination but no result state, whereas transitional accomplishments (unlike Vendler) encode a process that leads up to a result state (new state). The distinction between the two classes is diagnosed with the perfective construction (or completive aspect), which indicates a past tense or completive reading in simple accomplishments, as in (162a) below, and a stative present reading in transitional achievements, as in (162b) (repeated from (153)). The latter reading indicates that the new (or result)

state of an event has been reached. Note that, in Ndali, transitional accomplishments can also indicate a past tense reading with perfective aspect, as shown in (162b).

(162) Ndali (Bantu, M.301)

a. *ba-mu-poot-íte* (Simple accomplishments)

2SP-1OP-defeat-CPL

‘They defeated him (earlier today)’

Botne (2008, p. 98)

b. *a-fiuul-íte* (Transitional accomplishment)

1SP-undress-CPL

1. ‘S/he is undressed’

2. ‘S/he undressed (earlier today)’

Botne (2008, p. 99)

In Nyamwezi, Botne’s diagnostic tests do not motivate a distinction between transitional and simple accomplishments. The tests show that in this language there is only one class of accomplishment verbs, which are defined as transitional accomplishments in Botne’s terminology, i.e., verbs that describe a process followed by an outcome or new/result state. This can be exemplified by the verb *-zwaála*, which encodes both process (“getting dressed”) and outcome (“be dressed”). Other verbs in this class include *-liína* ‘climb’, *-chibá* (intr.) ‘block sthg, plug’, *-zeenga* (intr.) ‘build’, *-sha* (intr.) ‘grind’, *-ditila* (intr.) ‘pour into’, *-poóla* (intr.) ‘pound’, *-lima* (intr.) ‘cultivate’, *-lyaá* ‘eat’ and *-nyaaá* ‘drink’.

That accomplishments indicate an outcome (result state) in Nyamwezi is diagnosed by the felicity of the stative construction (referred to as perfective or completive aspect in Botne’s (2008) and Persohn’s (2017b) analysis), which refers to the current state resulting from a past change-of-state, as exemplified in (163) below (see more in § 4.3.2).

(163) *azwaálílé*

a-Ø-zwáal-íle

1SP-PST-get\_dressed-STAT

‘S/he is dressed in or wearing (a garment)’

Based on the onset-nucleus-coda model, the phasal structure of accomplishments (following Botne; see (149c) in § 3.3.1) is schematically represented with *-zwaála* ‘get dressed’ in FIGURE 14 below. In this figure, the nuclear phase

(as in activities) denotes a dynamic process. Thus, this part of the event is indicated with a dotted line. The coda phase indicates an outcome or result state with no more dynamic changes. Thus, this part of the event, as for statives in the following section, is indicated with a solid line.

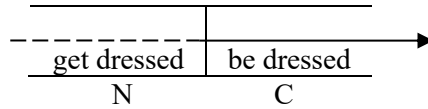


Figure 14: The phasal structure of accomplishments

In English, activity verbs can be reinterpreted as accomplishment verbs when combined with modifiers such as a noun phrase (NP) or a prepositional phrase (PP), e.g., *John ran* (activity) vs. *John ran a mile/to the store* (accomplishment). In Bantu languages, the reinterpretation of activity verbs as accomplishment verbs when an NP is added to the activity verb has been reported in Nyakyusa (see Persohn, 2017b, p. 122) and Fwe (see Gunnink, 2018, p. 289). In Nyakyusa, we find this shift in examples like *lya* ‘eat’ (activity) vs. *lya mguku joosa* ‘eat a whole chicken’ (accomplishment), and in Fwe in examples like, *-bara-* ‘read’ (dynamic verb without a coda state = activity) vs. *-bara mbuka* ‘read a book’ (dynamic verb with an associated coda state = accomplishment). In Nyamwezi, the reinterpretation of activities as accomplishments when an NP is added to the activity verb is either unavailable or unnecessary. In accomplishments, the presence of a coda phase is diagnosed using the stative construction, which, as we have seen in (163), selects this phase to denote a stative present reading. Activities (e.g., *-imbá* ‘sing’) lack a coda phase; thus, they are unacceptable with a stative construction. Activities with an NP complement (e.g., *-imbá mumbó* ‘sing songs’) are also unacceptable with the stative construction. This is why I claim that the reinterpretation of activities as accomplishments when an NP is added to the activity verb is unavailable in Nyamwezi, as there is no test that can be used as a diagnostic for this type of reinterpretation.

### 3.4.1.3 Perception and non-perception statives

It is controversial whether statives in Bantu/African languages form their own class. While Botne (2008) and Kershner (2002) recognize a separate class of purely stative verbs in Ndali (Bantu, M.21) and Sukwa (Bantu, M.20), respectively, Seidel (2008) and Toews (2015) do not recognize statives at all in their analyses of Yeyi (Bantu, R.41) and Siamou (Niger-Congo, Kru), respectively. Persohn (2017b), in his analysis of aspectual classes in Nyakyusa (Bantu, M.31), includes stative verbs as one of the subclasses of achievement verbs, called resultatives. This is because statives and resultatives behave in the

same way with respect to the diagnostic linguistic tests established in his study. However, he notes that the validity of a separate class of statives in Nyakyusa remains open to further research (Persohn, 2017b, p. 136).

In this study, statives are classified as one of the broad aspectual classes under duratives. This class includes verbs that are construed as involving no change. As shown in (160) in § 3.4, in Nyamwezi, as in Totela (Crane, 2011, 2013)<sup>21</sup>, statives can be classified into two subclasses: perception and non-perception verbs. Perception statives include *-boná* ‘see’, *-igwá* ‘hear’, *-lola* ‘look at’, *-degéleka* ‘listen’, *-nuuḡha* ‘smell bad; stink’, *-moota* ‘smell good’ and *-ḡoonja* ‘taste (by swallowing a bit)’. In contrast, non-perception statives include verbs of cognition, emotion and attitude such as *-izokila* ‘remember’, *-togwá* ‘love, like’ and *-zuna* ‘agree’. They also, although rarely, include verbs that describe states of being such as *-moonda* ‘be soft’ and *-saata* ‘be sick’, and those which describe a stance (or a posture) such as *-ikólá* ‘resemble’. Most of the verbs that describe states of being and those that describe a stance (or a posture) are classified as reversible resultative achievements (see § 3.4.2.2).

In Botne and Kershner’s (2000) analysis, statives (as noted in § 3.3.1) are defined as an aspectual class which lacks a phasic structure. However, in the current study, statives, like activities and series (see § 3.4.1.1), are described as aspectual classes which encode only a durative nuclear phase, as schematically represented for *-boná* ‘see’ in FIGURE 15 below (see Crane, 2013, p. 167 for a similar analysis). However, unlike activities and series, in which the nuclear phase denotes dynamic changes (or repetitions, in the case of series verbs), the nuclear phase of statives denotes a non-dynamic state, i.e., it denotes subparts which are identical in every moment of time, as in *-boná* ‘see’. The non-dynamic state in FIGURE 15 below is represented by a solid line crossing the nuclear phase.

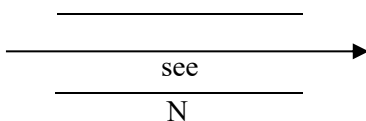


Figure 15: The phasal structure of statives

The fact that the nuclear phase in stative verbs denotes a non-dynamic state is diagnosed using the adverbial *hadoóhádó* ‘slowly’. As noted in the previous

<sup>21</sup> As noted in § 3.3.1, in Crane’s (2011, 2013) analysis, the two types of statives are referred to as perception statives and “true” statives, and are exemplified with *-bona* ‘see’ and *-pona* ‘live’, respectively.

section, this adverbial is only compatible with aspectual classes like activities with a nucleus denoting dynamic changes, i.e., the nucleus denotes a continuous or gradual process (as in *wimbilé hadoóhádó* ‘S/he sang slowly (yesterday or before)’). The nucleus of stative verbs does not denote a continuous or gradual process; it only denotes subparts which are identical in every moment of time; thus, they are unacceptable with *hadooóhádó*, as will be demonstrated in § 5.5.1.

### 3.4.2 Achievements

Recall from § 3.3.1 that Botne (2008) classifies Ndali achievement verbs into four types: acute, inceptive, transitional and resultative. In Nyamwezi, based on the diagnostic tests listed in TABLE 19, verbs defined as achievements can be shown to fall into two of Botne’s classes: transitional and resultative. The diagnostic tests employed in this study do not motivate acute and inceptive achievements as separate aspectual classes in Nyamwezi. Furthermore, these diagnostics show that verbs classified as resultatives can be further subcategorized into two subclasses, which are named (following Croft (2012)) irreversible and reversible achievements. The phasal structures or representations for each of these classes are shown in the following subsections.

#### 3.4.2.1 Transitional achievements

TRANSITIONAL ACHIEVEMENTS include verbs that describe events which encode three phases: the coming-to-be (onset), the punctual change-of-state (nuclear) and the result state (coda). Examples of transitional achievements in Nyamwezi are verbs such as *-gma* ‘be(come) fat’, *-seβa* (intr.) ‘boil’, *-goonda* (intr.) ‘be(come) bent, fold’, *-βoomba* ‘be(come) soaked’ and *-mana* ‘(come to) know’. Most of these verbs are referred to as degree achievements in English (see Dowty, 1979; Hay et al., 1999). The phasal structure of transitional achievements is schematically represented with *-gma* ‘be(come) fat’ in FIGURE 16 below (cf. (148c) in § 3.3.1).

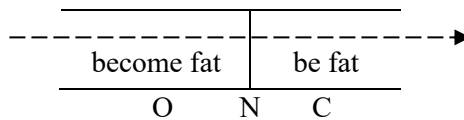


Figure 16: Phasal structure of transitional achievements

In transitional achievements, the onset and coda phases denote durative dynamic changes that occur before and after the nuclear phase. Thus, the timeline in FIGURE 16 above is represented using a dotted line crossing all three phases. The

nuclear phase consists of a punctual change from onset to coda, which is generally subjectively defined by the speaker. For example, in a verb such as *-gma* ‘be(come) fat’, the change from ‘becoming fat’ to ‘being fat’ is determined by the speaker’s perception of what s/he considers to be not (yet) fat, and what is considered as being fat. The fact that transitional achievements encode both a durative onset phase and a durative coda phase is diagnosed by the felicitous use of the persistive construction inflected with the general imperfective. In this class, this construction is ambiguous: it can either modify the onset phase to denote a continuation of coming-to-be, or a coda phase to denote a continuation of the result state, as exemplified in (164) below. This test is discussed in detail in § 4.4.1.

(164) *ataál’*                      *áálugma*  
 a-*táá-li*                      a-*lii-gin-a*  
 1SP-PER-AUX    1SP-IMPF-be(come)\_fat-FV

1. ‘S/he is still getting fat (i.e., s/he has not reached the point where the speaker thinks s/he is fat)’ (continuation of coming-to-be)
2. S/he is still getting fatter (i.e., s/he is already fat and still getting fatter)’ (continuation of the result state)

Note that the result state (coda) of transitional achievements is reversible. For example, being fat is transitory; the subject (agent) named in the construction may lose or regain the weight. Reversibility occurs because most transitional achievements appear in pairs; one member of the pair denotes a change from its reverse partner, as illustrated in (165) below.

(165) a. *-gma* ‘be(come) fat’                      vs.    *-gaanda* ‘be(come) thin’  
 b. *-seβa* (intr.) ‘boil’                              vs.    *-polá* (intr.) ‘cool’  
 c. *-goonda* (intr.) ‘be(come) bent’ vs.    *-goondoola* (intr.) ‘unfold’  
 d. *-mana* ‘(come to) know’                      vs.    *-iβa* ‘forget’

In transitional achievements, the reversibility of the event’s result state can be diagnosed by the persistive plus stative construction, which indicates that the result state at a particular reference time holds temporarily (166) (this test is discussed in detail in § 4.4.2).

(166) *ataál’*                      *áágmilé*  
 a-*táá-li*                      a-*ø-gin-ile*  
 1SP-PER-AUX    1SP-PST-be(come)\_fat-STAT

‘S/he is still fat’ (lit. s/he is still in the state of being fat)’

### 3.4.2.2 Resultative achievements

Resultative achievements include verbs which describe events that encode a punctual change-of-state phase (nucleus) together with a coda phase (result state), but not an onset (or coming-to-be) phase. As in accomplishments (§ 3.4.1.2), the coda phase marks the completion of the event. The phasal structure of resultatives is schematically represented with *-faá* ‘die’ in FIGURE 17 below (cf. (148d) in § 3.3.1). In this verb, there is no phase that leads up to the nuclear change of dying.

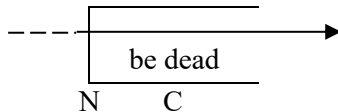


Figure 17: The phasal structure of resultative achievements

The absence of an onset phase in resultative achievements is diagnosed using two tests: the general imperfective denotes an immediate future reading, as in (167) below; and the persistive plus general imperfective is infelicitous, as in (168). The interpretation of the general imperfective with resultative achievements is discussed further in § 4.2.3. The restriction on the co-occurrence of resultative achievements with the persistive plus the general imperfective is discussed in § 4.4.1.3.

(167) General imperfective

*lílífaá!*

lí-**lɪ**-f-aá

5SP-IMPV-die-FV

‘It (e.g., the dog) is about to die!’

(168) Persistive plus general imperfective

#*lítáálí*                      *lílífaá*

lí-**táá**-**lɪ**                      lí-**lɪ**-f-aá

5SP-**PER**-AUX    5SP-IMPV-die-FV

Intended: ‘#It (e.g., the cow) is still dying’

As noted in § 3.4.2, there are two classes of resultative achievements: irreversible and reversible. Irreversible achievements include verbs which describe events in which the result state is construed as being permanent, although in a real sense some have a temporary result state. This includes *-faá* ‘die’, *-bola* ‘be(come) rotten’, *-shika* ‘arrive’, *-duúha* ‘be(come) blunt’, *-kamá* ‘dry up’, *-píla* ‘recover’, *-gaasa* ‘spoil, ferment’ and *-sala* ‘be(come) crazy’. Reversible



achievements, like transitionals (§ 3.4.2.1)<sup>22</sup>, encode a transitory/reversible result state. They include *-ikala* ‘sit’, *-gwa* ‘fall down’, *-laála* ‘fall asleep/sleep’ and *-itóóndá* ‘squat’. Reversible achievements, like transitionals, appear in pairs (169). This allows their result states to revert to their prior states.

- (169) a. *-gwa* ‘fall down’ vs. *-βóóka* ‘get up’  
 b. *-ikala* ‘sit’ vs. *-imá* ‘stand’  
 c. *-laála* ‘fall asleep/sleep’ vs. *-miisha* ‘walk up’  
 d. *-itóóndá* ‘squat on the haunches’ vs. *-βóóka* ‘get up’

The difference between irreversible and reversible achievements is schematically represented with *-faá* ‘die’ in FIGURE 18 and *-ikala* ‘sit’ in FIGURE 19. A vertical bar (|) at the end of the timeline for irreversible achievements in FIGURE 18 denotes that the result state is permanent. In all discussions where the difference between irreversible and reversible resultative achievements is important, the schematic representations in the figures below will be used to show this difference. Otherwise, the schematic representation of resultative achievements will generally be shown using the schematic representation shown in FIGURE 17 (without a vertical bar at the end of the timeline).

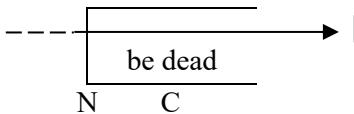


Figure 18: The phasal structure of irreversible achievements

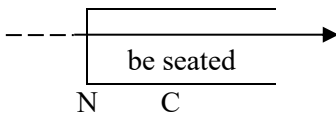


Figure 19: The phasal structure of reversible achievements

The difference between irreversible and reversible resultative achievements can be diagnosed using the persistive plus stative construction. This is unacceptable with irreversible resultatives, as shown in (170a) and acceptable with reversible resultatives, as in (170b). The persistive plus stative construction as a diagnostic test is discussed in detail in § 4.4.2.

<sup>22</sup> Transitional achievements and reversible resultative achievements differ in that the former encode an onset (coming-to-be) phase, whereas the latter do not.

(170) a. #*ataál'*                      *ááfiilé*  
           a-*táá-lr*                      a-*ø-f-ile*  
           1SP-PER-AUX 1SP-PST-die-STAT  
           Intended: ‘#S/he is still dead’

b. *ataáli*                                *wiikalilé*  
      a-*táá-lr*                            *ø-ø-ikal-ile*  
      1SP-PER-AUX 1SP-PST-sit-STAT  
      ‘S/he is still seated’

In § 3.4, I have introduced the classification of verbs in Nyamwezi based on the number of phases they encode and also on the internal structures of these phases, i.e., on whether the encoded phase is punctual/durative or dynamic/static. I have also shown briefly that in Nyamwezi, as in other Bantu languages, tense and aspect constructions and lexical items such as *slowly* can be used as diagnostic tests for determining the phasal structure encoded by verbs in each class. A full collection of the grammatical constructions and lexical items used to determine the phasal structures encoded by verbs in different aspectual classes is previewed in the following section. These diagnostics will be discussed in detail in Chapters 4 to 6. In the following section, I will also explain why some of the diagnostics employed to determine aspectual differences in other studies are not employed to determine the aspectual classes in this study.

### 3.5 Diagnostic tests for determining aspectual classes in Nyamwezi

This section presents a collection of diagnostic tests that will be used to determine the phasal structures encoded by verbs in a particular aspectual class. As shown in TABLE 19 below, these tests are categorized into three types: grammatical aspect tests, lexical tests and tense and time adverbial tests. GRAMMATICAL ASPECT TESTS are based on the interpretation or acceptability of the occurrence of the verb with grammatical aspect markers. The grammatical aspect tests used in this work are adopted from previous work on aspect in Bantu languages, especially from Botne (2008), Kershner (2002), Persohn (2017a, 2017b) and Crane and Fleisch (forthcoming). LEXICAL TESTS are based on the interpretation or acceptability of occurrence of the verb with certain lexemes (such as *start*, *stop*, *finish* and *slowly*). The tests used in this work are adopted from the typological literature on lexical aspect. Most of these tests are also used in the Bantu studies mentioned above. Lastly, TENSE AND TIME ADVERBIAL TESTS are based on the interpretation or acceptability of the occurrence of the verb with tense and time adverbials. The tests related to tense markers used in this work

were developed specifically for this investigation. The *take X time* construction was adopted from the typological literature on lexical aspect. The *take X time* has also been employed to diagnose aspectual classes in some previous studies on lexical aspect in Bantu languages, particularly in Persohn (2017b). Each of the three main types of diagnostic tests (grammatical aspect, lexical items and tense and time adverbials) is discussed in a separate chapter in this dissertation: Chapters 4, 5 and 6, respectively. TABLE 19 summarizes the diagnostic tests for Nyamwezi aspectual classes.

Table 19: Diagnostic tests for Nyamwezi aspectual classes

<b>Grammatical aspect markers</b>	<b>Lexical items</b>	<b>Tense and time adverbials</b>
(1) Co-occurrence with the general imperfective aspect	(6) Co-occurrence with <i>-andya</i> ‘start’	(10) Past tense markers
(2) Co-occurrence with the stative construction	(7) Co-occurrence with <i>-oya</i> ‘stop’	(11) <i>take X time</i> construction
(3) Co-occurrence with the persistive formative plus the general imperfective	(8) Co-occurrence with <i>-mala</i> ‘finish’	
(4) Co-occurrence with the persistive formative plus the stative construction	(9) Co-occurrence with <i>hadoóhádó</i> ‘slowly’	
(5) Co-occurrence with inceptive aspect		

As noted briefly in § 3.3.2, the general imperfective aspect (test 1) and the persistive plus general imperfective (test 3) are tests for durativity. They are used to check whether the verbs in question encode a phasal structure that would allow an ongoing reading (when inflected with the general imperfective) or a persistive reading, i.e., *X is still X-ing* (when inflected with the persistive plus general imperfective). Availability of these readings is an indication that the verbs encode a phase (or phases) which has duration, whereas the lack of such readings is taken as an indication that the verbs encode a punctual phase. As noted in § 2.4.6 and § 3.4.1.1, the stative construction (test 2) is only compatible with stative verbs and change-of-state verbs (those encoding a resultant coda phase). In this regard, this construction is employed as a diagnostic test for stativity, i.e., it picks out phases which depict a state, either in the nucleus (in statives) or the coda phase (in both achievements and accomplishments). The persistive plus stative construction (test 4) indicates that the event’s result state still holds at the reference time but that it will come to an end at some point in the future. In this regard, this construction is used to check whether the verbs in question encode an irreversible result state. As noted in § 2.4.2, the persistive aspect (test 5) has two interpretations in Nyamwezi: inchoative (starting to X) and proximate (be about to X). The availability of the first reading is an indication that a verb encodes an initial phase which has duration, while the second reading is an

indication that the verb has an initial phase which is punctual; as such, an event cannot be said to have started to take place but rather that it will take place.

The aspectualizer *-andya* ‘start’ (test 6) is used to check whether a verb encodes a phase which can be said to start. If the verb encodes more than one phase, it tests which of the encoded phases can be said to start. Along the same lines, the aspectualizer *-oya* ‘stop’ (test 7), and *-mala* ‘finish’ (test 8) are used as diagnostic tests for checking whether a verb encodes a phase (or phases) that can be said to stop or finish. If none of the encoded phases can be said to stop or finish, these verbs will either become infelicitous or be reinterpreted. The adverbial *hadoóhádó* ‘slowly’ (test 9) denotes that an event is carried out step-by-step, at a slow speed. In this regard, this test, as further discussed in § 5.5 in Chapter 5, is employed as a diagnostic test for both dynamicity and durativity, i.e., it only selects a phase which is both dynamic and durative.

As noted in § 2.2.1, the past tense markers (test 10) indicate two types of temporal readings in Nyamwezi: past tense and resultative reading. The latter reading indicates that the event described in the predicate took place in the past, but its results continue. Based on the resultative reading, past tense markers are used to check whether or not verbs in question encode a result state (coda phase). As will be discussed further in § 6.2, in verbs which encode a coda phase, the past tense markers denote a resultative reading, while in those which do not encode a coda phase the past tense markers denote a past tense reading. A further indication of the difference between aspectual classes which encode a coda phase and those which do not can also be found using the *take X time* construction (test 11). This construction has two meanings: (i) X took X time to finish X-ing and (ii) X took X time to begin X-ing. The first interpretation is available in aspectual classes which encode a coda phase, the latter in classes which do not encode a coda phase. (See § 6.3 for a detailed discussion and examples.)

Before presenting the main summary of this chapter, it should be noted here that several other diagnostic tests that were used to distinguish aspectual classes in other studies (e.g., Dowty, 1979; Vendler, 1967) are not adopted in the present study. These include *in X* and *for X time* adverbials and the *almost* test. These tests are excluded in the present study because they are either not applicable or do not show any aspectual differences in Nyamwezi.<sup>23</sup> For example, as noted in § 3.2.1, in English, the *in X time* and *for X time* adverbials are used to distinguish atelic predicates (states and activities), which are acceptable with *for X time*, from

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<sup>23</sup> See Bar-el (2015) for a cross-linguistic analysis of the limitations of the *in X time*, *for X time* adverbials and other tests.

*in X time* in telic predicates (accomplishments and achievements), which have the opposite pattern. This is exemplified in (171) below, repeated from (137).

- (171) a. John loved Mary for/in two years (stative)  
 b. John walked for/?in an hour (activity)  
 c. John painted a picture in/?for an hour (accomplishment)  
 d. John noticed the painting in/?for a few minutes (achievement)

In contrast, Nyamwezi (like Sukwa (Bantu, M.20) in Kershner's (2002) analysis) does not express the distinction between *in X time* and *for X time*. In this language, both adverbials are translated using the adverbial *kw X time*; *kw* either means *for* or *in*. This is exemplified in (172) below.

- (172) *peelága kw dagik' iitááno*  
 peel-ag-á kw dagika i-tááno  
 run-IMP-FV for/in 9NP.minute 9ACP-five  
 'Run for five minutes'  
 '#Run in five minutes'

In Nyamwezi, the adverbial *kw X time* is rarely used, and when used it denotes readings which are similar to those denoted by the *take X time* construction, as exemplified in (173) and (174) below.

- (173) *waasólaga dagik' iitáán'*  
 ɔ-á-sol-ag-a dagika i-tááno  
 1SP-PST-take-HOD\_PST-FV 9NP.minute 9ACP-five  
*ɔkɔzwaála*  
 ɔ-kɔ-zwáal-a  
 AUG-INF-get\_dressed-FV  
 'S/he took five minutes to get dressed' (<><sup>24</sup> 'S/he got dressed in five minutes')

- (174) *waazwáalaga kw dagik' iitááno*  
 ɔ-á-zwáal-ag-a kw dagika i-tááno  
 1SP-PST-get\_dressed-HOD\_PST-FV for/in 9NP.minute 9ACP-five  
 'S/he got dressed in five minutes' (<> 'S/he took five minutes to get dressed')

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<sup>24</sup> The symbol <> is used to mean that sentence A is equal to sentence B.

Given the restrictions on the use of *ko X time* and its similarity with the *take X time* construction, *ko X time* is not used as a diagnostic test in this study. The *take X time* construction is further discussed in § 6.3.

Another test which shows aspectual differences in other studies on lexical aspect but not in Nyamwezi is the *almost* test. As noted in § 3.2.1, in Vendler's classes, *almost* distinguishes accomplishments from the rest of the aspectual classes. As shown in (175) below (repeated from (139)), only accomplishments are ambiguous with *almost*.

- (175) a. John almost loved Mary MEANS he did not love her (stative)  
 b. John almost walked MEANS he did not walk (activity)  
 c. John almost painted a picture MEANS (i) he did not paint at all, or (ii), he painted but did not finish (accomplishment)  
 d. John almost noticed the painting MEANS he did not notice the painting (achievement)

In contrast, *almost*, translated using the locative word *hadoóo* 'small' in Nyamwezi, is not ambiguous. In all aspectual classes, *hadoóo* has the meaning 'wanted to X but didn't', as exemplified in (176) below. In all examples, the verbs are inflected with the subject prefix *-a* (also realized as *-w* before vowel initial roots) and the optative suffix *-éé*.

- (176) a. *hadoóo w-iigw-eé* (stative)  
 'S/he almost heard (but didn't)'  
 b. *hadoóo w-imb-eé* (activity)  
 'S/he almost sang (but didn't)'  
 c. *hadoóo a-kolol-éé* (series)  
 'S/he almost coughed (but didn't)'  
 d. *hadoóo a-zwaál-eé* (accomplishment)  
 'S/he almost/nearly finished get dress (but didn't totally finish)'  
 d. *hadoóo a-f-eé* (achievement)  
 'S/he almost fell down (but didn't)'

Another test which works in other analyses (Dowty, 1979; Vendler, 1967) but which is hard to apply in Nyamwezi is the progressive/imperfective entailment test. In Vendler's analysis, as noted in § 3.2.1, this test is used as a diagnostic for distinguishing activities from accomplishments. As shown in (177a) below, in activities the progressive aspect entails that the event reached its endpoint, but in accomplishments it entails that the event's endpoint was not reached, as shown in (177b). Statives and achievements generally do not allow the progressive; thus, their occurrence with this test is unacceptable.

- (177) a. Joan is running ENTAILS Joan has run.  
 b. Joan is building a house DOES NOT ENTAIL Joan has not built a house yet.

In contrast, in Nyamwezi, the general imperfective entailment test has several complications. While it works as expected for activities, series and perception statives, as exemplified in (178), (179) and (180), respectively, in non-perception statives it does not work at all.

(178) Activity

<i>waal'</i>	<i>áálumbá</i>	ENTAILS	<i>wiimbágá</i>
ɔ-á-lɪ	a-lɪ-ímb-a		ɔ-á-ímb-ag-a
1SP-PST-AUX	1SP-IMPF-sing-FV		1SP-PST-sing-HOD_PST-FV
'S/he was singing'	ENTAILS		'S/he sang'

(179) Series

<i>waal'</i>	<i>áálukólóla</i>	ENTAILS	<i>waakólólaga</i>
ɔ-á-lɪ	a-lɪ-kólol-a		ɔ-á-kólol-ag-a
1SP-PST-AUX	1SP-IMPF-cough-FV		1SP-PST-cough-HOD_PST-FV
'S/he was coughing'	ENTAILS		'S/he coughed'

As exemplified in (181), in non-perception statives, general imperfective aspect and the corresponding “perfective aspect” are not straightforwardly related, i.e., one form does not entail the other. Crane and Fleisch (forthcoming) make a similar observation for IsiNdebele.

(180) Perception stative

<i>waal'</i>	<i>áálɪβóná</i>	ENTAILS	<i>waβónagá</i>
ɔ-á-lɪ	a-lɪ-βón-a		ɔ-á-βón-ag-a
1SP-PST-AUX	1SP-IMPF-see-FV		1SP-PST-see-HOD_PST-FV
'S/he was seeing'	ENTAILS		'S/he saw'

(181) Non-perception stative

<i>lyaalí</i>	<i>lɪlɪmoonda</i>	???	<i>lyaamóóndága</i>
lɪ-á-lɪ	lɪ-lɪ-moond-a		lɪ-á-moond-ag-a
5SP-PST-AUX	5SP-IMPF-be_soft-FV		5SP-PST-be_soft-HOD_PST-FV
'It (e.g., the mattress) was soft'	???		'It (e.g., the mattress) became soft'

Another complication related to the general imperfective entailment test can be seen in both accomplishment and achievement verbs. In some of the verbs in these classes, the general imperfective aspect, like the progressive aspect in

Vendler’s classes, entails that the event did not reach the endpoint, as exemplified in (182) for accomplishments and in (183) for achievements.

(182) Accomplishment

<i>waal’</i>	<i>áálɪmana</i>	DOES NOT ENTAIL	<i>waamánaga</i>
ɔ-á-lɪ	a-lɪɪ-man-a		ɔ-á-man-ag-a
1SP-PST-AUX	1SP-IMPF-(come_to)_know-FV		1SP-PST-(come_to)_know-HOD_PST-FV

‘S/he was getting to know (it)’ DOES NOT ENTAIL ‘S/he knew (it)’

(183) Achievement

<i>lyaalí</i>	<i>lɪlɪfaá</i>	DOES NOT ENTAIL	<i>lyafaáagá</i>
lɪ-á-lɪ	lɪ-lɪɪ-f-aá		lɪ-á-f-ag-aá
5SP-PST-AUX	5SP-IMPF-die-FV		5SP-PST-die-HOD_PST-FV

‘It (e.g., dog) was dying’ DOES NOT ENTAIL ‘it (e.g., dog) died’

However, in other verbs in these classes, the test is ambiguous, i.e., it could either entail that the event reached its endpoint or that it did not. This is exemplified in (184) for accomplishments and (185) for achievements.

(184) Accomplishment

<i>waal’</i>	<i>áálɪzwaála</i>	COULD ENTAIL	<i>waazwaálága</i>
ɔ-á-lɪ	a-lɪɪ-zwáal-a		ɔ-á-zwáal-ag-a
1SP-PST-AUX	1SP-IMPF-get_dressed-FV		1SP-PST-get_dressed-HOD_PST-FV

1. ‘S/he was getting dressed or putting on (a garment)’ DOES NOT ENTAIL ‘S/he got dressed (in a garment)’
2. ‘S/he was getting dressed or putting on (a garment)’ ENTAILS ‘S/he got dressed (in a garment)’

(185) Achievement

<i>lyaalí</i>	<i>lɪlɪgóonda</i>	COULD ENTAIL	<i>liigóondágá</i>
lɪ-á-lɪ	lɪ-lɪɪ-í-goond-a		lɪ-á-í-goond-ag-a
5SP-PST-AUX	5SP-IMPF-REFL-be(come)_bent-FV		5SP-PST-REFL-be(become)_bent-HOD_PST-FV

1. ‘It was bending’ DOES NOT ENTAIL ‘It bent’
2. ‘It was bending’ ENTAILS ‘It bent’

### 3.6 Summary and conclusion

This chapter presented the definitions of Nyamwezi aspectual classes. The classes, as in most recent studies on lexical aspect in Bantu languages, were defined using Botne and Kershner’s (2000) framework. This framework takes into account three types of temporal phases to define aspectual classes. These

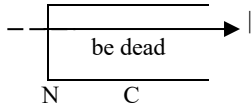
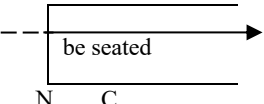


include onset (or coming-to-be), nucleus and coda (or result state). Based on this framework, Nyamwezi aspectual classes were distinguished based on whether they include an onset phase or a coda phase or both, or whether particular phases are punctual/durative or dynamic/static. An overview of these classes is given in TABLE 20 below.

This chapter has also previewed the types of diagnostic tests that will be used to motivate the different aspectual classes in Nyamwezi. These tests are classified into three major classes: grammatical aspect tests, lexical item tests and tense and time adverbial tests. Each of the three types of tests is discussed in a separate chapter in this dissertation: Chapters 4, 5 and 6, respectively.

Table 20: Aspectual classes of verbs in Nyamwezi: their phasal structures and aspectual characteristics

Aspectual classes	Phasal structures	Aspectual characteristics
Activities		The nucleus is both durative and dynamic. The onset and coda are not lexically encoded. The nucleus indicates change.
Series		The nucleus is durative but not dynamic. The onset and coda are not lexically encoded. The nucleus indicates repetitions.
Perception and non-perception statives		The nucleus is durative but not dynamic. The onset and coda are not lexically encoded. The nucleus indicates a static event.
Accomplishments		The nucleus is both durative and dynamic. The coda is non-dynamic. The onset is not lexically encoded.
Transitional achievements		The onset and coda are both durative and dynamic. The nucleus is punctual.

<b>Aspectual classes</b>	<b>Phasal structures</b>	<b>Aspectual characteristics</b>
Irreversible resultative achievements	 <p style="text-align: center;">N            C</p>	The nucleus is punctual. The result state (coda) is irreversible. The onset is not lexically encoded
Reversible resultative achievements	 <p style="text-align: center;">N            C</p>	The nucleus is punctual. The result state (coda) is reversible. The onset is not lexically encoded

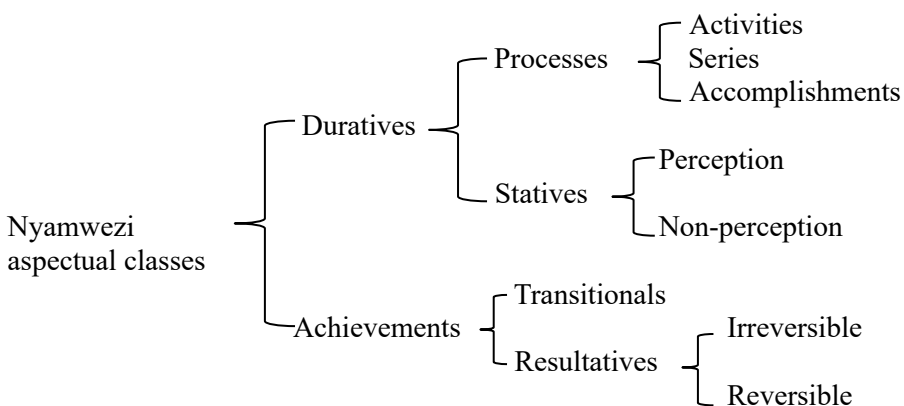


## 4 Grammatical aspect tests

### 4.1 Introduction

This chapter discusses grammatical aspect tests – the first type of diagnostic tests for aspectual classes motivated in this study. As noted in § 3.5, these tests are based on checking the interpretational differences or co-occurrence restrictions of a given verb with grammatical aspect markers. These tests are categorized into four types, each discussed within its own subsection: general imperfective (discussed in § 4.2), stative construction (§ 4.3), persistent (§ 4.4) and inceptive (§ 4.5). The aspectual classes for which the grammatical aspect tests will be used as diagnostic are given in (186) below, repeated from (160) of Chapter 3 for convenience.

(186) Nyamwezi aspectual classes



### 4.2 The general imperfective aspect

The general imperfective aspect (see § 2.4.3,) is a grammatical aspectual category which represents a situation as incomplete or unbounded. This grammatical category (as noted in § 3.5) is used in this study as a test for durativity, i.e., it is used to check whether a verb encodes a phasal structure that would allow an ongoing reading. The availability of this reading in the general imperfective is an indication that a verb encodes a phase (or phases) which has duration, whereas

the lack of such reading is taken as an indication that the verb encodes a punctual phase. Note that the discussion provided in this section does not cover all readings denoted by the general imperfective aspect in Nyamwezi. This grammatical aspect, as noted in § 2.4.3, may also have a habitual or future reading. These readings (especially the habitual reading) are generally expressed by all aspectual classes (see appendix 3A). The only exception which is worth mentioning is that irreversible achievements (e.g., *-faá* ‘die’) do not express habitual readings with the general imperfective (187) due to the permanent nature of the events expressed by these verbs (i.e., the same event cannot occur regularly).

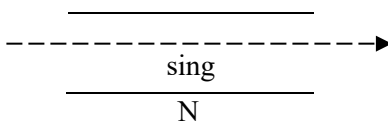
- (187) #*lííífaá*                      *kíla*    *lóshiko*  
 lí-**III**-f-aá                      kíla    ló-shikó  
 5SP-**IMPF**-die-FV    every 11NP-day  
 ‘#It (e.g., the dog) is dying every day’

The discussion of the interactions of aspectual classes with the general imperfective aspect proceeds as follows: § 4.2.1 discusses the interaction of the general imperfective with activities, statives, series and accomplishments, § 4.2.2 the general imperfective with transitional achievements and § 4.2.3 the general imperfective with resultative achievements.

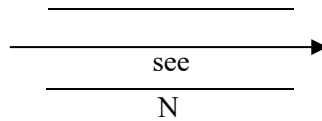
### 4.2.1 Activities, series, statives and accomplishments

Recall from § 3.4.1.1, 3.4.1.2 and 3.4.1.3 that activities, series, statives and accomplishments encode a durative nuclear phase which denotes a process (in activities and accomplishments) a state (in statives), or multiple or repeated occurrences of an event (in series). Accomplishments, in addition to a nucleus, encode a coda phase (result state). The schematic representations of these classes are shown in (188) below for activities, in (189) for statives, in (190) for series and in (190) for accomplishments.

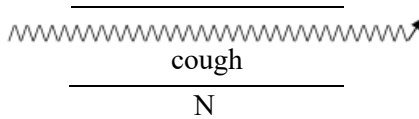
- (188) The phasal structure of activities



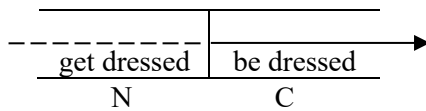
(189) The phasal structure of statives



(190) The phasal structure of series



(191) The phasal structure of accomplishments



Evidence that activities, series, statives and accomplishments encode a durative nuclear phase is provided by the general imperfective aspect because it selects a time frame within this phase. The general imperfective denotes: an ongoing process reading in activities (192) and accomplishments (193), an ongoing state reading in both perception (194) and non-perception (195) statives, and an iterative reading in series verbs (196). (An iterative reading denotes that an event repeats continuously or serially.)

(192) Activity verbs

a. *alimbá*                      *kisogá*  
a-**li**-ímb-a                      kí-sóga  
1SP-**IMPF**-sing-FV    7ACP-good  
‘S/he is singing well (now and in general)’

b. *ali*                      *mnzil’*                      *aliiza*  
a-li                      mú-nzila                      a-**li**-iz-a  
1SP-AUX    LOC.18NP-9EP.path/road    1SP-**IMPF**-come-FV  
‘S/he is on her/his way, coming (here)’

(193) Accomplishment verbs

- a. *almoó* *mkááy'*  
a-lɪ=mó mu-kaáya  
1SP-AUX=LOC.18NP LOC.18NP-homestead  
*áálɪzwaála*  
a-lɪ-zwáal-a  
1SP-IMPf-get\_dressed-FV  
'S/he is inside (of the house) getting dressed or putting on (a garment)'
- b. *nzila* *yɪlɪchiβwá,* *βítáǵí* *wáángɔ*  
nzila yɪ-lɪ-chíβ-w-a βítáǵí ɔ-angɔ  
9NP.road 9SP-IMPf-block-PASS-FV pass-IMP-FV 14NP-quick  
'The road is being closed, cross quickly! (before it is closed)'

(194) Perception stative verbs

- a. *seβ'* *aalɪhoó,* *alɪβon'* *íich'*  
seβa a-lɪ=hó, a-lɪ-βón-a ɪcho  
9NP.God 1SP-AUX-LOC.16NP 1SP-IMPf-see-FV DEM  
*ɔtaalí* *kɔkɪβoná,* *alɪǵw'* *íicho*  
ɔ-táá-lɪ kɔ-kɪ-βón-a a-lɪ-ǵw-a ɪcho  
2SG-PER-AUX INF-7OP-see-FV 1SP-IMPf-hear-FV DEM  
*ɔtaalí* *kɔkiǵwá*  
ɔ-táá-lɪ kɔ-kí-ǵw-a  
2SG-PER-AUX INF-7OP-hear-FV  
'God exists, he sees what you can't see and hears what you can't hear'
- b. *galɪnuuŋha* *giti* *gaβólilé*  
ga-lɪ-nuuŋh-a giti gá-ɔ-βol-íle  
6SP-IMPf-smell\_bad-FV like 6SP-PST-be(come)\_rotten-STAT  
'They (e.g., the fruits) (right now or in general) give out a bad smell as if they are rotten'

(195) Non-perception stative verbs

- a. *βaaná* *βáanáβa* *βalíikólá*  
βa-ána βá-n-aβa βá-lɪ-ikól-á  
2NP-child 2ACP-ɔ-DEM 2SP-IMPf-resemble-FV  
'These children resemble each other' (they have a similar appearance or same attitudes) [exclaimed by the speaker who is staring at the children]

c. *igodolo*      *lilimoonda*  
 i-godolo      li-**li**-moond-a  
 5NP-mattress 5SP-**IMPF**-be\_soft-FV  
 ‘The mattress is soft (now and in general)’ NOT ‘The mattress is getting soft’

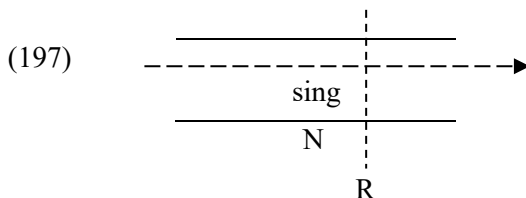
d. *alisaata*  
 a-**li**-saat-a  
 1SP-**IMPF**-be\_sick-FV  
 ‘S/he is sick (now)’ NOT ‘S/he is getting sick’

(196) Series verbs

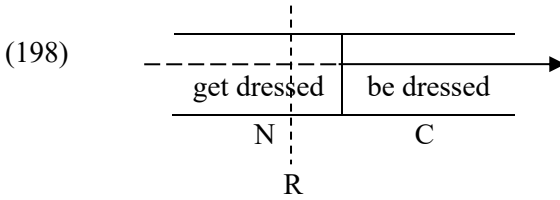
a. *ɲwaaná wááneé*      *álikolóla*  
 mu-ána      ó-a-né      a-**li**-kólol-a  
 1NP-child 1ACP-∅-POSS1SG 1SP-**IMPF**-cough-FV  
 ‘My child is coughing (continuously or serially)’

b. *aliditima*      *kuŋunguno*      *yaa*      *mbehó*  
 a-**li**-ditim-a      kuŋunguno      yaa      mbého  
 1SP-**IMPF**-tremble-FV because CON 9NP.coldness  
 ‘S/he is shivering (continuously or serially) because it is cold’

The figures in (197) and (198) below show the schematic representations of an ongoing reading denoted by the general imperfective. In all classes (activities, accomplishments, statives and series), the reference time of the general imperfective (which is the UT in all examples given in (192)–(196) above) is located within the nuclear phase, as schematically shown in (197) below for activities (a similar schema can be used for statives and series) and (198) in accomplishments.



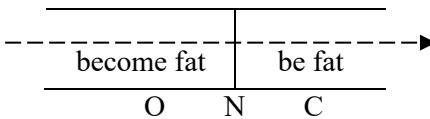




## 4.2.2 Transitional achievements

As discussed in § 3.4.2.1, transitional achievements encode all three phases: a durative onset (coming-to-be), a punctive nucleus (point of transition) and a durative coda (result state), as schematically shown in (199) below. In this class, both onset and coda phases denote dynamic changes; the onset phase denotes dynamic changes before the punctual change-of-state nuclear phase (initial transformation), and the coda phase denotes dynamic changes after the change-of-state has already taken place.

(199) Phasal structure of transitional achievement verbs



Since, in transitional achievements, the nuclear phase is punctual and the onset and coda phases both denote dynamic changes, the general imperfective is ambiguous: it can select the time frame within an onset phase to express a coming-to-be reading, or within a coda phase to express a result state reading. These readings are exemplified in (200) below. The coming-to-be reading denotes ongoing changes before the change of state nuclear phase; the result state reading denotes ongoing changes after the change of state nuclear phase has already taken place.

(200) a. *aligma*

a-**li**-gm-a

1SP-**IMPF**-be(come)\_fat-FV

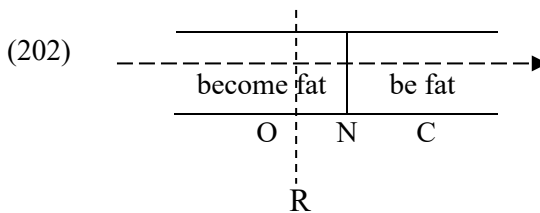
1. 'She is getting fat (i.e., s/he has not reached the point where the speaker thinks s/he is fat)' (coming-to-be reading)
2. 'S/he is getting fatter' (i.e., s/he is already fat and still getting fatter)' (result state reading)

- b. *miinzi gáɫɪséβa*  
 miinzi gá-ɫɪ-seβ-a  
 6NP.water 6SP-IMP-**IMP**-boil-FV
1. ‘The water is coming to the boil or heating up’ (coming-to-be reading)
  2. ‘The water is boiling’ (result state reading)

In cases like (200) above, where a single predicate allows more than one reading with the general imperfective, the interpretations are determined through context. For example, (201) below is an example of a context where the general imperfective denotes only the coming-to-be reading, i.e., it refers to ongoing changes before the change-of-state nuclear phase.

- (201) *waal’ ááɫɪŋma il’*  
 ɔ-á-ɫɪ a-ɫɪ-ŋɪn-a íla  
 1SP-PST-AUX 1SP-IMP-**IMP**-be(come)\_fat-FV but  
*aakáshikíl’ ihatuwa yaa*  
 a-ká-shik-íle ɪ-hatuwa yaa  
 1SP-NEG-arrive/reach-FV AUG-NP9.point/stage CON  
*koyoomb’ aagmile*  
 kɔ-yoomb-a a-ø-ŋɪn-íle  
 INF.15NP-say-FV 1SP-PST-be(come)\_fat-STAT  
 ‘S/he was getting fat but did not reach a point at which s/he could be called fat’ (coming-to-be reading)

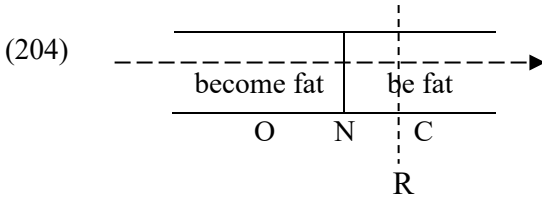
The coming-to-be reading in (201) above is schematically represented in (202) below. In this schema, the reference time is located within the onset phase to denote that the resultant coda phase has not yet been reached.



An example of a context where the general imperfective denotes only a result state reading is given in (203) below. In this example, the general imperfective refers to ongoing changes after the change-of-state has taken place. This reading is schematically represented in (204).

(203) *alugma* *dó, kó-toólwa*  
*a-ll-gm-a* *dó kó-tóol-w-a*  
 1SP-**IMPF**-be(come)\_fat-FV just INF-(get)\_married-PASS-FV  
*kó-sogá*  
*kó-sóga*  
 INF-beautiful

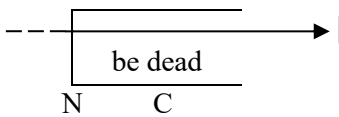
‘She is (just continuing) to get fat, marriage is beautiful (i.e., life after marriage is good)’ (result state reading)



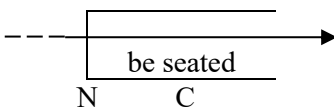
### 4.2.3 Resultative achievements

Resultative achievements differ from transitional achievements in that they do not encode an onset (coming-to-be) phase. They only encode a punctual nuclear phase (a point of transition) and a coda phase (or result state). As described in § 3.4.2.2, there are two types of resultative achievements: irreversible, which encodes a permanent result state and reversible, which encodes a temporary result state. See (205) and (206) below for schematic representations of these classes. A vertical bar (|) at the end of the timeline in irreversible achievements in (205) denotes that the result state is permanent.

(205) The phasal structure of irreversible achievements



(206) The phasal structure of reversible achievements



That both irreversible and reversible resultative achievements encode a punctual nuclear phase is diagnosed by the interpretation of the general imperfective aspect in these classes. In both classes, the general imperfective expresses an

immediate future reading which can be translated as “about to” or “appears to be about to” in English, as illustrated in (207) below for irreversible achievements and (208) for reversible achievements. In many of the verbs in these classes, the general imperfective (pragmatically) expresses a warning or caution, or gives notice to the addressee about something that s/he needs to attend to. For example, (207b) can be said when the speaker cautions the addressee about the mango that appears about to go bad. Similarly, (208a) can be said when the speaker warns a mother to hold a small child who will fall down immediately if s/he doesn’t.

(207) Irreversible achievements

a. *iwaá lyáánee líífaá!*  
 i-waá lí-a-né lí-**li**-f-aá  
 5NP-dog 5ACP-ø-POSS1SG 5SP-**IMPF**-die-FV  
 ‘My dog is about to die!’

b. *inyeembé lyááko lííβola!*  
 i-nyeémbe li-a-kó lí-**li**-βol-a  
 5NP-mango 5ACP-ø-POSS2SG 5SP-**IMPF**-be(come)\_rotten-FV  
 ‘Your mango is about to become rotten!’

c. *alishika háaha dó, liindagá*  
 a-**li**-shik-a háaha dó, liind-ag-á  
 1SP-**IMPF**-arrive-FV now just wait-IMP-FV  
 ‘S/he will arrive soon, just wait’

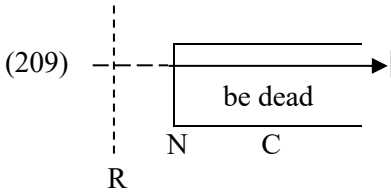
(208) Reversible achievements

a. *ηwaan’ ááligwaa!*  
 mu-ána a-**li**-gw-a  
 1NP-child 1SP-**IMPF**-fall\_down-FV  
 ‘The child appears to be about to fall down!’

b. *aliikala mmiinzi!*  
 a-**li**-ikal-a mu-miínzi  
 1SP-**IMPF**-sit-FV LOC.18NP-6NP.water  
 ‘S/he (the child) appears to be about to sit in the water!’

The figure in (209) below represents a schematic representation of the reading denoted by the general imperfective aspect in resultative achievements. In this figure, the reference time for the general imperfective is located prior to the nuclear phase. The general imperfective does not select either the nucleus or a

coda phase, because the nucleus is punctual and the coda phase marks the event's completion.



In resultative achievements, the general imperfective can also give an iterative/repetitive interpretation if the verb is inflected with a plural subject, as exemplified in (210) below for irreversible achievements and (211) for reversible achievements. This represents an aspectual shift in which achievement verbs are re-interpreted as series verbs.

(210) Irreversible achievements

*mawaá gááneé galíífaá*  
 ma-waá ga-a-neé gá-**li**-f-aá  
 6NP-dog 6ACP-ø-POSS1SG 6SP-**IMPF**-die-FV  
 ‘My dogs are dying (one by one)’

(211) Reversible achievements

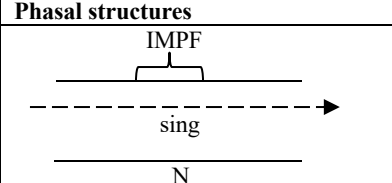
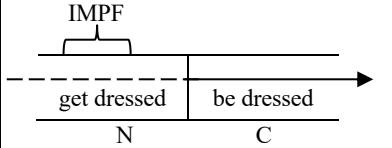
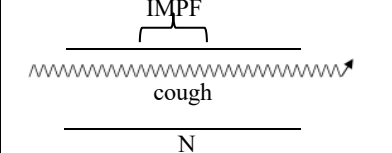
*βaaná βalíígwa*  
 βa-ána βá-**li**-gw-a  
 2NP-child 2SP-**IMPF**-fall\_down-FV  
 ‘The children are falling down (one by one)’

#### 4.2.4 Interpretations of the general imperfective: summary

To sum up, the general imperfective is used as a diagnostic test for durativity. It only selects durative phases to express different types of ongoing readings. The fact that the general imperfective expresses different types of ongoing readings depending on aspectual class provides evidence that these classes are distinct. Ongoing readings denoted by aspectual classes vary based on the internal characteristics of the durative phase. Activities (e.g., *-imbá* ‘sing’), series (e.g., *-kolóla* ‘cough’) and accomplishments (e.g., *-zwaála* ‘get dressed’) encode a durative nuclear phase which denotes a process or repetitions; thus, the general imperfective selects this phase to denote an ongoing process reading, or – in the case of series verbs – an iterative reading. Accomplishments, in addition to a nuclear phase, encode a durative coda phase. In this class, the general imperfective does not select the coda phase (although it is durative), because this

phase marks the completion of the process of the event. Statives (e.g., *-βoná* ‘see’) encode a durative nuclear phase which denotes a state; thus, the general imperfective selects this phase to denote an ongoing state reading. Transitional achievements (e.g., *-gma* ‘be(come) fat’), unlike other aspectual classes, encode a durative onset phase (also called coming-to-be phase), which denotes ongoing changes before the change-of-state nuclear phase, and a coda phase which denotes ongoing changes after the change-of-state nuclear phase has already taken place. In this class, the general imperfective can select any of the two phases. When it selects an onset phase, it denotes a coming-to-be reading, and when it selects the coda phase, it denotes a result state reading. Resultative achievements (e.g., *-faá* ‘die’), unlike other aspectual classes, encode a punctual nuclear phase, which denotes a point of transition, and a coda or result state phase which denotes that the event has reached its endpoint. Since, in this class, the nuclear phase is punctual and the coda phase marks the completion of the event, the general imperfective does not select either phase. Instead, it selects the time frame prior to the punctual change-of-state nuclear phase to denote an immediate future reading. Resultative achievements, when inflected with a plural subject, can be reinterpreted as series verbs, in which case the general imperfective denotes iterative reading. TABLE 21 below shows the interpretations of the general imperfective in each aspectual class, and the phasal structure construals illustrating these interpretations.

Table 21: Interpretations and phasal structure construals of the general imperfective in each aspectual class

Aspectual classes	Phasal structures	Readings
Activities		Ongoing process
Accomplishments		Ongoing process
Series		Iterative/repetition

Aspectual classes	Phasal structures	Readings
Statives (both perception and non-perception)		Ongoing state
Transitional achievements		(1) Coming-to-be, (2) result state
Resultative achievements (both irreversible and reversible)		(1) Immediate future, (2) iterative/repetition when the plural subject is inflected

### 4.3 The stative construction

Recall from § 2.4.6 that, in Nyamwezi, I argued that there is a stative construction formed with the form *-ø-VB-ile*. As noted in § 2.4 and 2.4.6, this construction occurs commonly with stative verbs, change-of-state (or achievement) verbs and other verb classes which have an entailed (result) state, like accomplishments. Non-stative verbs are generally unacceptable with this construction. As a result, the stative construction is used as a diagnostic test for stativity, i.e., it picks out phases which depict a (result) state: the coda phase in achievement and accomplishment verbs, and the nuclear phase in stative verbs. For aspectual classes in which none of the encoded phases depicts a state (e.g., activities), the stative construction is generally not acceptable. However, this generalization does not apply to the set of activity verbs referred to as directionals in this study, as we shall see in § 4.3.4.

The discussion of the interactions of aspectual classes with the stative grammatical aspect proceeds as follows: § 4.3.1 discusses the interaction of the stative construction with achievements, § 4.3.2 of the stative construction with accomplishments, § 4.3.3 of the stative construction with statives, and § 4.3.4 of the stative construction with activities and series. Activity and series verbs will be discussed last because they are usually unacceptable with the stative construction.

### 4.3.1 Transitional and resultative achievements

Recall from § 3.4.2.1 and 3.4.2.2 that transitional, irreversible and reversible resultative achievements encode a punctual nuclear phase (point of transition) and a coda phase (result state). Transitional achievements also encode an onset phase (coming-to-be phase); see (199), (205) and (206) for schematic representations of these classes. That these aspectual classes encode a coda phase is diagnosed by the stative construction, which denotes a present state reading. This reading denotes that the event has reached a point where the result state of the event occurs. The reading is illustrated in (212)–(214) below. Examples (a) of each pair in (212)–(214) shows a reading of the verb with the general imperfective aspect, which, as argued in § 4.2, generally selects the time frame in the phase prior to the change-of-state nuclear phase to denote an ongoing or immediate future reading. For example, (212a) refers to the time when the water is not hot (or is only a little hot), while (212aa) refers to the time when the water is hot (according to the speaker).

#### (212) Transitional achievements

- |   |   |
|---|---|
| <p>a. <i>gáhuséβa</i><br/> gá-<b>h</b>-seβ-a<br/> 6SP-<b>IMPF</b>-boil-FV<br/> ‘It (e.g., the water) is coming to boil or is boiling’</p> | <p>aa. <i>gaséβilé</i><br/> gá-<b>θ</b>-seβ-<b>íle</b><br/> 6SP-<b>PST</b>-boil-<b>STAT</b><br/> ‘It (e.g., the water) is boiled/hot’</p> |
| <p>b. <i>alugma</i><br/> a-<b>h</b>-gm-a<br/> 1SP-<b>IMPF</b>-be(come)_fat-FV<br/> ‘S/he is getting fat(ter)’</p>                         | <p>bb. <i>agmilé</i><br/> a-<b>θ</b>-gm-<b>íle</b><br/> 1SP-<b>PST</b>-be(come)_fat-<b>STAT</b><br/> ‘S/he is fat’</p>                    |

#### (213) Irreversible achievements

- |   |   |
|---|---|
| <p>a. <i>líífaá!</i><br/> lí-<b>h</b>-f-aá<br/> 5SP-<b>IMPF</b>-die-FV<br/> ‘It (e.g., the dog) is about to die!’</p>                           | <p>aa. <i>líífilé</i><br/> lí-<b>θ</b>-f-<b>íle</b><br/> 5SP-<b>PST</b>-die-<b>STAT</b><br/> ‘It (e.g., the dog) is dead’</p>                     |
| <p>b. <i>lííβola!</i><br/> lí-<b>h</b>-βol-a<br/> 5SP-<b>IMPF</b>-be(come)_rotten-FV<br/> ‘It (e.g., the mango) is about to become rotten!’</p> | <p>bb. <i>lííβolilé</i><br/> lí-<b>θ</b>-βol-<b>íle</b><br/> 5SP-<b>PST</b>-be(come)_rotten-<b>STAT</b><br/> ‘It (e.g., the mango) is rotten’</p> |



(214) Reversible achievements

- |  |  |
|--|--|
| a. <i>aliigwaa!</i><br>a- <b>li</b> -gw-a<br>1SP- <b>IMPF</b> -fall_down-FV<br>'S/he appears to be about<br>to fall down!' | aa. <i>agwiilé</i><br>a- <b>ø</b> -gw- <b>ile</b><br>1SP- <b>PST</b> -fall_down- <b>STAT</b><br>'S/he has fallen down' |
| b. <i>aliikala</i><br>a- <b>li</b> -ikal-a<br>1SP- <b>IMPF</b> -sit-FV<br>'S/he appears to be about to sit!'               | bb. <i>wiikalilé</i><br>ø- <b>ø</b> -ikal- <b>ile</b><br>1SP- <b>PST</b> -sit- <b>STAT</b><br>'S/he is seated'         |

In other Bantu languages, such as Southern Ndebele (Bantu, S.407), Crane and Persohn (2019, p. 313) show that in verbs that encode a coda phase, in addition to an onset phase and a change-of-state nuclear phase, the stative *-ø-VB-ile* construction (analysed as perfective aspect) can either select a coda phase to refer to the new/current state results of a change-of-state, or an onset and a nuclear phase to refer to both the process leading up to and the change-of-state itself. The two readings are exemplified in (215) below. According to Crane and Persohn, the temporal adverbial 'last year' in the second interpretation of (215) indicates that the *-ø-VB-ile* construction refers to a process leading up to and including the change-of-state. The two readings of the *-ø-VB-ile* construction are also noted in Botne's (2008) analysis (see example (150b) in § 3.4.1.2).

(215) Southern Ndebele (Bantu, S.407)

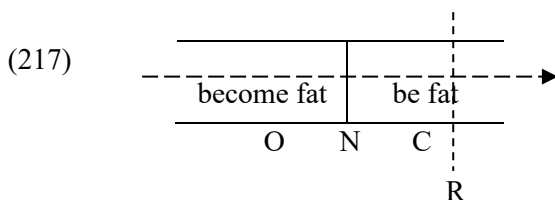
- ikomo i-non-ile*  
9NP-cow 9SP-grow\_fat-**PFV**
1. 'The cow is fat' (present state reading)
  2. 'The cow got fat (e.g., last year)' (change-of-state reading)
- Crane and Persohn (2019, p. 313)

In Nyamwezi, unlike in Southern Ndebele, in verbs that encode a coda phase, in addition to an onset and/or a change-of-state nuclear phase, the stative *-ø-VB-ile* construction tends to focus on the state of affairs that holds at the time of utterance without specifically making reference to the change-of-state that has given rise to the current state. For example, in (216) below, the stative construction is used to describe the current state of the person referred to, i.e., s/he is fat. Although this person was once slim, and the fact that s/he is now fat is a result of a change in her/his state, this change is not what is referenced by the stative construction. Rather, the stative construction refers to a currently ongoing state and backgrounds the change-of-state that has given rise to the current state. This

interpretation of the stative construction is also observed in other Bantu languages, like Totela (Bantu K.41) (Crane, 2011, 2012a) and Fwe (Bantu K.402) (Gunnink, 2018).

- (216) *agmilé*  
 a- $\emptyset$ -gm-**ile**  
 1SP-PST-be(come)\_fat-STAT  
 ‘S/he is fat’

In Nyamwezi, the phasal structure representing a present state reading denoted by the stative construction in transitional and resultative achievements is illustrated with a transitional achievement verb *-gma* ‘be(come) fat’, as in (217) below. The reference time (R) is located within the coda phase.



### 4.3.2 Accomplishments

Recall from § 3.4.1.2 that accomplishments include verbs that encode a nuclear phase that denotes a process and a coda phase that denotes a result state; see (191) for a schematic representation. With this class, as with achievement verbs, the stative construction selects a time frame within the coda phase to denote a present state reading, as exemplified in (218aa–dd) below. In this class, as in achievements, the general imperfective selects the time frame within the pre-coda phase (the nucleus) to denote an ongoing reading, as in (218a–d) (see also (193)).

- |   |  |
|---|--|
| <p>(218) a. <i>aluzwaála</i><br/>         a-lu-zwáal-a<br/>         1SP-IMPF-get_dressed-FV<br/>         ‘S/he is getting dressed<br/>         or putting on (a garment)’</p> | <p>aa. <i>azwaálilé</i><br/>         a-<math>\emptyset</math>-zwáal-<b>ile</b><br/>         1SP-PST-get_dressed-STAT<br/>         ‘S/he is dressed in or wearing<br/>         (a garment)’</p> |
| <p>b. <i>aliíina</i><br/>         a-lu-líin-a<br/>         1SP-IMPF-climb-FV<br/>         ‘S/he is climbing (at a tree)’</p>  | <p>bb. <i>aliínilé</i><br/>         a-<math>\emptyset</math>-líin-<b>ile</b><br/>         1SP-PST-climb-STAT<br/>         ‘S/he has climbed (up a tree)’</p>                                   |

- |   |   |
|---|---|
| <p>c. <i>ziliishwa</i><br/> <i>zí-li-sh-w-a</i><br/> 10SP-<b>IMPF</b>-grind-PASS-FV<br/> ‘They (e.g., the peanuts) are<br/> being ground’</p> | <p>cc. <i>zishúlwé</i> (also <i>zishúlé</i>)<br/> <i>zí-ø-sh-íl-w-e</i><br/> 10SP-<b>PST</b>-grind-<b>STAT</b>-PASS-<b>STAT</b><br/> ‘They (e.g., the peanuts) are<br/> ground’</p> |
| <p>d. <i>yiluchibwá</i><br/> <i>yí-li-chíβ-w-a</i><br/> 9SP-<b>IMPF</b>-block-PASS-FV<br/> ‘It (e.g., the road) is being closed’</p>          | <p>dd. <i>yichibilwé</i> (also <i>yichibilé</i>)<br/> <i>yí-ø-chíβ-íl-w-e</i><br/> 9SP-<b>PST</b>-block-<b>STAT</b>-PASS-<b>STAT</b><br/> ‘It (e.g., the road) is closed’</p>       |

Note that the subjects of some accomplishment verbs, e.g., *-chibá* ‘block sthg, plug’ and *-zeenga* ‘build’, when occurring with the stative construction, may carry the semantic role of patient or agent, as exemplified in (219) below with *-chibá* ‘block sthg, plug’. This is different from verbs such as *-sha* ‘grind’ in which the stative construction only takes the subject that has the semantic role of patient, as in (220).

- |  |   |
|--|---|
| <p>(219) Agent subject<br/> <i>achibilé</i><br/> <i>a-ø-chíβ-ilé</i><br/> 1SP-<b>PST</b>-block-<b>STAT</b><br/> ‘S/he closes (e.g., the road)</p>                | <p>Patient subject<br/> <i>yichibilwé</i><br/> <i>yí-ø-chíβ-íl-w-e</i><br/> 5SP-<b>PST</b>-block-<b>STAT</b>-PASS-<b>STAT</b><br/> ‘It (e.g., the road) is closed’</p>    |
| <p>(220) Agent subject<br/> <i>#ashúlé</i><br/> <i>a-ø-sh-ilé</i><br/> 1SP-<b>PST</b>-grind-<b>STAT</b><br/> Intended: ‘S/he has ground<br/> (e.g., peanuts)</p> | <p>Patient subject<br/> <i>zishúlwé</i><br/> <i>zí-ø-sh-íl-w-e</i><br/> 10SP-<b>PST</b>-grind-<b>STAT</b>-PASS-<b>STAT</b><br/> ‘They (e.g., the peanuts) are ground’</p> |

It is left for further research to determine why with some verbs both patient and agent subjects are acceptable while with other verbs only patient subjects are acceptable.

### 4.3.3 Statives

As discussed in § 3.4.1.3, statives differ from accomplishments in that they encode only a nuclear phase; as such, they resemble activities and series. However, unlike activities and series, which encode a dynamic nuclear phase, the nuclear phase of statives is static (non-dynamic) (See (189) for a schematic representation). Evidence that the nuclear phase of stative verbs is static comes

from the interpretation of these verbs with the stative construction, which, as exemplified in (221) below, denotes a present state reading. As we will see in § 4.3.4, activities and series are not acceptable with the stative construction because they encode a non-dynamic nuclear phase.

- (221) a. *βiikólilé*  
 βá-**σ**-ikól-**ile**  
 2SP-PST-resemble-STAT  
 ‘They (people) resemble each other (now and in general) (i.e., they have a similar appearance or similar attitudes)’
- b. *lmóondilé*  
 lí-**σ**-moond-**ile**  
 5SP-PST-be\_soft-STAT  
 ‘It is soft (now and in general)’
- c. *asaatilé*  
 a-**σ**-saat-**ile**  
 1SP-PST-be\_sick-STAT  
 ‘S/he is sick (now and in general)’

Note that the stative verbs that occur with the stative construction are those referred to as non-perception statives in this study. Perception statives such as *-boná* ‘see’, *-igwá* ‘hear’ and *-nuunha* ‘smell bad’ are not acceptable with the stative construction, as shown in (222) below. It is unclear why these verbs are unacceptable with the stative construction.

- (222) Stative construction
- a. *#aβonilé*<sup>25</sup>  
 a-**σ**-βón-**ile**  
 1SP-PST-see-STAT  
 Intended: ‘S/he sees (i.e., s/he is in the state of seeing)’
- b. *#wiigwilé*  
 σ-**σ**-igw-**ile**  
 1SP-PST-hear-STAT  
 Intended: ‘S/he hears (i.e., s/he is in the state of hearing)’

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<sup>25</sup> *aβonilé* can be accepted if used to make a probability statement, just like the English *see*: ‘s/he will see what she can do’. This kind of meaning is not the point of our discussion.

c. #*lmúúghilé*

*lí-Ø-nuugh-íle*

6SP-PST-smell\_bad-STAT

Intended: ‘It smells bad (i.e., it is in state of smelling bad)’

In § 4.3.1 and 4.3.2, we saw that in transitional achievements and accomplishments the general imperfective and stative constructions have different interpretations. The general imperfective denotes a coming-to-be or ongoing process reading, as this construction selects a time frame within the onset phase or a nucleus. The stative construction denotes a present state reading, as this construction selects a time frame within the coda phase. In non-perception statives, both the general imperfective and the stative construction denote a present state reading, as illustrated in (223) below. This is because non-perception stative verbs encode only one phase (nucleus), which can be selected by both constructions.

(223) General imperfective		Stative construction
a. <i>βaliikólá</i>	< >	<i>βiikólilé</i>
βá- <b>lu</b> -ikól-á		βá- <b>Ø</b> -ikól- <b>íle</b>
2SP- <b>IMPF</b> -resemble-FV		2SP- <b>PST</b> -resemble- <b>STAT</b>
‘They (people) resemble each other (now)’		‘They (people) resemble each other (now and in general)’
b. <i>líímoonda</i>	< >	<i>lmóóndilé</i>
lí- <b>lu</b> -moond-a		lí- <b>Ø</b> -moond- <b>íle</b>
5SP- <b>IMPF</b> -be_soft-FV		5SP- <b>PST</b> -be_soft- <b>STAT</b>
‘It is soft (now)’		‘It is soft (now and in general)’
c. <i>alusaata</i>	< >	<i>asaatilé</i>
a- <b>lu</b> -saat-a		a- <b>Ø</b> -saat- <b>íle</b>
1SP- <b>IMPF</b> -be_sick-FV		1SP- <b>PST</b> -be_sick- <b>STAT</b>
‘S/he is sick (now)’		‘S/he is sick (now and in general)’

The difference in interpretation between the general imperfective and the stative construction in the verbs in (223) depends partly on the context and partly on the source of evidence for the occurrence of the event under discussion (see § 2.5 of Chapter 1 for a discussion of latter). With regard to context, the general imperfective seems to suggest that the state described holds at the UT, but that it will come to an end sometime in the future, while the stative construction indicates that the state described could last for the entire lifetime of the person/entity referred to. This interpretational difference between the general

imperfective and the stative construction is illustrated further with the verb *-saata* ‘be sick’ in (224) below. In the general imperfective, the verb expresses that the person feels sick right now, while in the stative construction the verb is interpreted as referring to a chronic illness from which the person is suffering without actually feeling ill all the time.

(224) Nyamwezi

a. General imperfective

*alisaata*

a-**li**-saat-a

1SP-**IMPF**-be\_sick-FV

‘S/he is (feeling) sick (right now)’

b. Stative construction

*asaatilé*

a-**Ø**-saat-**ile**

1SP-**PST**-be\_sick-**STAT**

‘S/he is sick/has got an illness’

As noted by Gunnink (2018, pp. 368–369) and Crane (2012b, p. 65), Fwe expresses a similar distinction but in the opposite way. In Fwe, the present construction (which is equivalent to the general imperfective in Nyamwezi) expresses chronic illness, while the stative construction expresses a state of illness which is ongoing at UT, as exemplified in (225).

(225) Fwe

a. Present construction

*ndirwàrà*

ndi-rwàr-a

1SG-be\_sick-FV

‘I am sick/have an illness’

b. Stative construction

*ndirwàrítè*

ndi-rwa<sub>HT</sub>-**íte**

1SG-be\_sick-**STAT**

‘I am (feeling) sick’

Gunnink (2018, pp. 369, ex (103))

### 4.3.4 Activities and series

Recall that activities and series include verbs which only encode a durative nuclear phase. Onset and coda phases are not part of the event structure (see (188) and (190) for schematic representations of these classes). In activities, the nuclear phase denotes a process, as with *-seka* ‘laugh’, *-imbá* ‘sing’ and *-ishijá* ‘play, dance’, while in series verbs it denotes multiple occurrences of an event, as with *-kolóla* ‘cough’ and *-ditima* ‘tremble’. As stated in the previous section and in § 3.4.1.1, activities and series, unlike statives, do not encode a static nuclear phase. Their nuclear phase is dynamic. Evidence that activities and series encode a non-static nuclear phase comes from the unacceptability of these verbs with the stative construction, as shown in (226) below<sup>26</sup>. As noted in § 4.3, and exemplified in § 4.3.1 for achievements, § 4.3.2 for accomplishments and § 4.3.3 for non-perception statives, this construction generally picks out stative phases to express a stative present reading.

- (226) a. *#asekilé*  
a- $\emptyset$ -sek-**íle**  
1SP-PST-laugh-STAT  
Intended: ‘S/he is (in the state of) laughing’
- b. *#akólólilé*  
a- $\emptyset$ -kólol-**íle**  
1SP-PST-cough-STAT  
Intended: ‘S/he is (in the state of) coughing’

Recall from § 3.4.1.1 that activities also include verbs such as *-ja* ‘go’, *-peela* ‘run’, *-shooka* ‘return’ and *-iza* ‘come’, which in this study are referred to as “directionals”. These verbs resemble activities and series in that they encode only a durative dynamic (non-stative) nuclear phase. But, unlike activities and series, which are generally unacceptable with the stative construction, directional verbs are generally accepted with this construction. In directional verbs, the stative

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<sup>26</sup> This is unlike other Bantu languages such as Totela (Bantu, K.41) and Fwe (Bantu, K.402), where the stative construction may occur with activity verbs to denote an ongoing process or progressive reading, as exemplified in (1) for Totela and (2) for Fwe.

- |   |   |
|---|---|
| (1) <i>ndifonete</i><br>ndi-fon- <b>ete</b><br>1SG-telephone(v)-STAT<br>‘I’m phoning/I’m on the phone’<br>Crane (2013, p. 175, ex (24)) | (2) <i>ndizánîè</i><br>ndi-zan- <b>îè</b><br>1SG-dance-STAT<br>‘I am busy dancing’<br>Gunnink (2018, p. 373, ex (119)). |
|---|---|

construction selects a time frame within the nuclear phase to denote a process which is ongoing at the reference time, thereby giving an ongoing process reading<sup>27</sup>, as exemplified in (227) below. Example (227a) is taken from Maganga and Schadeberg's (1992, p. 206) story, "A woman and a lion". The fact that the stative construction denotes an ongoing process reading in directional verbs is evidence that these verbs lack the final phase (coda) (cf. accomplishments in § 4.3.2; in this class *-ø-VB-ile* selects the coda phase to denote a stative present reading).

- (227) a. *óṣṣoná*                      *máḃuúndú* *gáá* *nshiimba*. *gaángí*  
 ó-ṣ-ḃón-a                      má-ḃuúndú *gáá* *nshiimba* *ga-ángí*  
 1SP-CONS-see-FV    6NP-claw    CON    10NP.lion    6ACP-others  
*gíizilé*                                      *ná* *gaángí*  
*gá-ø-iz-ile*                                      na *ga-ángí*  
 6SP-PST-come-STAT    CON    6ACP-other  
*gáshookilé*  
*gá-ø-shook-ile*  
 6SP-PST-return-STAT

'He saw the footprint of the lion. Some were (in the state of) coming and some were (in the state of) going back'

- b. *aziilé*                                      *kaayá*  
*a-ø-j-ile*                                      kaáya  
 1SP-PST-go-STAT    9NP.homestead

'S/he is (in the state of) going home'

- c. *a peelilé*                                      *kojaa*                      *kumadúóka*  
*a-ø-peel-ile*                                      ku-j-a                      ku-ma-dúóka  
 1SP-PST-run-STAT    INF-go-FV    LOC.17NP-6NP-shop

'S/he is (in the state of) running towards the shops'

The stative construction is generally unacceptable with non-stative or non-change-of-state verbs. Its occurrence with some non-stative verbs (directionals) suggests that the occurrence and semantic use of this construction is expanding from denoting a present state reading in verbs which describe a state to encoding an ongoing process reading in verbs which encode only a nuclear phase.

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<sup>27</sup> In directional verbs, an ongoing process reading is also expressed by the general imperfective aspect. The distinction between the two contractions (stative construction and general imperfective) can be explained using principles of evidentiality (see § 2.5 for discussion).



### 4.3.5 Interpretations of the stative construction: summary

To sum up, the stative construction is used as a diagnostic test for stativity. It picks out phases which depict a (result) state, such as a coda phase in transitional achievements (-*gina* ‘be(come) fat’), resultative achievements (e.g., -*gwa* ‘fall down’) and accomplishments (e.g., -*zwaála* ‘get dressed’), and a nuclear phase in statives (-*saata* ‘be sick’), to describe the state of affairs that holds at the time of utterance (UT) (thereby giving a stative present reading). Activities (e.g., -*imbá* ‘sing’) and series (e.g., -*kolóla* ‘cough’), like statives, encode only a nuclear phase. However, unlike statives, the nuclear phase of activities and series is non-static, making them unacceptable with the stative construction. Note that the generalization that the stative construction selects only phases which depict a (result) state does not work consistently. There are verbs, such as perception statives (e.g., -*boná* ‘see’), which are unacceptable with the stative construction, even though they encode a static nuclear phase. There are also some activity verbs (e.g., -*peela* ‘run’) which can occur with the stative construction to denote an ongoing reading, although they do not encode a static nuclear phase. These exceptions challenge the theoretical framework adopted in this study, and I will return to this point in the concluding chapter (Chapter 7). TABLE 22 below gives an overview of the interpretations of the stative construction in each aspectual class, and the phasal structure construals illustrating these interpretations.

Table 22: Interpretations and phasal structure construals of the stative construction in each aspectual class

Aspectual classes	Phasal structures	Readings
Transitional achievements		Present state
Resultative achievements (both irreversible and reversible)		Present state
Accomplishments		Present state

Aspectual classes	Phasal structures	Readings
Perception statives		Infelicitious
Non-perception statives		Present state
Activities		Infelicitious, except directionals, in which the stative construction denotes an ongoing reading
Series		Infelicitious

## 4.4 The persistive aspect

The persistive aspect is a subtype of imperfective aspect that modifies an event or situation with respect to its internal structure (Comrie, 1976, p. 16) (see § 2.4.5 for discussion). This aspectual category generally expresses an event that started before and is still ongoing at UT (Nurse, 2008, p. 24)<sup>28</sup>. In Nyamwezi, the persistive construction can co-occur with other aspectual constructions, notably the general imperfective *-li-* and the stative *-ø-VB-ile*. As noted in § 2.4.5, the persistive plus the general imperfective expresses that an event is still ongoing at reference time: the result state or final point has not been reached yet. This is exemplified in (228) below, repeated from (97).

- (228) *ataál'*                      *áálizwaála*  
a-**táá-li**                      a-**li**-zwáal-a  
1SP-PER-AUX    1SP-IMPF-get\_dressed-FV  
‘S/he is still getting dressed or putting on (a garment)’

<sup>28</sup> See also Krämer (2017) for a detailed discussion of the notions denoted by the persistive aspect (“still”, “not yet”, “already” and “no longer”) under the term Phasal Polarity (PhP).

In contrast, the persistive plus the stative construction expresses that the state or result state of the preceding situation still holds at UT, but is not permanent. This reading is exemplified in (229) below, repeated from (98).

- (229) *ataál'*                      *ázwaálilé*  
           a-táá-lí                      a-ø-zwáal-íle  
           1SP-PER-AUX    1SP-PST-get\_dressed-STAT  
           'S/he is still dressed in or wearing (a garment)'

Having discussed the two constructions involving the persistive aspect, i.e., the persistive plus the general imperfective and the persistive plus the stative construction, in the following sections I will use these constructions as tests for diagnosing differences between aspectual classes.

#### 4.4.1 The persistive plus the general imperfective

As shown in example (228), the persistive plus the general imperfective refers to an event which is still ongoing at the UT. Based on this interpretation, the persistive plus the general imperfective, like the general imperfective (discussed in § 4.2), is used in this study as a diagnostic test for durativity. That is, it only selects phases which are extended in time. Punctual phases cannot be selected by this construction. The discussion of the interactions of aspectual classes with the persistive plus the general imperfective proceeds as follows: § 4.4.1.1 discusses the interactions of the persistive plus the general imperfective with activities, series, statives and accomplishments, § 4.4.1.2 the interactions of the persistive plus the general imperfective with transitional achievements, and lastly § 4.4.1.3 the interactions of the persistive plus the general imperfective with resultative achievements.

##### 4.4.1.1 Activities, series, statives and accomplishments

Recall that activities, series, statives and accomplishments all encode a durative nuclear phase, which indicates either processes (in activities and accomplishments) or repetitions (in series), or states (in statives). In addition to a nuclear phase, accomplishments encode a coda phase which indicates the result state of the event. (See (188), (190), (189) and (191) for a schematic representation of activities, series, statives and accomplishments, respectively.). That these aspectual classes encode a durative nuclear phase is diagnosed by the persistive plus the general imperfective, which selects the time frame within a nuclear phase to denote different types of continuous readings. These readings vary based on the internal characteristics of the nuclear phase. In both activities and accomplishments, the persistive plus the general imperfective denotes a continuing process, in series verbs it indicates the continuation of an iterative

event, and in statives it denotes a continuous state. In all these classes, the persistent plus the general imperfective can also have a persistent habitual reading. In the habitual reading, the process or state of the event is construed as occurring more than once. Examples illustrating the continuing process and persistent habitual readings are given in (230) below for activities, (231) for accomplishments, (232) for series and (233) for statives.

(230) Activity verbs

- a. *ataál'*                      *áálimbá*  
 a-**táá-lr**                      a-**lr**-ímb-a  
 1SP-**PER-AUX** 1SP-**IMPF**-sing-FV  
 1. 'S/he is still singing' (continuing process reading)  
 2. 'S/he still sings (regularly)' (habitual reading)

- b. *ataál'*                      *ááliiza*  
 a-**táá-lr**                      a-**lr**-iz-a  
 1SP-**PER-AUX** 1SP-**IMPF**-come-FV  
 1. 'S/he is still coming (not yet here)' (continuing process reading)  
 2. 'S/he still comes (regularly)' (habitual reading)

(231) Accomplishment verbs

- a. *ataál'*                      *áálrzwaála*  
 a-**táá-lr**                      a-**lr**-zwáal-a  
 1SP-**PER-AUX** 1SP-**IMPF**-get\_dressed-FV  
 1. 'S/he is still getting dressing or putting on (a garment)' (continuing process reading)  
 2. 'S/he still dresses or puts on (a garment) (regularly)' (habitual reading)

- b. *yitaáli*                      *yilrichiβilwa*  
 yI-**táá-lr**                      yI-**lr**-chíβ-il-w-a  
 9SP-**PER-AUX** 9SP-**IMPF**-block-APPL-PASS-FV  
 1. 'It (e.g., the road) is still being closed (i.e., the road is not closed yet, but is in the process of being closed and will soon be closed)' (continuing process reading)  
 2. 'It (e.g., the road) still closes (regularly)' (habitual reading)

(232) Series verbs

- a. *ataál'*                    *áálikolóla*  
**atááli**                    **a-li-kólol-a**  
1SP-PER-AUX 1SP-IMPF-cough-FV  
1. 'S/he is still coughing (continuously or serially)' (continuing process reading)  
2. 'S/he still coughs (regularly)' (habitual reading)
- b. *ataál'*                    *áálititima*  
**a-táá-li**                    **a-li-ditim-a**  
1SP-PER-AUX 1SP-IMPF-tremble-FV  
1. 'S/he is still trembling (continuously or serially)' (continuing process reading)  
2. 'S/he still trembles (regularly)' (habitual reading)

(233) Stative verbs

- a. *ataál'*                    *ááliβoná* (perception stative)  
**a-táá-li**                    **a-li-βán-a**  
1SP-PER-AUX 1SP-IMPF-see-FV  
1. 'S/he still sees (now and in general)' (continuous state reading)  
2. 'S/he still sees (habitually)' (habitual reading)
- b. *ataál'*                    *ááliisaata* (non-perception stative)  
**a-táá-li**                    **a-li-saat-a**  
1SP-PER-AUX 1SP-IMPF-be\_sick-FV  
1. 'S/he is still sick (i.e., s/he is still in the state of being sick)' (continuing state reading)  
2. 'S/he is still sick (as always)' (habitual reading)

Before closing this section, it must be pointed out that the persistive plus the general imperfective is sensitive to the permanent/temporary distinction. As shown in (234) below, the stative verb *-ikólá* 'resemble' sounds odd with the persistive plus the general imperfective even though it encodes a durative nucleus.

- (234) #*βataáli*            *βaliikólá*<sup>29</sup>  
           βa-táá-li            βá-lu-ikól-á  
           2SP-PER-AUX    2SP-IMPF-resemble-FV  
           Intended: ‘They (people) still resemble each other’

This is because the verb encodes a stative event which is construed as being the same even in the future. This is different from other stative verbs, e.g., *-βoná* ‘see’ in (233a) above, which describe stative events that hold at the reference time, but may change at a later time.

#### 4.4.1.2 Transitional achievements

Recall that transitional achievements, such as *-gina* ‘be(come) fat’ and *-seβa* (intr.) ‘boil’, differ from all other aspectual classes in that they encode all three phases: onset (coming-to-be), nucleus (point of transition) and coda (result state) (see (199) for a schematic representation). In this aspectual class, both onset and coda phases are durative. An onset phase indicates ongoing changes before the point of transition (which is subjectively defined by the speaker), while the coda phase indicates ongoing changes after the point of transition.

That in transitional achievements both onset and coda phases encode ongoing changes is diagnosed by the persistent plus the general imperfective construction, which can select a time frame within either of these two phases. When selecting a time frame within an onset phase, it denotes a continuation of the coming-to-be phase; when selecting a time frame within a coda phase, it denotes a continuation of the result state. In transitional achievements, the persistent plus the general imperfective can also denote a persistent habitual reading. Examples illustrating all three readings are given in (235) below.

- (235) a. *ataál’*            *ááluḡma*  
           a-táá-li            a-lu-gin-a  
           1SP-PER-AUX    1SP-IMPF-be(come)\_fat-FV
1. ‘S/he is still getting fat’ (i.e., s/he has not reached the point where the speaker thinks s/he is fat) (continuation of coming-to-be)
  2. ‘S/he is still getting fat(ter)’ (i.e., s/he is already fat and still getting fatter) (continuation of the result state)
  3. ‘S/he still gets fat’ (habitual reading)

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<sup>29</sup> Those language consultants who accepted this construction said it can be accepted if the speaker refers to people who still have the same attitudes. They also added that this reading is less natural; it is a direct translation of a Swahili construction.

- b. *gataáli*                    *galiiseβa*  
 ga-táá-lɪ                    gá-lɪ-seβ-a  
 6SP-PER-AUX    6SP-IMPF-boil-FV

1. ‘It (e.g., the water) is still boiling (i.e., it has not reached the point where the speaker thinks it has boiled)’ (continuation of the coming-to-be)
2. ‘It (e.g., the water) is still boiling (i.e., it has already boiled and is still boiling)’ (continuation of the result state)
3. ‘It (e.g., the water) still boils (regularly)’ (habitual reading)

#### 4.4.1.3 Resultative achievements

Recall that resultative achievements encode only a point of transition (nucleus) and the result state (coda). The coming-to-be phase (onset) is not lexically encoded. As described in § 3.4.2.2, there are two types of resultative achievements in Nyamwezi: irreversible and reversible. The former encodes a permanent result state, the latter a temporary result state (see (205) and (206) for schematic representations of these classes). The difference between the two classes is diagnosed by the persistive plus the general imperfective, which is unacceptable with irreversible achievements, as shown in (236) below.

- (236) a. #*lɪtááli*                    *lɪlɪfáá*  
 lí-táá-lɪ                    lí-lɪ-f-aá  
 5SP-PER-AUX    5SP-IMPF-die-FV  
 Intended: ‘#It (e.g., the cow) is still dying’

- b. #*lɪtááli*                    *lɪlɪβola*  
 lí-táá-lɪ                    lí-lɪ-βol-a  
 5SP-PER-AUX    5SP-IMPF-be(come)\_rotten-FV  
 Intended: ‘#It (e.g., the mango) is still becoming rotten’

There are two reasons for the unacceptability of the persistive plus the general imperfective in (236) above. The first is that in irreversible achievements the initial phase (the nucleus) is punctual; it indicates an instantaneous shift to the coda phase. Thus, it cannot be targeted by the persistive plus the general imperfective. That is, ‘#It (the cow) is still dying’ in (236a) above is impossible because the event of dying is preceded by a relatively rapid decline when death is imminent. The second reason comes from the semantics of the persistive plus the general imperfective. As discussed in § 4.4.1, this construction denotes that a process or a (result) state still holds at the reference time, but that it is not permanent. This means that there is a semantic conflict between the persistive plus the general imperfective and irreversible achievements. While irreversible

achievements encode a permanent result state, the persistive plus the general imperfective denotes a temporary process/(result) state.

Unlike irreversible achievements, reversible achievements are compatible with the persistive plus the general imperfective. In reversible achievements, this construction indicates a persistent habitual reading, as exemplified in (237) below. As in irreversible achievements, in reversible achievements the onset phase is not encoded, and the nuclear phase is punctual; thus, the persistive plus the general imperfective does not express a coming-to-be reading (as in transitional achievements (see (235)) or a continuing process reading (as in accomplishments (see (231))). That is, (237a) and (237b) cannot be interpreted as ‘S/he is still (in the process of) falling down’ and ‘S/he is still (in the process of) sitting on the ground’.

(237) a. *ataál’*                      *áálingwa*  
 a-**táá-lr**                      a-**lr**-gw-a  
 1SP-**PER-AUX** 1SP-**IMPF**-fall down-FV  
 ‘S/he still falls down (regularly), but NOT ‘#S/he is still (in the process of) falling down’

b. *ataál’*                      *ááliikalá*                      *háásí*  
 a-**táá-lr**                      a-**lr**-ikal-a                      ha-sí  
 1SP-**PER-AUX** 1SP-**IMPF**-sit-FV LOC.16NP-ground  
 ‘S/he still sits on the ground’, but NOT ‘S/he is still (in the process of) sitting on the ground’

Lexical verbs, based on their meanings, typically belong to a specific aspectual class. However, as noted by Smith (1997), Kearns (2000) and Croft (2012), it is possible for a single verb to occur in more than one aspectual class (if it is polysemous) or be reclassified (aspectual shift). With regard to the latter, the aspectual character of a verb can change when factors other than the lexical meaning of the verb are taken into consideration. One of these factors, as noted in § 4.2.3, is when the subject of the construction is made plural. This factor is relevant for irreversible achievements in Nyamwezi. These verbs are not acceptable with the persistive plus the general imperfective when the grammatical subjects are singular (see (236) above), but they are acceptable when the subjects are plural (238). The construction is then interpreted as describing events that repeat indefinitely. This represents an aspectual shift in which achievement verbs are interpreted as series verbs.



- (238) a. *gataáli*                    *galiífaá*  
           *ga-táá-lɪ*                    *gá-lɪ-f-aá*  
           6SP-PER-AUX    6SP-IMPF-die-FV  
           ‘They (e.g., the cows) are still dying (one by one)’
- b. *gataál’*                            *galiíβola*  
           *ga-táá-lɪ*                    *gá-lɪ-βol-a*  
           6SP-PER-AUX    6SP-IMPF-be(come)\_rotten-FV  
           ‘They (e.g., the mangoes) are still becoming rotten (one by one)’

In reversible achievements, as in irreversible achievements, the persistent plus the general imperfective inflected with a plural subject describes events that repeat indefinitely (239). Thus, the plural induces an aspectual shift allowing achievement verbs to be re-interpreted as series verbs.

- (239) a. *βataáli*                    *βaliígwa*  
           *βa-táá-lɪ*                    *βá-lɪ-gw-a*  
           2SP-PER-AUX    2SP-IMPF-fall\_down-FV  
           ‘They are still falling down (one by one)’
- b. *βataáli*                            *βaliíkalá*  
           *βa-táá-lɪ*                    *βá-lɪ-ikal-a*  
           2SP-PER-AUX    2SP-IMPF-sit-FV  
           ‘They are still sitting (down) (one by one)’

#### 4.4.1.4 Interpretations of the persistent plus the general imperfective: summary

To sum up, the persistent plus the general imperfective is used as a diagnostic test for durativity. It only selects phases that are extended in time to denote different kinds of continuing or ongoing reading, which vary based on the internal characteristics of the selected phase. Activities (e.g., *-imbá* ‘sing’) and accomplishments (e.g., *-zwaála* ‘get dressed’) encode a nuclear phase that denotes a process. In these classes, the persistent plus the general imperfective selects this phase to denote a continuing process reading. Accomplishments, in addition to a nuclear phase, encode a coda phase that denotes a result state of the event. The persistent plus the general imperfective does not select the coda phase in this class, because this phase indicates the culmination of the event’s process. Both series (e.g., *-kolóla* ‘cough’) and statives (e.g., *-βoná* ‘see’) encode only a nuclear phase that denotes repetitions in series, or an ongoing state in statives. In these classes, the persistent plus the general imperfective selects the nuclear

phase to denote a continuation of an iterative event in series or the continuing state in statives. Transitional achievements (e.g., *-gma* ‘be(come) fat’) encode an onset phase that denotes the coming-to-be of an event, a nuclear phase that denotes the punctual point of transition, and a coda phase that denotes the result state – this phase may also be construed as encoding an ongoing result state. Since both onset and coda phases may encode ongoing changes (either before or after the nuclear phase), the persistive plus the general imperfective can select either an onset phase to denote the continuation of the coming-to-be phase or a coda phase to denote the continuation of the result state. In all classes (activities, series, statives, accomplishments and transitional achievements), the imperfective aspect can also denote a persistent habitual reading. In this reading, the event is construed as occurring more than once.

Resultative achievements, unlike all other aspectual classes, encode only a punctual nucleus phase that denotes a point of transition, and a coda phase that denotes a permanent result state in irreversible achievements (e.g., *-faá* ‘die’) or a temporary result state in reversible achievements (e.g., *-gwa* ‘fall down’). The persistive plus the general imperfective is infelicitous with irreversible achievements because of the permanent nature of their event. In contrast, reversible achievements are acceptable with this construction. In these verbs, the persistive plus the general imperfective denotes a persistent habitual reading. These verbs do not denote a coming-to-be reading (as in transitional achievements) or a continuing process reading (as in activities) with the persistive plus the general imperfective, because they lack an onset (coming-to-be) phase and their nuclear (point of transition) phase is punctual. Note that resultative achievements (whether irreversible or reversible) are acceptable with the persistive plus the general imperfective when inflected with the plural subject, in which case the construction expresses events that repeat indefinitely (as in series verbs). This indicates an aspectual shift in which resultative achievements are interpreted as series verbs.

TABLE 23 below shows the interpretations of the persistive plus the general imperfective in each aspectual class, and the phasal structure construals illustrating these interpretations.

Table 23: Interpretations and phasal structure construals of the persistive plus the general imperfective in each aspectual class

Aspectual classes	Phasal structures	Readings
Activities		(1) Continuing process and (2) persistent habitual
Series		(1) Continuation of an iterative event and (2) persistent habitual
Accomplishments		(1) Continuing process and (2) persistent habitual
Statives (both perception and non-perception)		(1) Continuing state and (2) persistent habitual
Transitional achievements		(1) Continuation of the coming-to-be, (2) continuation of the result state, and (3) persistent habitual
Irreversible resultative achievements		Unacceptable with singular subjects; continuing process with plural subjects
Reversible resultative achievements		Persistent habitual with singular subjects; continuing process with plural subjects

#### 4.4.2 Persistive plus the stative construction

Recall from § 4.3 that in Nyamwezi the stative *-ø-VB-ile* construction occurs commonly with stative verbs, change-of-state (or achievement) verbs and other verbs which have an entailed (result) state, like accomplishments. In these verbs,

the stative construction picks out phases which depict a state, e.g., the coda phase in achievements (§ 4.3.1) and accomplishments (§ 4.3.2), and the nucleus in non-perception statives (§ 4.3.3), to express a present state reading. As previously defined (§ 4.4), the persistive aspect expresses an event that started before and is still ongoing at the utterance time. This grammatical aspect also implies that the event is non-permanent or reversible. In this regard, the persistive aspect combined with the stative construction should, as noted in § 4.4, indicate the persistence of a non-permanent state or result state that holds at the reference time. This reading is exemplified in (240), repeated from (229).

- (240) *ataál'*                      *áázwaálilé*  
a-táá-lí                      a-ø-zwáal-íle  
1SP-PER-AUX    1SP-PST-get\_dressed-STAT  
‘S/he is still dressed in or wearing (a garment)’

Based on its meaning, the persistive plus the stative construction is used in this study as a diagnostic test for the reversibility of the state or result state. Aspectual classes which encode a temporary result state should be acceptable with this construction, whereas those which encode a permanent state should not. The discussion of the interactions of aspectual classes with the persistive plus the stative construction proceeds as follows: § 4.4.2.1 discusses the interaction of the persistive plus the stative construction with resultative achievements, § 4.4.2.2 the interaction of the persistive plus the stative construction with transitional achievements and accomplishments, § 4.4.2.3 the interaction of the persistive plus the stative construction with statives, and § 4.4.2.4 the interaction of the persistive plus the stative construction with activities and series.

#### 4.4.2.1 Resultative achievements

Recall from § 3.4.2.2 that resultative achievements encode a punctual nuclear phase, which indicates the event’s point of transition, and the coda phase, which indicates the event’s result state. Recall also that there are two types of resultative achievements: irreversible, which denotes a permanent result state, and reversible, which denotes a temporary result state (see (205) and (206) for schematic representations of these classes). This distinction is diagnosed by the persistive plus the stative construction, which is unacceptable with irreversible achievements, as shown in (241) below, but acceptable with reversible achievement, as shown in (242). Note that in (242a), the English translation is not acceptable. The intended meaning of the Nyanwezi construction is given in parentheses.

- (241) a. #*ataál'*                    *ááfiilé*  
 a-*táá-lr*                    a-*ø-f-ile*  
 1SP-PER-AUX    1SP-PST-die-STAT  
 Intended: ‘#S/he is still dead’
- b. #*litaáli*                    *liβólilé*  
 lí-*táá-lr*                    lí-*ø-βol-ile*  
 5SP-PER-AUX    5SP-PST-be(come)\_rotten-STAT  
 Intended: ‘#It (e.g., the mango) is still rotten’
- (242) a. *ataál'*                    *áágwiilé*  
 a-*táá-lr*                    a-*ø-gw-ile*  
 1SP-PER-AUX    1SP-PST-fall\_down-STAT  
 ‘#S/he has still fallen down (i.e., s/he has fallen down and is still on the ground; s/he has not got up yet)’
- b. *ataáli*                    *wiikalilé*  
 a-*táá-lr*                    *ø-ø-ikal-ile*  
 1SP-PER-AUX    1SP-PST-sit-STAT  
 ‘S/he is still seated’

#### 4.4.2.2 Transitional achievements and accomplishments

Transitional achievements, unlike resultatives, encode all three phases: onset (coming-to-be), nucleus (point of transition), and coda (result state) (see (199) for a schematic representation). Accomplishments, like transitional achievements, encode a nucleus and a coda phase. But unlike transitional achievements, accomplishments do not encode an onset phase and the nuclear phase is not punctual (see (191) for a schematic representation). The coda phase of these classes is generally construed as indicating a temporary result state. This is diagnosed by the persistive plus the stative construction, which denotes a continuation or persistence of the result state, as exemplified in (243) below for transitional achievements and in (244) for accomplishments.

- (243) Transitional achievements
- a. *ataál'*                    *áágmilé*  
 a-*táá-lr*                    a-*ø-gm-ile*  
 1SP-PER-AUX    1SP-PST-be(come)\_fat-STAT  
 ‘S/he is still fat’

- b. *gataáí*            *gaséβilé*  
 ga-táá-lí            gá-ø-seβ-íle  
 6SP-PER-AUX    6SP-PST-boil-STAT  
 ‘It (e.g., the water) is still boiled/hot’

(244) Accomplishments

- a. *ataáí*            *ázwaáílé*  
 a-táá-lí            a-ø-zwáal-íle  
 1SP-PER-AUX    1SP-PST-get\_dressed-STAT  
*ηweendá*            *gwáápé*  
 mu-énda            gU-a-pé  
 3NP-piece\_of\_clothing    3ACP-ø-white  
 ‘S/he is still dressed in or wearing a white piece of clothing’

- b. *yitaáí*            *yichíβilé*  
 yí-táá-lí            yí-ø-chiβ-íle  
 5SP-PER-AUX    5SP-PST-block-STAT  
 ‘It (e.g., the road) is still blocked’

Note that the permanency or irreversibility of the result state also makes a semantic difference in accomplishment verbs. Because *-sha* (intr.) ‘grind’ and *-póóla* (intr.) ‘pound’ denote permanent result states, they are unacceptable with the persistive plus the stative construction, as exemplified with *-sha* (intr.) ‘grind’ in (245) below.

- (245) #*zitaáí*            *zishíílé*  
 zí-táá-lí            zí-ø-sh-íle  
 10SP-PER-AUX    10SP-PST-grind-STAT  
 Intended: ‘They (e.g., the peanuts) are still ground’

#### 4.4.2.3 Statives

Recall from § 3.4.1.3 that statives include verbs which encode only a non-dynamic nuclear phase (see (205) for the schematic representation). As discussed in § 3.4.1.3, these verbs are categorized into two types: perception and non-perception. Perception statives are unacceptable with the stative *-ø-VB-íle* construction (see § 4.3.3), and so also with the persistive plus the stative construction, as exemplified in (246) below.

(246) a. *#ataál'*            *ááβonílé*  
 a-**táá-lr**            a-**ø-βón-íle**  
 1SP-PER-AUX 1SP-PST-see-STAT  
 Intended: ‘#S/he still sees (i.e., s/he is still in the state of seeing)’

b. *#ataáli*            *wiigwílé*  
 a-**táá-lr**            **u-ø-igw-íle**  
 1SP-PER-AUX 1SP-PST-hear-STAT  
 Intended: ‘#S/he still hears (i.e., s/he is still in the state of hearing)’

In contrast, non-perception statives are acceptable with the persistive plus the stative construction (just as they were with the bare stative), and, as shown in (247) below, the construction indicates a continuation or persistence of the state. The occurrence of the persistive plus the stative construction indicates that these verbs denote a non-permanent or reversible state.

(247) a. *?ataál'*            *ááŋwiizókíililé*  
 a-**táá-lr**            a-**ø-mú-izókíl-íle**  
 1SP-PER-AUX 1SP-PST-1OP-remember-STAT  
 ‘S/he still misses/remembers her/his (i.e., s/he has not (yet) forgotten her/him)’

b. *?litááli*            *lmóóndílé*  
 lí-**táá-lr**            lí-**ø-moond-íle**  
 5SP-PER-AUX 5SP-PST-be\_soft-STAT  
 ‘It (e.g., the mattress) is still soft (now and in general)’

c. *?ataál'*            *áásaatílé*  
 a-**táá-lr**            a-**ø-saat-íle**  
 1SP-PER-AUX 1SP-PST-be\_sick-STAT  
 ‘S/he is still sick (now and in general)’

It should be noted here that some language consultants considered the combination of non-perceptive statives with the persistive plus the stative construction to be less natural than with the persistive plus the general imperfective, discussed in § 4.4.1.1. The symbol ? in (247) above indicates that the constructions are infelicitous for some speakers.

#### 4.4.2.4 Activities and series

Recall that both activities and series encode only a dynamic durative nuclear phase denoting a process or repetitions (see (188) and (190) for schematic

representations of these classes). Both activities and series are unacceptable with the stative construction (see § 4.3.4), and also with is the persistive plus the stative construction. This is exemplified in (248) below for activities and in (249) for series. The reason for the incompatibility is that a coda phase (result state) is not lexically encoded in these classes.

- (248) #*ataal'*                    *áásekílé*  
 a-**táá-li**                    a-**ø-sek-íle**  
 1SP-PER-AUX 1SP-PST-laugh-STAT  
 Intended: ‘#S/he is still (in the state of) laughing’

- (249) #*ataal'*                    *áákolólilé*  
 a-**táá-li**                    a-**ø-kólol-íle**  
 1SP-PER-AUX 1SP-PST-cough-STAT  
 Intended: ‘#S/he is still (in the state of) coughing (continuously or serially)’

Recall from § 4.3.4 that there are a few activity verbs, namely directionals, which can occur with the stative construction, including *-ja* ‘go’, *-peela* ‘run’, *-shooka* ‘return’ and *-iza* ‘come’. In these verbs, the stative construction selects a time frame within the nuclear phase to denote an ongoing reading (see example (227)). Thus, the persistive plus the stative construction is acceptable and denotes a continuation of the event, as exemplified in (250) below.

- (250) a. *gataáli*                    *giizilé*  
 ga-**táá-li**                    gá-**ø-iz-íle**  
 6SP-PER-AUX 6SP-PST-come-STAT  
 ‘They (e.g., the lions) are still (in the state of) coming (i.e., they are not here yet)’

- b. *ataál'*                    *áápeelilé*  
 a-**táá-li**                    a-**ø-peel-íle**  
 1SP-PER-AUX 1SP-PST-run-STAT  
 ‘S/he is still (in the state of) running’

Note that the continuous reading in (250) above can also be denoted by the persistive plus the general imperfective, as exemplified in (251a) below (cf. example (230b) in § 4.4.1.1). As noted in § 2.5, the difference between the two constructions (like the difference between the stative construction and general imperfective) is based on whether or not the speaker has visual access to the event. The persistive plus the stative construction is used in contexts where the



speaker does not have a visual access to the event (251a), while the persistive plus the general imperfective does not require a special context, i.e., it can be used whether or not the speaker has visual access to the event (251b) (see more in § 2.5).

- (251) a. *gataáli*                      *giizilé*  
           *ga-táá-lɪ*                      *gá-ø-iz-ile*  
           6SP-PER-AUX    6SP-PST-come-STAT  
           ‘They (e.g., the lions) are still coming’ [Context: the speaker does not see them coming]
- b. *gataál’*                              *gááliiza*  
           *ga-táá-lɪ*                      *ga-lɪ-iz-a*  
           6SP-PER-AUX    6SP-IMPF-come-FV  
           ‘They (e.g., the lions) are still coming’ [Context: the speaker either sees or does not see them coming]

#### 4.4.2.5 Interpretations of the persistive plus the stative construction: summary

To sum up, the persistive plus the stative construction is used as a diagnostic test for the reversibility of the (result) state. The construction occurs with aspectual classes that encode a phase which denotes a non-permanent (result) state. This includes reversible resultative achievements (*-ikala* ‘sit’), transitional achievements (e.g., *-gma* ‘be(come) fat’), accomplishments (e.g., *-zwaála* ‘get dressed’) and non-perception statives (*-izokila* ‘remember’). The first three aspectual classes encode a temporary resultant coda phase; the last one (non-perception statives) encodes a temporary stative nuclear phase. Irreversible resultative achievements (e.g., *-faá* ‘die’) and some accomplishments (e.g., *-sha* (intr.) ‘grind’) are unacceptable with the persistive plus the stative construction because they encode a permanent resultant coda phase. Perception statives (e.g., *-βoná* ‘see’) resemble non-perception statives in encoding a stative temporary nuclear phase. These verbs (perception statives) are unacceptable with the stative construction, and also with the persistive plus the stative construction. Activities (e.g., *-imbá* ‘sing’) and series (e.g., *-kolóla* ‘cough’) are not acceptable with the persistive plus the stative construction because they lack a resultant coda phase. However, this generalization does not apply to directional activity verbs (e.g., *-peela* ‘run’). These verbs can occur with the persistive plus the stative construction to express the continuation of an event. The occurrence of the persistive plus the stative construction with directionals and the non-occurrence of this construction with perception statives indicate ongoing changes in the system of the language. These changes challenge the theoretical framework used

in this study to classify aspectual classes. I will return to this issue in the concluding chapter in § 7.4. TABLE 24 below shows the interpretations of the persistive plus the stative construction in each aspectual class, and the phasal structure construals illustrating these interpretations.

Table 24: Interpretations and phasal structure construal of the persistive plus the stative construction in each aspectual class

Aspectual classes	Phasal structures	Readings
Transitional achievements		Express temporariness of the result state
Irreversible resultative achievements		Infelicitious
Reversible resultative achievements		Express temporariness of the result state
Accomplishments		Express temporariness of the result state
Perception statives		Infelicitious
Non-perception statives		Express temporariness of the stative event

Aspectual classes	Phasal structures	Readings
Activities		Infelicitous, except for directionals, in which the construction denotes a continuation of the event
Series		Infelicitous

## 4.5 The inceptive aspect

As defined in § 2.4.2, the inceptive aspect is a type of grammatical aspect which refers to the (sudden) start of the situation (inchoative reading) or to a point just before the start of the situation (proximate reading). In Nyamwezi, as in many other Bantu languages, e.g., Kagulu (Petzell, 2008), the inceptive can be marked either lexically, by the verb *-andya* ‘start’, as exemplified in (252) below, or inflectionally, by the prefix *-yúú-*, illustrated in (253). The inceptive verb *-andya* is further discussed in § 5.2.

(252) *waandyág'*                              *úukogola*  
 ó-á-andy-ag-a                              ó-ku-gól-a  
 1SP-PST-start-HOD\_PST-FV    AUG-INF-buy-FV  
 ‘S/he has started to buy (it) (earlier today or a short while ago)’

(253) *waayúúgola*  
 ó-á-yúú-gól-a  
 1SP-PST-INC-buy-FV  
 ‘S/he has just started to buy (it)’

As noted in § 2.4.2, the inceptive prefix *-yúú-* denotes two types of interpretations: inchoative and proximate. Based on these interpretations, the inceptive prefix is used in this study as a diagnostic test for the durativity of the initial phase of the event, i.e., it selects a durative initial phase to denote an inchoative reading (translated as *X is starting to X-ing*). For aspectual classes with a punctual initial phase, the inceptive aspect does not denote this reading; instead, it denotes a proximate reading (translated as *X is just about or is on the point of X-ing*). This reading indicates that the time of utterance is prior to the beginning of an event (i.e., the event is viewed from the external point of view). The discussion of the interactions of the inceptive prefix with aspectual classes of verbs proceeds as follows: § 4.5.1 discusses the interaction of the inceptive

aspect with activities, series, statives and accomplishments, § 4.5.2 the inceptive aspect with transitional achievements and § 4.5.3 the inceptive aspect with resultative achievements.

### 4.5.1 Activities, series, statives and accomplishments

Recall that activities, series, statives (both perception and non-perception) and accomplishments all encode a durative nuclear phase, which denotes either a process (in activities and accomplishments), repetitions (in series) or a state (in statives). Accomplishments, unlike other aspectual classes, encode a coda phase in addition to a nuclear phase. See (188) for a schematic representation of activities, (190) for series, (189) for statives, and (191) for accomplishment verbs. That all these aspectual classes encode a durative nuclear phase is diagnosed by the inceptive prefix *-yóó-*, which selects the initial point of this phase to denote different types of inchoative readings. These readings vary based on the internal characteristics of the initial nuclear phase. In activities and accomplishments, the nuclear phase indicates a process; thus, the inceptive aspect denotes the start of the event's process, as exemplified in (254) below for activities and (255) for accomplishments.

(254) *waayíimbá*  
o-á-**yóó**-ímb-a  
1SP-PST-INC-sing-FV  
'S/he has just started to sing'

(255) *waayóózwaála*  
o-á-**yóó**-zwáal-a  
1SP-PST-INC-get\_dressed-FV  
'S/he has just started to dress or put on (a garment)'

In series verbs, the nucleus indicates repetitions or multiple occurrences of an event; thus, the inceptive aspect, as shown in (256) below, denotes the start of an iterative situation.

(256) *waayóókólóla*  
o-á-**yóó**-kólol-a  
1SP-PST-INC-cough-FV  
'S/he has started to cough (continuously or serially)'

In statives (both perception and non-perception), the nucleus indicates a state; thus, the inceptive aspect denotes the start of the stative event, as exemplified in (257) for perception statives and (258) for non-perception statives.

(257) *waayóúβoná*

σ-ά-**γύο**-βόν-α

1SP-PST-INC-see-FV

‘S/he (e.g., the small child) has started (to be able) to see’

(258) *βαáyíikólá*

βά-ά-**γύο**-ikól-ά

2SP-PST-INC-resemble-FV

‘They (e.g., a father and a child) have started to resemble each other (previously they did not)’

## 4.5.2 Transitional achievements

Recall that transitional achievements encode all three phases: onset (coming-to-be), nucleus (point of transition) and coda (result state) (see (199) for a schematic representation). In this class, the initial phase (onset) is durative; thus, the inceptive aspect selects the initial subpart of this phase to denote the coming into existence of an event, as exemplified in (259) below.

(259) a. *waayóúgma*

σ-ά-**γύο**-gm-α

1SP-PST-INC-be(come)\_fat-FV

‘S/he has started to become fat’

b. *gaáyóúseβa*

γά-ά-**γύο**-seβ-α

6SP-PST-INC-boil-FV

‘It (e.g., the water) has just started to boil (i.e., it has just started to heat up)’

## 4.5.3 Resultative achievements

Recall that resultative achievements (both irreversible and reversible) encode only a nuclear phase (point of transition) and a coda phase (result state) (see (205) and (206) for schematic representations). In this class, the initial phase (nucleus) is punctual. Evidence for this comes from the interpretation of the inceptive aspect, which denotes a proximate reading, i.e., *X is just about or on the point to X-ing*. This reading is exemplified in (260) for irreversible achievements and (261) for reversible achievements.

(260) *lyááyóófaá*  
 lí-á-yúú-f-aá  
 5SP-PST-INC-die-FV  
 ‘It (e.g., the dog) is just about to die or is on the point of dying’

(261) *waayóógwa*  
 ú-á-yúú-gw-a  
 1SP-PST-INC-fall\_down-FV  
 ‘S/he is just about to fall down’

In resultative achievements, the proximate reading denotes that the inceptive aspect does not select the initial nuclear phase; instead, it selects a point just before this phase to denote that the event has not started, but that it will start very soon.

#### 4.5.4 Interpretations of the inceptive aspect: summary

To sum up, the inceptive aspect is used as a diagnostic test for the durativity of the initial phase of the event, i.e., it selects an initial phase that has duration to denote that the event has started to take place. Aspectual classes that encode an initial phase that has duration are activities (e.g., *-imbá* ‘sing’), accomplishments (e.g., *-zwaála* ‘get dressed’), series (e.g., *-kolóla* ‘cough’), statives (e.g., *-boná* ‘see’) and transitional achievements (e.g., *-gimá* ‘be(come) fat’). In activities, accomplishments, series and statives, the initial phase that has duration is a nucleus. In each of these aspectual classes, the nuclear phase has different semantic characteristics. In activities and accomplishments, the nucleus denotes a process; thus, the inceptive aspect denotes the start of the event’s process. In series, the nucleus denotes repetitions; thus, the inceptive denotes the start of an iterative situation. In statives, the nucleus denotes a state; thus, the inceptive prefix denotes the start of a stative event. In transitional achievements, the initial phase that has duration is an onset (or coming-to-be) phase. Thus, the inceptive prefix denotes the coming into existence of an event. Resultative achievements (e.g., *-faá* ‘die’), unlike all other aspectual classes, encode an initial phase (nucleus) that lacks duration. Thus, the inceptive aspect does not denote an inchoative reading; instead, it denotes a proximate reading. That in resultative achievements the inceptive aspect denotes a proximate reading, rather than an inchoative reading, is good evidence that the verbs in this class encode a punctual nuclear phase. TABLE 25 below shows the interpretations of the inceptive aspect in each aspectual class, and the phasal structure construals illustrating these interpretations.

Table 25: Interpretations and phasal structure construals of an inceptive aspect in each aspectual class

Aspectual classes	Phasal structures	Readings
Activities		The start of the event's process
Series		The start of an iterative situation
Accomplishments		The start of the event's process
Statives (both perception and non-perception)		The start of the stative event
Transitional achievements		The coming into existence of an event
Resultative achievements (both irreversible and reversible)		Proximate (the 'be about to' start of the event or the sudden start of an event)

## 4.6 Summary and conclusion

This chapter discussed grammatical aspect tests – the first type of diagnostic tests for aspectual classes motivated in this study. These tests include the general imperfective, the stative construction, the persistive plus the progressive, the persistive plus the stative construction, and the inceptive. These tests can be divided into two groups. The first group includes diagnostic tests that were used to classify verbs based on the acceptability of occurrence of a verb with a grammatical construction. This group includes the persistive plus general

imperfective, the stative construction and the persistive plus stative construction. The persistive plus the general imperfective was used as a test for durativity. This test/construction is acceptable with aspectual classes that encode an initial phase that has duration, such as activities (as in *ataál' áálimba* 'S/he is still singing/still sings'), and is unacceptable with those classes that encode a punctual initial phase, such as resultative achievements (as in *#litaáli liliβola*, intended: 'It is still becoming rotten'). The stative construction was used as a test for stativity. This test/construction is acceptable with aspectual classes that encode a phase which denotes a (result) state such as accomplishments (as in *azwaálilé* 'S/he is dressed in or wearing (a garment)') and unacceptable in those classes that encode non-stative phases, such as activities (as in *#asekilé*, intended: 'S/he is (in the state of) laughing'). Lastly, the stative plus the stative construction was used as a diagnostic test for the reversibility of the (result) state. This test/construction is acceptable with aspectual classes that encode a phase that denotes a non-permanent (result) state, such as reversible resultative achievements (as in *ataáli wiikalilé* 'S/he is still seated'), and is unacceptable with those encoding phases that denote permanent (result) states, such as irreversible resultative achievements (as in *#ataál' ááfílé*, intended: '#S/he is still dead').

It is important to mention that the stative construction and the persistive plus the stative construction are sometimes sensitive to aspectual properties that are not correlated. For example, as noted above, the stative construction, as a rule of thumb, occurs with verbs whose aspectual classes encode a phase that denotes a (result) state. However, there are cases where this construction can also occur with verbs that encode a non-stative phase, such as directionals (as in *aziilé* 'S/he is (in the state of) going home'). There are also cases where this construction cannot occur with verbs that encode a stative nuclear phase, such as perception statives (as in *#wiigwílé*, intended: 'S/he hears (i.e., s/he is in the state of hearing)'). These cases indicate some of the ongoing changes in the system of the language that cannot be predicted using the stative construction (as a diagnostic test) and the theoretical framework adopted in this study.

The second group of diagnostic tests include the general imperfective and the inceptive aspect. These tests/constructions are compatible with all aspectual classes, but indicate readings which vary based on the phasal structure of the aspectual class. In this regard, these tests were used to classify verbs based on their interpretive possibilities. These tests/constructions are used to differentiate aspectual classes with a durative initial phase from classes with a punctual initial phase. In classes with a durative initial phase, such as accomplishments, the general imperfective denotes an ongoing reading (as in *aluzwaála* 'S/he is getting dressed or putting on (a garment)') while the inceptive aspect denotes an inchoative reading (as *waayóózwaála* 'S/he has just started to dress or put on (a



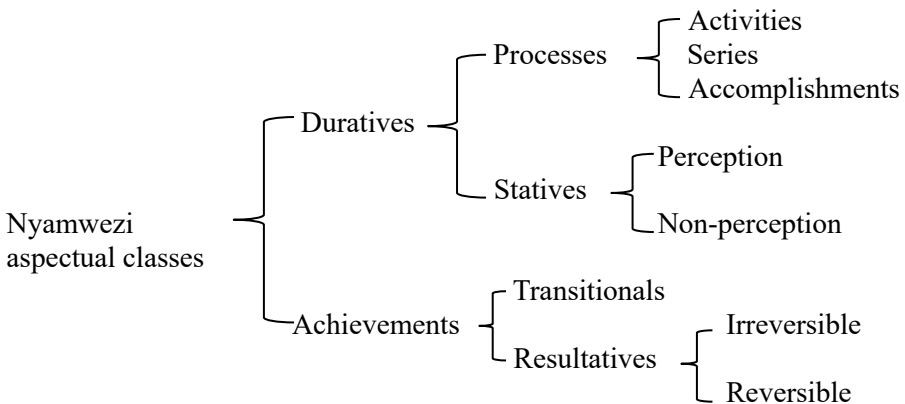
garment)'). In contrast, in those aspectual classes with a punctual initial phase, such as resultative achievements, the general imperfective denotes an immediate future (as *aligwaa!* 'S/he appears to be about to fall down!'), while the inceptive denotes a proximate reading (as in *waayóógwa* 'S/he is just about to fall down'). The lack of ongoing and inchoative readings with the general imperfective and the inceptive aspect, respectively, is taken as an indication that the verb encodes a punctual initial phase, i.e., its initial phase cannot be selected or modified by these constructions.

## 5 Lexical tests

### 5.1 Introduction

This chapter discusses lexical tests. As noted in § 3.5 of Chapter 3, these tests consist of checking the compatibility and interpretational differences of the aspectualizers *-andya* ‘start’, *-oya* ‘stop’, *-mala* ‘finish’ and the adverbial *hadoóhádó* ‘slowly’ with verbs from different aspectual classes. Each of these tests is discussed in a separate section, i.e., *-andya* ‘start’ in § 5.2, *-oya* ‘stop’ in § 5.3, *-mala* ‘finish’ in § 5.4 and *hadoóhádó* ‘slowly’ in § 5.5. Aspectual classes for which the lexical tests will be used as diagnostics are given in (262) below, repeated from (160) for convenience.

(262) Nyamwezi aspectual classes



As noted in § 1.5.3.2 (of Chapter 1) and § 2.2 (of Chapter 1), Nyamwezi has many past and future morphological tenses. So, before embarking on the discussion of the interactions of aspectualizers *-andya* ‘start’, *-oya* ‘stop’ and *-mala* ‘finish’ with aspectual classes, a few words should be said about the tenses that will occur on these verbs.

The aspectualizers *-andya* ‘start’, *-oya* ‘stop’ and *-mala* ‘finish’, like all verbs in Nyamwezi, can receive different temporal readings based on the tense they are inflected for. I will illustrate this point using the aspectualizer *-andya* ‘start’,

which expresses the beginning of an event. When inflected with the immediate past (discussed in § 2.2.1.1), *-andya* denotes that the event has “just now” started, as exemplified in (263) below. When inflected with the hodiernal past (discussed in § 2.2.1.2), it denotes that the beginning of an event started earlier today, as illustrated in (264) below. When inflected with the pre-hodiernal past (discussed in § 2.2.1.3), it denotes that the beginning of an event started yesterday or any day before today, as illustrated in (265) below. In examples below, and in all other examples discussed in this chapter, the aspectualizer takes an infinitive complement.

- (263) *waáandy'*                                 *óókwiimbá*  
o-á-andy-a                                 o-ko-ímb-a  
 1SP- **PST**-start- **IMM\_PST**   AUG-INF-sing-FV  
 ‘S/he has just started to sing’

- (264) *waandyág'*                                *oókwiimbá*  
o-á-andy-ag-a                                o-ko-ímb-a  
 1SG-**PST**-start-**HOD\_PST-FV**   AUG-INF-sing-FV  
 ‘S/he has started to sing (earlier today or a short while ago)’

- (265) *waandij'*                                 *óókwiimbá*  
o-á-andy-íle                                 o-ko-ímb-a  
 1SG-**PST**-start-**PREHOD**   AUG-INF-sing-FV  
 ‘S/he started to sing (yesterday or before)’

Inflecting *-andya* ‘start’ with the future tenses similarly leads to different temporal readings. For example, when *-andya* is inflected with the hodiernal future tense (discussed in § 2.2.3.1), it denotes that the beginning of an event will start later today (after the reference/utterance time), as illustrated in (266) below. But when inflected with the post-hodiernal future (discussed in § 2.2.3.2), it denotes that the beginning of an event will start tomorrow or later, as in (267).

- (266) *akwaandy'*                                *oókwiimbá*  
a-ko-andy-a                                 o-ko-ímb-a  
 1SG-**HOD\_FUT**-start-**FV**   AUG-INF-sing-FV  
 ‘S/he will start to sing (later today)’

- (267) *alaandy'*                              *ókwiimbá*  
a-**laa**-andy-é                              u-ku-ímb-a  
1SG-**POSTHOD**-start-FV    AUG-INF-sing-FV  
'S/he will start to sing (tomorrow or later)'

In this study, the differences between aspectual classes will be diagnosed by aspectualizers that are inflected with either the hodiernal past or the pre-hodiernal past. Generally, aspectualizers inflected with the hodiernal past denote similar results to aspectualizers inflected with an immediate past, because both tenses reference a time within the same day of the speech event. The same can be said about the aspectualizers inflected with the pre-hodiernal past and those inflected with the remote past, i.e., they both denote similar results, because they reference a time earlier than today.

In all examples, the inflection of either the hodiernal past or pre-hodiernal past on the aspectualizers depends on the semantics of the complement verb. For example, in (268) below, repeated from (264), the aspectualizer *-andyá* 'start' is inflected with the hodiernal past, because the event of starting to sing can occur in between the time designated by this tense and the reference or utterance time. In contrast, in (269), *-andyá* is inflected with the pre-hodiernal past because the event of starting to become fat cannot occur in between the time designated by the hodiernal past and reference/utterance time, and thus (270) is infelicitous. This is true only for this particular verb, based on its meaning.

- (268) *waandyág'*                              *ókwiimbá*  
u-á-**andy-ag-a**                              u-ku-ímb-a  
1SG-**PST**-start-**HOD\_PST**-FV    AUG-INF-sing-FV  
'S/he has started to sing (earlier today or a short while ago)'

- (269) *waandij'*                              *ókogíma*  
u-á-**andy-íle**                              u-ku-gin-a  
1SP-**PST**-start-**PREHOD**    AUG-INF-be(come)-fat-FV  
'S/he started to become fat (a long while ago)'

- (270) *#waandyág'*                              *ókogíma*  
u-á-**andy-ag-a**                              u-ku-gin-a  
1SP-**PST**-start-**HOD\_PST**-FV    AUG-INF-be(come)-fat-FV  
Intended: 'S/he started to become fat (earlier today or a short while ago)'

The aspectualizers inflected with either the hodiernal future or post-hodiernal future do not exhibit different behaviours with different aspectual classes. They

all indicate that the event will start, stop or finish in the future. For this reason, the aspectualizers inflected with future tenses are not used as diagnostic tests for aspectual classes.

In the following sections, I will turn to the discussion of the aspectualizers as diagnostics for aspectual classes.

## 5.2 Co-occurrence with *-andyá* ‘start’

The aspectualizer *-andyá* ‘start’, like the inceptive aspect prefix (discussed in § 4.5), selects the initial part of a phase to express the beginning of an event. Recall that in this chapter *-andyá* as a diagnostic test, will be inflected with either the hodiernal past or the pre-hodiernal past. The co-occurrence of *-andyá* with these tenses indicates that the beginning of an event has a longer duration. This is so because these tenses denote events that started or occurred earlier today (hodiernal past) or in the time before today (pre-hodiernal past) and still hold at UT. In this respect, *-andyá*, inflected with these tenses, is used as a diagnostic test for the durativity of the initial phase of an event, i.e., it selects a durative initial phase to denote that the event has started to take place. Aspectual classes which encode a punctual initial phase should not be acceptable with *-andyá*, unless they are (pragmatically) reinterpreted as aspectual classes that encode a durative initial phase.

Before embarking on a discussion, it should be noted here that all verbs (except those denoting permanent events) are generally acceptable if *-andyá* (inflected with the hodiernal past or pre-hodiernal past) is used to refer to the beginning of multiple occurrences of an event (iterative reading). This reading is clear especially when *-andyá* is combined with the defective verb *koyó* ‘be’, as exemplified in (271a) below for a durative verb *-imbá* ‘sing’ and in (271b) for a punctual verb *-ikala* ‘sit’ In (271), (271a) refers to the beginning of multiple occurrences of singing and (271b) the beginning of multiple occurrences of sitting.

- (271) a. *waandyág’*    *koy’*    *imbá*  
           u-á-andy-ag-a                                        *koyó*    *imb-a*  
           1SP-PST-start-HOD\_PST-FV    be        sing-FV  
           ‘S/he has started to sing (serially) (Lit. #s/he has started to be singing)’

- b. *waandyág'*                                      *koy'*    *iikala*  
     o-á-andy-ag-a                                      *koyu*    *ikal-a*  
     1SP-PST-start-HOD\_PST-FV    be        sit-FV  
     ‘S/he has started to sit (serially) (Lit. #S/he has started to be sitting)’

Verbs denoting permanent (or irreversible) events are not acceptable with *-andyá* combined with *koyu* (272) due to the permanent nature of their events.

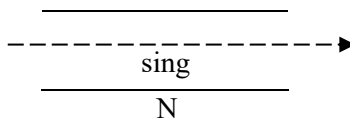
- (272) *#lyaandyág'*                                      *koyu*    *f-áá*  
     lí-á-andy-ag-a                                      *koyu*    *f-áá*  
     1SP-PST-start-HOD\_PST-FV    be        die-FV  
     ‘#It (e.g., the dog) has started to die (serially) (Lit. #It has started to be dying)’

In the following sections, the discussion of *-andyá* as a diagnostic test does not include an iterative reading, because (i) the iterative reading, as noted above, is usually licensed by the verb *koyu* ‘be’, and (ii) the reading is generally denoted by all verbs except those denoting permanent events. The discussion of the interactions of *-andyá* with aspectual classes proceeds as follows: § 5.2.1.1 discusses the interaction of *-andyá* with activities, series, statives and accomplishments, § 5.2.1.2 *-andyá* with transitional achievements and § 5.2.1.3 *-andyá* with resultative achievements.

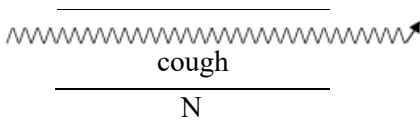
### 5.2.1.1 Activities, series, statives and accomplishments

As noted in § 3.4.1 in Chapter 3, activities, series, statives and accomplishments all encode a durative nuclear phase, which indicates either a process (in activities and accomplishments), repetitions (in series) or a state (in statives). In addition to a nuclear phase, accomplishments encode a coda phase which indicates the event’s result state. Schematic representations of these classes are given in (273)–(276) below.

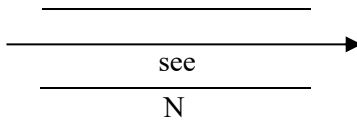
- (273) The phasal structure of activities



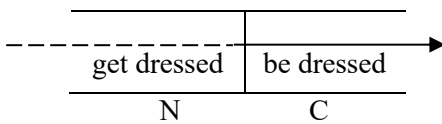
(274) The phasal structure of series



(275) The phasal structure of statives



(276) The phasal structure of accomplishments



That activities, series, statives and accomplishments encode a durative nuclear phase is diagnosed by the aspectualizer *-andyá*, which selects the initial sub-phase of this phase of the event to express the beginning of the process in activities (277) and accomplishments (278), the beginning of multiple occurrences of an event in series (279), and the beginning of a state in both perception statives (280) and non-perception statives (281).

(277) Activity verb

<i>waandyág'</i>	<i>ʊkwɪmbá</i>
ʊ-á-andy-ag-a	ʊ-ko-ímb-a
1SP-PST-start-HOD_PST-FV	AUG-INF-sing-FV
‘S/he has started to sing (earlier today or a short while ago)’	

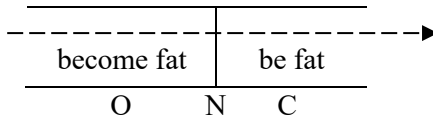
(278) Accomplishment verb

<i>waandyág'</i>	<i>ʊkɔzwaála</i>
ʊ-á-andy-ag-a	ʊ-ko-zwáal-a
1SP-PST-start-HOD_PST-FV	AUG-INF-get_dressed-FV
‘S/he has started to get dressed or to put on (a garment earlier today or a short while ago)’	





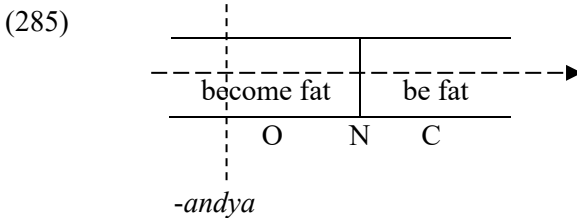
(283) Phasal structure of transitional achievements



The onset phase of transitional achievements is durative. This is evidenced by *-andyá*, which selects the initial sub-phase of this phase to denote the coming-to-be of an event, as exemplified in (284) below, and shown schematically in (285).

- (284) a. *waandij'*                      *óókogina*  
 ɔ-á-andy-íle                      ɔ-kɔ-gin-a  
 1SP-PST-start-PREHOD    AUG-INF-be(come)\_fat-FV  
 ‘S/he started to become fat (a long while ago)’

- b. *gaandyág'*                      *ɔokoseβa*  
 gá-á-andy-ag-a                      ɔ-kɔ-seβ-a  
 6SP-PST-start-HOD\_PST-FV    AUG-INF-boil-FV  
 ‘It (e.g., the water) has started to boil (earlier today or a short while ago) (i.e., it has started coming to boil)’



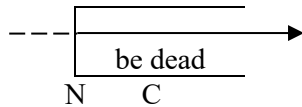
The cancelability of the event transition, as shown in (286) below, provides further evidence that in transitional achievements *-andyá* ‘start’ selects the initial sub-phase of the event’s onset rather than the coda phase (result state).

- (286) *gaandyág'*                      *íla*    *gakáséβíle*  
 gá-á-andy-ag-a                      íla    gá-ká-seβ-íle  
 6SP-PST-start-HOD\_PST-FV    but    6SP-NEG-boil-FV  
 ‘It (e.g., the water) has started (coming to the boil) but hasn’t boiled’

### 5.2.1.3 Resultative achievements

As noted in § 3.4.2.2, resultative achievements differ from transitional achievements in encoding only a punctual nucleus (a point of change/transition) and a coda (or result state) phase, as shown schematically in (287) below (cf. (283)).

(287) The phasal structure of resultative achievements



There are two types of resultative achievements: irreversible achievements, which encode a permanent result state, and reversible achievements, which encode a temporary result state. In both classes, *-andyá* ‘start’, inflected with the hodiernal past, is correctly predicted to be infelicitous because there is no onset phase, and the initial phase (nucleus) is punctual (lacks duration). The co-occurrence restriction of *-andyá* with irreversible and reversible achievements is illustrated in (288) and (289).

(288) Irreversible achievement

<i>#lyaandyág’</i>	<i>óókofaá</i>
lí-á-andy-ag-a	o-kɔ-f-aá
5SP-PST-start-HOD_PST-FV	AUG-INF-die-FV

Intended: ‘#It (e.g., the dog) has started to die (earlier today or a short while ago)’

(289) Reversible achievement

<i>#lyaandyág’</i>	<i>óókogwa</i>
lí-á-andy-ag-a	o-kɔ-gw-a
5SP-PST-start-HOD_PST-FV	AUG-INF-fall_down-FV

Intended: ‘It (e.g., the wall) has started to fall down (earlier today or a short while ago) (i.e., it has started the process of falling down)’

Note that when irreversible and reversible achievements occur with the aspectualizer *-andyá* ‘start’ inflected with plural subjects, they are reinterpreted as durative verbs, or more precisely as series verbs. The construction then indicates the beginning of multiple occurrences of the event, as exemplified in (290) and (291) below.

(290) Irreversible achievement

*gaandyág'*                      *óókofaá*  
gá-á-andy-ag-a                  ɔ-kɔ-f-aá  
6SP-PST-start-HOD\_PST-FV   AUG-INF-die-FV

'They (e.g., the dogs) have started to die (one by one) (earlier today or a short while ago)'

(291) Reversible achievement

*gaandyág'*                      *óókogwa*  
gá-á-andy-ag-a                  ɔ-kɔ-gw-a  
6SP-PST-start-HOD\_PST-FV   AUG-INF-fall\_down-FV

'They (e.g., the walls) have started to fall down (one by one) (earlier today or a short while ago)'

## 5.2.2 Interpretations of *-andyá* 'start': Summary

To sum up, the aspectualizer *-andyá* 'start' is used as a diagnostic test for aspectual classes that encode a durative initial phase and denotes that the event has started to take place. The different interpretations of *-andyá* when it co-occurs with verbs in different aspectual classes provides evidence that these classes are distinct. Aspectual classes that encode a durative initial phase are activities (e.g., *-imbá* 'sing'), series (e.g., *-kolóla* 'cough'), statives (e.g., *-boná* 'see'), accomplishments (e.g., *-zwaála* 'get dressed') and transitional achievements (e.g., *-gma* 'be(come) fat'). The initial phases in these classes – a nucleus in activities, series, statives, and accomplishments, and an onset in transitional achievements – denote different semantic characteristics. In activities and accomplishments, the nucleus indicates a process; thus, *-andyá* denotes the beginning of a process. In series, the nucleus indicates repetitions; thus, *-andyá* denotes the beginning of multiple occurrences of the event. In statives, the nucleus indicates a state; thus, *-andyá* denotes the beginning of a stative event. In transitional achievements, an initial phase (onset) indicates the coming-to-be of an event; thus, *-andyá* denotes the beginning of the coming-to-be of an event. Resultative achievements (both irreversible (e.g., *-faá* 'die') and reversible (e.g., *-gwa* 'fall down')) encode a punctual initial phase; thus, as predicted, they are infelicitous with *-andyá*. However, resultative achievements that are inflected with a plural subject can be felicitous with *-andyá*. In this case, the verbs, as series, denote the beginning of multiple occurrences of an event. The inflection of a plural subject on a resultative achievement verb indicates an aspectual shift in which the resultative achievement is reinterpreted as a series verb. TABLE 26 below shows the phases selected by *-andyá* in each aspectual class and the readings encoded.

Table 26: The phases selected by *-andya* ‘start’ and the readings encoded

Aspectual classes	Phasal structures	Readings
Activities		The beginning of a process
Accomplishments		The beginning of a process
Series		The beginning of multiple occurrences of the event
Statives (both perception and non-perception)		The beginning of a stative event
Transitional achievements		The beginning of a coming-to-be phase of an event
Resultative achievements (both irreversible and reversible)		Infelicitous, unless inflected with a plural subject

### 5.3 Co-occurrence with *-oya* ‘stop’

In Nyamwezi, *-oya* ‘stop’ can be used to denote either an interruption or cessation reading. The cessation reading denotes the completion of a serial or habitual event, as exemplified in (292) below. In this example, *-oya* denotes the completion of multiple occurrences of cooking.

- (292) *woóyag'*                                      *óókuzugá*  
 ʊ-á-oy-ag-a                                      ʊ-kʊ-zúg-a  
 1SP-PST-stop-HOD\_PST-FV    AUG-INF-cook-FV  
 'S/he is no longer cooking'

The cessation reading is clear especially if *-oya* (as we saw in *-andya* 'start' (§ 5.2)) is combined with the defective verb *koyu*, as exemplified in (293) below.

- (293) *woóyag'*                                      *koyu zugá*  
 ʊ-á-oy-ag-a                                      koyu zúg-a  
 1SP-PST-stop-HOD\_PST-FV    be    cook-FV  
 'S/he is no longer cooking (Lit. #S/he has stopped to be cooking)'

In Nyamwezi, the cessation reading is expressed by all verbs except those that encode permanent events, in which *-oya*, as shown in (294) below, is infelicitous. The infelicity is due to the permanent nature of the event, i.e., the same event, such as *-faá* 'die', cannot occur more than once.

- (294) *#lyoóyag'*                                      *óókufaá*  
 lí-á-oy-ag-a                                      ʊ-kʊ-f-aá  
 5SP-PST-stop-HOD\_PST-FV    AUG-INF-die-FV  
 Intended: '#It (e.g., the dog) is no longer dying'

Since the cessation reading denoted by *-oya* is generally expressed with all verbs (except in those cases noted above), this reading is not used to determine the differences between aspectual classes.

The second reading of *-oya* (the interruption reading) denotes that the event was in progress but that it stopped before reaching its culmination or endpoint (295).

- (295) *woóyag'*                                      *óókuzugá*  
 ʊ-á-oy-ag-a                                      ʊ-kʊ-zúg-a  
 1SP-PST-stop-HOD\_PST-FV    AUG-INF-cook-FV  
 'S/he has stopped (the process of) cooking'

The interruption reading is not expressed by all verbs. It is only expressed by verbs which denote events that encode some duration. In this regard, *-oya* (denoting interruption reading) is used as a diagnostic test for the durativity of an initial phase, i.e., it only selects a durative initial phase to express that the event stopped before finishing. Aspectual classes which encode a punctual initial phase do not express this reading with *-oya*. The discussion of the interactions of the aspectualizer *oya* 'stop' with aspectual classes proceeds as follows: § 5.3.1

discusses the interaction of *-oya* with activities, series, statives and accomplishments, § 5.3.2 *-oya* with transitional achievements and § 5.3.3 *-oya* with resultative achievements.

### 5.3.1 Activities, series, statives and accomplishments

Recall that activities, series, accomplishments and (both perception and non-perception) statives all encode a nuclear phase which describes a process (as in activities and accomplishments), repetitions (as in series) or a state (as in statives). Accomplishments, in addition to a nuclear phase, encode a coda/result state phase. (See (273)–(276) for schematic representations of these classes.) In these aspectual classes, the nuclear phase is durative; thus, as correctly predicted, they can occur with *-oya* to denote an interruption reading. In activities and accomplishments, *-oya* denotes an interruption to the event's process, as exemplified in (296) and (297), respectively, while in series it denotes an interruption to the multiple occurrences of an event, as shown in (298). In statives (both perception and non-perception), it denotes an interruption to the event's state, as shown in (299) for perception statives and (300) for non-perception statives.

(296) Activity verbs

<i>woóyag'</i>	<i>óókwiimbá</i>
ɔ-á-oy-ag-a	ɔ-ku-ímb-a
ISP-PST-stop-HOD_PST-FV	AUG-INF-sing-FV

'S/he has stopped (the process of) singing'

(297) Accomplishment verbs

<i>woóyag'</i>	<i>óókozwaála</i>
ɔ-á-oy-ag-a	ɔ-ku-zwáal-a
ISP-PST-stop-HOD_PST-FV	AUG-INF-get_dressed-FV

'S/he has stopped (the process of) getting dressed or putting on (a garment)

(298) Series verbs

<i>woóyag'</i>	<i>óókokólóla</i>
ɔ-á-oy-ag-a	ɔ-ku-kólol-a
ISP-PST-stop-HOD_PST-FV	AUG-INF-cough-FV

'S/he has stopped (the process of) coughing (continuously or serially)'

(299) Perception stative verb

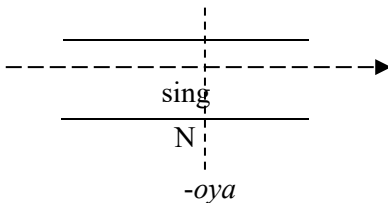
<i>woóyag'</i>	<i>óókoliβóná</i>
υ-á-oy-ag-a	υ-ku-lí-βón-a
1SP-PST-stop-HOD_PST-FV	AUG-INF-5OP-see-FV
'S/he has stopped seeing it'	

(300) Non-perception stative verb

<i>lyoóyag'</i>	<i>óókomoonda</i>
lí-á-oy-ag-a	υ-ku-moond-a
5SP-PST-stop-HOD_PST-FV	AUG-INF-be_soft-FV
'It (e.g., the mattress) has stopped being soft'	

A schematic representation in (301) below shows the event structure of the interruption reading denoted by *-oya* 'stop' in activities like *-imbá* 'sing'. A similar schema can also be used to represent this reading in accomplishments, series and statives.

(301) Interruption of the event



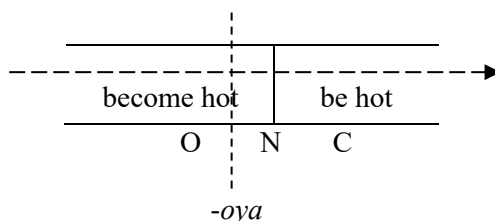
### 5.3.2 Transitional achievements

Recall that transitional achievements (e.g., *-gína* 'be(come) fat', *-seβa* (intr.) 'boil', *-βoomba* 'be(come)\_soaked', unlike all other classes, encode three phases: an onset (or coming-to-be), a nucleus (or point of transition) and a coda (result state) phase (see (199) for a schematic representation). In this aspectual class, the initial phase (onset or coming-to-be) is durative; thus, as correctly predicted, *-oya* can select this phase to denote that the coming-to-be phase of an event has been interrupted before reaching the point of transition to the nuclear phase. This reading is exemplified in (302) below and schematized in (303).

(302) a.	<i>goóyag'</i>	<i>óókuseβa</i>
	gá-á-oy-ag-a	υ-ku-seβ-a
	6SP-PST-stop-HOD_PST-FV	AUG-INF-boil-FV
	'It (e.g., the water) has stopped coming to the boil'	

- b. *goóyag'*    *óókoboomba*  
 gá-á-oy-ag-a    ó-ku-βoomb-a  
 6SP-PST-stop-HOD\_PST-FV   AUG-INF-be(come)\_soaked-FV  
 ‘They (e.g., the cassava) have stopped being soaked’

(303) Interruption of the coming-to-be phase of a transitional achievement



### 5.3.3 Resultative achievements

Resultative achievements, unlike transitional achievements, encode only a punctual nuclear phase (point of transition) and a coda phase (result state). Recall from § 3.4.2.2 that there are two subclasses of resultative achievements: irreversible, which encodes a permanent result state, and reversible, which encodes a temporary result state. (See (205) and (206) for schematic representations of these classes.)

Resultative (reversible and irreversible) achievements do not encode an onset or a coming-to-be phase and their initial phase (nucleus) is punctual; thus, as correctly predicted, *-oya* does not denote an interruption reading, as shown in (304) and (305) below.

(304) Reversible achievements

- woóyag'*    *óókogwa*  
 ó-á-oy-ag-a    ó-ku-gw-a  
 1SP-PST-stop-HOD\_PST-FV   AUG-INF-fall\_down-FV  
 ‘S/he is no longer falling down’ NOT ‘#S/he has stopped (the process of) falling down’

(305) Irreversible achievements

- #lyoóyag'*    *óókobola*  
 lí-á-oy-ag-a    ó-ku-βol-a  
 5SP-PST-stop-HOD\_PST-FV   AUG-INF-be(come)\_rotten-FV  
 Intended: ‘#It (e.g., the mango) has stopped (the process of) rotting’



As shown in (304) above, reversible resultative achievements are acceptable if *-oya* is used to denote a cessation of a serial or habitual event ('S/he is no longer falling down'), but not the interruption of the event ('#S/he has stopped (the process of) sitting (down)'). As noted in § 5.3, the cessation reading is expressed for all verbs except those that describe events which are construed as lasting permanently, such as irreversible achievements, e.g., *-bola* 'be(come) rotten' (exemplified in (305)) and *-faá* 'die' (exemplified in (294)).

Before closing this section, it should be noted here that resultative achievements can denote an interruption reading with *-oya* if *-oya* is inflected for a plural subject. This indicates an aspectual shift in which a resultative achievement is classified as a series verb. This is exemplified in (306) and (307) below, in which *-oya*, as in series verbs, denotes an interruption of a series of separate events of the same kind.

(306) Reversible achievements

<i>boóyag'</i>	<i>óókugwa</i>
βa-á-oy-ag-a	υ-ku-gw-a
2SP-PST-stop-HOD_PST-FV	AUG-INF-fall_down-FV
'They have stopped (the process of) falling down'	

(307) Irreversible achievements

<i>goóyag'</i>	<i>óókubola</i>
gá-á-oy-ag-a	υ-ku-βol-a
6SP-PST-stop-HOD_PST-FV	AUG-INF-be(come)_rotten-FV
'They (e.g., the mangoes) have stopped (the process of) rotting'	

### 5.3.4 Interpretations of *-oya* 'stop': summary

To sum up, the aspectualizer *-oya* 'stop' has two meanings in Nyamwezi. It can be used to denote the cessation of a serial or habitual event, or an interruption of the event. The first reading is denoted by all verbs except those which encode a permanent event (irreversible achievements, e.g., *-faá* 'die'). The second reading is only denoted by verbs that denote an event which encodes a duration before it reaches its culmination or final point. With regard to the second reading, *-oya* is used as a diagnostic test for the durativity of the initial phase; it selects this phase to denote an interruption reading. Aspectual classes that encode a durative initial phase are activities (e.g., *-imbá* 'sing'), series (e.g., *-kolóla* 'cough'), statives (e.g., *-boná* 'see'), accomplishments (e.g., *-zwaála* 'get dressed') and transitional achievements (e.g., *-gma* 'be(come) fat'). In these classes, the initial phase – a nucleus for activities, series, statives and accomplishments, and on onset for

transitional achievements – denotes different semantic characteristics. In activities and accomplishments, the nucleus indicates a process; thus, *-oya* denotes the interruption of a process. In series, the nucleus indicates repetitions; thus, *-oya* denotes the interruption of multiple occurrences of the event. In statives, the nucleus indicates a state; thus, *-oya* denotes the interruption of a stative event. In transitional achievements, an initial phase (onset) indicates the coming-to-be of an event; thus, *-oya* denotes the interruption of the coming-to-be of an event. Resultative achievements (e.g., *-ikala* ‘sit’), unlike other classes, encode a punctual initial phase; thus, they cannot occur with *-oya* to denote an interruption reading. Note that resultative achievements can encode an interruption reading if *-oya* is inflected with a plural subject. In this case, resultative achievements are reinterpreted as series verbs: *-oya*, as in series verbs, denotes an interruption of a series of events of the same kind. TABLE 27 below shows the phases selected by *-oya* in each aspectual class and the readings encoded.

Table 27: The phases selected by *-oya* ‘stop’ and the readings encoded

Aspectual classes	Phasal structures	Readings
Activities		Interruption of the event's process
Accomplishments		Interruption of the event's process
Series		Interruption of the event's multiple occurrences
Statives (perception and non-perception)		Interruption of the event's state

Aspectual classes	Phasal structures	Readings
Transitional achievements		Interruption of the coming-to-be phase of the event
Irreversible resultative achievements		Infelicitous, unless inflected with a plural subject
Reversible resultative achievements		Do not express interruption reading, unless inflected with a plural subject

## 5.4 Co-occurrence with *-mala* ‘finish’

Semantically, the verb *-mala* ‘finish’ signifies that the event in question was in progress and that it was finally carried out to completion. In regard to this meaning, *-mala*, like the verb ‘finish’ in English (see Dowty, 1979, p. 57; Kearns, 2000, p. 214), is employed as a diagnostic test for both durativity and telicity (boundedness), i.e., it requires the verb it describes to denote an event that encodes a process and a culmination or final boundary. Verbs which do not encode a combination of these two aspectual features should not be acceptable with *-mala*.

Before embarking on a detailed discussion of *-mala* as a diagnostic test, it is important to note that *-mala*, like the verb (*kw-*)*isha* ‘(to) finish’ in Swahili (see Nicolle, 2012, p. 374), not only expresses the completion of the event’s process, but can also be used as a completive marker indicating that the event has already taken place, as exemplified in (308) below. In this example, *-mala* does not refer to the finishing of the dying process, but rather it asserts that the event of dying has already happened.

- (308) *ahw' aataáli mpaáng' ínsabo*  
 aho a-táá-li mu-paángá i-nsabo  
 when 1SP-PER-AUX 1NP-alive AUG-9NP.wealth  
*yaakwé yaali yiidibilé.*  
 ya-a-kwé yi-a-lí yi-Ø-idíb-íle.  
 9ACP-Ø-POSS3SG 9SP-PST-AUX 9SP-PST-still-STAT  
alimala kofa *yóosaámbáála ...*  
a-li-mal-a kØ-f-aá *yó-Ø-saámbáál-a*  
 1SP-IMPf-finish-FV INF-die-FV SP-CONS-scatter-FV  
 'When he was still alive, his wealth was intact. After he died it was scattered ....'

(Maganga & Schadeberg, 1992, p. 235)

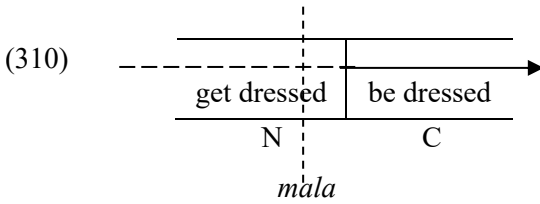
*-mala*, with the meaning 'already', is generally possible with all verbs in Nyamwezi. *-mala* with the meaning 'finish', as noted above, is only available with verbs that have both a process and a culmination or result state. *-mala* with the meaning 'finish' is used in the following sections to determine the differences encoded by aspectual classes.

### 5.4.1 Accomplishments

Accomplishments, as in the figure shown in (276), include verbs that encode both a nuclear phase and a coda phase. In this class, the nucleus denotes a process and the coda phase denotes a culmination (or result state) of the process. Because accomplishments encode both a process and a culmination/result state, they are acceptable with *-mala*, as shown in (309) below.

- (309) a. *waamálag'* *úkozwáála*  
 ú-á-mal-ag-a ú-kØ-zwáal-a  
 1SP-PST-finish-HOD\_PST-FV AUG-INF-get\_dressed-FV  
 'S/he has finished getting dressed or putting on (a garment)'
- b. *lyaamálag'* *úókochiþiwá*  
 lí-á-mal-ag-a ú-kØ-chiþ-iw-á  
 5SP-PST-finish-HOD\_PST-FV AUG-INF-block-PASS-FV  
 'It (e.g., the hole) has finished being blocked (i.e., the blocking is completed)'

A schematic representation showing the event structure construal of *-mala* in accomplishments is given in (310) below. Here, *-mala* selects the endpoint of the nuclear phase to indicate that the event has reached its culmination point.



## 5.4.2 Activities, series and statives

As in the figures shown in (273)–(275), activities, series and statives (both perception and non-perception) all encode only a durative nuclear phase, which denotes a process (activities), repetitions (series) or a state (statives). These classes lack a coda phase which indicates the culmination or the result state of the event; thus, as correctly predicted, they cannot occur with *-mála* as shown in (311) below.

- (311) a. #*waamálag'*                                      *ʋʋkɔseká*                      (activity)  
           ʋ-á-mal-ag-a                                      ʋ-kɔ-sek-a  
           1SP-PST-finish-HOD\_PST-FV            AUG-INF-laugh-FV  
           Intended: ‘#S/he has finished laughing’
- b. #*waamálag'*                                      *ʋʋkɔkólóla*                      (series)  
           ʋ-á-mal-ag-a                                      ʋ-kɔ-kólol-a  
           1SP-PST-finish-HOD\_PST-FV            AUG-INF-cough-FV  
           Intended: ‘#S/he has finished coughing (continuously or serially)’
- c. #*waamálag'*                                      *ʋʋkɔβóná*                      (perception stative)  
           ʋ-á-mal-ag-a                                      ʋ-kɔ-βón-a  
           1SP-PST-finish-HOD\_PST-FV            AUG-INF-see-FV  
           Intended: ‘S/he has finished seeing’
- d. #*waamálag'*                                      *ʋʋkwiizókíla* (non-perception stative)  
           ʋ-á-mal-ag-a                                      ʋ-kɔ-izókíla-a  
           1SP-PST-finish-HOD\_PST-FV            AUG-INF-remember-FV  
           Intended: ‘S/he has finished remembering’

Note that some activities (312) and statives (313) can be reinterpreted as accomplishments, especially if they denote events which are controlled by their subject (agentive or controlling events) (cf. *-βóná* ‘see’ in (311c) above, and *-degeléka* ‘listen’ in (313) below). In the examples below, *-mála*, as in accomplishments, denotes the completion of the event’s process.

- (312) *waamálag'*    *ɔ̀okwiimbá*      (activity)  
    ɔ̀-á-mal-ag-a    ɔ̀-kɔ̀-imb-a  
    1SP-PST-finish-HOD\_PST-FV      AUG-INF-sing-FV  
    ‘S/he has finished singing (a song)’
- (313) *waamálag'*    *ɔ̀okodegéleka*      (perception stative)  
    ɔ̀-á-mal-ag-a    ɔ̀-kɔ̀-dégelek-a  
    1SP-PST-finish-HOD\_PST-FV      AUG-INF-listen-FV  
    ‘S/he has finished listening (to songs)’

Series verbs, unlike activities and statives, are usually not interpreted as accomplishments with *-mala*, (probably) because their nuclear phase (unlike activities and statives) does not denote a process/state. In series verbs, the nucleus denotes repetitions of the same event.

### 5.4.3 Resultative and transitional achievements

As in the figures shown in (283) and (285), transitional and resultative achievements (both irreversible and reversible) encode a punctual nuclear phase, which indicates the point of change/transition of an event, and a coda phase, which indicates the culmination or result state of the event. Transitional achievements, in addition to a nucleus and coda phase, encode a durative onset phase that denotes the coming-to-be of an event.

As correctly predicted, resultative achievements (both irreversible and reversible) are unacceptable with *-mala*, as shown in (314) below, because they describe events which encode a punctual nucleus, so they lack duration.

- (314) a. *#lyaamálag'*    *ɔ̀ókɔ̀faá* (irreversible achievement)  
    lí-á-mal-ag-a    ɔ̀-kɔ̀-f-aá  
    5SP-PST-finish-HOD\_PST-FV      AUG-INF-die-FV  
    Intended: ‘#It (e.g., the dog) has finished dying’
- b. *#waamálag'*    *ɔ̀okɔ̀gwa* (reversible achievement)  
    ɔ̀-á-mal-ag-a    ɔ̀-kɔ̀-gw-a  
    1SP-PST-finish-HOD\_PST-FV      AUG-INF-fall\_down-FV  
    Intended: ‘#S/he has finished falling down’

Although, transitional achievements resemble accomplishments in that they describe events which have duration (durative onset) and culmination (result state), they are not acceptable with *-mala*, as shown in (315) below. This is

because the result state does not mark the completion or endpoint of an event's process.

- (315) a. #*gaamálag'*                                  *óókoseβa*  
          *gá-á-mal-ag-a*                                  *o-ko-seβ-a*  
          6SP-PST-finish-HOD\_PST-FV      AUG-INF-boil-FV  
          Intended: '#It (e.g., the water) has finished boiling'
- b. #*waamálag'*                                  *oókogma*  
          *o-á-mal-ag-a*                                  *o-ko-gin-a*  
          1SP-PST-finish-HOD\_PST-FV      AUG-INF-be(come)\_fat-FV  
          Intended: '#S/he has finished becoming fat'

#### 5.4.4 Interpretations of *-mala* 'finish': summary

To sum up, the aspectualizer *-mala* 'finish' is used as a diagnostic test for both durativity and telicity (or boundedness): it occurs with aspectual classes that encode both a process and a culmination. Only accomplishments (e.g., *-zwaála* 'get dressed') have the phasal structure required by *-mala*; they denote a durative nucleus (which indicates the progression of the event) and a coda phase (which indicates the result state and completion of the event). Thus, they can occur with *-mala* to denote the completion of the event. Activities (e.g., *-imbá* 'sing'), series (e.g., *-kolóla* 'cough') and statives (e.g., *-βoná* 'see') are generally unacceptable with *-mala* because they describe events which lack a culmination/coda phase. Resultative achievements (e.g., *-faá* 'die') are also normally unacceptable with *-mala* because they describe events which encode a punctual nucleus, so they lack duration. Transitional achievements (e.g., *-gma* 'be(come) fat') describe events that have duration (durative onset) and culmination/result state (coda), but they are not generally acceptable with *-mala*, because the result state does not mark the completion of an event. Note that some activity verbs (e.g., *-imbá* 'sing') and stative verbs (e.g., *-degeléka* 'listen'), although they do not encode both a durative nucleus and coda, can be accepted with *-mala*, especially if they encode events which are under the control of the subject. In this case, these verbs are reinterpreted as accomplishments. Series verbs (*-kolóla* 'cough') resemble activities and perception statives in encoding only a durative nuclear phase, but series, unlike some activities and statives, cannot be reinterpreted as accomplishments, probably because their nuclei (unlike activities and statives) denote repetitions of the same event. In activities and statives, the nucleus denotes a process/state. TABLE 28 below gives a reading and an illustration of the phasal structure construal of the aspectualizer *-oya* in each aspectual class.

Table 28: Readings and phasal structure construals of *-oya* ‘finish’ in each aspectual class

Aspectual classes	Phasal structures	Readings
Accomplishments		Describe the completion of the event
Activities		Infelicitous, but some verbs can be accepted
Series		Infelicitous
Statives (both perception and non-perception statives)		Infelicitous, but some verbs can be accepted
Resultative achievements (both irreversible and reversible)		Infelicitous
Transitional achievements		Infelicitous

## 5.5 Co-occurrence with *hadoóhádó* ‘slowly’

In Nyamwezi, *hadoóhádó* ‘slowly’ is an adverbial which indicates that an event is or was carried out step-by-step, at a slow speed. With regard to this meaning, *hadoóhádó* is an effective test for both durativity and dynamicity, i.e., it requires the verb it describes not only to have duration but also internal changes that vary from moment to moment as the event progresses. As noted in § 3.3.2, Crane and Fleisch (forthcoming) made a similar observation in isiNdebele. They use the adverbial *buthaka* ‘slowly’ to differentiate activity verbs (e.g., *-cula* ‘sing’), which are both durative and dynamic, from resultative achievements (e.g., *-lamba* ‘get hungry’), which are punctual. Examples illustrating this distinction are given in (316) below, repeated from (158) in § 3.3.2.



(316) isiNdebele (Bantu, S.44; Crane & Fleisch, forthcoming)

a. *uSipho u-cul-a buthaka* (Activity)

AUG-Sipho 1SP-sing-FV slowly

‘Sipho sings slowly’

c. *#u-lamb-a buthaka* (Resultative achievements)

1SP-get\_hungry-FV slowly

Intended: ‘S/he gets hungry slowly’

In Nyamwezi, the discussion of the interaction of the aspectual classes with the adverbial *hadoóhádó* ‘slowly’ proceeds as follows: § 5.5.1 discusses the interaction of *hadoóhádó* with activities, series and accomplishments, § 5.5.2 *hadoóhádó* with transitional achievements, § 5.5.3 *hadoóhádó* with statives and § 5.5.4 *hadoóhádó* with resultatives.

### 5.5.1 Activities, series and accomplishments

Recall from § 3.4.1.1 and 3.4.1.2 that activities and series encode a nuclear phase which indicates the event’s process or – in the case of series verbs – multiple occurrences of an event. Accomplishments encode a coda phase (result state), in addition to a nuclear phase (see (273), (274) and (276) for a schematic representation of these classes).

In both activities and accomplishments, the nucleus is both durative and dynamic; thus, as correctly predicted, they are acceptable with *hadoóhádó*. In these classes, *hadoóhádó* selects the nuclear phase to denote that the process of the event was carried out slowly, as exemplified in (317) below for activities and (318) for accomplishments.

(317) a. *wimbilé* *hadoóhádó*  
u-á-imb-íle *hadoóhádó*  
1SP-PST-sing-PREHOD slowly  
‘S/he sang slowly (yesterday or before)’

b. *waapeélilé* *hadoóhádó*  
u-á-peel-íle *hadoóhádó*  
1SP-PST-run-PREHOD slowly  
‘S/he ran slowly (yesterday or before)’

- (318) a. *waazwaálilé* *hadoóhádó*  
 ɔ-á-zwaál-íle *hadoóhádó*  
 1SP-PST-get\_dressed-PREHOD slowly  
 ‘S/he got dressed in or put on (a garment) slowly (yesterday or before)’
- b. *lyaachiβílwé* *hadoóhádó*  
 lí-á-chiβ-íl-w-e *hadoóhádó*  
 5SP-PST-block-PREHOD-PASS-PREHOD slowly  
 ‘It (e.g., a hole) was blocked slowly (yesterday or before)’

Series resemble activities and accomplishments in encoding a durative nucleus, but they are infelicitous with *hadoóhádó* because their nucleus is non-dynamic, i.e., it does not indicate a continuous/gradual process. The nucleus of series denotes separate events which repeat from moment to moment. The infelicitousness of series verbs with *hadoóhádó* is exemplified in (319) below.

- (319) a. *#waakólólilé* *hadoóhádó*  
 ɔ-á-kólól-íle *hadoóhádó*  
 1SP-PST-cough-PREHOD slowly  
 Intended: ‘S/he coughed slowly (yesterday or before)’
- b. *#waaditemilé* *hadoóhádó*  
 ɔ-á-ditem-íle *hadoóhádó*  
 1SP-PST-tremble-PREHOD slowly  
 Intended: ‘S/he trembled slowly (yesterday or before)’

## 5.5.2 Transitional achievements

Recall from § 3.4.2.1 that transitional achievements encode an onset, which denotes the coming-to-be of an event, a nucleus, which denotes a punctual point-of-change/transition, and a coda, which denotes the result state of the event (see (283) for a schematic representation). In this class, the initial phase (onset) is both durative and dynamic; thus, as predicted, *hadoóhádó* ‘slowly’ is acceptable. In this class, *hadoóhádó* selects the onset phase to denote that the coming-to-be phase of the event occurred slowly, as exemplified in (320) below.

(320) a. *gaaséβilé* *hadoóhádó*  
 gá-á-seβ-íle hadoóhádó  
 6SP-PST-boil-PREHOD slowly  
 ‘It (e.g., the water) slowly became hot (yesterday or before)’

b. *gaaβóómbilé* *hadoóhádó*  
 gá-á-βoomb-íle hadoóhádó  
 6SP-PST-be(come)\_soaked-PREHOD slowly  
 ‘They (e.g., the cassava) slowly became soaked (yesterday or before)’

Note that in some transitional achievements, e.g., *-gma* ‘be(come) fat’, the adverbial *hadoóhádó* is not acceptable, as shown in (321) below, because they denote events which are not controlled by their subject (non-agentive or controlling events). However, this generalization does not work systematically, as there are verbs, such as those exemplified in (320), that describe non-agentive events which are acceptable with *hadoóhádó*.

(321) #*waaginíle* *hadoóhádó*  
 u-á-gin-íle hadoóhádó  
 1SP-PST-be(come)\_fat-PREHOD slowly  
 Intended: ‘S/he became fat slowly (yesterday or before)’

### 5.5.3 Statives

Recall from § 3.4.1.3 that statives (both perception and non-perception) resemble activities and series in encoding only a nucleus that indicates an ongoing state. In statives, unlike activities and series, the nucleus is conceived as encoding a non-dynamic/static event (a homogeneous event). Thus, as predicted, their occurrence with *hadoóhádó* ‘slowly’ is infelicitous, as shown in (322) below for perception statives and in (323) for non-perception statives.

(322) a. #*waabónilé* *hadoóhádó*  
 u-á-βón-íle hadoóhádó  
 1SP-PST-see-PREHOD slowly  
 Intended: ‘#S/he saw slowly (yesterday or before)’

b. #*waabóonjilé* *hadoóhádó*  
 u-á-βoonj-íle hadoóhádó  
 1SP-PST-taste-PREHOD slowly  
 Intended: ‘#S/he tasted (e.g., the soup) slowly (yesterday or before)’

(323) a. #*waantógílwé* *hadoóhádó*  
 ɔ-á-mu-togw-íle *hadoóhádó*  
 1SP-PST-1OP-love/like-PREHOD slowly  
 Intended: ‘#S/he loved/liked her/him slowly (yesterday or before)’

b. #*wiizókílilé* *hadoóhádó*  
 ɔ-á-izókíl-íle *hadoóhádó*  
 1SP-PST-remember-PREHOD slowly  
 Intended: ‘#S/he remembered slowly (yesterday or before)’

Among all statives, only *-moonda* ‘be(come) soft’ is licit with *hadoóhádó* and, as shown in (324) below, it has the meaning that the coming-to-be phase of an event was carried out slowly. This example indicates the fact pointed out by Dowty (1979, p. 65) and Walková (2012, p. 515) that the tests for aspectual classes do not always give totally consistent results across all verbs in a particular aspectual class.

(324) *lyaamóondilé* *hadoóhádó*  
 lí-á-moond-íle *hadoóhádó*  
 5SP-PST-be(come)\_soft-PREHOD slowly  
 ‘It (e.g., the mattress) became soft slowly (yesterday or before)’

## 5.5.4 Resultative achievements

Recall from § 3.4.2.2 that resultative achievements, unlike transitional achievements (§ 5.5.2), encode only a punctual nucleus, which indicates a point-of-transition, and a coda, which indicates the result state. Recall also that there are two types of resultatives in Nyamwezi: irreversible and reversible.

The theory correctly predicts that both irreversible and reversible achievements are infelicitous with *hadoóhádó* ‘slowly’, as exemplified in (325) and (326), respectively. The reason for this infelicity is that the initial phase (nucleus) of the verbs in this class is punctual; hence, it cannot be modified by *hadoóhádó*, which requires a durational and dynamic initial phase.

(325) Irreversible achievements  
 a. #*waashikilé* *hadoóhádó*  
 ɔ-á-shik-íle *hadoóhádó*  
 1SP-PST-arrive-PREHOD slowly  
 Intended: ‘#S/he arrived slowly (yesterday or before)’

- b. #lyaa*fi*lélé                      *hadoóhádó*  
 lí-á-f-íle                              *hadoóhádó*  
 5SP-PST-die-PREHOD    slowly  
 Intended: ‘#It (e.g., the dog) died slowly (yesterday or before)’

- c. #lyaa*β*ólilélé                      *hadoóhádó*  
 lí-á-βol-íle                              *hadoóhádó*  
 5SP-PST-be(come)\_rotten-PREHOD    slowly  
 Intended: ‘#It (e.g., the mango) became rotten slowly (yesterday or before)’

(326) Reversible achievements

- a. #waagwíilélé                      *hadoóhádó*  
 ɔ-á-gw-íle                              *hadoóhádó*  
 1SP-PST-fall\_down-PREHOD    slowly  
 Intended: ‘#S/he fell down slowly (yesterday or before)’

- b. #waalaálilélé                      *hadoóhádó*  
 ɔ-á-laál-íle                              *hadoóhádó*  
 1SP-PST-sleep-PREHOD    slowly  
 Intended: ‘#S/he slept slowly (yesterday or before)’

As illustrated in (327) below, some resultative achievement verbs, such *-ikala* ‘sit’ and *-itóóndá* ‘squat’, if used in a special pragmatic context, can be coerced to occur with *hadoóhádó* to express that the coming-to-be phase of the event was carried out slowly. The occurrence of *hadoóhádó* with these verbs is a case of aspectual shift (triggered by context), i.e., resultative achievements are reinterpreted as transitional achievements.

(327) [The speaker reports about someone who takes a long time to sit down or to squat due to pain in the muscle of the hip or thigh]

- a. ?wiikálilélé                      *hadoóhádó*  
 ɔ-á-ikal-íle                              *hadoóhádó*  
 1SP-PST-sit-PREHOD    slowly  
 ‘S/he sat (down) slowly (yesterday or before) (i.e., s/he took a long time to sit down)’

- b. *?wiitóndilé*                      *hadoóhádó*  
 ɔ-á-itóónd-ile                      hadoóhádó  
 1SP-PST-squat-PREHOD        slowly

Intended: ‘S/he squatted slowly (yesterday or before) (i.e., s/he took a long time to squat)’

### 5.5.5 Interpretations of *hadoóhádó* ‘slowly’: summary

To sum up, the adverbial *hadoóhádó* ‘slowly’ is used to test if the event encodes an initial phase that could be construed as both durative and dynamic. Aspectual classes which encode the phasal structure required by *hadoóhádó* are activities (e.g., *-imbá* ‘sing’), accomplishments (e.g., *-zwaála* ‘get dressed’) and transitional achievements. In these classes, *hadoóhádó* selects an initial phase (which is a nucleus in activities and accomplishments and an onset phase in transitional achievements (e.g., *-seβa* ‘boil’) to denote that the process or coming-to-be phase of an event was carried out slowly. Other aspectual classes are infelicitous with *hadoóhádó* because they encode an initial phase which is either durative but not dynamic (e.g., statives: *-βoná* ‘see’, and series: *-kolóla* ‘cough’) or dynamic but not durative (e.g., irreversible resultative achievements: *-faá* ‘die’, and reversible resultative achievements: *-gwa* ‘fall down’). Note that in some contexts, reversible achievements can be coerced to occur with *hadoóhádó*, in which case the construction, as in transitional achievements, denotes that the coming-to-be phase of an event was carried out slowly. This indicates a case of aspectual shift that involves the reinterpretation of resultative achievements as transitional achievements. TABLE 29 below gives a summary of the interpretations of the adverbial *hadoóhádó* in each aspectual class. Where necessary, the phasal structure construal illustrating a particular interpretation of *hadoóhádó* is provided.

Table 29: Interpretations and phasal structure construals of *hadoóhádó* ‘slowly’ in each aspectual class

Aspectual classes	Phasal structures	Readings
Activities		The ongoing activity was carried out slowly

Aspectual classes	Phasal structures	Readings
Series		Infelicitous
Accomplishments		The ongoing activity was carried out slowly
Transitional achievements		The coming-to-be phase of the event occurred slowly
Statives (perception and non-perception)		Infelicitous
Resultative achievements (both irreversible and reversible)		Infelicitous, but some verbs can be pragmatically reinterpreted as transitional achievements

## 5.6 Summary and conclusion

In this chapter, the differences between the aspectual classes were demonstrated by applying four lexical item tests: *-andyá* ‘start’, *-oya* ‘stop’, *-mala* ‘finish’ and *hadoóhádó* ‘slowly’. *-andyá* and *-oya* were employed as diagnostic tests for durativity: *-andyá* ‘start’ was used to check whether a verb encodes a phase that can be said to start, and *-oya* ‘stop’ to check whether a verb encodes a phase that can be interrupted. These tests were used to distinguish aspectual classes with a durative initial phase (activities, series, statives, accomplishments and transitional achievements) from those with a punctual initial phase (resultative achievements). The former are acceptable with *-andyá* ‘start’ (as in *waandyág’ úokwimbá* ‘S/he has started (the process of) singing’) and *-oya* ‘stop’ (as in *woóyag’ úókwimbá* ‘S/he has stopped (the process of) singing’). The latter (resultative achievements) are unacceptable with both *-andyá* ‘start’ (as in *#waandyág’ úókogwa* ‘#S/he has started (the process of) falling down’) and *-oya* ‘stop’ (as in *#woóyag’ úókogwa* ‘#S/he has stopped (the process of) falling down’), because of the punctual nature of their initial phase.

*-mala* ‘finish’ and *hadoóhádó* ‘slowly, in contrast to *-andya* ‘start’ and *-oya* ‘stop’, do not test for a single aspectual feature (say durativity or dynamicity), but rather a combination of two features. With regard to *-mala* ‘finish’, this test was employed as a diagnostic for both durativity and telicity (or boundedness). This test was used to distinguish accomplishments from the rest of the aspectual classes. Only accomplishments are compatible with *-mala* ‘finish’ (as in *waamálag’óokozwaála* ‘S/he has finished dressing’), because they encode both duration (nuclear phase) and a culmination (resultant coda phase) which finishes the event. Activities, series and statives encode duration (nucleus) but lack culmination (coda). Resultative achievements encode culmination (coda) but lack duration (their nucleus is punctual). Transitional achievements have both duration (onset) and culmination (coda) but the culmination does not mark the final point of the event.

*hadoóhádó* ‘slowly’ was used as a diagnostic test for both durativity and dynamicity. It was used to distinguish aspectual classes that encode a phase which denotes both duration and dynamic changes (activities, accomplishments and transitional achievements) from those which encode a phase that have the (slightly) opposite pattern (statives, series and resultative achievements). The former aspectual classes are acceptable with *hadoóhádó*, as exemplified with a transitional achievement verb *-seβa* ‘boil’: *gaaséβilé hadoóhádó* ‘It became hot slowly’, whereas the latter classes are unacceptable with *hadoóhádó* because either the phase denotes duration but no dynamic changes (e.g., statives and series), or it denotes dynamic changes but no duration (e.g., resultative achievements).

It is worth mentioning that some of the verbs in these aspectual classes can be interpreted differently, especially if factors other than aspectual features (dynamicity, durativity and telicity) are considered. A key factor for the reinterpretation of aspectual classes is the inflection of the plural subject. For example, aspectual classes with a punctual initial phase (e.g., *-faá* ‘die’) are generally unacceptable with the aspectualizers *-andya* ‘start’, *-oya* ‘stop’ and *-mala* ‘finish’ (e.g., *#lyaandyág’ óókofaá* ‘#It (the dog) started to die’). However, these verbs can be accepted if they are inflected with a plural subject (e.g., *gaandyág’ óókofaá* ‘they (the dogs) started to die (one by one)’). In this case, each occurrence of a punctual event is conceived as a subpart of the durative event.



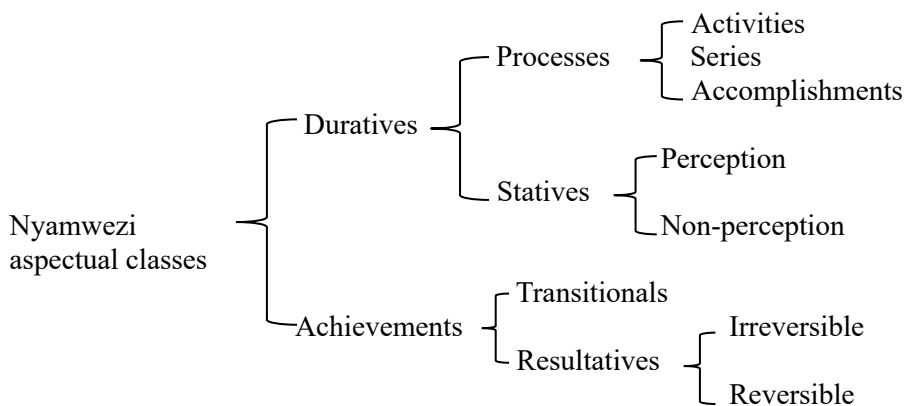


## 6 Tense and time adverbial tests

### 6.1 Introduction

This chapter discusses tense and time adverbial tests. As noted in § 3.5 of Chapter 3, these tests are based on checking the interpretational differences and/or co-occurrence restrictions of verbs in different aspectual classes. These tests are categorized into two types: past tense markers (discussed in § 6.2) and the *Take X time* construction (discussed in § 6.3). As a reminder, the aspectual classes for which the tense and time adverbial tests will be used as diagnostic are given in (328), repeated from (160) below.

(328) Nyamwezi aspectual classes

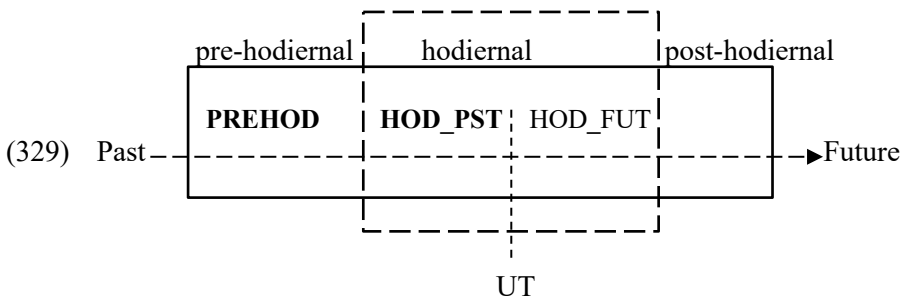


### 6.2 Past tense markers

Nyamwezi has many past and future tense markers. As noted in § 1.5.3.2 of Chapter 1, and broadly discussed in § 2.2 of Chapter 1, four types of past tenses are morphologically marked, namely the immediate past, hodiernal past, pre-hodiernal past and remote past, and two types of future tenses, namely the hodiernal future and post-hodiernal future. As noted in § 5.1, the immediate past and hodiernal past generally exhibit similar behaviour with different aspectual classes, and so do the remote past and pre-hodiernal past. This is because both the immediate past and hodiernal past reference a time within the same day of

the speech event, while the pre-hodiernal past and remote past reference a time outside of today. So instead of discussing all past tense constructions, in this section, I will discuss only the hodiernal past and pre-hodiernal past as tests for determining the differences between the aspectual classes. The future tense constructions are not discussed in this study because they do not exhibit different behaviours with different aspectual classes. As noted in § 5.1, in all aspectual classes, these tenses are used to locate a situation at a time subsequent to the utterance time or present moment.

The schema in (329) below (modified from FIGURE 4), represents the two tenses (bolded) that will be discussed in the present chapter: hodiernal past (HOD\_PST) and pre-hodiernal past (PREHOD). This schema will also be used to illustrate the event-structure construals of the various readings denoted by these tenses. In this schema, the hodiernal future (glossed as HOD\_FUT) is only given to show a point where the boundary between the past tenses (especially the hodiernal past) can be drawn. The hodiernal domain in the schema below references the time within the same day of the speech event, while the pre-/post- hodiernal domain references the time outside today.



The discussion of the hodiernal past and the pre-hodiernal past as diagnostics for aspectual classes is given in § 6.2.1 and § 6.2.2, respectively.

### 6.2.1 Hodiernal past

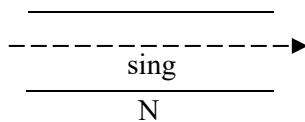
As noted in § 2.2.1.2, the hodiernal past, marked by *-á-VB-ag-a*, refers to an event that was completed earlier in the day of speaking. The hodiernal past, apart from its basic meaning, can be interpreted differently based on the aspectual class of the verb it occurs with. In verbs which do not encode a result state (coda phase), the hodiernal past situates the event within the day of speech and preceding UT. In contrast, in verbs which encode a result state, the hodiernal past asserts that the result state (coda phase) still holds at UT. With regard to these readings, the hodiernal past is an effective test for whether or not a verb encodes a coda phase

(Gunnink (2018, p. 305) made a similar argument in Fwe). The availability of a persisting coda state reading is taken as an indication that the verb encodes a coda phase. The following sections provide a more detailed discussion of the interactions of the hodiernal past with different aspectual classes. Aspectual classes which denote similar readings with the hodiernal past are discussed together.

### 6.2.1.1 Activities, series and statives

Recall from § 3.4.1.1 and § 3.4.1.3 (in Chapter 3) that activities, series and statives all encode only a nuclear phase, as shown schematically in (330) below, using an activity verb *-imbá* ‘sing’.

(330) The phasal structure of activities



All classes (activities, series and statives) lack a coda or result state phase; thus, as stated in the previous section, the hodiernal past situates the nucleus of the event earlier on the same day as UT, as exemplified in (331) below for activities, (332) for series and (333) for statives.

(331) Activity verbs

<i>wimbágá</i>	<i>yee</i>	<i>óɔja</i>	<i>kokalaála</i>
ɔ-á-imb- <b>ag-a</b>	yee	ó-ɔ-j-a	ko-ka-láal-a
1SP-PST-sing-HOD_PST-FV	EXCL	1SP-CONS-go-FV	INF-IT-sleep-FV

‘S/he sang a lot (earlier today or a short while ago) then she went to sleep’

(332) Series verbs

<i>lyakólólága</i>	<i>lyóóhoóla</i>	<i>lyóófáá</i>
lí-á-kólol- <b>ag-a</b>	lí-ɔ-ḡóol-a	lí-ɔ-f-aá
5SP-PST-cough-HOD_PST-FV	5SP-CONS-cry-FV	5SP-CONS-die-FV

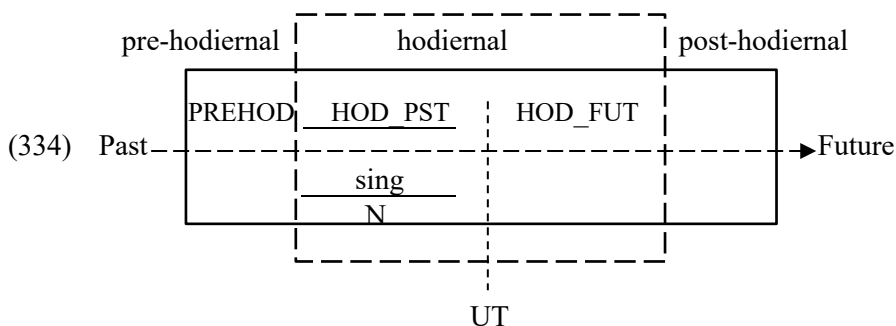
‘(Earlier today or a short while ago) it (e.g., the cow) coughed then cried with pain and then died’

(333) Stative verbs

*waagaβónágá*                                      *máβuúndú*     *gáá*   *nshiímbá*  
 υ-á-gá-βón-ag-a                                  ma-βuúndú     gaa   nshiímbá  
 1SP-PST-6OP-see-HOD\_PST-FV     6NP-claw        CON   10NP.lion

‘S/he saw/has seen the footprints of the lions (earlier today or a short while ago)’

The schematic representation illustrating the event-structure construal of the hodiernal past in activities, series and statives is given in (334) below, using *-imbá* ‘sing’. This verb, like other activities, series and stative verbs, encodes only the nuclear phase. This phase is situated within the day of speech and preceding UT.



Before closing this section, it is important to mention that some stative verbs, such as *-ikólá* ‘resemble’ and *-saata* ‘be sick’, exemplified in (335) below, rarely occur with the hodiernal past, because they denote events which have a long duration. It is unexpected for the events denoted by these verbs to be completed between the time designated by the hodiernal past and UT. This explains why some language consultants considered the occurrence of the hodiernal past with these verbs as infelicitous.

(335) a. *?βiikólágá*  
 βá-á-ikól-ag-á  
 2SP-PST-resemble-HOD\_PST-FV  
 ‘They (e.g., people) resembled each other (earlier today or a short while ago)’

- b. *?waasáataga*  
 ʊ-á-saat-**ag-a**  
 1SP-PST-be\_sick-HOD\_PST-FV  
 ‘S/he was sick (earlier today or a short while ago)’

Note also that some stative verbs, such as *-moonda* ‘be soft’, are reinterpreted as changes-of-state (achievements) when occurring with the hodiernal past. In this case, the recent past carries an assertion of a continued state, as shown in (336) below.

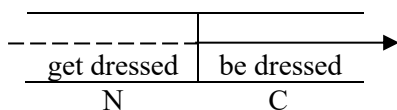
- (336) *lyaamóondága*                      *git’ ííβozuí*  
 lí-á-moond-**ag-a**                      gítí lí-βózúu  
 5SP-PST-be\_soft-HOD\_PST-FV like 5ACP-rotten  
 ‘It (e.g., the mango) is soft (lit. has become soft) as if it is rotten’

Having discussed the readings denoted by the hodiernal past in aspectual classes which encode only a nuclear phase, in the following section, I turn to the discussion of readings denoted by the hodiernal past in aspectual classes that, in addition to a nuclear phase, encode a coda phase. This includes accomplishments and achievements.

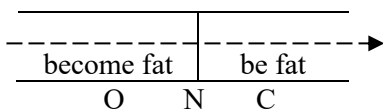
### 6.2.1.2 Accomplishments and achievements

Recall from § 3.4.1.2 and § 3.4.2 (in Chapter 3) that accomplishments and achievements (both transitional and resultative) include verbs which encode a nuclear phase, which denotes an event’s process/change-of-state, and a coda phase, which denotes a result state. See (337), (338) and (339) below for schematic representations of these classes.

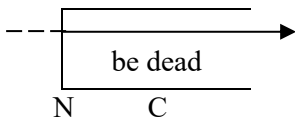
- (337) The phasal structure of accomplishments



- (338) The phasal structure of transitional achievements



(339) The phasal structure of resultative achievements



All classes encode a coda phase; thus, as stated/predicted in § 6.2.1, the hodiernal past carries an assertion of a continued state, i.e., it asserts that the result state (coda phase) still holds at UT. This reading is exemplified in (340) below for accomplishments, (341) for transitional achievements and (342) for resultative achievements.

(340) Accomplishment verbs

- a. *waazwaálága* *ɲweendá*  
 ɔ-á-zwáal-**ag-a** mu-énda  
 1SP-PST-get\_dressed-HOD\_PST-FV 3NP-piece\_of\_clothing  
*gwáapé*  
 gɔ-a-pé  
 3ACP-ø-white  
 ‘S/he is dressed in/wearing a white garment (lit. s/he got dressed in a white garment)’

- b. *isinki* *lyaachíβága*  
 i-sinki lí-á-chíβ-**ag-a**  
 5NP.sink 5SP-PST-block-HOD\_PST-FV  
 ‘The (kitchen) sink is blocked (lit. has become blocked)’

(341) Transitional achievements

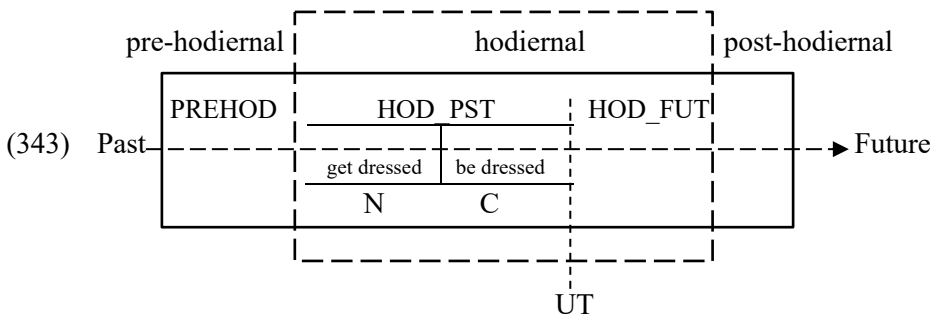
- a. *waaginága* *yee!*  
 ɔ-á-gin-**ag-a** yee  
 2SG-PST-be(come)\_fat-HOD\_PST-FV EXCL  
 ‘You are fat! (lit. have got fat(ter))’ [exclaimed by the speaker when encountering someone that s/he hasn’t seen for a very long time]

- b. *miinzi* *gaaséβága*  
 miínzi gá-á-seβ-**ag-a**  
 6NP.water 6SP-PST-boil-HOD\_PST-FV  
 ‘The water has boiled/is hot’

(342) Resultative achievements

- a. *mbwaá yáánéé yaafúúgá*  
 mbwaá y1-a-né y1-á-f-ag-aá  
 9NP.dog 9ACP-ø-POSS1SG 9SP-PST-die-HOD\_PST-FV  
 ‘My dog is dead (lit. has died)’
- b. *ijneembé lyaanéé lyaabólága*  
 i-jeembe l1-a-né lí-á-βol-ag-a  
 5NP-mango 5ACP-ø-POSS1SG 5SP-PST-be(come)\_rotten-HOD\_PST-FV  
 ‘My mango is rotten (lit. has become rotten)’
- c. *wiikálaga hamééza,*  
 o-á-ikal-ag-a ha-méeza,  
 1SP-PST-sit-HOD\_PST-FV LOC.16NP-9NP.table  
*ηwiicháge, akogwa*  
 mu-ích-ag-e a-ko-gw-a  
 1OP-make\_go\_down-IMP-FV 1SP-FUT-fall\_down-FV  
 ‘S/he (e.g., the child) is seated (lit. has sat) on the table, take her/him down, s/he will/may fall down’

The schematic representation illustrating the event-structure construal of the hodiernal past in accomplishments and achievements is given in (343) below using the accomplishment verb *-zwaála* ‘get dressed’. In this schema, the event of putting on or getting dressed in a garment was completed earlier today, but the result (coda phase) still holds at UT.



### 6.2.1.3 Interpretations of the hodiernal past: summary

To sum up, the hodiernal past is used as a diagnostic test for whether or not a verb encodes a result state (coda phase). In verbs which do not encode a coda phase, such as activities (e.g., *-imbá* ‘sing’), series (e.g., *-kolóla* ‘cough’) and statives (e.g., *-boná* ‘see’), the hodiernal past situates the event earlier within the



same day as UT. In contrast, in verbs which encode a coda phase, such as accomplishments (e.g., *-zwaála* ‘get dressed’) and achievements (e.g., *-gma* ‘be(come) fat’ and *-faá* ‘die’), the hodiernal past asserts that the result state still holds at UT. TABLE 30 below shows the interpretations of the hodiernal past in each aspectual class, and the phasal structure construals illustrating these interpretations.

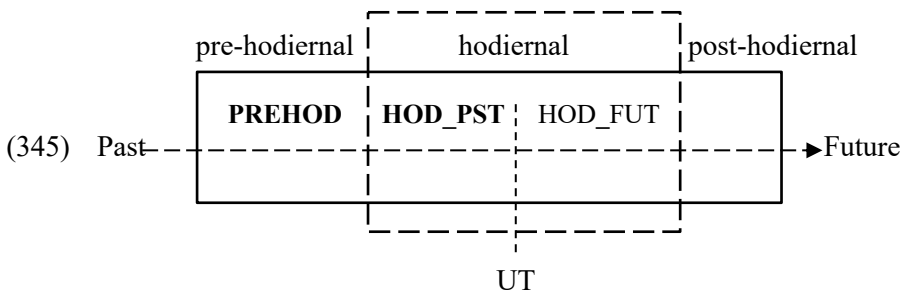
Table 30: Interpretations and phasal structure construals of hodiernal past in each aspectual class

Aspectual classes	Phasal structures	Readings
Activities		Completed earlier the same day, before UT.
Series		Completed earlier the same day, before UT
Statives (both perception and non-perception)		Completed earlier the same day, before UT
Accomplishments		Completed earlier the same day, but asserts that the result state (coda phase) still holds at UT
Transitional achievements		Completed earlier the same day, but asserts that the result state (coda phase) still holds at UT
Resultative achievements (both irreversible and reversible)		Completed earlier the same day, but asserts that the result state (coda phase) still holds at UT

## 6.2.2 Pre-hodiernal past

As noted in § 2.2.1.3, this tense, marked with *-á-VB-ile*, is primarily used for events that occurred any day before today, i.e., yesterday, last week or month or year, etc. This reading is exemplified in (344) below, and its location on the time-line is shown schematically in (345), repeated from (329).

- (344) *waagóilé*  
 ɔ-á-gól-íle  
 1SP-PST-buy-PREHOD  
 ‘S/he bought (it) (yesterday or before)’



Apart from its basic meaning, the pre-hodiernal past, like the hodiernal past, can be interpreted differently based on the aspectual class of the verb it occurs with. In verbs which do not encode a result state (coda phase), the pre-hodiernal past situates the event outside the day of UT. In contrast, in verbs which encode a result state, the pre-hodiernal past, like the hodiernal past, generally indicates that the resultant coda phase still holds at UT. In the pre-hodiernal past, the persisting coda state is an implicature, while in the hodiernal past it is an assertion.

With regard to what is stated above, the pre-hodiernal past, like the hodiernal past, is an effective test for whether or not a verb encodes a coda phase. The availability of a persisting coda state reading is taken as an indication that the verb encodes a coda phase. The following sections provide a more detailed discussion of the interactions of the pre-hodiernal past with different aspectual classes.

### 6.2.2.1 Activities, series and statives

Recall that activities, series and statives encode only a durative nuclear phase which denotes a process, repetitions or a state (see (273)–(275) for schematic representations). These classes lack a coda phase; thus, the pre-hodiernal past, as stated/predicted in the previous section, situates the nucleus of the event outside

the day of UT. As a result, the constructions are interpreted as referring to any time before the day of speaking, as illustrated in (346) below for activities, (347) for series and (348) for statives.

(346) Activity verbs

<i>wimbílé</i>	<i>shiβíí</i>	<i>nóó</i>
o-á-ímb-íle	shi-βíí	noó
1SP-PST-sing-PREHOD	8ACP-bad/ugly	very

‘S/he sang very badly (yesterday or before)’

(347) Series verbs

<i>waakólólilé</i>	<i>doh’</i>	<i>óófilwá</i>	<i>sibitali</i>
o-á-kólol-íle	dóhó	ó-o-fil-w-á	sibitali
1SP-PST-cough-PREHOD	only	1SP-CONS-take-PASS-FV	9NP.hospital

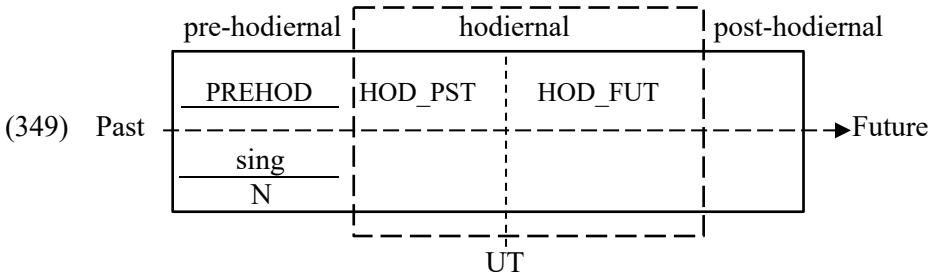
‘(Yesterday or before) s/he only coughed and was taken to the hospital’

(348) Stative verbs

<i>waalíβóníl’</i>	<i>íshímb’</i>	<i>íhájá</i>
o-á-lí-βon-íle	i-shímbá	i-hájá
1SP-PST-5OP-see-PREHOD	5NP-lion	5ACP-big/large

‘S/he saw a big lion (yesterday or before)’

The schematic representation illustrating the event-structure construal of the pre-hodiernal past in activities, series and statives is given in (349) below using *-imbá* ‘sing’. The event of singing is construed as completed before today.



Before closing this section, it is important to mention that when the pre-hodiernal past is used with stative verbs such as *-moonda* ‘be soft’ (350a) and *-ikólá* ‘resemble’ (350b), it carries an assertion of a continued state. This is because of the enduring (permanent) character associated with these verbs. A similar interpretation is seen with the stative verb *-saata* ‘be sick’, which, when inflected

with the pre-hodiernal past, is interpreted as referring to a chronic illness, as in (350c).

- (350) a. *lyaa móóndílé*                      *nóó*  
 lí-á-moond-íle                      noó  
 5SP-PST-be\_soft-PREHOD very  
 ‘It (e.g., the mattress) is very soft (lit. became very soft some time ago)’
- b. *βiikó lílé*                                      *kale*  
 βá-á-ikól-íle                                      kale  
 2SP-PST-resemble-PREHOD long\_ago  
 ‘They have resembled each other for a long time’
- c. *waasa átilé*  
 ɔ-á-saat-íle  
 1SP-PST-be\_sick-PREHOD  
 ‘She has been sick (for a long time)’

### 6.2.2.2 Accomplishments and achievements

Recall that accomplishments and achievements (both transitionals and resultatives) encode a nuclear phase, which indicates a process/change-of-state, and a coda phase, which indicates the result state. Transitionals, in addition to the nucleus and coda phase, encode an onset (coming-to-be) phase (see (337), (338) and (339) for schematic representations of these classes).

Since these classes encode a coda phase, the pre-hodiernal past, as stated/predicted in § 6.2.2, denotes that the coda phase still applies at UT, as exemplified in (351) below for accomplishments, (352) for transitional achievements, and (353) for resultative achievements.

- (351) Accomplishments
- a. *kofum’*                      *íigolo*                      *waazwaá lílé*  
 kɔ-fúm-a                      igolo                      ɔ-á-zwáal-íle  
 INF-come-FV yesterday 1SP-PST-get\_dressed-PREHOD  
*ishaáti*                      *lyaa péé*  
 i-sháati                      lí-a-pé  
 5NP-shirt 5ACP-ø-white  
 ‘S/he has been wearing a white shirt since yesterday’

- b. *lyaaçhiβilé*                      *kófumá*                      *mázsoólí*  
 lí-á-chiβ-íle                      kó-fúm-a                      mazoólí  
 5SP-PST-block-PREHOD    INF-come-FV    day\_before\_yesterday  
 ‘It (e.g., the kitchen sink) has been blocked since yesterday’

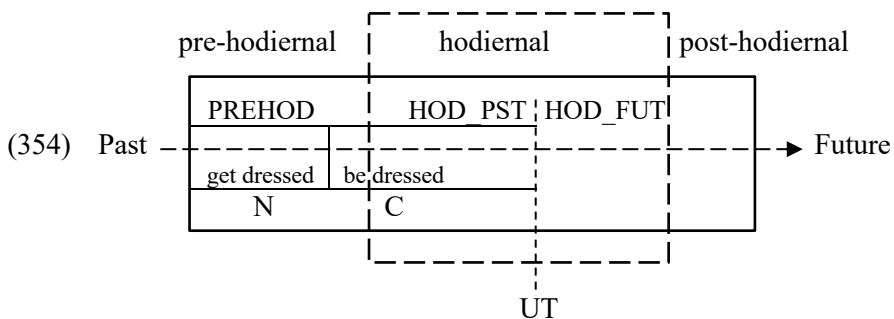
(352) Transitional achievements

- a. *naansáángilé*                      *ojóni*  
 ná-á-mú-saang-ilé                      o-jóni  
 1SG-PST-1OP-find-PRE-HOD    AUG-John  
*waagínilé!*  
 o-á-gin-ilé  
 1SP-PST-be(come)\_fat-PREHOD  
 ‘I saw John (a while ago); he has become fat’
- b. *liigóondíl’*                                      *ígolo*  
 lí-á-í-goond-íle                                      igolo  
 5SP-PST-REFL-be(come)\_bent-PREHOD    yesterday  
 ‘It (e.g., the iron bar) bent yesterday (and it is still bent)’

(353) Resultative achievements

- a. *lyaañíl’*                                      *ígolo*  
 lí-á-f-íle                                      igolo  
 5SP-PST-die-PREHOD    yesterday  
 ‘It (e.g., the dog) died yesterday’
- b. *lyaaβóólilé*                                      *kále*  
 lí-á-βol-íle                                      kale  
 5SP-PST-be(come)\_rotten-PREHOD    long\_ago  
 ‘It (e.g., the mango) became rotten long ago’
- c. *lyaañwílé*                                      *kófum’*                      *ígolo*  
 lí-á-gw-íle                                      kó-fúm-a                      igolo  
 5SP-PST-fall\_down-PREHOD    INF-come-FV    yesterday  
 ‘It (e.g., the wall) fell down yesterday (i.e., it has been on the ground since yesterday)’

The schematic representation illustrating the event-structure construal of the pre-hodiernal past in accomplishments and achievements is given in (354) below using an accomplishment verb *-zwaála* ‘get dressed’. In this schema, the event of getting dressed was completed yesterday, but the result (coda phase) still holds at UT.



Although the default interpretation of the pre-hodiernal past in accomplishments and achievements is that the resultant coda phase still holds at UT, this persisting coda state, as noted in § 6.2.2, is an implicature, rather than an assertion. As such, it can be cancelled or suspended, as shown in (355) for accomplishments, (356) for transitional achievements and (357) for resultative achievements.

- (355) *waazwaálilé* *ishaáti* *lyaaapé* *alafu*  
 ɔ-á-zwáal-íle i-sháati lɪ-a-pé alafu  
 1SP-PST-get\_dressed-PREHOD 5NP-shirt 5ACP-ø-white then  
*óólzuúla*  
 ɔ-ɔ-lɪ-zuúl-a  
 1SP-CONS-5OP-undress-FV  
 ‘S/he got dressed in/put on a white shirt then (s/he) undressed’

- (356) *liigóondíl’* *ígolo*  
 lí-á-í-goond-íle ígolo  
 5SP-PST-REFL-be(come)\_bent-PREHOD yesterday  
*tóɔŋwiitán’* *óófuúndí*  
 tó-ɔ-mú-itán-a ɔ-fuúndí  
 1PL-CONS-1OP-call-FV AUG-9NP.craftsman 1  
*óóliigóondoóla*  
 ɔ-ɔ-lí-goond-ool-a  
 SP-CONS-5OP-be(come)\_bent-SEP-FV  
 ‘It (e.g., the iron bar) got bent yesterday; we called a craftsman who came to unbend it’

- (357) *lyaagwíllé* *lyóozeengwa* *haángí*  
 lí-á-gw-íle lí-ɔ-zeeng-w-a haángí  
 5SP-PST-fall\_down-PREHOD 5SP-CONS-build-PASS-FV again  
 ‘(Yesterday or before), it (e.g., the wall) fell down, (and) was rebuilt’

It is important to mention that the cancellability of the resultant coda phase in resultative achievements occurs only in reversible achievements, because the verbs in this class denote a temporary result state. Irreversible achievement verbs, such as *-faá* ‘die’ and *-bola* ‘be(come) rotten’, exemplified in (353a–b), denote a permanent result state; thus, the resultant coda phase in these verbs cannot be cancelled. That is, ‘being dead’ or ‘being rotten’ indicates a permanent result state which is not reversible.

### 6.2.2.3 Interpretations of the pre-hodiernal past: Summary

To sum up, the pre-hodiernal past is used as a diagnostic test for whether or not the verb encodes a result state (coda phase). In verbs which do not encode a coda phase, such as activities (e.g., *-imbá* ‘sing’), series (e.g., *-kolóla* ‘cough’) and statives (e.g., *-boná* ‘see’), the pre-hodiernal past situates the event outside the day of UT (i.e., the pre-hodiernal past is interpreted as referring to a time before the day of speaking). In contrast, in verbs which encode a coda phase, such as accomplishments (e.g., *-zwaála* ‘get dressed’) and achievements (e.g., *-gma* ‘be(come) fat’ and *-faá* ‘die’), the pre-hodiernal past implies that the coda phase still holds at UT. This implicature, however, can generally be cancelled or suspended, especially in verbs which denote a temporary result state (e.g., *-gwa* ‘fall down’). In verbs which denote a permanent result state (irreversible achievements, e.g., *-faá* ‘die’), the resultant coda phase cannot be canceled. TABLE 31 below shows the interpretations of the pre-hodiernal past in each aspectual class, and the phasal structure construals illustrating these interpretations.

Table 31: Interpretations and phasal structure construals of pre-hodiernal past in each aspectual class

Aspectual classes	Phasal structures	Readings
Activities		Completed before today
Series		Completed before today

Aspectual classes	Phasal structures	Readings
Statives (both perception and non-perception)		Completed before today
Accomplishments		Completed before today, but imply that result state (coda phase) still holds at UT. This implicature is cancellable.
Transitional achievements		Completed before today, but imply that result state (coda phase) still holds at UT. This implicature is cancellable.
Irreversible resultative achievements		Completed before today, but imply that result state (coda phase) still holds at UT. This implicature is NOT cancellable.
Reversible resultative achievements		Completed before today, but imply that result state (coda phase) still holds at UT. This implicature is cancellable.

### 6.3 *Take X time* construction

In English, the *take X time* construction, as discussed in Dowty (1979) and Kearns (2000), is a diagnostic test for boundedness (telicity). This construction occurs more frequently with aspectual classes which are described as bounded (accomplishments and achievements). In these classes, the *take X time* construction, like *in* adverbials (discussed in § 3.2.1), is used to describe the interval to elapse before the culmination of the process (as in accomplishments, exemplified in (358)), or before the change-of-state (as in achievements, exemplified in (359)). Aspectual classes which are described as unbounded (activities and statives) are either unacceptable with the *take X time* construction, as in (360), or the construction is interpreted as describing the interval before the beginning of the state or process, as shown in (361). All examples below are cited from Kearns (2000, pp. 209–210).



- (358) It took two days for them to build the barn. (accomplishment)  
(i.e., they built the barn in two days.)
- (359) It took a minute for him to recognize her. (achievement)  
(i.e., he recognized her in a minute or so.)
- (360) #It took half an hour for them to walk in the park.<sup>30</sup> (activity)  
(i.e., #they walked in the park in half an hour.)
- (361) It took an hour for the room to be sunny. (stative)  
(i.e., the room was sunny in an hour.)

In Nyamwezi, unlike in English, the *take X time* construction is not a co-occurrence test, since it can occur with all aspectual classes. It is a diagnostic test for the classes because the interpretation varies according to the class of the verb. In Nyamwezi, the construction is interpreted in two different ways. First, as in English, it can describe the interval to elapse before the culmination of the process or before the change-of-state/entry into the result state (terminative reading), and second, it can describe the interval to elapse before the beginning of the whole event (inchoative/conative reading). The first reading occurs mostly in accomplishments and achievements, because these classes encode a coda phase, whereas the latter occurs in activities, series, and statives, because these classes lack a coda phase. In this regard, the *take X time* construction, like the hodiernal past (§ 6.2.1) and the pre-hodiernal past (§ 6.2.2), is an effective test for whether or not a verb encodes a coda phase. The availability of the first reading (terminative) is an indication that the verb encodes a coda phase. The following sections give a more detailed discussion.

### 6.3.1 Accomplishments and achievements

Recall that accomplishments and both transitional and resultative achievements encode a coda phase, in addition to a nuclear phase (and an onset phase, in the case of transitional achievements). See (337), (338) and (339) for schematic representations of these classes. Since these classes encode a coda phase, the *take X time* construction, as predicted in the previous section, describes the interval elapsing before the culmination of the process, as exemplified in (362) for accomplishments.

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<sup>30</sup> Note that this example can have a repair reading that converts the process to an accomplishment, giving a reading like ‘It took half an hour for them to walk their usual route.’

(362) a. *waasólilé*                      *linsaa*      *izim'*  
 ɔ-á-sol-íle                      li-nsaa      i-zima  
 1SP-PST-take-PREHOD 5NP-hour 5ACP-whole  
*óokozwaála*  
 ɔ-ku-zwaál-a  
 AUG-INF-get\_dressed-FV  
 'S/he took the whole hour to dress or put on (a garment)'

b. *waasólilé*                      *ɲwaaká*      *góm'*      *óókzeenga*  
 ɔ-á-sol-íle                      mu-áka      gó-mó      ɔ-ku-zeeng-á  
 1SP-PST-take-PREHOD 3NP-year 3ACP-one AUG-INF-build-FV  
 'S/he took one year to build (e.g., the house)'

In transitional achievements, the coda phase is preceded by an onset phase that denotes the coming-to-be of an event and a punctual nucleus that denotes the change-of-state. Thus, the *take X time* construction describes the interval elapsing before the change-of-state, as exemplified in (363) below.

(363) a. *waasólilé*                      *myaaká*      *miing'*  
 ɔ-á-sol-íle                      mi-áka      mu-íngi  
 1SP-PST-take-PREHOD 4NP-year 4ACP-many  
*óókogina*  
 ɔ-ku-gm-a  
 AUG-INF-be(come)\_fat-FV  
 'S/he took many years to become fat'

b. *gaasólilé*                      *dagik'*      *iitáán'*  
 gá-á-sol-íle                      dagika      i-táánó  
 6SP-PST-take-PREHOD 5NP-minute 5ACP-five  
*óókuseβa*  
 ɔ-ku-seβ-a  
 AUG-INF-boil-FV  
 'It (e.g., the water) took five minutes to come to the boil or to heat up'

In resultative achievements, the coda phase is preceded by a punctual nucleus that denotes the change-of-state. Thus, the *take X time* construction describes the interval elapsing before the entry into the new or result state (coda phase), as exemplified in (364) below.

- (364) a. *lyaasólil'*                      *íikaáanz'*    *íilíih'*            *óókofaá*  
 lí-á-sol-íle                      i-kaáanzá    i-liihú            ɔ-kɔ-f-aá  
 5SP-PST-take-PREHOD    5NP-time    5ACP-long    AUG-INF-die-FV  
 'It (e.g., the dog) took a long time to die'
- b. *waasólil'*                      *íikaáanz'*    *íilíih'*            *óókwiikala*  
 ɔ-á-sol-íle                      i-kaáanzá    i-liihú            ɔ-kɔ-ikal-a  
 1SP-PST-take-PREHOD    5NP-time    5ACP-long    AUG-INF-sit-FV  
 'S/he took a long time to sit down'

### 6.3.2 Activities, series and statives

Recall that activities, series and statives encode only a nuclear phase which denotes a process, state or multiple occurrences of an event (see (273)–(275) for schematic representations). The verbs in these classes lack a coda phase. Thus, as predicted in § 6.3, the *take X time* construction describes the interval to elapse before the beginning of the event's process, as exemplified in (365) below for activities, the beginning of multiple occurrences of an event, as exemplified in (366) for series, and the beginning of a stative event, as exemplified in (367) for statives. Note that these verbs can (pragmatically) be interpreted as accomplishments when combined with the *take X time* construction, which may refer to the time to elapse before the culmination of the event's process.<sup>31</sup>

(365) Activity verbs

- a. *waasólil'*                      *íikaáanz'*    *íilíih'*            *óókwimbá*  
 ɔ-á-sol-íle                      i-kaáanzá    i-liihú            ɔ-kw-ímb-a  
 1SP-PST-take-PREHOD    5NP-time    5ACP-long    AUG-INF-sing-FV  
 1. 'S/he took a long time (to begin) to sing'  
 2. 'S/he took a long time (to stop) singing'

- b. *waasólil'*                      *íikaáanz'*    *íilíih'*            *óókopeela*  
 ɔ-á-sol-íle                      i-kaáanzá    i-liihú            ɔ-kɔ-peel-a  
 1SP-PST-take-PREHOD    5NP-time    5ACP-long    AUG-INF-run-FV  
 1. 'S/he took a long time (to begin) to run'  
 2. 'S/he took a long time (to stop) running'

<sup>31</sup> In (365)–(367), the lexical verbs 'begin' and 'stop' in the English translations are given to illustrate the two readings of the *take X time* construction in Nyamwezi.

(366) Series verbs

a. <i>waasólil'</i>	<i>íikaánz'</i>	<i>íilíih'</i>	<i>óókokolóla</i>
u-á-sol-íle	i-kaánzá	i-liihú	u-ko-kólol-a
1SP-PST-take-PREHOD	5NP-time	5ACP-long	AUG-INF-cough-FV

1. 'S/he took a long time (to begin) to cough'

2. 'S/he took a long time (to stop) coughing'

b. <i>waasólil'</i>	<i>íikaánz'</i>	<i>íilíih'</i>	<i>óókoditema</i>
u-á-sol-íle	i-kaánzá	i-liihú	u-ko-ditem-a
1SP-PST-take-PREHOD	5NP-time	5ACP-long	AUG-INF-tremble-FV

1. 'S/he took a long time (to begin) to tremble'

2. 'S/he took a long time (to stop) trembling'

(367) Stative verbs

a. <i>waasólil'</i>	<i>íikaánz'</i>	<i>íilíih'</i>	<i>óókobóná</i>
u-á-sol-íle	i-kaánzá	i-liihú	u-ko-βón-a
1SP-PST-take-PREHOD	5NP-time	5ACP-long	AUG-INF-see-FV

1. 'S/he (e.g., the newborn baby) took a long time (to begin) to see'

2. 'S/he took a long time (to stop) seeing'

b. <i>waasólilé</i>	<i>nshikó</i>	<i>nyíing'</i>	<i>óókosaata</i>
u-á-sol-íle	nshíku	nyíingí	u-ku-saat-a
1SP-PST-take-PREHOD	10NP.day	10ACP.many	AUG-INF-be_sick-FV

1. 'S/he took a long time (lit. many days) to become sick (i.e., s/he took a long time to develop symptoms)'

2. 'S/he has been sick for too long (lit. many days)'

### 6.3.3 Interpretations of the *take X time* construction: summary

To sum up, the *take X time* construction is used as a diagnostic test for whether or not a verb encodes a resultant coda phase. In verbs which encode a coda phase, such as accomplishments (e.g., *-zwaála* 'get dressed'), transitional achievements (e.g., *-gma* 'be(come) fat') and resultative achievements (e.g., *-faá* 'die'), the *take X time* construction describes the interval to elapse before the culmination of the process (as in accomplishments), before the change-of-state (as in transitional achievements) or before entry into the new or result state (as in resultative achievements). In contrast, in verbs which do not encode a coda phase, such as activities (e.g., *-imbá* 'sing'), series (e.g., *-kolóla* 'cough') and statives (e.g., *-boná* 'see'), the *take X time* construction modifies the interval elapsing before the beginning of the event (i.e., before the beginning of a nucleus phase). Note that the verbs in these classes can (pragmatically) be interpreted as

accomplishments, in which case the *take X time* construction describes the interval to elapse before the culmination of the process. TABLE 32 below shows the interpretations of the *take X time* construction in each aspectual class, and the phasal structure construals illustrating these interpretations. In accomplishments and achievements, the interval (I) falls at the end of the event's nucleus, while in activities, series and statives the interval is prior to the beginning of the event. In activities, series and statives, as in accomplishments, the interval can be understood to fall at the end of the nucleus – this is not schematized in the phasal structures given in TABLE 32.

Table 32: Interpretations and phasal structure construals of the *take X time* construction in each aspectual class

Aspectual classes	Phasal structures	Readings
Accomplishments		describes the interval to elapse before the culmination of the event's process
Transitional achievements		describes the interval to elapse before the change-of-state nuclear phase
Resultative achievements (both irreversible and reversible)		describes the interval to elapse before entry into the new or result state
Activities		modifies the interval elapsing before the beginning or culmination of the event's process
Series		modifies the interval elapsing before the beginning or culmination of multiple occurrences of an event

Aspectual classes	Phasal structures	Readings
Statives (both perception and non-perception)		modifies the interval elapsing before the beginning or culmination of a stative event

## 6.4 Summary

This chapter discussed three types of tense and time adverbial tests: hodiernal past, pre-hodiernal past and *take X time* construction. The hodiernal past and pre-hodiernal past are tense categories; the former refers to an event that was completed earlier in the day of speaking, while the latter refers to an event that was completed no earlier than yesterday (last week/month/year, etc.). In this chapter, these tenses were employed as diagnostic for whether or not verbs in a particular aspectual class encode a result state (coda phase). Generally, in verbs which do not encode a coda phase, such as activities, series and accomplishments, these tenses situate the event in the past with respect to the UT, as for example in an activity verb *-imbá* ‘sing’: *wimbágá* ‘S/he sung (earlier today)’; *wimbilé* ‘S/he sang (yesterday or before)’. In contrast, in verbs which encode a coda phase, such as accomplishments and achievements, these tenses indicate that the result state (coda phase) still holds at UT, as for example in an accomplishment verb *-zwaála* ‘get dressed’: *waazwaálága* ‘S/he got dressed or put on (a garment) (earlier today and is still wearing it now)’; *waazwaálibé* ‘S/he got dressed or put on (a garment) (yesterday or before and is still wearing it today)’. The difference between the two tenses is that in the hodiernal past, the persisting coda state is an assertion, while in the pre-hodiernal past the persisting coda state is implicature; as such, it can be cancelled or suspended, as in *waalízwáálibé* ‘S/he got dressed or put on (a garment) (yesterday or before) and then s/he undressed’.

The *take X time* construction, like the hodiernal past and pre-hodiernal past, is also employed as a diagnostic test for whether a verb encodes a coda phase or not. In aspectual classes which encode a coda phase, the *take X time* construction describes the interval to elapse before the culmination of the process or before the change-of-state/entry into the new or result state, as in *waasólibé linsaa izim’óokozwaála* ‘S/he took the whole hour to get dressed or put on (a garment)’. In contrast, in aspectual classes which do not encode a coda phase, the *take X time* construction describes the interval to elapse before the beginning of the event, as in *waasólibé líkaanz’ iilibé’ óokwimbá* ‘S/he took a long time (to begin) to sing’. In these classes, in addition to the “beginning” interpretation, the *take X time* construction, as in accomplishments, can describe the interval to elapse

before the culmination of the process. Thus, *waasóli' iikaanz' iliih' óókwimbá* can also be interpreted as 'S/he took a long time (to stop) singing'.

## 7 Summary, conclusions and future research

### 7.1 Introduction

This chapter first presents a summary of the results of the diagnostic tests that have been used in the current study as evidence for classifying Nyamwezi verbs into different aspectual classes (§ 7.2). Secondly, it compares the results of the Nyamwezi diagnostic tests with those of other Bantu languages. Thirdly, it presents some of the challenges that occurred in the categorization of Nyamwezi verbs into aspectual classes (§ 7.4). Lastly, the chapter points out areas for further research (§ 7.5).

### 7.2 Summary of the main results

The major aim of this study has been twofold: first, to classify Nyamwezi verbs into different aspectual classes and second, to present a variety of tests that were used as evidence for a verb's aspectual class membership. In classifying verbs into aspectual classes, this study, like some of the existing studies on lexical aspect in Bantu languages, has adopted Botne and Kershner's (2000) onset-nucleus-coda framework to classify verbs. In this framework, an onset (abbreviated as O) indicates a coming-to-be of an event, a nucleus (N) indicates the prominent (or pivotal) feature of the event, and coda a (C) indicates a state of being resulting from the occurrence of the event (thus, it is sometimes referred to as a result state phase).

Based on diagnostic tests, Nyamwezi aspectual classes were firstly classified into two subgroups: duratives and achievements. In the framework adopted in this study, duratives encode an extended nucleus, and achievements encode a punctual change-of-state nucleus. Each of these classes was subdivided based on whether or not they include an onset phase or a coda phase, and on whether these phases are durative/punctual or dynamic/static. That is, duratives were classified into processes (which encode a dynamic nucleus, e.g., *-imbá* 'sing') and statives (which encode a static nucleus, e.g., *-boná* 'see'), and achievements into transitionals (which encode an onset phase, a punctual change-of-state nucleus



and a coda phase, e.g., *-gima* ‘be(come) fat’) and resultatives (which encode only a punctual change-of-state nucleus and a coda phase, e.g., *-faá* ‘die’).

Furthermore, process verbs were classified into three classes: activities (encoding a nucleus that indicates an ongoing process, e.g., *-imbá* ‘sing’), series (encoding a nucleus that indicates repetitions, e.g., *-kolóla* ‘cough’), and accomplishments (encoding a nucleus that indicates ongoing processes and a coda phase that indicates a result state, e.g., *-zwaála* ‘get dressed’). Stative verbs were divided into two classes: perception (which denotes a state of sensation, e.g., *-βoná* ‘see’) and non-perception (which denotes cognitive events and emotional attitudes, e.g., *-izokíla* ‘remember’, *-saata* ‘be sick’ and *-togwá* ‘love, like’). Resultative achievements, like statives, were also classified into two classes: irreversible (which denotes a permanent result state, e.g., *-faá* ‘die’) and reversible (which denotes a temporary result state, e.g., *-gwa* ‘fall down’). An overview of Nyamwezi classes is given in TABLE 33 below.

Table 33: Nyamwezi aspectual classes and their phasal structures

Durative					Achievements		
Process			Stative		Transitional	Resultative	
Activity	Series	Accomplishment	Perception	Non-perception	Transitional	Irreversible	Reversible
Durative and dynamic N		Durative and dynamic N plus C	Durative and static (non-dynamic) N		Durative and dynamic O, punctual N and durative and dynamic C	Punctual N plus irreversible C	Punctual N plus reversible C

O = onset, N = nucleus and C = coda

In this study, the aspectual differences denoted by the aspectual classes in TABLE 33 above were motivated by applying a number of diagnostic tests. Some of these tests were based on checking the interpretational differences or co-occurrence restrictions of the a given verb with either grammatical aspect markers/constructions (grammatical aspect tests, Chapter 4) or lexical items, such as *-andya* ‘start’, *-oya* ‘stop’, *-mala* ‘finish’ and *hadooáhádó* ‘slowly’ (Lexical tests, Chapter 5). Other tests were based on checking the interpretational

differences or co-occurrence restrictions of the verb with either tense markers or time adverbials (tense and time adverbial tests, Chapter 6).

Based on these diagnostic tests, the difference, for example, between activities (which denote ongoing processes, as in *-imbá* ‘sing’), and series (which indicate ongoing repetitions, as in *-kolóla* ‘cough’) can be shown using the adverbial *hadoóhádó* ‘slowly’, which is acceptable with activities (as in *alimba hadoóhádó* ‘S/he is singing slowly’) but unacceptable with series (*#alukolóla hadoóhádó* ‘S/he is coughing slowly’), because series, unlike activities, encode separate events and not a continuous or gradual process. *hadoóhádó* requires the verbs it co-occurs with to encode a continuous or gradual process, which is the case in activities but not in series. The difference between activities and series can also be shown using the general imperfective aspect, which denotes an ongoing process reading in activities (as in *alimba* ‘S/he is singing (now)’ and an iterative reading in series (as in *alukolóla* ‘S/he is coughing/coughs (continuously or serially)’).

The difference between the two types of statives, perception and non-perception, can be shown using the stative construction, which is unacceptable with perception statives such as *-boná* ‘see’ (*#aβonilé* ‘S/he sees’) but acceptable with non-perception statives such as *-saata* ‘be sick’ (as in *asaatilé* ‘S/he is sick’).

Accomplishments (e.g., *-zwaála* ‘get dressed’ and transitional achievements (e.g., *-gma* ‘be(come) fat’) are very similar. Both classes encode a state resulting from a past change-of-state (coda or result state) and an accompanying process before the result state (indicated by the nucleus, or the onset in the case of transitional achievements). Their difference is that in transitional achievements, unlike accomplishments, the change from one state to another is subjectively defined by the speaker. This difference can be evidenced by the persistive plus the general imperfective construction, which in accomplishments denotes a continuing process (as in *ataál’ áálizwaála* ‘S/he is still getting dressed or putting on (a garment)’), while in transitional achievements (*ataál’ áálugma*) it either denotes a continuing process/coming-to-be of an event (in this case the speaker’s perceptive is that the person referred to has not reached the point where s/he can be considered fat), or a continuation of the result state (in this case the speaker’s perception is that person referred to is already fat and still getting fatter). Another difference between accomplishments and transitional achievements is that in accomplishments the coda (result state) marks the completion or finishing of an event’s process, while in transitional achievements the coda does not mark the completion of an event’s process; it only indicates that the new/result state has been reached. This difference can be demonstrated using an aspectualizer *-mala*, which in accomplishments describes the

completion of an event's process (as in *waamálag' úokozwaála* 'S/he has finished dressing or putting on (a garment)'), but in transitional achievements (and all other classes) is infelicitous (as in *#waamálag' úokogina* '#S/he has finished becoming fat').

Both transitionals (e.g., *-gma* 'be(come) fat') and resultatives (e.g., *-faá* 'die') are types of achievements which encode a result state. The difference between them, as noted above, is that transitionals encode an accompanying process (coming-to-be phase = 'becoming fat') before the result state, while resultatives do not. This difference can be further demonstrated using the general imperfective, which in transitionals denotes a coming-to-be reading resulting from the general imperfective selecting an onset phase (as in *alugma* 'S/he is getting fat'), while in resultatives it denotes an immediate future reading (as in *alifaá* 'S/he is about to die') – because the verbs in this class lack onsets.

There are two types of resultative achievements: irreversible (which, as noted above, denotes a permanent result state, e.g., *-faá* 'die') and reversible (which denotes a temporary result state, e.g., *-gwa* 'fall down'). Evidence for this difference is provided by the persistive plus the stative construction which is unacceptable with irreversible achievement verbs (*#ataál' ááfilé* 'S/he is still dead'), but acceptable in reversible achievement verbs (*ataál' áágwiilé* 'S/he is still fallen down').

Most of the diagnostic tests employed in this study distinguish aspectual classes with initial phases having duration (activities, series, statives, accomplishments and transitional achievements) from those with initial phases lacking duration (resultative achievements). For example, in the former classes, an inceptive aspect indicates an inchoative reading (as exemplified with the transitional achievement verb *-gma*: *waayúógma* 'S/he has started to becoming fat'), while in the latter it indicates a proximate reading *waayúógwa* 'S/he is just about to fall down'. The presence or absence of a durative initial phase in different aspectual classes can also be evidenced by the persistive plus the general imperfective and the aspectualizers *-andya* 'start' and *-oya* 'stop'. In aspectual classes with a durative initial phase, all these diagnostic constructions are acceptable: the persistive plus the general imperfective: *ataál' áálugma* 'S/he is still (continuing) getting fat'; the aspectualizer *-andya* 'start': *waandij' úokogina* 'S/he started to become fat (a long while ago)'; and the aspectualizer *-oya* 'stop': *goóyag' úókoseβa* 'It has stopped coming to the boil'. In contrast, in aspectual classes with a punctual initial phase, all the diagnostic constructions are generally unacceptable: the persistive plus the general imperfective: *#ataál' áálugwa* '#S/he is still (in the midst of) falling down'; *andya* 'start': *waandyág' úókwiikala*

‘#S/he has started (the process of) sitting down’; and *-oya* ‘stop’: #*woóyag’ úókogwa* ‘#S/he has stopped (the process of) falling down’.

Other diagnostic tests, especially tense and time adverbial tests, distinguish aspectual classes which do not encode a coda phase (activities, series and statives) from those which encode a coda phase (accomplishments, and all achievements). For example, in the former classes, the past tense markers, e.g., the hodiernal past, denote a past tense reading (as with the activity verb *-imbá* ‘sing’: *wiimbágá* ‘S/he sung (earlier today)’) while in the latter classes it denotes a resultative reading (as with the accomplishment verb *-zwaála* ‘get dressed’: *waazwaálága* ‘S/he is dressed in or wearing (a garment)’. The absence or presence of a coda phase can also be diagnosed using the *take X time* construction. In aspectual classes which do not encode a coda phase, this construction modifies the interval elapsing before the beginning or completion of an event (as in *waasólil’ úkaánz’ iilíh’ úókwimbá* ‘S/he took a long time (to begin or stop) to sing (yesterday or before)’), while in those which encode a coda phase, the construction modifies the interval elapsing before the entry into the result state (as in *waasólilé linsaa izim’ vokoazwaála* ‘S/he took the whole hour to dress (put on a garment) (yesterday or before)’).

An overview of the interpretations and co-occurrence restrictions indicated by diagnostic tests applied to determine aspectual classes in Nyamwezi is given in Appendix 2. I hope that the results indicated in this overview will have implications for the study of lexical aspect in other Bantu languages, and for an overall typology of lexical aspect.

Before describing the challenges in the categorization of verbs into aspectual classes in Nyamwezi, and pointing out areas for future study, in the next section I will compare the system of aspectual classes motivated for Nyamwezi with those of with that of other Bantu languages. The aim is to show how the Nyamwezi aspectual class system is related to other Bantu languages.

### 7.3 Comparative summary

In general, this study further confirmed the results of the diagnostic tests put forward in other works on aspectual classes in Bantu languages, such as Kershner (2002) for Sukwa, Botne (2008) for Ndali, Crane (2011, 2013) for Totela, Persohn (2017b) for Nyakyusa, Gunnink (2018) for Fwe and Crane and Fleisch (forthcoming) for isiNdebele. For example, in Nyamwezi, the general imperfective aspect (discussed in § 4.2) is analysed as picking out pre-coda phases (onset or nucleus) to express an ongoing reading, as exemplified in (368) below, or an immediate future/habitual reading if the verb denotes a punctual

event, as in (369). As Kershner (2002) and Botne (2008) have shown, a similar use of the (general) imperfective is found in Sukwa and Ndali, respectively.

- |   |   |  |
|---|---|--|
| <p>(368) <b>Nyamwezi</b><br/> <i>a-l-ɪmb-a</i><br/>         ‘S/he is singing’</p>                         | <p><b>Sukwa</b><br/> <i>a-ku-sab-a</i><br/>         ‘S/he is swimming’<br/>         Kershner (2002, p. 75; 66)</p>    | <p><b>Ndali</b><br/> <i>a-kú-mog-a</i><br/>         ‘S/he is dancing’<br/>         Botne (2008, p. 97)</p>                                     |
| <p>(369) <b>Nyamwezi</b><br/> <i>a-lɪ-gw-a</i><br/>         ‘S/he is about to<br/>         fall down’</p> | <p><b>Sukwa</b><br/> <i>a-ku-howok-a</i><br/>         ‘S/he is will be happy’<br/>         Kershner (2002, p. 83)</p> | <p><b>Ndali</b><br/> <i>shi-kú-lit-a</i><br/>         ‘S/he is usually tired’;<br/>         ‘s/he tires’<br/>         Botne (2008, p. 101)</p> |

In all three languages, the stative construction (analysed as perfective or completive aspect in Kershner’s (2002) and Botne’s (2008) analyses) is analysed as picking out the coda (result state) phase to denote a present state that results from a change-of-state, as exemplified in (370) below.

- |  |   |  |
|--|---|--|
| <p>(370) <b>Nyamwezi</b><br/> <i>ga-séβ-ilé</i><br/>         ‘It (e.g., the water)<br/>         is boiled/hot’</p> | <p><b>Sukwa</b><br/> <i>a-ø-kalal-ite</i><br/>         ‘S/he is angry (now)’<br/>         Kershner (2002, p. 140)</p> | <p><b>Ndali</b><br/> <i>shi-ton-íte</i><br/>         ‘They are ripe’<br/>         Botne (2008, p. 102)</p> |
|--|---|--|

As Botne (2008) and Persohn (2017b) shows, in Ndali and Nyakyusa, respectively, the persistive aspect plus the (general) imperfective (discussed in § 4.4.1) picks out durative pre-coda phases to express that an event is still ongoing. This is identical to the interpretation of this diagnostic in Nyamwezi, as exemplified in (371) below.

- |   |   |  |
|---|---|--|
| <p>(371) <b>Nyamwezi</b><br/> <i>a-taú-l’ áá-l-ɪmb-a</i><br/>         ‘S/he is still singing’</p> | <p><b>Ndali</b><br/> <i>a-kaa-lí a-kú-kam-a</i><br/>         ‘S/he is still milking’<br/>         Botne (2008, p. 97)</p> | <p><b>Nyakyusa</b><br/> <i>a-kaa-li i-ko-mog-a</i><br/>         ‘S/he is still dancing’<br/>         Persohn (2017b, p. 119)</p> |
|---|---|--|

In all three languages (Nyamwezi, Ndali and Nyakyusa), the persistive plus the stative constructive is analysed as picking out a durative or non-permanent resultant coda phase to denote that the event’s result state is temporary, as shown in (372) below.

(372)	<b>Nyamwezi</b> <i>a-taá-lí w-iikal-ilé</i> 'S/he is still seated'	<b>Ndali</b> <i>li-kaa-lí li-bal-íte</i> 'It is still shining brightly' Botne (2008, p. 102)	<b>Nyakyusa</b> <i>a-kaa-li a-kaleele</i> 'S/he is still angry' Persohn (2017b, p. 129)
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Nyamwezi shows the same pattern that Gunnink (2018) has shown in Fwe for the inceptive aspect, namely, it picks out a durative pre-coda phase to denote an inchoative reading, as exemplified in (373).

(373)	<b>Nyamwezi</b> <i>w-aa-yímb-á</i> 'S/he has just started to sing'	<b>Fwe</b> <sup>32</sup> <i>a-bó shi-ba-hik-a</i> 'They started cooking' Gunnink (2018, p. 379)
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For aspectual classes that encode a punctual pre-coda phase, the inceptive in both Nyamwezi and Fwe denotes a proximate reading, indicating that the event has not started but is about to start, as exemplified in (374) below.

(374)	<b>Nyamwezi</b> <i>w-aa-yóó-gw-a</i> 'S/he is just about to fall down'	<b>Fwe</b> <i>e-saká sha-ri-ñatik-a</i> 'The bag is about to break' Gunnink (2018, p. 379)
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The lexical tests *start* and *stop* (or *cease*) are analysed by Persohn (2017) as picking out durative pre-coda phases for Nyakyusa, just as they do for Nyamwezi. Each of these verbs selects a different part of the pre-coda phase. *Start* selects the initial point to express the beginning of an event, as exemplified in (375), and *stop/cease* selects the internal point to express the termination or cessation of an event, as in (376).

(375)	The phasal verb <i>start</i> <b>Nyamwezi</b> <i>w-aandy-ág' ó-kw-umb-a</i> 'S/he has started to sing'	<b>Nyakyusa</b> <i>and-ile ó-kw-mog-a</i> 'S/he has started to dance' Persohn (2017b, p. 120)
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<sup>32</sup> In examples (373) and (374), an inceptive form *shi-* is found in a variety of Fwe spoken in Namibia; *-sha* in the Zambian variety.

(376) The phasal verb *stop/cease*

**Nyamwezi**

*w-oóy-ag' óó-kw-imb-á*

'S/he has stopped (the process of singing)

**Nyakyusa**

*a-lek-ile v-kv-mog-a*

'S/he has stopped dancing'  
Persohn (2017b, p. 121)

In aspectual classes in which the pre-coda phase is punctual, the phasal verbs *start* and *stop/cease* work a little differently in each language. In Nyamwezi, these verbs are infelicitous, i.e., they cannot be used to refer to the beginning or termination of the event's process, as exemplified in (377) below.

(377) The phasal verb *start*

*#w-aandy-ag'*

*óó-kw-iikal-a*

'S/he has started (the process of sitting down)

The phasal verb *stop/cease*

*#w-oóy-ag' óó-kv-gw-a*

'S/he has stopped (the process of falling down)

In contrast, in Nyakyusa the phasal verbs *start* and *stop/cease* are felicitous. In this language, these verbs select the coda phase to denote the beginning or termination of the result state, as exemplified in (378) below.

(378) The phasal verb *start*

*and-ile v-kv-hobok-a*

'S/he has begun to be happy'  
Persohn (2017b, p. 133)

The phasal verb *stop/cease*

*a-lek-ile v-kv-kalal-a*

'S/he has ceased to be angry' NOT 'to become angry'  
Persohn (2017b, p. 131)

In Nyamwezi, as in Nyakyusa, the phasal verb *finish* is analysed as selecting the endpoint of a durative phase to express the end/finish or completion of an event, as exemplified in (379) below.

(379) **Nyamwezi**

*w-aa-mál-ag' v-v-kv-zwaál-a*

'S/he has finished dressing or putting on (a garment)'

**Nyakyusa**

*a-mál-ile v-kv-fwal-a (ii-koti)*

'S/he has finished dressing or putting on (a/the coat)'

Persohn (2017b, p. 128)

In both languages (Nyamwezi and Nyakyusa), *finish* occurs only with aspectual classes that denote a process (expressed with a durative pre-coda phase) leading to a culmination or end point (coda phase). Verbs from other aspectual classes are generally unacceptable with *finish* because either they encode duration but lack a final culmination (e.g., activities), or they encode a culmination but lack duration (resultative achievements).

Nyamwezi shows the same results for the adverbial *slowly* diagnostic that Crane and Fleisch (forthcoming) show holds for isiNdebele: it selects the pre-coda phase, which is construed as both durative and dynamic. In these verbs, *slowly* denotes that the event was carried out slowly, as exemplified in (380) below.

- |       |   |  |
|-------|---|--|
| (380) | <b>Nyamwezi</b><br><i>w-umb-ilé hadoóhádó</i><br>‘S/he sang slowly’ | isiNdebele<br><i>uSipho u-cul-a buthaka</i><br>‘Sipho sings slowly’<br>Persohn (2017b, p. 128) |
|-------|---|--|

All aspectual classes in which the pre-coda phase is either durative but not dynamic (e.g., statives), or dynamic but not durative (resultative achievements) are infelicitous with *slowly*.

As Kershner (2002) and Gunnink (2018) shows, in Sukwa and Fwe, respectively, the grammatical tense tests (hodiernal/near past and pre-hodiernal/remote past) are analysed as diagnostic for whether a verb encodes a coda phase or not (see also Crane, 2011). This is identical to the interpretations of these diagnostics in Nyamwezi. In aspectual classes that encode a coda phase, the past tenses denote a past tense reading, as exemplified in (381), while in those which do not encode a coda phase, the past tenses denote that the result state coda phase still applies at UT, as in (382).

- |       |  |  |  |
|-------|--|--|--|
| (381) | Aspectual class lacking a coda phase                                   |  |  |
|       | <b>Nyamwezi</b><br><i>w-umb-ág-á</i><br>‘S/he sang<br>(earlier today)’ | <b>Sukwa</b><br><i>a-aa-sab-a munyaanja</i><br>‘S/he has just swum in<br>the lake’<br>Kershner (2002, p. 97) | <b>Fwe</b><br><i>nd-a-bérék-i</i><br>I worked (earlier<br>today)<br>Gunnink (2018, p. 304) |

- |       |   |   |  |
|-------|---|---|--|
| (382) | Aspectual class encoding a coda phase   |   |  |
|       | <b>Nyamwezi</b><br><i>w-iikál-ag-a</i><br>‘S/he is<br>seated (lit.<br>has sat)’ | <b>Sukwa</b><br><i>a-aa-lemal-a umulungu gunoguno</i><br>‘S/he is lame/not cool this week<br>(i.e., became lame earlier in the<br>week and still currently lame’<br>Kershner (2002, p. 101) | <b>Fwe</b><br><i>e-cí cipúrá c-a-côók-i</i><br>‘This chair broke<br>(and is still broken)’<br>Gunnink (2018, p. 310) |

As Persohn (2017) shows in Nyakyusa, the time adverbial test (the *take X time* construction), like the past tense constructions, is used as a test for whether or not a verb encodes a coda phase. This is identical to the interpretation of this diagnostic in Nyamwezi. In both languages, in aspectual classes which encode a coda phase, the *take X time* construction describes the time elapsing before the culmination of the process, as exemplified in (383) below.



(383) **Nyamwezi**

*w-aa-sól-ilé lí-nsaa i-zim'*  
*úú-kú-zwaál-a*  
'S/he took the whole hour to  
dress or put on (a garment)'

**Nyakyusa**

*eeg-ile a-ka-balilo a-ka-tali*  
*úú-kú-fwal-a (ii-koti)*  
'S/he took a long time to dress  
or put on (a/the coat)'  
Persohn (2017b, p. 127)

In both languages, in aspectual classes which do not encode a coda phase, the *take X time* construction describes the time elapsing before the beginning of an event. In both languages, most of the verbs in these classes can also be reinterpreted as aspectual classes which encode a coda phase, in which case the *take X time* construction denotes the time elapsing before the culmination of the process. The two readings are exemplified in (384) below.

(384) **Nyamwezi**

*w-aa-sól-ilé ikaánz' ílilíh'*  
*úú-kú-úmb-a*  
1. 'S/he took a long time (to begin)  
to sing'  
2. 'S/he took a long time (to finish)  
singing)'

**Nyakyusa**

*eeg-ile a-ka-balilo a-ka-tali*  
*úú-kú-mog-a*  
1. 'S/he took a long time (to  
begin) to dance'  
2. S/he took a long time to  
finish dancing'  
Persohn (2017b, p. 120)

Before closing this section, it is important to mention that apart from the similarities described above, the diagnostic tests used to determine the differences between Nyamwezi aspectual classes also show some semantic differences that deviate from the analyses of aspectual classes given in other studies. One of these differences involves the general imperfective test and the persistive plus the general imperfective test. As shown above and exemplified in (368) and (371), in Nyamwezi, as in other Bantu languages (e.g., Sukwa, Ndali and Nyakyusa), these tests are analysed as selecting the pre-coda phases (onset or nucleus) to denote ongoing processes (for the case of the general imperfective) or continuing processes (for the case of the persistive plus general imperfective). In Nyamwezi, unlike in other languages, these tests, in addition to ongoing and continuous readings, are also analysed as selecting the coda phase to express the continuation of the result state. This occurs in verbs referred to as transitional achievements, as exemplified in (385) below, repeated from (200a) in § 4.2.2.

(385) *miinzi*      *gáluṣéḃa*  
 miínzi      gá-lu-seḃ-a  
 6NP.water 6SP-IMPF-boil-FV

1. 'The water is coming to the boil or heating up' (ongoing or coming-to-be reading)
2. 'The water is boiling' (continuation of the result state reading)

In other Bantu languages, the general imperfective and the persistive plus general imperfective are generally analysed as constructions which select the pre-coda phases to denote an ongoing reading before the change-of-state has taken place. Outside Bantu languages, a case where the imperfective aspect is used (as in Nyamwezi) to refer to ongoing changes in the pre-coda phase or in the coda phase itself is reported by Tatevosov (2002, p. 332) in Bagwalal, a language spoken in the south-west of Russia. Ongoing research in the study of lexical aspect in Bantu languages will hopefully yield cases where the general imperfective is associated with two types of ongoing changes (in the pre-coda phase and in the coda phase itself).

## 7.4 Some challenges in the categorization of verbs into aspectual classes in Nyamwezi

As described in § 7.2, most of the diagnostic tests in Nyamwezi revealed clear aspectual distinctions between classes. However, some of them have the status of a heuristic, in the sense that they do not optimally distinguish each aspectual class (cf. Dowty, 1979); Walková (2012). For example, the stative construction, as noted in § 4.3, is used as a diagnostic test for aspectual classes that encode a change-of-state plus a result state, such as achievements (e.g., *-gma* 'be(come) fat') and accomplishments (e.g., *-zwaála* 'get dressed'). In these classes, the stative construction denotes a resultative reading, as in *a-gin-ilé* 'S/he has become fat; s/he is fat'. Other classes, e.g., activities (*-imbá* 'sing') and series (*-kolola* 'cough') do not encode a change-of-state and lack a result state; thus, they are unacceptable with the stative construction. However, irrespective of this generalization, there is a handful of activity verbs, referred to as directionals (e.g., *-ja* 'go'), which can occur with the stative construction to denote an ongoing process reading, as in *aziilé kaayá* 'S/he is (in the state of) going home'.

Another challenge related to the one stated above is that some of the tests used to classify Nyamwezi verbs into aspectual classes do not apply to all verbs in a particular aspectual class, for the reason that these tests do not test aspectual features alone (e.g., durativity and dynamicity) but also agentivity. For example, the adverbial *hadoóhádó* 'slowly', as noted in § 5.5, is used in this study as a

diagnostic test for both durativity and dynamicity, i.e., it requires the verbs it co-occurs with to encode an initial phase which is both durative (i.e., denotes a continuous process) and dynamic (i.e., denotes a gradual process), such as *-peela* ‘run’ (as in *waapeélilé hadoóhádó* ‘S/he ran slowly’). However, there are verbs, e.g., *-gma* ‘be(come) fat’, which encode an initial phase that has both duration and dynamicity, but are not acceptable with *hadoóhádó* (as in *#waaginilé hadoóhádó* ‘#S/he became fat slowly’) because they describe non-agentive events. This is because *hadoóhádó*, in addition to the two features (durativity and dynamicity), also in some cases requires the verb it co-occurs with to describe agentive events. However, this generalization does not work systematically, as there are verbs such as *-seβa* ‘be(come) hot’ that describe non-agentive events which are acceptable with *hadoóhádó* (as in *gaaséβilé hadoóhádó* ‘It (the water) became hot slowly’).

Another challenge in the categorization of verbs into aspectual classes is related to acceptability judgements. Some verbs in a particular class may be judged as infelicitous by some of the native speakers, not because those verbs do not encode a phasal structure required by a particular test, but rather because the test allows a reading which is considered less natural by some speakers. For example, in non-perception statives such as *-moonda* ‘be(come) soft’ the persistive plus stative construction (as in *#litaáli lmoondilé* ‘It (e.g., the mattress) is still soft’) is not acceptable by some speakers because it is unnatural. Alternatively, the speakers use the persistive plus general imperfective (*litaáli llimoonda*).

In general, agentivity, the occurrence of a particular test with some verbs and its unacceptability with other verbs in the same class, and variations in the acceptability judgment among native speakers pose some challenges to the theoretical framework adopted to classify verbs in this study. These factors (especially the first two) cannot be accommodated by the onset-nucleus-coda model.

## 7.5 Future research

This study is one of the few studies in Bantu languages that have described the classification of verbs and applied a number of diagnostic tests as evidence for the different aspectual classes proposed. Similar studies in other Bantu languages are still needed to test the robustness of these classes and their diagnostic tests, as well as the onset-nucleus-coda model adopted to classify verbs in this study.

This study does not address several other semantic and syntactic issues that deserve future investigation. First, for the sake of manageability, this study has focused primarily on using tense and aspect markers (or constructions) and some

lexical items (aspectualizers) as diagnostic tests for determining aspectual classes. The study does not address other grammatical constructions, particularly verbal extensions (derivations). As briefly noted in this study, and also in Schadeberg (2003) and other studies on this topic (Dom, Kulikov, & Bostoen, 2016; Jerro, 2018), verbal extensions (such as neuter or stative, separative, passive, associative or reciprocal, causative, applicative, etc.) encode different semantic and syntactic behaviour with different types of verbs.

A second area in which additional research is needed, also noted by Crane and Persohn (2019), is the contribution of semantic roles such as agent, patient, recipient, etc. in determining aspectual classes. In this study, it was noted that for some of the verbs, although they behave the same way semantically (encode similar semantic or aspectual properties), their subjects can be assigned different semantic roles. For example, both *-sha* (intr.) ‘grind’ and *-chiβá* (intr.) ‘block sthg, plug’ are kinds of change-of-state verbs which are referred to as accomplishments in this study. Both verbs can occur with the stative construction to denote a present state reading. But in *-sha* (intr.) ‘grind’ the stative construction takes the subject that has a semantic role of patient (as in *zishiile* ‘they are ground’), while in *-chiβá* (intr.) ‘block sthg, plug’ the stative construction may either carry the semantic role of agent (as in *achiβilé* ‘S/he blocks (a hole)) or of patient (as in *lchiβilé* ‘It (the hold) is blocked’). The use of semantic roles as a determining factor for identifying verb classes has not been discussed in this study. As such, it is left for further investigation.



# Appendices

Appendix 1: A list of the verbs investigated, classified on the basis of Botne and Kershner's (2000) onset-nucleus-coda model.

Aspectual class	Examples
Activities (see § 3.4.1.1)	<i>-imbá</i> 'sing', <i>-lila</i> 'cry', <i>-seka</i> 'laugh', <i>-ishinjá</i> 'play, dance', <i>-lomeela</i> 'talk, chat', <i>-behá</i> 'smoke', <i>-ogá</i> 'shower, bath', <i>-gola</i> 'buy', <i>-βója</i> 'ask', <i>-gilima</i> 'thunder' <i>-ja</i> 'go', <i>-peela</i> 'run', <i>-shooka</i> 'return' and <i>-iza</i> 'come'
Series (see § 3.4.1.1)	<i>-kolóla</i> 'cough', <i>-ditema</i> 'tremble', <i>-lumá</i> 'bite', <i>-koloma</i> 'snore' and <i>-dakúna</i> 'chew'
Perception statives (see § 3.4.1.3)	<i>-boná</i> 'see', <i>-igwá</i> 'hear', <i>-lola</i> 'look (at)', <i>-nuuyha</i> 'smell bad; stink', <i>-moota</i> 'smell good', <i>-βoonja</i> 'taste (by swallowing a bit)' and <i>-degéleka</i> 'listen'
Non-perception statives (see § 3.4.1.3)	<i>-izokala</i> 'remember', <i>-togwá</i> 'love, like', <i>-zuya</i> 'agree', <i>-moonda</i> 'be soft', <i>-saata</i> 'be sick', <i>-ikólá</i> 'resemble'
Accomplishments (see § 3.4.1.2)	<i>-zwaála</i> 'get dressed', <i>-sha</i> 'grind', <i>-chibá</i> 'block sthg, plug', <i>-liina</i> 'climb', <i>-zeenga</i> 'build' <i>-ditiila</i> (intr.) 'pour into', <i>-poóla</i> (intr.) 'pound', <i>-lima</i> (intr.) 'cultivate', <i>-lyaá</i> 'eat' and <i>-nywáá</i> 'drink'
Transitional achievements (see § 3.4.2.1)	<i>-gma</i> 'be(come) fat', <i>-seβa</i> (intr.) 'boil', <i>-goonda</i> (intr.) 'be(come) bent', <i>-βoomba</i> 'be(come) soaked', <i>-mana</i> '(come to) know', <i>-lugola</i> (intr.) 'open' and <i>-kolá</i> 'grow'
Irreversible resultative achievements (see § 3.4.2.2)	<i>-faá</i> 'die', <i>-βola</i> 'be(come) rotten', <i>-shika</i> 'arrive', <i>-duiha</i> 'be(come) blunt', <i>-kamá</i> 'dry up', <i>-pila</i> 'recover', <i>-gaasa</i> 'spoil, ferment', <i>-sala</i> 'be(come) crazy', and <i>-nana</i> 'melt (plastic)'
Reversible resultative achievements (see § 3.4.2.2)	<i>-gwa</i> 'fall down', <i>-ikala</i> 'sit', <i>-laála</i> 'fall asleep/sleep', <i>-itóondá</i> 'squat', <i>-dota</i> 'be(come) wet', <i>-daka</i> 'be(come) angry', <i>-laángá</i> 'get stuck up high', <i>-toóla</i> '(get) married' and <i>-βiinzá</i> (intr.) 'break'

Appendix 2: Results of the diagnostic tests in each aspectual class in Nyamwezi

**Abbreviations:** ASP – Aspectual class; ACT – Activity; SER – Series; ACC – Accomplishments; PERC – Perception stative; NON-PERC – Non-perception stative; TRANS – Transitional achievements; IRREV – Irreversible resultative achievement and REV – Reversible resultative achievement

A. Grammatical aspect tests

Test	ASP	Reading	Example	Translation
Occurs in the general imperfective	ACT	Ongoing process	<i>alumba</i>	S/he is singing (now)
	SER	Iterative/repetition	<i>alukolóla</i>	S/he is coughing (continuously/serially)
	ACC	Ongoing process	<i>aluzwaála</i>	S/he is getting dressed or putting on (a garment)
	PERC	Ongoing state	<i>alufoná</i>	S/he sees or can see
	NON-PERC	Ongoing state	<i>alusaata</i>	S/he is sick
	TRANS	(1) Coming-to-be, (2) result state	<i>alugina</i>	(1) S/he is getting fat (i.e., s/he has not reached a point where the speaker thinks s/he is fat); (2) S/he is getting fatter (i.e., s/he is already fat and still getting fatter)
	IRREV	Immediate future; iterative reading when the plural subject is inflected	<i>lilífaá</i> <i>galífaá</i>	It is about to die They are dying (one by one)
	REV	Immediate future; iterative reading when the plural subject is inflected	<i>alugwaá</i> <i>galígwaá</i>	S/he appears about to fall down They are falling down (one by one)
Occurs in the stative construction	ACT	Infelicitous, except in few verbs (directionals) where it denotes ongoing process	<i>#asekilé</i> <i>aziilé</i>	Intended: S/he is (in the state of) laughing S/he is (in the state of) going home
	SER	Infelicitous	<i>#akolólilé</i>	Intended: S/he is (in the state of) coughing
	ACC	Present state	<i>azwaálilé</i>	S/he is dressed in or wearing (a garment)
	PERC	Infelicitous	<i>#aβonilé</i>	Intended: S/he sees (i.e., s/he is in the state of seeing)
	NON-PERC	Present state	<i>asaatilé</i>	S/he is sick (now and in general)
	TRANS	Present state	<i>agmilé</i>	S/he is fat
	IRREV	Present state	<i>lifililé</i>	It is dead
	REV	Present state	<i>agwiilé</i>	S/he has fallen down (and is still on the ground)

Test	ASP	Reading	Example	Translation
Occurs in the persistive plus general imperfective	ACT	(1) Continuing process and (2) persistent habitual	<i>ataál' áálumba</i>	(1) S/he is still singing; (2) S/he still sings (regularly)
	SER	(1) Continuation of an iterative event and (2) persistent habitual	<i>ataál' áálnkolóla</i>	(1) S/he is still coughing (continuously/serially); (2) S/he still coughs (regularly)
	ACC	(1) Continuing process and (2) persistent habitual	<i>ataál' ááluɔwaála</i>	(1) S/he is still getting dressed or putting on (a garment); (2) S/he still dresses or puts on (a garment) (regularly)
	PERC	(1) Continuing state and (2) persistent habitual	<i>ataál' ááluβoná</i>	(1) S/he still sees (now and in general); (2) S/he still sees (habitually)
	NON-PERC	(1) Continuing state and (2) persistent habitual	<i>ataál' ááluɔaata</i>	(1) S/he is still sick (i.e., s/he is still in the state of being sick); (2) S/he is still sick (as always)
	TRANS	(1) Continuation of the coming-to-be, (2) continuation of the result state and (3) persistent habitual/generic	<i>ataál' ááluɔgma</i>	(1) S/he is still getting fat (i.e., s/he has not reached the point where the speaker thinks s/he is fat; (2) S/he is already fat and still getting fatter; (3) S/he still gets fat (regularly)
	IRREV	Unacceptable with singular subjects; continuing process with plural subjects	<i>#lntááli liliifaá</i> <i>gataáli galiifaá</i>	Intended: #It is still dying They are still dying
	REV	Persistent habitual/generic with singular subjects; continuing process with plural subjects	<i>ataál' ááluɔgwa</i> <i>βataáli βaliɔgwa</i>	S/he still falls down (regularly) They are still falling down
Occurs in the persistive plus stative construction	ACT	Infelicitous, except with few verbs (directionals) where it denotes a continuation of the event	<i>#ataal' áásekilé</i> <i>ataál' áápeelilé</i>	Intended: #S/he is still (in the state of) laughing S/he is still (in the state of) running
	SER	Infelicitous	<i>#ataal' áákolólilé</i>	Intended: #S/he is still (in the state of) coughing



Test	ASP	Reading	Example	Translation
Occurs in the persistive plus stative construction	ACC	Express temporariness of the result state	<i>ataál' áázwaáílilé</i>	S/he is still dressed in or wearing (a garment)
	PERC	Infelicitous	<i>#ataál' ááβonilé</i>	Intended: #S/he still sees (i.e., s/he is still in the state of seeing)
	NON-PERC	Express temporariness of the result state	<i>?ataál' áásaatilé</i>	S/he is still sick (now and in general)
	TRANS	Express temporariness of the result state	<i>ataál' áágmilé</i>	S/he is still fat
	IRREV	Infelicitous	<i>#litááílí líβólilé</i>	Intended: It is still rotten
	REV	Express temporariness of the result state	<i>ataál' áágwiilé</i>	#S/he has still fallen down (i.e., s/he has fallen down and is still on the ground; s/he has not got up yet)
Occurs in the inceptive aspect	ACT	The start of the event's process	<i>waayíimbá</i>	S/he has just now started to sing
	SER	The start of an iterative situation	<i>waayóókólóla</i>	S/he has started to cough (continuously/serially)
	ACC	The start of the event's process	<i>waayóózwaála</i>	S/he has just started to dress or put on (a garment)
	PERC	The start of the stative event	<i>waayóóβoná</i>	S/he has started to (be able) to see
	NON-PERC	The start of the stative event	<i>βaáyíúkólá</i>	They have started to resemble each other
	TRANS	Coming into existence of a state	<i>waayóógina</i>	S/he has started to become fat
	IRREV	Proximate (the 'be about' start of the event or the sudden start of an event)	<i>lyááyóófaá</i>	It is just about to die or is on the point of dying
REV	Proximate (the 'be about' start of the event or the sudden start of an event)	<i>waayóógwa</i>	S/he is just about to fall down	

B. Lexical tests

Test	ASP	Reading	Example	Translation
Occurs with <i>-andya</i> 'start'	ACT	The beginning of a process	<i>waandyág'óokwimbá</i>	S/he has started to sing (earlier today/a short while ago)
	SER	The beginning of multiple occurrences of the event	<i>waandyág'óokokolóla</i>	S/he has started to cough (continuously/serially) (earlier today/a short while ago)
	ACC	The beginning of a process	<i>waandyág'óokozwaála</i>	S/he has started to dress or put on (a garment) (earlier today/a short while ago)
	PERC	The beginning of a stative event	<i>waandij'óókofoná</i>	S/he started to (be able to) see (a long while ago)
	NON-PERC	The beginning of a stative event	<i>waandij'óókwiizokila</i>	S/he started to remember (a long while ago)
	TRANS	The beginning of a coming-to-be of an event	<i>waandij'óókogma</i>	S/he started to become fat (a long while ago)
	IRREV	Infelicitous (unless inflected with a plural subject)	<i>#lyaandyág'óókofaá</i> <i>gaandyág'óókofaá</i>	Intended: #It has started to die (earlier today or a short while ago) They have started to die (one by one) (earlier today or a short while ago)
	REV	Infelicitous (unless inflected with a plural subject)	<i>#lyaandyág'óókogwa</i> <i>gaandyág'óókogwa</i>	Intended: It has started to fall down (earlier today or a short while ago) (i.e., it has started the process of falling down) They have started to fall down (one by one) (earlier today or a short while ago)
Occurs with <i>-oya</i> 'stop'	ACT	Interruption of the event's process	<i>woóyag'óókwimbá</i>	S/he has stopped (the process of) singing
	SER	Interruption of the event's multiple occurrences	<i>woóyag'óókokolóla</i>	S/he has stopped (the process of) coughing (continuously/serially)

Test	ASP	Reading	Example	Translation
Occurs with <i>-oya</i> 'stop'	ACC	Interruption of the event's process	<i>woóyag' óókowzála</i>	S/he has stopped (the process of) dressing or putting on (a garment)
	PERC	Interruption of the event's state	<i>woóyag' óókoliβóná</i>	S/he has stopped (the process of) seeing it
	NON-PERC	Interruption of the event's state	<i>lyoóyag' óókomoonda</i>	It has stopped being soft
	TRANS	Interruption of the event's coming-to-be	<i>goóyag' óókoseβa</i>	It has stopped coming to the boil
	IRREV	Infelicitous, unless inflected with a plural subject	<i>#lyoóyag' óókobola</i> <i>goóyag' óókobola</i>	Intended: #It has stopped (the process of) rotting They have stopped (the process of) rotting
	REV	Do not express interruption reading, unless inflected with a plural subject	<i>#woóyag' óókogwa</i> <i>βoóyag' óókogwa</i>	S/he has stopped (the process of) falling down They have stopped (the process of) falling down
Occurs with <i>-mala</i> 'finish'	ACT	Infelicitous (but some verbs can be accepted)	<i>#waamálag' oókoseka</i> <i>waamálag' oókwiimbá</i>	Intended: #S/he has finished laughing S/he has finished singing (a song)
	SER	Infelicitous	<i>#waamálag' oókokolóla</i>	Intended: #S/he has finished coughing
	ACC	Describe the completion of the event	<i>waamálag' oókozwaála</i>	S/he has finished dressing or putting on (a garment)
	PERC	Infelicitous (but some verbs can be accepted)	<i>#waamálag' oókobóná</i>	Intended: S/he has finished seeing
	NON-PERC	Infelicitous	<i>#waamálag' oókwiizokíla</i>	Intended: S/he has finished remembering
	TRANS	Infelicitous	<i>#gaamálag' óókoseβa</i>	Intended: #It has finished boiling
	IRREV	Infelicitous	<i>#lyaamálag' óókofaá</i>	Intended: #It has finished dying
	REV	Infelicitous	<i>#waamálag' oókogwa</i>	Intended: #S/he has finished falling down
Occurs with <i>hadoóhádó</i> 'slowly'	ACT	The ongoing activity was carried out slowly	<i>wiimbilé hadoóhádó</i>	S/he sang slowly
	SER	Infelicitous	<i>#waakólólilé hadoóhádó</i>	Intended: #S/he coughed slowly

Test	ASP	Reading	Example	Translation
Occurs with <i>hadoóhádó</i> ‘slowly’	ACC	The ongoing activity was carried out slowly	<i>waazwaálilé hadoóhádó</i>	S/he got dressed in or put on (a garment) slowly
	PERC	Infelicitous	<i>#waaβóonjilé hadoóhádó</i>	Intended: #S/he tasted (the soup) slowly
	NON-PERC	Infelicitous	<i>#waantógilwé hadoóhádó</i>	Intended: #S/he loved/liked her/him slowly
	TRANS	The coming-to-be of the event occurred slowly	<i>gaaséβilé hadoóhádó</i>	It became hot slowly
	IRREV	Infelicitous	<i>#waashikilé hadoóhádó</i>	Intended: #S/he arrived slowly
	REV	Infelicitous (but some can be pragmatically reinterpreted as transitional achievements)	<i>#waagwiilé hadoóhádó</i> <i>?wiikáílilé hadoóhádó</i>	Intended: #S/he fell down slowly S/he sat (down) slowly (i.e., s/he took a long time to sit down)

C. Tense and time adverbial tests

Test	ASP	Reading	Example	Translation
Occurs in the hodiernal past	ACT	Completed earlier the same day before the UT	<i>wimbága</i>	S/he sung (earlier today or a short while ago)
	SER	Completed earlier the same day before the UT	<i>lyaakólólaga</i>	It coughed (earlier today or a short while ago)
	ACC	Completed earlier the same day, but asserts that the result state (coda) still holds at UT	<i>waazwaálága</i>	S/he is dressed in or wearing (a garment) (lit. s/he got dressed (in a garment))
	PERC	Completed earlier the same day before the UT	<i>waagaβónága</i>	S/he saw/has seen (them) (earlier today or a short while ago)
	NON-PERC	Completed earlier the same day before the UT	<i>wiizóklaga</i>	S/he remembered (to do X) (earlier today or a short while ago)
	TRANS	Completed earlier the same day, but asserts that the result state (coda) still holds at UT	<i>waaginága!</i>	You are fat (lit. have got fat(ter))!

Test	ASP	Reading	Example	Translation
Occurs in the hodiernal past	IRREV	Completed earlier the same day, but asserts that the result state (coda) still holds at UT	<i>yaafáágá</i>	It is dead (lit. has died)
	REV	Completed earlier the same day, but implies that the result state (coda) still holds at UT	<i>wiikálaga</i>	S/he is seated (lit. has sat)
Occurs in the pre-hodiernal past tense	ACT	Completed before today	<i>wumbilé</i>	S/he sang (yesterday or before)
	SER	Completed before today	<i>waakólólilé</i>	S/he coughed (yesterday or before)
	ACC	Completed before today, but implies that the result state (coda) still holds at UT. This implicature is cancellable.	<i>waazwaálilé kofum' ígolo</i>	S/he put on or has been wearing (the same garment) since yesterday
	PERC	Completed before today	<i>waaliβónilé</i>	S/he saw it (yesterday or before)
	NON-PERC	Completed before today	<i>waagatógilwé</i>	S/he loved/liked them (yesterday or before)
	TRANS	Completed before today, but implies that the result state (coda) still holds at UT. This implicature is cancellable.	<i>waaginilé</i>	S/he got fat (and is still fat)
	IRREV	Completed before today, but implies that the result state (coda) still holds at UT. This implicature is NOT cancellable.	<i>lyaafíilé</i>	It died (yesterday or before)
	REV	Completed before today, but implies that the result state (coda) still holds at UT. This implicature is cancellable.	<i>lyaagwíilé</i>	It fell down (yesterday or before) (and it is still fallen down today/now)
Occurs with the <i>take X time</i> construction	ACT	Modifies the interval elapsing before the beginning or culmination of event	<i>waasólil' íikaanz' ílilíh' óókwiimbá</i>	(1) S/he took a long time (to begin) to sing; (2) S/he took a long time to stop singing

Test	ASP	Reading	Example	Translation
Occurs with the <i>take X time</i> construction	SER	Modifies the interval elapsing before the beginning or culmination of multiple occurrences of an event	<i>waasólil' iikaánz' iilíih' óókokolóla</i>	(1) S/he took a long time (to begin) to cough; (2) S/he took a long time to stop coughing
	ACC	Describes the interval to elapse before the culmination of the event's process	<i>waasólilé linsaa izim' oókozwaála</i>	S/he took the whole hour to dress or put on (a garment)
	PERC	Modifies the interval elapsing before the beginning or culmination of the stative event	<i>waasólil' iikaánz' iilíih' óókoβoná</i>	(1) S/he took a long time (to begin) to see; (2) S/he took a long time to stop seeing
	NON-PERC	Modifies the interval elapsing before the beginning or culmination of the stative event	<i>waasólilé nshikó nyiing' óókosaata</i>	(1) S/he took a long time (lit. many days) to become sick (i.e., to develop symptoms); (2) S/he has been sick for too long (lit. many days)
	TRANS	Describes the interval to elapse before entry into the new or result state	<i>waasólilé myaaká miing' óókogma</i>	S/he took many years to become fat
	IRREV	Describes the interval to elapse before entry into the new or result state	<i>lyasólil' iikaánz' iilíih' óókofaá</i>	It took a long time to die
	REV	Describes the interval to elapse before entry into the new or result state	<i>waasólil' iikaánz' iilíih' óókwikala</i>	S/he took a long time to sit down

Appendix 3: The interpretations or co-occurrence restrictions of diagnostic tests in each of the verbs investigated

A. Grammatical aspect tests

General imperfective and stative construction

Verb	Gloss	Grammatical aspect tests	
		General imperfective Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	Stative construction Morphological structure: SP-(REFL)-root-(EXT)-STAT
<i>-gma</i>	‘be(come) fat’	<i>a-lɪ-gm-a</i> (1) s/he is getting fat; (2) s/he is continuing to get fat; (3) s/he often gets fat; (4) s/he will get fat (this year)	<i>a-gm-ilé</i> s/he is fat
<i>-seβa</i> (intr.)	‘boil’	<i>ga-lɪ-seβ-a</i> (1) it (the water) is coming to boil; (2) it is boiling; (3) it boils (regularly); (4) it will boil (tomorrow or later)	<i>ga-seβ-ilé</i> it (the water) is boiled/hot
<i>goonda</i> (intr.)	‘be(come) bent’	<i>lɪ-l-íí-góónd-a</i> (1) it is bending; (2) it is continuing to bend; (3) it (often) bends; (4) it will bend (tomorrow or later)	<i>l-íí-góónd-ilé</i> it is bent
<i>-βoomba</i>	‘be(come) soaked’	<i>ga-lɪ-βoomb-a</i> (1) they are being soaked; (2) they are continuing to be soaked; (3) they will be soaked (tomorrow or later)	<i>ga-βoomb-ilé</i> they are soaked
<i>-pɪla</i>	‘recover’	<i>a-lɪ-pɪl-a</i> (1) s/he is about to recover; (2) s/he will recover (tomorrow or later)	<i>a-pɪl-ilé</i> s/he is recovered
<i>-faá</i>	‘die’	<i>lɪ-líí-f-aá</i> (1) it is about to die; (2) it will die (tomorrow or later)	<i>lɪ-f-íílé</i> it is dead
<i>-βola</i>	‘be(come) rotten’	<i>lɪ-líí-βol-a</i> (1) it is about to become rotten; (2) it will become rotten (tomorrow or later)	<i>lɪ-βól-ilé</i> it is rotten

Verb	Gloss	Grammatical aspect tests	
		General imperfective Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	Stative construction Morphological structure: SP-(REFL)-root-(EXT)-STAT
- <i>duúha</i>	‘be(come) blunt’	<i>li-lí-duúh-a</i> (1) it is about to become blunt; (2) it will become blunt (tomorrow or later)	<i>li-duúh-ilé</i> it is blunt
- <i>kamá</i>	‘dry up’	<i>ga-lu-kam-a</i> (1) it (the water) is about to dry up; (2) it will dry up (tomorrow or later)	<i>ga-kam-ilé</i> it (the water) is dried up
- <i>gaasa</i>	‘spoil, ferment’	<i>ga-lu-gaas-a</i> (1) it (the bran) is about to become spoiled/fermented; (2) it will become spoiled (tomorrow or later)	<i>ga-gaas-ilé</i> it (the bran) is spoiled/fermented
- <i>nana</i>	‘melt (plastic)’	<i>li-lí-nan-a</i> it is melting or will soon melt	<i>li-nán-ilé</i> it is melted
- <i>βínzá</i> (intr.)	‘break’	<i>li-lí-βínz-ík-á</i> (1) it is breaking or will break (later today); (2) it will break (tomorrow or later)	<i>li-βínz-ík-ilé</i> it is broken
- <i>lugola</i> (intr.)	‘open’	<i>li-lí-lugol-w-a</i> (1) it is opening; (2) it is opening and continues to open; (3) it is opened (every day); (4) it will open (tomorrow)	<i>li-lugol-il-w-é</i> it is opened
- <i>dota</i>	‘be(come) wet’	<i>li-lí-dot-a</i> it is getting wet or about to become wet	<i>li-dót-ilé</i> it is wet
- <i>saata</i>	‘be sick’	<i>a-lu-saat-a</i> (1) s/he is sick (now); (2) s/he is (usually) sick	<i>a-saat-ilé</i> s/he is sick (now and in general)
- <i>moonda</i>	‘be soft’	<i>li-lí-moond-a</i> (1) it is soft (now); (2) it is (generally) soft	<i>li-móónd-ilé</i> it is soft (now and in general)
- <i>βoná</i>	‘see’	<i>a-lu-βón-á</i> (1) s/he sees or can see (them now); (2) s/he (always) sees (them)	<i>#a-βon-ilé</i> Intended: s/he sees (i.e., s/he is in the state of seeing)



Verb	Gloss	Grammatical aspect tests	
		General imperfective Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	Stative construction Morphological structure: SP-(REFL)-root-(EXT)-STAT
<i>-togwá</i>	‘love, like’	<i>a-lir-togw-á</i> (1) s/he likes (to X); (2) s/he (always) likes (to X)	<i>a-tog-il-w-é</i> s/he likes (to X)
<i>-mana</i>	‘(come to) know’	<i>a-lir-man-a</i> (1) s/he is getting to know (something); (2) s/he knows (the answer to every question)	<i>a-man-ilé</i> s/he knows
<i>-igwá</i>	‘hear’	<i>a-l-iigw-á</i> (1) s/he hears or can hear (them); (2) s/he (always) hears (them)	<i>#w-iigil-w-é</i> Intended: s/he hears (i.e., s/he is in the state of hearing)
<i>-lola</i>	‘look (at)’	<i>a-lir-lól-a</i> (1) s/he is now looking at (it); (2) s/he is always looking at (it)	<i>a-lol-ilé</i> s/he is looking (in a particular direction)
<i>-nuuyha</i>	‘smell bad, stink’	<i>li-lí-nuuyh-a</i> (1) it smells bad (now); (2) it (always) smells bad	<i>#li-núuyh-ilé</i> Intended: it smells bad (i.e., it is in the state of smelling bad)
<i>-moota</i>	‘smell good’	<i>li-lí-moot-a</i> (1) it smells good (now); (2) it (always) smells good	<i>#li-móót-ile</i> Intended: it smells good (i.e., it is in the state of smelling good)
<i>-boonja</i>	‘taste (by swallowing a bit)’	<i>a-lir-boonj-a</i> (1) s/he is tasting (it now); s/he tastes (it every time)	<i>#a-boonj-ilé</i> Intended: s/he tastes (it) (i.e., s/he is in the state of tasting (them))
<i>-degéleka</i>	‘listen’	<i>a-lir-degélek-a</i> (1) s/he is listening (to it now); (2) s/he listens (to it every day)	<i>a-degélek-ilé</i> Intended: s/he listens (to it) (i.e., s/he is in the state of listening (to it))
<i>-ikólá</i>	‘resemble’	<i>βa-l-iikól-á</i> (1) they resemble each other (now, as I am looking at them)	<i>β-iikól-ilé</i> they resemble each other (now and in general)
<i>-sala</i>	‘be(come) crazy’	<i>a-lir-sal-a</i> s/he is about to become crazy	<i>a-sal-ilé</i> s/he is crazy

Verb	Gloss	Grammatical aspect tests	
		General imperfective Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	Stative construction Morphological structure: SP-(REFL)-root-(EXT)-STAT
<i>-izokila</i>	‘remember’	<i>a-l-iizokil-a</i> (1) s/he remembers or misses (her/him) (i.e., s/he is thinking about (her/him)); (2) s/he (often) remembers (her/him)	<i>w-iizokil-ilé</i> s/he remembers (her/him)
<i>-zuya</i>	‘agree’	<i>a-lu-zuy-a</i> (1) s/he agrees (to X); (2) s/he (always) agrees (to X)	<i>a-zuy-ilé</i> s/he agrees (to X)
<i>-daka</i>	‘be(come) angry’	<i>a-lu-dak-a</i> (1) s/he is becoming angry or is about to become angry; (2) s/he becomes angry (every time)	<i>a-dak-ilé</i> s/he is angry
<i>-kolwá</i>	be(come) drunk’	<i>a-lu-kolw-á</i> (1) s/he is becoming drunk or is about to become drunk; (2) s/he becomes drunk (every day)	<i>a-kol-il-w-é</i> s/he is drunk
<i>-ja</i>	‘go’	<i>a-lu-j-a</i> (1) s/he is going (now); (2) s/he will go; (3) s/he (always) goes	<i>a-z-íilé</i> (1) s/he is going (now); (2) s/he will go
<i>-peela</i>	‘run’	<i>a-lu-peel-a</i> (1) s/he is running (now); (2) s/he will run; (3) s/he always runs	<i>a-peel-ilé</i> s/he is running (now)
<i>-shooka</i>	‘return’	<i>a-lu-shook-a</i> (1) s/he is returning or going back (now); (2) s/he will return; (3) s/he returns (every day)	<i>a-shook-ilé</i> s/he is returning or going back (now)
<i>-iza</i>	‘come’	<i>a-l-iiz-a</i> (1) s/he is coming; (2) s/he will come; (3) s/he comes (every day)	<i>w-iiz-íilé</i> s/he is coming (now)
<i>-shika</i>	‘arrive’	<i>a-lu-shik-a</i> s/he will arrive soon	<i>a-shik-ilé</i> s/he has arrived
<i>-liina</i>	‘climb’	<i>a-lu-liin-a</i> (1) s/he is climbing; (2) s/he climbs (every day); (3) s/he will climb	<i>a-liin-ilé</i> s/he has climbed (up a tree)

Verb	Gloss	Grammatical aspect tests	
		General imperfective Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	Stative construction Morphological structure: SP-(REFL)-root-(EXT)-STAT
-ikala	‘sit’	<i>a-l-iikal-a</i> (1) s/he is about to sit (down); (2) s/he sits (down every time/day); (3) s/he will sit (down) (tomorrow or later)	<i>w-iikal-ilé</i> s/he is sat (down)
-laála	‘fall asleep/sleep’	<i>a-lu-laál-a</i> (1) s/he is dozing; (2) s/he dozes/sleeps (every day); (3) s/he will sleep (tomorrow or later)	<i>a-laál-ilé</i> s/he is asleep
-laángá	‘get stuck up high’	<i>li-lí-laáng-á</i> it gets stuck up high (every time)	<i>li-lááng-ilé</i> it is stuck up high (in a tree)
-gwa	‘fall down’	<i>a-lu-gw-a</i> (1) s/he is about to fall down; (2) s/he falls down (every time/day); (3) it will fall down (tomorrow or later)	<i>a-gw-iilé</i> s/he has fallen down (and is still on the ground)
-itóóndá	‘squat’	<i>a-l-iitóónd-á</i> (1) s/he is about to squat; (2) s/he squats every (time/day)	<i>w-iitóónd-ilé</i> s/he is squatting
-zeenga (intr.)	‘build’	<i>li-lí-zeeng-w-a</i> (1) it is being built (now); (2) it is being built (every day); (3) it will be built	<i>li-zééng-il-w-é</i> it is built
-imbá	‘sing’	<i>a-l-umb-á</i> (1) s/he is singing (now); (2) s/he sings (every day); (3) s/he will sing	<i>#w-umb-ilé</i> Intended: s/he is (in the state of) singing
-seka	‘laugh’	<i>a-lu-sek-a</i> (1) s/he is laughing (now); (2) s/he laughs (every time); (3) s/he will laugh	<i>#a-sek-ilé</i> Intended: s/he is (in the state of) laughing
-lyaá	‘eat’	<i>a-lu-ly-aá</i> (1) s/he is eating (now); (2) s/he eats (every day); (3) s/he will eat	<i>a-l-iilé</i> s/he has eaten

Verb	Gloss	Grammatical aspect tests	
		General imperfective Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	Stative construction Morphological structure: SP-(REFL)-root-(EXT)-STAT
<i>-ditema</i>	'tremble'	<i>a-lɪ-ditem-a</i> (1) s/he is trembling (now); (2) s/he trembles (every day)	<i>#a-ditem-ilé</i> Intended: s/he is (in the state of) trembling
<i>-lila</i>	'cry'	<i>a-lɪ-lil-a</i> (1) s/he is crying (now); (2) s/he cries (every day)	<i>#a-lil-ilé</i> Intended: s/he is (in the state of) crying
<i>-ishijá</i>	'play, dance'	<i>a-l-iishij-á</i> (1) s/he is playing (now); (2) s/he plays (every day); (3) s/he will play	<i>#w-iishij-ilé</i> Intended: s/he is (in the state of) playing
<i>-kolóla</i>	'cough'	<i>a-lɪ-kolól-a</i> (1) s/he is coughing (continuously/serially); (2) s/he coughs (every day continuously/serially)	<i>#a-kolól-ilé</i> Intended: s/he is (in the state of) coughing (continuously/serially)
<i>-lumá</i>	'bite'	<i>a-lɪ-lum-á</i> (1) s/he is biting (it now); (2) s/he bites (it every day)	<i>#a-lum-ilé</i> Intended: s/he is (in the state of) biting
<i>-koloma</i>	'snore'	<i>a-lɪ-kolom-a</i> (1) s/he is snoring (continuously/serially); (2) s/he is snoring (everyday continuously/serially)	<i>#a-kolom-ilé</i> Intended: s/he is (in the state of) snoring (continuously/serially)
<i>-dakúna</i>	'chew'	<i>a-lɪ-dakún-a</i> (1) s/he is chewing (it now); (2) s/he chews (it every time)	<i>#a-dakún-ilé</i> Intended: s/he is (in the state of) chewing
<i>-dɪtíla</i> (intr.)	'pour into'	<i>ga-lɪ-dɪtíl-w-a</i> (1) it (the water) is being poured into (the jug now); (2) it is being poured into (the jug every day); (3) it will be poured into (the jug)	<i>ga-dɪtíl-w-é</i> it (the water) is poured into
<i>-zwaála</i>	'get dressed'	<i>a-lɪ-zwaál-a</i> (1) s/he is getting dressed or putting on (a garment); (2) s/he dresses or puts (the same garment everyday); (3) s/he will dress or put on (a garment)	<i>a-zwaál-ilé</i> s/he is dressed in or wearing (a garment)

Verb	Gloss	Grammatical aspect tests	
		General imperfective Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	Stative construction Morphological structure: SP-(REFL)-root-(EXT)-STAT
-sha (intr.)	‘grind’	<i>zi-lɪ-sh-w-a</i> (1) they are being ground (now); (2) they are being ground (every day); (3) they will be ground	<i>zi-sh-íil-(w)-e</i> they are ground
-chíβá (intr.)	‘block sthg, plug’	<i>lɪ-lí-chíβ-w-á</i> (1) it is being blocked (now); (2) it is being blocked (every day); (3) it will be blocked	<i>lɪ-chíβ-il-(w)-é</i> it is blocked
-lɪma (intr.)	‘cultivate’	<i>lɪ-lí-lɪm-w-a</i> (1) it is being cultivated (now); (2) it is being cultivated (every day); (3) it will be cultivated	<i>lɪ-lɪm-il-w-é</i> it is cultivated
-ɪwáá	‘drink’	<i>a-lɪ-ɪw-aá</i> (1) s/he is drinking (now); (2) s/he drinks (every day); (3) s/he will drink	<i>a-ɪw-íilé</i> s/he has drunk
-ogá	‘shower, bath’	<i>a-l-oog-á</i> (1) s/he is taking a shower (now); s/he take a shower (every day); s/he will take a shower later	<i>#w-oog-ilé</i> Intended: s/he is (in the state of) taking a shower
-gola	‘buy’	<i>a-lɪ-gól-a</i> (1) s/he is buying (it); (2) s/he buys (it every day); (4) s/he will buy (it)	<i>#a-gól-ilé</i> Intended: s/he is (in the state of) buying
-toóla	‘(get) married’	<i>a-lɪ-toól-a</i> (1) he is getting married (i.e., will get married); (2) he gets married (every year)	<i>a-toól-ilé</i> he is married
-behá	‘smoke’	<i>a-lɪ-beh-á</i> (1) s/he is smoking (now); (2) s/he smokes (every day); (3) s/he will smoke	<i>?a-beh-ilé</i> Intended: s/he is (in the state of) smoking (marijuana)
-lomeela	‘talk, chat’	<i>a-lɪ-lomeel-a</i> (1) s/he is talking now; (2) s/he is talking every day; (3) s/he will talk	<i>#a-lomeel-ilé</i> Intended: s/he is (in the state of) talking

Verb	Gloss	Grammatical aspect tests	
		<b>General imperfective</b> Morphological structure: SP-IMPF-(REFL)-root-(EXT)-FV	<b>Stative construction</b> Morphological structure: SP-(REFL)-root-(EXT)-STAT
<i>-βούζα</i>	‘ask’	<i>a-lɪ-βούζ-a</i> (1) s/he is asking (now); (2) s/he asks (the same question every day); (3) s/he will ask	<i>#a-βούζ-ile</i> Intended: s/he is (in the state of) asking
<i>-gίlima</i>	‘thunder’	<i>lɪ-lí-gίlim-a</i> (1) it is thundering (continuously/serially); (2) it thunders (every day continuously/serially); (3) it will thunder	<i>#lɪ-gίlim-ilé</i> Intended: it is (in the state of) thundering (continuously/serially)
<i>-πούλα</i> (intr.)	‘pound’	<i>ga-lɪ-pούλ-w-a</i> (1) they are being pounded (now); (2) they are being pounded (every day); (3) they will be pounded	<i>ga-pούλ-il-w-é</i> they are pounded
<i>-kolá</i>	‘grow’	<i>a-lɪ-kol-á</i> (1) s/he is growing; (2) s/he is continuing to grow	<i>a-kol-ilé</i> s/he is grown

Persistent plus general imperfective

Verb	Gloss	Grammatical aspect tests: Persistent plus general imperfective	
		Morphological structure: SP-PER-AUX SP-IMPF-root-(EXT)-FV	
<i>-gίma</i>	‘be(come) fat’	<i>a-tá-l' áá-lɪ-gίm-a</i> (1) s/he is still getting fat (but has not reached a point where she can be called fat); (2) s/he is already fat and still getting fatter; (3) s/he still gets fat (regularly)	
<i>-seβa</i> (intr.)	‘boil’	<i>ga-tá-lí ga-lɪ-seβ-a</i> (1) it (the water) is still boiling (it has not reached a point where it can be said to be boiled); (2) it is already boiled and still boiling; (3) it still boils (regularly)	
<i>goonda</i> (intr.)	‘be(come) bent’	<i>lɪ-tá-lí lɪ-l-í-góond-a</i> (1) it is still bending (it has not reached a point where it can be said to be bent); (2) it is already bending and still bending; (3) it still bends (every time)	

Verb	Gloss	Grammatical aspect tests: <b>Persistent plus general imperfective</b> Morphological structure: SP-PER-AUX SP-IMPF-root-(EXT)-FV
- <i>boomba</i>	‘be(come) soaked’	<i>ga-táá-lí ga-lí-boomb-a</i> (1) they are still being soaked (they have not reached a point where they can be said to be soaked); (2) they are soaked and still soaking
- <i>píla</i>	‘recover’	<i>#a-táá-l' áá-lí-píl-a</i> Intended: s/he is still recovering
- <i>faá</i>	‘die’	<i>#lí-táá-lí lí-lí-f-áá</i> Intended: it is still dying
- <i>bola</i>	‘be(come) rotten’	<i>#lí-táá-lí lí-lí-βol-a</i> Intended: #it is still becoming rotten
- <i>duúha</i>	‘be(come) blunt’	<i>#lí-táá-lí lí-lí-duúh-a</i> Intended: #it is still becoming blunt
- <i>kamá</i>	‘dry up’	<i>#ga-táá-lí ga-lí-kam-a</i> Intended: #they are still drying up
- <i>gaasa</i>	‘spoil, ferment’	<i>#ga-táá-lí g-ali-igaas-a</i> Intended: #it (bran) is still spoiling slowly
- <i>nana</i>	‘melt (plastic)’	<i>#lí-táá-lí lí-lí-nan-a</i> Intended: it is still melting
- <i>βíinzá</i> (intr.)	‘break’	<i>lí-táá-lí lí-lí-βíinz-ik-a</i> it keeps breaking down NOT #it is still (in the process) of breaking
- <i>lugola</i> (intr.)	‘open’	<i>lí-táá-lí lí-lí-lugo-lw-a</i> (1) it is still opening; (2) it is opened (a little) and still opening; (3) it (still) opens (every day)
- <i>dota</i>	‘be(come) wet’	<i>#lí-táá-lí lí-lí-dot-a</i> Intended: #it is still becoming wet
- <i>saata</i>	‘be sick’	<i>a-táá-l' áá-lí-saat-a</i> (1) s/he is still sick (lit. s/he is still in the state of being sick); (2) s/he is still sick (as always)
- <i>moonda</i>	‘be soft’	<i>lí-táá-lí lí-lí-moond-a</i> it is still soft
- <i>βoná</i>	‘see’	<i>a-táá-l' áá-lí-βon-á</i> (1) s/he still sees (them now and in general); (2) s/he still sees (them habitually)

Verb	Gloss	Grammatical aspect tests: Persistent plus general imperfective Morphological structure: SP-PER-AUX SP-IMPF-root-(EXT)-FV
<i>-togwá</i>	‘love, like’	<i>a-taá-l' áá-lí-togw-á</i> s/he still likes (doing X)
<i>-mana</i>	‘(come to) know’	<i>#a-taá-lí a-lí-man-a</i> Intended: #s/he is still getting to know (something)
<i>-igwá</i>	‘hear’	<i>a-taá-lí a-lí-gw-á</i> (1) s/he still hears (them now and in general); (2) s/he still hears (them regularly)
<i>-lola</i>	‘look (at)’	<i>a-taá-lí a-lí-lol-a</i> (1) s/he is still looking (at it); (2) s/he still looks at (it every day)
<i>-nuuŋha</i>	‘smell bad, stink’	<i>lí-táá-lí lí-lí-nuuŋh-a</i> (1) it still smells bad; (2) it still smells bad (every day)
<i>-moota</i>	‘smell good’	<i>lí-táá-lí lí-lí-moot-a</i> (1) it still smells good; (2) it still smells good (every day)
<i>-foonja</i>	‘taste (by swallowing a bit)’	<i>a-taá-lí a-lí-foonj-a</i> s/he still tastes (it every time)
<i>-degéleka</i>	‘listen’	<i>a-taá-lí a-lí-degélek-a</i> (1) s/he is still listening (to it); s/he still listens (to it every day)
<i>-ikólá</i>	‘resemble’	<i>#βa-taá-lí βa-l-iikól-á</i> Intended: they (people) still resemble each other
<i>-sala</i>	‘be(come) crazy’	<i>#a-taá-lí a-lí-sal-a</i> Intended: #s/he is still becoming crazy
<i>-izokíla</i>	‘remember’	<i>a-taá-lí a-l-iizokí-l-a</i> (1) s/he still remembers (her/him) (i.e., s/he is still thinking about (her/him)); (2) s/he still remembers (her/him every day)
<i>-zuŋa</i>	‘agree’	<i>a-taá-lí a-lí-zuŋ-a</i> s/he still agrees (to X)
<i>-daka</i>	‘be(come) angry’	<i>a-taá-lí a-lí-dak-a</i> s/he still gets angry (every time)
<i>-kolwá</i>	‘be(come) drunk’	<i>#a-taá-lí a-lí-kolw-á</i> Intended: #s/he is still becoming drunk



Verb	Gloss	Grammatical aspect tests: Persistent plus general imperfective Morphological structure: SP-PER-AUX SP-IMPF-root-(EXT)-FV
-ja	‘go’	<i>a-taá-lí a-lí-j-a</i> (1) s/he is still in the process of going; s/he is still going (every day)
-peela	‘run’	<i>a-taá-lí a-lí-peel-a</i> (1) s/he is still in the process of running; (2) s/he still runs (every day)
-shooka	‘return’	<i>a-taá-lí a-lí-shook-a</i> s/he is still returning or going back
-iza	‘come’	<i>a-taá-lí a-lí-iz-a</i> (1) s/he is still coming (not yet here); (2) s/he still comes (every day)
-shika	‘arrive’	<i>#a-taá-lí a-lí-shik-a</i> Intended: #s/he is still arriving
-liina	‘climb’	<i>a-taá-lí a-lí-liin-a</i> (1) s/he is still climbing; (2) s/he still climbs (every day)
-ikala	‘sit’	<i>a-taá-lí a-lí-ikal-a</i> s/he still sits (down every day)
-laála	‘fall asleep/sleep’	<i>a-taá-lí a-lí-laál-a</i> s/he still sleeps (on the ground every day)
-laángá	‘get stuck up high’	<i>lí-táá-lí lí-lí-laáng-á</i> it still gets stuck up high (every time)
-gwa	‘fall down’	<i>a-taá-lí a-lí-gw-a</i> s/he still falls down (regularly)
-itóóndá	‘squat’	<i>a-taá-lí a-lí-tóónd-á</i> s/he still squats (everyday)
-zeenga (intr.)	‘build’	<i>lí-táá-lí lí-lí-zeeng-w-a</i> (1) it is still being built; (2) it is still being built (every day)
-imbá	‘sing’	<i>a-taá-lí a-lí-imb-á</i> (1) s/he is still singing; (2) s/he still sings (every day)
-seka	‘laugh’	<i>a-taá-lí a-lí-sek-a</i> (1) s/he is still laughing; (2) s/he still laughs (every day)

Verb	Gloss	Grammatical aspect tests: Persistent plus general imperfective Morphological structure: SP-PER-AUX SP-IMPF-root-(EXT)-FV
- <i>lyaá</i>	‘eat’	<i>a-taá-lí a-lí-ly-á</i> (1) s/he is still eating; (2) s/he still eats (it every day)
- <i>ditema</i>	‘tremble’	<i>a-taá-lí a-lí-ditem-a</i> (1) s/he is still trembling; (2) s/he still trembles (every day)
- <i>lila</i>	‘cry’	<i>a-taá-lí a-lí-lil-a</i> (1) s/he is still crying; (2) s/he still cries (every day)
- <i>ishijá</i>	‘play, dance’	<i>a-taá-lí a-lí-iishij-á</i> (1) s/he is still playing; (2) s/he still plays (every day)
- <i>kolóla</i>	‘cough’	<i>a-taá-lí a-lí-kolól-a</i> (1) s/he is still coughing (continuously/serially); (2) s/he still coughs (every day continuously/serially)
- <i>lumá</i>	‘bite’	<i>a-taá-lí a-lí-lum-á</i> (1) s/he is still biting (it); (2) s/he still bites (it every day)
- <i>koloma</i>	‘snore’	<i>a-taá-lí a-lí-kolom-a</i> (1) s/he is still snoring (continuously/serially); (2) s/he still snores (every day continuously/serially)
- <i>dakúna</i>	‘chew’	<i>a-taá-lí a-lí-dakún-a</i> (1) s/he is still chewing; (2) s/he still chews (every day)
- <i>ditíla</i> (intr.)	‘pour into’	<i>ga-taá-lí ga-lí-ditíl-w-a</i> (1) it (the water) is still (in the process of) being poured into (the jug); (2) it is still being poured into (the jug every day)
- <i>zwaála</i>	‘get dressed’	<i>a-taá-lí a-lí-zwaál-a</i> (1) s/he is still getting dressed or putting on (a garment); (2) s/he still dresses or puts on (the same garment every day)
- <i>sha</i> (intr.)	‘grind’	<i>zi-taá-lí zi-lí-sh-w-a</i> (1) they are still (in the process of) being ground; (2) they are still being ground (every day)
- <i>chifá</i> (intr.)	‘block sthg, plug’	<i>lí-táá-lí lí-lí-chif-w-á</i> (1) it is still (in the process of) being blocked; (2) it is still being blocked (every day)

Verb	Gloss	Grammatical aspect tests: <b>Persistent plus general imperfective</b> Morphological structure: SP-PER-AUX SP-IMPF-root-(EXT)-FV
- <i>lima</i> (intr.)	‘cultivate’	<i>li-táá-lí li-lí-lim-w-a</i> (1) it is still (in the process of) being cultivated; (2) it is still being cultivated (every day)
- <i>ɲwáá</i>	‘drink’	<i>a-táá-lí a-lɪ-ɲw-áá</i> (1) s/he is still drinking; (2) s/he still drinks (every day)
- <i>ogá</i>	‘shower, bath’	<i>a-táá-lí a-l-oog-á</i> (1) s/he is still taking a shower; (2) s/he still takes a shower (there) every day
- <i>gola</i>	‘buy’	<i>a-táá-lí a-lɪ-gol-a</i> (1) s/he is still buying (them); (2) s/he still buys it (every day)
- <i>toóla</i>	‘(get) married’	<i>a-táá-lí a-lɪ-toól-a</i> he is married and still getting married (to other women)
- <i>behá</i>	‘smoke’	<i>a-táá-lí a-lɪ-beh-á</i> (1) s/he is still smoking; (2) s/he still smokes (every day)
- <i>lomeela</i>	‘talk, chat’	<i>a-táá-lí a-lɪ-lomeel-a</i> (1) s/he is still talking; (2) s/he still talks (every day)
- <i>βóója</i>	‘ask’	<i>a-táá-lí a-lɪ-βóój-a</i> (1) s/he is still asking (has more questions); (2) s/he still asks (the same question every day)
- <i>gilima</i>	‘thunder’	<i>li-táá-lí li-lí-gilim-a</i> (1) it is still thundering (continuously/serially); (2) it still thunders (every day continuously/serially)
- <i>poóla</i> (intr.)	‘pound’	<i>ga-táá-lí ga-lɪ-poól-w-a</i> (1) they are still (in the process of) being pounded; (2) they are still being pounded (every day)
- <i>kolá</i>	‘grow’	<i>a-táá-lí a-lɪ-kol-á</i> (1) s/he is still growing (i.e., s/he has not reached a point at which she is called grown); (2) s/he has grown but still continuing to grow

Persistent plus stative construction and inceptive

Verb	Gloss	Grammatical aspect tests	
		Persistent plus stative construction Morphological structure: SP-PER-AUX SP-root-(EXT)-FV	Inceptive Morphological structure: SP-PST-INC-root-(EXT)-FV
<i>-gma</i>	‘be(come) fat’	<i>a-táá-lí a-gm-ilé</i> s/he is still fat	<i>w-aa-yóó-gm-a</i> s/he has started to become fat
<i>-seβa</i> (intr.)	‘boil’	<i>ga-táá-lí ga-seβ-ilé</i> it (the water) is still boiled/hot	<i>ga-a-yóó-seβ-a</i> it (the water) has just started to boil or heat up
<i>goonda</i> (intr.)	‘be(come) bent’	<i>li-táá-lí l-íí-góónd-ilé</i> it is still bent	<i>ly-áá-y-íí-góónd-a</i> it has just started to bend
<i>-boomba</i>	‘be(come) soaked’	<i>ga-táá-lí ga-βoomb-ilé</i> they are still soaked	<i>ga-a-yóó-βoomb-a</i> they have just started to soak (or being soaked)
<i>-pila</i>	‘recover’	<i>#a-táá-lí a-pil-ilé</i> Intended: #s/he is still recovered	<i>w-aa-yóó-pil-a</i> s/he is on the point of recovery
<i>-faá</i>	‘die’	<i>#l-táá-lí l-f-íilé</i> Intended: #it is still dead	<i>ly-áá-yóó-f-aá</i> it is just about to die / it is on the point of dying
<i>-βola</i>	‘be(come) rotten’	<i>#l-táá-lí l-βól-ilé</i> Intended: it is still rotten	<i>ly-áá-yóó-βol-a</i> it is on the point of being rotten
<i>-duúha</i>	‘be(come) blunt’	<i>#l-táá-lí l-duúh-ilé</i> Intended: it is still blunt	<i>ly-áá-yóó-duúh-a</i> it is on the point of being blunt
<i>-kamá</i>	‘dry up’	<i>#ga-táá-lí ga-kam-ilé</i> Intended: it (the water) is still dried up	<i>ga-a-yóó-kam-a</i> it (the water) is on the point of being dried up
<i>-gaasa</i>	‘spoil, ferment’	<i>#ga-táá-lí ga-gaas-ilé</i> Intended: #it (the bran) is still spoiled/fermented	<i>ga-a-yóó-gaas-a</i> it (the bran) is on the point of being spoiled
<i>-nana</i>	‘melt (plastic)’	<i>#l-táá-lí l-nán-ilé</i> Intended: it is still melted	<i>ly-áá-yóó-nan-a</i> it is on the point of melting
<i>-βínzá</i> (intr.)	‘break’	<i>li-táá-lí l-βínz-ík-ilé</i> it is still broken	<i>ly-áá-yóó-βínz-ík-á</i> it is on the point of breaking

Verb	Gloss	Grammatical aspect tests	
		Persistent plus stative construction Morphological structure: SP-PER-AUX SP-root-(EXT)-FV	Inceptive Morphological structure: SP-PST-INC-root-(EXT)-FV
-lugola (intr.)	‘open’	<i>li-táá-lí li-lugol-il-w-é</i> it is still opened	<i>ly-áá-yóó-lugol-w-a</i> it has just started to become open
-dota	‘be(come) wet’	<i>li-táá-lí li-dót-ilé</i> it is still wet	<i>ly-áá-yóó-dot-a</i> it has just started being wet (it is wet a little)
-saata	‘be sick’	? <i>a-taá-lí a-saat-ilé</i> s/he is still sick (now and in general)	<i>w-aa-yóó-saat-a</i> s/he has just started to be/become sick
-moonda	‘be soft’	? <i>li-táá-lí li-móónd-ilé</i> it is still soft now and in general	<i>ly-áá-yóó-moond-a</i> it has just started to be/become soft
-boná	‘see’	# <i>a-taá-lí a-βon-ilé</i> Intended: s/he still sees (i.e., s/he is still in the state of seeing)	<i>w-aa-yóó-βon-á</i> s/he has started to (be able to) see
-togwá	‘love, like’	<i>a-taá-lí a-tog-il-w-é</i> s/he still likes (to X)	<i>w-aa-yóó-tog-w-á</i> s/he just started to like (it)
-mana	‘(come to) know’	<i>a-taá-lí a-man-ilé</i> s/he still knows	<i>w-aa-yóó-man-a</i> s/he has started to know
-igwá	‘hear’	# <i>a-taá-lí w-iig-il-w-é</i> Intended: s/he still hears (i.e., s/he is still in the state of hearing)	<i>w-aa-y-ígw-á</i> s/he has started to (be able to) hear
-lola	‘look (at)’	<i>a-taá-lí a-lol-ilé</i> s/he is still looking (in a particular direction)	<i>w-aa-yóó-lol-a</i> s/he has just started to look (at it)
-nuuŋha	‘smell bad, stink’	# <i>li-táá-lí li-núuŋh-ilé</i> Intended: it still smells bad (i.e., it is still in the state of smelling bad)	<i>ly-áá-yóó-nuuŋh-a</i> it has just started to smell bad
-moota	‘smell good’	# <i>li-táá-lí li-móót-ile</i> Intended: it still smells good (i.e., it is still in the state of smelling good)	<i>ly-áá-yóó-moot-a</i> it has just started to smell good

Verb	Gloss	Grammatical aspect tests	
		Persistent plus stative construction Morphological structure: SP-PER-AUX SP-root-(EXT)-FV	Inceptive Morphological structure: SP-PST-INC-root-(EXT)-FV
<i>-boonja</i>	‘taste (by swallowing a bit)’	<i>#a-taá-lí a-boonj-ilé</i> Intended: s/he still tastes (it) (i.e., s/he is still in the state of tasting (them))	<i>w-aa-yóó-boonj-a</i> s/he has just started to taste (the food) (s/he has swallowed a bit)
<i>-degéleka</i>	‘listen’	<i>#a-taá-lí a-degélek-ilé</i> Intended: s/he still listens (to it) (i.e., s/he is still in the state of listening (to it))	<i>w-aa-yóó-degélek-a</i> s/he has just started to listen
<i>-ikólá</i>	‘resemble’	<i>#βa-taá-lí β-iikól-ilé</i> they (people) still resemble each other	<i>βa-a-y-iikól-á</i> they have started to resemble each other
<i>-sala</i>	‘be(come) crazy’	<i>#a-taá-lí a-sal-ilé</i> s/he is still crazy	<i>w-aa-yóó-sal-a</i> s/he is just about to be/become crazy or s/he is on the point of being crazy
<i>-izokíla</i>	‘remember’	<i>?a-taá-lí w-iizokil-ilé</i> ?s/he still remembers/misses (her/him)	<i>w-aa-y-íizokil-a</i> s/he has just started to remember
<i>-zupa</i>	‘agree’	<i>?a-taá-lí a-zup-ilé</i> s/he still agrees (to X)	<i>w-aa-yóó-zup-a</i> s/he has just started to agree
<i>-daka</i>	‘be(come) angry’	<i>a-taá-lí a-dak-ilé</i> s/he is still angry	<i>w-aa-yóó-dak-a</i> s/he is just about to be(come) angry or s/he is on the point of being angry
<i>-kolwá</i>	‘be(come) drunk’	<i>a-taá-lí a-kol-il-w-é</i> s/he is still drunk	<i>w-aa-yóó-kol-w-á</i> s/he is just about to be(come) drunk or s/he is on the point of being drunk
<i>-ja</i>	‘go’	<i>a-taá-lí a-z-íllé</i> s/he is still going	<i>w-aa-yóó-j-a</i> s/he has just started to go
<i>-peela</i>	‘run’	<i>a-taá-lí a-peel-ilé</i> s/he is still running	<i>w-aa-yóó-peel-a</i> s/he has started to run
<i>-shooka</i>	‘return’	<i>a-taá-lí a-shook-ilé</i> s/he is still returning (going back)	<i>w-aa-yóó-shook-a</i> s/he is has just started to return (to go back)

Verb	Gloss	Grammatical aspect tests	
		Persistent plus stative construction Morphological structure: SP-PER-AUX SP-root-(EXT)-FV	Inceptive Morphological structure: SP-PST-INC-root-(EXT)-FV
-iza	‘come’	<i>a-taá-lí w-iiz-íilé</i> s/he still coming (s/he has not arrived)	<i>w-aa-y-íiz-a</i> s/he has just started to come
-shika	‘arrive’	<i>#a-taá-lí a-shik-ilé</i> Intended: #s/he has still arrived	<i>w-aa-yóó-shik-a</i> s/he is about to arrive
-liina	‘climb’	<i>a-taá-lí a-liin-ilé</i> s/he is still up the tree (lit. #s/he has still climbed (up a tree))	<i>w-aa-yóó-liin-a</i> s/he has just started to climb (up a tree)
-ikala	‘sit’	<i>a-taá-lí w-iikal-ilé</i> s/he is still seated (down)	<i>w-aa-y-íikal-a</i> s/he is just about to sit (down)
-laála	‘fall asleep/sleep’	<i>a-taá-lí a-laál-ilé</i> s/he is still asleep	<i>w-aa-yóó-laál-a</i> s/he has just started to sleep (s/he is dozing)
-laángá	‘get stuck up high’	<i>li-táá-lí li-laáng-ilé</i> it is still stuck up high (in a tree)	<i>ly-áá-yóó-laáng-á</i> it has started to get stuck up high repeatedly
-gwa	‘fall down’	<i>a-taá-lí a-gw-iilé</i> s/he has fallen down (and is still on the ground) (lit. #s/he has still fallen down)	<i>w-aa-yóó-gw-a</i> s/he is just about to fall down
-itóóndá	‘squat’	<i>a-taá-lí w-iitóónd-ilé</i> s/he is still squatting	<i>w-aa-y-iitóónd-á</i> s/he is just about to squat
-zeenga (intr.)	‘build’	<i>li-táá-lí li-zééng-il-w-é</i> it is still built (i.e., it is not yet demolished)	<i>w-aa-yóó-zeeng-a</i> it has just started being built
-mbá	‘sing’	<i>#a-taá-lí w-umb-ilé</i> Intended: s/he is still (in the state of) singing	<i>w-aa-y-íimb-á</i> s/he has just started to sing
-seka	‘laugh’	<i>#a-taá-lí a-sek-ilé</i> Intended: s/he is still (in the state of) laughing	<i>w-aa-yóó-sek-a</i> s/he has just started to laugh

Verb	Gloss	Grammatical aspect tests	
		Persistent plus stative construction Morphological structure: SP-PER-AUX SP-root-(EXT)-FV	Inceptive Morphological structure: SP-PST-INC-root-(EXT)-FV
- <i>lyaá</i>	‘eat’	# <i>a-taá-lí a-l-iilé</i> Intended: #s/he has still eaten	<i>w-aa-yóó-ly-áá</i> s/he has just started to eat
- <i>ditema</i>	tremble’	# <i>a-taá-lí a-ditem-ilé</i> Intended: s/he is still (in the state of) trembling	<i>w-aa-yóó-ditem-a</i> s/he has just started to tremble
- <i>lila</i>	‘cry’	# <i>a-taá-lí a-lil-ilé</i> Intended: s/he is still (in the state of) crying	<i>w-aa-yóó-lil-a</i> s/he has just started to cry
- <i>ishijá</i>	‘play, dance’	# <i>a-taá-lí w-iishij-ilé</i> Intended: s/he is still (in the state of) playing	<i>w-aa-y-iishij-á</i> s/he has just started to play
- <i>kolóla</i>	‘cough’	# <i>a-taá-lí a-kolól-ilé</i> Intended: s/he is still (in the state of) coughing (continuously/serially)	<i>w-aa-yóó-kolól-a</i> s/he has just started to cough (continuously/serially)
- <i>lumá</i>	‘bite’	# <i>a-taá-lí a-lum-ilé</i> Intended: s/he is still (in the state of) biting	<i>w-aa-yóó-lum-á</i> s/he has just started to gain the ability to bite
- <i>koloma</i>	‘snore’	# <i>a-taá-lí a-kolom-ilé</i> Intended: s/he is still (in the state of) snoring (continuously/serially)	<i>w-aa-yóó-kolom-a</i> s/he has just started to snore (continuously/serially)
- <i>dakúna</i>	‘chew’	# <i>a-taá-lí a-dakún-ilé</i> Intended: s/he is still (in the state of) chewing	<i>w-aa-yóó-dakún-a</i> s/he has just started to chew
- <i>ditíla</i> (intr.)	‘pour into’	<i>ga-taá-lí ga-dtíl-w-é</i> it (the water) is still poured into (the jug)	<i>g-aa-yóó-dtíl-w-a</i> it (the water) has just started to being poured into (the jug)
- <i>zwaála</i>	‘get dressed’	<i>a-taá-lí a-zwaál-ilé</i> s/he is still dressed in or wearing (a garment)	<i>w-aa-yóó-zwaál-a</i> s/he has just started to dress or put on (a garment)



Verb	Gloss	Grammatical aspect tests	
		Persistent plus stative construction Morphological structure: SP-PER-AUX SP-root-(EXT)-FV	Inceptive Morphological structure: SP-PST-INC-root-(EXT)-FV
- <i>sha</i> (intr.)	‘grind’	# <i>zi-táá-lí zi-sh-íil-(w)-e</i> Intended: they are still ground	<i>zy-aa-yóó-sh-íw-a</i> they have just started being ground
- <i>chibá</i> (intr.)	‘block sthg, plug’	<i>lí-táá-lí lí-chíβil-(w)-é</i> it is still blocked	<i>ly-áá-yóó-chíβ-(w)-á</i> it has just started being blocked
- <i>líma</i> (intr.)	‘cultivate’	<i>lí-táá-lí lí-lím-il-w-é</i> it is still cultivated	<i>ly-áá-yóó-lím-w-a</i> it has just started being cultivated
- <i>íwaa</i>	‘drink’	# <i>a-táá-lí a-íw-íilé</i> Intended: #s/he has still drunk	<i>w-aa-yóó-íw-áá</i> s/he has just started to drink
- <i>ogá</i>	‘shower, bath’	# <i>a-táá-lí w-oog-ilé</i> Intended: s/he is still (in the state of) taking a shower	<i>w-aa-y-óóg-á</i> s/he has just started to shower
- <i>gola</i>	‘buy’	# <i>a-táá-lí a-gól-ilé</i> Intended: s/he is still (in the state of) buying	<i>w-aa-yóó-gól-a</i> s/he has just started to buy (it)
- <i>toóla</i>	‘(get) married’	<i>a-táá-lí a-toól-ilé</i> he is still married (not divorced)	# <i>w-aa-yóó-toól-a</i> Intended: #he has started to (get) married
- <i>behá</i>	‘smoke’	# <i>a-táá-lí a-beh-ilé</i> Intended: s/he is still (in the state of) smoking (marijuana)	<i>w-aa-yóó-beh-á</i> s/he has just started to smoke
- <i>lomeela</i>	‘talk, chat’	# <i>a-táá-lí a-lomeel-ilé</i> Intended: s/he is still (in the state of) talking	<i>w-aa-yóó-lomeel-a</i> s/he has just started to talk
- <i>βóója</i>	‘ask’	# <i>a-táá-lí a-βóój-ile</i> Intended: s/he is still (in the state of) asking	<i>w-aa-yóó-βóój-a</i> s/ha has just started to ask
- <i>gílíma</i>	‘thunder’	# <i>lí-táá-lí lí-gílím-ilé</i> Intended: it is still (in the state of) thundering (continuously/serially)	<i>ly-áá-yóó-gílím-a</i> it has just started to thunder (continuously/serially)
- <i>poóla</i> (intr.)	‘pound’	# <i>ga-táá-lí ga-poó-lil-w-é</i> Intended: #they are still pounded	<i>ga-a-yóó-poól-w-a</i> they have just started being pounded

Verb	Gloss	Grammatical aspect tests	
		Persistent plus stative construction Morphological structure: SP-PER-AUX SP-root-(EXT)-FV	Inceptive Morphological structure: SP-PST-INC-root-(EXT)-FV
<i>-kolá</i>	‘grow’	<i>#a-taá-lí a-ko-lilé</i> Intended: #s/he is still grown	<i>w-aa-yóó-kol-a</i> s/he has started to grow

B. Lexical tests:

In all constructions, the verbs *-andya* ‘start’, *-oya* ‘stop’ and *-mala* ‘finish’ are inflected with either the hodiernal past (SP-PST-root-HOD\_PST-FV: *w-aandy-ág-a (o-á-andy-ag-a)* ‘s/he has started (a while ago)’)) or the pre-hodiernal past (SP-PST-root-PREHOD: *w-aa-nd-ij-é (o-á-andy-il-e)* ‘s/he started (yesterday or before)). The verbs *-andya*, *-oya* and *-mala* take an infinitive complement (AUG-INF-root-(EXT)-FV).

*-andya* ‘start’ and *-oya* ‘stop’<sup>33</sup>

Verb	Gloss	Lexical tests	
		<i>-andya</i> ‘start’	<i>-oya</i> ‘stop’
<i>-gma</i>	‘be(come) fat’	<i>w-aand-ij’ óó-ko-gm-a</i> s/he has started to become fat	<i>w-oóy-ag’ óó-ko-gm-a</i> (1) s/he has stopped becoming fat; (2) s/he is no longer becoming fat
<i>-seβa</i> (intr.)	‘boil’	<i>g-aandy-ág’ óó-ko-seβ-a</i> it (water) has started to boil or heat up	<i>g-oóy-ag’ óó-ko-seβ-a</i> (1) it has stopped coming to the boil; (2) it is no longer boiling
<i>goonda</i> (intr.)	‘be(come) bent’	<i>ly-aandy-ág’ óó-kw-iigond-a</i> it has started to bend	<i>ly-oóy-ag’ óó-kw-iigond-a</i> (1) it has stopped bending; (2) it is no longer bending
<i>-βoomba</i>	‘be(come) soaked’	<i>g-aa-ndy-ág’ óó-ko-βoomb-a</i> they have started to soak or being soaked	<i>g-oóy-ag’ óó-ko-βoomb-a</i> (1) they have stopped being soaked; (2) they are no longer soaking

<sup>33</sup> In the English translations, the meaning ‘X has stopped X-ing’ indicates an interruption of a process or state, and the meaning ‘X is no longer X-ing’ indicates a cessation or completion of a serial or habitual event.

Verb	Gloss	Lexical tests	
		<b>-andyá 'start'</b>	<b>-oya 'stop'</b>
<i>-píla</i>	'recover'	#w-aandy-ág' óó-ko-píla-a Intended: s/he has started to recover	#w-oóy-ag' óó-ko-píla-a Intended: s/he has stopped to recover OR s/he is no longer recovering
<i>-faá</i>	'die'	#ly-aandy-ág' óó-ko-f-aá Intended: it has started to die	#ly-oóy-ag' óó-ko-f-aá Intended: #it has stopped dying OR it is no longer dying
<i>-bola</i>	'be(come) rotten'	#ly-aandy-ág' óó-ko-βol-a Intended: it has started to become rotten	#ly-oóy-ag' óó-ko-βol-a Intended: #it has stopped rotting OR it is no longer rotting
<i>-duúha</i>	'be(come) blunt'	ly-aandy-ág' óó-ko-duúh-a it has started to be(come) blunt	ly-oóy-il' óó-ko-duúh-a it is no longer becoming blunt NOT it has stopped becoming blunt
<i>-kamá</i>	'dry up'	#g-aandy-ág' óó-ko-kam-á Intended: it (water) has started to dry up	g-oóy-ag' óó-ko-kam-á it is no longer drying up NOT it has stopped drying up
<i>-gaasa</i>	'spoil, ferment'	#g-aandy-ág' óó-ko-gaas-a Intended: it (the bran) has started to become spoiled	#g-oóy-ag' óó-ko-gaas-a Intended: #it (the bran) has stopped spoiling OR #it is no longer spoiling
<i>-nana</i>	'melt (plastic)'	#ly-aandy-ág' óó-ko-nan-a Intended: it has started to melt	#ly-oóy-ag' óó-ko-nan-a Intended: it has stopped melting OR it is no longer melting
<i>-βíinzá (intr.)</i>	'break'	#ly-aandy-ág' óó-ko-βíinz-ík-á Intended: it has started (the process of) breaking	ly-oóy-ag' óó-ko-βíinz-ík-á it is no longer breaking NOT it has stopped breaking
<i>-lugola (intr.)</i>	'open'	ly-aandy-ág' óó-ko-lugol-w-a it has started being opened	ly-oóy-ag' óó-ko-lugol-w-a (1) it has stopped being opened; (2) it is no longer being opened
<i>-dota</i>	'be(come) wet'	#ly-aandy-ág' óó-ko-dot-a Intended: it has started to be(come) wet	lyoóyag' óókodota it is no longer getting wet NOT it has stopped getting wet

Verb	Gloss	Lexical tests	
		<b>-andya 'start'</b>	<b>-oya 'stop'</b>
<i>-saata</i>	'be sick'	<i>w-aand-ij' óó-ko-saat-a</i> s/he started to be/become sick	<i>w-ooy-il' óó-ko-saat-a</i> s/he is no longer getting sick NOT s/he has stopped getting sick
<i>-moonda</i>	'be soft'	<i>ly-aandy-ág' óó-ko-moond-a</i> it has started to be/become soft	<i>ly-oóy-ag' óó-ko-moond-a</i> (1) it has stopped being soft; (2) it is no longer becoming soft
<i>-βoná</i>	'see'	<i>w-aand-ij' óó-ko-βon-á</i> s/he started to (be able to) see	<i>w-ooy-il' óó-ko-βon-á</i> (1) s/he has stopped seeing (it); (2) s/he is no longer seeing (it)
<i>-togwá</i>	'love, like'	<i>w-aand-ij' óó-ko-togw-á</i> s/he started to like (it)	<i>w-ooy-il' óó-ko-togw-á</i> (1) s/he has stopped liking (it); (2) s/he no longer likes (it)
<i>-mana</i>	'(come to) know'	<i>w-aand-ij' óó-ko-man-a</i> s/he started to know (understand)	<i>w-ooy-il' óó-ko-man-a</i> s/he no longer knows (to X-ing)
<i>-igwá</i>	'hear'	<i>w-aand-ij' óó-kw-iigw-á</i> s/he started to (be able to) hear	<i>w-ooy-il' óó-kw-iigw-á</i> (1) s/he has stopped hearing (it); (2) s/he is no longer hearing (it)
<i>-lola</i>	'look (at)'	<i>w-aandy-ág' óó-ko-lol-a</i> s/he has started to look (at it)	<i>w-oóy-ag' óó-ko-lol-a</i> (1) s/he has stopped looking (at it); (2) s/he is no longer looking (at it)
<i>-nuuŋha</i>	'smell bad, stink'	<i>ly-aandy-ág' óó-ko-nuuŋh-a</i> it has started to smell bad	<i>ly-oóy-ag' óó-ko-nuuŋh-a</i> (1) it has stopped smelling bad; (2) it is no longer smelling bad
<i>-moota</i>	'smell good'	<i>ly-aandy-ág' óó-ko-moot-a</i> it has started to smell good	<i>ly-oóy-ag' óó-ko-moot-a</i> (1) it has stopped smelling good; (2) it is no longer smelling good
<i>-βoonja</i>	'taste (by swallowing a bit)'	<i>w-aandy-ág' óó-ko-βoonj-a</i> s/he has started to taste (it)	<i>w-oóy-ag' óó-ko-βoonj-a</i> (1) s/he has stopped tasting (it); (2) s/he is no longer tasting (it)

Verb	Gloss	Lexical tests	
		<b>-andyá 'start'</b>	<b>-oya 'stop'</b>
<i>-degéleka</i>	'listen'	<i>w-aandy-ág' óó-kv-degélek-a</i> s/he has started to listen (to it)	<i>w-oóy-ag' óó-kv-degélek-a</i> (1) s/he has stopped listening (to it); (2) s/he is no longer listening (to it)
<i>-ikólá</i>	'resemble'	<i>β-aand-ij' óó-kw-iikól-á</i> they (people) started to resemble each other	<i>#β-ooy-il' óó-kw-iikól-á</i> Intended: they (people) have stopped resembling each other OR they no longer resemble each other
<i>-sala</i>	'be(come) crazy'	<i>#w-aandy-ág' óó-ko-sal-a</i> Intended: s/he has started to be(come) crazy	<i>#w-oóy-ag' óó-ko-sal-a</i> Intended: s/he has stopped becoming crazy OR s/he is no longer becoming crazy
<i>-izokíla</i>	'remember'	<i>w-aand-ij' óó-kw-iizokíl-a</i> s/he started to remember	<i>w-oóy-ag' óó-kw-iizokíl-a</i> (1) s/he has stopped remembering (her/him); (2) s/he no longer remembers (her/him)
<i>-zujá</i>	'agree'	<i>w-aandy-ág' óó-kv-zuj-a</i> s/he has started to agree (to X)	<i>w-oóy-ag' óó-kv-zuj-a</i> (1) s/he has stopped agreeing; (2) s/he no longer agrees
<i>-daka</i>	'be(come) angry'	<i>w-aandy-ág' óó-kv-dak-a</i> s/he started to be/become angry (each time for no reason)	<i>w-oóy-ag' óó-kv-dak-a</i> (1) s/he has stopped getting angry; (2) s/he is no longer getting angry
<i>-kolwá</i>	'be(come) drunk'	<i>w-aandy-ág' óó-kv-kolw-á</i> s/he has started to be/become drunk	<i>w-oóy-ag' óó-kv-kolw-á</i> s/he is no longer getting drunk NOT s/he has stopped getting drunk
<i>-ja</i>	'go (somewhere)'	<i>w-aandy-ág' óó-kv-j-a</i> s/he has started to go (or move)	<i>w-oóy-ag' óó-kv-j-a</i> (1) s/he has stopped going (there); (2) s/he is no longer going (there)
<i>-peela</i>	'run'	<i>w-aandy-ág' óó-kv-peel-a</i> s/he has started to run	<i>w-oóy-ag' óó-kv-peel-a</i> (1) s/he has stopped running; (2) s/he is no longer running
<i>-shooka</i>	'return'	<i>w-aandy-ág' óó-kv-shook-a</i> s/he has started to return (going back)	<i>w-oóy-ag' óó-kv-shook-a</i> (1) s/he has stopped returning (going back); (2) s/he no longer returns

Verb	Gloss	Lexical tests	
		<b>-andyá ‘start’</b>	<b>-oya ‘stop’</b>
<i>-iza</i>	‘come’	<i>w-aandy-ág’ óó-kw-iiz-a</i> s/he has started to come	<i>w-oóy-ag’ óó-kw-iiz-a</i> (1) s/he has stopped coming; (2) s/he is no longer coming
<i>-shika</i>	‘arrive’	# <i>w-aandy-ág’ óó-ko-shik-a</i> Intended: #s/he has started to arrive	<i>w-oóy-ag’ óó-ko-shik-a</i> s/he is no longer arriving NOT #s/he has stopped arriving
<i>-liína</i>	‘climb’	<i>w-aandy-ág’ óó-ku-liin-a</i> s/he has started to climb	<i>w-oóy-ag’ óó-ku-liin-a</i> (1) s/he has stopped climbing; (2) s/he is no longer climbing
<i>-ikala</i>	‘sit’	<i>w-aandy-ág’ óó-kw-iikal-a</i> s/he started to (be able) to sit (down)	<i>w-oóy-ag’ óó-kw-iikal-a</i> s/he is no longer sitting (down) NOT s/he has stopped sitting down
<i>-laála</i>	‘fall asleep/sleep’	# <i>w-aandy-ág’ óó-ko-laál-a</i> Intended: s/he has started to fall asleep	<i>w-oóy-ag’ óó-ko-laál-a</i> (1) s/he has stopped sleeping; (2) s/he is no longer sleeping (in the afternoon)
<i>-laángá</i>	‘get stuck up high’	# <i>ly-aandy-ág’ óó-ko-laáng-á</i> Intended: it has started to get stuck up high	<i>ly-oóy-ag’ óó-ko-laáng-á</i> it is no longer getting stuck up high NOT it has stopped getting stuck up high
<i>-gwa</i>	‘fall down’	# <i>w-aandy-ág’ óó-ko-gw-á</i> Intended: s/he has started (the process of) falling down	<i>w-oóy-ag’ óó-ko-gw-á</i> s/he is no longer falling down NOT s/he has stopped falling down
<i>-itóóndá</i>	‘squat’	<i>w-aandy-ág’ óó-kw-iitóónd-á</i> s/he has started to (be able to) squat	<i>w-oóy-ag’ óó-kw-iitóónd-á</i> s/he is no longer squatting NOT s/he has stopped squatting
<i>-zeenga</i> (intr.)	‘build’	<i>ly-aandy-ág’ óó-ku-zeeng-w-a</i> it has started being built	<i>ly-oóy-ag’ óó-ku-zeeng-w-a</i> (1) it has stopped being built; (2) it is no longer being built
<i>-imbá</i>	‘sing’	<i>w-aandy-ág’ óó-kw-imb-á</i> s/he has started to sing	<i>w-oóy-ag’ óó-kw-imb-á</i> (1) s/he has stopped singing; (2) s/he is no longer singing
<i>-seka</i>	‘laugh’	<i>w-aandy-ág’ óó-ku-sek-a</i> s/he has started to laugh	<i>w-oóy-ag’ óó-ku-sek-a</i> (1) s/he has stopped laughing; (2) s/he is no longer laughing
<i>-lyaá</i>	‘eat’	<i>w-aandy-ág’ óó-ku-ly-áá</i> s/he has started eating	<i>w-oóy-ag’ óó-ku-ly-áá</i> (1) s/he has stopped eating; (2) s/he is no longer eating (that food)

Verb	Gloss	Lexical tests	
		<b>-andyá 'start'</b>	<b>-oya 'stop'</b>
<i>-ditema</i>	'tremble'	<i>w-aandy-ág' úó-kv-ditem-a</i> s/he has started to tremble repetitively or periodically	<i>w-oóy-ag' úó-kv-ditem-a</i> (1) s/he has stopped trembling repetitively/serially; (2) s/he is no longer trembling
<i>-lila</i>	'cry'	<i>w-aandy-ág' úó-kv-lil-a</i> s/he has started to cry	<i>w-oóy-ag' úó-kv-lil-a</i> (1) s/he has stopped crying; (2) s/he is no longer crying
<i>-ishijná</i>	'play, dance'	<i>w-aandy-ág' úó-kw-iishijn-á</i> s/he has started to play	<i>w-oóy-ag' úó-kw-iishijn-á</i> (1) s/he has stopped playing; (2) s/he is no longer playing
<i>-kolóla</i>	'cough'	<i>w-aandy-ág' úó-kv-kolól-a</i> s/he has started cough repetitively or periodically	<i>w-oóy-ag' úó-kv-kolól-a</i> (1) s/he has stopped coughing (continuously/serially); (2) s/he is no longer coughing
<i>-lumá</i>	'bite'	<i>w-aandy-ág' úó-kv-lum-á</i> s/he has started to bite (continuously/serially)	<i>w-oóy-ag' úó-kv-lum-á</i> (1) s/he has stopped biting repetitively/serially; (2) s/he no longer bites
<i>-koloma</i>	'snore'	<i>w-aandy-ág' úó-kv-kolom-a</i> s/he has started to snore (continuously/serially)	<i>w-oóy-ag' úó-kv-kolom-a</i> (1) s/he has stopped snoring (continuously/serially); (2) s/he is no longer snoring
<i>-dakúna</i>	'chew'	<i>w-aandy-ág' úó-kv-dakún-a</i> s/he has started to chew	<i>w-oóy-ag' úó-kv-dakún-a</i> (1) s/he has stopped chewing; (2) s/he is no longer chewing
<i>-ditíla</i> (intr.)	'pour into'	<i>g-aandy-ág' úó-kv-ditíl-w-a</i> it (the water) has started being poured into (the jug)	<i>g-oóy-ag' úó-kv-dití-lw-a</i> it (the water) has stopped being poured into (the jug); (2) it is no longer poured into (the jug)
<i>-zwaála</i>	'get dressed'	<i>w-aandy-ág' úó-kv-zwaál-a</i> s/he has started to dress or put on (a garment)	<i>w-oóy-ag' úó-kv-zwaál-a</i> (1) s/he has stopped getting dressed or putting on (a garment); (2) s/he is no longer dressing or putting on (a white piece of clothing)
<i>-sha</i> (intr.)	'grind'	<i>zy-aandy-ág' úó-kv-sh-íw-a</i> they have started being ground	<i>z-ooy-ág' úó-kv-sh-íw-a</i> (1) they have stopped being ground; (2) they are no longer being ground

Verb	Gloss	Lexical tests	
		<b>-andyá ‘start’</b>	<b>-oya ‘stop’</b>
<i>-chiβá</i> (intr.)	‘block sthg, plug’	<i>ly-aandy-ág’ óó-ko-chiβ-á</i> it has started being blocked	<i>ly-oóy-ag’ óó-ko-chiβ-á</i> (1) it has stopped being blocked; (2) it is no longer being blocked
<i>-lima</i> (intr.)	‘cultivate’	<i>ly-aandy-ág’ óó-ko-lim-w-a</i> it has started to be cultivated	<i>ly-oóy-ag’ óó-ko-lim-w-a</i> (1) it has stopped being cultivated; (2) it is no longer being cultivated
<i>-ηwáá</i>	‘drink’	<i>w-aandy-ág’ óó-ko-ηw-aá</i> s/he has started to drink	<i>w-oóy-ag’ óó-ko-ηw-aá</i> (1) s/he has stopped drinking; (2) s/he is no longer drinking
<i>-ogá</i>	‘shower, bath’	<i>w-aandy-ág’ óó-k-oog-á</i> s/he has started to take a shower	<i>w-oóy-ag’ óó-k-oog-á</i> (1) s/he has stopped taking a shower; (2) s/he is no longer taking a shower
<i>-gola</i>	‘buy’	<i>w-aandy-ág’ óó-ko-gol-a</i> s/he has started to buy (them)	<i>w-oóy-ag’ óó-ko-gol-a</i> (1) s/he has stopped buying (it); (2) s/he no longer buys (it)
<i>-toóla</i>	‘(get) married’	<i>#w-aandy-ág’ óó-ko-toól-a</i> Intended: he has started to get married	<i>w-oóy-ag’ óó-ko-toól-a</i> he no longer gets married NOT he has stopped getting married
<i>-behá</i>	‘smoke’	<i>w-aandy-ág’ óó-ko-beh-á</i> s/he has started to smoke	<i>w-oóy-ag’ óó-ko-beh-á</i> (1) s/he has stopped smoking; (2) s/he no longer smokes
<i>-lomeela</i>	‘talk, chat’	<i>w-aandy-ág’ óó-ko-loomel-a</i> s/he has started to talk	<i>w-oóy-ag’ óó-ko-loomel-a</i> (1) s/he has stopped talking; (2) s/he is no longer talking
<i>-βoója</i>	‘ask’	<i>w-aandy-ág’ óó-ko-βoój-a</i> s/he has started to ask	<i>w-oóy-ag’ óó-ko-βoój-a</i> (1) s/he has stopped asking; (2) s/he is no longer asking
<i>-gilima</i>	‘thunder’	<i>ly-aandy-ág’ óó-ko-gilim-a</i> it has started to thunder (continuously/serially)	<i>ly-oóy-ag’ óó-ko-gilim-a</i> (1) it has stopped thundering (continuously/serially); (2) it is no longer thundering
<i>-poóla</i> (intr.)	‘pound’	<i>ga-andy-ág’ óó-ko-poól-w-a</i> they have started to become pounded	<i>g-oóy-ag’ óó-ko-poól-w-a</i> (1) they have stopped being pounded; (2) they are no longer being pounded



Verb	Gloss	Lexical tests	
		<b>-andya ‘start’</b>	<b>-oya ‘stop’</b>
<i>-kolá</i>	‘grow’	<i>w-aandy-ág’ óó-kv-kvl-á</i> s/he started to grow	<i>w-oóy-ag’ óó-kv-kvl-á</i> (1) s/he has stopped growing; (2) s/he is no longer growing

*-mala* ‘finish’ and *hadoóhádó* ‘slowly’:

The verb *-mala* can be used to mean the event is finished or has already taken place. The acceptability of verbs with this verb is judged based on the first interpretation. The verbs modified by *hadoóhádó* ‘slowly’ are inflected with the pre-hodiernal past (SP-PST-root-PREHOD: *w-aa-gín-ilé* ‘s/he got fat (yesterday or before)’).

Verb	Gloss	Lexical tests	
		<b><i>-mala</i> ‘finish’</b>	<b><i>hadoóhádó</i> ‘slowly’</b>
<i>-gma</i>	‘be(come) fat’	<i>#w-aa-mál-ag’ óó-kv-gm-a</i> Intended: #s/he has finished getting fat	<i>w-aa-gín-ilé hadoóhádó</i> Intended: #s/he got fat slowly
<i>-seβa</i> (intr.)	‘boil’	<i>#ga-a-mál-ag’ óó-kv-seβ-a</i> Intended: it (the water) has finished boiling	<i>ga-a-séβ-ilé hadoóhádó</i> it (the water) became hot slowly
<i>goonda</i> (intr.)	‘be(come) bent’	<i>#ly-aa-mál-ag’ óó-kv-iigond-a</i> Intended: #it has finished bending	<i>ly-ii-góónd-ilé hadoóhádó</i> it bent slowly
<i>-boomba</i>	‘be(come) soaked’	<i>#ga-a-mál-ag’ óó-kv-βoomb-a</i> Intended: they have finished soaking	<i>ga-a-βóómb-ilé hadoóhádó</i> they became soaked slowly
<i>-píla</i>	‘recover’	<i>#w-aa-mál-ag’ óó-kv-píl-a</i> Intended: #s/he has finished to recovering	<i>#w-aa-píl-ilé hadoóhádó</i> Intended: s/he recovered slowly
<i>-faá</i>	‘die’	<i>#ly-aa-mál-ag’ óó-kv-f-aa</i> Intended: #it has finished dying	<i>#ly-aa-f-iilé hadoóhádó</i> Intended: it died slowly
<i>-βola</i>	‘be(come) rotten’	<i>#ly-aa-mál-ag’ óó-kv-βol-a</i> Intended: #it has finished rotting	<i>#ly-aa-βól-ilé hadoóhádó</i> Intended: it rotted slowly
<i>-duúha</i>	‘be(come) blunt’	<i>#ly-aa-mál-ag’ óó-kv-duúh-a</i> Intended: #it has finished becoming blunt	<i>#ly-aa-duúh-ilé hadoóhádó</i> Intended: it became blunt slowly

Verb	Gloss	Lexical tests	
		<i>-mala</i> ‘finish’	<i>hadoóhádó</i> ‘slowly’
<i>-kamá</i>	‘dry up’	# <i>ga-a-mál-ag’ óó-kv-kam-á</i> Intended: it (the water) has finished drying up	# <i>ga-a-kám-ilé hadoóhádó</i> Intended: it (the water) dried up slowly
<i>-gaasa</i>	‘spoil, ferment’	# <i>ga-a-mál-ag’ óó-kv-gaas-a</i> Intended: #it (the bran) has finished spoiling	# <i>ga-a-gáás-ilé hadoóhádó</i> Intended: it (the bran) dried up slowly
<i>-nana</i>	‘melt (plastic)’	# <i>ly-aa-mál-ag’ óó-kv-nan-a</i> Intended: it has finished melting	# <i>ly-aa-nán-ilé hadoóhádó</i> Intended: it melted slowly
<i>-bíinzá</i> (intr.)	‘break’	# <i>ly-aa-mál-ag’ óó-kv-bíinz-ík-á</i> Intended: #it has finished breaking	? <i>ly-aa-bíinz-ilé hadoóhádó</i> it broke slowly (piece by piece)
<i>-lugola</i> (intr.)	‘open’	# <i>ly-aa-mál-ag’ óó-kv-lugol-w-a</i> Intended: #it has finished being opened	<i>ly-aa-lúgól-il-w-é hadoóhádó</i> it was opened slowly
<i>-dota</i>	‘be(come) wet’	# <i>ly-aa-mál-ag’ óó-kv-dot-a</i> Intended: #it has finished getting wet	# <i>ly-aa-dót-ilé hadoóhádó</i> Intended: it became wet slowly
<i>-saata</i>	‘be sick’	# <i>w-aa-mál-ag’ óó-kv-saat-a</i> Intended: #s/he has finished getting sick	# <i>w-aa-sáát-ilé hadoóhádó</i> Intended: s/he got sick slowly
<i>-moonda</i>	‘be soft’	# <i>ly-aa-mála-g’ óó-kv-moond-a</i> Intended: #it has finished being soft	<i>ly-aa-móónd-ilé hadoóhádó</i> it became soft slowly
<i>-βoná</i>	‘see’	# <i>w-aa-mál-ag’ óó-kv-βon-á</i> Intended: #s/he has finished seeing	# <i>w-aa-βón-ilé hadoóhádó</i> Intended: #s/he saw slowly
<i>-togwá</i>	‘love, like’	# <i>w-aa-mál-ag’ óó-kv-togw-á</i> Intended: #s/he has finished liking	# <i>w-aa-tóg-il-w-é hadoóhádó</i> Intended: #s/he loved slowly
<i>-mana</i>	‘(come to) know’	# <i>w-aa-mál-ag’ óó-kv-man-a</i> Intended: #s/he has finished knowing	# <i>w-aa-mán-ilé hadoóhádó</i> Intended: s/he came to know (sthg) slowly
<i>-igwá</i>	‘hear’	# <i>w-aa-mál-ag’ óó-kv-iigw-á</i> Intended: #s/he has finished hearing	# <i>w-aa-iig-il-w-é hadoóhádó</i> Intended: #s/he heard slowly
<i>-lola</i>	‘look (at)’	<i>w-aa-mál-ag’ óó-kv-lol-a</i> s/he has finished watching (lit. look at) (e.g., a movie)	# <i>w-aa-lól-ilé hadoóhádó</i> Intended: #s/he looked (at it) slowly
<i>-nuuŋha</i>	‘smell bad, stink’	# <i>ly-aa-mál-ag’ óó-kv-nuuŋh-a</i> Intended: #it has finished smelling bad	# <i>ly-aa-núúŋh-ilé hadoóhádó</i> Intended: #it smelled bad slowly

Verb	Gloss	Lexical tests	
		<i>-mala</i> ‘finish’	<i>hadoóhádó</i> ‘slowly’
<i>-moota</i>	‘smell good’	# <i>ly-aa-mál-ag’ óó-ko-moot-a</i> Intended: #it has finished smelling good	# <i>ly-aa-móót-ilé hadoóhádó</i> Intended: #it smelled good slowly
<i>-foonja</i>	‘taste (by swallowing a bit)’	# <i>w-aa-mál-ag’ óó-ko-foonj-a</i> Intended: #s/he has finished tasting	# <i>w-aa-foonj-ilé hadoóhádó</i> Intended: #s/he tasted (it) slowly
<i>-degéleka</i>	‘listen’	<i>w-aa-mál-ag’ óó-ko-degélek-a</i> s/he has finished listening (to songs)	# <i>w-aa-dégélek-ilé hadoóhádó</i> Intended: #s/he listened (to it) slowly
<i>-ikólá</i>	‘resemble’	# <i>βa-a-mál-ag’ óó-kw-iikól-á</i> Intended: #they (people) have finished resembling each other	# <i>β-iikól-ilé hadoóhádó</i> Intended: #they resembled each other slowly
<i>-sala</i>	‘be(come) crazy’	# <i>w-aa-mál-ag’ óó-ko-sal-a</i> Intended: #s/he has finished becoming crazy	# <i>w-aa-sál-ilé hadoóhádó</i> Intended: #s/he became crazy slowly
<i>-izokala</i>	‘remember’	# <i>w-aa-mál-ag’ óó-kw-iizokil-a</i> Intended: #s/he has finished remembering	# <i>w-iizókil-ilé hadoóhádó</i> Intended: #s/he remembered (it) slowly
<i>-zuna</i>	‘agree’	# <i>w-aa-málag’ óó-ko-zun-a</i> Intended: #s/he has finished agreeing	# <i>w-aa-zún-ilé hadoóhádó</i> Intended: #s/he agreed slowly
<i>-daka</i>	‘be(come) angry’	# <i>w-aa-mál-ag’ óó-ko-dak-a</i> Intended: #s/he has finished getting angry	# <i>w-aa-dák-ilé hadoóhádó</i> Intended: #s/he became angry slowly
<i>-kolwá</i>	become drunk’	# <i>w-aa-mál-ag’ óó-ko-kol-w-á</i> Intended: #s/he has finished getting drunk	? <i>w-aa-kól-il-w-é hadoóhádó</i> s/he became drunk slowly
<i>-ja</i>	‘go’	# <i>w-aa-mál-ag’ óó-ko-j-a</i> Intended: #s/he has finished going (there)	<i>w-aa-z-iilé hadoóhádó</i> s/he went slowly
<i>-peela</i>	‘run’	<i>w-aa-mál-ag’ óó-ko-peel-a</i> s/he has finished running	<i>w-aa-péél-ilé hadoóhádó</i> s/he run slowly
<i>-shooka</i>	‘return’	# <i>w-aa-mál-ag’ óó-ko-shook-a</i> Intended: #s/he has finished returning (going back)	<i>w-aa-shóók-ilé hadoóhádó</i> s/he returned (went back) slowly
<i>-iza</i>	‘come’	# <i>w-aa-mál-ag’ óó-kw-iiz-a</i> Intended: #s/he has finished coming	<i>w-iiz-iilé hadoóhádó</i> s/he came slowly
<i>-shika</i>	‘arrive’	# <i>w-aa-mál-ag’ óó-ko-shik-a</i> Intended: #s/he has finished arriving	# <i>w-aa-shik-ilé hadoóhádó</i> Intended: #s/he arrived slowly

Verb	Gloss	Lexical tests	
		<i>-mala</i> ‘finish’	<i>hadoóhádó</i> ‘slowly’
<i>-liína</i>	‘climb’	# <i>w-aa-mál-ag’ óó-ko-liin-a</i> Intended: s/he has finished climbing	<i>w-aa-liin-ilé hadoóhádó</i> s/he climbed slowly
<i>-ikala</i>	‘sit’	# <i>w-aa-mál-ag’ óó-kw-iikal-a</i> Intended: #s/he has finished sitting (down)	? <i>w-iikal-ilé hadoóhádó</i> Intended: s/he sat (down) slowly
<i>-laála</i>	‘fall asleep/sleep’	# <i>w-aa-mál-ag’ óó-ko-laál-a</i> Intended: #s/he has finished sleeping	# <i>w-aa-láál-ilé hadoóhádó</i> Intended: s/he fell asleep slowly
<i>-laángá</i>	‘get stuck up high’	# <i>ly-aa-mál-ag’ óó-ko-laáng-á</i> Intended: #it has finished getting stuck up high	# <i>ly-aa-lááng-ilé hadoóhádó</i> Intended: #it got stuck up high slowly
<i>-gwa</i>	‘fall down’	# <i>w-aa-mál-ag’ óó-ko-gw-á</i> Intended: #s/he has finished falling down	# <i>w-aa-gw-iilé hadoóhádó</i> Intended: s/he fell down slowly
<i>-itóóndá</i>	‘squat’	# <i>w-aa-mál-ag’ óó-kw-iiitóónd-á</i> Intended: #s/he has finished squatting	? <i>w-iiitóónd-ilé hadoóhádó</i> Intended: s/he squatted slowly
<i>-zeenga</i> (intr.)	‘build’	<i>ly-aa-mál-ag’ óó-ko-zeeng-w-a</i> it has finished being built	<i>ly-aa-zééng-ilé hadoóhádó</i> it was built slowly
<i>-imbá</i>	‘sing’	<i>w-aa-mál-ag’ óó-kw-imb-á</i> s/he has finished singing	<i>w-imb-ilé hadoóhádó</i> s/he sang slowly
<i>-seka</i>	‘laugh’	# <i>w-aa-mál-ag’ óó-ko-sek-a</i> Intended: #s/he has finished laughing	<i>w-aa-sék-ilé hadoóhádó</i> s/he laughed slowly
<i>-lyaá</i>	‘eat’	<i>w-aa-mál-ag’ óó-ko-ly-aá</i> s/he has finished eating	<i>w-aa-l-iilé hadoóhádó</i> s/he ate slowly
<i>-ditema</i>	tremble’	# <i>w-aa-mál-ag’ óó-ko-ditem-a</i> Intended: #s/he has finished trembling repetitively/serially	<i>w-aa-ditem-ilé hadoóhádó</i> s/he trembled slowly
<i>-lila</i>	‘cry’	# <i>w-aa-mál-ag’ óó-ko-lil-a</i> Intended: #s/he has finished crying	<i>w-aa-lil-ilé hadoóhádó</i> s/he cried slowly
<i>-ishijá</i>	‘play, dance’	<i>w-aa-mál-ag’ óó-kw-iishij-á</i> s/he has finished playing	<i>w-iishij-ilé hadoóhádó</i> s/he played slowly

Verb	Gloss	Lexical tests	
		<i>-mala</i> ‘finish’	<i>hadoóhádó</i> ‘slowly’
<i>-kolóla</i>	‘cough’	# <i>w-aa-mál-ag’ óó-ko-kolól-a</i> Intended: #s/he has finished coughing (continuously/serially)	# <i>w-aa-kolól-ilé hadoóhádó</i> Intended: s/he coughed slowly
<i>-lumá</i>	‘bite’	# <i>w-aa-mál-ag’ óó-ko-lum-á</i> Intended: #s/he has finished biting (continuously/serially)	# <i>w-aa-lúm-ilé hadoóhádó</i> Intended: s/he bit slowly
<i>-koloma</i>	‘snore’	# <i>w-aa-mál-ag’ óó-ko-kolom-a</i> Intended: #s/he has finished snoring repetitively/serially	# <i>w-aa-kólom-ilé hadoóhádó</i> Intended: s/he snored slowly
<i>-dakúna</i>	‘chew’	# <i>w-aa-mál-ag’ óó-ko-dakún-a</i> Intended: #s/he has finished chewing	# <i>w-aa-dákún-ilé hadoóhádó</i> Intended: s/he chewed slowly
<i>-dítíla</i> (intr.)	‘pour into’	<i>ga-a-mál-ag’ óó-ko-dítíl-w-a</i> it (the water) has finished being poured into (the jug)	<i>ga-a-dítíl-il-w-é hadoóhádó</i> it (the water) was poured into (the jug) slowly
<i>-zwaála</i>	‘get dressed’	<i>w-aa-mál-ag’ óó-ko-zwaál-a</i> s/he has finished getting dressed or putting on (a garment)	<i>w-aa-zwáál-ilé hadoóhádó</i> s/he got dressed in or put on (a garment) slowly
<i>-sha</i> (intr.)	‘grind’	<i>zy-aa-mál-ag’ óó-ko-sh-íw-a</i> they have finished being ground	<i>zy-aa-sh-ííl-w-é hadoóhádó</i> they were ground slowly
<i>-chíβá</i> (intr.)	‘block sthg, plug’	<i>ly-aa-mál-ag’ óó-ko-chíβ-w-á</i> it has finished being blocked	<i>ly-aa-chíβ-il-w-é hadoóhádó</i> it was blocked slowly
<i>-líma</i> (intr.)	‘cultivate’	<i>ly-aa-mál-ag’ óó-ko-lím-w-a</i> it has finished being cultivated	<i>ly-aa-lím-il-w-é hadoóhádó</i> it was cultivated slowly
<i>-íjwáá</i>	‘drink’	<i>w-aa-mál-ag’ óó-ko-íjw-áá</i> s/he has finished drinking	<i>w-aa-íjw-íílé hadoóhádó</i> s/he drank slowly
<i>-ogá</i>	‘shower, bath’	<i>w-aa-mál-ag’ óó-k-oog-á</i> s/he has finished taking a shower	<i>w-oog-ilé hadoóhádó</i> s/he took a shower slowly
<i>-gola</i>	‘buy’	# <i>w-aa-mál-ag’ óó-ko-gol-a</i> Intended: #s/he has finished buying	# <i>w-aa-gól-ilé hadoóhádó</i> Intended: #s/he bought slowly

Verb	Gloss	Lexical tests	
		<i>-mala</i> ‘finish’	<i>hadoóhádó</i> ‘slowly’
<i>-toóla</i>	‘(get) married’	# <i>w-aa-mál-ag’ óó-ko-toól-a</i> Intended: #he has finished getting married	# <i>w-aa-tóól-ilé hadoóhádó</i> Intended: #he got married slowly
<i>-behá</i>	‘smoke’	<i>w-aa-mál-ag’ óó-ko-beh-á</i> s/he has finished smoking	<i>w-aa-béh-ilé hadoóhádó</i> s/he smoked slowly
<i>-lomeela</i>	‘talk, chat’	<i>w-aa-mál-ag’ óó-ko-loom-el-a</i> s/he has finished talking	<i>w-aa-lómeel-ilé hadoóhádó</i> s/he talked slowly
<i>-βóója</i>	‘ask’	<i>w-aa-mál-ag’ óó-ko-βóój-a</i> s/he has finished asking (her/his question)	<i>w-aa-βóóg-ilé hadoóhádó</i> s/he asked slowly
<i>-gilima</i>	‘thunder’	# <i>ly-aa-mál-ag’ óó-ko-gilim-a</i> Intended: #it has finished thundering (continuously/serially)	<i>ly-aa-gilim-ilé hadoóhádó</i> it thundered slowly
<i>-poóla</i> (intr.)	‘pound’	<i>ga-a-mál-ag’ óó-ko-poól-w-a</i> they have finished being pounded	<i>ga-a-póól-il-w-é hadoóhádó</i> they were pounded slowly
<i>-kolá</i>	‘grow’	<i>w-aa-mál-ag’ óó-ko-kol-á</i> Intended: #s/he has finished growing	<i>w-aa-kól-ilé hadoóhádó</i> s/he grew slowly

C. Tense and time adverbial tests

Hodiernal past and pre-hodiernal past

Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
<i>-gma</i>	‘be(come) fat’	<i>w-aa-gín-ag-a</i> s/he has become fatter ASSERTS s/he is fat’	<i>w-aa-gín-ilé</i> s/he has become fatter (a long ago) IMPLIES s/he is fat
<i>-seβa</i> (intr.)	‘boil’	<i>ga-a-séβ-ag-a</i> it (water) has become boiled/hot (a while ago) ASSERTS it is boiled/hot	<i>ga-a-séβ-ilé</i> it became boiled/hot (yesterday or before) IMPLIES it is boiled/hot

Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
<i>goonda</i> (intr.)	'be(come) bent'	<i>ly-ii-góód-ag-a</i> it has become bent (a while ago) ASSERTS it is bent	<i>ly-ii-góónd-ilé</i> it became bent (yesterday or before) IMPLIES it is bent
<i>-boomba</i>	'be(come) soaked'	<i>ga-a-βóómb-ag-a</i> they have become soaked (a while ago) ASSERTS they are soaked	<i>ga-a-βóómb-ilé</i> they have become soaked (yesterday or before) IMPLIES it is soaked
<i>-pila</i>	'recover'	<i>w-aa-píl-ag-a</i> s/he has recovered (a while ago) ASSERTS s/he is recovered	<i>w-aa-píl-ilé</i> s/he recovered (yesterday or before) IMPLIES s/he is recovered
<i>-faá</i>	'die'	<i>ly-aa-f-áág-a</i> it has become dead (a while ago) ASSERTS it is dead	<i>ly-aa-f-iílé</i> it died (yesterday or before) ASSERTS it is dead
<i>-bola</i>	'be(come) rotten'	<i>ly-aa-βól-ag-a</i> it has become rotten (a while ago) ASSERTS it is rotten	<i>ly-aa-βól-ilé</i> it rotted (yesterday or before) ASSERTS it is rotten
<i>-duúha</i>	'be(come) blunt'	<i>ly-aa-duúh-ág-a</i> it has become blunt (a while ago) ASSERTS it is blunt	<i>ly-aa-duúh-ilé</i> it became blunt (yesterday or before) IMPLIES it is blunt
<i>-kamá</i>	'dry up'	<i>ga-a-kám-ag-a</i> it (the water) has become dried up (a while ago) ASSERTS it is dried up	<i>ga-a-kám-ilé</i> it (the water) dried up (yesterday or before) IMPLIES it is dried up
<i>-gaasa</i>	'spoil, ferment'	<i>ga-a-gáás-ag-a</i> it (the bran) has spoiled (a while ago) ASSERTS it is spoiled	<i>ga-a-gáás-ilé</i> it (the bran) spoiled (yesterday or before) IMPLIES it is spoiled
<i>-nana</i>	'melt (plastic)'	<i>ly-aa-nán-ag-a</i> it has become melted (a while ago) ASSERTS it is melted	<i>ly-aa-nán-ilé</i> it melted (yesterday or before) IMPLIES it is melted

Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
<i>-βíinzá</i> (intr.)	'break'	<i>ly-aa-βíinz-ík-ág-a</i> it has become broken (a while ago) ASSERTS it is broken	<i>ly-aa-βíinz-ík-ilé</i> it broke (yesterday or before) IMPLIES it is broken
<i>-lugola</i> (intr.)	'open'	<i>ly-aa-lúgól-ág-w-a</i> it has been opened (a while ago) ASSERTS it is open	<i>ly-aa-lúgól-íl-w-é</i> it was opened (yesterday or before) IMPLIES it is open
<i>-dota</i>	'be(come) wet'	<i>ly-aa-dót-ag-a</i> it has become wet (a while ago) ASSERTS it is wet	<i>ly-aa-dót-ilé</i> it became wet (yesterday or before) IMPLIES it is wet
<i>-saata</i>	'be sick'	? <i>w-aa-sáát-ag-a</i> s/he was sick (a while ago)	<i>w-aa-sáát-ilé</i> s/he got sick (yesterday or before) IMPLIES s/he is sick
<i>-moonda</i>	'be soft'	<i>ly-aa-móónd-ag-a</i> it has become soft (a while ago) ASSERTS it is soft	<i>ly-aa-móónd-ilé</i> it became soft (yesterday or before) IMPLIES it is soft
<i>-βoná</i>	'see'	<i>w-aa-βón-ag-á</i> s/he saw/has seen (it) (a while ago)	<i>w-aa-βón-ilé</i> s/he saw (it) (yesterday or before)
<i>-togwá</i>	'love, like'	<i>w-aa-tóg-ag-w-á</i> s/he liked (it) (a while ago)	<i>w-aa-tóg-íl-w-é</i> s/he liked (it) (yesterday or before)
<i>-mana</i>	'(come to) know'	<i>w-aa-mán-ag-a</i> s/he has come to know (a while ago) ASSERTS s/he knows	<i>w-aa-mán-ilé</i> s/he knew (it) (yesterday or before) IMPLIES s/he knows
<i>-igwá</i>	'hear'	<i>w-iig-ág-w-á</i> s/he heard (it) (a while ago)	<i>w-iig-íl-w-é</i> s/he heard (it) (yesterday or before)
<i>-lola</i>	'look (at)'	<i>w-aa-lól-ag-a</i> s/he looked (at it) (a while ago)	<i>w-aa-lól-ilé</i> s/he looked (at it) (yesterday or before)
<i>-nuuŋha</i>	'smell bad, stink'	<i>ly-aa-núúŋh-ag-a</i> it smelled bad (a while ago)	<i>ly-aa-núúŋh-ilé</i> it smelled bad (yesterday or before)



Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
<i>-moota</i>	‘smell good’	<i>ly-aa-móót-ag-a</i> it smelled good (a while ago)	<i>ly-aa-móót-ilé</i> it smelled good (yesterday or before)
<i>-foonja</i>	‘taste (by swallowing a bit)’	<i>w-aa-βóónj-ag-a</i> s/he tasted (it) (a while ago)	<i>w-aa-foonj-ilé</i> s/he tasted (it) (yesterday or before)
<i>-degéleka</i>	‘listen’	<i>w-aa-dégélek-ag-a</i> s/he listened (to it) (a while ago)	<i>w-aa-dégélek-ilé</i> s/he listened (to it) (yesterday or before)
<i>-ikólá</i>	‘resemble’	<i>?β-iikól-ág-á</i> they (people) resembled each other (a while ago)	<i>β-iikól-ilé</i> they resembled each other (since long ago) ASSERTS they resemble each other
<i>-sala</i>	‘be(come) crazy’	<i>w-aa-sál-ag-a</i> s/he has become crazy (a while ago) ASSERTS s/he is crazy	<i>w-aa-sál-ilé</i> s/he became crazy (yesterday or before) ASSERTS s/he is crazy
<i>-izokíla</i>	‘remember’	<i>w-iizókíl-ag-a</i> s/he remembered (about it) (a while ago)	<i>w-iizókíl-ilé</i> s/he remembered (about it) (yesterday or before)
<i>-zúna</i>	‘agree’	<i>w-aa-zún-ag-a</i> s/he agreed (a while ago)	<i>w-aa-zún-ilé</i> s/he agreed (yesterday or before)
<i>-daka</i>	‘be(come) angry’	<i>w-aa-dák-ag-a</i> s/he has become angry (a while ago) ASSERTS s/he is angry	<i>w-aa-dák-ilé</i> s/he became angry (yesterday or before)
<i>-kolwá</i>	‘be(come) drunk’	<i>w-aa-kól-ag-w-á</i> s/he has become drunk (a while ago) ASSERTS s/he is drunk	<i>w-aa-kól-il-w-é</i> s/he became drunk (yesterday or before)
<i>-ja</i>	‘go’	<i>w-aa-j-áág-a</i> s/he went (a while ago)	<i>w-aa-z-íílé</i> s/he went (yesterday or before)
<i>-peela</i>	‘run’	<i>w-aa-péél-ag-a</i> s/he ran (a while ago)	<i>w-aa-péél-ilé</i> s/he ran (yesterday or before)

Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
<i>-shooka</i>	‘return’	<i>w-aa-shóók-ag-a</i> s/he has returned (a while ago) ASSERTS s/he is here	<i>w-aa-shóók-ilé</i> s/he returned (yesterday or before) IMPLIES s/he is here
<i>-iza</i>	‘come’	<i>w-iiz-ág-a</i> s/he has come (a while ago) ASSERTS s/he is here	<i>w-iiz-ílé</i> s/he came (yesterday or before) IMPLIES s/he is here
<i>-shika</i>	‘arrive’	<i>w-aa-shik-ag-a</i> s/he has arrived (a while ago) ASSERTS s/he is here	<i>w-aa-shik-ilé</i> s/he arrived (yesterday or before) IMPLIES s/he is here
<i>-líina</i>	‘climb’	<i>w-aa-líin-ág-a</i> s/he has climbed (a while ago) ASSERTS s/he is at the top of a tree	<i>w-aa-líin-ilé</i> s/he climbed (yesterday or before)
<i>-ikala</i>	‘sit’	<i>w-iikál-ag-a</i> s/he has sat (down) (a while ago) ASSERTS s/he is seated	<i>w-iikál-ilé</i> s/he sat (down) (yesterday or before)
<i>-laála</i>	‘fall asleep/sleep’	<i>w-aa-láál-ág-a</i> s/he has fallen asleep (a while ago) ASSERTS s/he is asleep)	<i>w-aa-láál-ilé</i> s/he slept (yesterday or before)
<i>-laángá</i>	‘get stuck up high’	<i>ly-aa-lááng-ág-á</i> it has become stuck up high (a while ago) ASSERTS it is stuck up high	<i>ly-aa-lááng-ilé</i> it got stuck up high (yesterday or before) IMPLIES it is stuck
<i>-gwa</i>	‘fall down’	<i>w-aa-gw-ág-a</i> s/he has fallen down (a while ago) ASSERTS s/he is fallen down	<i>w-aa-gw-íilé</i> s/he fell down (yesterday or before)
<i>-itóóndá</i>	‘squat’	<i>w-iitóónd-ág-á</i> s/he has squatted (a while ago) ASSERTS s/he is squatted	<i>w-iitóónd-ilé</i> s/he squatted (yesterday or before)

Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
<i>-zeenga</i> (intr.)	‘build’	<i>ly-aa-zééng-ag-w-a</i> it has become built (a while ago) ASSERTS it is built	<i>ly-aa-zééng-ilé</i> it has become built (yesterday or before) IMPLIES it is built
<i>-imbá</i>	‘sing’	<i>w-imb-ág-á</i> s/he sang (a while ago)	<i>w-imb-ilé</i> s/he sang (yesterday or before)
<i>-seka</i>	‘laugh’	<i>w-aa-sék-ag-a</i> s/he laughed (a while ago)	<i>w-aa-sék-ilé</i> s/he laughed (yesterday or before)
<i>-lyáá</i>	‘eat’	<i>w-aa-ly-áág-á</i> s/he ate (a while ago)	<i>w-aa-l-ilé</i> s/he ate (yesterday or before)
<i>-dítema</i>	tremble’	<i>w-aa-dítem-ag-a</i> s/he trembled (a while ago)	<i>w-aa-dítem-ilé</i> s/he trembled (yesterday or before)
<i>-lila</i>	‘cry’	<i>w-aa-líl-ag-a</i> s/he cried (a while ago)	<i>w-aa-líl-ilé</i> s/he cried (yesterday or before)
<i>-ishíjǎ</i>	‘play, dance’	<i>w-iishíjǎ-ag-á</i> s/he played (a while ago)	<i>w-iishíjǎ-ilé</i> s/he played (yesterday or before)
<i>-kolóla</i>	‘cough’	<i>w-aa-kólól-ag-a</i> s/he coughed (a while ago)	<i>w-aa-kólól-ilé</i> s/he coughed (yesterday or before)
<i>-lumá</i>	‘bite’	<i>w-aa-lúm-ag-á</i> s/he bit (it) (a while ago)	<i>w-aa-lúm-ilé</i> s/he bit (it) (yesterday or before)
<i>-koloma</i>	‘snore’	<i>w-aa-kólom-ag-a</i> s/he snored (a while ago)	<i>w-aa-kólom-ilé</i> s/he snored (yesterday or before)
<i>-dakúna</i>	‘chew’	<i>w-aa-dákún-ag-a</i> s/he chewed (a while ago)	<i>w-aa-dákún-ilé</i> s/he chewed (yesterday or before)
<i>-dítila</i> (intr.)	‘pour into’	<i>ga-a-dítil-ag-a</i> it has become poured into (a while ago) ASSERTS it is poured into	<i>ga-a-dítil-il-w-é</i> it has become poured into (yesterday or before) IMPLIES it is poured into

Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
-zwaála	'get dressed'	<i>w-aa-zwaál-ág-a</i> s/he got dressed (in a garment) (a while ago) ASSERTS s/he is dressed in or wearing (a garment)	<i>w-aa-zwaál-ilé</i> s/he got dressed (in a garment) (yesterday or before) IMPLIES s/he is dressed in or wearing (a garment)
-sha (intr.)	'grind'	<i>ga-a-sh-ág-w-a</i> they have become ground (a while ago) ASSERTS they are ground	<i>ga-a-sh-íl-w-é</i> they have become ground (yesterday or before) IMPLIES they are ground
-chibá (intr.)	'block sthg, plug'	<i>ly-aa-chiβ-ag-w-a</i> it has become blocked (a while ago) ASSERTS it is blocked	<i>ly-aa-chiβ-il-w-é</i> it has become blocked (yesterday or before) IMPLIES it is blocked
-lma (intr.)	'cultivate'	<i>ly-aa-lím-ag-w-a</i> it has become cultivated (a while ago) ASSERTS it is cultivated	<i>ly-aa-lím-il-w-é</i> it has become cultivated (yesterday or before) IMPLIES it is still cultivated
-ɲwaá	'drink'	<i>w-aa-ɲw-ág-á</i> s/he drank (it) (a while ago)	<i>w-aa-ɲw-íilé</i> s/he drank (yesterday or before)
-ogá	'shower, bath'	<i>w-oog-ág-a</i> s/he took a shower (a while ago)	<i>w-oog-ilé</i> s/he took a shower (yesterday or before)
-gola	'buy'	<i>w-aa-gól-ag-a</i> s/he bought (it) (a while ago)	<i>w-aa-gól-ilé</i> s/he bought (it) (yesterday or before)
-toóla	'(get) married'	<i>w-aa-toól-ag-a</i> he got married (a while ago) ASSERTS he is married	<i>w-aa-toól-ilé</i> he got married (yesterday or before) IMPLIES he is married

Verb	Gloss	Tense and time adverbial tests	
		Hodiernal past Morphological structure: SP-PST-root-HOD PST-(EXT)-FV	Pre-hodiernal past Morphological structure: SP-PST-root-(EXT)-PREHOD
<i>-behá</i>	‘smoke’	<i>w-aa-béh-ag-á</i> s/he smoked (a while ago)	<i>w-aa-béh-ilé</i> s/he smoked (yesterday or before)
<i>-lomeela</i>	‘talk, chat’	<i>w-aa-lómeel-ag-a</i> s/he talked (a while ago)	<i>w-aa-lómeel-ilé</i> s/he talked (yesterday or before)
<i>-βója</i>	‘ask’	<i>w-aa-βóój-ag-a</i> s/he asked (a while ago)	<i>w-aa-βóóg-ilé</i> s/he asked (yesterday or before)
<i>-gilima</i>	‘thunder’	<i>ly-aa-gílim-ag-a</i> it thundered (a while ago)	<i>ly-aa-gílim-ilé</i> it thundered (yesterday or before)
<i>-póola</i> (intr.)	‘pound’	<i>ga-a-póól-ág-w-a</i> they have become pounded (a while ago) ASSERTS they are pounded	<i>ga-a-póól-il-w-é</i> they became pounded (yesterday or before) IMPLIES they are pounded
<i>-kolá</i>	‘grow’	<i>w-aa-kól-ag-a</i> s/he has grown ASSERTS s/he is grown	<i>w-aa-kól-ilé</i> s/he has grown (a long ago) ASSERTS s/he is grown

Take X *time* construction

Verb	Gloss	Tense and time adverbial tests: Take X <i>time</i> construction	
		Morphological construction: SP-PST-take-PREHOD NP-time ACP-long AUG-INF-root-(EXT)-FV	
<i>-gma</i>	‘be(come) fat’	<i>w-aa-sól-il' ii-kaánz' ii-líih' óó-kv-gm-a</i> s/he took a long time to become fat	
<i>-seβa</i> (intr.)	‘boil’	<i>ga-a-sól-il' ii-kaánz' ii-líih' óó-kv-seβ-a</i> it (the water) took a long time to come to boil or heat up	
<i>goonda</i> (intr.)	‘be(come) bent	<i>ly-aa-sól-il' ii-kaánz' ii-líih' óó-kw-iigond-a</i> it took a long time to bend	
<i>-βoomba</i>	‘be(come) soaked’	<i>ga-a-sól-il' ii-kaánz' ii-líih' óó-kv-βoomb-a</i> they took a long time to become soaked	

Verb	Gloss	Tense and time adverbial tests: Take X <i>time</i> construction Morphological construction: SP-PST-take-PREHOD NP-time ACP-long AUG-INF-root- (EXT)-FV
-píla	‘recover’	w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-píl-a s/he took a long time to recover
-faá	‘die’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-faá it took a long time to die
-βola	‘be(come) rotten’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-βol-a it took a long time to become rotten
-duúha	‘be(come) blunt’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-duúh-a it took a long time to become blunt
-kamá	‘dry up’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-kam-á it (the water) took a long time to dry up
-gaasa	‘spoil, ferment’	ga-a-sól-il’ ii-kaánz’ ii-líih’ óó-ko-gaas-a it (the bran) took a long time to spoil
-nana	‘melt (plastic)’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-nan-a it took a long time to melt
-βíinzá (intr.)	‘break’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-βíinz-ik-á it took a long time to break
-lugola (intr.)	‘open’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-lugol-w-a it took a long time to be opened
-dota	‘be(come) wet’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-dot-a it took a long time to become wet
-saata	‘be sick’	w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-saat-a s/he took a long time to become sick
-moonda	‘be soft’	ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-moond-a it took a long time to become soft
-βoná	‘see’	w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-βon-á (1) s/he took a long time to begin to see; (2) s/he took a long time to stop seeing
-togwá	‘love, like’	w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-ko-togw-á she took a long time to begin to like (it) (i.e., to be happy)

Verb	Gloss	Tense and time adverbial tests: Take X <i>time</i> construction Morphological construction: SP-PST-take-PREHOD NP-time ACP-long AUG-INF-root- (EXT)-FV
-mana	‘(come to) know’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-man-a s/he took a long time to know (sthg)
-igwá	‘hear’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kw-iigw-á (1) s/he took a long time to begin to hear; (2) s/he took a long time to stop hearing
-lola	‘look (at)’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-lol-a (1) s/he took a long time to begin to look at it; (2) s/he took a long time to stop looking at it
-nuujha	‘smell bad, stink’	ly-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-nuujh-a (1) it took a long time to begin to smell bad; (2) it took a long time to stop smelling bad
-moota	‘smell good’	lyaasólil’ iikaánz’ iiliih’ óókomoota (1) it took a long time to begin to smell good; (2) it took a long time to stop smelling good
-boonja	‘taste (by swallowing a bit)’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-boonj-a (1) s/he took a long time to begin to taste (it); (2) s/he took a long time to stop tasting (it)
-degéleka	‘listen’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-degélek-a (1) s/he took a long time to begin to listen; (2) s/he took a long time to stop listening
-ikólá	‘resemble’	βa-a-sól-il’ ii-kaánz’ ii-liih’ óó-kv-iikól-á they took a long time to resemble each other
-sala	‘be(come) crazy’	#w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-sal-a Intended: #s/he took a long time to stop becoming crazy
-izokila	‘remember’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kw-izokil-a (1) s/he took a long time to begin to remember; (2) s/he took a long time to stop remembering
-zuya	‘agree’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-zuy-a (1) s/he took a long time to begin to listen; (2) s/he took a long time to stop listening
-daka	‘be(come) angry’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-dak-a s/he took a long time to become angry
-kolwá	‘be(come) drunk’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-kolw-á s/he took a long time to become drunk
-ja	‘go’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-j-a s/he took a long time to begin to go

Verb	Gloss	Tense and time adverbial tests: Take X <i>time</i> construction Morphological construction: SP-PST-take-PREHOD NP-time ACP-long AUG-INF-root- (EXT)-FV
-peela	‘run’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-peel-a (1) s/he took a long time to begin to run; (2) s/he took a long time to stop running
-shooka	‘return’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-shook-a (1) s/he took a long time to begin to return; s/he took a long time to stop returning
-iza	‘come’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-iiz-a (1) s/he took a long time to begin to come (decide on coming); (2) s/he took a long time to stop coming
-shika	‘arrive’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-shook-a s/he took a long time to arrive
-liina	‘climb’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-liin-a s/he took a long time to climb
-ikala	‘sit’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-iikal-a s/he took a long time to sit (s/he stood up for a long time)
-laála	‘fall asleep/sleep’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-iikal-a (1) s/he took a long time to begin to sleep; (2) s/he took a long time to stop sleeping
-laángá	‘get stuck up high’	ly-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-laáng-á it took a long time to stop getting stuck up high
-gwa	‘fall down’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-gw-á (1) s/he took a long time to begin to fall down (s/he was strong); (2) s/he took a long time to stop falling down (frequently)
-itóóndá	‘squat’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-iitóónd-á s/he took a long time to stop squatting
-zeenga (intr.)	‘build’	ly-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-zeeng-w-a it took a long time to be built (it was being built for a long time)
-imbá	‘sing’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óv-kv-imb-á (1) s/he took a long time to begin to sing; (2) s/he took a long time to stop singing
-seka	‘laugh’	w-aa-sól-il’ ii-kaánz’ ii-liih’ óó-kv-sek-a (1) s/he took a long time to begin to laugh; (2) s/he took a long time to stop laughing



Verb	Gloss	Tense and time adverbial tests: Take X <i>time</i> construction Morphological construction: SP-PST-take-PREHOD NP-time ACP-long AUG-INF-root-(EXT)-FV
- <i>lyaa</i>	'eat'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kv-ly-aa</i> (1) s/he took a long time to begin to eat; (2) s/he took a long time to stop eating
- <i>ditema</i>	'tremble'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kv-ditem-a</i> (1) s/he took a long time to begin to tremble; (2) s/he took a long time to stop trembling
- <i>lila</i>	'cry'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kv-lil-a</i> (1) s/he took a long time to begin to cry; (2) s/he took a long time to stop crying
- <i>ishijá</i>	'play, dance'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kw-iishij-á</i> (1) s/he took a long time to begin to play; (2) s/he took a long time to stop playing
- <i>kolóla</i>	'cough'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kv-kolól-a</i> (1) s/he took a long time to begin to cough; (2) s/he took a long time to stop coughing
- <i>lumá</i>	'bite'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-ko-lum-á</i> (1) s/he took a long time to begin to bite; (2) s/he took a long time to stop biting
- <i>koloma</i>	'snore'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kv-kolom-a</i> (1) s/he took a long time to begin to snore; (2) s/he took a long time to stop snoring
- <i>dakúna</i>	'chew'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kv-dakún-a</i> (1) s/he took a long time to begin to chew; (2) s/he took a long time to stop chewing
- <i>dtíla</i> (intr.)	'pour into'	<i>ga-a-sól-il' ii-kaánz' ii-liih' óó-kv-dtíl-w-a</i> it (the water) took a long time to be poured into (the jug)
- <i>zwaála</i>	'get dressed'	<i>w-aa-sól-il' ii-kaánz' ii-liih' óó-kv-zwaál-a</i> s/he took a long time to dress in or put on (a garment)
- <i>sha</i> (intr.)	'grind'	<i>ga-a-sól-il' ii-kaánz' ii-liih' óó-kv-sh-iv-a</i> they took a long time to be ground
- <i>chibá</i> (intr.)	'block sthg, plug'	<i>ly-aa-sól-il' ii-kaánz' ii-liih' óó-kv-chiβ-á</i> it took a long time to be blocked
- <i>lma</i> (intr.)	'cultivate'	<i>ly-aa-sól-il' ii-kaánz' ii-liih' óó-kv-lm-w-a</i> it took a long time to be cultivated

Verb	Gloss	Tense and time adverbial tests: Take X <i>time</i> construction Morphological construction: SP-PST-take-PREHOD NP-time ACP-long AUG-INF-root-(EXT)-FV
- <i>ɲwáá</i>	‘drink’	<i>w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-kv-ɲw-áá</i> (1) s/he took a long time to drink (s/he drank for a long time); (2) s/he took a long time to start to drink
- <i>ogá</i>	‘shower, bath’	<i>w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-k-oo-g-á</i> s/he took a long time to stop taking a shower
- <i>gola</i>	‘buy’	<i>w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-kv-gol-a</i> (1) s/he took a long time to begin to buy; (2) s/he took a long time to finish buying (s/he took a long time to bargain)
- <i>toóla</i>	‘(get) married’	<i>w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-kv-toól-a</i> he took a long time to get married (i.e., he took a long time to decide to get married)
- <i>behá</i>	‘smoke’	<i>w-aa-sól-il’ i-ikaánz’ ii-líih’ óó-kv-beh-á</i> (1) s/he took a long time to begin to smoke; (2) s/he took a long time to stop smoking
- <i>lomeela</i>	‘talk, chat’	<i>w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-kv-loomel-a</i> (1) s/he took a long time to begin to talk; (2) s/he took a long time to stop talking
- <i>βóója</i>	‘ask’	<i>w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-kv-βóój-a</i> (1) s/he took a long time to begin to ask; (2) s/he took a long time to stop asking
- <i>gilima</i>	‘thunder’	<i>ly-aa-sól-il’ ii-kaánz’ ii-líih’ óó-kv-gilim-a</i> (1) it took a long time to begin to thunder; (2) it took a long time to stop thundering
- <i>pvóla</i> (intr.)	‘pound’	<i>ga-a-sól-il’ ii-kaánz’ ii-líih’ óó-kv-pvól-w-a</i> they took a long time to be pounded
- <i>kolá</i>	‘grow’	<i>w-aa-sól-il’ ii-kaánz’ ii-líih’ óó-kv-kol-á</i> s/he took a long time to begin to grow

## References

- Abrahams, Raphael Garvin. (1967). *The peoples of great Unyamwezi, Tanzania (Nyamwezi, Sukuma, Sumbwa, Kimbu, Konongo)*. London: International African Institute.
- Aikhenvald, Alexandra Y. (2003). Evidentiality in typological perspective. In Alexandra Y Aikhenvald & R. M. W Dixon (Eds.), *Studies in evidentiality* (pp. 1–32). Amsterdam/Philadelphia: John Benjamins.
- Aikhenvald, Alexandra Y. (2004). *Evidentiality*. Oxford: Oxford University Press.
- Bar-el, Leora. (2015). Documenting and Classifying Aspectual Classes Across Languages. In Ryan M. Bochnak & Lisa Matthewson (Eds.), *Methodologies in Semantic Fieldwork* (pp. 75–109). Oxford: Oxford University Press.
- Batibo, Herman M. (1985). *Le kesukuma, langue bantu de Tanzanie: phonologie, morphologie*. Paris: Editions recherche sur les civilisations.
- Beaudoin-Lietz, Christa A. M. (1999). *Formative of tense, aspect, mood and negation in the verbal construction of standard Swahili*. (Ph.D. thesis), Memorial University of Newfoundland, Newfoundland.
- Bernander, Rasmus. (2017). *Grammar and grammaticalization in Manda: An analysis of the wider TAM domain in a Tanzanian Bantu language*. (Ph.D. thesis), University of Gothenburg, Gothenburg, Sweden.
- Bertinetto, Pier Marco, & Lenci, Alessandro. (2012). Habituality, pluractionality, and imperfectivity. In Robert I Binnick (Ed.), *The Oxford handbook of tense and aspect* (pp. 852–880). Oxford: Oxford University Press.
- Bickel, Balthasar. (1997). Aspectual scope and the difference between logical and semantic representation. *Lingua*, 102, 115–131.
- Binnick, Robert. (1991). *Time and the verb: A guide to tense and aspect*. New York: Oxford University Press.

- Bloom Ström, Eva-Marie, & Petzell, Malin. (in press). Micro-variation approaches to Bantu language varieties. In Lutz Marten, Ellen Hurst, Nancy Kula, & Jochen Zeller (Eds.), *The Oxford guide to the Bantu languages*. Oxford: Oxford University Press.
- Botne, Robert. (2003). To die across languages: Toward a typology of achievement verbs. *Linguistic Typology*, 7(2), 233–278.
- Botne, Robert. (2008). *A grammatical sketch of Chindali (Malawian variety)*. Philadelphia: American Philosophical Society.
- Botne, Robert. (2010). Perfectives and perfects and pasts, oh my!: On the semantics of -ILE in Bantu. *Africana Linguistica*, 16, 31–64.
- Botne, Robert. (2012). Remoteness distinctions. In Robert I Binnick (Ed.), *The Oxford handbook of tense and aspect* (pp. 536–562). Oxford: Oxford University Press.
- Botne, Robert, & Kershner, Tiffany L. (2008). Tense and cognitive space: On the organization of tense/aspect systems in Bantu languages and beyond. *Cognitive Linguistics*, 19(2), 145–218.
- Botne, Robert, & Kershner, Tiffany L. (2000). Time, tense and the perfect in Zulu. *Afrika und Übersee*, 83, 161–180.
- Bowern, Claire. (2008). *Linguistic fieldwork: A practical guide*. New York: Palgrave Macmillan.
- Breu, Walter. (1984). Handlungsgrenzen als Grundlage der Verbalklassifikation. In Werner Lehfeldt (Ed.), *Slavistische Linguistik* (pp. 9–34). München: Otto Sagner.
- Breu, Walter. (1994). Interactions between lexical, temporal and aspectual meanings *Studies in Language*, 18(1), 23–44.
- Bybee, Joan, Perkins, Revere, & Pagliuca, William. (1994). *The evolution of grammar: Tense, aspect and modality in the languages of the world*. Chicago: University of Chicago Press.
- Chafe, Wallace, & Nichols, Johanna. (1986). *Evidentiality: The linguistic coding of epistemology*. Norwood, New Jersey: Ablex Publishing.

- Chelliah, Shobhana L, & de Reuse, Willem J. (2011). *Handbook of descriptive linguistic fieldwork*. Dordrecht: Springer.
- Comrie, Bernard. (1976). *Aspect: An introduction to the study of verbal aspect and related problems* (Vol. 2). Cambridge: Cambridge university press.
- Comrie, Bernard. (1985). *Tense*. Cambridge: Cambridge University Press.
- Cottini, Giovanni. (1914). Grammaire Kinyamwezi: langue “bantu” parlée dans l’Afrique orientale, territoire du Tanganyika. In. Tabora, Tanganyika.
- Cover, Rebecca T., & Tonhauser, Judith. (2015). Theories of meaning in the field: Temporal and aspectual reference. In Ryan M. Bochnak & Lisa Matthewson (Eds.), *Methodologies in Semantic Fieldwork* (pp. 309–349). Oxford: Oxford University Press.
- Crane, Thera Marie. (2011). *Beyond time: temporal and extra-temporal functions of tense and aspect marking in Totela, a Bantu language of Zambia*. (Ph.D. thesis), University of California, Berkeley, USA.
- Crane, Thera Marie. (2012a). Completion and dissociation in Totela tense and aspect. In Michael R. Marlo, Nikki B. Adams, Christopher R. Green, Michelle Morrison, & Tristan M. Purvis (Eds.), *Selected proceedings of the 42nd Annual Conference on African Linguistics* (pp. 208–220). Somerville: Cascadilla Proceedings Project.
- Crane, Thera Marie. (2012b). -ile and the pragmatic pathways of the resultative in Bantu Botatwe. *Africana Linguistica*, 18, 41–96.
- Crane, Thera Marie. (2013). Resultatives, progressives, statives, and relevance: The temporal pragmatics of the -ite suffix in Totela. *Lingua*, 133, 164–188. doi:<http://dx.doi.org/10.1016/j.lingua.2013.04.006>
- Crane, Thera Marie, & Fleisch, Axel. (forthcoming). Towards a fieldwork methodology for eliciting distinctions in lexical aspect in Bantu. In Lotta Aunio & Axel Fleisch (Eds.), *Linguistic diversity research among speakers of isiNdebele and Sendebele in South Africa*. Helsinki: Studia Orientalia.
- Crane, Thera Marie, Hyman, Larry M, & Tukumu, Simon Nsielanga. (2011). *A grammar of Nzadi: A language of Democratic Republic of Congo*. Berkeley: University of California Press.

- Crane, Thera Marie, & Persohn, Bastian. (2019). What's in a Bantu verb? Actionality in Bantu languages. *Linguistic Typology*, 23(2), 303–345. doi:<https://doi.org/10.1515/lingty-2019-0017>
- Croft, William. (2012). *Verbs. Aspect and causal structure*. Oxford: Oxford University Press.
- Dahl, Östen. (1985). *Tense and aspect systems*. Oxford: Blackwell.
- Dahl, Östen. (2000). *Tense and aspect in the languages of Europe*. Berlin: de Gruyter.
- de Haan, Ferdinand. (2013). Semantic distinctions of evidentiality. In Matthew S Dryer & Martin Haspelmath (Eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology (Available online at <http://wals.info/chapter/77>, Accessed on 2018-06-04).
- Dimmendaal, Gerrit Jan. (2011). *Historical linguistics and the comparative study of African languages*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Dom, Sebastian, Kulikov, Leonid, & Bostoen, Koen. (2016). The middle as a voice category in Bantu: Setting the stage for further research. *Lingua Posnaniensis*, 58(2), 129–149.
- Downing, Laura J. (2011). Bantu Tone. In Marc van Oostendorp, Colin J Ewen, Elizabeth Hume, & Keren Rice (Eds.), *The Blackwell companion to phonology* (Vol. 5). Malden, MA & Oxford: Wiley-Blackwell.
- Dowty, David R. (1979). *Word Meaning and Montague Grammar: The semantics of verbs and times in Generative Semantics and in Montague's PTQ*. Dordrecht: D. Reidel.
- Dowty, David R. (1986). The effects of aspectual class on the temporal structures of discourse: semantics or pragmatics? *Linguistics and Philosophy*, 9, 37–61.
- Ebert, Karen. (1995). Ambiguous perfect-progressive forms across languages. In Pier-Marco Bertinetto, Valentina Bianchi, Osten Dahl, & Mario Squartini (Eds.), *In: Temporal reference, aspect, and actionality* (Vol. 2). Torino: Rosenberg & Sellier.

- Filip, Hana. (2012). Lexical aspect. In Robert. I Binnick (Ed.), *The oxford handbook of tense and aspect* (pp. 721–751). Oxford: Oxford University Press.
- Fleisch, Axel. (2000). *Lucazi grammar: a morphosemantic analysis*. Köln: Rüdiger Köppe.
- Freed, Alice. (1979). *The semantics of English Aspectual complementation*. Dordrecht: D. Reidel Publishing Company.
- Garey, Howard B. (1957). Verbal aspect in French. *Language*, 33(2), 91–110.
- Gary, Simons F., & Fennig, Charles D. (2018). *Ethnologue: Languages of the World, Twenty-first edition*. Dallas, Texas: SIL International. Online version: <http://www.ethnologue.com>.
- Goedsche, Rudolf, C. (1940). Aspect versus Aktionsart. *The Journal of English and Germanic Philology*, 39(2), 189–196.
- Gunnink, Hilde. (2018). *A grammar of Fwe: A Bantu language of Zambia and Namibia*. (Ph.D. thesis), Ghent University, Gent, Belgium.
- Guthrie, Malcolm. (1967–1971). *Comparative Bantu: An introduction to the comparative linguistics and prehistory of the Bantu languages* (Vol. 1–4). London: Gregg International Publishers.
- Hay, Jen, Kennedy, Christopher, & Levin, Beth. (1999). Scale structure underlies telicity in ‘degree achievements’. In Tanya Matthews & Devon Strolovitch (Eds.), *Semantics and Linguistic Theory*. Ithaca, NY: CLC Publications.
- Hendrikse, A. P., & Poulos, G. (1992). A continuum interpretation of the Bantu noun class system. In Derek F Gowlett (Ed.), *African Linguistic Contributions* (pp. 195–209). Pretoria: Via Afrika Limited.
- Hewson, John, & Bubenik, Vit. (1997). *Tense and Aspect in Indo-European Languages: Theory, Typology, Diachrony*. Amsterdam & Philadelphia: John Benjamins.
- Hyman, Larry M. (2003). Segmental phonology. In Derek Nurse & Gérard Philippson (Eds.), *The Bantu languages* (Vol. 42–58). New York: Routledge.
- Hyman, Larry M. (2007). Niger-Congo verb extensions: Overview and discussion. In Doris Payne & Jaime Peñã (Eds.), *Selected Proceedings of the*

- 37th Annual Conference of African Linguistics (pp. 149–163). Somerville, MA: Cascadilla Proceedings Project.
- Jerro, Kyle. (2018). Change-of-state paradigms and the middle in Kinyarwanda. *Southern African Linguistics and Applied Language Studies*, 36(3), 235-260. doi:10.2989/16073614.2018.1552168
- Johanson, Lars. (1996). Terminality operators and their hierarchical status. In Betty Devriendt, Louis Goossens, & Johan van der Auwera (Eds.), *Complex structures: A functionalist perspective* (pp. 229–258). Berlin: Mouton de Gruyter.
- Jonsson, Erland. (1949). *Kinyang'wezi grammatik*. Tabora (Tanganyika): Svenska Pingstmissionen/Swedish Free Mission.
- Joynson-Hicks, Paul. (1998). *Tanzania: Portrait of a nation*. London: Quiller Press Ltd.
- Kamp, Hans, & Reyle, Uwe. (1993). *From discourse to logic: Introduction to modeltheoretic semantics of natural language, formal logic and discourse representation theory*. Dordrecht: Kluwer Academic Publishers.
- Kanijo, Ponsiano Sawaka. (to appear-a). Evidential strategies in Nyamwezi. In Malin Petzell, Leora Bar-el, & Aunio Lotta (Eds.), *The semantics of verbal morphology in under-described languages: Studia Orientalia Electronica*.
- Kanijo, Ponsiano Sawaka. (to appear-b). The interactions of  $-\emptyset$ -...-íle with aspectual classes in Nyamwezi. In Samson Lotven, Silvina Bongiovanni, Phillip Weirich, Robert Botne, & Samuel Gyasi Obeng (Eds.), *Selected papers from the 48th Annual Conference on African Linguistics*. Berlin: Language Science Press.
- Katamba, Francis. (2003). Bantu nominal morphology. In Derek Nurse & Gérard Philippson (Eds.), *The Bantu languages* (pp. 103–120). New York: Routledge.
- Kearns, Kate. (2000). *Semantics*. New York: Palgrave Macmillan.
- Kershner, Tiffany Lynne. (2002). *The verb in Chisukwa: Aspect, tense, and time*. (Ph.D. thesis), Indiana University, Indiana, USA.



- Krämer, Raija. (2017). *Position paper on Phasal Polarity expressions*. University of Hamburg. Retrieved from <https://www.aai.uni-hamburg.de/afrika/php2018/medien/position-paper-on-php.pdf>.
- Kratzer, Angelika. (1995). Stage-Level and Individual-Level predicates. In Gregory N. Carlson & Francis Jeffry Pelletier (Eds.), *The Generic Book* (pp. 125 - 175). Chicago: Chicago University Press.
- Levin, Beth. (1993). *English verb classes and alternations: A preliminary investigation*. Chicago, IL: University of Chicago Press.
- Lodhi, Abdulaziz (2002). Verbal extensions in Bantu: the case of Swahili and Nyamwezi. *Africa & Asia*, 4–26.
- Lusekelo, Amani. (2016). Lexical semantics and selection of TAM in Bantu languages: A case of semantic classification of Kiswahili verbs. *International Journal of Society, Culture & Language*, 4(1), 89–102.
- Maganga, Clement, & Schadeberg, Thilo C. (1992). *Kinyamwezi: grammar, texts, vocabulary*. Berlin: Rüdiger Köppe Publishing Co.
- Maho, Jouni Filip. (1999). *A comparative study of Bantu noun classes*. Göteborg: Acta Universitatis Gothoburgensis.
- Maho, Jouni Filip. (2009). New Updated Guthrie List, NUGL Online. Retrieved from <http://goto.glocalnet.net/mahopapers/nuglonline.pdf>
- Marlo, Michael R. (2013). Verb tone in Bantu languages: micro-typological patterns and research methods. *Africana Linguistica*(19), 137–233.
- Marlo, Michael R. (2015). Exceptional properties of the reflexive in Bantu languages. *Nordic Journal of African Studies*, 24(1), 1–22.
- Masele, Balla F. Y. P. (2001). *The linguistic history of Sisumbwa, Kisukuma and Kinyamwezi in Bantu zone F*. (Ph.D. thesis), Memorial University of Newfoundland, Newfoundland, Canada.
- Masele, Balla F. Y. P., & Nurse, Derek. (2003). Stratigraphy and prehistory: Bantu zone F. In H Andersen (Ed.), *Language Contacts in Prehistory: Studies in Stratigraphy* (pp. 115–134). Amsterdam: John Benjamins Publishing Company.

- Matthews, Peter H. (1997). *The concise oxford dictionary of linguistics*. Oxford: Oxford University Press.
- Matthewson, Lisa. (2004). On the methodology of semantic fieldwork 1. *International journal of American linguistics*, 70(4), 369-415.
- Mchombo, Sam A. (2004). *The Syntax of Chichewa*. Cambridge: Cambridge University Press.
- Mreta, Abel Yemwaka. (1998). *An analysis of tense and aspect in Chasu: their forms and meaning in the affirmative constructions*. Hamburg: LIT.
- Nicolle, Steve. (2012). Diachrony and Grammaticalization. In Robert I Binnick (Ed.), *The Oxford handbook of tense and aspect* (pp. 370–397). Oxford: Oxford University Press.
- Nurse, Derek. (1999). Towards a historical classification of East African Bantu languages. In J. M Hombert & L. M Hyman (Eds.), *Bantu historical linguistics: theoretical and empirical perspectives* (pp. 1–41). Stanford: CSLI.
- Nurse, Derek. (2003). Aspect and tense in Bantu languages. In Derek Nurse & Gérard Philipson (Eds.), *The Bantu languages* (pp. 90–102). New York: Routledge.
- Nurse, Derek. (2008). *Tense and aspect in Bantu*. New York: Oxford University Press.
- Nurse, Derek, & Devos, Maud. (2019). Aspect, tense and mood. In Mark Van de Velde, Koen Bostoen, Derek Nurse, & Gérard Philippon (Eds.), *The Bantu languages* (2 ed., pp. 204–236). New York: Routledge.
- Nurse, Derek, & Maganga, Clement. (1979). Nyamwezi. *African Languages/Langues Africaines*, 5(1), 57–62, 63–66.
- Olsen, Mari Broman. (1994). The Semantics and Pragmatics of Lexical Aspect Features. *Studies in the Linguistic Sciences*, 24, 361–375.
- Olsen, Mari Broman. (1997). *A Semantic and Pragmatic Model of Lexical and Grammatical Aspect*. New York: Garland.
- Persohn, Bastian. (2017a). Aspectuality in Bantu: On the limits of Vendler's categories. *Linguistic Discovery*, 15.

- Persohn, Bastian. (2017b). *The verb in Nyakyusa: A focus on tense, aspect and modality*. Berlin: Language Science Press.
- Petzell, Malin. (2008). *The Kagulu language of Tanzania: grammar, texts and vocabulary*. Köln: Rüdiger Köppe Verlag.
- Reichenbach, Hans. (1947). *Elements of symbolic logic*. Berkeley: University of California Press.
- Roth, Tim. (2013). The major dialects of Nyamwezi and their relationship to Sukuma: a time-based perspective. *Journal of Linguistic Geography* (2013), 1, 125–140.
- Roth, Tim. (2018). *Aspect in Ikoma and Ngoreme: A comparison and analysis of two Western Serengeti Bantu languages*. (Ph.D. thesis), University of Helsinki, Helsinki, Finland.
- Rothstein, Susan. (2004). *Structuring events: A study in the semantics of lexical aspect*. Oxford: Blackwell Publishing.
- Rugemalira, Josephat M., Muzale, Henry, Massamba, David, Kahigi, Kulikoyela, Lwaitama, Azaveli, Mreta, Abel Yemwaka, & Kihore, Yared (Eds.). (2009). *Atlasi ya lugha za Tanzania (Language atlas of Tanzania)*. Dar es Salaam: Chuo Kikuu cha Dar es Salaam.
- Sakel, Jeanette, & Everett, Daniel, L. (2012). *Linguistic Fieldwork*. New York: Cambridge University Press.
- Sasse, Hans-Jürgen. (1991). Aspekttheorie. In Hans-Jürgen Sasse (Ed.), *Aspektsysteme* (pp. 1–35). Köln: Institut für Sprachwissenschaft, Universität zu Köln.
- Sasse, Hans-Jürgen. (2002). Recent activity in the theory of aspect: Accomplishments, achievements, or just non-progressive state? *Linguistic Typology*, 2(6), 199–271.
- Schadeberg, Thilo. (1989). Tone and history of Nyamwezi verb forms with complex final tones. *Afrika und Übersee, Band 72*, 33–42.
- Schadeberg, Thilo. (2003). Derivation. In Derek Nurse & Gérard Philipson (Eds.), *The Bantu languages* (pp. 71–89). New York: Routledge.

- Schadeberg, Thilo, & Bostoen, Koen. (2019). Word formation. In Mark Van de Velde, Koen Bostoen, Derek Nurse, & Gérard Philippson (Eds.), *The Bantu languages* (pp. 172–203). New York: Routledge.
- Seidel, Frank. (2008). *A grammar of Yeyi: A Bantu language of Southern Africa*. Cologne: Rüdiger-Köppe Verlag.
- Smith, Carlota S. (1991). *The Parameter of Aspect*. Dordrecht: Kluwer Academic Publishers.
- Smith, Carlota S. (1997). *The parameter of aspect*. Dordrecht: Kluwer.
- Tatevosov, Sergej. (2002). The parameter of actionality. *Linguistic Typology*, 6(3), 317–401.
- Toews, Carmela. (2015). *Topics in Siamou tense and aspect*. (Ph.D. thesis), University of British Columbia,
- Van de Velde, Mark. (2019). Nominal morphology and syntax. In Mark Van de Velde, Koen Bostoen, Derek Nurse, & Gérard Philippson (Eds.), *The Bantu languages* (2nd ed., pp. 237–269). London and New York: Routledge.
- Vendler, Zeno. (1967). *Linguistics in philosophy*. Ithaca: Cornell University Press.
- Walková, Milada. (2012). Dowty's aspectual tests: standing the test of time but failing the test of aspect. *Poznań Studies in Contemporary Linguistics*, 48(3), 495–518.
- Walková, Milada. (2013). *The aspectual function of particles in phrasal verbs*. *Groningen Dissertations in Linguistics* 118.
- Wilhelmsen, Vera. (2018). *A linguistic description of Mbugwe with focus on tone and verbal morphology*. (Ph.D. thesis), Uppsala University, Uppsala, Sweden.