UNIVERSITEIT GENT

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Bantu verbal derivation and tense/aspect from a historical-comparative perspective

The Kikongo Language Cluster and beyond

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Preamble

Composition of the PhD thesis

The present work is a 'cumulative PhD thesis', meaning that the six main chapters are a collection of *co-authored articles* (in various stages of publication), preceded by a general introduction and followed by a general conclusion. Chapters 2, 5 and 6 are published articles, Chapters 3 and 4 are accepted for publication and Chapter 7 has been submitted for publication.

Apart from minor changes to optimize consistency and uniformity across the various chapters, the core text of the articles is maintained as published. Some ideas and hypotheses presented in especially Chapter 5, published earlier on during the PhD project, have evolved. Rather than updating the contents, we have chosen to discuss these advances in the general conclusion.

Authorship protocol

The authorship protocol of the Faculty of Arts and Philosophy at Ghent University for a cumulative PhD thesis was strictly adhered to, and for transparency the contributions of each of the authors is outlined here.

Sebastian Dom

As the first author of all six articles I had a leading role in the conceptualization and development of the research. This involved more specifically carrying out literature studies, working out the main theoretical frameworks, developing research ideas and hypotheses, and collecting and analysing different types of data. I furthermore had a leading role in the production of the majority of the articles, i.e. Chapters 2, 5, 6 and 7, meaning that I myself drafted all the first versions. In Chapters 3 and 4 the writing of the first drafts was divided among the different authors, where I took responsibility for the sections on Bantu in Chapter 3 and on the multiple logistic regression analysis (MLRA) in Chapter 4.

Koen Bostoen

As co-author of all six articles and supervisor of the PhD project, professor Bostoen discussed research ideas and hypotheses, provided feedback, and was involved in the editing of all articles. He was furthermore responsible for the sections on the reconstruction of the complex reciprocal marker in Kikongo in the drafts of Chapter 4.

Gilles-Maurice de Schryver

As co-author of two articles, namely Chapters 6 and 7, and co-supervisor of the PhD project, professor de Schryver discussed research ideas and hypotheses, provided feedback, and was involved in the editing of those articles. He furthermore had a leading role in the building and supervision of the KongoKing documentation database and the BantUGent diachronic Kikongo corpus, and was responsible for maps of the Kikongo Language Cluster.

Leonid Kulikov

As co-author of two articles, namely Chapters 2 and 3, doctor Kulikov discussed research ideas and hypotheses, and was involved in the editing of those articles. He was furthermore responsible for the general sections on middle voice in the drafts of Chapter 3.

Heidi Goes

As co-author of one article, namely Chapter 4, Heidi Goes had a part in the collection of data and the editing of that article. She was furthermore responsible for the production of maps of the Kikongo Language Cluster.

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List of abbreviations

1, 2, 3, …	number of noun class (i.e. x below)
ADV	adverb
AFF	affirmative
APPL	applicative
ASS	associative
ATU	adjoining time unit
AUG_x	augment
AUX	auxiliary
C	consonant / coda phase
CAUS	causative
CH	chaining
CL_x	noun class prefix
CMPL	completive
COND	conditional
CONJ	conjunctive
$CONN_x$	connective
COP	copula
COS	change-of-state
CPC	Contemporal Past Completive
CTU	current time unit
DEM_x	demonstrative
DISJ	disjoint
DPC	Dissociative Past Completive
DRC	Democratic Republic of the Congo
EXPL	expletive
F1/F2	future 1/future 2
FOC	focus
FUT	future
FV	final vowel
HAB	habitual
HST	hesternal past perfective
I, II, III	demonstrative type
INAN	inanimate
INC	inceptive
INF	infinitive
INSTR	instrumental
INT	intensive
INTENS	intensifier
intr.	intransitive
IPFV	imperfective
KLC	Kikongo Language Cluster
LOC_x	locative
MLRA	multiple logistic regression analysis
N	homorganic nasal; nucleus phase
N̩	syllabic homorganic nasal
NEG	negation
NON.PST	non-past
NP	noun phrase
NR	natural reciprocal
NT	neuter
O	onset
OM	object marker

OP_x	object prefix
P1/P2/P3	past 1/past 2/past 3
PASS	passive
PB	Proto-Bantu
PFV	perfective
PKK	Proto-Kikongo
PL	plural
POS	positional
$POSS_x$	possessive
PP_x	pronominal prefix
PR	productive reciprocal
PRED	non-verbal predicate
PRF	perfect
PROG	progressive
$PRON_x$	pronoun
PRS	present
PST	past
Q	question
QUOT	quotative
R	verb root
RCD	relative concord
RCPM	reciprocal marker
RECP	reciprocal
REFL	reflexive
REL_x	relative
S	locus of speech event
SBJV	subjunctive
SEP_{INTR}	separative intransitive
SEQ	sequential
SM	subject marker
SP_x	subject prefix
TA	tense/aspect
TAM	tense/aspect/mood
TAMN	tense/aspect/mood/negation
tr.	transitive
V	vowel
VS	verb suffix

Chapter 1 Introduction

1.1 Research aims, objectives and scope

This PhD thesis deals with the semantics of two major parts of the Bantu verbal system, namely derivation and tense/aspect (henceforth TA), from a comparative and diachronic perspective. Given that these are rather broad topics, the research presented in this work is delimited in a number of ways and addresses specific objectives.

Part 1 of this PhD thesis, especially Chapters 3 and 4, focuses on a set of derivational affixes that are common across Bantu and have been reconstructed to Proto-Bantu (henceforth PB), the most recent common ancestor of the language family. These are the reflexive prefix **(j)i-* and four suffixes, viz. neuter **-ɪk*, positional **-am*, separative intransitive **-ʊk* and sociative/reciprocal **-an*. The most frequent functions of each of these affixes are succinctly discussed in Schadeberg (2003: 72-79) and Schadeberg and Bostoen (Forthcoming [2019]). The first main objective of Part 1 is to present a new, typologically-informed analysis of the affixes' functions against the broader grammatical category of *middle voice* (Kulikov 2013) and the semantic space of the *middle domain* (Kemmer 1993) (see Section 1.2.3). With this central objective come two minor ones. First, with the exception of the neuter **-ɪk* and the sociative/reciprocal **-an*, these affixes have not received much dedicated comparative and historical linguistic research. Although the general description of their functions in the overview by Schadeberg (2003) is informative, it does by no means aim to be exhaustive or complete. The first chapter of Part 1 therefore offers additional insights into the functions of these somewhat neglected members of the Bantu derivational system. For example, Schadeberg (2003: 75) presents the PB lexical reconstructions in (1)a as typical instances of verb roots with the suffix **-am*, and hence proposes a general derivational meaning of "'assuming a position', or—when used in a perfective aspect form—'to be in a position'". However, other PB lexical reconstructions provided in (1)b (from Chapter 2) show that this definition above certainly does not qualify as a common, underlying meaning for all derivations with **-am*.

(1) a. * = *(j)ég-**am***-[1] 'lean against (intr.)'
* = *(j)ɪn-**am***- 'bend over (intr.)'
* = *co-**am***- 'hide (intr.)'
* = kúk-**am**- 'kneel'
(Schadeberg 2003: 75)

b. **bomb-**am*** 'be(come) wet'
pàp-am*** 'flap wings', 'flutter'

[1] In Schadeberg (2003) the left boundary of the verb stem is demarcated by the symbol '=', which is kept here as in the original.

dáp-am*** ‘be greedy in eating’
dúd-am*** ‘forget’
(Bastin et al. 2002)

A second minor objective fitting into the first main aim of Part 1 is to uncover patterns of polysemy and highlight that this is a common feature of all five affixes. The functions of these affixes can be generally divided into (at least) two types: one is to mark a diathesis alternation, as in the passive Mongo (C61) verbs in (2)a which have the suffix *-am* as opposed to the active verbs; the second is to flag so-called ‘middle situation types’, as in the Mongo verbs in (2)b. In the latter function these morphemes often appear on *media tantum* verbs, i.e. verb roots which carry derivational morphology for which the underived counterpart is no longer attested in the language (Kulikov 2013: 275).

(2) Mongo (Hulstaert 1957, 1965: 247-250)[2]

a.

Active		**Passive**	
lak	‘teach’	*lak-**em***	‘be taught’
lel	‘want, desire’	*lel-**am***	‘be desired, wanted’
sál	‘cut’	*sál-**em***	‘be cut’
san	‘play (sth.)’	*san-**em***	‘be played’
tómb	‘carry’	*tomb-**am***	‘be carried’

b. **Middle**

*kák-**em***	‘hang up (intr.)’	[spontaneous / position][3]
*kól-**am***	‘(become) strand(ed), get stuck’	[spontaneous / change of location]
*kɔf-**am***	‘hang (oneself)’	[positional / spontaneous / position]
*kuk-**am***	‘be attached/stuck against (sth.)’	[spontaneous / position]
*tɛ́l-**ɛm***	‘stand up/be standing’	[change in body posture]

[2] When °-*am* immediately follows a verb root with vowel [a], the suffix is realized as *-em*, or in case of a root with vowel [ɛ] it is realized as *-ɛm.* In all other cases the suffix is realized in its underlying form Hulstaert (1965: 247).

[3] The terms in square brackets are taken from Kemmer’s (1993) typology of so-called ‘situation types’ that belong to the semantic space of the middle domain. These ‘situation types’ represent an abstracted categorization of eventualities into broader groups based on shared semantic features. The term ‘spontaneous’ refers to one-participant eventualities which come about naturally without any agentive involvement of the sole participant. The term ‘position’ refers to a one-participant eventuality which describes the specific position of the sole participant. The difference between the categories ‘positional’ and ‘position’ is not clearly elaborated in Kemmer (1993). The latter is classified as a subcategory of ‘spontaneous’, whereas the former is described as “express[ing] configuration of body or—by extension—object with relation to another, often supporting, object” (Kemmer 1993: 269).

The second main objective pursued in Part 1 is to give a general overview of the diversity and cross-Bantu variation of the functions of these suffixes. In order to do this, the studies in Chapter 2 and 3 take a 'top-down' approach. They consider data from multiple sources, namely i) reconstructed PB lexemes from the Bantu Lexical Reconstructions 3 database (Bastin et al. 2002), and ii) examples from specific descriptions of the suffixes in different Bantu languages. The idea is to map which functions are commonly found across Bantu, on the one hand, and, on the other hand, to provide variables along which the functions of these suffixes (or the syntactic properties of the constructions they figure in) can differ from one language to another. Ultimately, this objective should lead to a preliminary set of features and variables, which are ideally taken into account when studying the verbal derivational system of a given Bantu language. In our view, such a top-down approach can also be fruitful for the diachronic-semantic study of Bantu verbal derivation. That is, descriptive linguists can draw from such general, cross-linguistic studies in order to assess in detail the functional range of one or more of these suffixes in a specific Bantu language. In turn, such informed studies can then feed back into comparative-historical research, which is strongly dependent on detailed analyses from a wide variety of languages. The study in Chapter 4 provides an example of such language-specific research on the sociative/reciprocal suffix **-an* in four Kikongo varieties, informed by general-typological work on middle voice (Kemmer 1993) and the comparative overview of the wide variety of functions expressed by reflexes of PB **-an* in Bantu presented in Bostoen et al. (2015).

Part 2 of this PhD thesis is concerned with the description of tense and aspect in a specific group of closely related Bantu languages, named the *Kikongo Language Cluster* (henceforth KLC). The three chapters in Part 2 pursue various research objectives. Firstly, despite the relatively long descriptive history of Kikongo language varieties —dating back to the 17th century (Brusciotto à Vetralla 1659), a large-scale comparative overview of the most commonly occurring TA expressions for the entire language group has never been drawn up. Chapter 5 presents such a comprehensive survey based on a sample of 23 modern and 2 historical Kikongo language varieties. Four additional goals are set out and addressed in that chapter:

1) Identify formal retentions of TA forms inherited from PB, based on the putative grammatical reconstructions of TA forms proposed in Meeussen (1967: 112-113) and Nurse (2008a: Ch. 6);
2) Identify probable retentions of innovated TA morphology from Proto-Kikongo (henceforth PKK), the most recent common ancestor of the languages belonging to the KLC;
3) Identify innovations having occurred after PKK evolved into the various Kikongo daughter languages, and discuss their distribution within the KLC;

4) Evaluate the lexicon-based phylogenetic classification of the KLC proposed in de Schryver et al. (2015) by comparing the isoglosses of the grammatical innovations of TA forms to the phylogenetic subgroups.

The studies in Chapters 6 and 7 subsequently focus on two individual cases discussed in the overview from Chapter 5. The objective of the first case-study is to reconstruct the semantics of a tentatively established PKK TA form, which the most recent common ancestor of the KLC supposedly inherited from PB and then passed down to a wide number of Kikongo language varieties. The specific TA form under scrutiny is referred to as the *-a-R-a* construction.[4] In line with the idea of the interdependent relation between historical-comparative research on higher nodes of the language family and in-depth grammatical descriptions of individual languages, the study presented in Chapter 6 very much takes a bottom-up approach to the diachronic semantics of TA in Bantu. As a first step of the reconstruction, a general semantic analysis of the *-a-R-a* construction is given on the basis of a sample of 33 modern and historical Kikongo varieties. As a second step, on the basis of the triangulation of the form and meanings that are the most frequently attested and have the most representative distribution in the sample, a hypothesis is discussed in which both a formal and semantic reconstruction is proposed for the *-a-R-a* construction in PKK.

In our opinion, reconstructing the diachronic semantics of a form posited for an *intermediate* proto-language should be the first step in a Bantu grammatical reconstructions project. One major problem for semantic reconstructions of *Proto-Bantu* grammatical forms is the lack of synchronic data: there are too few descriptions of Bantu languages for a comprehensive and representative sample (see Nurse and Philippson 2003a: 4-5). Turning the issue around: in order to make a highly probabilistic hypothesis of semantic reconstructions for PB, an enormous amount of diachronic and synchronic data should be taken into account given the estimated number of Bantu languages ranging from 250 to 600 (Nurse 2008a: 2). Moreover, although Bantu languages have long been known for their elaborate TA systems, it is only since the early 2000s that Bantuists are starting to closely study and better understand the complexity of the temporal and aspectual systems of individual languages (see early works such as Botne 1983a, and further Botne and Kershner 2000, Fleisch 2000, Kershner 2002, Botne 2003a). Thus, even though a somewhat representative sample can be obtained of grammars stemming from

[4] This is an abstract representation of a partly schematic morphological construction. It indicates that the TA form consists of the combination of a verbal prefix and suffix together with at least the core of the verbal word, which is the verb root (R). The representation is a partly schematic construction in that some elements are unspecified (R indicates the morpheme slot which can be filled by a specific verb root) whereas other elements are substantive (the prefix *a-* and suffix *-a* make up the specific combination of TA morphemes) (see also Croft 2001: 17, Hoffmann and Trousdale 2013a: 1-2).

the longstanding tradition of descriptive linguistics (as is done for Nurse's authoritative study on TA in Bantu; see Nurse 2008a: 4-9), one will generally find little to no information on e.g. lexical aspect and its important role in the interpretation of grammatical-aspectual phenomena. Yet this has been shown to be a major feature of Bantu TA systems in the specialized literature from the past two decades (see Botne and Kershner 2000, Fleisch 2000, Kershner 2002, Botne 2006a, 2008: Parts 4-6, Botne and Kershner 2008, Seidel 2008: Ch. 6, Brisard and Meeuwis 2009, Botne 2010, Crane 2011, 2012a, 2012b, 2013, Botne 2014, Lusekelo 2016, Persohn 2017, Crane and Fleisch Forthcoming-a, Crane and Persohn Forthcoming-a, Forthcoming-b, Kanijo Forthcoming). As a result, assessments of and discussions on semantic reconstructions of PB TA forms remain quite broad and general.

A second major problem is the lack of attestations of previous stages of historical daughter languages from the multiple subgroups that developed out of PB. Given the time depth between today and the estimated time, i.e. "some five millennia ago" (Nurse and Philippson 2003a: 5), at which PB would have been spoken by people situated in the Nigeria-Cameroon borderland, it is impossible to factor in the complexities of the demographic history of the Bantu region over the course of 5,000 years and the way this must have impacted and shaped the linguistic history. In the words of the 'father' of Bantu grammatical reconstructions: "at present [conjugation] differs from language to language, and this leads us to the conclusion that many changes must have occurred since the proto-period, such as to veil for us the initial situation which we seek to reconstruct" (Meeussen 1967: 112).

However, reconstructing the diachronic semantics of TA forms to the proto-language of genealogically related subgroups of Bantu languages is a manageable endeavour which can provide hypotheses with relatively good certainty. There are multiple advantages to this approach. First and foremost, the size of a representative sample of a lower Bantu subgroup can logically be much smaller than the one needed for the entire language family. This makes it possible to carry out detailed studies on the individual languages, informed by the current knowledge about grammatical semantics such as, for example, the interaction between lexical- and grammatical-aspectual semantics. To the best of our knowledge, Crane (2012b) is the only other historical-comparative work, besides the study presented in Chapter 5 on the *-a-R-a* construction in the KLC, where lexical aspect is considered in a discussion on the diachronic semantics of TA forms in a closely related group of Bantu languages (in her case *-ile* and *-ite* in Bantu Botatwe). Covering a smaller area also allows investigating the social and demographic history of the region, which is an important prerequisite in order to assess whether a linguistic feature occurring in two or more neighbouring language varieties is the result of shared retention from a common ancestor or got diffused horizontally, i.e. through contact-induced spread.

Finally, Chapter 7 zooms in on an innovation in the TA system of four Kikongo varieties, namely Kindibu, Kisikongo, Kisolongo and Kizombo. The change is of wider

typological interest because it resulted in a segmentally unmarked Future construction, i.e. *-Ø-R-a*, and a morphologically marked Present construction, i.e. *-Ø-R-ang-a*.[5] Compared to TA systems of many other languages in the world, this is an unusual and asymmetric situation in that most often present tense tends to be marked with less morphological substance than future tense (Ultan 1978: 90, Haspelmath 1998: 30), or present-tense forms can be used for future time reference (Ultan 1978: 108, Comrie 1985: 44-45, Dahl 1985: 109). Neither of these generalizations holds with respect to the TA systems of these four Kikongo varieties. Nevertheless, paradigms similar to those of the four Kikongo varieties are also found in a number of other languages across the world where the future-tense construction has no distinctive, overt morphology in contrast to the present-tense construction. Haspelmath (1998) presents a general diachronic hypothesis which accounts for such anomalous TA systems. A first main objective of the study in Chapter 7, then, is to lay out the evolutionary path of the paradigmatic shift in Kisikongo. The reason for focusing on Kisikongo in this chapter is that it is the Kikongo variety for which the oldest documents written in and on any Bantu language exist (spanning a time period of nearly 400 years), but also for which the most historical data is available (i.e., a combination of corpus texts and grammatical descriptions). However, because the historical data is fragmentary (i.e., it covers three distinct snapshots in time, namely the mid-17th century, the late-19th/early-20th centuries, and the late-20th/early-21st centuries), there is no empirical evidence to study the incremental steps of the gradual process of semantic and paradigmatic change throughout this time period. What is more, the pivotal moment of the shift can be situated between the first and second periods for which data are available, and we thus only observe that the original future-tense form of mid-17th c. Kisikongo differs significantly from that of late-19th c. Kisikongo. The second objective of this study is therefore to propose a diachronic hypothesis based on comparative language data, which might account for these differences through time.

1.2 Background

In this section the Bantu language family and the KLC are introduced, the two main groups with which the studies in Chapters 2 to 7 are concerned. Then the theoretical frameworks are presented in which the analyses pertaining to middle voice (Part 1) and

[5] See Section 1.2.5 for the use of the symbol Ø.

TA (Part 2) are couched. Finally, a short introduction on Bantu verbal morphology is given.

1.2.1 Bantu languages

The group of languages generally referred to as 'Bantu' is spoken in a geographically large part of central and southern Africa. The area broadly runs from the Nigeria-Cameroon border in the west to southern Somalia in the east, and extends all the way down to South Africa's coastline. Genealogically, the Bantu languages belong to the Niger-Congo phylum. Although it is generally acknowledged that Bantu is a late offshoot of Proto-Niger-Congo, the exact details of the classification of the languages spoken in and around the homeland of Bantu are still a matter of debate and require further research. For more on this topic, see Williamson and Blench (2000), Blench (2011, 2012), Dimmendaal (2011: 318-324) and Bostoen (2018).

All languages discussed in this PhD thesis belong to what is called 'Narrow Bantu', namely those Bantu languages included in the classification by Malcolm Guthrie (Williamson and Blench 2000: 34). The referential system devised by Guthrie (1948, 1971) attaches a specific code to each separate Bantu language. In the latest update of the classification (see Maho 2009), the Bantu area is divided into sixteen zones, each referred to with a capital letter (A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S). A zone is further split up into smaller language groups which are coded with a decade number. Every single language variety within those groups has its own specific combination of a capital letter and a number, e.g. H11 for Kibembe spoken in Congo-Brazzaville, belonging to the H10 'Kikongo' group (Maho 2009: 52). In some cases a small letter is further added to a code for language varieties that are considered so-called dialects. For example, the 'Kikongo language' is classified with the referential code H16, and includes further H16a 'South Kongo', H16b 'Central Kongo', H16c 'Yombe', H16d 'West Kongo', H16d 'Fiote', H16e 'Bwende', H16f 'Laadi', H16g 'East Kongo' and H16h 'South-East Kongo' (for more information see de Schryver et al. 2015: 98-104, Bostoen and de Schryver 2018a: 51). A map of the Bantu languages and Guthrie's zones is provided in Addendum 1.

As for the internal genealogy of Bantu, Grollemund et al. (2015) propose a lexically-based phylogenetic classification. It is presented as a tree diagram in which the language family consists of five genetic subgroups: North-Western, Central-Western, West-Western, South-Western and Eastern Bantu. Nurse and Philippson (2003b) argue that the ideal historical classification necessarily needs to be based on a confrontation of lexical and grammatical assessments. As of yet, this is still far from accomplishable given that

non-lexical classificatory studies are still in an early development (Nurse and Philippson 2003b: 166-167, Philippson and Grollemund Forthcoming [2019]).[6]

1.2.2 The Kikongo Language Cluster

The term 'Kikongo Language Cluster' refers to a group of language varieties spoken in a geographical area that runs along the west coast of central Africa, more specifically from the southern tip of Gabon all the way down to (and including) the northern provinces of Angola (i.e., Cabinda, Zaire and Uige), and stretches eastwards into the Kwango (previously Bandundu) province in the Democratic Republic of the Congo (henceforth DRC), covering the southernmost parts of the Republic of the Congo and the Kongo-Central province of the DRC. The language varieties spoken in this area have been shown to cluster together in lexically-based classifications of the Bantu languages as a distinct subclade within the wider West-Western group, also called 'West-Coastal' Bantu (Vansina 1995, Bastin et al. 1999, de Schryver et al. 2015, Grollemund et al. 2015). The genetic cluster includes Bantu language varieties from various language groups of Guthrie's (1948, 1971) referential system, namely all languages from the B40 'Shira-Punu' group, all languages from the H10 'Kikongo' and H30 'Yaka' groups as well as Kihungan (H42) and Kisamba (L12a). The label 'Kikongo Language Cluster' has been coined by the linguistic team of the KongoKing research project (2012-2016), which aimed to study the early history of the Kongo kingdom through an interdisciplinary approach combining predominantly archaeology and linguistics.[7]

A lexically-based phylogenetic study of the KLC varieties, presented in de Schryver et al. (2015) and Bostoen and de Schryver (2018a), has shown that the cluster is further internally divided into five genetic subgroups. These have been labelled Kikongoid, North Kikongo, West Kikongo, East Kikongo and South Kikongo. In the heart of the KLC area where the four geographically-named subgroups would meet, located in the middle of the Kongo-Central province, a contact zone has emerged which has been described as a *groupe flottant* in the lexically-based phylogenetic classification (de Schryver et al. 2015: 139) or a catch basin in Chapter 5. Both these terms indicate that intensive language contact led the Kikongo varieties in this Central Kikongo subgroup to acquire linguistic features from the surrounding varieties to such an extent that they can no longer be shown

[6] Following the initiative by Nurse and Philippson (2003b), the research project 'Morphosyntactic variation in Bantu: Typology, contact and change' (2014-2018), led by Lutz Marten, can be seen as an important step in the study of grammatical variation and its implications for Bantu language history. See also publications such as Marten and Kula (2007), Marten et al. (2007), Gibson et al. (Forthcoming [2019]).

[7] For more information, see Bostoen et al. (2018), Bostoen and Brinkman (2018a: 5-6), and the project's archived website at https://www.kongoking.net.

to belong conclusively to one of the four neighbouring subgroups. Where relevant, the genealogical subgroup of a KLC variety is noted in square brackets. A map of the KLC and the genealogical subgroups is provided in Addendum 2.

1.2.3 Middle voice

The grammatical category of 'middle voice' has a long history in linguistics, as the notion dates back to the Greek grammarians (Kulikov 2013: 261). Rather than providing here a detailed overview of the extensive literature on middle voice, a broad description will be given of our view of the phenomenon which is mainly based on two general-typological studies, namely Kemmer (1993) and Kulikov (2013).

Middle voice is a verbal category. The functions of middle voice can be divided into two dimensions. One dimension pertains to diathesis or voice alternations, i.e. the variation between a base verb root and a derived verb root in the mapping of thematic roles onto syntactic/grammatical relations. The voice alternations which are commonly associated with middle voice are, in alphabetical order, anticausative, auto-benefactive, passive, reciprocal and reflexive. This dimension is the focus of Kulikov (2013). The other dimension pertains to *media tantum*. This term is used to refer to those verbs in a language that have middle marking but for which no unmarked counterpart exists. Such verbs and the situation types that they denote is the focus of Kemmer (1993). She compares the lexical semantics of *media tantum* verbs in a wide group of languages, arguing that semantic generalizations can be drawn on the basis of language-specific *media tantum.* That is, in different languages *media tantum* verbs denote similar events which can be grouped into so-called 'situation types', defined by Kemmer (1993: 7) as "sets of situational or semantic/pragmatic contexts that are systematically associated with a particular form of expression". These are abstract and often broad categorizations of specific eventualities, and include categories with easily interpretable labels such as 'grooming', 'change in body posture', 'translational motion', 'cognition' and 'perception', but also less self-explanatory names such as 'chaining reciprocal', 'natural reciprocal', 'positional' or 'spontaneous'. Kemmer (1993: 267-270) provides an extensive list of *middle* categories and situation types, namely those grammatical categories or lexical situation types which might be denoted by a verb marked for middle voice in a particular language. The list, which includes brief definitions and English examples, is provided in Addendum 3. Throughout Kemmer (1993) many, but not all, of these 'middle meanings' are extensively discussed. Kemmer furthermore conceptualizes these *middle* situation types as an interconnected sphere in a conceptual space located between basic two- and one-participant events. This conceptual space and Kemmer's so-called 'middle voice domain' is reproduced in Figure 1. It should be noted that many of the categories included in the checklist (see Addendum 3) are not included in Kemmer's conceptual space.

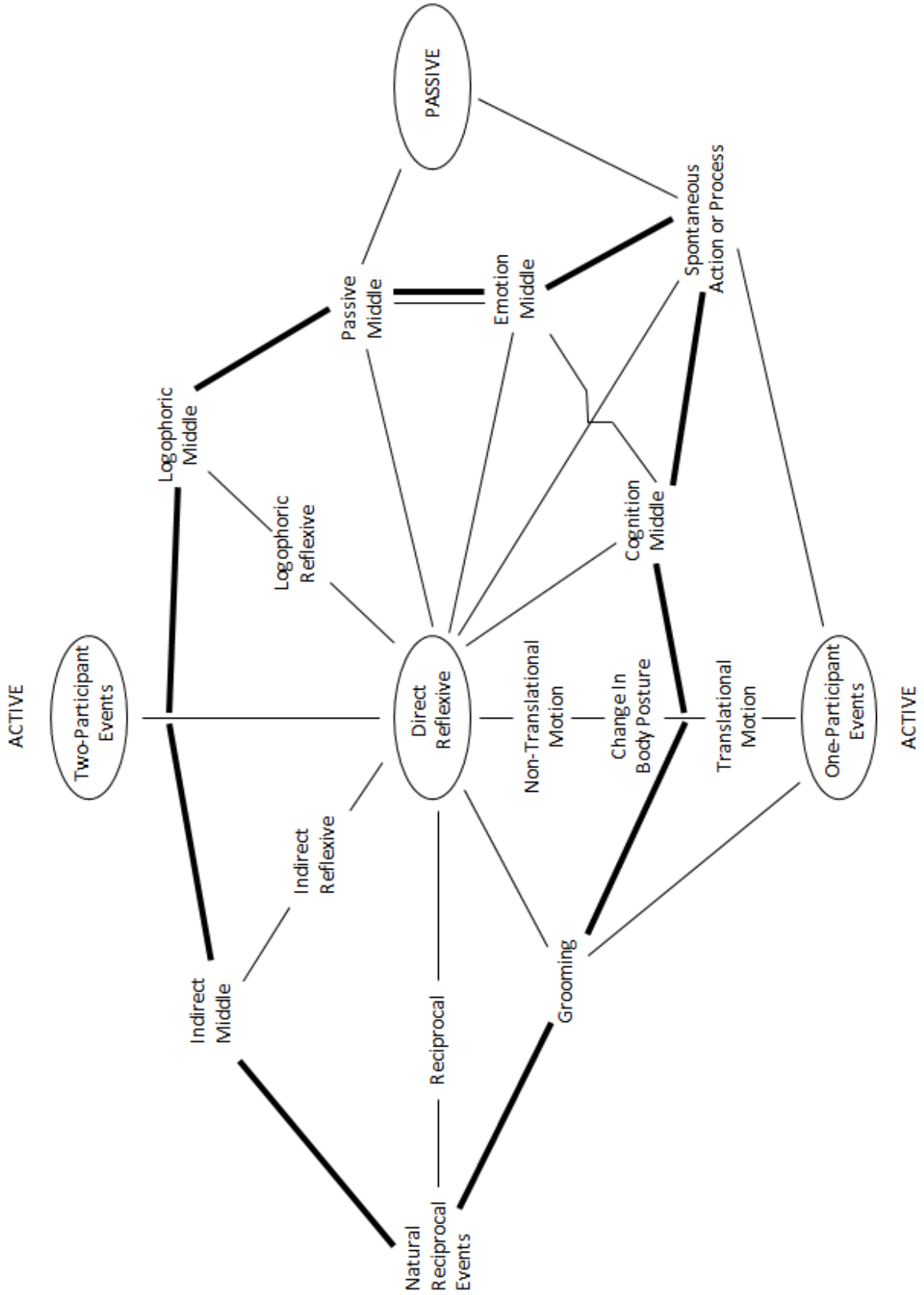


Figure 1. Semantic map of the 'middle domain' with semantic links between middle situation types. Reproduced from Kemmer (1993: 211).

Given the large number of (syntactic) voice alternations and (lexical) situation types subsumed under middle voice, the grammatical category is defined by Kulikov (2013: 265-266) as a *cluster* of deagentivized (intransitivized) syntactic patterns. This reflects the cross-linguistic observations that language-specific morphology denoting middle voice is typically polysemous. With respect to the two dimensions, this can mean that a so-called 'middle morpheme' is used in a particular language to i) flag at least two middle voice voice alternations (for example, anticausative-passive or reciprocal-reflexive), ii) flag at least two middle situation types (e.g., grooming and change in body posture), or iii) flag a number of categories from both dimensions (e.g., anticausative-reflexive-passive-emotion-cognition).

Despite considerable variation in the range of categories that are expressed through middle voice morphology in languages of the world, a recurrent core group of voice alternations is proposed in Kulikov (2013: 266-272) as the "'canonical' inventory of middle functions" (Kulikov 2013: 273): passive, antipassive, reflexive, reciprocal, auto-benefactive and anticausative (see also Klaiman 1992: 39-40, Kazenin 2001: 923, Shibatani 2004: 1149). Languages with middle voice morphology that covers all or most of these categories, such as for example Russian *-sja* (see Kulikov 2013: 268-272), can be described as having 'prototypical' (i.e., 'canonical') middle voice morphology. In contrast, other languages, such as for example many Bantu languages, have middle morphology that is used for only two or three categories of the canonical middle functions. We use the term 'quasi-middle' to refer to this second type of middle voice morphology. From a diachronic perspective, 'quasi-middle' morphology can become (more) 'canonical' in case the functional range of the middle morphology is expanded so as to cover all or most of the canonical middle voice categories.

It is important to note that, in our view, middle voice is a comparative concept in the sense of Haspelmath (2016). Thus, as stated in Chapter 3, there are many languages in the world where a number of similar syntactic and semantic verbal categories are flagged by a morphological device. These language-particular form-meaning correspondences can be compared and lead to a general, cross-linguistic inventory of these categories. Thus, middle voice in this sense is not an *a priori* theoretical concept. Rather, the inventory of the various grammatical categories that make up the comparative concept of the middle voice 'cluster' is based on similarities observed in a wide variety of different languages.[8]

[8] Middle voice has been described for at least all of the following languages or language families: Alabama (Hardy and Montler 1991), Baltic (Holvoet et al. 2015), Bella Coola (Nuxalk) (Beck 2000), Boro (Boro 2016), Bribri (Pacchiarotti 2014, 2016, s.d.), Creek (Hardy 1994), Dulong-Rawang (LaPolla and Jiangling 2005), English (Davidse and Heyvaert 2007, Siemund 2010), Estonian (Vihman 2002), Fula (Arnott 1956, Kaufmann 2007), Ancient Greek (Bakker 1994, Allan 2003), Modern Greek (Manney 1995, 1998), Hittite (Luraghi 2012), Iraqw (Mous and Qorro 2000), Korean (Ahn and Yap 2017), Lai (Smith 1998), Latin (Claflin 1927), Taiwanese Southern Ming (Lien 2010), Mohawk (Mithun 2006), Na-Dene (Thompson 1996), New Caledonian (Bril 2005),

This approach permits, on the one hand, language-specific analyses of middle morphology such that the description is framed within the descriptive tradition of that language without making explicit reference to middle voice. For example, in Bantu language X the reflex of the Proto-Bantu suffix *-*am* can (and often is) labelled 'positional', thus using the terminology that is common in Bantu linguistics for that suffix, and the function(s) of the positional might be described without making reference to the notion of middle voice. The approach here also allows, on the other hand, to study and describe functional similarities and differences of specific Bantu middle voice systems with middle morphology in other languages, which is useful and valuable for typologists (see also the contributions in the journal *Linguistic Typology* (volume 20, issue 2, 2016) of a discussion on language-particular, descriptive categories versus comparative concepts). In Chapters 2 and 3 we undertake this second exercise. Whereas the affixes discussed therein have always been described within the tradition of Bantu linguistics, what is evaluated in these studies is how their functions could fit in the comparative concept of middle voice.

Returning to the seemingly disparate group of syntactic and semantic categories that are included in middle voice, some authors have attempted to find a unified semantic component or definition that underlies all these different functions. For example, Kemmer (1993: 3) offers the notion of 'relative elaboration of events'. This notion pertains more specifically to eventualities with a low distinguishability of participants or events, i.e. where a single participant does not fulfil one single prototypical thematic role but rather functions as an 'Initiator' and 'Endpoint' of an eventuality at the same time, or where multiple micro-eventualities are conceptualized as one single macro-eventuality. Thus, in the English sentence '*He's shaving*' (perhaps as an answer to the question '*What's Tom doing?'),* the shaver is at the same time the one undergoing the shaving action. Or, in the English sentence '*Randall and Jake are fighting*' the situation referred to can be broken down into two sub-events, one where Randall is fighting Jake and a parallel event where Jake is fighting Randall. However, as Haspelmath (1995: 373) states rather bluntly, "couldn't it be that there is no real common meaning that all situation types share?" If one indeed approaches middle voice as a comparative concept which can be employed to analyse polysemy phenomena in individual languages, a common meaning should be sought for the semantic relation(s) connecting the multiple functions of the particular middle morpheme(s) in a particular language. When similar or identical polysemy patterns within the middle domain occur in multiple unrelated languages across the world, one might seek to explain this on the basis of extra-linguistic, functional motivations.

Otomi (Palancar 2004, 2006), Pima Bajo (Estrada-Fernández 2005), Polish (Tabakowska 2003), Spanish (Maldonado 1992), Tagalog (Nagaya 2009), Tarascan (P'orhepecha) (Nava and Maldonado 2004), Tibeto-Burman (LaPolla 1996), Early Vedic (Kulikov 2006a, 2006b, 2009), Warrungu (Tsunoda 2006), and Yaunde-Fang (Bostoen and Nzang-Bie 2010).

1.2.4 Tense and aspect

If the literature on middle voice can be considered extensive, the literature on the domain of tense and aspect is decidedly enormously vast.[9] With such an insurmountable amount of information it is not our intention here to present a general overview of TA, the different theoretical approaches and the manifold definitions of differently used or labelled categories. Rather, in what follows we sketch the basic tenets of the framework we adhere to. An elaborate exposition is further given in Chapter 6, Section 6.3.

Tense refers to a speaker's subjective conceptualization of an eventuality's occurrence in time through the linguistic strategies available in the grammatical system of a particular language. Major advances in the general linguistic theorizing about tense include, among others, the works by Reichenbach (1947), Comrie (1985), Dahl (1985) and Klein (1994). The most comprehensive cross-linguistic study on the diachrony of TA systems is the work by Bybee et al. (1994). State-of-the-art overviews which cannot go unmentioned are Binnick (1991) and the many contributions in Binnick (2012).

As is often highlighted in general works on tense, many Bantu languages have grammaticalized remoteness distinctions as a characteristic feature of their TA system. Simply stated, such remoteness systems distinguish multiple past and/or future tenses which are denoted by different conjugational TA constructions. Botne and Kershner (2008) introduce a cognitively-based framework which is developed for the semantic analysis of tense, and more specifically to describe such complex TA systems with remoteness distinctions. Their so-called 'dissociative domain model' (Botne and Kershner 2008, Botne 2012) differs significantly from the traditional view that tense semantics follow a linear conceptualization of time. Instead, the framework proposes that the tense systems of languages can conceptualize multiple perspectives of time passing (Botne and Kershner 2008: 147-150). In one conceptualization (*TIME is a PATH*), eventualities can be temporally located in 'reference worlds' or 'cognitive domains'. These domains constitute a speaker's mental construal of her/his experiences. One can, for example, perceive a certain amount of time and the eventualities that have occurred within that timespan as related to the present moment. Such a temporally-defined mental world including the moment of speech is labelled in the dissociative domain model as 'P-domain'. It constitutes everything considered by a speaker as the 'here-and-now'. The time that falls outside of the currently relevant temporal domain, and thus all eventualities not perceived as related to the here-and-now, are dissociated from the moment of speech. Those mental

[9] See Robert I. Binnick's online database 'The project on annotated bibliography of contemporary research in tense, grammatical aspect, aktionsart, and related areas', which "includes around 8000 articles and 1000 monographs". The last update dates back to the 21st of August 2006, and thus does not (yet) list publications of the past twelve years. URL: http://www.scar.utoronto.ca/~binnick/TENSE/Bibliography.html.

worlds situated in the past and future are therefore called 'D-domains'. Temporal relations between the P-domain and a D-domain are referred to as 'tense'. Additionally, each of these domains has internal temporal structure. Within the P-domain, a speaker can still consider past or future eventualities as relevant to the here-and-now. The dissociated domains have internal temporal structure in the same way, where one eventuality can function as a reference anchor for others that occurred before or after it within the dissociated mental world. This is related to the second conceptualization of time (*TIME is a STREAM*).[10] In order to reflect the difference in conceptualizations also terminologically, temporal relations in the domain-internal conceptualization are called 'tenor' (Botne and Kershner 2008: 167). A formal representation of the dissociative domain model, reproduced from Botne and Kershner (2008: 153), is presented in Figure 2. It integrates the different perspectives of the timeline in one representation, i.e. as a straight line (*TIME is a PATH*) crossing two arrows (domain-internal time; *TIME is a STREAM*). The cognitive domains are represented as quadrangular planes.

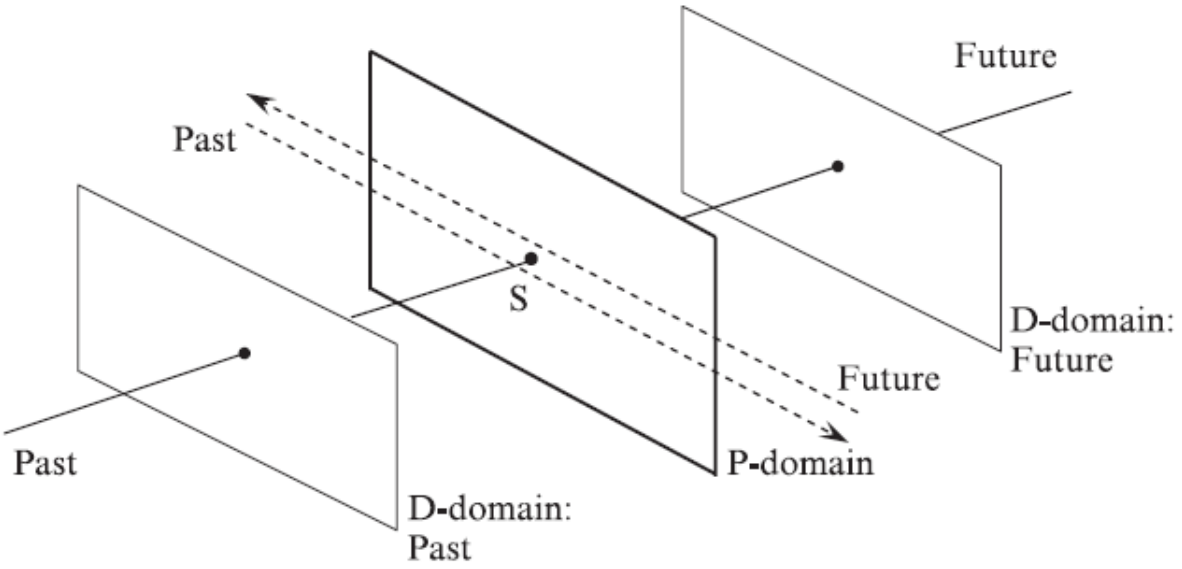


Figure 2. Correlation of cognitive worlds with three perspectives on time. Reproduced from Botne and Kershner (2008: 153).

The dissociative domain model has been adopted by a number of other Bantuists besides Robert Botne and Tiffany Kershner, and it has proven useful to describe the semantics of the complex TA systems of e.g. Sukwa (M202) (Kershner 2002), Saamia (JE34) (Botne

[10] The conceptualization *TIME as a STREAM* includes two further perspectives of time, one in which the conceptualizer moves with the stream from past to future, and a second in which time flows from the future along the stationary conceptualizer into the past (Botne and Kershner 2008: 147-148).

2006a), Ndali (M301) (Botne 2008), Yeyi (R41) (Seidel 2008), Totela (K41) (Crane 2011), and Nyakyusa (M31) (Persohn 2017).

For aspect, the multi-layered approach discussed in Sasse (2002) is used. In this approach, "aspectuality […] is a larger 'domain' strongly characterized by the interaction of categories both within the grammar and between grammar and lexicon" (Sasse 2002: 201). Aspectual meaning is thus construed through various levels of lexico-grammar. It has become more and more acknowledged both in general and Bantu-specific studies on aspect that the interaction between actionality, i.e. "the internal temporal constituency of a situation" (Comrie 1976: 3), and grammatical aspect constitutes a fundamental component of aspectuality. Despite the fact that the majority of research on this interaction has uncritically followed Vendler's (1957) semantic classification of actionality types based on a small number of English predicates, recent studies have shown convincingly that languages do differ from each other with respect to their inventory of actionality types or even that the internal temporal structure of similar verbs can be different from one language to another (Ebert 1995, Tatevosov 2002, Botne 2003b, Bar-el 2015, Crane and Persohn Forthcoming-b, Persohn Forthcoming [2018]). What does seem to constitute the basic building blocks of lexical-aspectual semantics are boundaries and phases (Sasse 2002: 201, Desclés and Guentchéva 2012: 133-135). The notion of 'phase' is often used in the general literature on aspectuality to refer to subparts of eventualities, e.g. the initial or final stages (Binnick 1991: 180, Tatevosov 2002, Desclés and Guentchéva 2012: 137). However, we use the term to refer to the (entire) interval between (some of) the boundaries of an eventuality. This is in line with how the term is used in studies on Bantu aspectuality (see, for example, Botne 2010) and in some general linguistic studies on lexical aspect (Ebert 1995, Bickel 1997). The differences in phase structure between various verbs of a language can serve as the basis of a verb categorization into actionality types. The concept of phase and the categorization of verbs can be illustrated by two Ndali (M301) verbs, *mog* 'dance' and *fwaal* 'dress'. Compare the interpretation of these two verbs with the Ndali Imperfective construction *-ku-R-a* and the Ndali Completive construction *-Ø-R-ite* in (3) and (4) (Botne 2008: 97-99).

(3) Ndali *mog* 'dance'

a. with *-ku-R-a* construction
   a-kú-mog-a
   SP_1-IPFV-dance-IPFV
   's/he is [in the midst of] dancing.'

b. with *-Ø-R-ite* construction
   a-Ø-mog-íte
   SP_1-CTU-dance-CMPL
   'She danced' [earlier today]

(4) Ndali *fwaal* ‘dress’

a. with *-ku-R-a* construction
   a-ku-fwáal-a
   SP_1-IPFV-dress-IPFV
   ‘s/he is dressing’ [now]

b. with *-Ø-R-ite*
   a-Ø-fwaal-íte
   SP_1-CTU-dress-CMPL
   i. ‘s/he is dressed’
   ii. ‘s/he dressed’ [earlier today]

The verb *mog* denotes the event of dancing and lexicalizes one temporal phase, which is selected by the Ndali Imperfective *-ku-R-a* construction to express present progressive semantics. This single, central ‘dancing’ phase of *mog* is called the *nucleus* phase (N) in the framework originally developed by Freed (1979) and adapted in studies on Bantu by Botne (1983a). The Ndali Completive *-Ø-R-ite* construction construes the single phase of *mog* as terminated sometime on the same day of the moment of speech. The verb *fwaal* has an interpretation similar to that of *mog* when combined with the Imperfective construction, that is, the ongoing act of dressing oneself. However, the Completive construction brings out a crucial difference in the phase structure of the two verbs. The combination of *fwaal* with *-Ø-R-ite* can either refer to the completion of the act of dressing oneself sometime on the same day of the moment of speech (again similar to the reading with *mog*), or it refers to the ensuing state following the act of dressing oneself, that is, the state of being dressed. The initial ‘getting dressed’ phase of *fwaal* (selected by the Imperfective construction) is called the *onset* phase (O), the ensuing ‘be dressed’ phase is called the *coda* phase (C) and the pivotal point of transition between the two phases is the *nucleus* phase. On the basis of their different phase structures, Botne (2008: 97-99) categorizes *mog* as an Activity verb and *fwaal* as a Transitional Accomplishment verb. The phase structures of the two verbs and the phase selection of the two grammatical-aspect constructions can be visualized as in Figure 3 and Figure 4 respectively.

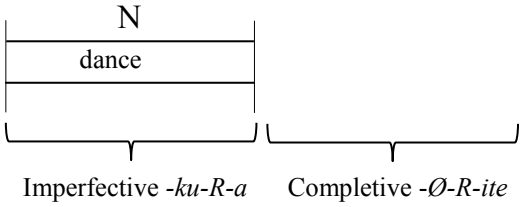


Figure 3. Schematic representation of the phase structure of the Ndali verb *gom* ‘dance’ and the phase selection of the Ndali Imperfective and Completive constructions.

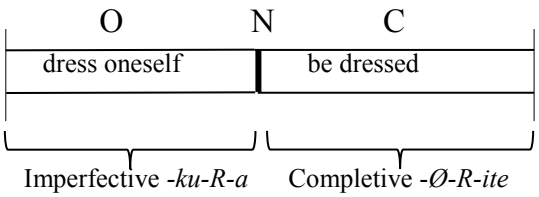


Figure 4. Schematic representation of the phase structure of the Ndali verb *fwaal* 'get/be dressed' and the phase selection of the Ndali Imperfective and Completive constructions.

In addition to lexical and grammatical aspect, Sasse (2002: 263) lists five other 'tiers' that might contribute to the overall aspectual meaning of a linguistic expression, all of which are further discussed in Chapter 6, Section 6.3.2.

1.2.5 Bantu verbal morphology

Two general features of Bantu languages are important to highlight with respect to the topic of this PhD thesis: they have strongly agglutinative morphology, and a rich verbal morphology (Nurse and Philippson 2003a: 8-9, Nurse 2008a: 21) consisting of affixes with different functions which can be attached to the verb root. This is illustrated in the Kimanyanga example in (5). The verb is marked in bold and further analysed with respect to its morphological composition. In the morpheme analysis line, those affixes which are related to the subject of this PhD thesis are underlined.

(5) Kimanyanga (KongoKing 2015, fieldwork by S. Dom)
Mvu wetikwiza, bandongokele ***si balongokanga*** *nthalu lumingu ka lumingu.*
Next year, the students will study mathematics every week.

si	*ba-a-long-ok-ang-a*
FUT2	SP_2-FUT2-teach-SEP_{INTR}-IPFV-FUT2

Based on various morphological verb structures from individual Bantu languages, Meeussen (1967: 108) proposes an all-encompassing generalized structure of 'the' Bantu verb. It consists of eleven slots each with a specific and sometimes idiosyncratic label (e.g. formative or limitative). Meeussen (1967: 108-111) also discusses the individual morphemes that occur in each specific slot and their functions. From these short discussions it becomes apparent that the structure is generalized over different verbal configurations, such as main conjugated verbs, relative conjugated verbs, imperatives, subjunctives, and verbal nouns (typically called 'infinitives') (see also Nurse 2008a: 40-41, who proposes three structures, i.e. imperative, indicative and subjunctive). Not all verb forms in actual languages thus 'contain' all eleven slots. Meeussen's structure is reproduced in (6), with an additional overview of the main related morphemes or functions.

(6) The abstract morphological structure of a Bantu verb as presented in Meeussen (1967: 108)

Slots	**Function/morphology**
Pre-initial	negation, or antecedent coreference prefix of indirect relative
Initial	subject prefix
Post-initial	negation
Formative	TAM or junctivity[11] prefixes
Limitative	motional or aspectual (inceptive, persistive) prefixes
Infix[12]	reflexive or object prefix
Radical	verb root
Suffix	derivational suffixes
Pre-final	aspectual suffix *-a(n)g*
Final	TAMN suffixes
Post-final	plural imperative suffix

Variations of Meeussen's abstract verb structure are given in Givón (1971: 145, 2015: 117), Güldemann (1999: 546) and Nurse (2008a: 40), in which some of the slots of Meeussen's template are merged together. Nurse (2008a: 40) explains that "removing limitative and folding it into formative, labelling the resulting slot TA, and allowing TA to include more than one morpheme, would better reflect the whole range of contemporary possibilities in Bantu." The comparison of the alternative structures in Table 1 shows how Nurse divides Güldemann's 'postinitial' slot into a separate NEG_2 and TA slot. The functions in the third column are based on Güldemann (1999: 546).

Table 1. Comparison of three proposals of the general morphological structure of the Bantu verb.

Güldemann (1999: 546)	Nurse (2008a: 40)	Givón (2015: 117)	
Slots	**Slots**	**Slots**	**Function/morphology**
preinitial	pre-SM	NEG	TAM/polarity
initial	SM	SP	subject prefix
postinitial	NEG_2		polarity
	TA	TAM	TAM
preradical	OM	OP	object prefix
radical	root	verb stem	verbal root
prefinal	extension	VS	derivation/TAM
final	FV	FV	TAM
postfinal	post-FV		clause type/object/polarity

[11] See van der Wal and Hyman (2017).

[12] Meeussen uses the term 'infix' for what is actually a *prefixal* slot.

This PhD thesis is concerned with morphology occurring in those slots of Güldemann's (1999: 546) verb template which have the functions 'derivation' and/or 'TAM', i.e. the pre-initial (or pre-SM), post-initial (or TA), pre-final (or extension) and final (or FV) slots. From a diachronic perspective of the structure in modern Bantu languages, the slots before the root are where material from auxiliaries ends up through the process of grammaticalization. The pre-final and final slots are less prone to contain newly created, external source material, although these are considered to originate from lexical verbs through the process of grammaticalization in a pre-Proto-Bantu period (Givón 1971, Mould 1972). In modern Bantu languages, morphological innovations in the pre-final and final slots are mainly related to morpheme stacking and subsequent processes of semantic change.

The term 'extension' used in Nurse's (2008a) verb structure is specific to Bantu linguistics. An extension is a morpheme immediately following, and thus literally 'extending', the verb root. As explained in Schadeberg (2003: 71), it "may be analyzable as to form and meaning, in which case we may call it a suffix, or else segmentation may be purely formal, in which case the analysis yields a (formal) radical and an *expansion* (or: formal suffix)" [italics in original]. Throughout this PhD thesis, we will call any morpheme following the verb root a 'suffix' in line with the general linguistics tradition.

In many Bantu TA systems, several TA constructions with identical suffixes form a morphological opposition with respect to the presence of an overt prefix versus the lack of segmental morphology in the post-initial slot. For example, in many Kikongo varieties there are two TA constructions which have the same suffix *-idi* in the final slot, but one construction has a prefix *a-* whereas the other has no overt prefix. The former construction, i.e. *-a-R-idi*, is used to refer to an event that occurred the day before the moment of speech, and the latter, i.e. *-Ø-R-idi*, is used to refer to an event that occurred some time before the moment of speech on the same day. Given such an opposition between absence and presence of morphology, we consider the lack of morphology to be meaningful (see also Bybee 1994). Assuming furthermore the slot structure as discussed above, we represent the absence of a TA prefix with the symbol 'Ø'. This symbol is used throughout the PhD thesis in the abstract constructional representation of TA constructions, e.g. *-Ø-R-idi*, and in the morpheme analysis of examples.

Another important aspect of Bantu verbal morphology, and especially of TA expressions, is tone. There is a great deal of variation between the tonal systems of different Bantu languages (Kisseberth and Odden 2003: 61-62, Marlo 2013), but a common general distinction holds between lexical and grammatical tone. In the verbal domain, lexical tone refers to a default or basic tone pattern of a verb stem. In many Bantu languages with lexical tone, verbs typically belong to one of two lexical tone classes. This is illustrated with Ciwoyo disyllabic verbs in (7), where the verb stems in (a) are low-toned and those in (b) high-toned.

(7) Ciwoyo (KongoKing 2015, fieldwork by S. Dom)[13]

a. low-toned		b. high-toned	
vun-a	'lie, cheat'	*líl-a*	'cry'
kot-a	'enter'	*fút-a*	'pay'
nok-a	'rain'	*mák-a*	'climb'
sev-a	'laugh'	*sál-a*	'work'

Grammatical tone, in contrast, "involves assignment of [a high tone] to a particular mora in the stem" (Kisseberth and Odden 2003: 61), and the factors triggering grammatical tone are tense, aspect, mood, polarity and clause type (Odden and Bickmore 2014: 4). This phenomenon is also called 'melodic' tone (Odden and Bickmore 2014) or 'inflectional' tone (Marlo 2013). Again, variation exists, for example, as to whether a melodic tone pattern consists of one or more high tones (Odden and Bickmore 2014: 6), or whether melodic tone patterns are sensitive to lexical tone or not (Marlo 2013: 177-178). Example (8) illustrates one melodic tone pattern of the Negative Contemporal Past Completive construction *-Ø-R-izi ko* in Ciwoyo. In this specific construction, a high tone is assigned to the first mora of the verb root and spreads rightward to the final vowel. The melodic tone pattern is identical for low-toned (a) and high-toned (b) verbs.

(8) Ciwoyo (KongoKing 2015, fieldwork by S. Dom)

a. low-toned: *tu:ng* 'build'		b. high-toned: *vwí:k* 'dress'	
lu-Ø-tú:ng-ízí	*ko*	*tu-ba-Ø-vwí:k-ízí*	*ko*
SP_{2PL}-CPC-build-CPC	NEG	SP_{1PL}-OP_2-CPC-dress-CPC	NEG
'you have not built'		'we have not dressed them'	

It must be stated, however, that tone is only sporadically considered in this PhD thesis. The main reason for this is that the majority of data used for the studies presented in the following chapters come from written sources in which tone is not noted. This is especially a shortcoming for Part 2, as tone plays an important role in the marking of TA in Kikongo varieties. Nevertheless, as examples (7) and (8) show, and as is explained in Section 1.3.1.1, fieldwork data have been gathered on the tonal properties of the TA systems of Ciwoyo (West Kikongo), Kimanyanga (Central Kikongo) and Kintandu (East Kikongo). These data will be analysed in the future for synchronic studies on the tonology of these language varieties.

[13] The forms presented here are deverbal nouns. Ciwoyo and many other Kikongo varieties have lost the noun class 15 prefix *ku-* which is used in most Bantu languages for deverbal nouns.

1.3 Methodology

1.3.1 Data collection and sources

1.3.1.1 Fieldwork

A part of the data used for the studies in Chapters 5, 6 and 7 were collected through working with native speakers of various KLC varieties. Multiple localities in the Kongo-Central province of the DRC were visited in 2012 by the linguistic team of the KongoKing research project and in 2015 during the PhD project. Table 2 gives an overview of the places where fieldwork was carried out and the KLC varieties for which data was gathered (the places are also indicated on the map of the KLC in Addendum 2).

Table 2. Overview of the localities and varieties covered during two fieldwork trips to the Kongo-Central province in the DRC.

2012 fieldwork trip (04/08 → 14/09/2012)	
Locality	**Variety**
Ngidinga	Kimbata, Kimbeko, Kinkanu
Boma	Ciwoyo
Kanzi	Cizali
Muanda	Kisolongo

2015 fieldwork trip (08/10 → 07/12/2015)	
Locality	**Variety**
Boma	Ciwoyo
Luozi	Kimanyanga
Kisantu	Kintandu

Four additional issues should be noted. First, during the 2012 fieldwork trip by the KongoKing linguistics team more KLC varieties were documented than those listed in Table 2. However, the types of data collected for those varieties were not intended for this PhD research and are thus not used in this PhD thesis. Second, when in Luozi during the 2015 individual fieldwork trip data was gathered on Kidondo for the doctoral research of Heidi Goes. The reason why it is not listed in the overview is because the data were mostly unrelated to the research presented in this PhD thesis. Third, some additional unpublished fieldwork data from colleagues and other researchers are also used in the following chapters. Throughout the PhD thesis, it is always clearly stated when an example comes from fieldwork data (other than ours), and by whom and when the data were gathered. Fourth, two speakers of Kisikongo from Angola were consulted for the study in Chapter 7 through Skype and Facebook Messenger. Because these interactions do not qualify as prototypical fieldwork, they are also not included in Table 2.

Table 3 presents an overview of the language consultants with whom we worked.[14] The majority of them are men born before the mid-1970s. Hence, it should be noted that they are not a representative sample of the speech communities in that youngsters and women are not equally included. This was not by choice. Most often we were brought into contact with the language consultants through a third party. Moreover, we worked with only one or two language consultants per variety and always in one-on-one sessions.

Table 3. Overview of language consultants.

Variety	Name	Gender	Year of birth
Kimanyanga	J.-P. Basilwa	Male	1965
	J. Dianzungu Dia Biniakunu	Male	1937
Kimbata	M. Nzikisa	Male	1947
Kimbeko	K. Tunabau Pindi	Male	1953
Kinkanu	A. Kabuiku Masala	Male	1956
	R. Kifu	Female	1969
Kintandu	A. Luyeye Ndomateso Mabilama	Male	1943
Kisolongo	J. Nzita Matiaba	Male	1974
	J. Tsese Nguindi	Male	1968
Ciwoyo	Z. Pinzi	Male	1971
	F. Cikuka Mavuemba	Male	1974
Cizali	S. Lumanisa Mayolongo	Male	1973

Various data-collection practices have been employed depending on the objectives of the fieldwork trip. In 2012 the goal was to document a number of KLC varieties for which little to no literature existed. Each of the researchers generally focused on a different part of the language, as we were concerned with collecting data on basic features of the grammar. These data were obtained through elicitation sessions where language consultants were asked to translate phrases and sentences from a (French) questionnaire (Tucker 1974) into the relevant KLC variety (see Addendum 4). The objectives of the individual fieldwork trip in 2015 were to collect more data on various features of the TA systems of three KLC varieties, namely Ciwoyo, Kimanyanga and Kintandu. A specific (French) TA questionnaire was used consisting partly of self-constructed sentences and partly of (translated) sentences from two existing questionnaires, namely Bertinetto's (2000) 'Progressive aspect questionnaire' and a questionnaire on aspect in performative contexts by De Wit et al. (2017), provided to me by Michael Meeuwis . Both questionnaires, from the 2012 and 2015 fieldwork trips, are provided in Addenda 4 and 5. In addition, a wordlist of 134 reconstructed PB high- and low-toned verb roots was used

[14] The personal information is kept to a bare minimum for ethical reasons. Although more detailed information was provided by each person, permission to print that information was not always granted.

for the investigation of lexical tone on infinitives. Further paradigmatic elicitation of various TA conjugations for a selection of these verbs was carried out for all three KLC varieties in order to study verbal-tone phenomena on inflected verbs (see Marlo 2013). Interview sessions were also organized in which the interaction of lexical and grammatical aspect were discussed with the language consultant.[15] Finally, multiple types of natural language data were gathered for Ciwoyo including different sorts of monologues, proverbs and commentary on visual stimuli (i.e., muted scenes from movies).

1.3.1.2 Secondary sources

All studies in this PhD thesis make use of data from secondary sources. One important and online-available database is Bantu Lexical Reconstructions 3 (Bastin et al. 2002) from which reconstructed PB verb roots have been drawn. Moreover, data from various types of language descriptions are considered, ranging from descriptive grammars to dictionaries, articles, conference papers as well as dissertations and theses. Also, original (i.e., previously unpublished) data from corpora of two Bantu languages are discussed in Chapters 2, 4 and 7. One is the BantUGent Luganda corpus, which was built for the PhD research of Deo Kawalya on modality in Ganda (JE15) (Kawalya 2017). For a detailed description of the corpus, see Kawalya (2017: 18-27). In 2014, together with Deo Kawalya, a corpus-driven pilot study of the suffix *-ik* in Ganda was conducted for a master's dissertation (Dom 2014: 91-113), from which an example is also provided in Chapter 2. The second is the BantUGent diachronic Kikongo corpus, parts of which have been used for the studies in Chapters 4 and 7.

All sources on KLC varieties stem from a documentation database which was constructed as part of the KongoKing research project (see also Bostoen et al. 2018: 3). The aim was to collect as much written information as possible on any aspect of the Kongo kingdom. As members of the linguistic team, we were not only granted access to the database but also contributed to it during the course of the KongoKing project. This involved the digitization, i.e. scanning, of printed materials which were then stored as a good-quality PDF. The next step was to run the PDF documents through the Optimal Character Recognition software OmniPage in order to convert the scanned image into text. As a result, over a thousand collected (linguistic) descriptions of any kind are now digitally searchable at the time of writing. Moreover, texts written *in* any KLC variety were digitized during the five years of the project, constituting a unique diachronic Kikongo corpus. Every document from the documentation database and the text corpus has furthermore been logged in an inventory with additional metadata. At the time of

[15] For recent works describing methods for semantic fieldwork on lexical aspect in Bantu languages, see Crane and Fleisch (2016, Forthcoming-b) and Persohn (2017: 115-117).

writing there are about 300 titles dealing with linguistic information on one or more KLC varieties in the documentation database and about 200 files corpora of KLC varieties in the BantUGent diachronic Kikongo corpus.

The documentation database and the BantUGent diachronic Kikongo corpus offer an exceptionally rich amount of information spanning a time period of some 400 years. The oldest document, an interlinear Portuguese-Kikongo catechism by the Jesuit priest Mateus Cardoso (1624), dates back to the early-17th century and is at the same time the oldest extant source for the entire Bantu language family. The BantUGent diachronic Kikongo corpus contains materials on at least 21 modern and historical KLC varieties ranging from 1624 to 2016. It should, however, be noted that the corpus studies in Chapters 4 and 7 are only based on parts of the entire Kikongo corpus. The relevant (sub)corpora are discussed in the appropriate sections in those chapters.

1.3.2 Data processing

This section discusses a number of aspects of data processing, i.e. reformatting, extraction, modification, structuring, tagging and the analysis of the data from fieldwork, the documentation database and the BantUGent diachronic Kikongo corpus.

1.3.2.1 Fieldwork data

All fieldwork data were recorded and stored as sound files in Waveform Audio File format (WAV). Most recordings have been transcribed using the computer software Audacity (Audacity Team 1999-2018) for editing the sound files and Praat (Boersma and Weenink 1992-2018) for the actual transcriptions. Written transcripts have been made in Excel spreadsheets and Word documents.

1.3.2.2 Documentation database

In wide-scale comparative research, it is often the case that the comparative linguist trusts the analysis of the author of a secondary source, and one would not look further than that section in the grammar which discusses the subject of the cross-linguistic comparison. However, this approach has some shortcomings. First, the background, analysis and framework of a certain linguistic description might be different from those pursued in the comparative work. Second, a grammar often contains many more examples which can provide additional information and nuance to the subject of study than the data which is presented in one particular section. Third, many dictionaries also provide insightful and complex linguistic examples which can be used as data. However, dictionaries might not be considered as source material for comparative work on grammatical phenomena.

In order to get as rich a picture of the linguistic data in the documentation database as possible, we started to go through all linguistic documents on KLC varieties and collected

every linguistic example with a finite verb inflected for TA. Thus, for each source with TA data an additional Word document was created in which the extracted examples are arranged according to the TA construction used. In Addendum 6 an overview of the progress of this project is provided as it stands at the end of this PhD research. This TA database was used extensively for the studies in Chapters 6 and 7.

1.3.2.3 BantUGent diachronic Kikongo corpus

The Kikongo subcorpora selected for the studies in Chapters 4 and 7 were queried using the software WordSmith Tools (Scott 1996-2018). Subsequently, the resulting data were exported to an Excel spreadsheet or a Word document for further analysis.

In one case it was impossible to perform an automatic query, namely for the Present construction in late-19th and early-20th c. Kisikongo (Chapter 7) because in both English and Kisikongo there is a lack of overt and distinctive morphology which could be used as a search term. In this specific instance parts of the subcorpus were searched manually for data.

Also, given its unique status as the oldest source on a Bantu language, Cardoso's (1624) catechism has been edited in order to optimize the document for the study of TA. Based on the reedition of Bontinck and Ndembe Nsasi (1978), a parallel French and Kikongo version (the latter in 'modern' spelling) were created each in a separate Word document. In the Kikongo text every verb is highlighted in bold and tagged for finite or non-finite morphology. As shown in (9), the tags are written between square brackets and attached in subscript to the verb. Original titles in the catechism were changed into smart headings, which allows easy location of the specific place of an example in the overall text in both versions.

(9) a. Kikongo
Mulongi a christão
ualudikilua$_{[-a\text{-}R\text{-}a]}$ *mu muaanu a* ***kubooba***$_{[inf]}$ *ya* ***kuvutuula***$_{[inf]}$,
munaa ***kulonga***$_{[inf]}$ *o aleeke*

b. French
Doctrine chrétienne,
ordonnée à la manière de parler et de répondre,
pour instruire les enfants.

For the study in Chapter 4, a multiple logistic regression analysis was performed on the corpus data through the computer software R (The R Foundation for Statistical Computing 1993-2018). The details of this statistical method are described in Chapter 4, Section 4.2.2.

1.3.3 Availability of the data

All the various types of data—i.e. the original sources in the documentation database and the BantUGent diachronic Kikongo corpus, the database of examples extracted from descriptive sources, fieldwork data (raw sound files and transcriptions), and corpus query data—may be requested from the *BantUGent - UGent Centre for Bantu Studies* research group.

1.3.4 Research methodology

This PhD thesis has as its main theoretical orientation comparative-historical linguistics. The studies in Chapters 2 and 3 focus on the comparative-typological pillar. The traditional methodology is followed in which data from various languages, taken from secondary sources, are discussed with respect to a broader grammatical category, in this case middle voice. Chapters 4 to 7 are all concerned with language variation, language change, and grammatical reconstruction. Three major research methodologies are employed: 1) historical-descriptive linguistics, 2) corpus linguistics, and 3) the Comparative Method.

The KLC is an interesting study area for empirical, diachronic research given the rich number of preserved historical documents. With the term 'historical-descriptive linguistics' we refer to the use of *linguistic descriptions* written in the past in order to study older stages of a language. This is basically the same method used for comparative linguistics, but here one compares secondary sources not from different languages but from different stages of the same language. The quality of the information which can be obtained from older linguistic descriptions varies considerably from one source to another. Moreover, one should always be aware of the social context in which these documents were written as well as of the intention of the author (Errington 2001). In order to highlight the fact that what is studied on the basis of these documents is not a real, natural language but a written reflection, the term 'doculect' is used to refer to these language varieties (Cysouw and Good 2013).

The exceptional *corpus of texts* written in KLC varieties from different periods of time also allows the empirical study of older stages of the languages, often in much more detail than is possible with language descriptions. In Chapter 4, a part of the Kikongo corpus covering four varieties from the 1920s is used to investigate the functional differences between two reciprocal suffixes. The results of the multiple logistic regression analysis contrast with the semantic descriptions of these suffixes provided in grammars of the same or closely-related KLC varieties. In Chapter 7, a diachronic Kisikongo corpus is explored with respect to changes in the expression of future and present tense. In this study, the diachronic corpus is used to its full potential. Corpus data from three periods of

time—namely 1624, 1895-1929, and 2011-2013—are confronted with the most important grammatical descriptions of Kisikongo for each of those three periods, i.e. Brusciotto à Vetralla (1659), Bentley (1887) and Ndonga Mfuwa (1995). In most cases, the corpus data provide a much more detailed picture of the uses of the relevant TA constructions than the information and examples from the descriptions.

Given that the historical documentation is fragmented and limited in time, the studies in this PhD thesis also make use of the Comparative Method—described as the "*sine qua non* of linguistic prehistory" (Harrison 2003: 213)—to fill in the blanks between attested stages and to reconstruct stages of language before the first written sources. As synthesised by Rankin (2003: 183):

> "The comparative method is a set of techniques, developed over more than a century and a half, that permits us to recover linguistic constructs of earlier, usually unattested, stages in a family of related languages. The recovered ancestral elements may be phonological, morphological, syntactic, lexical, semantic, etc., and may be units in the system (phonemes, morphemes, words, etc.,) or they may possibly be rules, constraints, conditions, or the like, depending on the model of grammar adopted. The techniques involve comparison of cognate material from two or more related languages. Systematic comparison yields sets of regularly corresponding forms from which an antecedent form can often be deduced and its place in the proto-linguistic system determined."

In Chapters 4 to 7 both derivational and conjugational verbal morphology is reconstructed, typically to PKK. Chapters 4 and 5 are mainly concerned with formal reconstruction, in the former of the complex reciprocal suffix and in the latter of common TA morphology. Chapter 6 deals with the formal and semantic reconstruction of one specific TA construction. In Chapter 7, the comparative method is applied in support of a diachronic hypothesis regarding the pivotal change in the paradigmatic shift of the Kisikongo present- and future-tense paradigm.

The reconstruction can be fairly straightforward when the cognates show little formal or semantic diversity cross-linguistically. This is for example the case in the reconstruction of the PKK **-a-R-a* construction in Chapter 6. However, for the formal reconstruction of the complex reciprocal suffix **-izyan* in Chapter 4 a series of three sound changes is proposed which explain at once the present-day variation and the reconstruction of the proto-form on the basis of that variation.

In any case, the reconstructions are based on the observation of cognates from as many varieties as possible. In reconstructing *form*, we base ourselves on sound changes in order to posit a plausible proto-form that accounts for the shape of its synchronic reflexes. To reconstruct the *semantics* of such a proto-form, however, a method was followed which is known in lexicography as 'mapping meaning onto use' (Hanks 2002). This method mainly relates to the synchronic study of word meanings for dictionary compilation, in which it is assumed that words have 'meaning potentials' which have to be extrapolated

from their actual use in context. To arrive at an extensive, and possibly exhaustive, overview of those meaning potentials, observations from big chunks of—preferably natural language—data have to be considered. The method is intuitively applicable to the semantic reconstruction of grammatical phenomena. The multiple temporal and aspectual interpretations of the *-a-R-a* construction in present-day KLC varieties, which are the outcomes of the interaction of the various aspectual tiers (Sasse 2002: 263), constitute the *uses* of the TA construction. These are described on the basis of the inventory of examples extracted from the documentation database and Kikongo text corpora, thus covering as many examples from as many varieties as possible. From these various readings or uses, a generic *meaning* is abstracted which is then proposed as the semantic component of the formal reconstruction.

1.4 Structure of the PhD thesis

This PhD thesis presents a collection of six co-authored articles which are in various stages of publication. These articles form the six main chapters. At the beginning of every chapter, the full bibliographical information of the article is provided. The order of the articles is not haphazard, but follows a structure that starts with the broad and general, and subsequently narrows in scale. This holds on two levels: a) the languages considered (i.e., Bantu > KLC > Kisikongo); and b) the topics (i.e., middle voice > neuter and reciprocal; tense/aspect > Dissociative Past Completive construction and Future-Present isomorphism).

Part 1 is titled 'Bantu verbal derivation and middle voice' and encompasses three chapters. The first, Chapter 2, deals with reflexes of five PB derivational affixes and reconsiders their functions and morphosemantics from a cross-Bantu perspective with respect to the comparative concept of middle voice. Chapter 3 focuses more specifically on one of these affixes, namely the neuter suffix **-ɪk*. It presents a cross-Bantu typology of construction types in which the suffix is attested, and discusses features of parametric variation and the historical relations which could underlie that variation. Chapter 4 presents a case study on the expression of reciprocity in the KLC. It is shown that the semantic difference between productive and natural reciprocity (e.g., English *hit each other* versus *wrestle*, respectively) is also formally differentiated by means of a complex and simplex reciprocal suffix respectively in a corpus of four KLC varieties from the 1920s. The distribution and compositionality of the complex reciprocal suffix is elaborated on, and it is furthermore reconstructed to PKK.

Part 2 is concerned with 'Tense and aspect in the Kikongo Language Cluster', and also contains three chapters. The first, Chapter 5, presents an overview of the most commonly

attested TA constructions and morphemes in the KLC. The diachrony of the TA constructions is furthermore assessed as retentions of PB reconstructions or reflexes of PKK TA morphology, or as late in-group innovations. The variation observed from the overview is then discussed in relation to the external and internal genealogy of the KLC as a specific subclade within West-Western/Coastal Bantu and as consisting of multiple subgroups. Chapter 6 offers a detailed semantic analysis at sentence level of reflexes of one TA construction, *-a-R-a*, in some 40-odd KLC varieties in order to arrive at a formal and semantic reconstruction in PKK. Part 2 closes with an in-depth diachronic case-study of a paradigmatic shift in Kisikongo relating to different Present and Future tense constructions. Chapter 7 discusses how the Kisikongo TA paradigm changed over the course of some 400 years on the basis of empirical evidence, and presents two hypotheses which could explain the observed diachronic variation. It is furthermore argued that two independent evolutions might have co-occurred and thus shaped the present-day Kisikongo TA paradigm.

Finally, conclusions are presented in Chapter 8. This chapter addresses the main objectives and goals outlined above in Section 1.1, and discusses to which extent these have been achieved. Lastly, some avenues for future research are outlined.

Part 1

BANTU VERBAL DERIVATION AND MIDDLE VOICE

Chapter 2 The middle as a voice category in Bantu: Setting the stage for further research

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Abstract

The main goal of this chapter is to give a first, general description of middle voice in Bantu. As will be shown, this language group has a set of verbal derivational morphemes that challenges some of the concepts related to the middle domain. First of all, as of yet no description has been found of a language having more than one middle marker, yet many Bantu languages have up to four or five derivational morphemes that cover several parts of the semantic domain of the middle. Secondly, provided that the polysemy patterns of these morphemes only partially cover what is generally considered the 'canonical' middle domain, we will call these 'quasi-middle' markers. The fact that these verbal morphemes also convey notions that are usually not considered to belong to the domain of the canonical middle calls for a reassessment of what constitutes the semantic core of this voice category cross-linguistically. Although the theoretical implications of these new data are not the central focus of our paper, the basic description that we aim to provide of the middle in Bantu can nevertheless contribute to further discussion on this intricate voice category.

Keywords

Bantu; middle voice; quasi-middle; verbal morphology

2.1 Introduction[16]

The middle voice is well-known to be a complex and sometimes messy linguistic category (Shibatani 2004: 1149). Although it has been described for a number of both older Indo-European (such as Greek, Sanskrit or Hittite; see, e.g., Jasanoff 1978, Allan 2003) and non-Indo-European languages (among many others, see Culy and Fagan 2001, Palancar 2004, Nagaya 2009), it has proven difficult, if not impossible, to establish a coherent set of core properties and to identify middle voice as a cross-linguistically and typologically valid concept (Kazenin 2001: 923). For our comparative and typologically-oriented Bantu research, we employ a working definition of the middle as a verbal category regularly encoded by means of verbal morphology (e.g. verbal suffix, type of inflection etc., typically called 'middle marker(s)' in the grammars of the corresponding languages; see Kemmer 1993: 15) that is used to encode a variety of closely related functions which (i) belong to the domain of voices and voice-related categories, (ii) focus the activity expressed by the base (most often, transitive) verb on one single argument, and (iii) syntactically, amount to intransitivisation of the base verb. In most languages where the grammatical tradition posits the category of the middle, the functions of the middle marker include the reflexive, the passive, the anticausative, the antipassive, and the reciprocal (which can be considered as the functional core of this category) as well as, very often, a few other related functions, such as autobenefactive or impersonal. Accordingly, the content of the category of middle can be considered as a cluster of both semantically and syntactically closely-related (usually associated with intransitivisation) functions (see Kulikov 2013: 265-266). In the event when a verbal marker is used to encode more than one (two or three) functions of the middle domain, which do not however encompass the major part of the middle domain, we will use the working term ‘quasi-middle’.

The main goal of our paper is to give a first, general description of middle voice in Bantu. The middle as a distinct voice category has never been the subject of systematic research in Bantu linguistics. This is largely due to the fact that Bantu languages do not have one single verbal suffix expressing the manifold grammatical functions and lexical

[16] We wish to thank Deo Kawalya (Makerere University) for the Luganda data, and the participants of the workshops ‘Verbal derivation and verb extensions in Bantu’ (6th International Conference on Bantu Languages, Helsinki, June 2016) and ‘Correlations of valency-changing operations within and across languages’ (46th Poznan Linguistics Meeting, Poznan, September 2016) for their useful feedback.

categories subsumed under middle voice. Rather, as we will show here, many Bantu languages make use of multiple derivational morphemes that denote only a part of the functions of the canonical middle domain. Although the properties of these verbal suffixes largely correspond to the four components of our definition of the middle, as we show in this chapter, the range of their functions never spans the entire middle domain. We therefore label them 'quasi-middles'. From a historical point of view, they might also be called 'proto-middles' in the sense that they could develop into canonical middles (see Grestenberger 2016: 138 et passim for a discussion of the Proto-Indo-European non-canonical middle, presumably a proto-middle).

In the typological literature, Bantu language data have either been neglected in discussions on the middle voice, or, still more regrettably, misinterpreted. In particular, Kemmer (1993: 26) categorizes the Bantu languages Changana (S53) and Pangwa (G64) as languages with a one-form middle system. This would mean that these languages have a single middle marker which is also used to denote reflexivity. However, as the overview in (10), which presents some of the examples cited by Kemmer (1993), shows, Changana does not have one, but (at least) two verbal morphemes that denote middle situation types.

(10) a. Reflexive/middle *ti-*

*ku **ti**-tekela*	'take for oneself' (p.17)	[indirect middle/ autobenefactive]
*ku **ti**-milela*	'germinate, sprout' (p.19)	[spontaneous event]
*ku **ti**-tsakela*	'be(come) happy' (p.21)	[emotive middle]
*ku **ti**-nwaya*	'scratch, rub oneself' (p.61)	[bodily action middle]

b. Reciprocal/middle *-an*[17]

*ku ring-**an**-a*	'be(come) similar' (p.107)	[naturally reciprocal event]
*ku hamb-**an**-a*	'be separate, different' (p.107)	[naturally reciprocal event]
*ku thlang-**an**-a*	'reunite, be reunited' (p.107)	[sociative middle]

Bantu languages have a rich set of verbal affixes, which are used for a diverse range of functions, such as co-reference of core arguments, tense-aspect-mood-negation, information structure, and certain types of verbal derivation (Bearth 2003, Schadeberg 2003, Nurse 2008a). Derivational suffixes immediately follow the verb root and are therefore also called 'extensions'. They are a typical feature of the Bantu verbal system. Several of those that are found in present-day Bantu languages have been reconstructed to PB (Meeussen 1967: 92). As can be seen in (11), most suffixes have a VC shape (Schadeberg 2003: 72). The common Bantu reflexive marker, reconstructed in PB as **(j)i-*

[17] In correspondence with common practice in Bantu linguistics, we reparsed what Kemmer considers to be the ending *-na* as the verb root extension *-an*, which is followed by the default final vowel *-a*.

(Meeussen 1967: 109-110), is to be distinguished from the derivational root extensions in that it is a prefix occurring in the verb morpheme slot that is reserved for object markers (see Marlo 2015). The names of these morphemes are adopted from Schadeberg (2003).

(11) List of PB reconstructions of derivational morphemes

***(j)i-**	**reflexive**
*-*i/-ici*	causative
*-*ɪl*	applicative
*-*ɪk*	impositive
***-ɪk**	**neuter**
***-am**	**positional (stative)**
***-an**	**associative (reciprocal)**
*-*ag* ~ *-ang*	repetitive
*-*al*	extensive
*-*at*	tentive (contactive)
*-*ʊl;* ***-ʊk***	**separative** tr.; **intr**. (reversive)
*-*ʊ/-ibʊ*	passive

In this paper, we discuss the middle status of the present-day reflexes of the five PB derivational morphemes marked in bold (Section 2.2). Although the semantics of other suffixes, such as the extensive *-*al* or the tentive *-*at*, might also be related to the middle domain, we discuss here those verbal suffixes for which the literature is vast enough to give a comparative and historical discussion. In Section 2.2, we provide an overview of the functions encoded by these morphemes: the neuter suffix *-*ɪk* (Section 2.2.1), the positional suffix *-*am* (Section 2.2.2), the associative suffix *-*an* (Section 2.2.3), the separative intransitive suffix *-*ʊk* (Section 2.2.4), and the reflexive prefix **(j)i-* (Section 2.2.5). At the end of each subsection a semantic map, based on Kemmer (1993), is provided showing the overlap between the canonical middle domain and the functions of the particular derivational morpheme. The typological implications of languages with multiple (quasi-)middle markers are sketched in Section 2.3. Finally, conclusions will be presented in Section 2.4. For the most part, data stem from either published (Bostoen et al. 2015) or unpublished (Bostoen 2010, Dom 2014) studies, or come from on-going research.

An important caveat to the general character of our description is that it is not our intention to classify these suffixes as quasi-middles in all Bantu languages. For each and every individual language, the four properties of our working definition of the middle voice have to be checked. We would only suggest considering a particular affix as a quasi-middle marker in a particular language, if in that language it exhibits a polysemy including two or more middle categories. With this study we provide important evidence for a typological research on the category of quasi-middle.

2.2 Middle status of Bantu derivational suffixes

2.2.1 The neuter suffix **-ɪk*

The neuter suffix is used in three types of constructions, of which the first type can be defined as derivations in which the corresponding object of the active clause is promoted to subject position, and the corresponding subject is demoted to an oblique position or omitted. This first type includes anticausative (12), agentless passive (13) and passive (14) constructions.

(12) Bena (G63) (Morrison 2011: 368)

a. *u-mu-ana* *a-haa-deeny-ile* *u-tu-bihi* *igólo*
AUG_1-CL_1-child SP_1-PST-break-FV AUG_{13}-CL_{13}-tree yesterday
'The child broke the twig yesterday.'

b. *u-tu-bihi* *tu-haa-deeny-**ih**-ile* *igolo*
AUG_{13}-CL_{13}-tree SP_{13}-PST-break-NT-FV yesterday
'The twig broke yesterday.'

(13) Chewa (N31b) (Dubinsky and Simango 1996: 751)
m-bale *zi-na-tsuk-**ik**-a* *(*ndi* *Naphiri)*
CL_{10}-plate SP_{10}-PST-wash-NT-FV by Naphiri
'The plates were washed (*by Naphiri).'

(14) Tumbuka (N21) (Chavula 2016: 65)
n-duna *zi-ka-cem-**ek**-a* *na* *Chikulamayembe*
CL_{10}-minister SP_{10}-PST-call-NT-FV by Chikulamayembe
'The ministers were called for by Chikulamayembe.'

These three derivations can usually, though not always, be clearly distinguished from each other. The anticausative alternation is typically restricted to the class of verbs that allow for both an agentive-transitive and a spontaneous-intransitive argument construction. Typically, the latter does not allow for oblique agentive phrases ('passive agent') and, moreover, lacks the agent role in its semantic structure, thus differing from the syntactically similar but semantically distinct agentless passive. By contrast, the (canonical) passive construction necessarily implies the presence of an agent participant, as shown for Ndebele (S44) in (15).

(15) Ndebele (Khumalo 2009: 168)

a. *isi-valo* *s-a-val-**ek**-a* *(*ngu* *Thabo)*
CL_7-door SP_7-PST-shut-NT-FV by Thabo
'The door closed (*by Thabo).'

b. *isi-valo* *s-a-val-w-a* *(ngu Thabo)*
CL_7-door SP_7-PST-shut-PASS-FV by Thabo
'The door was closed (by Thabo).'

The agentless passive construction combines features of the anticausative and passive. On the one hand, its argument structure is identical to that of the anticausative in that the patient is in subject position and the agent cannot be expressed, although it is still semantically implied (Kulikov 2011: 230-232). The latter thus also cannot be introduced in an oblique phrase. On the other hand, the semantics of the derived verbs do not allow for a spontaneous-intransitive reading, which differentiates it from the anticausative and makes it more like a passive construction. Such is the case in example (13) above, where a reading of the plates having washed themselves seems improbable, if not impossible in a real-world, non-magical interpretation. However, just as with the anticausative construction, agentive noun phrases make the sentence ungrammatical (see (13) above). Only in the event that the constraint of the lack of the agent/agentive noun becomes optional, does the functional range of the neuter morpheme expand so as to include passive proper. There is interesting syntactic variation across Bantu with regard to how extended neuter verbs pattern with oblique and instrumental phrases, adverbs, or purpose clauses, which is disscused in Chapter 3.

The second type of constructions marked by the neuter suffix are patient-oriented potentials. In these constructions, the subject is typically a patient-like participant to which a quality, denoted by the verb, is attributed. To this type belong potential passives (16) and facilitatives (17).

(16) Swahili (G42d) (Seidl and Dimitriadis 2003: 254)
Ø-godoro *li-na-lal-**ik**-a*
CL_5-mattress SP_5-PRS-sleep-NT-FV
'This mattress can be slept on.'

(17) Tswana (S31) (Creissels 2002: 403)
Mae a thubega motlhofo
màí *á-thúb-**ɛ́χ**-à* *mɔ̀tɬhɔ̀fɔ̀*
$CL_{6.}$egg SP_6-break-NT-FV easily
'The eggs break easily.'

As shown in (16), this type of constructions differs from the previous in terms of transitivity. Intransitive verbs, such as Swahili *lal* 'sleep', can be derived by the neuter with a potential passive reading, whereas anticausative and (agentless) passive constructions can only be derived from transitive verbs. Moreover, although in (17) the verb allows an anticausative derivation, the potential passive reading is construed through

the use of specific (non-completive, non-past) TAM inflections and the manner adverb *mɔ̀tɬhɔ̀fɔ̀* 'easily'.

The third and last type of constructions is restricted to perception verbs. Perception events typically involve a stimulus participant, namely something or someone that is perceived, and an experiencer participant that perceives the stimulus. One basic construal of a perception event is thus one in which the experiencer perceives the stimulus. Syntactically, the former is encoded as the subject argument and the latter as the object argument of the perception verb (as in the English example '*the teenager hears Led Zeppelin for the first time'*). Two types of modification of this basic construal are encoded by the neuter suffix. Both involve the syntactic demotion or omission of the experiencer participant from the core argument structure. In one construction, illustrated with a Ganda example in (18), the stimulus participant is encoded as the subject argument. Semantically, the focus is shifted from the experiencer in the basic construal to the perceivability (and sometimes certain observable qualities) of the stimulus (comparable English alternations between experiencer-oriented and stimulus-oriented construals involve *hear*/*sound* (*like*), *see/look* (*like*), *touch*/*feel* (*like*), *smell*/*smell* (*like*)). We therefore call this the stimulus construction. In the second construction, illustrated with a Logooli example in (19), the subject argument is non-referential, that is, a dummy subject. This construction expresses the pragmatic meaning of evidentiality.

(18) Ganda (UGent Luganda corpus compiled and queried by D. Kawalya)
[…] birabiké búlúngi nga bítereddé.
*bi-lab-**ik**-e* *bu-lungi* *nga* *bi-tereer-e*
SP_8-see-NT-SBJV CL_{14}-nice like SP_8-be_in_order-SBJV
'[…] so that they look nice as if they are in order.'

(19) Logooli (JE41) (Gluckman and Bowler 2016: 1070-1071)

a. Indirect evidentiality (hearsay)
*e-hol-**ek**-a*[18] *kuresa* *vu-geni* *vu-ar-ɛ* *vu-hare*
SP_9-hear-NT-FV like CL_{14}-party CL_{14}-COP-FV CL_{14}-good
'It sounds like the party was fun.'

b. Direct evidentiality (auditory)
*ga-hol-**ek**-a* *kuresa* *vu-geni* *vu-ar-ɛ* *vu-hare*
SP_6-hear-NT-FV like CL_{14}-party CL_{14}-COP-FV CL_{14}-good
'It sounds like the party was fun.'

[18] Other Logooli verbs can combine with a neuter suffix and be used in the evidential constructions in example (19). These include the cognition verb *many-**ek*** 'be known' and speech verb *vol-**ek*** 'be said'. Additionally, verb forms not derived by means of the neuter suffix can also participate in these constructions, such as *fan* 'seem' or the passivized verb form *sover-w* 'be believed' (Gluckman and Bowler 2016).

(19)a and (19)b differ in evidentiality (indirect vs. direct). The former is conveyed, on the one hand, by using the subject prefix of class 9 on the derived perception verb. This would, for example, be uttered by a speaker who has been told that the party was good. Direct evidentiality, on the other hand, is expressed through the use of the class 6 subject prefix, i.e. (19)b would be uttered when overhearing a loud party in a neigbouring room.

Having outlined the three types of constructions in which the neuter is used, it is evident that this suffix is not a prototypical middle marker. Its locus in the middle domain spans only patient-oriented constructions. This is shown in Figure 5, where a semantic map of the cross-Bantu functional range of neuter **-ɪk* is plotted on the conceptual space of the middle domain as proposed in Kemmer (1993: 202).[19] Nevertheless, in many Bantu languages, neuter **-ɪk* does conform to the definition of the middle morpheme as encoding a "cluster of deagentivized (intransitivized) syntactic patterns" (Kulikov 2013: 265) that focus the activity expressed by the base verb on one single argument (subject).

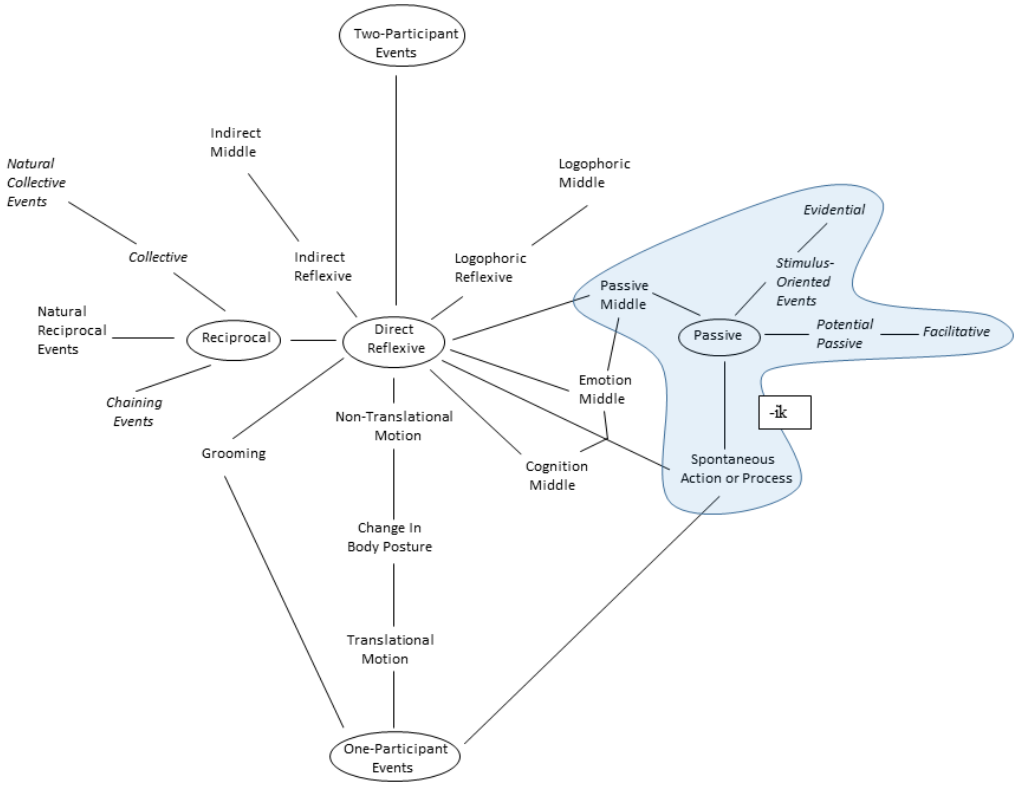


Figure 5. The cross-Bantu semantic map of functions of neuter **-ɪk* plotted on the conceptual space of the middle domain (adapted from Kemmer 1993).

[19] Some categories relevant for Bantu middle voice have been added to the original conceptual space. These are written in italics.

2.2.2 The positional suffix **-am*

In most Bantu languages, this suffix does not affect the argument structure of the verb. Rather, as Schadeberg (2003: 75) writes, "the common element of meaning is 'assuming a position', or - when used in a perfective aspect form - 'to be in a position'". According to this definition, the semantic value of this morpheme is closely related to middle situation types of non-translational motion and change in body posture (Kemmer 1993: 55-56). However, the various meanings of reconstructed PB verbs extended with **-am* given in (20), from the Bantu Lexical Reconstructions 3 database (Bastin et al. 2002), indicate that the semantic range is considerably larger than 'positional' only.[20]

(20)

Positional	
bát-am**	'be(come) flat or level'; 'lie flat'
dòd-am**	'be(come) straight'
bók-am**	'sit'
Spontaneous	
pák-am**	'be(come) jammed', 'be(come) wedged'
còm-am**	'be(come) inserted', 'put in'
bomb-am**	'be(come) wet'
Non-translational motion	
jìn-am**	'bend over'
jác-am**	'open the mouth'; 'yawn'
pàp-am**	'flap wings', 'flutter'
Emotion	
bòng-am**	'be(come) sad'
cɔn-am**	'get/be in a bad mood'
dáp-am**	'be(come) greedy in eating'
Translational motion	
dòng-am**	'go straight'
búg-am**	'paddle'
tent-am**	'go at the top of'
Cognition	
dúd-am**	'forget'

[20] As one reviewer noted, the roots of these PB verbs having the **-am* suffix are not reconstructed without this suffix. They are deponents in the sense of Kemmer (1993: 22), viz. "[middle marked] verbs [that] lack unmarked counterparts." We nevertheless analyse these verbs as [root+suffix] on the basis of the formal criteria that in Bantu verb roots have the morphophonological structure CV(NC), and that any verb base with a longer morphophonological structure includes derivational morphology (Schadeberg 2003: 71-72).

Interestingly, in several Bantu languages, especially those spoken in the vicinity of the Middle and Lower Congo River, the positional suffix has become the canonical passive marker (Grégoire 2003: 365, Schadeberg 2003: 76), as in the Lingala (C36d) example in (21). A similar shift has been observed in vehicular Kikongo (Fehderau 1962) (22), also known as Kikongo ya Leta (H10A), Kituba (H10A) or Monokutuba (H10B), as well as in certain vernacular Kikongo varieties (Kisilu Meso 2001: 32, Kouarata 2015: 89).

(21) Lingala (Meeuwis 2010: 155-156)

mbóngo	*e-bómb-**ám**-ákí*	*na*	*moyíbi*
money	$SP_{3SG.INAN}$-hide-PASS-PST	by	thief

'The money was hidden by the thief.'

(22) Kituba (Fehderau 1962: 72)

mu-kanda	*Ø-me-tang-**am**-a*	*na*	*m-pangi*	*na*	*mono*
CL_3-book	SP_3-PST-read-PASS-FV	by	CL_9-brother	of	me

'The book was read by my brother.'

The list of Mongo verbs in (23) illustrates that in these languages the positional both occurs with verbs denoting middle situation types and encodes passive derivation.

(23) Mongo (Hulstaert 1957, 1965: 247-250)[21]

a. **Middle**

*kák-**em*** 'hang up (intr.)'
*kól-**am*** '(be) strand(ed), get stuck'
*kɔf-**am*** 'hang (oneself)'
*kuk-**am*** 'be attached/stuck against (sth.)'
*tél-**ɛm*** 'stand up/be standing'

b.

Active		**Passive**	
lak	'teach'	*lak-**em***	'be taught'
lel	'want, desire'	*lel-**am***	'be desired, wanted'
sál	'cut'	*sál-**em***	'be cut'
san	'play (sth.)'	*san-**em***	'be played'
tómb	'carry'	*tomb-**am***	'be carried'

In Figure 6, the semantic map of the positional **-*am* is projected on the conceptual space of the middle domain.

[21] When °-*am* immediately follows a verb root with vowel [a], the suffix is realized as -*em*, or in case of a root with vowel [ɛ] it is realized as -*ɛm*. In all other cases the suffix is realized in its underlying form (Hulstaert 1965: 247).

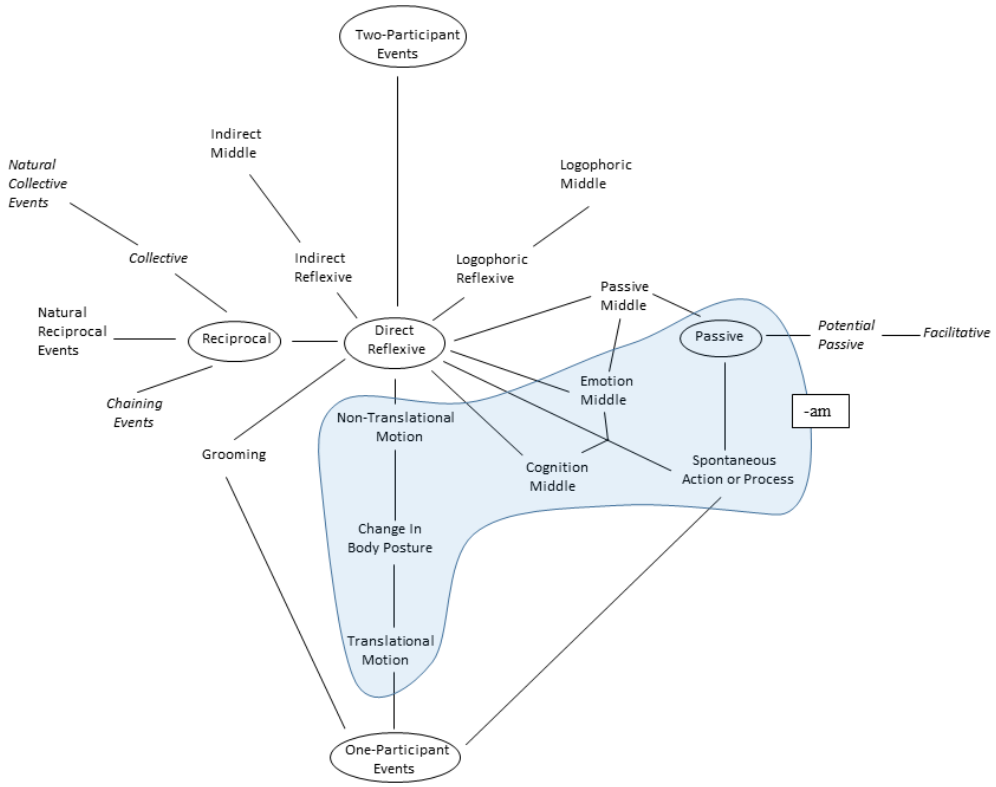


Figure 6. The cross-Bantu semantic range of positional **-am* plotted on the semantic map of the middle domain (adapted from Kemmer 1993).

2.2.3 The associative suffix **-an*

Reflexes of the associative suffix **-an* encode in Bantu languages what is more generally known as sociative and reciprocal derivation (Nedjalkov 2007a). This extension is notoriously polysemous. Bostoen et al. (2015) give an extensive, cross-Bantu overview of its varied uses. They include the fourteen grammatical categories and lexical classes listed in (24).

(24) a. **Grammatical categories**
antipassive
comitative
intensive/extensive
iterative
mediopassive
potential
reciprocal
sociative/collective

b. **Lexical classes**
body-action events
chaining events
cognition events
natural-collective events
natural-reciprocal events
spontaneous events

Even though this high polysemy is remarkable per se, some functions still spark more interest than others, if one acknowledges that sociativity/reciprocity constitutes the semantic core of this morpheme. The main goal of Bostoen et al. (2015) is to give antipassive voice recognition in Bantu linguistics, which was often neglected or referred to with idiosyncratic terminology in descriptions of individual languages. From a typological perspective, however, the diachronic path in which reciprocal markers extend their usage to include antipassive function is not uncommon cross-linguistically (Nedjalkov 2007b: Section 9.2, Janic 2016: Section 7.4), and thus well-known among general linguists. As illustrated in (25), Rundi (JD62) is a Bantu language where associative *-an* also marks the antipassive.

(25) Rundi (Bostoen et al. 2015: 736)
a-ma-hwá *a-ra-zibur-**an**-a*
AUG_6-CL_6-thorn SP_6-PRS.DISJ-prick-ASS-FV
'Thorns prick (people).'

Generally speaking, the polysemy of the associative suffix can be semantically accounted for through the cross-linguistically common concept of 'plurality of relations' (Lichtenberk 2000, Janic and Segerer 2011, Bostoen et al. 2015: Section 3.5). In some languages, however, the associative has acquired functions that cannot be explained in this way. It can be used as a comitative suffix introducing an instrumental participant, such as *mondó* 'tail' in the Duala (A24) example in (26). In Bantu, instrument-like participants are generally rendered by prepositional phrases. In example (27)a from Rwanda (JD61), the associative *-an* promotes the manner NP *ûmweête* 'enthusiasm' to direct object, although the common strategy with the comitative preposition *na* is also still available as in (27)b.

(26) Duala (Helmlinger 1972: 399)
náka *e-ma-bol-**an**-ɛ* *mondó* *ó* *pang-**an**-ɛ*
CL_9.cow SP_9-PRS-do-ASS-FV CL_3.tail to chase-ASS-FV
ngingi
CL_{10}.mosquito
'The cow uses its tail to chase away mosquitos.'

(27) Rwanda (Kimenyi 1988: 369)
a. Associative as instrumental marker
u-mu-góre *a-rá-kôr-**an**-a* *akazi*
AUG_1-CL_1-woman SP_1-PRS-work-ASS-FV work
u-mw-eête
AUG_3-CL_3-enthusiasm
'The woman is working with enthusiasm.'

b. Instrumental preposition *na*

u-mu-góre	*a-rá-kôr-a*	*akazi*	***n'***	*û-mw-eête*
AUG_1-CL_1-woman	SP_1-PRS-work-FV	work	with	AUG_3-CL_3-enthusiasm

'The woman is working with enthusiasm.'

More relevant to our discussion on the middle voice are Bantu languages in which associative *-an* marks a number of middle situation types. Again, some of these have close connections to its core meaning of sociativity/reciprocity, such as natural reciprocal, sociative and chaining events. However, it is also found with middle meanings that are further removed from its semantic core, such as body action, cognition and spontaneous events. These different middle situation types are illustrated for various Bantu languages in (28) and (29).

(28) Verbs denoting middle situation types marked by the associative

a. Natural reciprocal and sociative events in Luba (L31a) (Kabuta 2008)
   *fwàng-**an*** 'discuss' (p.107)
   *fw-**àn*** 'resemble' (p.107)
   *pùùk-**an*** 'find, meet, bump against; succeed' (p.285)
   *sang-**an*** 'find, meet' (p.291)

b. Body action and cognition/emotion events in Fang (A75) (Bostoen and Nzang-Bie 2010: 1279-1280)
   *tsim-**a***[22] 'wipe one's arse'
   *fɔl-**a*** 'change oneself, change clothes'
   *wúr-**á*** 'huddle up, flinch, wince'
   *kɔr-**a*** 'fold (arms, hands), cross (legs)'
   *yá-**á*** 'get angry'
   *zob-**a*** 'regret, be embarrassed by unpleasant news, be sad'
   *sím-**á*** 'remember, think'

c. Spontaneous events in Orungu (B11b) (Ambouroue 2007: 188)
   *ßúr-**àn*** 'bend (intr.)'
   *ßàndy-**àn*** 'scatter (intr.)'
   *yìr-**àn*** 'flow'
   *wɔ̀ndy-**àn*** 'become wounded'

[22] In this language the reflex of PB **-an* is the suffix *-a*.

(29) Lingala (Bostoen et al. 2015: 750)
*mí-tuka mísátu e-tút-**án**-í*
CL_4-car three $SP_{3PL.INAN}$-hit-ASS-PRF
'Three cars have bumped into one another.'

In contrast to the neuter, the functional range of the associative is mainly centred on agent-oriented constructions and situation types. This is visualized in the semantic map representation of the cross-Bantu functional range of the associative in Figure 7.

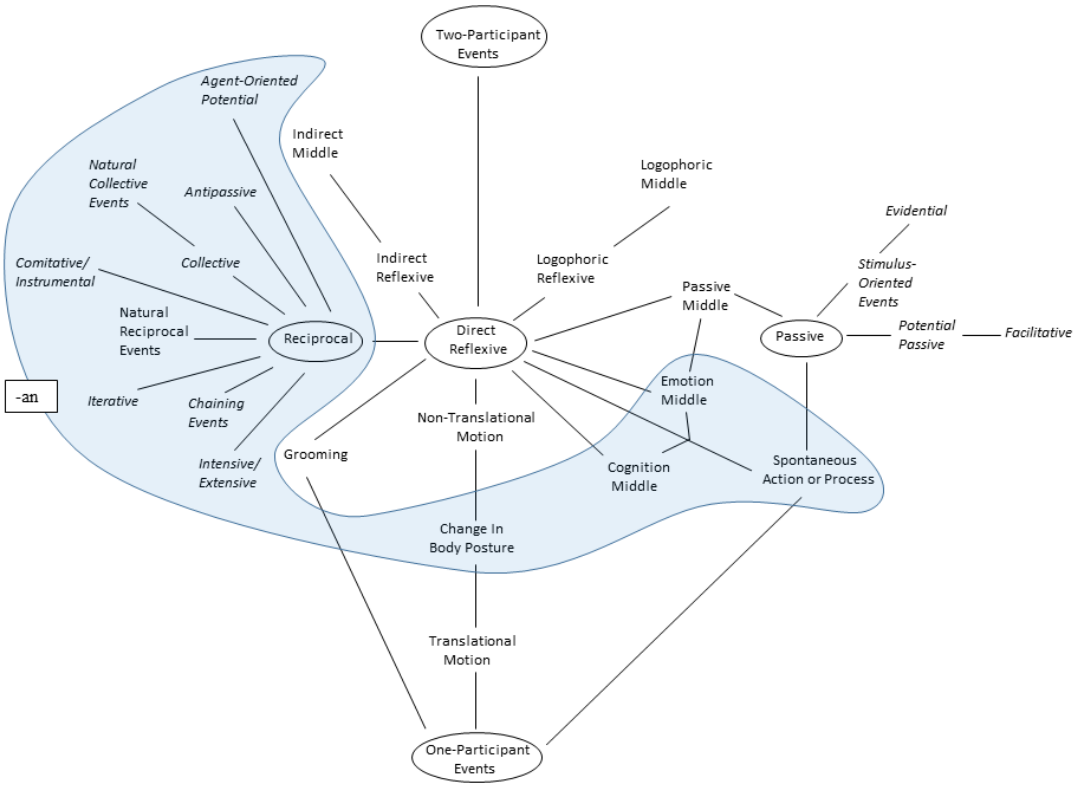


Figure 7. The cross-Bantu semantic map of associative **-an* plotted on the conceptual space of the middle domain (adapted from Kemmer 1993).

2.2.4 The separative intransitive suffix **-ʊk*

The PB separative suffixes **-ʊd* and **-ʊk* have reflexes throughout the Bantu domain. Schadeberg (1982, 2003) reconstructs 'movement out of some original position' as their core meaning. As is the case for the positional suffix *-am*, the derivational function of this suffix pair is semantic rather than syntactic in nature. In terms of valency-changing effects, they are in complementary distribution: reflexes of **-ʊd* generally appear on syntactically transitive verb forms, while reflexes of **-ʊk* commonly appear on syntactically intransitive verb forms. As is shown for Swahili in (30), not every verb root is necessarily found with both suffixes. Moreover, an underived verb root is often not

attested in present-day Bantu languages and in some cases cannot be reconstructed to earlier stages or to Proto-Bantu.

(30) Swahili (Racine 2015: 42, 49, 55)

Transitive	**Intransitive**
*bag-**u*** ‘separate, divide’	*bag-**uk*** ‘be separated, divided’
*nas-**u*** ‘set free from a trap	–
–	*f-**ok*** ‘spill over’

Here we focus only on the intransitive suffix, whose PB reconstructions as listed by Schadeberg (1982) can all be classified into middle situation types (31).

(31) Classification of PB *-*ʊk* verbs from Schadeberg (1982: 61-65) into middle situation types

a. **((Non-)Translational) Motion**

jíb-ʊk***	‘come out of water’
jìn-ʊk***	‘straighten oneself, go home from work’
jín-ʊk***	‘come out of water’
jíd-ʊk***	‘run’
kíd-ʊk***	‘jump over’
kéb-ʊk***	‘look around/behind’
jèp-ʊk***	‘avoid, get out of the way’
tá-ʊk***	‘come out/from’
jàb-ʊk***	‘cross river’
gàd-ʊk***	‘come/go back’
cóm-ʊk***	‘come out’
kòt-ʊk***	‘go home from work’
kù-ʊk***	‘come out’
gòd-ʊk***	‘fly’
pód-ʊk***	‘escape’
tóʊd-ʊk***	‘come/go down’
bót-ʊk***	‘run’
bút-ʊk***	‘come/go back’

b. **Change in body posture**

jím-ʊk***	‘stand up’
pì(n)d-ʊk***	‘turn over, alter (intr.) (also spontaneous event)
támb-ʊk***	‘walk, travel’

c. **Spontaneous event**

dì-ʊk***	‘revive (intr.)’
tìtim-ʊk***	‘be startled, wake up’
jít-ʊk***	‘startled’

*cèd-**ʊk** ‘boil up, froth up’
*pép-**ʊk** ‘light in weight, get blown away’ (also stative)
*dàm-**ʊk** ‘wake up (intr.)’
*kám-**ʊk** ‘dry up (intr.)’
*jamb-**ʊk** ‘spread (as a disease or fire)’
*báb-**ʊk** ‘singe (intr.)’
*bad-**ʊk** ‘split (intr.)’
*gàd-**ʊk** ‘turn, alter’
*jáp-**ʊk** ‘separate, split (intr.)’
*ját-**ʊk** ‘split (intr.)’
*móny-**ʊk** ‘break off (intr.)’
*tòtʊm-**ʊk** ‘boil up/over’
*tòmb-**ʊk** ‘burst open’
*còb-**ʊk** ‘have a rash’
*dú-**ʊk** ‘fall off (of clothes)’

d. **Cognitive**
*jìb-**ʊk**/jìj-**ʊk** ‘remember’
*kòmb-**ʊk** ‘remember’

e. **Stative**[23]
*déd-**ʊk** ‘be light’
*cóng-**ʊk** ‘be sharp, pointed’
*god-**ʊk** ‘be straight’
*có-**ʊk** ‘be ugly’

In Cuwabo (P34), the separative intransitive is still used to mark different middle situation types, such as change in body posture (32), translational motion (33), emotion events (34), and spontaneous processes (35).

(32) *a-zugún**úw**-á* *a-dh-á* *a-malríh-a*
SP_1-turn_round-FV.SEQ SP_1-come-FV.SEQ SP_1-finish-FV.SEQ
dhi-ója *a-já* *a-eká*
CL_{10}-food SP_2-eat-FV.SEQ CL_2-alone
‘He (the cat) turned round, came to finish the food alone’
(Guérois 2015: 684)

[23] The English translational equivalents with attributive predicates ‘be PROPERTY’, as provided in the original source, would imply that the events denoted by these verbs are stative. However, it cannot be ruled out that these were actually spontaneous change-of-states, that is, ‘be*come* PROPERTY’. In that case, these verbs would be classified as spontaneous events rather than (true) statives.

(33) *o-hí-búdd**úw**-a* *mú-nddímúwa* *mwáná-kálâba*
SP_1-PFV.DISJ-go_out-FV CL_1-old_man CL_1.child-CL_{1a}.senior
'An old man came out.'
(Guérois 2015: 613)

(34) *ábále* *ddabunó* *a-oté=éne* *a-hi-jíbúl**uw**-a*
CL_2.DEM_{III} then CL_2-all=INT SP_2-PFV.DISJ-get_upset-FV
'All those around got upset.'
(Guérois 2015: 624)

(35) *á-yíma* *ábá* *a-hí-ún**úw**-a* *va-ñgónó* *va-ñgónó*
CL_2-child CL_2.DEM_I SP_2-PFV.DISJ-grow-FV CL_{16}-little CL_{16}-little
'These children grew up little by little.'
(Guérois 2015: 607)

The Cuwabo reflex of the separative intransitive suffix **-ʊk* has acquired a passive function and now coexists in this language with the regular reflex *-iw* of the PB passive suffix **-ibʊ* (Guérois and Bostoen 2016, Forthcoming). This change parallels the extension of the positional suffix *-am* to passive meanings in several northwestern Bantu languages (see Section 2.2.2). In Cuwabo, both the innovated passive suffix *-uw* and the inherited passive suffix *-iw* can collocate with an oblique agentive phrase (36).

(36) a. *gulúwé* *e-hí-p-**iw**-á* *na* *mú-lóbwana*
CL_9.pig SP_9-PFV.DISJ-kill-PASS-FV by CL_1-man
'The pig was killed by the man.'
(Guérois and Bostoen Forthcoming)
b. *mí-ri* *dhí-ni-ó-j-**uw**-á* *na* *nyenyéle*
CL_4-tree SP_4-IPFV.DISJ-CL_{15}-eat-PASS-FV by CL_{10a}.ant
'The trees are being eaten by the ants.'
(Guérois 2015: 339)

As far as we know, Cuwabo is the only language where this specific semantic extension of the separative intransitive from marking middle situation types to a canonical passive marker has taken place. With many Bantu languages still remaining un(der)described, future research might lead to the discovery of other languages where this development is attested.

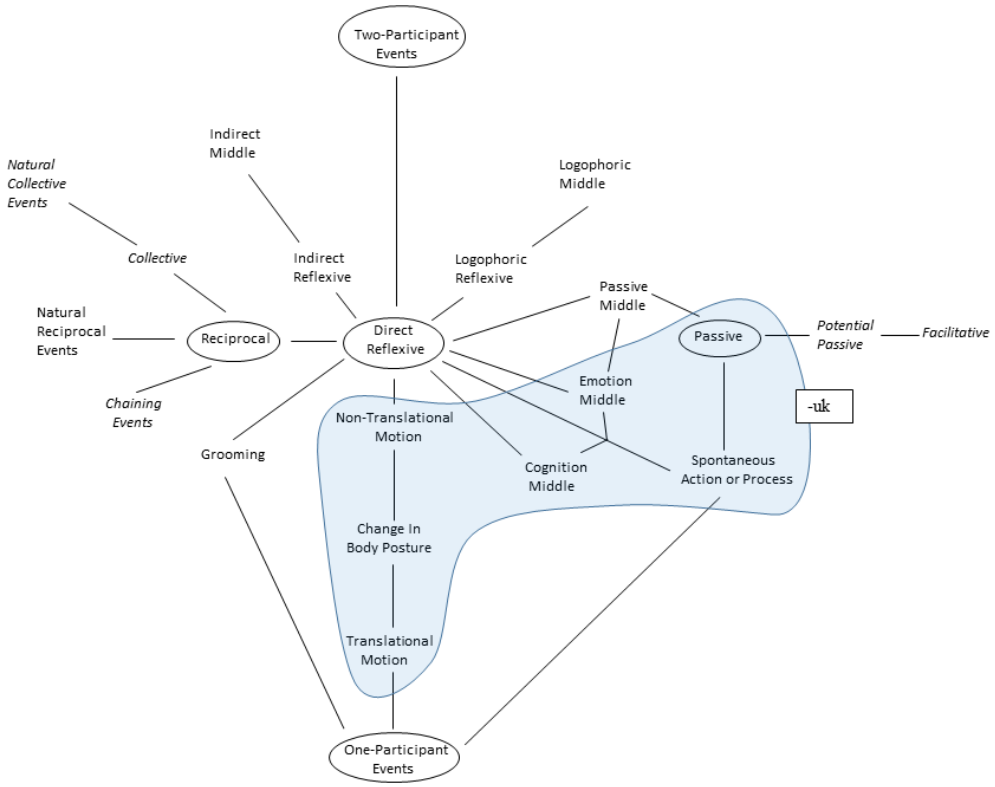


Figure 8. The cross-Bantu semantic map of separative intransitive **-ʊk* plotted on the conceptual space of the middle domain (adapted from Kemmer 1993).

As shown in Figure 8, apart from the canonical passive, only reported to be associated with the reflex of **-ʊk* in Cuwabo, the separative intransitive suffix most commonly occurs with a wide range of verbs denoting middle situation types, which are actually the same as those covered by the positional suffix **-am* (see Figure 2). The strong overlap between the range of meanings of these suffixes can be attributed, at least partly, to the fact that **-am* did not originally convey the notion of movement out of some original position (see Section 2.2.2). Future comparative research on the functional domains of both suffixes in individual Bantu languages could shed more light on how they interact more specifically within the middle domain.

2.2.5 The reflexive prefix **(j)i-*

Kemmer (1993) provides some examples of the reflexive marker *ti-* in Changana encoding middle situation types. Examples are shown in (10)a, repeated here as (37).

(37) Reflexive/middle *ti-*

*ku **ti**-tekela*	'take for oneself' (p.17)	[indirect middle/autobenefactive]
*ku **ti**-milela*	'germinate, sprout' (p.19)	[spontaneous event]

ku ***ti****-tsakela*	'be(come) happy' (p.21)	[emotive middle]
ku ***ti****-nwaya*	'scratch, rub oneself' (p.61)	[bodily action middle]

In a number of South-Western Bantu languages spoken mainly in Angola, the polyfunctionality of the reflexive not only extends to marking verbs denoting middle situation types, but also includes reciprocal derivation. Such is the case in Kwamashi (K34), where the reflexive prefix *cí-* is used for both the reflexive (38)a, middle situation types (38)b and reciprocal (38)c.

(38) Kwamashi (Bostoen 2010: 1-2)

a. Reflexive

thaur	'scratch'	>	***cí-****thaur*	'scratch oneself'
ó	'wash'	>	***cí-****ó*	'wash oneself'

b. Middle situation types

cí-*eng*	'dress well, wear ornaments'	[grooming]
cí-*nek*	'stand on tiptoe'	[change in body posture]
cí-*ub*	'be at peace'	[emotion]

c. Reciprocal

*ka-tú-****cí****-mon-ine*	*rero*
NEG-SP_{1PL}-RECP-see-PRF	today

'We haven't seen each other today.'

The historical associative suffix **-an*, the most commonly used suffix for reciprocity in Bantu, has lost its productive derivational function as a reciprocal marker in Kwamashi and is only retained in a number of lexicalized verbs denoting middle situation types, as shown in (39)a. However, the reflexive-reciprocal polysemy has become so pervasive that *cí-* is now also used with verbs denoting naturally reciprocal events (39)b.

(39) Kwamashi (Bostoen 2010: 3)

a.

*hang-****an***	'meet'
*kan-****an***	'contradict, oppose'
*ngum-****an***	'assemble, gather'
*kwash-****an***	'lie flat'
*tand-****an***	'roll in pain'
*lyang-****an***	'be confused'
*mbutum-****an***	'muse'

b.

cí-*andhiper*	'quarrel'
cí-*cídh*	'race, compete'
cí-*hand*	'divorce'
cí-*hat*	'be near to, neighbours with'
cí-*pitur*	'look alike, be equal'

cí-*siny* ‘barter, exchange’

In other languages where the reflexive is involved in reciprocal derivation, it is often combined with the associative. The latter, however, cannot be used individually to denote reciprocity. In Songye (L23), for example, reciprocal derivation is marked by a combination of the reflexive prefix *i-* and the suffix *-een*, which is presumably a historical merger of the associative (°-*an*) and applicative (°-*il*). This is illustrated in example (40).

(40) Songye (Stappers 1964: 27)

*ku-**i**-lek-**éen**-a*	‘to leave each other’
*ku-**i**-dil-**éen**-a*	‘to mourn each other’
*ku-**i**-fut-**éen**-a*	‘to pay each other’
*ku-**i**-sep-**éen**-a*	‘to laugh at each other’
*ku-**i**-ab-**éen**-a*	‘to divide amongst each other’
*ku-**i**-el-**éen**-a*	‘to bombard each other’

In still other languages, such as Kaonde (L41) and Sanga (L35), the reflexive and associative seem to be used in free variation as reciprocal markers (Bostoen 2010: 5). In Lunda, the associative has become largely lexicalized, but is still used as a reciprocal marker with a limited set of verbs next to the reflexive, which is the productive marker for reciprocity (Kawasha 2003: 325-326). Additional issues still remain to be studied and described in more detail, such as how these languages disambiguate reflexives with plural subject NPs and reciprocals. Hilde Gunnink (p.c.) reports that in Fwe (Zambia, Namibia), where reflexive-reciprocal polysemy is attested, the context and lexical semantics of the verb most often do not evoke ambiguity. However, if both a reciprocal and a reflexive reading would be available, speakers of Fwe can resolve the ambiguity by adding either *omuntu nomuntu* ‘each other’ or *-eni* ‘self, owner’ (see also Gunnink 2018: 284). Nevertheless, our main goal here is to point out that in certain Bantu languages, the reflexive prefix functions as a quasi-middle marker denoting additionally middle situation types and/or reciprocity. Figure 9 shows a semantic map of the reflexive’s attested polysemy as a quasi-middle marker. Very often these middle situation types are overlooked in Bantu grammar studies for the reflexive prefix.

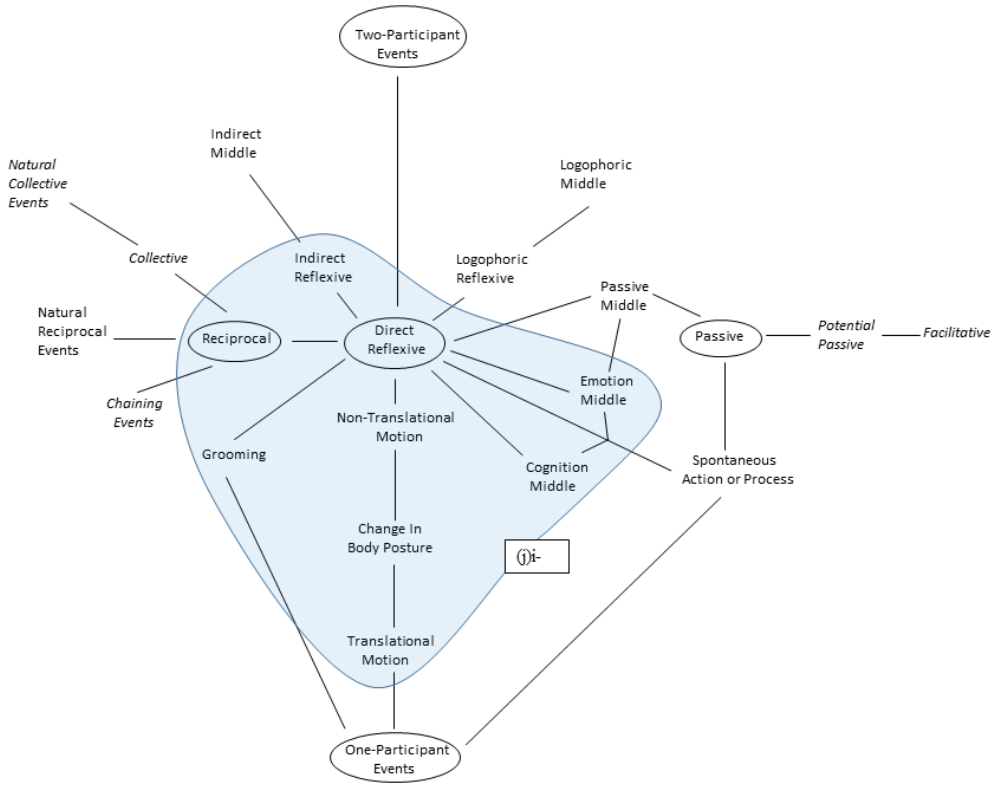


Figure 9. The cross-Bantu semantic map of reflexive prefix **(j)i-* plotted on the conceptual space of the middle domain (adapted from Kemmer 1993).

2.3 Middle voice in Bantu from a typological perspective

The fact that a group of closely related functions is commonly denoted by a single verbal morpheme cross-linguistically and is often referred to as middle voice in traditional grammars has led Kemmer (1993: 24-26) to develop a typology of middle marking systems. Kemmer's typology, briefly outlined in (41), is based on the relationships between the reflexive and middle morphemes.

(41) Typology of middle marking systems according to Kemmer (1993)

a. **One-form middle system**
The middle marker is formally identical to the reflexive marker.
e.g. German: *Er sieht* ***sich*** 'He sees himself' (reflexive) vs. *Er fürchtet* ***sich*** 'He is afraid' (middle)

b. **Two-form cognate system**
   The middle marker is similar, but not identical to, the reflexive, often being a shorter, i.e. phonologically 'lighter', form of the 'heavier' reflexive. The formal similarity is mostly due to a historical relation between the two.
   e.g. Russian: *Ivan uvidel* ***sebja*** 'Ivan saw himself' ((heavy) reflexive) vs. *On utomil-**sja*** 'He got tired' ((light) middle)
c. **Two-form non-cognate system**
   Middle marker is morphologically distinct from the reflexive marker.
   e.g. Turkish: *kendi-* (reflexive marker) vs. *-In-* (middle marker)

Kemmer (1993) thus only considers a given morpheme to be a true middle marker if it is the sole marker of the middle voice within a language's verbal derivation system. We have therefore preferred to call the Bantu verbal morphemes discussed above 'quasi-middle' markers. Nevertheless, they still cover multiple grammatical categories and situation types that belong to the semantic domain of the middle. We could thus consider Bantu languages to be a fourth type within Kemmer's (1993) typology, namely a **multiple-form system**. In such a system, multiple verbal morphemes cover different parts of the canonical middle, sometimes conveying meanings situated on the periphery of the canonical middle domain. In most Bantu languages, the semantic space of the middle voice seems to be organized along two domains, which can be qualified as agent-oriented vs. patient-oriented functions. On the one hand, reflexes of the associative suffix **-an* (see Section 2.2.3) tend to be agent-oriented, although they have become unproductive and lexicalized in several present-day languages, thus paving the way to the quasi-middle in form of the reflexive-reciprocal polysemy (see Section 2.2.5). On the other hand, the neuter (Section 2.2.1), the positional (Section 2.2.2) and the separative intransitive (Section 2.2.5) cover the patient-oriented part of the middle domain. Eventually, all three categories have the potential to develop into a variety of the quasi-middle that includes canonical passive use. Which of the three suffixes – if any – ultimately undergoes this innovation is a language-specific change. The extension of the neuter and separative intransitive suffixes to passive use seems to be marginal when compared to the similar evolution of the positional suffix *-am*. This can be seen in the extremely low number of languages using the neuter or separative intransitive as a passive suffix compared to the number of those using the positional. Nevertheless, these three suffixes might still have middle meanings in those languages where they have not developed a canonical passive function.

2.4 Conclusion

Several polysemous Bantu verbal morphemes cover large parts of the functional domain which is generally considered the canonical middle voice. Although neither of them covers the majority of the subcategories subsumed under the canonical middle voice and therefore cannot be considered a 'canonical' middle, these morphemes divide up the semantic space of the middle voice into different smaller, but still multifunctional semantic units. There seems to be a general distinction between morphemes whose semantics can be qualified as agent-oriented, such as the associative and reflexive, and others which exhibit patient-oriented semantics, such as the neuter, the intransitive separative and the positional. From a typological point of view, Bantu languages can therefore be categorised as languages with multiple-form middle systems. Future typological research should bear out whether other languages of the world have similar quasi-middle systems and uncover their typological features. As for future descriptive research on Bantu languages, it will be beneficial to consider these five verbal morphemes as quasi-middle markers. Bantu scholarship should push the semantic analysis of the verbal categories in question beyond the most common notions reconstructed to PB in order to obtain a more adequate, comprehensive and refined understanding of their rich polysemy.

Chapter 3 The neuter in Bantu: Some typological thoughts on a valency-decreasing derivational suffix

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Introduction to the special issue *Valency-decreasing derivations and quasi-middles in Bantu.*

3.1 Introduction

In this chapter, we argue that the notion of the middle domain as a conceptual space is relevant for the description of a number of verbal derivational morphemes commonly found in Bantu languages. The affixes discussed in Chapter 2 are (reflexes of) the PB reflexive **(j)i-*, the neuter **-ɪk*, the positional **-am*, the associative **-an*, and the intransitive separative **-ʊk*, the labels for these affixes being adopted from Schadeberg (2003). In the linguistic literature on Bantu languages, the number of descriptive studies dedicated to some of these affixes, such as the neuter, positional or intransitive separative, is rather low compared to other Bantu morphological derivational categories such as the applicative, causative, passive and associative. This chapter focuses on one of these valency-decreasing suffixes understudied in Bantu scholarship, namely the neuter **-ɪk*.

The chapter is structured as follows. In Section 3.2, we give a general and broad characterization of the concept 'middle voice', and elaborate briefly how we envision it as a useful concept for the analysis of derivational verbal morphology in Bantu. In Section 3.3, we present a cross-Bantu typology of construction types marked by the neuter suffix **-ɪk*, followed by an overview of a collection of new studies on middle voice building on Chapter 2 and a critical discussion of previous analyses pertaining to syntactic properties attributed to the neuter in the older literature.

3.2 Middle from a cross-linguistic perspective

Middle voice is a notoriously complex, vague and ill-definable linguistic category, which remains the subject of vivid debate in typological and general linguistic scholarship (e.g., Kazenin 2001: 923, Shibatani 2004: 1149). There exists a rich literature on the topic, where several aspects of the middle voice are discussed and elaborate semantic definitions, often differing from one author to the other, are offered. In spite of the considerable variety of approaches, two main types of the usages of the term 'middle' can be gleaned from linguistic works (see also Manney 1998: 16):

a. Middle as a **verbal (morphological)** category which is encoded with verbal affixes or free morphemes (typically, clitics), belonging to a broad domain of voice-related categories and thus typically referred to as 'middle voice' (see, e.g., Kulikov (2013));

b. Middle as a **lexical** category, encompassing a complex conceptual space which includes multiple distinct but related 'situation types' (Kemmer 1993) or semantic (lexical) classes.[24]

The term 'middle (voice)' originates in the Indo-European linguistic tradition, eventually going back to Ancient Greek grammatical terminology. In early descriptions of individual Bantu languages, heavily influenced by the grammars of (Indo-)European languages, the term 'middle voice' is not infrequent. For example, Bentley (1887: 621-627) very precisely and clearly describes a specific verbal category for Kisikongo, labelling it as 'middle voice' with a surprisingly apt definition:

> "There is a third voice to nearly all Kongo verbs, which is neither active, transitive nor passive, but between the two, since it conveys the idea of action without the need of an object to complete the idea; as :—
>
> **O nlele ubakuka** : The cloth tears.
>
> At the same time it expresses the idea of an active condition, or state, which is attributed to the subject itself, and is not regarded as being suffered or caused by anything exterior to the subject. It is therefore neither active transitive nor passive; but possessing an idea half way between the two, has been called by grammarians the Middle voice. A verb in that voice, or of that nature or form, is Active Intransitive." (Bentley 1887: 621; bold in original)

However, as awareness has grown of the considerable structural differences between the Bantu and Indo-European linguistic types, the term 'middle' went out of use in Bantu scholarship. No wonder that the relevance of this category for the grammatical description of Bantu languages is often considered with scepticism (although see Creissels 2000: 237, Creissels 2006: 36-37, Hyman 2018: 182-183).

Before proceeding to the issues of Bantu grammar and verbal derivation, it is useful to outline the general framework and approach which we will follow to capture the main relevant features of the categories in question and to give basic definitions of the relevant notions. To begin with, a few brief remarks on the cross-linguistic validity of the very notion of the middle (voice) are in place. In spite of Haspelmath's justified scepticism and

[24] We do not discuss here yet another usage of the term 'middle' that is employed to refer to a particular voice-related valency-reducing category, sometimes considered as a specific variety of passive. It is also known as 'potential (passive)' (see, among many others, Shibatani 1985, Haspelmath 1990, Narrog 2010) or 'facilitative' (e.g., Kaufmann 2007, Holvoet et al. 2015, Ahn and Yap 2017) as in French *La musique s'entend bien* 'the music is well heard'. Within the formalist (minimalist etc.) approach, this category is labelled 'middle' for labile verbs, as in the case of English *This book reads well* (see, e.g., Kulikov 2011: 375-376). Although the category of 'potential (passive)' does belong to the conceptual domain of the middle as defined above, using the term 'middle' to refer to this particular category alone (rather than to the entire domain) seems somewhat confusing and will not be further pursued in this chapter.

theoretical problems related to an attempt at a cross-linguistic definition and characterization of the middle (see, in particular, Haspelmath 1995: 373), there is no doubt that the category of middle, however ill-definable it might appear, is no more and no less part of Universal Grammar than the categories of passive, reflexive, number, or case. Thus, there are categories of middle in Ancient Greek and Vedic Sanskrit (both Indo-European), because there are sets of functions (on which see below), not identical but similar to each other, regularly encoded by a particular morphological device (type of inflection). Furthermore, it is well-known that similar categories are also found outside of the Indo-European language family. Thus, there is a middle category in Georgian and other Kartvelian languages, where we likewise find a set of functions regularly encoded by a particular morpheme (verbal prefix *i-*).[25] Likewise, there is a category of middle in Bella Coola (Salishan), encoded with the suffix *-m* (see Beck 2000). The linguistic categories referred to as 'middle' in Ancient Greek, Vedic Sanskrit, Georgian or Bella Coola are of course not (and cannot be) identical, but arguably share a significant number of features and can, at any rate, be compared and, possibly, identified cross-linguistically. Similarly, an unbiased approach should not rule out the relevance of a verbal category comparable with the middle of Indo-European, Georgian etc. in yet another non-Indo-European language family, such as Bantu.

We neither intend to give here a detailed overview of the literature on the middle voice, nor will we offer a cross-linguistically valid description of this category. Rather, we will provide a general characterization of the concept in a way that we envision to be helpful for the semantic analysis and description of valency-decreasing verbal affixes in Bantu languages. To begin with, we first set out some basic concepts in which middle voice is elucidated, essentially drawing upon the theoretical framework and definitions outlined in Kulikov (2011, 2013).

We describe *voice* as the regular encoding of a syntactic pattern (= diathesis in the terminology of Leningrad/St. Petersburg Typology Group) through verbal morphology (Kulikov 2011: 372). A syntactic pattern (diathesis) is understood as the mapping of semantic roles onto syntactic arguments. Voice alternations, then, refer to a modification of the basic syntactic pattern of a verb. One can distinguish between voice alternations which merely change the mapping relationship of semantic roles onto syntactic arguments (voices *sensu stricto*), and those that involve a change in the number of semantic roles involved in the situation (voices *sensu latiore*). Usually, a particular voice-marking morpheme encodes a group, or *cluster*, of related syntactic patterns, rather than one single syntactic pattern.

[25] See, e.g., Lacroix (2012), with a useful discussion on the universal character of the category of middle.

The middle voice is a typical example of such a cluster, which normally involves some or all of the following functions, many (but not all) of which impose valency-reducing and/or intransitivising phenomena: passive, anticausative, reflexive, reciprocal, antipassive, conversive, and autobenefactive. These and other functions of the middle voice can also be represented as a conceptual space on a semantic map (Croft et al. 1987, Kemmer 1993), or as a complex network of middle voice functions in a particular language (for an example of Ancient Greek, see Allan 2003: 119).

Given the complex nature of the category of middle, definable in terms of comparable but not identical sets of closely related functions, it seems appropriate to use prototype theory in order to elucidate canonical and marginal instances of the middle in the languages of the world. Thus, as we argue in Chapter 2, when a verbal derivational morpheme encodes more than one function of the middle cluster, which do not however encompass the major part of this domain, it is appropriate to use the term 'quasi-middle'. In most Bantu languages, this holds, in particular, for the verbal morphemes ('extensions') that go back to the PB suffix *-*ɪk*, traditionally called 'neuter' in Bantu scholarship.

3.3 The neuter suffix *-*ɪk*: A cross-Bantu typology

In Chapter 2, we discussed the construction types in which a verb derived with a reflex of PB neuter *-*ɪk* is used in various Bantu languages. The typology is presented in a structured fashion in Table 4, to which the impersonal passive is added as yet another type of construction not covered in Chapter 2.

Table 4. Cross-Bantu overview of construction types in which a neuter verb is used.

Construction type	Example
i) anticausative	(42) Bena (Morrison 2011: 368) *u-tu-bihi* *tu-haa-deeny-**ih**-ile* *igolo* AUG_{13}-CL_{13}-tree SP_{13}-PST-break-NT-PFV yesterday 'The twig broke yesterday.'
ii) agentless passive	(43) Chewa (Dubinsky and Simango 1996: 751) *m-bale* *zi-na-tsuk-**ik**-a* *(*ndi* *Naphiri)* CL_{10}-plate SP_{10}-PST-wash-NT-FV by Naphiri 'The plates were washed (*by Naphiri).'
iii) agentive passive	(44) Tumbuka (Chavula 2016: 65) *n-duna* *zi-ka-cem-**ek**-a* *na* CL_{10}-minister SP_{10}-PST-call-NT-FV by *Chikulamayembe* Chikulamayembe 'The ministers were called for by Chikulamayembe.'

iv) impersonal passive	(45)	Tumbuka (Chavula 2016: 78) *kw-a-wumb-**ik**-a* *mu-phika* SP_{17}-PRF-mould-NT-FV CL_3-pot 'There has been molded a pot.'
v) potential passive	(46)	Swahili (Seidl and Dimitriadis 2003: 254) *Ø-godoro* *li-na-lal-**ik**-a* CL_5-mattress SP_5-PRS-sleep-NT-FV 'This mattress can be slept on.'
vi) facilitative	(47)	Tswana (Creissels 2002: 403) *Mae a thubega motlhofo.* *màí* *á-thúb-**ɛ́χ**-à* *mɔ̀tlhɔ̀fɔ̀* CL_6.egg SP_6-break-NT-FV easily 'The eggs break easily.'
vii) stimulus-oriented perception	(48)	Xhosa (S41) (Andrason and Dlali 2017: 406) *USipho* *u-khangel-**ek**-a* *ediniwe* CL_{1a}.Sipho SP_1-look_at-NT-FV being_tired 'Sipho seems to be tired.'
viii) evidential	(49)	Logooli (Gluckman and Bowler 2016: 1071) *e-hol-**ek**-a* *kuresa* *vu-geni* *vu-ar-ɛ* SP_9-hear-NT-FV like CL_{14}-party CL_{14}-COP-FV *vu-hare* CL_{14}-good 'It sounds like the party was fun.' (Indirect evidentiality through hearsay)

The dotted lines in Table 4 indicate the grouping of specific constructions into larger clusters. The first cluster centers around two basic intransitivising voice-related categories, the anticausative and passive. The second cluster involves patient-oriented potentials expressing the modal value of dynamic participant-internal possibility (van der Auwera and Plungian 1998: 80, Palmer 2001: 9-10). The third and last group of constructions is restricted to perception verbs. In contrast to the other two clusters, constructions (vii) and (viii) are rarely reported or discussed in the literature on **-ɪk*.

Regarding the first cluster of construction types, the use of neuter verbs in agentive and impersonal passive constructions has been noted in the Bantu language Tumbuka (Chavula 2016: 65-87 and references therein). Chavula (Forthcoming) describes how the neuter suffix is used in the same range of constructions in Tonga (N15), Tumbuka's southern neighbour. These two languages are spoken along the western part of Lake Nyasa. In Manda (N11), a language located on the eastern side of the lake, the neuter has also come to be used in agentive passive constructions as reported by Bernander (Forthcoming). He furthermore discusses in detail a possible pathway of change in which the order of anticausative-passive constructions reflects diachronic stages of the neuter's functional expansion from anticausative to productive passive. In addition to the neuter, all three languages (Tumbuka, Tonga and Manda) have retained the PB passive suffix

*-*ibʊ* although the reflexes vary in the degree of productivity. In Tonga the suffix is only attested in lexicalized passive verb stems. Tumbuka is further internally divided in dialectal varieties for which descriptions provide differing information, yet the main tendency is that the PB passive suffix has become unproductive. The older stage in which the passive was still productive and in competition with the neuter is attested in some historical sources (Young (1932) and Phiri (1980) in Chavula (2016: 67, Forthcoming)). Interestingly, in Manda the passive suffix seems to be reviving following a period in which the neuter was predominantly used in passive constructions (Bernander Forthcoming).

The Bantu languages in which the passive extension of the neuter has occurred follow a cross-linguistically common pattern in which anticausative and/or middle-related verbal morphology is used in passive constructions (Haspelmath 1990). Within Bantu, the best-known example of such an evolution is the one undergone by the reflex of PB *-*am* in certain western Bantu languages (see Chapter 2, Section 2.2.2, Grégoire 2003: 365, Schadeberg 2003: 75-76). The positional, as the suffix is called by Schadeberg (2003: 75), is usually attached to verb stems denoting middle situation types such as position (of body or object), spontaneously occurring situations and/or their resultant state, motion, emotion and cognition (Chapter 2, Section 2.2.2). In a wide area around the Middle and Lower Congo River, the suffix *-am* is furthermore also used productively as the passive suffix, to the detriment of the original common Bantu passive suffix *-*ibʊ/-ʊ*. Guérois and Bostoen (Forthcoming) describe how in Cuwabo another quasi-middle suffix, i.e. the intransitive separative *-uw*, has been recruited as the verbal marker of the productive passive construction. In all of these cases, the degree to which the reinterpretation of the quasi-middle suffix as a passive marker in the grammar of a particular language has progressed can be measured by the productivity of other, competing passive constructions.

Although a cross-Bantu typological overview as presented in Table 4 is possible, individual constructions may differ considerably from each other, also varying from one language to another, as far as their semantic and syntactic properties are concerned. The anticausative and agentless passive only differ from each other semantically in that the former typically construes the situation denoted by the verb as occurring spontaneously, whereas such a construal is not compatible with verbs occurring in the agentless passive construction. The anticausative construction therefore posits a specific selectional restriction on the type of verb it accepts, namely only change-of-state verbs of which the state-change can occur by itself and does not have to be brought about by a prototypical agent. However, both constructions often show identical syntactic behavior when compared to the passive construction in which the verb is marked by a reflex of PB *-*ʊ/-ibʊ*. The following three syntactic properties are most often discussed in the general literature on anticausatives and in the Bantu-specific literature on the neuter suffix.

i. Oblique agentive phrases are allowed in *-ʊ/-ibʊ passive constructions but not in *-ɪk constructions.

(50) Ndebele (Khumalo 2009: 166, 168)

a. *isi-valo sa-val-**ek**-a (*ngu Thabo)*
CL$_7$-door SP$_7$-shut-NT-FV by Thabo
'The door closes (*by Thabo).'

b. *isi-valo sa-val-**w**-a (ngu Thabo)*
CL$_7$-door SP$_7$-shut-PASS-FV by Thabo
'The door was closed (by Thabo).'

ii. Instrumental phrases are allowed in *-ʊ/-ibʊ passive constructions but not in *-ɪk constructions.

(51) Chewa (Dubinsky and Simango 1996: 752)

a.**kalata i-na-lemb-**ek**-a ndi pensulo*
letter SP$_9$-PST-write-NT-FV with pencil

b. *kalata i-na-lemb-**edw**-a ndi pensulo*
letter SP$_9$-PST-write-PASS-FV with pencil
'The letter was written with a pencil.'

iii. Agent-oriented adverbs and purpose clauses are allowed in *-ʊ/-ibʊ passive constructions but not in *-ɪk constructions.

(52) Ndebele (Khumalo 2009: 168)

a.**isi-valo sa-val-**ek**-a ngabomo*
CL$_7$-door SP$_7$-shut-NT-FV deliberately
*'The door closed deliberately.'

b. *isi-valo sa-val-**w**-a ngabomo*
CL$_7$-door SP$_7$-shut-PASS-FV deliberately
'The door was closed deliberately.'

(53) Chewa (N31b) (Mchombo 1993: 17)

a.**mphâtso zi-na-sókónez-**ek**-a kutí pa-sa-khál-é*
CL$_{10}$.gift SP$_{10}$-PST-mix-NT-FV that SP$_{16}$-NEG-be-SBJV
ku-konděr-a
CL$_{15}$-favor-FV

b. *mphâtso zi-na-sókónez-**ědw**-a kutí pa-sa-khál-é*
CL$_{10}$.gift SP$_{10}$-PST-mix-PASS-FV that SP$_{16}$-NEG-be-SBJV
ku-konděr-a
CL$_{15}$-favor-FV
'The gifts were mixed up so that there should be no favouritism.'

However, these syntactic properties are not as straightforward as they are sometimes presented in the literature. For example, in some cases **-ɪk* constructions do allow oblique prepositional phrases, as illustrated for different Bantu languages in examples (54) to (57).

(54) Ndonga (R22) (Fivaz 1986, in Fleisch 2005)
*ókinó ndjoká o-y-a-tál-**ik**-á ká-á-ntu*
CL_9.film DEM_9 AFF-SP_9-PRF-watch-NT-FV INSTR-CL_2-person
a-yéhe
PP_2-many
'This film is seen by many people.'

(55) Matengo (N13) (van der Wal 2015: 86)
*mwaáná ju-jógw-**eek**-a na Álison*
CL_1.child SP_1-hear-NT-FV by Alison
'The child has been heard by Alison.'

(56) Xhosa (Jokweni 1989: 52, in Andrason and Dlali 2017: 398)
*umama u-bolek-**ek**-e imali nga ba-phati*
CL_{1a}.mother SP_1-lend-NT-PRF CL_9.money COP CL_2-manager
bebhanki yi ntobeko yakhe
$POSS_2$.CL_9.bank COP CL_9.meekness her
'Mother has been lent money by the bank managers because of her meekness.'

(57) Kizombo (Fernando 2017: 140)
*Ø-yaka ki-wul-**ik**-idi mu Ø-tembo*
CL_7-wall SP_7-break-NT-PST LOC_{18} CL_7-wind
'The wall broke from/by the wind.'

These examples illustrate that a variety of factors have to be taken into account when investigating **-ɪk* constructions or constructions involving another Bantu quasi-middle suffix in a particular language. One should, in particular, (i) look at different semantic verb types, following a fine-grained semantic classification of verbs; (ii) consider various semantic microroles such as prototypical agent, experiencer, non-volitional causer, and instrument; and (iii) investigate each of these syntactic contexts for the full range of construction types for which the neuter or another valency-decreasing suffix is used in a language. At present, the data is still quite scarce, with only a few examples from a small number of different languages illustrating some aspects of the variables which should be taken into consideration.

Another major variable that plays a role in distinguishing between different constructions marked by **-ɪk* is grammatical aspect. Although Schadeberg (2003: 75) briefly hints at this when writing that "the difference between the potential and the process-or-state interpretations may be linked to the aspectual meaning of the particular

inflectional category of the verbal form", the role of aspect is pretty much uncharted territory in the literature on the neuter. It is well-known that most Bantu languages have a complex system of lexical and grammatical aspect categories, and that the intricate relationship between these is used to construe various aspectual situation types such as states, state-changes, and simple or result-oriented activities (see, for example, Botne and Kershner 2008, Crane 2011, Persohn 2017, Crane and Persohn Forthcoming-b, Forthcoming-a). Jerro (Forthcoming) offers a detailed account of the lexical-aspectual semantics of neuter verb stems and their interaction with the grammatical aspect system of Rwanda. Jerro describes how a neuter verb stem can be used to construe three modal/aspectual meanings in Rwanda, viz. the potential (58)a, stative (58)b and inchoative (58)c, in combination with different TA constructions.

(58) Rwanda (Jerro Forthcoming)

a. *iki* *gi-kombe* *cy-a-men-**ek**-a*
   DEM_7 CL_7-cup SP_7-COND-break-NT-IPFV
   'This cup might break.'

b. *igi-kombe* *ki-ra-men-**ets**-e*
   CL_7-cup SP_7-NON.PST-break-NT-PFV
   'The cup is broken.'

c. *iki* *gi-kombe* *cy-a-men-**ets**-e*
   DEM_7 CL_7-cup SP_7-PST-break-NT-PFV
   'This cup broke.'

The relation between imperfective morphology and the potential passive construction on the one hand, and perfective/completive/resultative morphology and the anticausative construction on the other hand, can also be observed in the examples from various Bantu languages in Chapter 2.

The recent insights and advances in our knowledge on lexical aspect and its interaction with grammatical-aspect systems in Bantu has broadened the scope of investigation enormously, particularly with respect to the semantics of the derivation of **-ɪk* in individual Bantu languages and its interaction to other connected parts of the grammar. The combined study of verbal derivation and TA by Jerro (Forthcoming) thus opens up an entirely new dimension in research on the neuter, delineating the area where more work needs to be done in the future.

Chapter 4 Multiple-reciprocity marking in the Kikongo Language Cluster: Functional distribution and origins

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Abstract

Bantu languages belonging to the KLC generally have two reciprocal markers, i.e. the reflex of PB *-*an* and a complex suffix ending in -*an,* whose functional distribution is poorly explained in the existing literature. Through a pilot corpus study, we argue here that the complex suffix is mainly used to convey prototypical-reciprocal events, while simplex -*an* has evolved into a lexicalized 'middle' marker, referring to naturally-reciprocal events among other things. We furthermore reconstruct the complex suffix *-*izyan* to PKK, identify its first element as a reflex of the compound causative suffix *-*ɪd-i* and propose that its rise as a productive, non-compositional reciprocal marker is the outcome of a semantic generalization from 'reciprocity of causation' to 'reciprocity' *tout court*.

Keywords

Kikongo Language Cluster; Proto-Kikongo; reciprocal; allomorphy; corpus linguistics; multiple logistic regression analysis; middle; reconstruction; sound change

4.1 Introduction

4.1.1 Reciprocity and reciprocal marking in Bantu

Reciprocal (RECP) derivation is a well-studied phenomenon in Bantu linguistics (see, for example, Dammann 1954, Mchombo and Ngunga 1994, Mchombo 1999, Mugane 1999, Maslova 2000, 2007). As a voice construction, the RECP in Bantu is most often expressed through morphology in the suffixal 'extension' slot of the verbal complex (Meeussen 1967: 108, Nurse 2008a: 41-42).[26] The most common marker across Bantu is *-an,* which has been reconstructed to PB with associativity as its core meaning (Meeussen 1967: 92, Schadeberg 2003). As discussed in Bostoen et al. (2015), *-an* is notoriously polysemous, with a wide array of functions and meanings besides reciprocal. These can be subsumed under the more abstract concepts of plurality of participants (e.g. associativity, chaining situations) and plurality of events (e.g. repetitive, intensive, extensive, habitual), but also comitative/instrumental, antipassive and middle as defined by Kemmer (1993), i.e. lexical middle verbs such as natural reciprocal/natural associative/body action/cognition verbs (see infra for definitions of these categories).

RECP *-an* is typically combinable with other, different suffixes (Hyman 2002, Good 2005). In some instances, such a compound suffix has become reanalyzed as a single, non-compositional extension, a process often characterized by both semantic and morphophonological changes. As a first step towards the formation of a complex suffix, one of the extensions loses its original productive function. Such is the case in the Swahili suffix *-ikan*, in which *-an* no longer has a RECP meaning. A limited set of Swahili verbs, such as *jul-**ikan*** 'be known, famous', *tambul-**ikan*** 'be recognized, recognizable', *on-**ekan*** 'appear, be seen, visible', *wez-**ekan*** 'be possible', select *-ikan* rather than the simplex neuter suffix *-ik,* e.g. *vunj-**ik*** 'be broken, breakable', *tafsir-**ik*** 'be translated, translatable', *tend-**ek*** 'be done, doable'. Semantically, the simplex and the compound suffix seem to be undifferentiated in that both express that "the subject is potentially or factually affected by the action expressed by the verb" (Schadeberg 2003: 75). However, as seen in (59),

[26] In many South-West and certain other Bantu languages, the reciprocal is not expressed by a suffix, but by the common Bantu reflexive prefix (see Chapter 2, Section 2.2.5, Schadeberg 2003: 76, Bostoen 2010). Such a reflexive-reciprocal polysemy has also been reported by Fernando (2013: 48) in the northern Angolan South Kikongo variety Kizombo. This is a unique case for the KLC. It is not reported in older Kizombo grammars (Carter and Makoondekwa 1987: 130, Mpanzu 1994: 129).

syntactically *-ikan* seems to optionally license the expression of a (non-prototypical) agent phrase in a passive-like derivation, while *-ik* as such does not (see Seidl and Dimitriadis 2003).

(59) Swahili (Chiraghdin and Mnyampala 1977: viii)
*Kiswahili ni lugha […] iliyoenea na **kujulikana na wengi** […]*
ki-swahili ni Ø-lugha i-li-yo-ene-a na
CL_7-Swahili is CL_9-language SP_9-PST-RCD_9-spread-FV and
ku-ju(L)-ikan-a na wa-ingi
CL_{15}-know-NT-FV by CL_2-many
'Kiswahili is a language […] which spread and is known by many […]'

Dammann (1954: 164-166) discusses a number of Bantu languages where the RECP is expressed by means of such a compound extension including *-an*. In contrast to Swahili *-ikan*, the suffix preceding *-an* was semantically bleached. Examples are Herero (R31) *-asan*, Kwanyama (R21) *-afan*, and *-angan* in both Haya (JE22) and Luba (Dammann 1954, Dom et al. 2015), as illustrated in (60).

(60) a. Herero
*mun-**asan*** 'see each other' < *mun* 'see'
*zep-**asan*** 'kill each other' < *zep* 'kill'
b. Kwanyama
*deng-**afan*** 'hit each other' < *deng* 'hit'
*umb-**afan*** 'shoot (at) each other' < *umb* 'shoot (at)'
c. Haya
*bon-**angan*** 'see each other' < *bon* 'see'
d. Luba
*mon-**angan*** 'see each other' < *mon* 'see'
(Dammann 1954: 165)

4.1.2 Two reciprocal markers in the Kikongo Language Cluster

The KLC is a group of genetically related language varieties spoken in Gabon, the Republic of Congo, the DRC and Angola. It constitutes a discrete subclade within the wider 'West-Western' or 'West-Coastal' Bantu clade, and shows further internal genealogical subgroupings, i.e. Kikongoid, North, East, West and South Kikongo as well as a Central Kikongo convergence zone (de Schryver et al. 2015). It comprises languages not only from Guthrie's (1948, 1971) H10 'Kongo' group, but also includes the B40 and H30 languages as well as Kihungan (H42) and Kisamba (L12a).

Complex RECP markers comprising *-an* are widespread in the KLC. In Kinkanu, for example, the productive RECP extension is *-asan* (61). Similar forms are attested throughout the KLC, as shown in (62) for Ciwoyo, where the reciprocal suffix is *-izyan*. Note that in (62) *-izyan* occurs both on the pre-posed infinitive and the finite verb of a so-called 'fronted-infinitive construction' (De Kind et al. 2015), which marks here assertive verb focus.

(61) Kinkanu (KongoKing 2012, fieldwork by S. Dom)
Biboba bíbak^{h}éntu ***bikunasananga*** *masangú (bawu ye báwu).*
bi-boba *bi-ba-Ṇ-kentu* *bi-kun-**asan**-ang-a*
CL_8-old_person CL_8-CL_2-CL_1-woman SP_8-plant-RECP-HAB-FV
ma-sangu *bawu* *ye* *bawu*
CL_6-millet they and they
'The old women often plant millet for each other.'

(62) Ciwoyo (KongoKing 2012, fieldwork by S. Dom)
Bôbá ba bacyentó ***kunizyana betikunizyana*** *mpyanza.*
Ø-boba *ba* *ba-cyento* *Ø-kun-**izyan**-a*
CL_2-old_person $CONN_2$ CL_2-woman CL_{15}-plant-RECP-FV
*ba-iti-kun-**izyan**-a* *N-pyanza*
SP_2-HAB-plant-RECP-FV CL_9-cassava
'The old women often plant cassava for each other.'

The map presented in Figure 10 shows the distribution of the attested complex RECP markers as well as their formal variation in the KLC.

However, simplex *-an* is also still widely attested in the KLC. It is described in many grammars, including recent ones, and has been observed during recent fieldwork. Two examples are provided in (63) and (64).

(63) Kizombo (Fernando 2013: 49)
Aana ***amonane*** *vazandu.*
a-ana *a-Ø-mon-**an**-idi* *va* *Ø-zandu*
CL_2-child SP_2-CPC-see-RECP-CPC LOC_{16} CL_9-market
'The children saw each other at the market.'

(64) Kimbeko (KongoKing 2012, fieldwork by S. Dom)
Bana bakéntu babóli sí ***bamonana*** *kuna nzo nkanda.*
ba-ana *ba-kentu* *ba-boli* *si* *ba-mon-**an**-a* *kuna* *N-zo*
CL_2-child CL_2-woman CL_2-two FUT SP_2-see-RECP-FV LOC_{17} CL_9-house
Ṇ-kanda
CL_3-book
'The two girls will meet each other at school.'

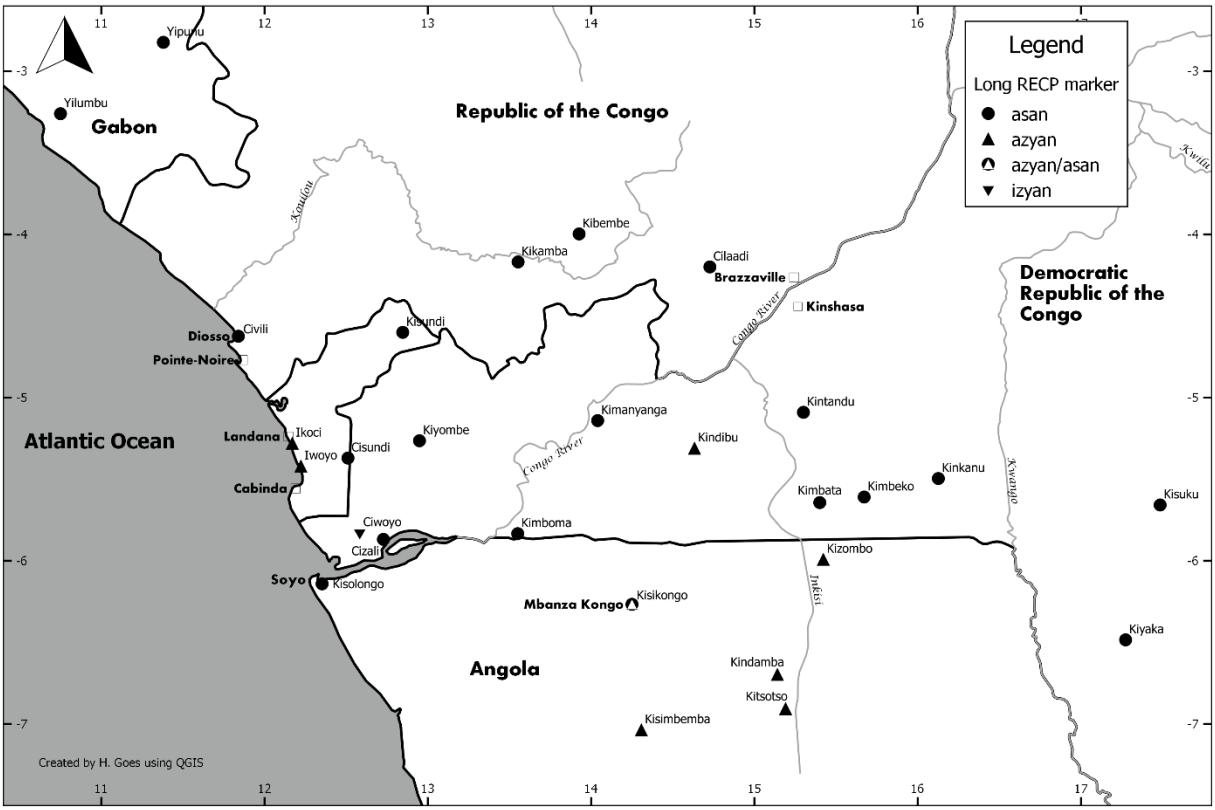


Figure 10. Distribution of the long reciprocal markers in the KLC.

Many grammatical descriptions present the simplex and complex RECP extensions as free allomorphs, e.g. "Reciprocal verbs are formed by adding *ana* or *asana* to the root" [our translation from French, italics added] (De Clercq 1921: 55 on Kiyombe). For Kizombo, Fernando (2013: 48) states that the RECP "is represented by the morpheme *-an-* with an allomorph *-azyan-*", adding a diachronic analysis at odds with the one presented here, i.e. "[t]he second form is regarded as historical in that it is not as productive as the first". Some authors argue that a difference resides in the number of participants, where the simplex suffix would be used for two and the complex for more than two participants (Bentley 1887: 66, Ndamba 1977: 176). Laman (1912: 155) disregards this analysis and relates the distinction instead to events (which he calls 'actions'): "Reciprocal Singular Verbs [i.e., with *-an-*] […] express mutual activity which does not occur repeatedly. The reciprocal plural verbs [i.e., with *-asan-*] express a mutual activity which is continued repeatedly" (Laman 1912: 199).[27]

[27] Laman does not seem to refer to a plurality-of-events distinction between single and multiple events, but rather to an aspectual difference between a gnomic versus imperfective (continuous) construal. This becomes evident from the example he provides with the verb stem *zol* 'love'. With the simplex reciprocal, *bazol**an**a* is translated as 'they love each other', whereas with the complex suffix *bazol**asan**a* is translated as 'they love each other without ceasing' (Laman 1912: 155). Makokila Nanzanza (2012: 108), who deals with the same variety as

Untangling the difference(s) between the simplex and complex RECP extensions is one of the main goals of this chapter, along with reconstructing the historical origin of the compound suffix. The problem and its answers are multi-layered, undoubtedly touching on both semantic and pragmatic factors with a good deal of diachronic functional remnants complicating the synchronic relation between the two extensions. We have therefore chosen to focus on one specific and cross-linguistically well-known factor that could offer an important explanation, namely the semantic distinction between prototypical-reciprocal events on the one hand and naturally-reciprocal events on the other. Natural reciprocity is a semantic category referring to events that logically entail a symmetrical relation between the participants, such as *meeting*, *touching*, *kissing*, *talking*, *quarrelling*, *fighting*, *wrestling*, *struggling*, *making love*, *conversing*, *sticking together*, etc. (Kemmer 1993: 102, 268). Prototypical reciprocity refers to events involving two participants as well as two relations in which each participant serves in the role of Initiator in one of those relations and Endpoint in the other (Kemmer 1993: 97). The 'basic' event denoted by the underived verb is asymmetrical, and the symmetric relation between the participants is instantiated by a 'prototypical' reciprocal derivation, e.g. *seeing each other*, *knowing each other*, *cutting each other*, *writing each other*, or *washing each other*, etc.

4.1.3 Middle voice, middle marking and productive versus natural reciprocity

The middle is an elusive verbal category that has received many definitions and interpretations in the general linguistic literature. In the framework of linguistic typology, it most often refers to a semantic domain which includes 1) a group of voice alternations involving the demotion, suppression and/or deletion of a core argument, e.g. reflexive, reciprocal, passive, and anticausative; and 2) events denoted by monovalent verbs carrying derivational morphology without these exerting their typical derivational function (i.e., Kemmer's (1993) so-called 'middle situation types', e.g. events of grooming, (non)translational motion, change in body posture, etc.) (see, among others, Kemmer 1993, Kazenin 2001, Kulikov 2013). The RECP can be related to both components of the middle domain: 1) it is a voice alternation which affects the object of a predicate's basic argument structure, and 2) there are events which can be labelled as

Laman (1912), follows the latter's event-based explanation to account for the difference between *-an* and *-asan* in Kimanyanga.

'naturally' RECP, i.e. they encode a state of affairs where logically two participants are involved in an event the same way with respect to each other (Kemmer 1993: 268).[28]

Whether prototypical and natural reciprocals are encoded in the same way or not is a language-specific matter. Kemmer (1993: 102-108) proposes a typology based on the distinction between prototypical and naturally-reciprocal events.

> Type 1: "First is the type of language exemplified by English, in which there is only one marker to express reciprocal semantics; that marker appears with prototypical reciprocal events but is not required with naturally reciprocal events." (Kemmer 1993: 102)
>
> Type 2: "A second type of language […] has not one, but two overt forms to express reciprocal event types […] which will be referred to as *two-form reciprocal languages* [bold in original], or Hungarian type languages for convenience." (Kemmer 1993: 103)
>
> "[A]s in languages of this type in general, one of the two reciprocal forms is 'heavier' than the other in the sense that it has a greater number of phonological segments and/or forms its own lexical root. […] The other reciprocal form in such languages has less phonological weight, in other words it has fewer phonological segments and is cliticised or bound to a lexical root (generally the verb)." (Kemmer 1993: 103)
>
> "In these languages, the heavy marker is used productively with ordinary transitive verbs to express reciprocal semantics. It is not required with verbs of naturally reciprocal semantics, which characteristically take the light form; where it does appear with such verbs, its function is often emphatic/contrastive." (Kemmer 1993: 105)
>
> Type 3: "In a third type of language, a single RCPM [reciprocal marker] is used to express both naturally reciprocal and ordinary[29] reciprocal events. This type might be termed the Changana type as such markers occur in Changana and a number of other Bantu languages." (Kemmer 1993: 106)
>
> "In this type of language, despite the lack of overt difference in marking between the two types of event, there is nevertheless a pattern of formal differentiation that appears when the two types of verbs are compared as a whole. Verbs of naturally reciprocal action often lack transitive counterparts, i.e., they are deponents. Verbs of

[28] Whether a naturally reciprocal event is 'logically' reciprocal is a gradient notion. For example, the English verb *kiss* can be used reciprocally without the explicit presence of the reciprocal pronoun *each other*, as in *Ugh, I saw my parents kiss this morning*, but could also be used transitively (i.e. not reciprocally), as in *The knight kissed the hand of the princess*. On a scale in-between the prototypical reciprocal and natural reciprocal, some (English) verbs (e.g. *kiss*, *love*, *marry*) seem to allow a naturally reciprocal construal and a directed (transitive) construal, whereas other verbs, such as *quarrel*, *look (a)like*, *wrestle* and *meet*, denote events that are strictly reciprocal, regardless of the argument structure.

[29] 'Ordinary' is used by Kemmer as an alternative to 'prototypical'.

ordinary reciprocal semantics, on the other hand, do not occur as deponents." (Kemmer 1993: 106)

Although the common Bantu situation, with a single marker for both types of reciprocals, has been integrated in Kemmer's typology as a cross-linguistic pattern (i.e., Type 3), it is clear from the discussion in Section 4.1.2 that the KLC varieties cannot be categorized as Type 3 languages. Having both a simplex and a complex RECP extension, they rather behave as Type 2 languages from a formal point of view. In the following section, we present and discuss the results of a corpus study, which was conducted to test whether the distinction between prototypical and naturally RECP semantics plays a significant role in the usage of either the simplex or complex extension.

4.2 Untangling the difference between the two near-synonyms by means of a multiple logistic regression analysis

In this section we present the results of a multiple logistic regression analysis (MLRA) performed on a small corpus, in order to study the role of prototypical and naturally RECP semantics on the functional relation between the simplex and complex RECP extensions in four KLC varieties. In Section 4.2.1 we give an overview of the corpus; Section 4.2.2 outlines the MLRA and its results.

4.2.1 The corpus and dataset

In comparison to other Bantu corpus studies from our research group (e.g., Mberamihigo 2014, Nabirye 2016, Nshemezimana 2016, Kawalya 2017), the corpus used for this study is rather small. The total number of tokens comprises about 530,700 words (see Table 5). Nevertheless, a corpus of over half a million words can be considered a decent and solid database for a pilot study. It should furthermore be noted that the corpus used here consists of four individual documents that have been specifically selected. This collection by no means represents a general, full-scale corpus for the KLC.

Table 5. Overview of the corpus.

Doculect	Source	Document	Tokens	Types
Fiote[30]	Anonymous (1929)	Four Gospels + Acts	144,500	15,100
Kindibu	Vuylsteke (1923)	Four Gospels	115,500	12,100
Kisikongo	Anonymous (1926)	Four Gospels + Acts	144,200	17,400
Kiyombe	De Cleene and de Clercq (1920)	Four Gospels	126,500	12,900
Total			530,700	57,500

All four documents represent parts of the New Testament, the four Gospels either with or without the fifth book on the Acts of the Apostles. These were chosen because a) they cover, to a certain extent, the same text, making the results comparable across the different doculects; b) all four works are published in the 1920s and thus represent a coherent time period of exactly one decade; and c) for researchers who do not speak Kikongo, as is the case for the authors, the Bible is a useful text, since it has parallel versions also available in many other languages of the world. We are fully aware that the use of this genre also comes with a great deal of problems. Bibles do not provide the most natural language usage: they are translated versions of highly stylized prose, often produced under the supervision of prescriptivist missionary linguists. These shortcomings should be taken into account when interpreting and further investigating the issue at hand. However, we claim neither to give the definite solution nor to say the final word about the semantic/pragmatic difference(s) between the two RECP extensions for all KLC varieties. The present chapter serves as a starting point for further investigation, hopefully with more and better data.

Some discrepancies in the overall number of attestations for each extension can be observed in the overview of the dataset for each doculect in Table 6. In comparison to the other doculects, Kisikongo has a low number of simplex RECP marker attestations, and Kindibu and Kiyombe have a low outcome of complex RECP marker attestations. The latter can be attributed to the fact that the text corpus used for Kindibu and Kiyombe consists of the four Gospels only, whereas the text corpus used for Fiote and Kisikongo additionally includes the Acts of the Apostles.

[30] The glossonym 'Fiote' is problematic, as it was used during the colonial period as a generic and pejorative term—meaning nothing more than 'black' in Kikongo varieties—to either refer to a local variety or as a cover term for Kikongo in general. Despite the lack of information that can thus be abstracted from the glossonym, it has been established that the Fiote variety used for this New Testament is most closely related to Central Kikongo varieties, such as Kimanyanga and Kindibu (see also De Kind et al. 2015: 160).

Table 6. Overall and relative number of attestations of each extension in the individual documents.

Doculect	simplex RECP *-an*		complex RECP *-asan*	
	Frequency	**Relative frequency (per 100,000 words)**	**Frequency**	**Relative frequency (per 100,000 words)**
Fiote	130	90	145	100
Kindibu	96	83	35	30
Kisikongo	40	28	76	53
Kiyombe	122	96	26	21
Total	388		282	

4.2.2 The MLRA: Results and discussions

A multiple logistic regression analysis serves to study the impact of more than one factor, technically called 'predictor variable(s)', on a certain type of variation, i.e. the 'response variable' (Speelman 2014). For this chapter, we have studied the effect of two overarching predictors, namely 'doculect' and 'function', each of which has been divided into four sub-factors or 'regressors'.

- Predictor 1: Doculect
  - Fiote
  - Kindibu
  - Kisikongo
  - Kiyombe
- Predictor 2: Function
  - prototypical reciprocal (PR)
  - natural reciprocal (NR)
  - associative (ASS)
  - chaining (CH)

Although the last two concepts of the predictor 'function', i.e. associative and chaining, have not been discussed previously, their inclusion is, first and foremost, warranted by the fact that these meanings were attested in the dataset, and secondly, motivated through the well-known reciprocal-associative polysemy in Bantu (Schadeberg 2003: 76) and the intimate connection between reciprocal and chaining semantics (Kemmer 1993: 101, 125-127, Nedjalkov 2007a: 47-48). An associative event involves two participants which both have the same semantic role, typically that of an agent, and perform the eventuality *together* (see example (65)a). In a chaining situation, a group of participants stands in a sequential relation to each other, where one participant is both the Initiator and Endpoint of a sub-relation. One of the most basic chaining situations is *follow*: an individual

participant typically follows the preceding participant (i.e. Initiator role) and is, at the same time, followed by the next participant (i.e. Endpoint role).

Two things should be noted about these additional two regressors. First, only one chaining verb was attested in the corpus query, namely 'follow', for which we later have recognized that in Fiote and Kiyombe the extension is *-angan*, viz. *land-angan-a* 'follow'. Second, very few prototypical associative examples, such as the one in (65)a, were found. In most cases, the regressor 'associative' indicates the attestation of naturally-associative verbs (Kemmer 1993: 123-125), such as 'join' and 'gather', illustrated in (65)b. Because this study focuses mainly on the RECP, we leave the fine-grained distinction between prototypical and natural-associative semantics for further investigation.

(65) a. Kisikongo (Matthew 24: 41; Anonymous 1926: 29)
*Akento wole **bebandana** vanu su.*
a-kento *wa-ole* *be-Ø-band-**an**-a* *vana* *Ø-su*
CL_2-woman CL_2-two SP_2-FUT-grind-ASS-FV LOC_{16} CL_7-ground
'Two women will be grinding together at the mortar.'

b. Fiote (Acts 17: 34; Anonymous 1929: 312)
*Babakala bankaka **babundana** yandi (...).*
ba-bakala *ba-nkaka* *ba-a-bundan-a* *yandi*
CL_2-man CL_2-some SP_2-DPC-join.ASS-DPC him
'But some of them joined him (…).'

The results of the MLRA are plotted in Figure 11. The dark and light grey squares represent, respectively, *-an* and *-asan*. The grid-structured plot is divided into four columns corresponding to the four doculects, i.e. from left to right Fiote, Kindibu, Kisikongo and Kiyombe,[31] and into four rows corresponding to the four meanings, i.e. from top to bottom PR, NR, ASS, CH. This graphic representation not only visualizes the interaction between the different variables, but also gives a comparative idea of the proportion of observations for each variable through the size of the squares. For example, the light-grey square in the upper-left corner of the plot indicates that in the Fiote bible *-asan* is used predominantly for prototypical reciprocity. In contrast, the supposedly light-grey square in the bottom-right corner of the plot is reduced to a (black) dashed line because no attestations were found of Kiyombe *-asan* marking chaining situations.

What immediately becomes clear is that in all four doculects the complex RECP suffix (light grey) is overwhelmingly used for prototypical-reciprocal situations and the simplex RECP suffix (dark grey) for natural-reciprocal and associative situations. Nevertheless, in

[31] In Figure 11 the glossonyms are written without the noun class prefix *ki-* (thus Kindibu = Ndibu, Kisikongo = Sikongo, Kiyombe = Yombe).

Kiyombe, we have found some instances of *-an* (8 out of 122 attestations) that we initially had interpreted as prototypical reciprocal, but could also be lexicalized natural reciprocal verbs: six attestations of *kamb-an* 'say to each other', as in (66)a, one attestation of *vas-an* 'discuss, dispute with each other', as in (66)b, and one attestation of *vakus-an* 'betray each other' (66)c.

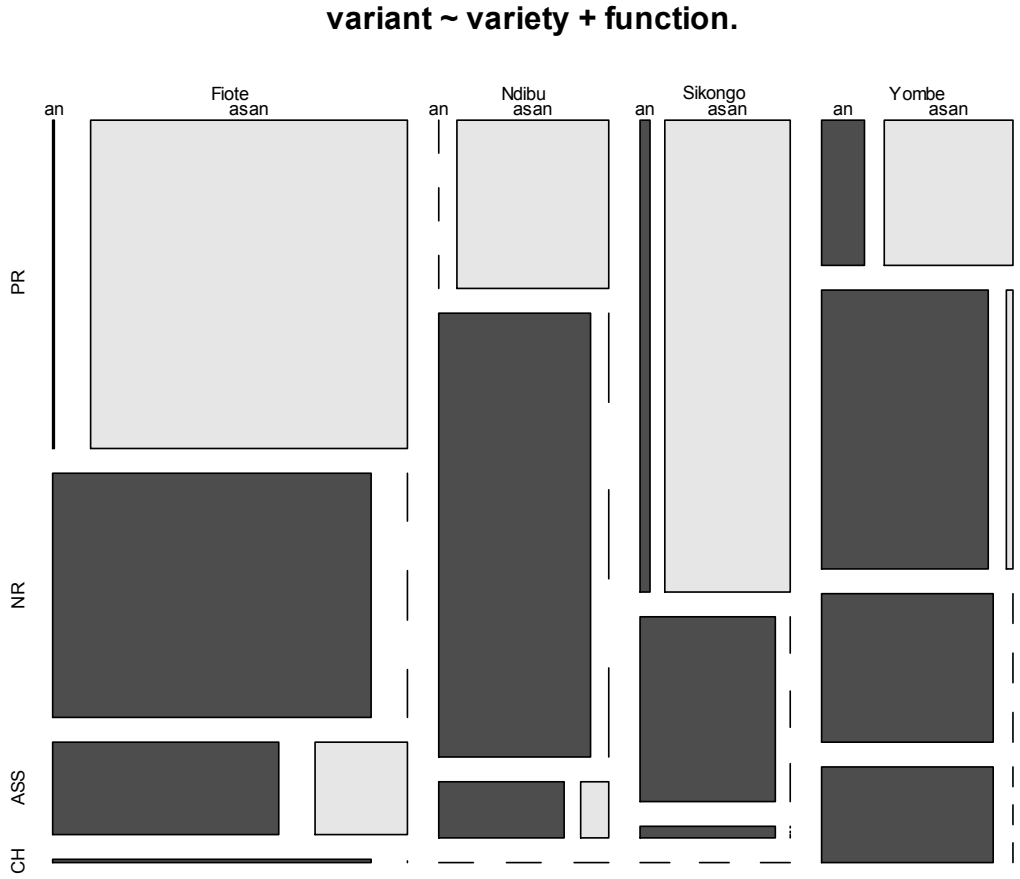


Figure 11. Visualization of the results from the multiple logistic regression analysis through a mosaic plot.

(66) Kiyombe

a. *Bo batelemene mu templo,* ***bekakambana*** *ti: (...).*
bo *ba-Ø-telam-idi* *mu* *Ø-templo*
CL_{14} SP_2-CPC-stand_up-CPC LOC_{18} CL_9-temple
*ba-eka-kamb-****an****-a* *ti*
SP_2-PROG-say-RECP-FV QUOT
'(…) as they stood in the temple, they were saying to each other (…).'
(John 12:56; De Cleene and de Clercq 1920: 268)

b. *Mbadi batonene* ***kuvasana*** *ti: (...).*
mbadi *ba-Ø-ton-idi* *ku-vas-****an****-a* *ti*
then SP_2-CPC-begin-CPC CL_{15}-divide-RECP-FV QUOT

‘Then they began to discuss with each other (…).’
(Luke 22:23; De Cleene and de Clercq 1920: 216)

c. *(...)* ***belavakusana****, belalendananga.*
*ba-ela-vakus-**an**-a* *ba-ela-lend-an-ang-a*
SP_2-FUT-make_pay-RECP-FV SP_2-FUT-hate-RECP-IPFV-FV
‘(…) and they will betray each other and hate each other.’
(Matthew 24:10; De Cleene and de Clercq 1920: 74)

Bittremieux (1922: 189) has the lemma *kamb-**an*** ‘say to each other’ in his Kiyombe dictionary from the same period. The verb stem *vas-**an*** is derived from *vas* ‘divide, distinguish’ (Bittremieux 1922: 707), from which the noun *luvaásu* ‘dispute (= action of dividing each other) caused by another’ (De Grauwe 2009: 66) is also derived. In this respect, *vas-**an*** could be interpreted as a lexicalized natural reciprocal verb meaning ‘dividing each other through discussion or dispute’. Finally, the suffix *-usan* in *vak-**usan*** could be a sequence of *-us* (historically separative *-ul* + short causative *-i*) and *-an*, but it could also be a contraction of *-ul* and *-asan*. According to De Grauwe (2009: 112), *váákúl* means ‘betray, deliver someone; make pay’. Bittremieux (1922: 702) provides both *vakul* ‘pay tribute’ and *vakus* ‘make pay, collect, cash’. So here again, it could be a lexicalized RECP verb, which developed the meaning ‘betray each other’ as a metaphorical reinterpretation of the more literal meaning ‘make each other pay’. These three Kiyombe cases show that exceptions to the general divide between *-asan* for prototypical-reciprocal situations and *-an* for natural-reciprocal and associative situations can be accounted for, as far as *-an* is concerned, by idiosyncratic evolutions in terms of lexicalization combined with very specific changes in form and/or meaning.

As for *-asan*, the light grey squares in the ‘ASS’ row indicate that in Fiote and Kindibu a significant number of attestations, i.e. respectively 11 and 2, were found where *-asan* is used with associative meaning. As seen in examples (67) and (68), both prototypical and natural-associative events are attested. These examples indicate that although *-asan* is mainly used to refer to prototypical RECP situations, its use may be extended to closely related associative situations. Research on modern-day corpora would be needed to establish whether *-asan* is nowadays more frequently used to convey associative meanings than it used to do in the 1920s.

(67) Fiote PROTOTYPICAL ASSOCIATIVE
(...) wasikila yau; ***basalasana****, (...).*
u-a-sik-il-a *yau* *ba-a-sal-**asan**-a*
SP_1-DPC-stay-APPL-DPC them SP_2-DPC-work-ASS-DPC
‘(…) he stayed with them, and they worked together (…).’
(Acts 18:3; Anonymous 1929: 312)

(68) Fiote NATURALLY ASSOCIATIVE

Bawawasana *bobo bavioka makumaia mabantu.*

*ba-a-waw**asan**-a*	*bobo*	*ba-Ø-viok-a*	*ma-kumaya*
SP_2-DPC-join.ASS-DPC	DEM_{14}	SP_2-PRS-surpass-FV	CL_6-forty

ma-ba-ntu

CL_6-CL_2-person

'There were more than forty who joined this (conspiracy).'

(Acts 23:12; Anonymous 1929: 326)

Despite these few irregularities, the overall pattern emerging from the MLRA is that the complex RECP suffix is mainly used to encode prototypical-reciprocal situations, and that *-an* functions as a marker of naturally-reciprocal and (naturally-)associative situations. This indeed confirms our hypothesis that the distribution of the complex and simplex RECP extensions largely follows Kemmer's (1993) cross-linguistic observations, and that with respect to RECP marking the varieties of the KLC fit into the Type 2 languages (see 4.1.3).

4.3 The *-an* extension as lexicalized middle marker in the KLC

In Section 4.1.3, the reciprocal—both prototypical and natural—was briefly situated in the middle domain as described by Kemmer (1993). Reciprocal situations pertain to the middle domain in that i) the participants fulfill both agent(-like) and patient(-like) roles (Kemmer's *relative distinguishability of participants*), and ii) the argument structure of reciprocal predicates typically lacks a (prototypical) object. Kemmer (1993) focuses particularly on those situation types—such as natural reciprocals—whose predicates carry derivational morphology but which do not involve a diathesis alternation. Following Kulikov (2011), we define diathesis here as a pattern of mapping semantic arguments onto syntactic functions (grammatical relations). In Kemmer's work on 'the middle voice', such situation types are integrated into the middle domain, in addition to the common diathesis-alternating derivations such as the passive, reflexive, and anticausative. Examples of middle situation types are situations of grooming (e.g. *bathe*), change in body posture (e.g. *sit down*), non-translational and translational motion (e.g. *turn* and *go* respectively), emotion (e.g. *be glad*), cognition (e.g. *know*) and spontaneous (e.g. *sink*) situations (see Kemmer 1993: 268-270 for a detailed overview and more examples).

As in several other Bantu languages (Bostoen et al. 2015: 755-758), the reflex of PB **-an* is not only used in the KLC to encode reciprocity. Just like other Bantu languages

with two reciprocal markers, such as Luba (see Dom et al. 2015), Kikongo varieties follow Kemmer's observation that the simplex marker is typically also used with predicates denoting middle situation types, as exemplified in (69).

(69) a. **Emotion verbs**

Ciwoyo [West] (KongoKing 2012, fieldwork by S. Dom)

*sak-**án*** 'play, have fun'

< No underived verb base attested in Ciwoyo. However, *sak* 'look for, search' or 'chase' is attested in Kikamba [North] (Bouka 1989), Kimanyanga [Central] (Laman and Meinhof 1928-29), Kintandu [East] (Daeleman 1983), and Kisuku [Kikongoid] (Nsangu 1972).

< No reconstruction of this verb with *-an* is attested (Bastin et al. 2002). The underived verb *sak* in the other KLC varieties are most likely retentions of **càk* 'search for' or **càk* 'drive, chase'.

b. **Perception verbs**

Yilumbu [West] (Mavoungou and Plumel 2010)

*keb-**an*** 'watch out, pay attention'

< *keb* 'watch out, pay attention' (Mavoungou and Plumel 2010)

< No reconstruction of this verb with *-an* is attested. It is derived from PB **kéb* 'look (at/round/behind), search for'.

c. **Speech act verbs**

Kihungan [Kikongoid] (Kasuku-Kongini 1984)

*táph-**ân*** 'tell a story'

< No underived base verb attested in Kihungan.

< No reconstruction of this verb with or without *-an* is attested.

17th c. Kisikongo [South] (Van Wing and Penders 1928)

*nong-**an*** 'reply'

< *nong* 'reply to an argument (in a discussion)' (Van Wing and Penders 1928)

< No reconstruction of this verb with or without *-an* is attested.

d. **Spontaneous situation verbs**

Yilumbu [West] (Mavoungou and Plumel 2010)

*bung-**an*** 'be(come) wasted/rotten'

< *bung* 'waste (tr.), destroy, spoil' (Mavoungou and Plumel 2010)

< No reconstruction of this verb with our without *-an* is attested.

Kintandu [East] (Daeleman 1983)

*zíímb-**án*** 'get/become lost'

< No underived verb base attested in Kintandu. It is clearly semantically related to the Kiyombe [West] verb *zíímbís* 'forget' (De Grauwe 2009), with the same root but derived by the causative extension *-is*.

< No reconstruction of this verb with or without *-an* is attested. However, it might be related to **dímbad* 'get lost', with the same root but taking the extensive extension **-ad*.

Kiyombe [West] (De Grauwe 2009)

*búút-**án*** 'procreate, multiply'

< *búút* 'procreate' (De Grauwe 2009)

< No PB reconstruction of this verb with *-an* is attested. However, it is derived from PB **bót* 'bear (child)'.

Late-18th c. Kikongo as spoken in Kakongo [West] (Descourvières 1773)

*lém-**an*** 'be(come) hurt, skinned, be(come) stabbed'

< No underived verb base attested in this KLC variety.

< No reconstruction of this verb with or without *-an* is attested.

e. **Translational motion verbs**

Yilumbu [West] (Mavoungou and Plumel 2010)

*pepal-**an*** 'waddle'

< No underived verb base attested in Yilumbu.

< No reconstruction of this verb with or without *-an* is attested.

*vhut-**an*** 'return, turn back'

< No underived verb base attested in Yilumbu. However, it is clearly related to Yilumbu *vhutusi* 'give back, return sth. to owner, repay' and *vhutugh* 'return, come back' (Mavoungou and Plumel 2010).

< No reconstruction of this verb with or without *-an* is attested.

Kihungan [Kikongoid] (2015, fieldwork by J. Koni Muluwa)

*nik-**ân*** 'move (oneself)'

< No underived verb base attested in Kihungan.

< No reconstruction of this verb with or without *-an* is attested.

These examples demonstrate not just the middle (i.e. non-reciprocal) semantics of *-an* in these KLC varieties, but also the degree to which the extension has become lexicalized with middle situation verbs. In most cases there is no verb root without *-an* in the language variety, and if such a 'non-extended' verb root does exist, as e.g. in (69)b, the relation between the two verbs is not one of reciprocal derivation. In some instances, other extended verb bases can be related to the *-an* verb, such as Yilumbu *vhut-**an***, *vhutusi* and *vhutugh* in (69)e. Moreover, none of the middle verbs with *-an* can be directly related to a reconstructed PB verb stem extended with the same suffix. This could indicate that either the verb roots denoting lexical middle semantics themselves or their extensions with *-an* are innovations. However, for the time being, the history of their origin and development remains elusive.

4.4 Origin and time-depth of multiple-reciprocity marking in the KLC

After having established the synchronic functional distribution between the simplex and complex RECP markers and after having shown that the simplex reflex suffix of PB **-an* evolved into a lexicalized middle marker within the KLC, we focus in this section on the origin and time-depth of the complex RECP marker. Crucial here is the question whether the complex RECP marker can be reconstructed to PKK or whether it emerged independently after the break-up of the KLC's most recent common ancestor, possibly as a convergent innovation in the different subgroups or in each of the individual languages. In order to answer this question we first need to identify the possible origin of the first element of the complex RECP marker which, we will argue, is related to the causative suffix *-is*.

Table 7. Complex reciprocal markers in the KLC. (left)
Table 8. Causative markers in the KLC. (right)

NW-KIKONGO	
SNG	**?**
SHR	**?**
NGB	**?**
PN	**asan**
LMB	**asan**
SW-KIKONGO	
VL_1	**asan**
VL_2	**?**
YMBI	**?**
$YMBE_1$	**asan**
$YMBE_2$	**?**
WY_1	**izyan**
WY_2	**azian**
SND_1	**asan**
LNJ_1	**?**
LNJ_2	**?**
ZB	**?**
KC	**azian**
KWK	**?**
MBL	**?**
ZL	**asan**

N-KIKONGO	
BMB	**asan**
KMB	**asan**
KNY	**?**
HGL	**?**
LD	**asan**
DND	**?**
SND_2	**asan**
MNY	**asan**
NDB	**azian**
S-KIKONGO	
MBM	**asan**
SL_1	**asan**
SL_2	**?**
SK	**azyan/asan**
ZMB	**azyaan**
PROTO-KIKONGO	
***-izyan-**	
PROTO-BANTU	
***-id-+*-i- + *-an-**	

KIKONGOID	
TSM	**?**
HGN	**?**
YK	**asan**
SK	**asan**
E-KK	
NTD	**asan**
NKN	**asan**
MBK	**asan**
MBT	**asan**
DMB	**azyan**
TST	**azyan**
SBM	**asyan**
PMB	**?**
DHG	**?**

NW-KIKONGO	
SNG	**is**
SHR	**?**
NGB	**?**
PN	**is**
LMB	**is**
SW-KIKONGO	
VL_1	**is**
VL_2	**?**
YMBI	**?**
$YMBE_1$	**is**
$YMBE_2$	**?**
WY_1	**is**
WY_2	**iy/is**
SND_1	**is**
LNJ_1	**is**
LNJ_2	**?**
ZB	**is**
KC	**?**
KWK	**?**
MBL	**is**
ZL	**is**

N-KIKONGO	
BMB	**is**
KMB	**is**
KNY	**?**
HGL	**is**
LD	**is**
DND	**is**
SND_2	**is**
MNY	**is**
NDB	**is**
S-KIKONGO	
MBM	**is**
SL_1	**is**
SL_2	**is**
SK	**is**
ZMB	**is**
PROTO-KIKONGO	
***-iz-? *-is-? -iz-/-is-?**	

KIKONGOID	
TSM	**is**
HGN	**is**
YK	**is**
SK	**is**
E-KK	
NTD	**is**
NKN	**is**
MBK	**is**
MBT	**is**
DMB	**is**
TST	**is**
SBM	**is**
PMB	**is**
DHG	**is**

Table 7 shows the diversity in the phonological shape of the complex marker within the KLC. All complex RECP markers share a final *-an* preceded by an element containing an alveolar fricative. They formally differ, however, along three parameters: i) whether the fricative is voiced or not; ii) whether it is followed by a palatal glide (also noted as < i >) or not; iii) whether the initial vowel of the first element is /i/ or /a/.

Based on the available documentation, *-asan* is indeed the most common form occurring in all different subgroups. However, other forms are attested in several of the subgroups, i.e. West, South and Central Kikongo, the latter being rather a language contact zone than a true genealogical subgroup (de Schryver et al. 2015).[32] The *-asyan* form is only attested in South Kikongo, including 17th c. South Kikongo; the *-azyan* form is only attested in South and West Kikongo, including 18th c. West Kikongo; the *-izyan* form is only attested in Ciwoyo [West].

When one compares Table 7 with Table 8, one notes indeed a great deal of similarity between the first element of the complex RECP marker and the causative (CAUS) marker, at least as far as the fricative consonant is concerned. Even if there is no one-to-one correspondence for each and every language within the KLC, the first consonant of the complex RECP marker is reminiscent of the alveolar fricative occurring in common Bantu 'long causative' suffixes (Bastin 1986). In the remainder of this section, we present evidence which strongly suggests that the first element of the complex RECP is indeed a long causative suffix, more specifically one which is itself historically complex in that it is composed of the PB applicative (APPL) suffix **-ɪd* and the PB short CAUS suffix **-i* (Section 4.4.1). We furthermore argue that the diverse present-day forms of the element preceding *-an* in the complex RECP marker can be accounted for by the application (or not) of the following sound changes: i) Y-absorption (Section 4.4.2); ii) spirant devoicing (Section 4.3); iii) left-to-right vowel copying (Section 4.4.4). Finally, in Section 4.4.5, we propose the reconstruction of the (CAUS-)RECP marker **-izyan* in PK and try to figure out how it may have evolved semantically from the compositional 'reciprocity of causation' to the non-compositional 'prototypical reciprocal' meaning.

4.4.1 Long causative **-ɪd-i*

In this subsection we argue that the first component of the KLC's complex RECP suffix is a lesser-known CAUS suffix that is itself historically composite. Bastin (1986: 130) not only reconstructs two PB CAUS extensions with an original complementary distribution, **-i* after C and **-ici* after V (Schadeberg 2003: 73), but also a distinct long ('polyphonic') CAUS suffix **-ɪdi* whose reflexes generally have a voiced alveolar/palatal fricative. Such is the case, for instance, in Swahili and neighbouring languages which have two sets of long causative extensions, i.e. *-ish/-esh* vs. *-iz/-ez* (Miehe 1989: 111). Bastin (1986: 130) considers **-ɪdi* to be a later innovation, which results from the 'fixing' ("*figement*") of a

[32] This is the reason why Central Kikongo is not mentioned in the Tables and that the Kimanyanga and Kindibu varieties are simply marked with a dashed line. The dashed-dotted line between North-West and South-West Kikongo marks that these are two distinct genealogical units within the West Kikongo subgroup.

sequence of suffixes comprising the APPL *-*ɪd* and the monophonous CAUS *-*i* and which may have occurred independently in different parts of the Bantu domain. According to Map 2 of Bastin (1986: 142), *-*ɪdi* is not widespread in the Kongo area, but at least one form ambiguous between *-*ɪdi* and *-*ici* is marked on this map. Although it is not explicitly mentioned, it might be the so-called 'Fiote' variety which Bastin (1986: 118) lists among the languages where *-*ɪdi* is a rare variant of *-*ici*.

In his short 'Fiote' grammar on the variety spoken in Loango, Ussel (1888: 28) mentions different CAUS and RECP forms of the verb *sal* 'work', i.e. *sal-**isi*** 'make work', *saz-**i*** 'help to work', *sal-**izian***, *sal-**isian*** 'work for each other'. However, while we note indeed two types of long causative-like forms in the complex RECP suffixes, i.e. *-izi* and *-isi*, the CAUS forms themselves seem to be direct reflexes of the PB *-*ici* and *-*i*. The consonant of the long CAUS suffix in *sal-**isi*** is voiceless as in in *-*ici*. The short CAUS suffix *-i* in *saz-**i*** triggers the mutation of the stem-final consonant /l/ into /z/, a regular sound shift commonly known as 'Bantu Spirantization' (Schadeberg 1994-1995, Bostoen 2008).

Such is the case in the 'Fiote' grammar of Carrie (1888: 74-75), which deals with the 'Kakongo dialect'. Carrie distinguishes between the common causative ending *-issi* used to mark indirect and adjutive (< Latin *adiutare* 'to help') causatives, such as *sal-**issi*** 'make work', *vat-**issi*** 'help to plant', *iza m'pangh-**issi-a*** 'come and work with me', and what he considers to be two rarely used CAUS suffixes, as in *saz-**i*** 'make work', *vaz-**i*** or *vass-**i***, 'make plant', *lung-**i*** 'make watch over' and *leng-**i*** 'make light'. He considers these uncommon CAUS suffixes as semantically equivalent to *-issi* by which they are commonly replaced. As a matter of fact, what he considers to be two distinct suffixes is actually only one, i.e. the reflex of the PB short CAUS *-*i* triggering the spirantization of the preceding alveolar consonants /l/ (*sal*) and /t/ (*vat*), but not of /ng/. Carrie (1888: 74-75) furthermore provides evidence for two distinct forms of the long RECP extension, as in *sal-**issian*** 'work for each other' and *keb-**izian*** or *keb-**azian*** 'protect each other'.

However, in his grammar of Kikongo as spoken in Kakongo in the late-18th century, the oldest one for West Kikongo, Descourvières (1776), does provide evidence for three distinct CAUS extensions distinguished by Bastin (1986: 130), i.e. 1) the reflex of PB *-*i*, as in *tonz-**i*** 'make happy', *boz-**i*** 'make rot', *kunk-**i*** 'accustom someone or something'; 2) the reflex of PB *-*ici*, as in *ib-**isi*** 'order, help to steal', *sal-**isi*** 'make work'; 3) the reflex of *-*ɪdi*, as in *bol-**ezi*** 'make rot'.

Given the distribution of similar long causative suffixes throughout Bantu and the occurrence of *-iz* in complex RECP markers of other KLC subgroups, *-iz* as CAUS marker is unlikely to be an innovation of West Kikongo, but rather a unique retention. Moreover, the existence of long CAUS and long RECP suffixes where /z/ is still followed by /i/ or /y/ suggests that this long causative suffix was itself originally a composite suffix consisting of APPL *-*ɪd* followed by short CAUS *-*i*, as proposed by Bastin (1986: 130).

4.4.2 Y-absorption

In this subsection we demonstrate why in most KLC varieties the front vowel immediately preceding *-an* in the complex RECP suffix became lost. The absorption of /y/, the reflex of the short causative **-i*, into the preceding fricative that results from spirantization is a common Bantu sound change (Bastin 1986, Hyman 2003b, Bostoen 2008). Given the rarity of the short causative **-i* within the KLC, this process is difficult to observe synchronically in Kikongo varieties, but it can be observed in lexicalized form as the outcome of diachronic sound change, by comparing for instance the reflexes of PB **kópía* 'shortness' and **kópí* 'short': Kiyombe [West] *kúfá* 'shortness' vs. *lukúúfi* 'short distance' (De Grauwe 2009); Ciwoyo [West] *kúfa* 'be short' (Vandenabeele 2016); Kimanyanga [Central] *kúfa* 'be short' vs. *nkúfi* 'shortness' (Laman 1936); Kisikongo [South] *kúfama* 'be shortened' vs. *kufi* 'short'(Bentley 1887). While the word-final front vowel of PB **kópí* 'short' is maintained, it is always absorbed by the preceding fricative when it is followed by another vowel, in this case /a/.

Y-absorption applies less systematically for the reflexes of PB **díá* 'water' in the KLC. 18th c. West Kikongo from Kakongo has the unabsorbed reflex *mazia* (Descourvières 1773), while several present-day West Kikongo varieties have a reflex ending in *i*, i.e. *mazi* in Cizali, Ciwoyo, Iwoyo and Cisundi (Mingas 1994, Futi 2012, Vandenabeele 2016) and *masi* in Civili and Kiyombi (Nguimbi-Mabiala 1999, Mavoungou and Plumel 2010). In all other subgroups of the KLC, reflexes manifesting Y-absorption are found, either *maza* as in mid-17th c. South Kikongo (Van Gheel 1652) and elsewhere in South Kikongo, Central Kikongo and North Kikongo or *masa* with spirant devoicing as in Kintandu [East] (Butaye 1909) and elsewhere in East Kikongo and Kikongoid.

For still other items, such as the reflexes of PB **dìam* 'sink, be in earth', **dìʊd* 'pull up; pull out of ground' and **dìʊk* 'come out of ground; arise; revive' where a morpheme boundary separates the successive vowels, Y-absorption takes places exceptionally, e.g. Kihangala [North] *zùùl* 'unbury' (Nguimbi-Mabiala 1999) and Kisolongo [South] *zuul* 'open, unfasten, untie, unblock' (Vandenabeele 2016). Most reflexes have retained the glide, as in *zyam* in Kimanyanga [Central] (Laman 1936), Cizali, Ciwoyo, Kimbala [West], and Kisolongo [South] (Vandenabeele 2016), *zyaám* in Kiyombe [West] (De Grauwe 2009), *zyùùl* in Kikamba [North] (Nguimbi-Mabiala 1999), *cúziúl* in 17th c. South Kikongo (Van Gheel 1652) and *ziuk* in Iwoyo [West] (Anônimo 1948).

These examples show that Y-absorption applies rather irregularly within the KLC, certainly across morpheme boundaries and that several exceptions are found in all subgroups. This probably accounts for the fact that among the complex RECP markers, one still finds forms like *-azyan*, *-asyan* and *-izyan* along with the most common 'Y-absorbed' form *-asan*.

4.4.3 Spirant-devoicing

In this subsection, we show why certain complex RECP suffixes in the KLC still have a voiced consonant, while most others have a voiceless one. The devoicing of fricatives or affricates resulting from the spirantization of voiced stops is a common phenomenon across Bantu (Nurse and Hinnebusch 1993, Labroussi 2000, Bostoen 2009, Nabirye 2016). Within the KLC, spirant-devoicing in C_2 position is a regular sound shift in the Kikongoid, East Kikongo, and North-West Kikongo subgroups, as illustrated with some reflexes of PB **gàdí* 'palm oil', e.g. *maasi* in Kisuku [Kikongoid] (Kifindi 1997), *máasi* in Kintandu [East] (Daeleman and Pauwels 1983), *maatsi* in Yipunu [West] (Mavoungou and Plumel 2010), and PB **jodi* 'cold', e.g. *kyóósi* in Kiyaka [Kikongoid] (Ruttenberg 2000), *kiosi* in Kinkanu [East] (KongoKing 2012, fieldwork by K. Bostoen), *yootsi* in Yilumbu [West] (Mavoungou and Plumel 2010). These are the same subgroups, where only *-asan* is attested as the long RECP marker and *-is* as the long CAUS marker. Taking into account spirant-devoicing, the long CAUS marker could thus be a reflex of either **-ici* or **-ɪdi*.

Spirant-devoicing in C_2 position is also commonly observed in languages belonging to South-West Kikongo, North Kikongo and Central Kikongo, but not as systematically as in Kikongoid, East Kikongo, and North-West Kikongo. This is illustrated with the reflexes of the following PB stems, e.g. *maasi* in Cisundi [West] (Futi 2012) vs. *máanzi* in Kiyombe [West] (De Grauwe 2009), *máàsí* in Kibembe [North] (Nsayi 1984) vs. *mazi* in Cilaadi [North] (Jacquot 1982b), *mazi* in Kimanyanga [Central] (Laman 1936) and *kiyoosi* in Cilinji [West] (Drieghe 2013) vs. *tyóózi* in Kimbala [West] (Vandenabeele 2016), *kyootsi* in Kikunyi [North] (Bastin and Piron 1999) vs. *kyóózi* in Kidondo [North] (KongoKing 2015, fieldwork by S. Dom), *kiozi*/*kiosi* in Kimanyanga [Central] (Laman 1936). In these subgroups, we find long RECP markers with either voiced or voiceless fricative. The suffix *-is* is the most common long CAUS marker. This form could be a reflex of either **-ici* or **-ɪdi*.

Finally, spirant-devoicing in C_2 position is most rarely observed in South Kikongo. No devoiced reflexes of PB **gàdí* 'palm oil' were found, while devoiced reflexes of PB **jodi* 'cold' were only observed in Congolese Kisolongo, i.e. *kiósi* (Vandenabeele 2016), and Kizombo, i.e. *kyosi* (KongoKing 2015, fieldwork by H. Goes), two varieties which are in close contact with varieties from other subgroups where spirant-devoicing commonly occurs. South Kikongo has long RECP markers with either voiced or voiceless fricative, but *-is* is the only long CAUS marker and therefore is most probably a reflex of **-ici*.

The variable application of spirant-devoicing in the KLC accounts for the fact that until today long RECP markers with a voiced fricative have survived, especially in those subgroups where the sound shift is either irregular or rather exceptional. The more frequent conservation of the voiced fricative in the long RECP marker could be due to the

fact that it does not occur in word-final position unlike in the long CAUS marker. Spirant-devoicing is more common word-finally in the KLC.

4.4.4 Right-to-left copying of the vowel /a/

In this subsection, we argue why the first vowel of the complex RECP suffix is /a/ in most varieties instead of /i/. If the first element of the long RECP marker in the KLC is indeed a reflex of the long CAUS suffix *-*ɪdi*, it needs to be explained why it only has an initial front vowel in Ciwoyo [West] and everywhere else an initial low vowel /a/ (see Table 7). This could be accounted for by the regressive copying of the vowel of -*an*. Right-to-left copying of the vowel /a/ has not been described for many varieties within the KLC, but Hyman (1998: 54) does report 'at-a-distance' spreading of the final vowel *a* in Kiyaka [Kikongoid]. These instances all involve the imbrication of either the causative morph -*is* or the first -*il* of the -*ilil* suffix, as shown in (70). Imbrication is a common Bantu process of morpheme fusion, whereby certain verbal suffixes merge or whereby a suffix is infixed into certain verb roots (Bastin 1983). As seen in (70), where the consonant of the first suffix -*ul* (i.e. the reflex of the PB transitive separative *-*ʊd*) is dropped, this morpheme merger usually involves the following shift: V1 C1 V2 C2 V3 → V1 V2 C1 V3. In (70)b, laterals are turned into nasals as the outcome of progressive nasal harmony triggered by the root-initial nasal (Hyman 1995).

(70) Kiyaka [Kikongoid]

a.	°*kab-**ul-is-il***	>	*kab**wasal***	'answer, strike again'	cf. *kabul*	'return'
					kabwal	'return for'
					kabwas	'make return'
b.	°*mok**ul-ilil***	>	*mok**wanan***	'beg, ask for pardon'	*mok*	'chatter'
c.	°*yak**ul-is-an***	>	*yak**wasan***	'call to each other'	*yakul*	'question'
d.	°*yek**ul-is-an***	>	*yek**wasan***	'separate, divorce'	*yekul*	'separate, split'
					yekwas	'divide'
e.	°*ziimb**ul-is-an***	>	*ziimb**wasan***	'tell each other'	*ziimbul*	'explain, show'

Daeleman (1966: 159) reports synchronic free allomorphy between -*isan,* -*isin* and -*asan* in Kintandu [East], as illustrated in (71). He considers all three analysable as °-*is*-*an*.

(71) Kintandu [East]

*sad-**isan**/sad-**isin**/sal-**asan***	'offer each other help, help each other'
*tad-**isan**/tal-**asan***	'look at each other, sit in front of each other'

*bud-**isan**/bud-**isin**/bul-**asan*** ‘exchange, barter, bump into each other’

Similarly, Daeleman (1966: 159-160) describes that °*-ul-is-an* appears as *-wasan,* but also as *-usan*, *-usun* or *-usin*, as shown in (72).

(72) Kintandu [East]

*yakw**asan**/yak**usun***	‘catch from each other’
*yufw**asan**/yuf**usin***	‘make each other ask questions’

Moreover, it is also observed with other suffixes having a front vowel (Daeleman 1966: 163-165), as shown in (73).

(73) Kintandu [East]

*tamb**akan*** (°*tá:mb-ik-an*)	‘hand over, provide rapidly, spread (intr.), proliferate’
*tamb**akas*** (°*tá:mb-ik-an-is*)	‘make hand over rapidly, spread (tr.), make proliferate’
*tamb**alakan*** (°*tá:mb-il-ik-an*)	‘spread/proliferate everywhere, be entirely interlaced’
*tamb**alakas*** (°*tá:mb-il-ik-an-is*)	‘make spread/proliferate everywhere’

The evidence from Kiyaka and Kintandu, which is rarely found in such detail for other varieties, indicates that turning the front vowel of a causative suffix into a low vowel when followed by RECP *-an* is a possible ‘at-a-distance’ sound shift within the KLC, which may account for the fact that most long RECP markers start with /a/ instead of /i/.

4.4.5 Reconstruction of a complex reciprocal marker in Proto-Kikongo

From the preceding, we propose that all complex RECP markers presented in Figure 10 and Table 7 originate from the same composite RECP marker **-izyan* in PKK, consisting of **-ɪd* (APPL) +**-i* (CAUS) + **-an* (RECP) and which was conserved as an archaism in Ciwoyo [West] only. Elsewhere in the KLC, it evolved according to the following cline: (a) **-izyan* > (b) *-azyan* > (c) *-asyan* > (d) *-asan*, whereby the shift from (a) to (b) is due to right-to-left vowel copying, from (b) to (c) due to spirant devoicing and from (c) to (d) due to Y-absorption.

From a semantic point of view, it is more difficult to explain how a transitivising causative suffix can become part of a non-compositional detransitivising RECP marker. Nevertheless, present-day internal variation could provide some clues in this regard. Synchronically, the extensions *-is* and *-an* can still be observed in different orders, which clearly generate distinct meanings, i.e. ‘causation of reciprocity’ vs. ‘reciprocity of

causation', as the examples from Kintandu (Daeleman 1966: 158-159) in (74) show. In (74)a, where the RECP suffix precedes the CAUS suffix, the verb stems primarily refer to a reciprocal event, signalled by the RECP marker, which is made possible through the act of helping expressed by the (adjutive) CAUS marker. In (74)b, where the CAUS suffix precedes the RECP suffix, the basic meaning is causative, as signalled by the CAUS marker, but the causation is made mutual through the RECP marker. In Kiyombe [West], De Clercq (1921: 55) considers *-asan* to be 'the ancient causative of reciprocals', but from his examples it is clear that it is rather 'reciprocity of causation' as in (74)b, e.g. *sik* 'perish'*, sik-**asan*** 'exterminate each other' (= 'make each other perish').

(74) Kintandu [East]

a. °-*an-is*

*but-**anis***	'help to multiply, stimulate propagation'	<	*but-**an***	'propagate, multiply'
*zol-**anis***	'help to love e.o., reconcile'	<	*zol-**an***	'love each other'
*bak-**anis***	'help to catch up, promote good underst.'	<	*bak-**an***	'catch up, agree'

b. °-*is-an*

*gog-**asan***	'make e.o. to speak, speak to e.o.'	<	*gog-**is***	'make speak'
*bul-**asan***	'make e.o. to strike/ bump into e.o.'	<	*bud-**is***	'make strike'
*tamb-**asan***	'make e.o. to reach/stretch, relieve e.o.'	<	*tamb-**is***	'make stretch'
*land-**asan***	'follow e.o., queue up'	<	*land-**is***	'make follow'

Although this hypothesis would benefit from more evidence, which is not available for the time being, the rise of **-izyan* as a prototypical RECP marker possibly results from a generalization of its meaning from 'reciprocity of causation' to 'reciprocity' *tout court* and from its use with primarily intransitive verbs to other verb classes.

4.5 Conclusions

The study presented in this chapter had two main goals. The first aim was to investigate the semantics of two reciprocal extensions with seemingly identical functions in varieties of the KLC through a corpus-driven approach. By means of a multiple logistic regression analysis on a corpus representing four KLC doculects from the 1920s, we tested and confirmed the hypothesis that the semantic distinction between prototypical and natural-

reciprocal events plays a major role in the use of either the short or long RECP extension. Moreover, we showed how the simplex extension *-an* is also used in many KLC varieties with verbs denoting other middle situation types, thus having a more diverse semantic range related to the middle domain than simply expressing reciprocity. As for the complex RECP suffix, we argue that it goes back to PKK and reconstruct the form **-izyan*, which probably widened its meaning from 'reciprocity of causation' to 'reciprocity' in general. This means that **-izyan* and the inherited PB *-an* coexisted in older stages of the KLC before it split into different languages. Comparative research on other West-Coastal Bantu languages would be needed to determine whether this multiple-reciprocity marking is older than PKK. The existence of similar complex RECP in South-West Bantu suggests that it does have considerable time depth within western Bantu.

Part 2

TENSE AND ASPECT IN THE KIKONGO LANGUAGE CLUSTER

Chapter 5 Examining variation in the expression of tense/aspect to classify the Kikongo Language Cluster

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Abstract

In this chapter we examine variation in the expression of tense and aspect (TA) in 23 modern and 2 historical Bantu language varieties belonging to Guthrie's B40, H10 and H30 groups in order to shed light on the internal classification of the Kikongo Language Cluster (KLC). We apply the Comparative Method to this specific set of morphological data to test a recent phylogenetic classification of the KLC. We identify eight widespread TA markers as shared retentions dating back to the period before the internal fragmentation of the KLC. Six of these are inherited from PB. Two other markers go back to Proto-Kikongoid and Proto-Kikongo (PKK). They confirm that the KLC constitutes a discrete clade within West-Coastal Bantu. We furthermore distinguish fourteen shared innovations that took place after the break-up of the last common ancestor of the KLC. These innovations provide corroborating evidence for three phylogenetic subgroups within the KLC, namely East, South and West, and for the fact that the latter subgroup falls apart in two discrete genealogical subunits. These innovations furthermore testify to the horizontal transmission of TA features between subgroups. Such language convergence often correlates with relatively recent historical developments within the Lower Congo region and contributed to the multi-layered constitution of the KLC.

Keywords

Kikongo Language Cluster; tense/aspect; language classification; language contact; Comparative Method

5.1 Introduction

The KLC is a disparate continuum of closely related Bantu languages spreading over large parts of four neighbouring countries, i.e. southern Gabon, the southern part of the Republic of the Congo, the Kongo-Central province of the DRC, and northern Angola including Cabinda. According to Lewis et al. (2014), a total population of approximately five million people in these four countries would speak a variety of Kikongo as their first language. Lumwamu (1973: 13) estimates the number of Kikongo varieties at 51. In his updated version of Guthrie's (1948, 1971) referential Bantu classification, Maho (2009) lists up to 31 varieties as part of the 'H10 Kikongo Group'. For its comparative research, the KongoKing research group has selected some 32 different present-day Kikongo H10 regiolects, together with 3 B40 and 4 Kikongoid languages that are assumed to be sufficiently representative of the linguistic variation that exists within the KLC.[33]

Recent phylogenetic research by de Schryver et al. (2015) has pointed out that 1) the KLC not only comprises language varieties from Guthrie's H10 group, but also from the B40, H30, H40 and L10 groups; 2) the KLC constitutes a discrete clade within 'West-Coastal Bantu'; 3) a number of H30, H40 and L10 languages within that clade, which de Schryver et al. (2015) call 'Kikongoid', branch off before the core KLC; 4) the latter falls apart in four discrete subgroups, i.e. 'North', 'South', 'East', and 'West'; 5) a central contact zone, situated north and south of the unnavigable stretches of the Congo River and comprising the Kimanyanga and Kindibu varieties, developed between these four subgroups.[34]

Although the phylogenetic study by de Schryver et al. (2015) is the most comprehensive classification of the KLC so far and also the first to be fully character-driven, it remains a first step in our historical comprehension of the KLC, since it is based on a limited dataset, viz. 92 items of so-called 'basic' or 'core' vocabulary. It thus needs to be tested against other datasets, both phonological and grammatical, either by applying new quantitative approaches or through the classical Comparative Method, in order to acquire a multi-levelled understanding of the internal constitution and evolution of the

[33] KongoKing (2012-2016) is an interdisciplinary and interuniversity research project, led by the second author and funded by the European Research Council through Starting Grant No. 284126 and by the Special Research Fund of Ghent University.

[34] The terms North, South, East, West and Central refer to genealogical (sub)grouping. Northern, western, eastern, southern and central, i.e. with lower case, indicate geographic locations.

KLC. In this chapter, we focus on a grammatical piece of this layered puzzle by having a closer comparative look at one specific set of morphological data in Kikongo, namely TA markers.

Building on earlier MA research by the first author (Dom 2013), we compare here the most frequent TA markers in 25 varieties in order to assess to what extent their variation within the KLC corresponds to the classification proposed by de Schryver et al. (2015). We first try to identify shared retentions, which go back either to PB or to a more recent ancestral stage, possibly PKK, which we tentatively define here as the most recent common ancestor of the KLC. We then attempt to identify shared innovations, which are indicative of either genealogical subgrouping or contact-induced diffusion within the KLC.

For this study, we draw on two kinds of data. The first type of evidence consists of new TA data collected by the first author during a linguistic fieldwork trip, which the KongoKing research team undertook in the Kongo-Central province of the DRC in the summer of 2012. This mission aimed at documenting lexical, phonological and grammatical variation in 10 poorly documented Kikongo varieties, i.e. Kimbata, Kimbeko, Kinkanu, Cizali, Ciwoyo, Kisolongo, Kimpangu, Cimbala, Cilinji and Kizobe (De Kind et al. 2012b). Extensive TA data were only gathered from the first 6 varieties.[35] The second type of data originate from grammatical descriptions of 28 different doculects representing 17 present-day varieties and 2 historical varieties. Because the phylogenetic study by de Schryver et al. (2015) has pointed out that B40 varieties from Gabon are actually part of the West Kikongo subgroup, we have also systematically considered three B40 varieties in our comparative study. For one marker in Kindibu, namely the locative-infinitive construction expressing progressivity, we rely on corpus-based evidence presented in De Kind et al. (2015). This brings the total number of varieties to 26, even if no further description of TA in Kindibu is available to us and we also have not been able yet to carry out a full-fledged corpus-based study. Table 9 and Table 10 give an overview of the two kinds of data as well as of the varieties and doculects covered in this study.

The quality and length of the grammatical descriptions are variable. For some varieties only one dissertation is available, whereas for others there is a dictionary, a grammar and one or more dissertations with a dedicated study of the verbal domain. Since we carried out neither extensive fieldwork nor text corpus analyses on the varieties considered here, our comparative study is unavoidably limited to those TA forms either documented in the literature or elicited during our field trip.

[35] We used a modified version of the questionnaire found in Tucker (1974) in which the most basic grammar components are treated. We updated it to sufficiently cover the rich TA categories of the Bantu languages, but it still was not detailed enough to allow for a detailed semantic analysis of TA in the languages considered here.

Table 9. Overview of present-day KLC varieties (1900 - present).

Grammatical descriptions		**KongoKing fieldwork 2012**
Cilaadi	(Jacquot 1982a)	Ciwoyo
Dihungu[36]	(Atkins 1954)	Cizali
Isangu	(Ondo-Mebiame 2000, Idiata 2006)	Kimbata
Iwoyo	(Mingas 1994)	Kimbeko
Kibembe	(Nsayi 1984, Kouarata 2015)	Kinkanu
Kikamba	(Bouka 1989)	Kisolongo
Kimanyanga	(Laman 1912, Makokila Nanzanza 2012)	
Kimboma	(Kisilu Meso 2001)	
Kintandu	(Butaye 1910, Daeleman 1966)	
Kisikongo	(Ndonga Mfuwa 1995)	
Kisundi	(N'Landu Kitambika 1994)	
Kitsootso	(Baka 1992)	
Kiyaka	(van den Eynde 1968)	
Kiyombe	(De Clercq 1921, Bittremieux 1927)	
Kizombo	(Carter and Makoondekwa 1987, Mpanzu 1994)	
Yilumbu	(Gamille 2013)(Gamille 2013)	
Yipunu	(Bonneau 1956)	

Table 10. Overview of historical KLC varieties (before 1900).

Grammatical descriptions	
South Kikongo	(Guinness 1882b, 1882a, Bentley 1887)
West Kikongo	(Descourvières 1776, Carrie 1888)

Since not all varieties are equally well described, one always has to keep in mind that the lack of evidence for a given TA category or form in a given source is not necessarily proof of its absence in the variety concerned.

TA is expressed in three positions in Kikongo: i) preverbally, i.e. by means of auxiliaries or preverbal morphemes, ii) in the TA prefix slot of the conjugated verb, i.e. between the subject and object prefix slots, iii) in the final suffix slot of the conjugated verb. It is generally assumed that morphemes in the TA prefix slot have a different value, i.e. the encoding of tense, than those in verb-final position, i.e. the encoding of aspect (Nurse 2008a: 14-15).

We will mainly look at morphological means of expressing TA categories, since morphology is often better documented than syntactic strategies, such as the Fronted

[36] Dihungu and Kitsootso are included neither in Guthrie's (1948, 1971) classification nor in Maho's (2009) updated version. Baka (1992: 1-2) argues that Kitsootso is more closely related to the Kikongo group than to Kiyaka based on the criterion of intercomprehensibility with Kisundi, but not with Kiyaka. Atkins (1954: 146) considers Kitsootso to be a dialect of Dihungu.

Infinitive construction (Hadermann 1996, De Kind et al. 2015). However, some auxiliary constructions are attested frequently enough to treat them in this paper. Furthermore, although tones undoubtedly play an important role, most sources lack a proper tonological description. Therefore, we could not systematically consider tone in the comparison of the different TA structures. We do mark them in the examples when tones are provided in the original source. For fieldwork data we only mark surface tone. Because the focus of this study is on the comparison of shared TA features, we also do not treat markers that occur only in one individual variety. It is not our purpose to provide an extensive account of all TA markers found in the KLC.

Given that most existing TA descriptions for Kikongo varieties are very general, it is also not our aim to make refined semantic analyses (which seems rather impossible with the available data). This study mainly focuses on the form and only to a minor degree on the semantics of TA categories in Kikongo. Even though we compare cognates with often similar meanings, these forms are still different morphemes in different varieties having (slightly) different uses. Moreover, since the specific function of a single morpheme within a single variety is not always fully understood yet, we consider a number of prefixal and suffixal morphemes together as one morphological construction expressing a given TA category. As a result, we will sometimes state that 'one' marker (i.e., construction) expresses both tense and aspect (e.g., 'present habitual'). However, we are fully aware that a more detailed analysis of the TA paradigms for each of all the 26 varieties should make a distinction between those morphemes dedicated to the expression of tense and those specifically used to convey aspect.

In the next section, we present those markers attested in present-day Kikongo varieties which are undoubtedly retentions from PB. We also discuss their distribution within the KLC as well as their main functions, which in some varieties deviate from their more common use. In Section 5.3, we discuss two forms which are widely attested within the core varieties of the KLC, but are currently not attested outside of it, and can therefore be considered as shared retentions from the KLC's most recent common ancestor. Section 5.4 consists of two subsections: in Section 5.4.1 we present a total of 14 innovations and discuss both their geographical distribution and functions in the individual varieties. In Section 5.4.2. we assess to what extent their current distribution can be accounted for by either genealogical inheritance or contact-induced spread in order to gain a better understanding of language evolution within the KLC. Conclusions are presented in Section 5.5.

5.2 Shared retentions inherited from Proto-Bantu

In this section, we discuss widespread Kikongo TA markers the origin of which is likely to be older than the emergence of the KLC. These present-day forms are direct reflexes of morphemes that have been or could be reconstructed to PB. An overview of these TA markers is presented in Table 11. We not only take into consideration the actual number of varieties in which these TA markers are found, but also their distribution with regard to the phylogenetic subgroups identified by de Schryver et al. (2015).

Table 11. Overview of shared retentions in the KLC inherited from PB.

	Form	*-a-R-a*	*-a-R-idi*	*-Ø-R-idi*	*-Ø-R-a*	*-ang*	*mu INF*
	Function	P3	P1	PRF	PRS	IPFV	PROG
West[37]	Ciwoyo	✓	✓				
	Cizali	✓	✓	✓	✓	✓	
	Iwoyo					✓	
	Kisundi			✓			✓
	Kiyombe			✓	✓	✓	✓
	Isangu						
	Yipunu						
	Yilumbu					✓	
North	Kibembe	✓	✓	✓	✓		✓
	Kikamba	✓	✓	✓			✓
	Cilaadi			✓	✓	✓	
South	Kisikongo	✓	✓	✓		✓	✓
	Kisolongo	✓	✓	✓		✓	
	Kizombo	✓	✓	✓		✓	
	Kitsootso		✓	✓			✓
	Dihungu		✓	✓			
East	Kimbata			✓	✓	✓	
	Kimbeko			✓	✓	✓	
	Kinkanu	✓	✓	✓	✓	✓	
	Kintandu			✓	✓	✓	✓
Central	Kimanyanga	✓	✓	✓	✓	✓	✓
	Kimboma	✓	✓			✓	
Kikongoid	Kiyaka	✓	✓	✓			
	Total	11	13	17	9	14	8

[37] When comparing the distribution of TA constructions between multiple varieties from different phylogenetic subgroups, we indicate these phylogenetic subgroups in the first column. In the original article we followed the classification presented in de Schryver et al. (2015). However, the Tables in this chapter have been updated to the latest classification presented in Bostoen and de Schryver (2018a).

5.2.1 *-a-R-a*

The common Bantu past construction *-a-R-a* (Nurse 2008a: 83) is attested in 11 Kikongo varieties as a marker of remote past (P3), as seen in (75) and (76).

(75) Kisolongo (KongoKing 2012, fieldwork by S. Dom)
Wadyá mbízy'e?
u-a-di-a *N-bizi* *e*
SP_{2SG}-P3-eat-P3 CL_9-fish Q
'Did you eat fish?'

(76) Kibembe (Kouarata 2015: 95)
Béenu lwásala.
béenu *lu-a-sal-a*
you SP_{2PL}-P3-work-P3
'You worked (a long time ago).'

The TA prefix *a-* has a wide Bantu distribution. It appears in 84% of Nurse's (2008a: 82) language sample and is most often involved in the expression of past time reference (Nurse and Philippson 2006: 158-164). Both the prefix *a-* and the FV *-a* have been reconstructed to PB (Meeussen 1967: 110, Nurse and Philippson 2006: 158, Nurse 2008a: 237, 261).

In some varieties, this construction expresses other temporal meanings. It has been noted to have future time reference in Kikamba [North] (Bouka 1989), Kiyaka [Kikongoid] (van den Eynde 1968: 55), Kimanyanga [Central] (Laman 1912: 160) and Kisikongo [South] (Bentley 1887: 651). Laman (1912: 277), for example, states that the future indicative *-a-R-a,* as in (77)a, "denotes an action that is going to happen, without indicating how soon". As shown in (77)b, *-a-R-a* may also express past time reference in Kimanyanga (Laman 1912: 160, Makokila Nanzanza 2012: 152). It is not clear how Kimanyanga speakers disambiguate between both meanings, since Laman (1912) does not consider the tonal patterns of these forms, and the *-a-R-a* future is not treated in Makokila Nanzanza (2012). In Section 5.3.2., we further discuss this issue.

(77) Early-20th c. Kimanyanga (Laman 1912: 277, 276 respectively)
a. *Mbazi yasumba nkombo.*
mbazi *i-a-sumb-a* *N-kombo*
tomorrow SP_{1SG}-FUT-buy-FV CL_9-goat
'Tomorrow I shall buy a goat.'
b. *Nzambi wavanga zulu ye ntoto.*
N-zambi *u-a-vang-a* *Ø-zulu* *ye* *N̩-toto*
CL_9-god SP_1-P3-make-P3 CL_5-heaven and CL_3-earth

‘God created heaven and earth.’

In Kitsootso and Dihungu, two Kikongo varieties spoken in Angola, the construction’s function is restricted to the expression of the generic present (Atkins 1954: 154, Baka 1992: 105). It expresses generic (also called ‘gnomic’) situations (78)a, and is therefore often used with stative verbs (78)b, which inherently denote static, unchangeable states.

(78) Kitsootso (Baka 1992: 106)

a. *Kù Múkábá yávwânlà.*
   ku *Mukaba* *i-a-vwanl-a*
   LOC_{17} Mukaba SP_{1SG}-PRS-live-PRS
   ‘I live at Mukaba.’

b. *Yá mbìzì yàwólà.*
   ya *N-bizi* *i-a-wol-a*
   DEM_9 CL_9-meat SP_9-PRS-be_bad-PRS
   ‘This meat is bad.’

The non-past uses of this TA marker have only been found in a very small number of sources each, not frequently enough to consider them as one of the construction’s regular meanings. Explaining in detail the apparent polysemy of this TA marker – if it is not homonymy – goes beyond the scope of this chapter.

5.2.2 *-a-R-idi*

The TA construction *-a-R-idi* is attested in 13 varieties of the sample. It consists of two morphemes of PB origin, i.e. *a-* discussed in the previous section and the reflex of the suffix **-ide* (Meeussen 1967: 110, Bastin 1983: 4, Nurse and Philippson 2006: 182-183, Nurse 2008a: 264). The construction is a common Bantu past-tense marker (Nurse and Philippson 2006: 162-163, 181, Nurse 2008a: 83). In Kikongo, it most often expresses past time reference, traditionally categorized as hesternal past (i.e., a past time referring to the day before the day of the moment of speech; see, e.g., Comrie 1985: 88, Dahl 1985: 126, Nurse 2008a: 22).

The suffix has a number of different realizations in the KLC, viz. *-idi*, *-ili*, *-izi* and *-iri*, some of which will be discussed below as regional features. The variation pertains solely to the reflex of the intervocalic consonant. In all Kikongo varieties, the first vowel **-i* has triggered progressive assimilation on the second vowel **-e,* resulting in *-iCi* (Bastin 1983: 49). In front of the final high front vowel, most varieties have [d] or [r] as regular allophone of [l]. In this section, the different forms are considered as one (‘abstract’) final morpheme, which we represent as *-idi*. The example in (79) illustrates the use of this TA

construction in Kisikongo. The suffix here undergoes vowel height harmony under the influence of the mid-vowel of the root (Bastin 1983: 13-16, Hyman 1999).

(79) Late-19th c. Kisikongo (Bentley 1887: 676)
Yantondele.
i-a-Ṇ-tond-idi
SP_{1SG}-P2-OP_1-love-P2
'I loved her.'

5.2.3 *-Ø-R-idi*

The TA marker consisting of a 'zero' morpheme in the TA prefix slot and a reflex of the PB final **-ide* has a wide distribution in the Bantu domain (Bastin 1983: 9-10, Nurse and Philippson 2006: 181-183, Nurse 2008a: 156, 264). Within the KLC, it is the most frequent TA marker having 17 attestations. In line with Brisard & Meeuwis' (2009) analysis of the FV *-i* in Lingala, this construction expresses the present perfect with focus on the end state in Kikongo, as shown in (80). When combined with stative verbs, such as *tong* 'be tired' in (81), the marker thus focuses on the present state of the subject. Note that in (81) the final is once again subject to vowel harmony triggered by the mid-vowel [o] of the verb root.

(80) Kimbata (KongoKing 2012, fieldwork by S. Dom)
Íngá, mu kyeléká, tútidi lo.
inga, mu ki-eleka Ø-Ø-tut-idi lo
yes LOC_{18} CL_7-truth SP_1-PRS-pound-PRF $PRON_{11}$
'Yes, she has definitely pounded it (*luku* 'cassava').

(81) Kisolongo (KongoKing 2012, fieldwork by S. Dom)
Mbutááme osádídi lumbu kya mvímba, otóngele.
Ṇ-buta-ame o-Ø-sal-idi Ø-lumbu ki-a
CL_1-mother-$POSS_{1SG}$ SP_1-PRS-work-PRF CL_7-day PP_7-CONN
N-vimba o-Ø-tong-idi
CL_9-whole SP_1-PRS-be_tired-PRF
'My mother has worked all day, she is tired.'

In a number of Kikongo varieties, the TA marker *-Ø-R-idi* also expresses (remote) past. As discussed in Section 5.4.1.1, this results from the loss of the *a-* prefix, which has led to a pair of formally identical markers expressing more than one TA category.

5.2.4 *-Ø-R-a*

The FV *-a* is often labelled 'neutral' (Nurse and Philippson 2006: 179, Nurse 2008a: 261). Meeussen (1967: 110) describes it as occurring "in most forms". Such descriptions seem to imply that it serves no functional purpose. However, it contrasts with other final suffixes such as subjunctive *-e* or past/perfect *-idi*. It has therefore been proposed to label final *-a* as 'indicative' (Nurse and Philippson 2006: 179, Nurse 2008a: 261). However, we do not adopt the term here since the TA categories expressed by e.g. the final *-idi* also fall under the indicative mood. The Kikongo TA marker *-Ø-R-a* most likely goes back to PB (Nurse and Philippson 2006: 166, Nurse 2008a: 236, 261).

This conjugation most frequently expresses present tense in Kikongo. The zero present is widespread throughout the Bantu languages (Nurse and Philippson 2006: 164, Nurse 2008a: 118). Interestingly, only 9 varieties in the sample have this present-tense marker. In the remaining 14 Kikongo varieties a number of new present-tense forms have developed, some of which will be presented further on as in-group innovations.

'Present tense' has to be understood as a flexible category, best defined broadly as a period of variable length located between past and future (Nurse 2008a: 116). The zero present incorporates the present progressive (82), habitual/continuous present (83) and generic present (84).

(82) Kimbeko (KongoKing 2012, fieldwork by S. Dom)
Khí badyá bana?
khi *ba-Ø-di-a* *ba-ana*
what SP_2-PRS-eat-FV CL_2-child
'What are the children eating?'

(83) Kimbata (KongoKing 2012, fieldwork by S. Dom)
Kyó kindendi kiyakálá thángu zaakulu kálééka.
kyo *ki-ndendi* *ki-yakala* *N-tangu* *zi-aakulu* *ka-Ø-leek-a*
DEM_7 CL_7-child CL_7-man CL_{10}-time PP_{10}-all SP_1-PRS-sleep-FV
'This boy sleeps all the time.'

(84) Kintandu (Daeleman 1966: 258)
Nzó zizinúka nsudi kabákótá zó ko.
N-zo *zi-Ø-zinuk-a* *N-sudi* *ka-ba-Ø-kot-a*
CL_{10}-house SP_{10}-PRS-smell-FV CL_9-bad_smell NEG-SP_2-PRS-enter-FV
zo *ko*
$PRON_{10}$ NEG
'Houses that have a bad smell are not entered.'

5.2.5 *-ang*

According to Sebasoni (1967: 134), the common Bantu suffix *-ang*, also attested as *-ag* or *-ak*, expresses a number of related meanings such as continuous, habitual, iterative, frequentative, repetitive, intensive, and durative, which can be subsumed under the more general TA category of 'imperfective' (Nurse and Philippson 2006: 190, Nurse 2008a: 138). It is attested in 14 of the varieties studied here and occurs in combination with the present (85), future (86) or past (87) tense.

(85) Cizali (KongoKing 2012, fieldwork by S. Dom)
Nkháma sába cyandi nséke cikééle, yikwénda kuntálánga káka kadíka lumbu.
nkhama *Ø-saba* *ci-andi* *N-seke* *ci-Ø-kal-izi*
despite CL_7-house PP_7-$POSS_1$ CL_9-distance SP_7-PRS-be-PRF
i-Ø-kwend-a *ku-Ṉ-tal-ang-a* *kaka* *kadika* *Ø-lumbu*
SP_{1SG}-PRS-go-FV CL_{15}-OP_1-see-IPFV-FV only every CL_7-day
'Despite his house being so far away, I just visit him every day.'

(86) Kimanyanga (Makokila Nanzanza 2012: 158)
Si báfutangá.
si *ba-fut-ang-a*
FUT SP_2-pay-IPFV-FV
'We will pay (often).'

(87) Kizombo (Carter and Makoondekwa 1987: 102)
Twakùnanga zó beéni, muná tandu kyá nkhulu.
tu-a-kun-ang-a *zo* *beeni* *muna* *Ø-tandu* *ki-a*
SP_{1PL}-P3-farm-IPFV-P3 $PRON_{10}$ often LOC_{18} CL_7-time PP_7-CONN
N-kulu
CL_9-old
'We certainly used to grow them (*enguba* 'peanuts') in former times.'

5.2.6 *mu INF*

The use of a locative element in the expression of progressivity is cross-linguistically common (Bybee et al. 1994: 129-131). This is also the case in Bantu, where the construction 'be+locative+verbal noun' has been reconstructed for PB (Bastin 1989a, 1989b, Nurse 2008a: 249). Nurse and Philippson (2006: 193) think that "since this is a process which occurs easily, quickly, and naturally, it could have occurred independently before, during, and many times since (and before) Proto-Bantu". Within the KLC, it is

found in a number of geographically distant varieties, which leads us to assume that it goes back to at least PKK (De Kind et al. 2015). Given its occurrence outside the KLC, even in immediately neighbouring groups, this construction cannot be considered as a shared innovation inherited from the KLC's most recent common ancestor. If not to PB, it certainly goes back to an older ancestral stage.

The construction has a number of reflexes in present-day Kikongo varieties. Some have retained the skeletal structure 'be+locative+verbal noun', such as Kindibu in (88) where the construction has been reshaped as 'locative+verbal noun+be'. Others, such as Kiyombe in (89), have reduced the class 18 locative marker to a homorganic syllabic nasal, in line with the common Kikongo process of prefix syncope (Bostoen and de Schryver 2015), and integrated it as a grammaticalized TA marker in the conjugated verb. In the latter variety, the morphological reduction has been accompanied with a semantic change whereby the progressive meaning has evolved into a generic present reading (89)a (see also Hadermann 1996: 161). The present progressive is now expressed by means of the Fronted Infinitive construction in Kiyombe (Hadermann 1996, De Kind et al. 2015), with the finite verb taking the nasal present marker (89)b.

(88) Kindibu (De Kind et al. 2015: 133)
Wau una wantu mu leka bena, mbeni andi wizidi.
wau *una* *wa-ntu* *mu* *Ø-lek-a*[38] *be-na*
DEM_{14} ADV CL_2-person LOC_{18} CL_{15}-sleep-FV SP_2-be
Ṉ-beni *andi* *u-Ø-iz-idi*
CL_3-enemy $POSS_1$ SP_1-PRS-come-PRF
'While the people were sleeping, his enemy came.'

(89) Kiyombe (De Clercq 1921: 36)
a. *Ndinsumba.*
ndi-N-sumb-a
SP_{1SG}-PRS-buy-FV
'I buy.'
b. *Sumba ndinsumba.*
Ø-sumb-a *ndi-N-sumb-a*
CL_{15}-buy-FV SP_{1SG}-PRS-buy-FV
'I am buying.'

[38] The noun class prefix of the infinitive is one of the noun prefixes which was reduced to zero in many Kikongo varieties, as extensively discussed in Bostoen and de Schryver (2015).

An intermediate stage in the morphophonological reduction from 'be+locative+infinitive' to a simple nasal is found in Kisundi. The locative prefix is still preserved in its entirety, but has become prefixed onto the verb stem, and the auxiliary has been deleted (90). This grammaticalization is accompanied here by a semantic shift from progressive to near future. Similarly, in Kikamba progressivity is expressed by means of a complex prefix consisting of an *a-* prefix followed by the locative morpheme *mu-* (91).

(90) Kisundi (N'Landu Kitambika 1994: 138)
Tùmúsàlà.
tu-mu-sal-a
SP_{1PL}-FUT-work-FV
'We will (soon) work.'

(91) Kikamba (Bouka 1989: pages not numbered)
Wamumaka
u-a-mu-mak-a
SP_1-PRS-PROG-climb-FV
'He is climbing.'

5.3 Shared retentions inherited from Proto-Kikongo

In this section, we discuss two TA markers whose distribution is, as far as we can judge today, restricted to the KLC, namely the final *-idingi* and the future marker *sV*. Not only are they found in several present-day Kikongo varieties, i.e. 15 and 11 respectively, but both are also attested in the different phylogenetic subgroups established by de Schryver et al. (2015). We therefore consider them as retentions inherited from the most recent common ancestor of the KLC, i.e. PKK. Being widespread within the KLC, but absent from more distantly related West-Coastal Bantu languages, both can be considered to be shared morphological innovations undergone by PKK before the emergence of the KLC. They corroborate the phylogenetic classification of the KLC as a discrete clade within West-Coastal Bantu.

Table 12. Overview of shared retentions in the KLC inherited from PKK.[39]

	Form	*-idingi*	*sV*
	Function	P2	FUT
West	Ciwoyo		
	Cizali	✓	✓
	Iwoyo		
	Kiyombe	✓	
	Kisundi	✓	✓
	Isangu		
	Yipunu		
	Yilumbu		
North	Kibembe		✓
	Kikamba	✓	
	Cilaadi		
South	Dihungu	✓	
	Kisikongo	✓	✓
	Kisolongo	✓	
	Kitsootso	✓	
	Kizombo	✓	✓
East	Kimbata	✓	✓
	Kimbeko	✓	✓
	Kinkanu	✓	✓
	Kintandu	✓	✓
Central	Kimboma		✓
	Kimanyanga	✓	✓
Kikongoid	Kiyaka	✓	
	Total	15	11

5.3.1 Final *-idingi*

This historically compound TA marker has not been reconstructed to PB, but it is widespread in the KLC. It is found in 15 varieties of the sample belonging to the four different phylogenetic subgroups. This indicates that the morpheme is most likely a retention from an older stage of the KLC, possibly PKK. It can combine with either a

[39] This Table has been updated compared to the published version. First, in the original publication we did not indicate the attestation of the future marker in Kimboma, the reason for this being that Kisilu Meso (2001: 50) does not include it in his overview of TA constructions. However, the preverbal future marker is used in four examples in that source, which were found when the example database was built after the publication of this study. Second, we did not indicate the attestation of *sV* in Kizombo. Although the morpheme is not discussed in one of the two Kizombo sources used for the overview, i.e. Carter and Makoondekwa (1987), we missed its attestation in the other source, i.e. Mpanzu (1994: 136-137).

'zero' morpheme in the TA slot (92), or with the *a-* prefix (see, e.g., Guinness 1882b: 78, Bentley 1887: 650 for late-19th c. South Kikongo varieties, and see Laman 1912: 160 for early-20th c. Kimanyanga), as shown in (93). The TA marker most often expresses past time reference, traditionally labelled as hodiernal past (P1) (Comrie 1985: 87, Dahl 1985: 125, Nurse 2008a: 90). The complex morpheme is a combination of *-idi* and *-ang*, in which the imperfective morpheme bisects the perfect marker (i.e., *-id-ang-i*). The concatenation of these two morphemes is not unique for Kikongo, but it is rather rare elsewhere in Bantu (Nurse 2008a: 263). As far as we know, it is not attested in the KLC's immediate neighbours.

(92) Cizali (KongoKing 2012, fieldwork by S. Dom)
Cínsyá usalizíngi unsúka wáwu?
cinsya *u-Ø-sal-izingi* *u-N̩-suka* *wawu*
what SP_{2SG}-P1-do-P1 AUG_3-CL_3-morning DEM_3
'What did you do this morning?'

(93) Late-19th c. Kisikongo (Bentley 1887: 650)
Yasumbidinge.
i-a-sumb-idinge
SP_{1SG}-P1-buy-P1
'I had been buying.'

In all present-day Kikongo varieties, the incorporation of *-ang* into *-idi* has resulted in the full assimilation of its vowel, viz. */-id-ang-i/* > */-id-ing-i/*. A possible intermediate stage, in which the open vowel /a/ of the imperfective suffix is raised to /e/, is attested in Brusciotto's (1659) grammar of historical South Kikongo variety where the following past-tense endings are listed: *-lengi*, *-engi* and *-dingi* (see Guinness 1882a: 78).

5.3.2 Preverbal *sV*

The TA marker *sV* expresses future time reference. It is most often realized as *si*, but also as *sa* in Kimbata, Kintandu (94) and Kibembe and as *se* in Kisikongo (95). The morphosyntactic status of this marker is not clear. In some sources the morpheme is written separately from the conjugated lexical verb, as in (94), whereas in others it is prefixed onto the verb structure, as in (95). More research should elucidate whether the morpheme is a preverbal or prefixal marker.

(94) Kintandu (Daeleman 1966: 305)
Mbasi ganá nsúsú ntete gá sá tuteláma.
mbasi *gana* *N-susu* *N-tete* *ga* *sa*
tomorrow DEM_{16} CL_9-rooster CL_9-first LOC_{16} FUT
tu-telam-a
SP_{1PL}-get_up.POS-FV
'Tomorrow, at the rooster's first crow, we will get up.'

(95) Kisikongo (Ndonga Mfuwa 1995: 365)
Sèn'túng(à) énzò.
se-N-tung-a *e-N-zo*
FUT-SP_{1SG}-build-FV AUG_9-CL_9-house
'I will build the house.'

The verb can also be inflected with the TA prefix *a-,* as shown in (96). Although the prefix *a-* is often described as encoding past time reference (see Section 5.2.1 above), its occurrence in non-past markers (also see the discussion of Kimanyanga at the end of Section 5.2.1) strongly suggests that a semantic reanalysis of the prefix's function in some Kikongo varieties is in order. In those varieties where we find *a-* in both past and future tenses, a better description would be to define the *a-* morpheme as a marker of temporal remoteness, i.e. its function is to locate the event denoted by the verb in a conceptually distal temporal domain (Botne and Kershner 2008, Botne 2014: 18). Whether this remote domain is situated in the future or the past is then elaborated through contextual information or other TA material in the construction.

(96) Kisundi (N'Landu Kitambika 1994: 139)
Sì twásàlà.
si *tu-a-sal-a*
FUT SP_{1PL}-REM-work-FV
'We will work.'

The future construction occurs in Kikongo varieties from all phylogenetic subgroups of the KLC. This indicates that it might be a shared innovation that took place at the ancestral stage of PKK and corroborates the phylogenetic status of the KLC as a discrete clade. However, the low number of varieties (11) that have *si* as well as the vowel variation (*si*, *se*, *sa*) do not preclude the possibility of different diachronic scenarios. Moreover, it is not yet clear what could be the lexical source of this preverbal future marker. There are a number of possibilities, such as the PB verbs **cád* 'do' or the defective quotative **ti* 'say'. Neither 'do' nor 'say' are cross-linguistically common source verbs, although some languages do have a future marker that grammaticalized from 'do' (Bybee et al. 1994: 253).

5.4 Shared innovations indicative of subgrouping within the KLC

In this section, we present a number of innovative TA features which are characteristically Kikongo, but whose distribution within the KLC indicates that they occurred posterior to PKK. In that respect, they are possibly indicative of subgrouping within the KLC. However, because some of the innovations observed are parallel and others in all likelihood contact-induced, we first present all innovations in Section 5.4.1 without any claims about their significance for the internal classification of the KLC. Moreover, some of these innovations are clearly related to one of the TA constructions already discussed above. They either underwent characteristic morphophonological changes or developed new meanings. Finally, other TA markers having a limited distribution within the KLC are possibly just apparent innovations. We verify and discuss whether they are retentions of older PB morphemes that have only been conserved in one subgroup. In Section 5.4.2, then, we discuss the historical significance of each of these TA features.

5.4.1 Overview of innovations

5.4.1.1 Loss of TA prefix *a-*

This innovation is attested in the eastern varieties Kintandu, Kimbata and Kimbeko as well as in the western varieties Kiyombe and Iwoyo. As a result of the loss of the *a-* prefix, both the perfect and P2 have the same form, *-Ø-R-idi* (97), as well as P3 and the present, *-Ø-R-a* (98). In other varieties, P2 and P3 have the forms *-a-R-idi* and *-a-R-a* respectively (see Sections 5.2.1 and 5.2.2).

(97) Kimbeko (KongoKing 2012, fieldwork by S. Dom)

a. *Mwaná ye tááta bafwánéni.*
mu-ana ye Ø-taata ba-Ø-fwan-an-idi
CL_1-child and CL_{1a}-father SP_2-PRS-resemble-RECP-PRF
'The child and (his) father resemble each other.'

b. *Zǒnó, yédí ku ɣatá, yisumbídí mbisí.*
zono, i-Ø-i-idi ku Ø-ɣata, i-Ø-sumb-idi
yesterday SP_{1SG}-P2-go-P2 LOC_{17} CL_5-village SP_{1SG}-P2-buy-P2
N-bisi
CL_9-meat
'Yesterday, I went to the village and bought meat.'

(98) Kimbata (KongoKing 2012, fieldwork by S. Dom)

a. *Inga, mu phimpa ímóna.*
   inga, mu N-pimpa i-Ø-mon-a
   yes LOC_{18} CL_9-dark SP_{1SG}-PRS-see-FV
   'Yes, I see in the dark.'

b. *Thamá ibútúka.*
   thama i-Ø-butuk-a
   long_ago SP_{1SG}-P3-be_born-P3
   'I was born a long time ago.'

Although these TA categories are morphologically marked in identical ways, they are formally disambiguated by means of different subject prefixes and tone patterns. The singular subject prefixes of the speech act participants in particular manifest the variation shown in Table 13. The occurrence of multiple subject prefixes for 1SG, 2SG and 3SG or class 1 is found throughout the KLC and is furthermore attested elsewhere in Bantu (see, for example, Kipacha (2006) on southern Swahili dialects). The historical conditioning and function of this allomorphy in different Kikongo varieties are still unclear (see Bastin 2006: 27-28). In any event, due to the *a-* loss, the variation seems to have taken on the additional role of formally disambiguating between identical TA markers.

Table 13. Variation of subject prefixes in the KLC.

	PRS/P2/P3/FUT	PRF/P1
SP_{1SG}	*ndi-/i-*	*N-*
SP_{2SG}	*u-*	*Ø-*
SP_1	*u-*	*Ø-*

From the Kiyombe source we could only establish the variation of the SP_{1SG} *ndi-* vs. *N-* (the TA paradigm is illustrated only with examples of the 1SG and 1PL; De Clercq 1921: 36-39). All other varieties with *a-* loss have SP_{1SG} *i-* instead of *ndi-*. In Kintandu, Kimbeko and Kimbata, the group of SMs in the first column, *i-/u-/u-*, is used in combination with all TA categories except for the perfect and P1, which take the subject prefixes in the second column, *N-/Ø-/Ø-*. In Kiyombe, there is an alternation in subject prefixes between the perfect and P2, as shown in (99). Although the perfect and P2 are encoded by the same segmental construction *-Ø-R-idi*, the former takes the subject prefix *N-* (99)a, and P2 the subject prefix *ndi-* (99)b. The underlying nasal subject prefix in (99)a

has been lost in the surface realization, but its affricativising effect on the voiceless fricative of the verb root remains visible.[40]

(99) Kiyombe (De Clercq 1921: 37)
a. *Tsumbidi.*
N-Ø-sumb-idi
SP_{1SG}-P1-buy-P1
'I have bought.'
b. *Ndísúmbídi.*
ndi-Ø-sumb-idi
SP_{1SG}-P2-buy-P2
'I bought.'

The loss of *a-* in Kiyombe has not resulted in identical present and P3 forms, as the present is not expressed by a 'null' prefix but by means of a nasal prefix that grammaticalized from the 'be+locative+infinitive' construction (see Section 5.2.6), i.e. *-N̩-R-a*, which is different from the P3 construction *-Ø-R-a.*

(100) Kiyombe (Bittremieux 1927: 838-839)
a. *Ndinsumba.*
ndi-N-sumb-a
SP_{1SG}-PRS-buy-FV
'I buy/am buying.'
b. *Ndisûmba.*
ndi-Ø-sumb-a
SP_{1SG}-P3-buy-P3
'I bought.'

The same holds for Iwoyo, although in this variety the present marker is the prefix *i-* (Mingas 1994: 311), and the P3 is prefixless, i.e. *-Ø-R-a*. Without giving any further details on subject prefix alternation, Mingas (1994: 317) remarks that in P3 the SP_1 is *ku-* instead of the regular *u-*. Moreover, P1 and P2, having the identical TA construction *-Ø-R-izi* (see Section 5.4.1.8 below for a discussion on the innovation of the common perfect marker having become a dedicated past marker in some varieties), also have the same subject prefixes and are thus solely distinguished by a different tone pattern. This is also the case for the present and P3 in Kimbata (98), Kintandu and Kimbeko. As we can see in the Iwoyo example in (101)b, the suffix *-izi* in the P2

[40] The post-nasal affrication of voiceless fricatives is a common sound change, both in the KLC and in Bantu more generally (Kerremans 1980: 172-173, Nguimbi-Mabiala 1999, Hyman 2003a: 51).

construction is completely high, whereas in P1 only the last vowel of the suffix carries a high tone, as illustrated in (101)a.

(101) Iwoyo (Mingas 1994: 315-316)

a. *Nàndí ùkótèzé kúnzò.*
nandi *u-Ø-kot-izi* *ku* *N-zo*
he SP_1-P1-enter-P1 LOC_{17} CL_9-house
'He entered the house/He is inside the house.'

b. *Nàndí ùkótézé kúnzò.*
nandi *u-Ø-kot-izi* *ku* *N-zo*
he SP_1-P2-enter-P2 LOC_{17} CL_9-house
'He entered the house.'

The differentiation between the formally identical PRF/P2 and PRS/P3 by means of subject prefixes is summarized in Table 14 for the SP_{1SG}. Because we have neither robust tonal analyses in the sources nor enough data to make our own for most of these varieties, we cannot note tone, which is however the only feature distinguishing PRS from P3 in Kimbata, Kimbeko, Kintandu. Note that in Iwoyo there is no SP variation for the first person singular, and that the perfect is expressed by means of a prefix *ma-*, which is discussed in Section 5.4.1.6.

Table 14. Overview of the combination of subject prefixes and TA markers in KLC varieties having lost the *a-* prefix.

	Variety	PRS	PRF	P1	P2	P3
West	Iwoyo	*i-i-R-a*	*i-ma-R-a*	*i-Ø-R-izi*	*i-Ø-R-izi*	*i-Ø-R-a*
	Kiyombe	*ndi-N-R-a*	*N-Ø-R-idi*	*N-Ø-R-idingi*	*ndi-Ø-R-idi*	*ndi-Ø-R-a*
East	Kimbata, Kimbeko, Kintandu	*i-Ø-R-a*	*N-Ø-R-idi*	*N-Ø-R-idingi*	*i-Ø-R-idi*	*i-Ø-R-a*

5.4.1.2 *-ta-R-a* 'progressive'

This TA marker expresses the present progressive and is attested in Kintandu, Kimbata, Kimbeko, Kizombo and Kinkanu, five varieties spoken in the eastern part of the KLC. Examples of Kinkanu and Kintandu are provided in (102) and (103).

(102) Kinkanu (KongoKing 2012, fieldwork by S. Dom)
Mwana yakálá katánwa masá.
mu-anayakala *ka-ta-nu-a* *ma-sa*
CL_1-boy SP_1-PROG-drink-FV CL_6-water
'The boy is drinking water.'

(103) Kintandu (Daeleman 1966: 261)
Kisálú kyétó tútásála.
ki-salu *ki-eto* *tu-ta-sal-a*
CL_7-work PP_7-$POSS_{1PL}$ SP_{1PL}-PROG-work-FV
'We are doing our work/we are busy working.'

Mpanzu (1994: 132-133) notes that Kizombo has two progressive constructions, viz. one with the *ta-* marker (104) and one consisting of the 'be+locative+infinitive' construction. The *ta-* progressive is not discussed in the Kizombo language course of Carter and Makoondekwa (1987), while the other construction is. However, the existence of the *ta-* prefix in Kizombo has been confirmed by Afonso Teca (p. c.), an Angolan linguist and native speaker of this Kikongo variety.

(104) Kizombo (Mpanzu 1994: 133)
Kàtùtásósà kò.
ka-tu-ta-sos-a *ko*
NEG-SP_{1PL}-PROG-search-FV NEG
'We are not searching.'

5.4.1.3 *kani/kana … ko* 'not yet'

Comrie (1985: 54) describes the 'not yet' tense as a combination of absolute tenses, expressing that "a certain situation (…) did not hold in the past and does not hold in the present, i.e. that it is still the case that a situation does not hold." While this concept tends to be lexically conveyed in many European languages, and especially by adverbs such as 'not yet' in English, it is commonly grammaticalized in Bantu (Nurse 2008a: 196-200). The 'not yet' marker is a special negative marker in that it lacks an affirmative equivalent (Nurse 2008a: 200). This tense has the same distribution as the progressive marker *ta-*. It is found in Kintandu, Kimbata, Kimbeko, Kizombo and Kinkanu, where it is expressed via the auxiliary *kani* (or *kana* in Kizombo), which is the negative form of the defective verb *(i)n* 'be', taking the negative SP_1 *ka-* and the negative FV *-i*. A Kimbata example is provided in (105).

(105) Kimbata (KongoKing 2012, fieldwork by S. Dom)
Vé, kaní kátútá kó luku.
ve, *ka-n-i* *ka-Ø-tut-a* *ko* *Ø-luku*
no NEG.SP_1-be-FV.NEG NEG.SP_1-PRS-pound-FV NEG CL_7-cassava
'No, she hasn't pounded the cassava yet.'

5.4.1.4 *eka-* 'inceptive, near future'

The prefix *eka-* is attested in a number of varieties located in the western part of the KLC, namely Kisundi, Kiyombe, Iwoyo, Ciwoyo and Cizali. Semantically, it expresses inception or near future, as shown in the Kisundi example (106). Nurse (2008a: 161) considers the inceptive as a 'minor' TA category in Bantu.

(106) Kisundi (N'Landu Kitambika 1994: 137)
Twèkásálà.
tu-eka-sal-a
SP_{1PL}-FUT-work-FV
'We will (soon) work.'

The combination with other TA markers can impact the meaning of the inceptive marker. For example, when *eka-* is followed by the present marker *N-* in Kiyombe, it has a present-progressive meaning (107). However, if there is no overt TA marker, *eka-* expresses its basic inceptive meaning (108).

(107) Kiyombe (Bittremieux 1927: 839)
Ndiekansumba.[41]
ndi-eka-N-sumb-a
SP_{1SG}-PROG-PRS-buy-FV
'I am buying.'

(108) Kiyombe (De Clercq 1921: 40)
(…) didi, wekabela badi fuidi.

Ø-Ø-di-idi	*u-eka-bel-a*	*badi*	*Ø-Ø-fu-idi*
SP_1-PRS-eat-PRF	SP_1-INC-be_sick-FV	and	SP_1-PRS-die-PRF

'(…) he ate, became sick and died.'

[41] One reviewer pointed out that there are three similar progressive forms in Kiyombe, viz. i) the fronted-infinitive construction in combination with the prefix *N-* in the second, finite verb (*sumba ndi**n**sumba* 'I am buying'), ii) the finite verb from the previous construction only (*ndi**n**sumba* 'I buy/am buying'), and iii) the *eka-* prefix as in example (107). Although no clarification is given in De Clercq (1921) on the differences between these three apparently similar forms, our impression is that the fronted-infinitive construction is still closely linked to pragmatics, since it functions as a predicate-centred focus device (De Kind et al. 2015). The form with the homorganic nasal prefix was a dedicated progressive marker which has undergone semantic broadening to express also imperfectivity, although solely in present tense. Moreover, it evolved from what was originally a progressive marker, viz. the *mu INF* construction (see Section 5.2.6.). Finally, there is a strong correlation between a progressive event, which is ongoing and thus not yet completed, and the inceptive, which indicates that the event is about to happen. It is certain that the translations provided in the source do not capture the nuances of the differences between these three forms.

In the B40 languages Isangu and Yipunu, similar prefixes involving the consonant /k/, but with different vowels, are attested expressing 'imminent' or 'near' future. These forms are shown in (109) and (110).

(109) Isangu (Ondo-Mebiame 2000: 203)
Ìkàtsítsə́ múnéndyítsì.
i-ka-tsits-a *mu-nendyitsi*
SP_{2SG}-FUT-call-FV CL_1-teacher
'You are going to call the teacher.'

(110) Yipunu (Bonneau 1956: 50)
Tu ki wenda.
tu-ki-end-a
SP_{1PL}-FUT-go-FV
'We are about to leave.'

5.4.1.5 Future paradigm

The western varieties Kiyombe, Iwoyo, Ciwoyo and Cizali make a temporal distinction for future time reference not found in the other Kikongo varieties, and have the same formal means to express near future (F1), viz. the auxiliary *kwiz* 'come', and remote future (F2), viz. the TA prefix *ala-*/*ela-*.

Verbs denoting the motion event 'come' often grammaticalise into future-tense markers (Bybee et al. 1994: 267-270, Botne 2006b). Although the development of 'come' verbs into future markers occurs throughout Bantu, variation in semantic evolution, stage of grammaticalization and the scattered distribution indicates that these are unrelated, individual innovations (Nurse 2008a: 85). It is not atypical that 'come' verbs develop specifically into near-future markers (Bybee et al. 1994: 271-273, Nurse 2008a: 85) although this is not universally so (Botne 2006b). The near-future construction in Cizali with *kwiz* is illustrated in (111).

(111) Cizali (KongoKing 2012, fieldwork by S. Dom)
Náánga kikwíza nóki ko.
naanga *ki-kwiz-a* *nok-i* *ko*
perhaps NEG.SP_1-come-FV rain-NEG.FV NEG
'Perhaps it won't rain.'

Interestingly, Nurse (2008a: 85) states that "derivatives of the verb 'come' […] occur […] locally all across Bantu […], *outside of the northwest*" (emphasis our own). [42] The data presented here indicates, on the contrary, that at least some of what Nurse considers to be northwestern Bantu languages, i.e. the western Kikongo varieties, do have this grammaticalized strategy.

The second future marker is a combination of the remote TA prefix *a-* and the common Bantu future marker *la-* (Nurse and Philippson 2006: 175-176, Nurse 2008a: 85), which has been proposed to go back to PB and has been reconstructed with a long vowel **laa-* (Nurse and Philippson 2006: 75, Nurse 2008a: 253). In grammars of western Kikongo varieties, such as Iwoyo in (112), it is described as a remote-future marker (F2).

(112) Iwoyo (Mingas 1994: 321)
Mìnú ìálálíyá mákùndì.
minu *i-ala-li-a* *ma-kundi*
I SP_{1SG}-F2-eat-FV CL_6-fruit
'I will eat fruit.'

Synchronically, the remote prefix and the reflex of the historical future marker *la-* need to be analysed as a single marker, since *la-* is not used by itself to denote any type of future time reference. It is only found as part of *ala-* or as its variant *ela-* (113).

(113) Kiyombe (De Clercq 1921: 37)
Ndielalunatina tsangu.
ndi-ela-lu-nat-il-a *N-sangu*
SP_{1SG}-F2-OP_{2PL}-bring-APPL-FV CL_9-news
'I will bring you the news.'

Cizali is exceptional here in that it shares the innovative future markers with Kiyombe, Iwoyo and Ciwoyo, but also has retained the more widespread future marker *si*, as shown in (114).

(114) Cizali (KongoKing 2012, fieldwork by S. Dom)
a. *Búúbu, si yávunda.*
buubu *si* *i-a-vund-a*
today FUT SP_{1SG}-REM-rest-FV

[42] Nurse (2008a: 10) specifies that various authors have included different languages in the northwest group, with the core group mainly consisting of the languages of zone A and B. He continues with "[e]xactly which languages an author includes under this label often depends on what the author has in mind" (Nurse 2008a: 10). His map of northwestern Bantu clearly includes the H10 Kikongo group (Nurse 2008a: 6).

‘Today, I will rest.’

b. *Másíka mááma, kukwíza kángi ko umwelo.*
ma-sika *maama* *ku-kwiz-a* *kang-i* *ko* *u-mu-elo*
CL_6-night DEM_6 $NEG.SP_{2SG}$-come-FV close-NEG.FV NEG AUG_3-CL_3-door
‘Tonight, you won’t close the door.’

c. *Bána ba nduumba babwáli beladengana ku sikuulu*
ba-ana *ba-a* *n-duumba* *ba-bwali* *ba-ela-deng-an-a*
CL_2-child PP_2-CONN CL_9-woman PP_2-two SP_2-FUT-meet-RECP-FV
ku *Ø-sikuulu*
LOC_{17} CL_9-school
‘The two girls will meet each other at school.’

The semantic particularities distinguishing the three future-tense markers, *kwiz*, *ela-* and *si*, will be the subject of future research.

5.4.1.6 Prefix *m(w)a-/me-* ‘perfect’

A number of similar forms are found in the western varieties Kiyombe, Iwoyo and Ciwoyo, in the north-western B40 languages Isangu, Yilumbu and Yipunu, and in the northern variety Kibembe. In all these varieties, the meaning of the prefix centers around the perfect. The different forms *me-*, *ma-* and *mwa-* are illustrated in examples (115) to (117).

(115) Kiyombe (Bittremieux 1927: 839)
Tumesumba.
tu-me-sumb-a
SP_{1PL}-PRF-buy-FV
‘I have (already) bought.’

(116) Ciwoyo (KongoKing 2012, fieldwork by S. Dom)
Nkhyóngá mazêngá nsóso.
N-konga *Ø-ma-zeng-a* *N-soso*
CL_9-hunter SP_1-PRF-cut-FV CL_9-tail
‘The hunter has cut the tail.’

(117) Kibembe (Kouarata 2015: 108)
Nyóko yimwáakóto.
N-nyoko *i-mwaa-kot-o*
CL_9-snake SP_9-PRF-enter-FV
‘The snake has already entered.’

These prefixes are grammaticalized from the verb *man* 'finish', which is still attested in its full form as a perfect construction in early-20th c. Kimanyanga as described by Laman (1912) (118)a. The verb *man* is found outside of the western region of the KLC where it functions as an auxiliary. This verb can be inflected for the perfect resulting in the imbricated form *meni* 'have finished' (118)b. This could well be the source of grammaticalization for *me-* as found in Kiyombe (115).

(118) Kimanyanga (Laman 1912: 163)

a. *Imana kanga.*
   i-Ø-man-a *Ø-kang-a*
   SP_{1SG}-PRS-finish-FV CL_{15}-catch-FV
   'I have caught.'

b. *Mbeni kanga.*[43]
   N-Ø-man-idi *Ø-kang-a*
   SP_{1SG}-PRS-finish-PRF CL_{15}-catch-FV
   'I had caught.'

The development of perfect markers from the verb 'finish' is cross-linguistically common (Bybee et al. 1994: 56, 58). Within Bantu, the use of *man* 'finish' is a common strategy to express completive aspect. According to Nurse (2008a: 125, 252-253), most Bantu languages that have a perfect marker of the shape *ma-*, *me-* or *mwaa-* belong to northwestern Bantu, suggesting "a single common historical innovation" (Nurse 2008a: 253). However, within the KLC, this innovation seems to be characteristic of the western varieties and cannot be reconstructed to PKK. It is only in Ciwoyo, Iwoyo, Kiyombe and Kibembe that the auxiliary has grammaticalized into a dedicated perfect prefix. In other Kikongo varieties, such as present-day Kimanyanga, the original auxiliary *man* can be inflected with perfect (119)a or past (119)b constructions.

(119) Kimanyanga (Makokila Nanzanza 2012: 190-193)

a. *Bamweni futá.*
   ba-Ø-man-idi *Ø-fut-a*
   SP_{2}-PRS-finish-PRF CL_{15}-pay-FV
   'They have paid.'

[43] The creation of NC clusters is regular in Kikongo when a nasal-initial stem is preceded by a non-syllabic prefix of classes 9/10 or SP_{1SG} (Laman and Meinhof 1928-29: 27). Herbert (1986: 227) argues that this dissimilation rule is formally the reverse of Meinhof's Law or Rule (Meeussen 1962). This is indeed the case, except that in the case of Meinhof's Rule, a NC cluster is only reduced to (N)N when it is followed by another NC cluster or a simple nasal. In Kikongo, an NN sequence can also be turned into NC when no nasal (complex) follows in the next syllable, as shown in (118)b and the first example in Table 5.

b. *Twamwení móvela.*
tu-a-man-idi *Ø-mo-vel-a*
SP_{1PL}-P2-finish-P2 CL_{15}-OP_6-pluck-FV
'We have finished plucking them.'

As can be seen in (119), the surface form of the auxiliary in present-day Kimanyanga is *mweni*. Although imbrication can account for the surface form *meni* attested in Laman (1912), the phonological process(es) possibly underlying the glide formation of *mweni* are not explained in Makokila Nanzanza (2012).

This innovation is not restricted to the western Kikongo varieties but also occurs in some B40 languages located further to the north. As is shown in (120), a perfect marker with the form *ma-* is found in Isangu and Yipunu. Note that in Yipunu the prefix does not denote the perfect, but has a past completive meaning. Bonneau (1956: 51, 57) gives as "*parfait immédiat*" the form *SP-ba no-R-a*, e.g. *ni ba no sala* 'I have (just) worked'.

(120) a. Isangu (Ondo-Mebiame 2000: 202)
Bâ:nà bàmávyòsà.
ba-ana *ba-ma-vyos-a*
CL_2-child SP_2-PRF-pass-FV
'The children have (just) passed.'
b. Yipunu (Bonneau 1956: 58)
Umasinga.
u-ma-sing-a
SP_{2SG}-PST-believe-FV
'I believed.'

5.4.1.7 Spirantized reflex *-izi*

Some Kikongo varieties have a spirantized reflex of the PB final **-ide*, as shown in (121) for Ciwoyo. Its distribution is confined to the west of the KLC, as it was only found in Cizali, Iwoyo, Ciwoyo and Civili.

(121) Ciwoyo (KongoKing 2012, fieldwork by S. Dom)
Wayibúlíz'untú mu byáka.
u-a-i-bul-izi *u-N-tu* *mu* *bi-aka*
SP_1-P2-REFL-hit-P2 AUG_3-CL_3-head LOC_{18} CL_8-wall
'He bumped his head against the wall.'

Bantu spirantization is commonly triggered by the PB closed front and back vowels **i* and **u* (Schadeberg 1994-1995, Bostoen 2008). As summarized in (122), the raising of the suffix's final vowel, due to harmony with its first vowel, subsequently led to the

spirantization of the suffix' consonant in most western Kikongo varieties (Bastin 1983: 42).

(122) **-ide* → *-idi* → *-izi*

The intermediate stage is still attested in non-western Kikongo varieties and in Kiyombe (123).

(123) Kiyombe (Bittremieux 1927: 838)
Ndîsûmbidi.
ndi-Ø-sumb-idi
SP_1-P2-buy-P2
'I bought.'

Bastin (1983: 42) reports that the western variety Civili also has a spirantized final, which has undergone an additional devoicing resulting in *-isi* (124).

(124) Civili (Bastin 1983: 42)[44]
-tol 'be strong' → *tol**isi***
-bul 'fight' → *bul**isi***

5.4.1.8 Shift in past-tense paradigm

In Section 5.4.1.6 it was shown that the category of the perfect is expressed by the TA prefix *ma-*/*me-* in the western Kikongo varieties Iwoyo, Ciwoyo and Kiyombe, rather than by the common TA marker *-Ø-R-idi*. This has resulted in a semantic reshuffling of past forms and meanings in these varieties, where the common perfect marker *-Ø-R-idi* has the meaning (hodiernal) past (P1) instead of present perfect (125).

(125) Ciwoyo (KongoKing 2012, fieldwork by S. Dom)
Mwána ngómbó bútukwizi myena.
mu-ana *N-gombo* *Ø-Ø-butuk-izi* *myena*
CL_1-child CL_9-cow SP_1-P1-be_born-P1 morning
'A calf was born this morning.'

This reshaping of the past-tense paradigm has resulted in the absence of the complex final *-izingi* in Iwoyo and Ciwoyo. In the western part of the KLC, this final is still found in Cizali (126) and Kiyombe (127).

[44] No translation is given in Bastin (1983) for the perfect forms.

(126) Cizali (KongoKing 2012, fieldwork by S. Dom)
Kizizíngi nthángu mfúmu ka yikwénda.
ka-Ø-iz-izingi *N-tangu* *N-fumu* *ka* *i-Ø-kwend-a*
SP_1-P1-come-P1 CL_9-time CL_9-chief PRED SP_9-PRS-go-FV
'He arrived just when the chief was leaving.'

(127) Kiyombe (De Clercq 1921: 41)
Ndivénenge.
ndi-Ø-van-idingi
SP_{1SG}-P1-give-P1
'I gave.'

Kiyombe, as described by De Clercq (1921), seems to have a combination of conservative and innovative features. The perfect has two competing forms, *-me-R-a* ("*parfait présent*"; De Clercq 1921: 37) and *-Ø-R-idi* ("*parfait présent*"), both with a homorganic nasal as SP_{1SG}. P1 ("*parfait très éloigné*") is expressed by the PKK final *-idingi* as well as *-Ø-R-idi*. The latter is distinguished from the morphologically identical perfect marker in that it takes the SP_{1SG} *ndi-* and the verb stem has a high tone (ibid.). Finally, due to the loss of the *a-* prefix, P2 ("*parfait très éloigné*") is also marked by *-Ø-R-idi* with a high tone on the verb stem. P1 and P2 are distinguished by different tones on the SPs: in P1 the SP_{1SG} is low (*ndì-*) and SP_{1PL} is high (*tú-*) whereas in P2 the opposite holds (these are the only two persons given in De Clercq 1921: 37). An overview of this complex situation is provided in Table 15 below.[45]

As discussed in Section 5.4.1.1, due to the loss of the *a-* prefix in Iwoyo, the TA construction *-Ø-R-idi* expresses both P1 (128)a and P2 (128)b, although tonally differentiated. In Ciwoyo (129) and Cizali (130), P2 is expressed by the common Kikongo marker *-a-R-izi*.

(128) Iwoyo (Mingas 1994: 311, 316)
a. *Nàndí ùlílìzí.*
nandi *u-Ø-lil-izi*
he SP_1-P1-cry-P1
'He cried.'
b. *Nàndí ùwéndézé kú nsítù.*
nandi *u-Ø-end-izi* *ku* *N-situ*
he SP_1-P2-go-P2 LOC_{17} CL_9-forest

[45] Still more forms are given in De Clercq (1921), such as *SP-fuma-R-i* (*tufumasumbi* 'I have just bought'), or the formally identical but tonally different *parfait passé SP-Ø-R-a* (*ndisúmba* 'I bought') and *parfait très éloigné SP-Ø-R-a* (*ndísúmba* 'I bought').

‘He went to the forest.’

(129) Ciwoyo (KongoKing 2012, fieldwork by S. Dom)
Káyizízi yono ko.
ka-a-iz-izi *yono* *ko*
NEG.SP_1-P2-come-P2 yesterday NEG
‘He did not come yesterday.’

(130) Cizali (KongoKing 2012, fieldwork by S. Dom)
Watuutiz’umáánya yónwe?
u-a-tuut-izi *u-ma-anya* *yono* *e*
SP_{2SG}-P2-pound-P2 AUG_6-CL_6-corn yesterday Q
‘Did you pound the corn yesterday?’

Table 15. Overview of some past tenses in Kiyombe as described by De Clercq (1921: 36-37).

Meaning	Form	Example	
PRF	*SP-me-R-a*	*Mbesumba.*	*Tumesumba*.
		N̩-me-sumb-a	*tu-me-sumb-a*
		SP_{1SG}-PRF-buy-FV	SP_{1PL}-PRF-buy-FV
		‘I have already bought.’	‘We have already bought.’
	SP-Ø-R-idi	*Tsumbidi*.	*Tusumbidi*.
		N-Ø-sumb-idi	*tu-Ø-sumb-idi*
		SP_{1SG}-PRS-buy-PRF	SP_{1PL}-PRS-buy-PRF
		‘I have bought.’	‘We have bought.’
P1	*SP-Ø-Ŕ-idingi*	*Ndisúmbidingi*.	*Tusúmbidingi*.
		ndi-Ø-sumb-idingi	*tu-Ø-sumb-idingi*
		SP_{1SG}-P1-buy-P1	SP_{1PL}-P1-buy-P1
		‘I bought.’	‘We bought.’
	SP-Ø-Ŕ-idi	*Ndísúmbídi*.	*Tusúmbidi*.
		ndi-Ø-sumb-idi	*tu-Ø-sumb-idi*
		SP_{1SG}-P1-buy-P1	SP_{1PL}-P1-buy-P1
		‘I bought.’	‘We bought.’
P2	*SP-Ø-Ŕ-idi*	*Ndísúmbidi*.	*Túsúmbídi*.
		ndi-Ø-sumb-idi	*tu-Ø-sumb-idi*
		SP_{1SG}-P2-buy-P2	SP_{1PL}-P1-buy-P1
		‘I bought.’	‘We bought.’

As a summary, the past-tense paradigms for each western variety are given in Table 16. The hypothetical PKK forms are first given as a reference point to facilitate the presentation of the various changes. Each innovation is marked by a different contour: *a-* loss in green, *ma-*/*me-* perfect marker in purple and the shift of PKK **-Ø-R-idi* from

present perfect to hodiernal past in blue. The spirantization of *-idi* is indicated by an orange shade.

Table 16. Past-tense paradigms of some western KLC varieties.

Function	PKK	CIZALI	CIWOYO	IWOYO	KIYOMBE
PRF			*-ma-R-a*	*-ma-R-a*	*-ma-/-me-'R-a*
	**-Ø-R-idi*	*-Ø-R-izi*			*-Ø-R-idi*
P1			*-Ø-R-izi*	*-Ø-R-izi*	*-Ø-R-idi*
	**-Ø-R-idingi*	*-Ø-R-izingi*			*-Ø-R-idingi*
P2	**-a-R-idi*	*-a-R-izi*	*-a-R-izi*	*-Ø-R-izi*	*-Ø-R-idi*
P3	**-a-R-a*	*-a-R-a*	*-a-R-a*	*-Ø-R-a*	*-Ø-R-a*

5.4.1.9 *eta-/eti-* 'present'

The prefix *eta-/eti-* is attested in a number of varieties of the central and western part of the KLC: Kimanyanga, Kimboma, Kiyombe, Kisundi and Ciwoyo. As is shown in (131), it expresses varying aspectual meanings such as progressivity in Kimboma (131)a, habituality in Kiyombe (131)b, or generic in Ciwoyo (131)c.

(131) a. Kimboma (Kisilu Meso 2001: 44)
Twetivova.
tu-eti-vov-a
SP_{1PL}-PRS.PROG-talk-FV
'We are talking.'

b. Kiyombe (De Clercq 1921: 37)
Twetasumba.
tu-eta-sumb-a
SP_{1PL}-PRS.HAB-buy-FV
'We (often) buy.'

c. Ciwoyo (KongoKing 2012, fieldwork by S. Dom)
Báwóyo, bétilyá mbyómá?
ba-woyo *ba-eti-li-a* *N-boma*
CL_2-Woyo SP_2-PRS-eat-FV CL_9-python
'Do the Woyo people eat python?'

Regarding the form of the prefix, both *eta-* and *eti-* are attested. Whereas the latter could be analyzed as a contraction of *eta-* and the present marker *i-* in Ciwoyo, this does not hold for Kisundi, Kimanyanga and Kimboma, which do not have the *i-* prefix. Moreover, the currently known distribution of *eta-* is restricted to Kiyombe only, in contrast to *eti-*, which is found in Ciwoyo, Kisundi, Kimanyanga and Kimboma. More research is required to investigate the origin and morphophonological changes of this prefix.

5.4.1.10 *i-* 'present'

This TA marker is a very local innovation attested in the two neighbouring varieties Ciwoyo and Iwoyo. The prefix functions as a present-tense marker (132)a. Progressive aspect is expressed by means of a fronted infinitive construction involving the infinitive and the finite verb inflected with the present tense *i-*, as in (132)b. Fronted infinitive constructions are a frequently used strategy for progressive aspect in Kikongo (De Kind et al. 2015) as well as in Bantu more generally (Hadermann 1996, Güldemann 2003).

(132) Iwoyo (Mingas 1994: 311)

a. *Nàndí ùílílà.*
   nandi u-i-lil-a
   he SP_1-PRS-cry-FV
   'He cries.'

b. *Nàndí kúná kíkúnà mádèzò.*
   nandi Ø-kun-a ka-i-kun-a ma-dezo
   he CL_{15}-plant-FV SP_1-PRS-plant-FV CL_6-bean
   'He is planting the beans.'

Nsayi (1984: 261, 271) states that Kibembe, a variety of Congo-Brazzaville located in the northern part of the KLC, also has *i-* as one of many present-tense marker(s), but does not provide any examples.

A similar present-tense marker is described for Yipunu in Bonneau (1956: 54). It involves the prefix *i-*, but differs from the marker in Iwoyo and Ciwoyo in that it has a final vowel *-i*, as shown in (133), rather than *-a*.

(133) Yipunu (Bonneau 1956: 56)
   Dwisingi.
   du-i-sing-i
   SP_{2PL}-PRS-believe-FV
   'You believe.'

Such a final vowel is also found e.g. in Lingála as a reflex of **-ide* (Brisard and Meeuwis 2009). One could wonder whether final *-i* in Yipunu is therefore related to the PB **-ide* suffix. A change from perfect — which is the common function of *-idi* in most present-day Kikongo varieties in combination with an empty TA-slot — to present is not a far-fetched semantic stretch. However, no such claims have been made in the literature and therefore we do not elaborate this possible historical scenario, which should be taken up in future research.

5.4.1.11 *-Ø-R-a* ‘future’

As discussed in Section 5.2.4, this ‘null’ form is the most common present-tense marker throughout Bantu, and also in Kikongo. The varieties in which this form denotes future time reference are Kisolongo, Kisikongo and Kizombo, all spoken in the southern part of the KLC located in Angola, and Kibembe, a northern variety in Congo-Brazzaville.

Present-tense markers obtaining additional future meaning or becoming specialized future markers is a development observed elsewhere in Bantu (Nurse 2008a: 118) and in the world’s languages (Haspelmath 1998). The temporal frame defining the ‘present’ is not restricted to the moment of speech, but is rather a deictic domain in which the speaker places himself and the event marked for the present tense. It is a time unit that is relevant, real and contemporal for the speaker (Botne and Kershner 2008: 159) and stretches out beyond the narrow utterance time both into the past and the future. Thus, in the meaning of the present already resides an immediate future sense, which lies at the heart of the semantic shift from present to future. This can be observed in the eastern Kikongo variety Kinkanu in (134), where the basic meaning of the null form is present tense (134)a but it can also be used to refer to events in the near future (134)b.

(134) Kinkanu (KongoKing 2012, fieldwork by S. Dom)

a. *Nkhátu, kayidyá ko madyoku.*

nkhatu	*ka-i-Ø-di-a*	*ko*	*ma-dyoku*
no	NEG-SP_{1SG}-PRS-eat-FV	NEG	CL_6-cassava

‘No, I don’t eat cassava.’

b. *Nkhí yílamba?*

nkhi	*i-Ø-lamb-a*
what	SP_{1SG}-PRS-cook-FV

‘What shall I cook?’

As Haspelmath (1998: 30, 33) points out, this development is interesting in that 1) more often than not future tense is more marked (formally) than present, which in this situation is the opposite, resulting in a markedness violation (Haspelmath 1998: 45), and 2) this is not a case of grammaticalization, which is one of the main mechanisms behind the development of new TA markers (Bybee et al. 1994). Examples of this ‘zero’ future in southern Kikongo varieties are shown in examples (135) to (137), and in (138) for Kibembe. In the southern Kikongo languages, a number of forms, such as *-Ø-R-idi* with stative verbs (135)b, the fronted infinitive constructions (136)b, *mu INF* or *-Ø-R-ang-a* (137)b with dynamic verbs, are used to express present tense (logically, each with a different aspectual meaning).

(135) Kisolongo (KongoKing 2012, fieldwork by S. Dom)

a. *Okwíza kwándi mbázye?*
   o-Ø-kwiz-a *ku-andi* *mbazi* *e*
   SP_1-FUT-come-FV PP_{17}-$POSS_1$ tomorrow Q
   'Will he come tomorrow?'

b. *Pé, ketuléélе ko.*
   pe, *ke-tu-Ø-laal-idi* *ko*
   no NEG-SP_{1PL}-PRS-sleep-PRF NEG
   'No, we are not asleep.'

(136) Kisikongo (a: Ndonga Mfuwa 1995: 359, b: De Kind et al. 2015: 127)

a. *Kyà lúmíngù n'túngà énzò.*
   ki-a *lumingu* *N-Ø-tung-a* *e-N-zo*
   PP_7-CONN Sunday SP_{1SG}-FUT-build-FV AUG_9-CL_9-house
   'I will build the house on Sunday.'

b. *Kadi samba kesamba.*
   kadi *Ø-samb-a* *ke-Ø-samb-a*
   but CL_{15}-pray-FV SP_1-PRS-pray-FV
   'But he is praying.'

(137) Kizombo (Carter and Makoondekwa 1987: 106, 123 respectively)

a. *Avǒ kìlamba ko, kìdya ko.*
   avo *ki-Ø-lamb-a* *ko* *ki-Ø-di-a* *ko*
   if NEG.SP_{1SG}-FUT-cook-FV NEG NEG.SP_{1SG}-FUT-eat-FV NEG
   'If I don't cook, I won't eat.'

b. *Nkhĭ kávvaangaangá? Mùddya kén'ee?*
   nkhi *ka-Ø-vang-ang-a* *mu* *di-a* *ka-in-a* *e*
   Q SP_1-PRS-do-PROG-FV LOC_{18} eat-FV SP_1-be-FV Q
   'What is s/he doing? Is s/he eating?'

(138) Kibembe (Kouarata 2015: 100)
   Bó basála.
   bo *ba-Ø-sal-a*
   they SP_2-FUT-work-FV
   'They will work.'

Although Kouarata (2015) does not discuss the matter, a comparison of the present and future-tense examples, both having the *-Ø-R-a* inflection, shows no difference in the tonal pattern. In both tense forms the root takes a high tone, and the SP and FV are low.

5.4.1.12 *ku-* ‘future’

The most southern varieties Dihungu and Kitsootso do not share the zero future, but denote future tense by means of the TA prefix *ku-*, as shown in (139)b and (140)b. In Kitsootso, the ‘null’ form has maintained its present meaning (139)a. In Dihungu the present is expressed by the construction *-a-R-a* (140)a. As shown in 2.1., Kitsootso also has a generic present marker with the form *-a-R-a.*

(139) Kitsootso (Baka 1992: 105, 106)

a. *Ǒ áthu atuzola.*
o-a-thu *a-Ø-tu-zol-a*
AUG_2-CL_2-person SP_2-PRS-OP_{1PL}-love-FV
‘Those people love us.’

b. *Lwá lúlumí kákúzénga.*
lwa *lu-limi* *ka-ku-zeng-a*
DEM_{11} CL_{11}-tongue SP_1-FUT-cut-FV
‘He is going to cut that tongue.’

(140) Dihungu (Atkins 1954: 154)

a. *Twasumba.*
tu-a-sumb-a
SP_{1PL}-PRS-buy-FV
‘We buy.’

b. *Tukusumba.*
tu-ku-sumb-a
SP_{1PL}-FUT-buy-FV
‘We shall buy.’

5.4.1.13 *tsV-* ‘past’ or ‘perfect’

This TA prefix, attested in Isangu as *tsa-* (Ondo-Mebiame 2000: 202) or *tsə-* (Idiata 2006: 50), and in Yipunu and Yilumbu as *tsi-* (Bonneau 1956: 50, Gamille 2013: 247) is restricted to the B40 languages considered in our sample. As can be seen from the examples in (141) to (143), it functions as a perfect or past prefix.

(141) Isangu (Idiata 2006: 50)
Mwanə atsəbula paambə.
mu-ana *a-tsə-bul-a* *paambə*
CL_1-child SP_1-PRF-break-FV bottle
‘The child has broken the bottle.’

(142) Yipunu (Bonneau 1956)
Mombu a tsi dji.

Mombu a-tsi-dji
Mombu SP_1-PRF-eat
'Mombu has eaten.'

(143) Yilumbu (Gamille 2013: 247)
mùɣátsy'âmì, àtsəbúr yò:nu
mu-ɣatsi ami a-tsi-bur-a yonu
CL_1-wife $POSS_{1SG}$ SP_1-PST-give_birth-FV yesterday
'My wife gave birth yesterday.'

5.4.1.14 *(a)ko-* 'generic present' or 'habitual'

Both Kibembe and Kikamba, two neighbouring Kikongo varieties of Congo-Brazzaville, share a prefix *(a)ko-,* which denotes generic or habitual aspect (144)-(145).

(144) Kibembe (Kouarata 2015: 111)
Bakónwa makíla ko.
ba-ko-nu-a ma-kila ko
SP_2-PRS-drink-FV CL_6-blood NEG
'They don't drink blood.'

(145) Kikamba (Bouka 1989: no page numbers)
Nàkósàlá.
n-ako-sal-a
SP_{1SG}-HAB-work-FV
'I work.'

5.4.2 TA innovations and the internal classification of the KLC

In the previous section we have presented an overview of changes in the TA system that took place posterior to PKK. In this section, we assess whether these are shared innovations indicative of genealogical subgrouping within the KLC or whether they are rather to be considered as independent and/or contact-induced innovations.

5.4.2.1 East Kikongo

Two TA constructions demarcate an eastern subgroup consisting of Kintandu, Kimbata, Kimbeko, Kinkanu and Kizombo, i.e. the progressive prefix *ta-* (see 4.1.2) and the 'not yet' construction *kani/kana ... ko* (see 4.1.3). The loss of the TA prefix *a-* (see 4.1.1) is an in-group innovation shared only by Kintandu, Kimbata and Kimbeko. This loss is also observed in the western Kikongo varieties Kiyombe and Iwoyo, although this is most likely an independent innovation. We thus observe an eastern 'core' cluster consisting of

Kintandu, Kimbata and Kimbeko, which share a set of three innovations, and an eastern periphery consisting of Kinkanu and Kizombo, which only share two of these innovations. These eastern varieties, except Kizombo, also constitute a discrete subgroup in the phylogenetic study of de Schryver et al. (2015). Kizombo is phylogenetically classified as part of South Kikongo, but in close contact with East-Kikongo, especially with Kimbata, which is spoken in the same Congolese sector of Mfidi Malele (Ntunda Nzeza 2007: 59-61). The presence of the progressive *ta-* and the 'not yet' construction *kani/kana ... ko* in Kizombo is thus possibly a contact-induced influence from Kimbata. An overview is provided on the next page, in Table 17 and Figure 12

5.4.2.2 South Kikongo

The southern region of the KLC mainly comprises the northern parts of the Uige and Zaire provinces of Angola and the borderland between the DRC and Angola. Kikongo varieties spoken there are Kizombo, Kisikongo, Kisolongo, Dihungu and Kitsootso. The first three of them constitute, together with Kimboma (DRC), a discrete phylogenetic subgroup in the classification of de Schryver et al. (2015); the latter two have not been considered by them. The only shared innovation corroborating the existence of a South Kikongo subgroup is the evolution of the 'null' present into a zero future (see Section 5.4.1.11). This feature is attested in Kisolongo, Kisikongo and Kizombo, but not in Kimboma. Bentley (1887: 650) describes this innovation in late-19th c. Kisikongo as the subjunctive future indefinite. However, the TA marker was at that time not yet a dedicated future marker, as it still expressed the present 'indefinite' (Bentley 1887: 649). In an earlier stage of Kisikongo future time reference was expressed by the marker *-ku-R-a*. This marker is described in Brusciotto's (1659) grammar (Guinness 1882a: 55), e.g. *o-**cu**-zitiss-a* 'you shall love', and is attested in a 1624 catechism (Cardoso 1624) translated from Portuguese in the southern Kikongo variety spoken at that time in Mbanza Kongo, the capital of the Kongo kingdom. This marker has been retained in the present-day southern varieties Dihungu and Kitsootso (see Section 5.4.1.12). The zero future is not discussed in Brusciotto à Vetralla (1659) for mid-17th c. Kisikongo, and there are furthermore no attestations of the zero future in the 1624 catechism. By the end of the 19th century, however, the 'null' marker was clearly in an intermediate stage of becoming a dedicated future marker, as both its present and future meaning are described in Bentley (1887: 649-650).

Table 17. Overview of innovations substantiating the East Kikongo subgroup.

	Innovation	*-ta-R-a* PROG	*kani/kana ... ko* 'not yet'	Loss *-a* prefix	
East	Kintandu	✓	✓	✓	
	Kimbata	✓	✓	✓	CORE EAST
	Kimbeko	✓	✓	✓	
	Kinkanu	✓	✓		PERIPHERY
South	Kizombo	✓	✓		

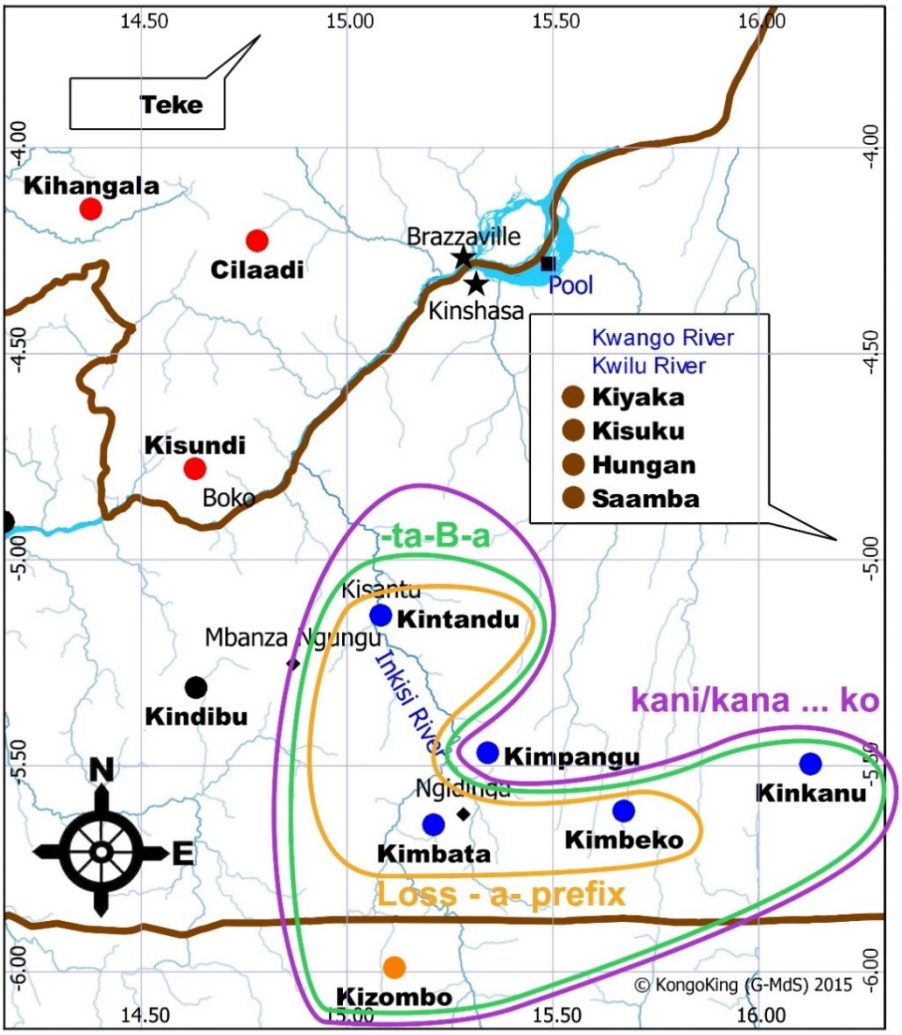


Figure 12. Shared TA features whose distribution is restricted to the eastern part of the KLC. The coloured dots refer to the phylogenetic subgroups of the KLC (see Addendum 2).[46]

[46] The maps in this section are maintained as in the original pubication and thus follow the classification presented in de Schryver et al. (2015).

Furthermore, the fact that Kizombo is classified as South Kikongo on the basis of basic vocabulary, but shares historically significant TA innovations with both East and South Kikongo varieties indicates that the present-day language is partly the outcome of protracted contacts between both subgroups. It is situated between 'core' South (Kisikongo) and East (Kimbata) varieties. At present, our hypothesis is that all three South Kikongo varieties, i.e. Kisikongo, Kisolongo, and Kizombo, descend from a common ancestor, which we will call 'South Kikongo'. It has been shown that this historical variant must have been spoken at least three centuries ago (de Schryver et al. 2013), and was thus documented in Cardoso (1624) and Van Gheel (1652).[47] The evolution of the zero marker from present to future probably took place in South Kikongo, and was subsequently inherited by Kisolongo, Kisikongo and Kizombo. In tandem with this, the habitual suffix *-ang* developed into an imperfective marker. This innovation is inherited by Kisolongo, Kisikongo, and Kizombo spoken near Kisikongo, e.g. the one described in Carter and Makoondekwa (1987: 23). Kizombo spoken more closely to the eastern Kimbata variety adopted the *ta-* prefix from its northern neighbour. The present-day situation is concisely presented in Table 18 and on Figure 13.

Table 18. Overview of innovations substantiating the South Kikongo subgroup.

	Innovation	*-Ø-R-a* FUT	*-ku-R-a* FUT	
South	Kisikongo	✓		CORE SOUTH
	Kisolongo	✓		
	Kizombo	✓		
	Kimboma[48]			
	Kitsootso		✓	
	Dihungu		✓	

[47] For an update of this hypothesis, see Bostoen and de Schryver (2018b).

[48] According to Kisilu Meso (2001: 45), the future in Kimboma is expressed by the TA prefix *na-*, e.g. *ngi-na-vov-a* 'I will speak'.

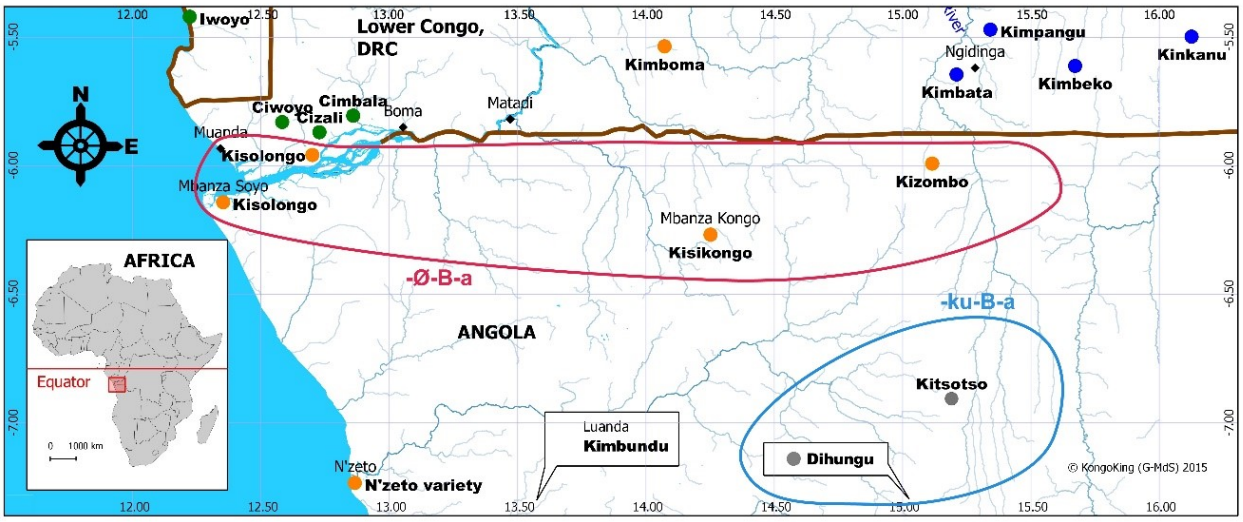


Figure 13. Shared TA features whose distribution is restricted to the southern part of the KLC. The coloured dots refer to the phylogenetic subgroups of the KLC (see Addendum 2).

5.4.2.3 West Kikongo

The western part of the KLC seems to be the most innovative one in terms of TA morphology, resulting in a quite complex situation.

The inceptive prefix *eka-* has the widest distribution (see Section 5.4.1.4), covering Kisundi and Kiyombe spoken in the interior as well as Iwoyo, Ciwoyo and Cizali spoken in the Congo delta. It is the only feature which Kisundi shares with these other varieties. Given that Kisundi belongs to the North subgroup in the classification of de Schryver et al. (2015), while the others cluster together as West, the adoption of *eka-* in Kisundi could be contact-induced. A phonologically similar prefix with the related meaning 'imminent' or 'near' future is attested in the B40 languages Isangu and Yipunu. If this prefix is indeed cognate to the *eka-* in the West Kikongo varieties further north, it can be considered a shared morphological innovation that corroborates the unity of the phylogenetic West Kikongo subgroup, just like possibly the *i-* present marker attested in Ciwoyo, Iwoyo and Yipunu (see Section 5.4.1.10). The marker *eka-* is also described in Carrie's (1888: 86) grammar of the western Kikongo variety spoken in Kakongo, but not in the one by Descourvières (1776). In the latter grammar (Descourvières 1776: 38) as well as in Carrie (1888: 86), a present marker *li-* is described which is possibly cognate to the present marker *i-* attested in present-day West Kikongo varieties. The perfect marker *ma-* (see Section 5.4.1.6) is another innovation shared between the West Kikongo H10 and B40 languages, but this is most likely an independent or contact-induced innovation, as we argue below. All other innovations within West Kikongo rather point towards a clear split in this subgroup between a northern (B40) and a southern (H10) cluster. The unity of the northern cluster is substantiated by one specific shared TA innovation, i.e. the perfect

marker *tsV-* (see Section 5.4.1.13). The other West Kikongo innovations concern the southern cluster.

The future-tense innovations, viz. the prefix *ala-* and the auxiliary *kwiz* 'come', are not attested in Kisundi, but both shared between Kiyombe, Iwoyo, Ciwoyo and Cizali (see 4.1.5.). They indicate that the southern H10 languages constitute a discrete cluster within the phylogenetic West Kikongo subgroup, as de Schryver et al. (2015) also claim on the basis of basic vocabulary. The future prefix *ala-* is furthermore attested in a 1776 grammar of the western Kikongo variety spoken in Kakongo (Descourvières 1776: 41), e.g. *i-ala-li-a* 'I will eat'. Within that southern subgroup of West Kikongo, the most innovative varieties seem to be the coastal varieties Iwoyo (Cabinda) and Ciwoyo (DRC) as far as its data stretch. They manifest innovations which they share with some other West Kikongo varieties, but not with all. The perfect marker *ma-* is found in Kiyombe, Iwoyo and Ciwoyo, but not in Cizali (see Section 5.4.1.6), whereas the spirantized reflex of **-ide* is attested in Cizali, Civili, Iwoyo and Ciwoyo, but not in Kiyombe (see Section 5.4.1.7). It is important to note that the auxiliary *man* 'finish' or its perfect form *mene* is presented as a marker of the "*prétérit parfait*" in the grammar of Descourvières (1776: 40), which describes the West-Kikongo variety as spoken in Kakongo. No grammaticalized prefix *ma-* is attested in this source. This seems to indicate that the perfect *ma-* is probably not a shared innovation inherited from the most recent common ancestor of the West Kikongo subgroup, but rather an innovation having occurred after the break-up of proto-West Kikongo into two branches, either independently or through contact between both branches. Furthermore, Kiyombe, Iwoyo and Ciwoyo are the only three varieties who have undergone a reshuffling of the past-tense markers at the expense of the complex final *-izingi* in Iwoyo and Ciwoyo, which has been retained in Cizali and Kiyombe (see Section 5.4.1.8). The distribution of the present marker *i-* is also restricted to Iwoyo, Ciwoyo and Yipunu.

Taking into account the phylogenetic classification by de Schryver et al. (2015), the distribution of this set of TA innovations as well as the geographical location of these varieties, Kisundi can best be considered as a North Kikongo variety which underwent some contact-induced TA influence from West Kikongo.[49] The belonging of Kiyombe and Cizali to West Kikongo is confirmed, but both varieties are more conservative in certain TA respects than the coastal varieties Ciwoyo and Iwoyo (as far as the sparse descriptive data on the latter language allow to judge).

Table 19 gives a summary of the relevant markers and their distribution within the KLC. The most important isoglosses are shown on Figure 14. Note that the B40 languages

[49] In the latest classification presented in Bostoen and de Schryver (2018a), this Kisundi is grouped into West Kikongo.

are not represented separately on Figure 14, and the distribution of some features found in only two of the three B40 languages is therefore not illustrated completely.

Table 19. Overview of innovations substantiating the West Kikongo subgroup.

	Innovation	*eka-*	FUT	*-izi*	shift PST	*ma-*	*eta-/eti-*	*i-*	*tsV-*	
West	Cizali	✓	✓	✓						
	Kiyombe	✓	✓		✓	✓	✓			
	Ciwoyo	✓	✓	✓	✓	✓	✓	✓		CORE WEST
	Iwoyo	✓	✓	✓	✓	✓		✓		
	Yipunu	✓				✓		✓	✓	
	Isangu	✓				✓			✓	
	Yilumbu					✓			✓	
	Kisundi	✓					✓			
Central	Kimanyanga						✓			
	Kimboma						✓			

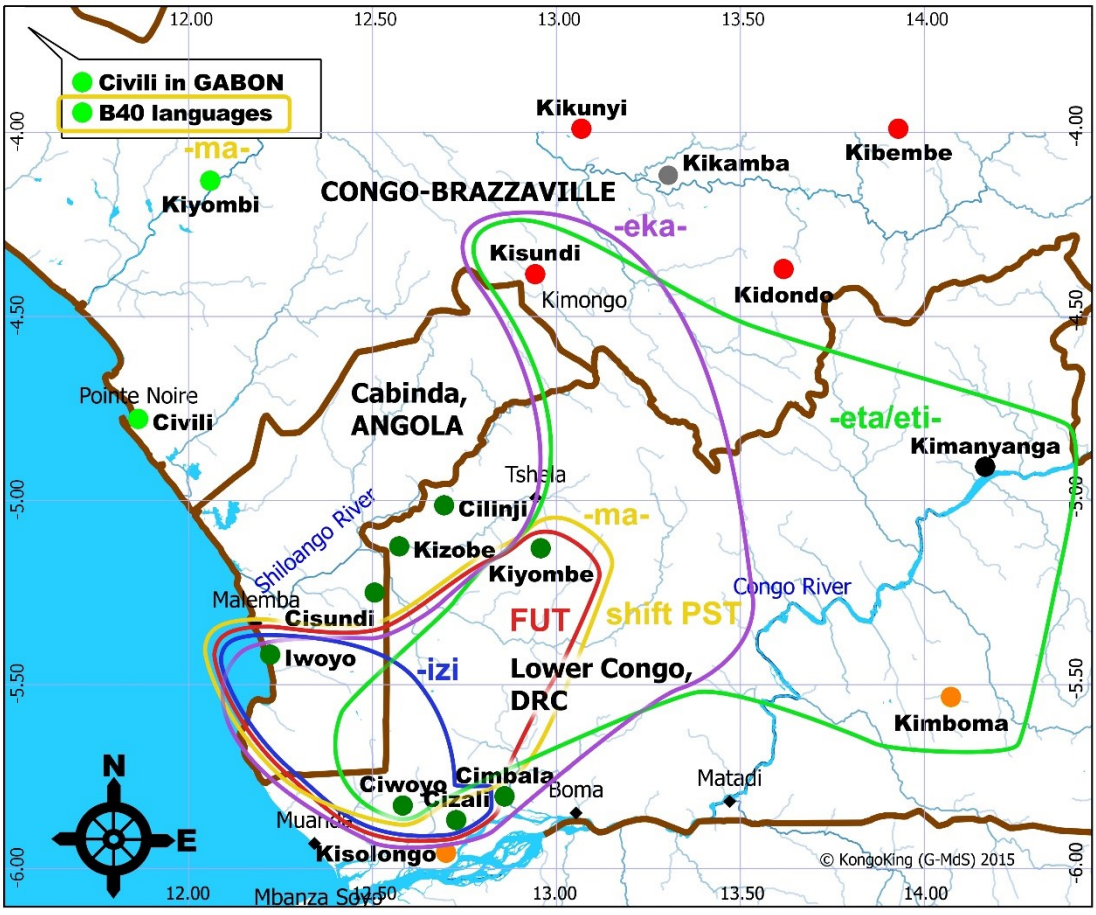


Figure 14. Shared TA features whose distribution is restricted to the western (and central) part of the KLC. The coloured dots refer to the phylogenetic subgroups of the KLC (see Addendum 2).

5.4.2.4 North Kikongo

The picture that arises from a comparison of the TA systems of the varieties located in the northern part of the KLC is one of high diversity. We could not identify shared innovations that corroborate their classification as a discrete North subgroup by de Schryver et al. (2015). Apart from a general lack of good descriptive data on the TA systems of Kikunyi, Kidondo, Kihangala and Cilaadi, there is too much variation to generate a significant subgrouping. The best described varieties in terms of TA, i.e. Kibembe and Kikamba, have clearly developed some innovative TA markers which do not occur in the other Kikongo varieties, such as the progressive marker *kwe-* in Kibembe (Kouarata 2015: 113-114) or the compound future prefix *abwe-* in Kikamba (Bouka 1989: no page numbers).

As presented in 4.1.14., Kibembe and Kikamba, two neighbouring varieties spoken in Congo-Brazzaville, share one TA innovation, i.e. the present marker *(a)ko-*. However, the sharing of one innovative feature does not allow establishing a discrete subgroup. More information is needed in order to consistently compare the TA morphology of the northern Kikongo varieties.

5.4.2.5 Central Kikongo

de Schryver et al. (2015) do not consider Central Kikongo as a true subgroup but rather as a large contact zone. We also could not identify TA innovations that would be indicative of a genealogical Central subgroup. This is not surprising, since we only considered Kimanyanga here for lack of a description of the TA system in Kindibu, the other Central variety. The only significant TA isogloss involving Kimanyanga is the present prefix *eti-/eta-*, which it shares with the West Kikongo varieties Kiyombe, Cizali and Ciwoyo, the North Kikongo variety Kisundi and the South Kikongo variety Kimboma. This TA marker is thus prevalent in West Kikongo and further attested in three Kikongo varieties each belonging to three different subgroups. This could point towards contact-induced influence of West Kikongo on varieties spoken in different varieties spoken in the interior.

5.5 Conclusion

The study of variation in the expression of tense and aspect in several varieties belonging to Guthrie's H10, H30 and B40 languages presented in this chapter has led to significant new insights on the historical evolution of the KLC. Some of these match with the phylogenetic classification of de Schryver et al. (2015). Others are rather at odds with it, because they point either towards another genealogy or towards parallel or contact-

induced evolutions that have interfered with the initial language divergence, which the phylogenetic tree attempts to model.

Not fewer than eight widespread TA features can be reconstructed to a very early stage of the KLC. At least six of them were inherited from PB or certainly from an ancestor that is older than the most recent common ancestor of the KLC. Two of them seem to be later innovations that possibly corroborate the genealogical status of the KLC as a discrete clade within West-Coastal Bantu (see de Schryver et al. 2015). One of these innovative markers, i.e. the compound past suffix *-idingi*, occurs in the different phylogenetic subgroups of the KLC as well as in Kikongoid languages, such as Kiyaka. The other, i.e. the preverbal future marker *sV*, occurs in all core KLC subgroups, but not in the Kikongoid languages. This future marker could be a later innovation compared to the compound past marker, indicating that the Kikongoid languages did indeed branch off before the internal fragmentation of the core KLC subgroups started. In this respect, both morphological innovations nicely match with distinct nodes in the lexically based phylogenetic tree. The future marker *sV* is reconstructable to PKK, while the past marker *-idingi* can be reconstructed to Proto-Kikongoid. There is also an important, but possibly only apparent, mismatch at this level, i.e. the B40 languages. While these southern Gabonese languages are an integral part of one of the KLC's core phylogenetic subgroups, i.e. West Kikongo, they have neither of the shared innovations. Although this could be taken as evidence for their genealogical classification outside the KLC, it cannot be excluded that they lost both in a later stage of their evolution. The fact that the B40 languages share almost no PB retentions with the rest of the KLC could indicate that their TA systems did indeed undergo strong innovation.

Fourteen TA features discussed in this chapter are the outcome of changes that took place posterior to PKK. As far as one can judge from the available data, some of them corroborate (parts of) the previously established phylogenetic subgroups, while others are rather indicative of interferences between subgroups due to contact-induced change.

The subgroup less well corroborated by the TA evidence presented here is no doubt North Kikongo. We could not identify a single innovation that is shared by more than two North Kikongo varieties and not by any other Kikongo variety. More TA data are needed to examine whether this is an artefact of the currently available documentation or whether more is going on.

The subgroup best confirmed in its entirety is definitely East Kikongo. The Inkisi River to the east of which all these varieties are spoken clearly constitutes an important natural language border. Kintandu, Kimbata and Kimbeko, the westernmost varieties which share three characteristic TA innovations (*a-* loss, progressive *-ta-R-a* and *kani/a ... ko* 'not yet'), seem to constitute the core of that subgroup. The more peripheral Kinkanku, which is spoken closer to the Kwango region, missed out one of these, namely *a-* loss. Two of these innovations also occur in Kizombo (i.e., progressive *-ta-R-a* and *kani/a ... ko* 'not yet'), which phylogenetically does not belong to East Kikongo but to South Kikongo.

Given that Kizombo also shares one characteristic TA innovation with other South Kikongo varieties (i.e., future *-Ø-R-a*), the occurrence of these East Kikongo TA features can be best explained by substantial contact-induced East Kikongo interference in Kizombo. Such horizontal transmission of TA features may have well been favoured by certain specific historical circumstances in which this eastern South Kikongo variety was used, such as the involvement of its speakers in pre-colonial interregional trade networks. The Bazombo used to be important middlemen in the long-distance trade, especially slave traffic, between the Atlantic coast and the central provinces of the Kongo kingdom, where South Kikongo was spoken, and the north-eastern provinces of the kingdom, where East Kikongo prevailed. A historically well-known caravan route connecting the coastal region around Luanda with the eastern Kwango region was even called *nzila Bazombo* or the Bazombo trail (Van Wing 1921: 108).

The South Kikongo subgroup is less well corroborated by shared innovations in the TA system. The three core varieties Kisikongo, Kisolongo, and Kizombo only share one characteristic semantic shift, i.e. the evolution of the zero present conjugation into a dedicated future marker. Neither the Kimboma variety spoken in the DRC and classified as South Kikongo by de Schryver et al. (2015)[50] nor Kitsootso and Dihungu spoken further south partook in that innovation.

Most shared TA innovations indicative of shared descent have undoubtedly been observed in West Kikongo. The varieties spoken along the Atlantic coast north of the Congo mouth, i.e. Ciwoyo and Iwoyo, happen to have innovated their TA system most extensively. This coastal stretch was home to several small kingdoms, such as Kakongo, Ngoyo and Loango and used to be pivotal in the trade connecting its hinterland with the Trans-Atlantic world (Proyart 1776, Martin 1972, Mulinda 1993, Volavka 1998). It is therefore likely to have constituted an important center of linguistic and other innovations. Trade between the coast and the interior probably also accounts for the fact that West Kikongo TA features are found in Kikongo varieties further east belonging to different phylogenetic subgroups. Long-distance trade routes for caravans manned and directed by coastal people, such as the Vili from Loango, linked the coast north of the Congo mouth with the interior, especially the borderlands of the Kongo kingdom north of the river (Vansina 1962, Martin 1972, Hilton 1985). In the phylogenetic classification, the north-western B40 varieties cluster together with a series of more southern H10 Kikongo varieties to constitute a discrete West-Kikongo subclade. However, they still remain a distinct subgroup within that subclade. One innovation shared by Yipunu, Isangu and Yilumbu only, viz. the perfect marker *tsV-*, corroborates their separate position within West-Kikongo. The southern West-Kikongo varieties Ciwoyo, Iwoyo, Kiyombe and

[50] Kimboma, however is classified as Central Kikongo in the latest classification by Bostoen and de Schryver (2018a).

Cizali also share TA innovations confirming their status as a subgroup within West-Kikongo. The corroboration of the genetic unity of West-Kikongo as a whole on the basis of TA morphology is less obvious. The perfect prefix *ma-* is an innovation found in all B40 and several West-Kikongo H10 varieties considered here. However, as argued above, it may have independently grammaticalized from the verb *man* 'finish', which is still found as an auxiliary for the perfect in the West-Kikongo variety spoken in Kakongo at the end of the 18th century. The best evidence for the time being substantiating the hypothesis of more recent common ancestry is the inceptive/near-future marker *eka-*. It is shared by Ciwoyo, Iwoyo, Kiyombe, Cizali, Yipunu, Isangu and Kisundi, but its presence in this latter North-Kikongo variety neighbouring several West-Kikongo varieties could well be contact-driven.

The contact-induced transmission of language features also contributed to the emergence of a Central Kikongo contact zone that straddles the Congo River and is situated in the periphery of several important polities and at the junction of different regional trade networks. We could adopt here the term 'catch basin', which Seidel (2009) uses to characterize the contact-induced hybridization at the multi-linguistic origin of Yeyi (R41). According to de Schryver et al. (2015), such horizontal transmission of language features was most formative in the emergence of the Kimanyanga and Kindibu varieties. They seem to have 'caught' innovative basic vocabulary from enough different subgroups to be classified as a separate subgroup in the phylogenetic tree. The TA evidence considered here points out that not only Kimanyanga, but also neighbouring varieties, such as Kimboma (South) and Kisundi (North), adopted innovations that originated in other subgroups. This suggests that even the Central Kikongo 'catch basin' may have a core and a periphery.

In addition to the phylogenetic and lexically based approach by de Schryver et al. (2015), which primarily focused on language divergence with the KLC, our classical comparative linguistic approach of one specific grammatical domain has highlighted, as previous studies did (Bostoen et al. 2013, Bostoen and de Schryver 2015), that language convergence is also an important formative factor to be taken into account in order to come to a better understanding of the layered constitution of the KLC. Our TA-based classification serves as one more level in a multi-levelled approach of the genesis and evolution of the KLC. Comparisons based on different aspects of language, i.e. phonology, morphology (of the nominal and verbal domain besides TA), lexicon and syntactic structures need to be superimposed to enable a dynamic interpretation of micro-variation. Only then will we be equipped to study how language variation in the KLC correlates with variations in the natural environment and in other domains in human life, such as material culture, as well as with certain historical developments that have shaped the Lower Congo region. This will eventually lead to a better understanding of how language change is conditioned by the outside world.

Chapter 6 The diachronic semantics of the Dissociative Past Completive construction in the Kikongo Language Cluster

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Abstract

This chapter deals with the semantics of the reflexes of one specific TA form, namely the so-called **-a-R-a* construction, in a cluster of about 40-odd Kikongo language varieties spoken in a wide area around the mouth of the Congo River in Central Africa. We first present a detailed analysis of the multiple uses of these cognate constructions at sentence level, in order to arrive at a formal and semantic reconstruction for the most recent common ancestor of the Kikongo Language Cluster (KLC), namely Proto-Kikongo (PKK). The analysis pertains to the overall aspectual meaning of the linguistic expression in which the tense-aspect construction is used. Therefore, we also take into consideration the contribution of different aspectual tiers, such as lexical and grammatical aspect, adverbials and taxis constructions. Through the discussion of the multiple uses of the *-a-R-a* construction, we argue that its overall meaning is complex, combining both temporal and aspectual semantics. It is furthermore shown that a lexical-aspect distinction between states-of-affairs with transitional versus non-transitional temporal structure is crucial in order to understand the various uses of the *-a-R-a* construction. Methodologically, the formal and semantic reconstruction to PKK are based on a thorough comparison of a multitude of existing data sources, some of which several centuries old, as well as original fieldwork. This bottom-up approach has rarely been pursued over the past half century in Bantu grammatical reconstructions.

Keywords

Bantu; Kikongo Language Cluster; Dissociative Past Completive; tense/aspect; lexical aspect; grammatical reconstruction

6.1 Introduction

This chapter focuses on a group of cognate tense-aspect (TA) constructions in a large number of closely related Bantu language varieties belonging to the KLC. The language-specific constructions have in common that they all convey the aspectual notion of completion and have a varied range of interpretations depending mainly on the type of predicate used. The construction manifests allomorphy in its prefix slot, which has either the morpheme *a-* or is unmarked. Both forms have the ending *-a*. The combination of the overt prefix and suffix is the more widespread of the two variants. We therefore call these TA forms the '*-a-R-a* construction'. Constructions that are segmentally similar, or identical to this construction are found across Bantu (Nurse 2008a: 82-83). However, they manifest a great deal of semantic variation (Nurse and Philippson 2006: 162, Nurse 2008a: 83, Botne 2014: 18). The **-a-R-a* construction has therefore been reconstructed to PB without a well-defined meaning (Meeussen 1967: 113, Nurse 2008a: 279). Nurse (2008a: 279) proposes a 'past perfective' **-a-R-a* construction for 'Proto- or early Bantu'. Meeussen (1967: 113) reconstructs two **-a-R-a* forms that are tonally distinct: a 'recent imperfective' **-a-R-a* conjugation with low-toned prefix, and a 'preterite imperfective' **-á-R-a* conjugation with a high-toned prefix.[51] Reconstructing the precise meaning of widespread Bantu TA constructions to PB is not only considerably complicated by the sheer vastness of the language family, consisting of more than 500 different language varieties, but also by the relative rareness of solid descriptions of synchronic TA systems, especially in terms of semantic thoroughness. One possible way of coping with this problem is to focus on a smaller subset of Bantu languages whose TA systems are relatively well described, as we do in this chapter. The present historical-comparative study gives a wide-scale semantic analysis of the *-a-R-a* construction in a group of genealogically closely related Bantu languages, viz. the KLC, resulting in a reconstruction for their most recent common ancestor, viz. PKK. The KLC is the Bantu subgroup with the oldest available documentation, i.e. since the early-17th century. The BantUGent research group has TA information of variable quantity and quality for about 30 of the 40-odd present-day Kikongo varieties, including data from several text corpora. Moreover, the first author has carried out dedicated TA fieldwork on three varieties belonging to three distinct KLC subgroups.

[51] For a discussion on the meaning of Meeussen's terms 'recent/preterite imperfective', see Section 6.5.2.

Recent studies on Bantu TA testify to a research agenda that is increasingly focused on examining the interplay between the semantics of grammatical TA constructions and the lexical semantics of predicates.[52] In many Bantu languages, a central distinction in lexical aspect exists between two types of states-of-affairs, namely those whose internal temporal structure involves a transitional point in which the situation undergoes some sort of change into a state (often called 'inchoative', 'achievement', 'stative' or 'change-of-state' verbs) and those that do not include such a change into a state (Kershner 2002, Botne 2008, Seidel 2008, Botne 2010, Crane 2011, Persohn 2017, Forthcoming [2018]). This lexical-aspectual distinction, discussed in more detail in Section 6.3.2, is also of major importance for the aspectual meaning construals of the *-a-R-a* construction in the Kikongo varieties discussed here. Combining concepts from theoretical frameworks related to both tense and aspect (see Section 6.3), we give a unified semantic description of the multiple uses of the *-a-R-a* construction on the basis of synchronic and diachronic data of different Kikongo varieties in Section 6.4. It will be argued that the different aspectual construals for which the construction can be used all involve the completion of a central phase of the temporal structure of the state-of-affairs. Depending on whether the temporal phase structure of the predicate has a resultant stative phase or not, the construction is typically used to refer to, respectively, a present-state or a remote-past situation in simple clauses. In more complex sentence structures, the addition of certain semantic types of adverbs or temporal clauses can modify those basic aspectual construals resulting in, for example, past-state or experiential readings. With respect to the analysis of the tense value of the construction, we follow the domain model of Botne and Kershner (2008) in which remoteness is not simply viewed as a linear temporal structure, but as a cognitively-based system which is organized around a contrast between contemporal-inclusive and dissociative-exclusive temporal domains (see Section 6.3.1). Combining its 'core' or 'basic' aspectual and temporal semantics, we label this construction 'Dissociative Past Completive' (glossed in the examples as DPC).

From a diachronic viewpoint, the stability of its meaning in Kikongo varieties from different time periods as well as its widespread attestation in the present-day KLC allows for a plausible reconstruction of the *-a-R-a* construction to PKK, both formally and semantically, as discussed in Section 6.5. To our knowledge, this is the first study in which a single TA construction is analysed for such a large group of interrelated Bantu language varieties and for which a semantic reconstruction is proposed for an ancestor language that is intermediate between PB and present-day language varieties. Conclusions and a discussion are presented in Section 6.6.

[52] However, the interaction between lexical and grammatical aspect has been noticed in descriptions since the 18th century (Persohn Forthcoming [2018]).

6.2 The Kikongo Language Cluster

6.2.1 Overview

The KLC is a cluster of closely related language varieties spoken along the west coast of Central Africa and its hinterland. The varieties are found in a geographical area that includes the southern part of Gabon, the south-western part of Congo-Brazzaville, the Kongo-Central province and parts of the Kwango province of Congo-Kinshasa and the northern provinces of Angola including Cabinda. This region is home to 40-odd Kikongo varieties that form a distinct phylogenetic subclade within the larger West-Western or West-Coastal Bantu clade, which is itself one of the major branches of the Bantu family (de Schryver et al. 2015, Grollemund et al. 2015, Bostoen and de Schryver 2018a). According to the phylogenetic study of the KLC by de Schryver et al. (2015), four core genealogical subgroupings can be distinguished, labelled according to their relative geographical position to each other as East, West, North and South Kikongo. A fifth group of varieties, spoken in the Kwango province east of the core KLC, has been labelled Kikongoid. Finally, in the center of the cluster a Central Kikongo convergence zone emerged as the result of long-standing and intensive contact between varieties belonging to distinct subgroups. See Addendum 2 for a map of the KLC and its subgroups.

The first contact between the ancestors of the present-day Kikongo speech communities and Europe dates back to the late-15th century, i.e. 1483 when the first Portuguese sailors reached the mouth of the Congo River. Thanks to the preservation of historical language documents from the 1620s onwards (Cardoso 1624), the KLC is an interesting study area for diachronic linguistic research within Bantu (Bostoen and de Schryver 2015, 2018b).

6.2.2 Language sample, database and method for semantic reconstruction

The present study draws on the rich collection of documentation, especially grammatical descriptions and dictionaries, compiled over the past 400 years – much of which has been digitized as part of the KongoKing research project (2012-2016). However, we did not simply stick to the analysis or description provided by each author on the conjugational system of a particular variety. In theory, that would have been the fastest way of obtaining information on the meaning of the *-a-R-a* construction. In practice, however, such an approach to the documentation would have forced us to look at each doculect through the analytical lens of its author. In order to avoid this problem, we built a database integrating all sentence examples from each document. This allowed us to evaluate a larger number

of data points and obviously gave a much richer picture of the varied uses of the particular construction studied for this chapter. In addition to these sources, fieldwork data have been gathered for 16 KLC varieties.

Because the aspectual semantics of the construction under investigation appears to show little variation through time and space, data from historical doculects will be presented together with examples from recent descriptions and fieldwork data. Methodologically, we thus map meaning onto use on the level of each modern and historical variety, as described by Hanks (2002). The coherent set of uses, established through empirical observations from a chronologically and geographically mixed language sample, then forms the basis of our semantic reconstruction for PKK, a historical language for which no data exists and the Comparative Method must be applied.

Overall, the sample covers 33 KLC varieties from all five genealogical subgroups plus Central Kikongo, spanning up to four centuries. However, a specific group of varieties for which documentation exists is excluded. These are the Gabonese language varieties of the Shira-Punu group, which are, in terms of basic vocabulary, an integral part of the KLC as members of the West Kikongo subclade (de Schryver et al. 2015: 140). In terms of TA, however, these varieties have radically different systems and lack a cognate *-a-R-a* construction. An overview of the sample and sources is provided in Addendum 7.

6.2.3 Distribution of the *-a-R-a* construction in the KLC: Establishing cognacy relations and identifying homonymous constructions

In most Kikongo varieties of the sample, the TA construction we investigate here consists of both an overt prefix *a-* and a suffix *-a*. There are, however, six varieties in the sample in which this form is not attested. Three of them belong to the West Kikongo subgroup, namely Cisundi, Iwoyo and Kiyombe, and three others to the East Kikongo subgroup, namely Kimbata, Kimbeko and Kintandu. These varieties did not simply lose the *-a-R-a* construction but have all undergone a particular morphological innovation, namely the loss of the TA prefix *a-*, and now use a segmentally prefixless construction *-Ø-R-a*. The contrast between the two cognates is illustrated in (146) with Ciwoyo having retained the *-a-R-a* form and Kimbeko having undergone the innovation of prefix loss.

(146) Elicited sentence: *Je suis né(e) il y a longtemps* ('I was born a long time ago').

a. Ciwoyo [West] (KongoKing 2012, fieldwork by S. Dom)
***Yabutuka** nyaanu.*
i-a-but-uk-a *nyaanu*
SP_{1SG}-DPC-give_birth-SEP_{INTR}-DPC long_ago

b. Kimbeko [East] (KongoKing 2012, fieldwork by S. Dom)
*Thama **ibutuka**.*

thama *i-Ø-but-uk-a*
long_ago SP_{1SG}-DPC-give_birth-SEP_{INTR}-DPC

Although the exact (socio-)historical context of this morphological innovation has not yet been studied,[53] some arguments based on language-internal evidence show that the *-Ø-R-a* construction in these six varieties is indeed a cognate of the *-a-R-a* construction and not a historically independent construction. The first argument involves the fact that the change of the TA prefix *a-* loss occurs throughout the paradigm in all these varieties. That is, other common TA constructions which feature the prefix *a-* also have prefixless cognates in these six varieties. This is for example the case with the common Hesternal Past Perfective *-a-R-iCi*, whose cognate in these six varieties is *-Ø-R-iCi* (for a more detailed discussion, see Chapter 5, Section 5.4.1.1).[54]

The second argument is based on the observation that a homophonous *-Ø-R-a* construction is more commonly attested in both the KLC (see Chapter 5, Section 5.2.4) and Bantu (Nurse 2008a: 117-118). As is common cross-linguistically, this cross-Bantu 'unmarked' TA construction typically denotes present tense. This parallel *-Ø-R-a* construction also occurs in both those KLC varieties which did not undergo the loss of the TA prefix *a-*, as well as in those six varieties which did participate in the innovation. In the latter, the prefix-less reflexes of the **-a-R-a* construction are thus segmentally homophonous to the common present-tense construction *-Ø-R-a*. On a suprasegmental level, though, both constructions tend to be formally disambiguated through a difference in tonal patterns. This is shown in (147) for Kintandu.

(147) Kintandu [East] (Daeleman 1966: 258, 285)

a. *Lutá bálúta.*[55] SIMPLE-PRESENT CONSTRUCTION
Ø-lut-a *ba-Ø-lut-a*
CL_{15}-pass-FV SP_2-PRS-pass-PRS
'They're (just) passing by.'
(Original Dutch: '*Ze gaan alleen maar langs*.')[56]

[53] For Kintandu, certain historical sources give a relative idea of the period in which the prefix loss was completed. For example, Polis (1938) still reports the *-a-R-a* construction. Butaye (1910: 57) mentions regiolectal variation between both reflexes and—erroneously—interprets the prefix-less reflex as the unmarked Present construction *-Ø-R-a* being used for past time reference.

[54] However, the complex prefix of the Future constructions *-ala-R-a* or *-ela-R-a* in Iwoyo and Kiyombe, respectively, was not targeted by this innovation (see Chapter 5 Section 5.4.1.5).

[55] The use of a verb phrase only necessitates in the present tense the use of the fronted-infinitive construction, which is a particular information-structural construction (De Kind et al. 2015). This is another difference with the homophonous DPC, which does not require such a verb doubling.

[56] We provide the original when the source is not written in English.

b. *Balúta.* DPC CONSTRUCTION
ba-Ø-lut-a
SP_2-DPC-pass-DPC
'They passed by (long ago).'
(Original Dutch: '*Ze waren [lang geleden] langsgegaan*.')

A third element pointing towards a cognacy relation between the *-Ø-R-a* and *-a-R-a* constructions is the identical function of both in the respective varieties (see, e.g., Barðdal 2013: 441). That is, as will be shown by means of examples from these varieties in Section 6.4, the 'innovative' varieties use the prefix-less DPC construction in the same contexts to construe the same kinds of aspectual meanings as the 'conservative' varieties do with the prefix-retaining DPC construction. In the overview of the language sample in Addendum 7 the reflex of the construction is given as attested in each individual variety or doculect.[57]

Finally, it should be noted that other segmentally homophonous constructions with the same segmental form are attested throughout the KLC. The most widespread is a Subjunctive *-a-R-a* construction. It is attested in all subgroups, although its distribution varies within each of them. The Subjunctive *-a-R-a* is furthermore attested in the oldest (South) Kikongo source, as illustrated in (148).

(148) 17th c. Kikongo as spoken in Mbanza Kongo [South] (Cardoso 1624: 13)
(...) cutuambulaco ***tuabua*** *munâ lueleco, (...).*

ku-tu-ambul-a	*ko*	*tu-a-bu-a*	*muna*
$EXPL\text{-}OP_{1PL}$-allow-FV	NEG	SP_{1PL}-SBJV-fall-SBJV	LOC_{18}

lu-eleko
CL_{11}-temptation
'(…) don't let us fall into temptation, (…).'
(Original Portuguese: '*(...) & não nos deixes cair em tentação (...)*.')

In subordination contexts the Subjunctive *-a-R-a* is typically used in complement and purpose clauses, whereas in main clauses it expresses optative and hortative mood.

Two other *-a-R-a* constructions which are most likely homonyms denote present and future time reference. However, information on these constructions is much scarcer than on the DPC and Subjunctive *-a-R-a* constructions. For example, Atkins (1954: 154) provides just one out-of-context example for an apparent (gnomic) present-tense

[57] As can be seen from this overview, there are two varieties for which different sources give either one of the two reflexes. These are two North Kikongo varieties, namely Kidondo and Kikamba. It is currently difficult to verify whether the difference can be attributed to regiolectal (for Kidondo) or diachronic (for Kikamba) variation, because no detailed descriptions of the tense and aspect systems are available.

construction in Dihungu, namely *tu-a-sumb-a* 'we buy'. More research is needed in order to understand the distribution, meaning and history of these constructions, as well as the possible semantic and diachronic relations between them. Because the TAM uses of these constructions are quite different from those of the DPC *-a-R-a* construction discussed in this chapter, we assume for now that they are homonymous.

6.3 Theoretical frameworks and assumptions

In the following three sections we will briefly outline the main theoretical assumptions of this study and the methodology used to analyse and represent the data.

6.3.1 Tense, remoteness and the dissociation model

In order to capture the complexities of the TA systems in many Bantu languages, Botne and Kershner (2008) propose a cognitive model that offers a multi-dimensional interpretation of tense. In their so-called domain model,

> "[t]ense […] denotes that relation that holds between S (the locus of the speech event) and a cognitive temporal domain (comparable, but not identical to Bull's notion of axis and Klein's topic time), a relation that is best construed in terms of clusivity: inclusivity—i.e., the deictic center (anchored at S) occurs within the time span of the cognitive world—versus exclusivity, or dissociation—i.e., the deictic center at S is external to, or dissociated from, the cognitive world." (Botne and Kershner 2008: 152-153)

Grammatical tense can be used to mark temporal relations between S and points within the contemporal *P-domain*, or between S and a past or future dissociated *D-domain*.[58] Temporal relations pertaining to the P-domain can be further divided into *Current Time Unit* (CTU) and *Adjoining Time Unit* (ATU) (Botne 2012, 2014). The former is a temporal unit including S, the latter delineating a time region that immediately precedes (for past) or follows (for future) it; see Figure 15. The temporal value of these units (CTU and ATU) is dependent on the cognitive construal of the speaker and can represent an

[58] P stands for performative (Botne and Kershner 2000: 163) or present (Botne 2003a: 397), and D for dissociative.

opposition of days (yesterday vs. today vs. tomorrow), weeks (last week vs. this week vs. next week), months, seasons or years, as Nurse (2008a: 22) also points out.

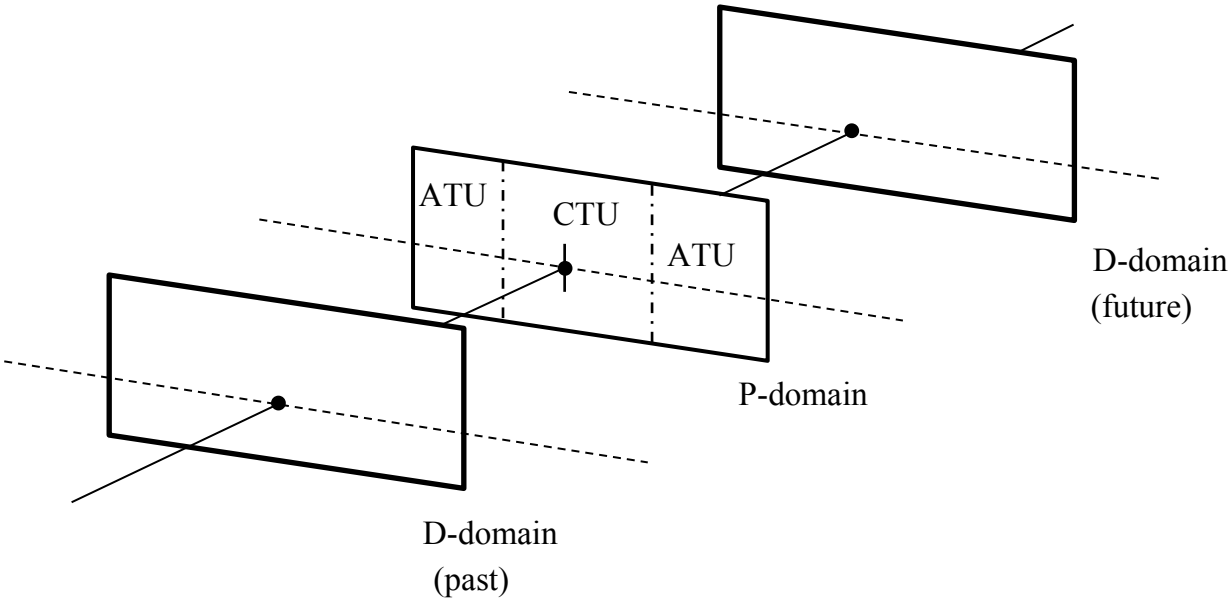


Figure 15. Domain model with multiple construals of time.

In contrast to linear analyses of remoteness systems, the domain model can account for the fact that two different TA constructions can be used to refer to the same moment in time, as illustrated in (149).

(149) Late-19th c. Kikongo as spoken in the vicinity of Boma [South]
(Craven and Barfield 1883: 9, 17)

a. *Zona zimbwa **zawoka**.*

zona	*zi-N-bwa*	*zi-a-wok-a*
yesterday	AUG_{10}-CL_{10}-dog	SP_{10}-DPC-bark-DPC

'Yesterday the dogs barked.'

b. *Zono **tua zíkidi** e nvumbi.*

zono	*tu-a-zik-idi*	*e-N-vumbi*
yesterday	SP_{1PL}-HST-bury-HST	AUG_9-CL_9-corpse

'Yesterday we buried the corpse.'

Even though the two TA constructions in (149) are used for a situation which occurred 'yesterday', they nevertheless contrast with respect to the temporal specification. First, whereas the *-a-R-a* construction is also used for situations which occurred in a more remote past, such as the creation of the earth in (150), the *-a-R-idi* form is more restricted in its temporal scope, typically referring to situations that occurred the day before S as in (149)b. In Craven and Barfield (1883), this analysis is further reinforced by the observation that in 14 out of 25 instances the *-a-R-idi* construction co-occurs with the

adverb *zono/a* ‘yesterday’, whereas this is only the case for 3 out of 35 examples of the *-a-R-a* construction.

(150) Late-19th c. Kikongo as spoken in the vicinity of Boma [South]
(Craven and Barfield 1883: 25)
Nzambi ***wa vanga*** *nsi.*
N̩-zambi *u-a-vang-a* *N-si*
CL_1-God SP_1-DPC-make-DPC CL_9-earth
‘God created the earth.’

In the domain approach the use of the *-a-R-a* construction for remote past, as in (150), and recent past, as in (149), can be explained by the fact that in (149)a the speaker wishes to construe the state-of-affairs as dissociated and thus unrelated to the cognitive here-and-now, irrespective of whether it occurred recently with respect to S. These examples, as well as the semantic discussion in Section 6.4 of the construction’s uses, indicate that the core temporal function of the *-a-R-a* construction is thus to locate the central phase of the state-of-affairs denoted by the predicate in the past D-domain. This still allows for various but related aspectual construals, for which the theoretical underpinnings are outlined below.

6.3.2 Aspect construal

We believe that any theory of aspect should take into account the fact that the overall aspectual value of a linguistic expression is construed through various levels of the grammar. This has been spelled out clearly by Sasse (2002: 262), who states that “[…] the goal of a cross-linguistically adequate theory of aspect should be the investigation of aspectual phenomena on the sentence (or, rather, clause) level in connection with the investigation of the role of lexicon, conventionalized grammar, and discourse in the constitution of these phenomena.” He furthermore lists seven ‘aspectual tiers’ which should be taken into consideration:

> “(i) the inherent tempo-aspectual characteristics of the (simplex or complex) situation-denoting lexical units that enter the sentence; (ii) the tempo-aspectual nuances of meaning brought in by overt morphological systems (‘aspect operators’ or ‘aspect grams’); (iii) the bounding potential of determinational and quantificational characteristics of arguments; (iv) the bounding potential of adverbials; (v) the contribution of other types of phase markers such as *begin*, *continue*, *finish*, *stop*, etc. to bounding; (vi) the relational structure of the sentence such as diathesis, causativity, thematic roles, etc.; (vii) interclausal relations between predicates in terms of ‘taxis’.” (Sasse 2002: 263)

Following Binnick (1991: 195) and Croft (2012: 57), we call tier (i) the *aspectual potential* of a predicate, i.e. its possibility to be used to construe a limited set of aspectual types. The combination of a predicate with a particular argument-structure construction, which includes tiers (iii) and (vi), denotes a specific *state-of-affairs*. A state-of-affairs is a subjectively construed conceptualization or depiction of a situation involving one or more participants. It has *temporal* and *causal structure*, both of which are determined by (a) the frame-semantics of the predicate and the participants and (b) the argument-structure construction chosen by the speaker (Goldberg 1995, Croft 2012). We use the term 'actionality' to refer to the temporal structure (see, among others, Johanson 2000, Tatevosov 2002, Crane and Persohn Forthcoming-a).

The internal temporal structure of a state-of-affairs can be described in terms of *phases*. The phasic structure of most states-of-affairs is delimited by a left and right boundary, which separate a pre- and post-time during which the state-of-affairs does not hold (Klein 1994: 84, Desclés and Guentchéva 2012: 134-136).[59] Although these pre- and post-times might involve preparatory and resultant situations related to the state-of-affairs, they are typically not profiled in the phasic structure. For instance, one can put on running shoes and sports clothes in order to go out for a run, but these preparatory stages cannot be referred to in English by the verb *(go out for a) run*. In the same vein, the resultant state of someone having eaten a five-meal dinner could be that that person is full, yet that resultant state cannot be expressed by the predicate *eat (a five-meal dinner)*.[60] The temporal structure profiled in these states-of-affairs is strictly limited to a (single) phase referring to the (atelic) action of running and the (telic) action of eating a five-meal dinner.

Phases can be distinguished by means of their temporal and qualitative properties (Croft 2012). With respect to its temporal property, a phase can be either durative or punctual. We define punctuality here as a situation whose duration is shorter than it takes to describe that situation by means of a simple (clausal) linguistic expression (for a different, more formal, approach, see Engelberg 1999). This informal definition takes into account the fact that the phase of a predicate such as *fall* can be punctual when construing a state-of-affairs in which an animate participant referent stumbles on the floor, as in (151)a, but durative when describing a state-of-affairs in which a participant is being pulled towards earth by gravity from a considerable height, as in (151)b, in which case the trajectory is extensive enough for someone to give a description of that situation (see also Croft 2012: 83-84) for a more extensive discussion on construal and aspectual potential).

[59] The typical exception are permanent states whose boundaries "are rejected at infinity" (Desclés and Guentchéva 2012: 134).

[60] These predicates can nevertheless be used pragmatically during these preparatory or resultant situations. That is, someone can say *I'm going for a run* in order to explain *why* s/he is putting on running shoes, or utter *I've eaten a five-meal dinner* when another person notices the bloated stomach of the glutton.

While the verb *fall* can be conjugated in the present progressive when it has a durative reading as in (151)b, such a conjugation is felt to be infelicitous when the verb has a punctual reading as in (151)a.

(151) a.*Look, the teacher is falling over a cobblestone!
b. Look, there's someone falling from the burning apartment.

The qualitative property of a phase is related to notions such as dynamicity versus stativity, change pertaining to graduality, scalarity and incrementality (Bertinetto and Squartini 1995, Hay et al. 1999, Beavers 2012, Kennedy 2012, Rothstein 2012, Beavers 2013), and reversibility (Croft 2012: 43). The examples in (152) illustrate some of these differences.

(152) a. My brother is reading (a book).
b. My brother is drying in the sun.
c. My brother is lying on his bed.
d. Luxembourg lies between Belgium, France and Germany.

The state-of-affairs in the first example is dynamic, i.e. the agent participant (*my brother*) is engaged in an activity which develops over time, namely taking in written information. The second example is less straightforward. The subject participant does not constitute the agent of the state-of-affairs, who initiated the situation. Still, the state-of-affairs denoted by the predicate *to dry* consists of a dynamic phase in which the degree or presence of some liquid on a body gradually decreases due to the heat of an energy source. We find the reverse situation in (152)c, where the subject participant does constitute an agent, but the state-of-affairs is stative rather than dynamic. However, there is a clear difference between the state-of-affairs construed in (152)c and (152)d, even though the same verb is used. The former is stative but temporally bounded; it is not an inherent property of *my brother* that he lies in bed always and forever.[61] Example (152)d denotes a truly stative state-of-affairs in that it holds, unchangeably, throughout the lifetime of the subject participant, namely the country of Luxembourg (assuming no re-drawings of Europe's center). The last two examples also highlight the influence of the semantic properties of the participant roles involved on the aspectual type of a state-of-affairs (see also Verkuyl 1996).

In recent literature on actionality from a cross-linguistic perspective, it has been pointed out that the phase structure, i.e. the temporal profile, of a particular state-of-affairs is language-specific (Tatevosov 2002: 324, Botne 2003b, Bar-el 2015). One case in point

[61] This aspectual type has been called homogeneous activity in Michaelis (1998: 64-66) or inactive activity in Croft (2012: 39).

is the so-called 'bi-phasal' (Ebert 1995), 'ingressive-stative' (Bickel 1997: 124-127) 'inceptive-stative' (Tatevosov 2002: 382-384) phase structure, in which a transitional 'entry-into-a-state' phase is part of (or 'profiled in') the temporal structure. This means that in a language with predicates denoting a state-of-affairs with this phase structure, such as e.g. the Zambian Bantu language Totela in (153), either the transition into (ii) or the state itself (i) can be expressed by the same predicate and, in this case, the same TA construction. The actual reading typically depends on the context of utterance.

(153) Totela (Crane 2011: 123-124; underlining in original)
ndá̲kòmòkwà
nda̲-komok-w-a
SP_{1SG}.CMPL-surprise-PASS-FV
i. 'I am surprised!'
ii. 'I got surprised!'

As Ebert (1995: 189) points out: "Two phase verbs are rare in English. Usually two different verbs or compounds refer to the transformation and the resulting state or activity." In other languages, such as the Caucasian Ingush language (Nichols 2011: 322-323), but also many Bantu languages, inceptive-states are quite common.

The above discussion of inceptive-states also illustrates that states-of-affairs can vary in the complexity of their phase structure. Whereas an atelic activity such as English *walk* (e.g. *in the park*) refers to a single situation and thus consists of one single phase, inceptive-state verbs, such as Totela *komokw* 'be/get surprised', profile at least two phases: a transitional entry-into-a-state phase and a stative phase. With respect to the phasal complexity of states-of-affairs, Bantu languages are of considerable typological interest in that they have predicates denoting states-of-affairs profiling different types of complex phase structures (Botne 1983a, Persohn Forthcoming [2018]). Using eight language-specific criteria to test the behaviour of verbs, Persohn (2017: 117) identifies at least five actionality types in the Tanzanian Bantu language Nyakyusa: activity, simple accomplishment, transitional accomplishment, transitional achievement and resultative achievement. Transitional achievements are an actionality type in which the temporal profile consists of three phases, namely a durative 'coming-to-be' or 'run-up' phase, a punctual 'entry-into-a-state' phase, and a durative 'stative (result)' phase. The construal of each of these phases is illustrated in (154) with the verb *kalal* 'be(come) angry'.

(154) Nyakyusa (Persohn 2017: 129, 158, 113 respectively)
a. *i-kɔ-kalal-a*
SP_1-PRS-be(come)_angry-FV
'S/he is becoming angry.'
b. *pa-bw-andılo* *a-kaleele* *fiijo,* *ɔlɔ*
CL_{16}-CL_{14}-beginning SP_1-be(come)_angry.PFV INTENS now

si-maliike
SP_{10}-finish.PFV
'First he got angry, but now the anger is gone.'

c. *a-kaleele*
SP_1-be(come)_angry.PFV
(Default reading:) 'S/he is angry.'

In line with the terminology used in the literature on Bantu actionality, we will call the 'coming-to-be' phase of such transitional state-of-affairs the *onset* (O) phase. The 'entry-into-a-state' is called *nucleus* (N) phase, a term also used for states-of-affairs whose internal temporal structure consists of one single phase. The resultant 'stative' phase of transitional state-of-affairs is referred to as the *coda* (C) phase.[62] The complex phase structure of transitional states-of-affairs can be visually represented as the schema in Figure 16.

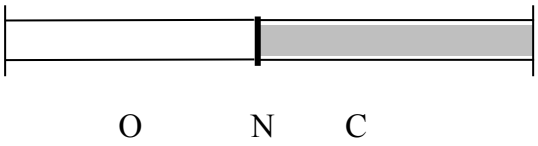


Figure 16. Schematic representation of the phase structure of transitional states-of-affairs.

Grammatical-aspect constructions (Sasse's tier (ii)) stand in an operator-operandum relation to the internal temporal structure of states-of-affairs. Particularly relevant for the construction under investigation here is that some grammatical-aspect constructions have the potential to select points in, or stretches of, particular phases, or they can be used to focus on boundaries of such phases. In addition, adverbial constructions (tier (iv)), aspectualizer constructions (tier (v)) and taxis constructions (tier (vii)) can be used to further elaborate or modify the temporal development of a state-of-affairs, and ultimately contribute to the aspect value of a linguistic expression.

The actional distinction found in multiple Bantu languages between transitional and non-transitional states-of-affairs will be shown to be of major importance for the interpretation and aspectual construal of the *-a-R-a* construction in the varieties of the KLC. We therefore argue, more specifically, that the core meaning of this TA construction is to locate the central phase of a state-of-affairs in the remote, D-domain past, and that the basic aspectual meaning is to view the central phase as completed. However, this basic meaning allows for different aspectual construals depending on

[62] The analogy with phonological terminology for the different phases was first introduced by Freed (1979) and adopted for Bantu by Botne (1983b, 1983a) and his subsequent works.

whether the state-of-affairs is transitional or not, and whether adverbial and temporal clause constructions add aspectually relevant information.

6.3.3 A componential vs. constructionist approach to TA in Kikongo

It is a longstanding tradition in Bantuist approaches to verbal morphology to isolate morphemes and relate an abstract meaning to them. For example, both the DPC *-a-R-a* and Hesternal Past Perfective *-a-R-idi* construction in Kimanyanga have the TA prefix *a-*. This contrasts with the Hodiernal Past *-Ø-R-idingi* and Contemporal Past Completive *-Ø-R-idi* constructions, which are both prefixless. Because the *a-* prefix occurs in the remote and hesternal constructions one could say, in a componential approach, that the function of the prefix is to signal pre-hodiernal time reference, while the aspectual semantics would then be conveyed through the suffix, i.e. either *-a* or *-idi*. On the other hand, the *-a* suffix is often described in Bantu linguistics as a neutral or default 'final vowel', which primarily serves a phonotactic purpose, but misses a specific grammatical meaning (see Nurse 2008a: 261). To illustrate further with Kimanyanga, an *-a* suffix is also used in the infinitival form of verbs, non-indicative moods such as the imperative, and in the near-future constructions, all of which are categorically different from the tense-aspect-mood meaning of the overall *-a-R-a* structure. Hence, it is impossible to establish a clear semantic function for the final component of the DPC *-a-R-a* construction, or any other conjugational prefix-suffix combination ending in *-a*. Moreover, the complex and polysemous semantic character of the overall prefix-suffix combination is non-compositional, in that it is not simply the semantic sum of its individual parts.

We therefore take a constructionist approach, following the basic tenets of Construction Grammar (Goldberg 1995, Croft 2001, Hoffmann and Trousdale 2013b). In this approach, the prefix-suffix combination forms a single, yet morphologically complex construction. This is reflected in our glossing. We do not gloss the verbal ending *-a* as FV ('final vowel'), as is commonly done in Bantu linguistics, but rather treat the two morphemes holistically as structural parts of an undifferentiated whole and give them both the same gloss. Although a Construction Grammar approach to Bantu verbal morphology might seem novel, the view that morphologically complex constructions lie at the basis of (TA) meaning construal has a long tradition in Bantu grammatical reconstructions. This is reflected by the fact that the PB reconstructions of TA forms given in Meeussen (1967: 113) and Nurse (2008a: 279) are all prefix-suffix combinations, i.e. partially schematic and morphologically complex constructions.

6.4 The *-a-R-a* construction in the Kikongo Language Cluster

6.4.1 The *-a-R-a* construction within the wider past-tense paradigms

As is the case in many Bantu languages (Nurse 2008a: 21-22), all Kikongo varieties included in the sample have multiple past-tense constructions. Such complex past-tense paradigms are typically organized according to temporal remoteness distinctions (Botne 2012). The TA paradigms of most Kikongo varieties follow a basic organization that is grounded in a hodiernal division of time. In a number of doculects, mostly the historically older ones, we find a three-way organization summarized in (155) (see, e.g., Descourvières 1776: 20, Guinness 1882b: 76-77, Bentley 1887: 650).[63]

(155) P1 hodiernal *-Ø-R-iCi*
Refers to any given time preceding S, on the same day of S.
P2 pre-hodiernal *-a-R-iCi*
Refers to any given time preceding the day of S, maximally up to a few weeks.
P3 remote *-a-R-a*
Refers to any given time preceding the day of S.

However, the most common organization of remoteness distinctions attested in the KLC has a more fine-grained division of time with respect to the day of S, which can be roughly defined as a distinction between a 'near' past (P1) and a 'hodiernal' past (P2), as schematized in (156). Such systems are found in doculects from the late-19th century onwards (see, e.g., Carrie 1888: 87, Westlind 1888: 199-200), and in many modern South, West, Central and East Kikongo varieties.

(156) P1 near *-Ø-R-iCi* or *-me-R-a*
Refers to what is perceived as a small period of time preceding S on the same day of S.
P2 hodiernal *-Ø-R-idingi* or *-Ø-R-iCi*
Refers to what is perceived as a period preceding that of P1, but still on the same day of S.

[63] This schematic summary does not do justice to the semantic richness of each construction and paradigm of the individual doculects, and does not take into account a number of important features such as the combination with imperfective morphology.

P3 pre-hodiernal *-a-R-iCi* or *-Ø-R-iCi*
Has the same temporal specification as in (155).
P4 remote *-a-R-a* or *-Ø-R-a*
Has the same temporal specification as in (155).

It is important to specify that different KLC varieties share the same temporal organization, but might not share the same formal paradigms to express these conceptual time categories. Especially for P1 and P2 in the paradigm of (156), varieties differ with respect to which actual TA construction is used, reflecting different paths of historical developments for the paradigms of individual language varieties. The loss of the TA prefix *a-*, which has occurred in a number of KLC varieties (see Section 6.2.3), accounts for the formal variation in (156) for the P3 and P4 constructions.

Significant for the present study is that in the majority of the sample the *-a-R-a* construction (or its prefixless cognate *-Ø-R-a*) is used for the most distant time period in the cognitive organization of time.[64]

6.4.2 Non-transitional predicates[65]

When predicates having a non-transitional phase structure take the *-a-R-a* construction, the entire state-of-affairs is viewed in its totality, i.e. as completed, and is furthermore located in a remote past, as illustrated in (157). Temporal adverbials overtly specify the remote time period at which the state-of-affairs is situated in examples (157)a,b,d,e. We provide examples of six different Kikongo varieties, each of them belonging to a different KLC subgroup.

(157) a. Late-19th c. Kisikongo [South] (Bentley 1887: 7)
Se lumbu kumi yavioka ***twamvovesa*** *vo, ovanga edi.*
se *Ø-lumbu* *kumi* *i-a-vyok-a* *tu-a-N̤-vov-is-a*
then CL_8-day ten SP_8-DPC-pass-DPC SP_{1PL}-DPC-OP_1-say-CAUS-DPC
vo *o-Ø-vang-a* *edi*
QUOT SP_1-PRS-do-PRS DEM_5
'Ten days ago we told him to do so.'

[64] Civili is an exception to this generlization. See the note in Addendum 6.

[65] The difficulty of working with examples from descriptions is that we cannot fully test each predicate in used in an example for its lexical-aspectual properties in that specific variety. In that sense, we are rather assuming the temporal phase structure of the predicates in this section. However, the interaction with grammatical aspect is typically a component of such an elaborate test, and this discussion can thus be seen as an exploration of one component of lexical aspect in the KLC varieties used here.

b. Ciwoyo [West] (KongoKing 2015, fieldwork by S. Dom)
(...) mu mvula 2012 (...) ***tadengana****.*
mu N-vula 2012 tu-a-dengan-a
CL_{18} CL_9-year 2012 SP_{1PL}-DPC-meet.RECP-DPC
'(…) in the year 2012 (…) we met each other.'

c. Kimanyanga [Central] (Laman 1912: 276)
Abalami ***wakota*** *mu nsi nate ye vata dia Sikemi.*
Abalami u-a-kot-a mu N-si nate_ye Ø-vata
Abraham SP_1-DPC-enter-DPC LOC_{18} CL_9-land unto CL_5-village
dia Sikemi
$CONN_5$ Sichem
'Abraham entered into the land unto the place of Sichem.'

d. Kintandu [East] (Daeleman 1966: 286)
Kilŭmbú kímósi ngudí ***wúbuta*** *baaná báni.*
ki-lumbu ki-mosi Ṇ-gudi u-Ø-but-a ba-ana
CL_7-day CL_7-one CL_1-woman SP_1-DPC-give_birth-DPC CL_2-child
ba-ani
PP_2-$POSS_1$
'One day, a mother gave birth to her children.'
(Original Dutch: '*Op een zekere dag baarde de moeder haar kinderen*.')

e. Kibembe [North] (Kouarata 2016: 99)
Twaba *kunsa mudziingu kuholosono 1997 natee 1999.*
tu-a-b-a kunsa mu-dziingu kuholosono 1997 natee 1999
SP_{1PL}-DPC-be-DPC in CL_3-war from 1997 until 1999
'We were at war from 1997 until 1999.'
(Original French: '*La guerre a eu lieu de 1997 à 1999*.')

f. Kiyaka [Kikongoid] (van den Eynde 1968: 100)
Ntóómbó myápfúmú ***twákúna****.*
Ṇ-toombo mya Ø-pfumu tu-a-kun-a
CL_4-manioc $CONN_4$ CL_9-chief SP_{1PL}-DPC-plant-DPC
'It's the chief's manioc which we planted.'
(Original French: '*C'est le manioc du chef que nous avons planté*.')

The *-a-R-a* construction can also be used for an experiential construal of non-transitional states-of-affairs. In this sense, the occurrence of the state-of-affairs in the past is not simply 'reported' or 'narrated', but is construed as being relevant in some way or another to either one of the speech participants. Such a subjectively grounded, evaluative perspective is often construed in particular pragmatic contexts. Dahl (1985: 142), for example, notes that the experiential "is favoured by non-affirmative contexts, i.e.

questions and negated sentences", as is also reflected in the examples of the experiential use of the *-a-R-a* construction provided in (158).

(158) a. 17th c. Kikongo as spoken in Mbanza Kongo [South] (Cardoso 1624: 2)
***Uaria** mungue?*
u-a-ri-a *mu-ngu* *e*
SP_1-DPC-eat-DPC CL_3-salt Q
'Have you eaten the salt?' (Meaning: 'Are you Christian?)
(Original Portuguese: '*Sois Chriftão?*')

b. Ciwoyo [West] (KongoKing 2015, fieldwork by S. Dom)
***Kwálya** nyoka ko.*
ku-a-li-a *N-yoka* *ko*
NEG.SP_{2SG}-DPC-eat-DPC CL_9-snake NEG
'You have never eaten snake.'
(Original French: '*Tu n'as jamais mangé du serpent*.')

c. Early-20th c. Kimanyanga [Central] (Laman 1912: 291)
*Ntamana (kala-kala) mbozi **yadie**?*
N-tamana *kala-kala* *N-bozi* *i-a-di-a* *e*
CL_9-beginning ever CL_9-mbozi_fruit SP_{1SG}-DPC-eat-DPC Q
'Have I eaten the *mbozi* fruit from the beginning?'

It should be noted that this use has very few attestations in the dataset, possibly due to the specific context needed in which this aspectual construal of the construction surfaces. In other examples the aspectual meaning of the construction could be interpreted as either a perfective or experiential past construal. These are mostly sentences with frequency adverbials where a situation-specific interpretation would induce a simple past reading and a non-specific situation interpretation would give an experiential reading (Dahl and Hedin 2000, Mittwoch 2008). In all of these examples, such as the ones in (159), context is not sufficient to determine which construal is intended.

(159) a. Kiyombe [West] (De Clercq 1921: 33)
***Ndisala** sala sala ngonda yoso.*
ndi-Ø-sal-a *Ø-sala* *Ø-sala* *N-gonda* *i-oso*
SP_{1SG}-DPC-work-DPC CL_{15}-work CL_{15}-work CL_9-month CL_9-all
'I've worked, worked, worked all month.'
(Original French: '*J'ai travaillé, travaillé, travaillé le mois tout entier*.')

b. Early-20th c. Kimanyanga [Central] (Laman 1912: 260)
Luwawanu ***lwanietukwa***[66] *ndietukwa tatu.*
lu-wawanu *lu-a-nyetik-u-a* *N-dietukwa* *tatu*
CL_{11}-Testament SP_{11}-DPC-print-PASS-DPC CL_9-print three
'The Testament has been printed three times (in three editions).'

The two uses of the *-a-R-a* construction with non-transitional predicates are closely related, in that the experiential use is a pragmatically more elaborate aspectual construal which builds on the 'basic' remote past semantics. However, given the limited number of examples of the experiential use in the dataset, clearly more research is needed to have a better understanding of the semantic details.

6.4.3 Transitional predicates

Transitional states-of-affairs, also referred to as change-of-states or inchoatives, involve a punctual transition into a state, with a possible preceding onset phase. The most basic aspectual construal of the *-a-R-a* construction with such transitional predicates is that of a present state. This is illustrated in (160) with for Kikongo varieties from five different KLC subgroups.

(160) a. Kizombo [South] (Carter 1974: 35)
Enanaăzi ***kedyabwáaka*** *kó…*
e-Ø-nanaazi *ke-di-a-bwak-a* *ko*
AUG_5-CL_5-pineapple NEG-SP_5-DPC-become_ripe-DPC NEG
'A pineapple which is not ripe…'

b. Kiyombe [West] (De Clercq 1921: 64)
Dizina diandi ***dikuáma*** *te Tsundi te Ngoyo te Mboma.*
di-zina *di-andi* *di-Ø-kwám-a* *te* *Tsundi*
CL_5-name PP_5-$POSS_1$ SP_5-DPC-be(come)_known-DPC in Sundi
te Ngoyo te Mboma
in Ngoyo in Boma
'His name is known all the way up to Nsundi, Ngoyo and Boma.'
(Original French: '*Son nom est connu jusque chez les Sundis, jusqu'au Cabinda, jusqu'à Boma*.')

c. Early-20th c. Kimanyanga [Central] (Laman 1912: 256)
Mfumu ***wakala*** *(ye) mbongo zazingi.*

[66] The verb *nyetik* 'print' has an impositive suffix *-ik* which undergoes positional vowel harmony (front to back) triggered by the passive suffix *-u*.

Ṇ-fumu u-a-kal-a ye N-bongo za zi-ingi
CL_1-chief SP_1-DPC-be-DPC with CL_{10}-money $CONN_{10}$ PP_{10}-much
'The chieftain has much property.'

d. Kinkanu [East] (KongoKing 2012, fieldwork by S. Dom)
Kooku kwándi ***kwafutama***.
ku-oku ku-andi ku-a-fut-am-a
CL_{15}-arm PP_{15}-$POSS_1$ SP_{15}-DPC-bend-POS-DPC
'His arm is bent.'
(Original French: '*Son bras est plié*.')

e. Kikunyi [North] (Kongoking 2016, fieldwork by G. Kouarata)
Háhá Maswaamu ***wakuma***.
haha Ø-Maswaamu u-a-kum-a
DEM_{16} CL_{1a}-Maswaamu SP_1-DPC-get_better-DPC
'Right now Maswaamu is in good health.'
(Original French: '*Maintenant Maswaamu est en bonne santé*.')

Different argument-structure constructions are involved in the present-state construal of transitional states-of-affairs. These largely correspond to three of Nedjalkov and Jaxontov's (1988: 8-11) resultative diathesis types: (i) active-intransitive argument-structure constructions (or subjective resultative) (160)a,b,e; (ii) passive-intransitive argument-structure constructions (or objective resultative) (160)d; and (iii) possessive-transitive argument-structure constructions (or possessive resultative) (160)c.

The *-a-R-a* construction is not only used to convey present states that follow from a past transition, but by extension also to refer to natural states that denote defining properties of the subject referent, as in (161).

(161) a. Late-19th c. Kikongo as spoken in Mbanza Kongo [South] (Bentley 1887: 634)
Lekwa kiaka ke ***kianatakana*** *ko.*
Ø-lekwa kyaka ke-ki-a-nat-akan-a ko
CL_7-thing DEM_7 NEG-SP_7-DPC-carry-NT-DPC NEG
'This thing is not portable.'

b. Late-18th c. Kikongo as spoken in Kakongo [West] (Descourvières 1773: 203)
I nsi ai ***ia kala*** *nuni béné ko.*
i-N-si ayi i-a-kal-a Ø-nuni bene ko
AUG_9-CL_9-country DEM_9 SP_9-DPC-be-DPC CL_{10}-bird many NEG
'This country does not have many birds.'
(Original French : '*Le pays est dépeuplé d'oiseaus*.')

c. Early-20th c. Kimanyanga [Central] (Laman 1912: 209)
Ndimba wau ***wayalumuka*** *beni.*
Ṇ-dimba wawu u-a-yalumuk-a beni
CL_3-valley DEM_3 SP_3-DPC-be(come)_extensive.SEP_{INTR}-DPC much

‘This valley is very extensive.’

d. Kiyaka [Kikongoid] (van den Eynde 1968: 98)
Yisi ndzíla ***yáfwa****.*
yi-si *N-dzila* *i-a-fu-a*
PP_9-any CL_9-road SP_9-DPC-die-DPC
‘Any road whatever is bad.’
(Original French: ‘*N’importe quel chemin est en mauvais état*.’)

Depending on the context, the *-a-R-a* construction can also be used to refer to a moment in the past during which a specific state held. For example, in (162)a the main events of a narrative in Kizombo are located by the speaker in a remote time using the *-a-R-a* construction, i.e. *watala* and *wamona*. Within that time frame the protagonist finds an animal in a state of having one of its legs broken, for which the *-a-R-a* construction is used as well.

(162) a. Kizombo [South] (Carter 1973: 18)
Watala yǒ, wămona vó ***yătolok****’ ekúulu.*[67]
u-a-tal-a *yo* *u-a-mon-a* *vo*
SP_1-DPC-look-DPC $PRON_9$ SP_1-DPC-see-DPC that
i-a-tolok-a *e-ku-ulu*
SP_9-DPC-be(come)_broken.SEP_{INTR}-DPC AUG_{15}-CL_{15}-leg
‘He looked at it, he saw it had a broken leg. [lit. ‘he saw that it had broken a leg’]’

b. Late-18th c. Kikongo as spoken in Kakongo [West] (Descourvières 1773: 132)
Kina i lombu ki têlemé i gonda ***ki a ba*** *ki k'botté.*
kina *i-Ø-lombu* *ki-Ø-telam-idi* *i-Ø-gonda*
DEM_7 AUG_7-CL_7-day SP_7-CPC-wake_up.POS-CPC AUG_7-CL_7-month
ki-a-b-a *ki* *k’-bote*
SP_7-DPC-be-DPC $CONN_7$ CL_7-goodness
‘At the beginning of this month it (the weather) was nice.
[lit. (‘the day this month woke up…’)’
(Original French: ‘*Au commencement de ce mois il a fait beau*.’)

c. Early-20th c. Kimanyanga [Central] (Laman 1912: 51)
Mampa matwasumba, ***makala*** *mampembe ye mambote.*

[67] Note that a quirky combination of derivational morphology and argument-structure construction is used for possessor raising. The base verb *tolok* has a separative *intransitive* suffix *-uk* (having undergone progressive vowel height harmony) but the argument-structure construction is a *transitive* one. Thus, the subject is rather a maleficiary possessor, and the direct object *ekuulu* is the underlying patient-like subject of *tolok* ‘be(come) broken’ as well as the possessee referent denoting a body part of the surface subject.

ma-mpa *ma-tu-a-sumb-a* *ma-a-kal-a* *ma-mpembe*
CL_6-bread REL_6-SP_{1PL}-DPC-buy-DPC SP_6-DPC-be-DPC CL_6-white
ye *ma-mbote*
and CL_6-good
'The loaves of bread which we bought were white and good.'

d. Kintandu [East] (Daeleman 1966: 286)
Kilŭmbú kímósi munágata ***mukála*** *bambuta bátátu (...).*
ki-lumbu *ki-mosi* *muna* *Ø-gata* *mu-Ø-kal-a* *ba-mbuta*
CL_7-day CL_7-one LOC_{18} CL_5-village SP_{18}-DPC-be-DPC CL_2-elder
ba-tatu
CL_2-three
'One day in the village there were three elders (…).'
(Original Dutch: '*Er waren eens in het dorp drie ouden (...).*')

Another perspective on the resultant stative phase that can be obtained is to focus on a stretch of time of the ensuing state. This is similar to the experiential construal of non-transitional predicates, in that an evaluative viewpoint is imposed over an extended period of time from a remote past moment up to the present. The difference with transitional predicates is that the evaluative frame coincides here with the stative coda phase, which also started at a certain moment in a remote past and continues up to S. This construal typically requires a more elaborate context in which the specific starting point of the evaluative frame is overtly specified, illustrated in the examples in (163). For example, in (163)a, the start of the evaluation time is specified by means of a temporal subordinate construction headed by the adverb *tuka* 'since' and the timeframe construed by the temporal construction is set in a remote past through the use of the *-a-R-a* construction with the predicate, i.e. *yatukila* 'I came from (there)'.

(163) a. Late-19th c. Kikongo as spoken in Mbanza Kongo [South] (Bentley 1887: 194)
Tuka yatukila ko yela ***kwambaka****.*
tuka *i-a-tuk-il-a* *ko* *Ø-yel-a*
since SP_{1SG}-DPC-come_from-APPL-DPC $PRON_{17}$ CL_{15}-become_sick-FV
ku-a-Ṉ-bak-a
SP_{15}-DPC-OP_{1SG}-catch-DPC
'Ever since I came from there I have been ill (lit. 'being sick has caught me').'

b. Kihangala [North] (KongoKing 2016, fieldwork by G. Kouarata)
Mapeyi ***wasiimba*** *kiseengu kya tómabilu ntáma.*
Ø-Mapeyi *u-a-simb-a* *ki-sengo* *kya* *Ø-tomabilu*
CL_{1a}-Mapeyi SP_1-DPC-obtain-DPC CL_7-piece $CONN_7$ CL_9-truck
ntama
long_ago

‘Mapeyi has (got) the piece of the truck for a long time.’
(Original French: ‘*Mapeyi tient la pièce du véhicule depuis longtemps*.’)

The *-a-R-a* construction also allows an aspectual construal of transitional states-of-affairs in which the speaker refers to the punctual, entry-into-the-state phase rather than to the ensuing stative coda phase. In the examples in (164), the aspectual perspective is drawn on the transition phase, located in a remote past, by means of a subordinate purpose construction, as in (164)a, or a temporal adverb, as in (164)c. In (164)b the change-of-state interpretation is obtained through the use of the TA construction with a transitional predicate in a relative construction headed by the noun denoting the location where the change-of-state took place.

(164) a. Late-19th c. Kikongo as spoken in Mbanza Kongo [South] (Bentley 1887: 532)
Wafwa *muna kutuvuluza.*
u-a-fu-a *muna* *ku-tu-vuluz-a*
SP_1-DPC-die-DPC LOC_{18} CL_{15}-OP_{1PL}-save-FV
‘He died to save us.’

b. Kiyombe [West] (De Clercq 1921: 31)
Diba ***difuila*** *k’omb’ama.*
di-ba *di-Ø-Ø-fu-il-a*[68] *Ø-komba* *ama*
CL_5-palm_tree PP_5-SP_1-DPC-die-APPL-DPC CL_1-brother $POSS_{1SG}$
‘The palm tree where my brother died.’
(Original French: ‘*Le palmier où est mort mon frère*.’)

c. Early-20th c. Kimanyanga [Central] (Laman 1912: 198)
Twakwelana *mvu wakedi.*
tu-a-kwel-an-a *N̩-vu*
SP_{1PL}-DPC-marry/be(come)_married-RECP-DPC CL_3-year
u-a-kal-idi
SP_3-HST-be-HST[69]
‘We married (each other) last year.’

[68] From the surface form given in the original source the actual morphological structure of the verb is unclear. Although the author discusses this example as a relative object construction, he does not analyse its morphological make-up. Thus, our own analysis with a null SP_1 *Ø-* is only tentative, and it is possible that the verb in this relative object construction has the (at that point odd) structure *SP-DPC-R-DPC* in which the subject prefix concords with the antecedent (*diba*) and not with the actual subject of the relative clause.

[69] Note that we gloss the Kimanyanga *-a-R-idi* construction as HST, i.e. Hesternal Past Perfective, even though it is not used here for a hodiernally-based temporal distinction (yesterday vs. today). Rather, the construction is also typically used to construe the anterior time unit in temporal adverbial constructions referring to *last* X (week, year, etc.) with the verb *vyok* ‘pass’ (see Botne 2012: 543-545).

A final aspectual construal of transitional predicates for which the *-a-R-a* construction is used involves a completed viewpoint, in which the entire state-of-affairs is located in a remote past and the state phase does not coincide with S. This is illustrated in (165). These aspectual construals arise through the use of the *-a-R-a* construction in combination with temporal clauses and adverbials of which clear examples are unfortunately scarce in the dataset.

(165) a. Late-19th c. Kikongo as spoken in Mbanza Kongo [South] (Bentley 1887: 268)
Muna Ekongo ***twakadila*** *ekulu.*
muna *Ekongo* *tu-a-kal-il-a* *ekulu*
LOC_{18} Kongo SP_{1PL}-DPC-live-APPL-DPC previously
'We lived in Kongo previously.'

b. Early-20th c. Kimanyanga [Central] (Laman 1912: 146)
Wazaya *diambu diodio, fwidi.*
u-a-zay-a *di-ambu* *dyodyo* *Ø-Ø-fu-idi*
SP_1-DPC-(come_to_)know-DPC CL_5-matter DEM_5 SP_1-CPC-die-CPC
'The one (he, she), who knew about the matter, is dead.'

In summary, the five tempo-aspectual construals for which the *-a-R-a* construction is used with transitional predicates all involve the completion of the entry-into-the-state phase before the moment of speech (S). For the present and continuous state readings (see, respectively, (160)-(161)and (163)), the resultant state phase, which follows the entry-into-the-state phase, coincides with S. The difference between the two readings lies in the scope of the evaluation time: for the present-state interpretation the stative phase is evaluated at the moment of speech, whereas with the continuous state reading the evaluation time consists of a stretch of time which begins at a certain moment in the remote past and goes up to S. The other three uses require different types of viewpoint changes. The past-state reading (162) is obtained through an adverbial shifting of the time at which the resultant state is evaluated from the present (S) to a moment in the past. In the change-of-state reading (164) a shift occurs in which the speaker refers to the entry-into-the-state moment rather than to the resultant stative phase. And finally, in the completed construal (165) the entire transitional state-of-affairs is described without reference to any of its internal temporal phases.

6.5 **-a-R-a* in Proto-Kikongo

6.5.1 Formal reconstruction

In the varieties of the KLC with a reflex of the **-a-R-a* construction, the dissociative past completive is expressed by either one of two morphologically different cognate TA constructions: *-a-R-a* or *-Ø-R-a*. Of the two constructions, *-a-R-a* is not only the most widely attested form in the KLC, but it can also easily be retraced to the reconstructed PB conjugation **-a-R-a* given in Nurse (2008a: 279). With respect to its morphology, it is rather straightforward to reconstruct the construction's form as **-a-R-a* in PKK. However, as discussed in the introduction, Meeussen (1967: 113) proposes two *-a-R-a* forms for PB which are tonally distinguished by either a high tone on the prefix **-á-R-a*, which he labels the preterite imperfective, or the lack thereof **-a-R-a*, which he calls the recent imperfective. Unfortunately, despite the relatively decent amount of documentation of KLC varieties, the absence of tonal information in most of the available descriptions hampers the reconstruction of a tone pattern(s) for the PKK **-a-R-a* construction. Nevertheless, in the section below, we argue from a semantic point of view that if PB indeed had two such TA constructions, the *-a-R-a* construction in (Proto-)Kikongo is most likely a retention of what Meeussen (1967) reconstructs as the high-toned preterite imperfective *-á-R-a*.

6.5.2 Semantic reconstruction

In Section 6.4 we have shown that the central grammatical meaning of the *-a-R-a* construction in KLC varieties is i) with relation to aspect, to construe the central (nucleus) phase as completed, and ii) with relation to tense, to locate the completed, central phase in a remote past dissociated from the locus of the speech event. This core tempo-aspectual meaning is attested in all modern varieties and historical doculects that have retained the *-a-R-a* construction. Given the widespread attestation of the construction in both synchronic and diachronic varieties, we can propose this central tempo-aspectual meaning with relative certainty as a semantic reconstruction for the PKK **-a-R-a* construction. This would mean that the core meaning of the *-a-R-a* construction has remained more or less stable for a timespan of about two millennia, as PKK is assumed to have a time depth of approximately 1,800 to 2,000 years (de Schryver et al. 2015: 144, Bostoen and de Schryver 2018a: 56). From a wider Bantu perspective, the retention of a TA form with a stable meaning over such a massive period of time is noteworthy, given that Bantu languages tend to be considered as highly innovative when it comes to the expression of TAM. Following Bybee et al. (1994: 115-121), Nurse (2008a: 25) links the speed and

frequency of grammaticalization in the domain of TAM morphology with the agglutinative typology of Bantu languages: "Across Bantu, structures, categories, morphology, and morphemes have all changed since Proto-Bantu […] Absorption of auxiliaries, fusion, and thus morphological change will occur more often and rapidly in agglutinating languages such as Bantu than in isolating languages such as Chinese". However, this is not to say that KLC varieties in general have stable and archaic grammars and TA paradigms. Other TA forms, such as the CPC *-Ø-R-iCi* construction, demonstrate variation in form and function across the KLC, which is the result of diachronic changes that occurred in different genealogical subgroups and might have spread through language contact (see Chapter 5, Sections 5.4.1.1, 5.4.1.7 and 5.4.1.8).

With regard to Meeussen's (1967) terms 'preterite' and 'imperfective', Nurse (2008a) provides some explanation. For preterite, Nurse (2008a: 315) gives the definition "(past: tense): for languages with two degrees of past, some authors, mainly francophone, refer to the nearer one as the recent (also hodiernal, *d'aujourd'hui*) and the further one as the preterite (also hesternal, remote, *d'hier*)".[70] For imperfective, two senses are provided, one general theoretical definition following authors such as Comrie (1976) and Bybee et al. (1994), and a second stating "to contrast with perfective (e.g. see Meeussen's (1971) analysis of D25)" (Nurse 2008a: 312). Thus, in Meeussen's (1967) PB reconstructions, 'preterite' refers to a distal past and 'imperfective' is used in a paradigmatic rather than a (theoretical) semantic sense, i.e. to oppose past-tense forms with the ending *-a* against 'perfective' past-tense forms with the ending *-ide*.[71] Meeussen's **-a/á-R-a* reconstructions not only seem to reflect the difference found in Bantu between languages with a contemporal past *-a-R-a* versus those with a dissociative past *-a-R-a*, but is most likely also motivated by those languages, such as Kirundi, where two such constructions occur in the same language (Meeussen 1959: 105, Nshemezimana and Bostoen 2017: 397). Therefore, with respect to the *-a-R-a* construction in the KLC (Section 6.4) and our semantic reconstruction of PKK **-a-R-a* as a Dissociative Past Completive (this section), these are semantically more related to Meeussen's PB high-toned preterite imperfective **-á-R-a* construction than to his PB low-toned recent imperfective **-a-R-a*.

[70] Meeussen also uses the term preterite (French *prétérit* or Dutch *preteritum*) in descriptions of individual Bantu languages, such as Ombo, Bangubangu and Kirundi (see among others Meeussen 1952, 1954, 1959).

[71] See also in his Kirundi grammar (Meeussen 1959: 105-106): "*La finale* -ye *caractérise l'aspect perfective. La finale* -a *figure à toutes les autres formes, y compris les imperfectifs s'opposant aux perfectifs […].*" ["The final *-ye* expresses perfective aspect. The final *-a* occurs in all other forms, including the imperfectives which are opposed to the perfectives […]"; our own translation].

6.6 Conclusion and discussion

Bantu languages are well-known for their complex TA systems, mainly with respect to the grammatical marking of multiple temporal distinctions (Comrie 1985: Ch. 4, Dahl 1985: 120-122, Nurse 2008a: Ch. 3, Botne 2012). Grammatical descriptions of KLC varieties traditionally arrange the multiple past forms from 'remote' to 'hesternal' and 'hodiernal' up to 'recent'. In such a linear conceptualization of time, most (if not all) grammars of KLC varieties that have a DPC *-a-R-a* construction report its function as expressing remote-past time reference. Such analyses do not account for the basic present-stative reading the construction can receive with transitional states-of-affairs, or the different aspectual construals that build on the remote past or present-state meanings. In this chapter, we have presented a unified semantic analysis of the core function of the *-a-R-a* construction in the KLC varieties, which includes both lexical and grammatical aspect, the contribution of the type of referent of the argument structure construction used, and other levels of aspect construal such as adverbial constructions and taxis. It has been shown in different Kikongo varieties that multiple readings can be construed through the use of the *-a-R-a* construction, both for states-of-affairs that have a transitional phase structure and those that do not. We argued furthermore that all these readings are outcomes of the construction's core function, which is to locate the complete(d) nucleus phase of a state-of-affairs in a remote past.

Table 20 gives a detailed overview of the various sentence-level interpretations and core function, which can furthermore be reconstructed as the meaning of the **-a-R-a* construction in PKK.

In their comparative Bantu study on TA, Nurse and Philippson (2006: 163) observe that "what seems to emerge is that 75% of **-a- -a** (whatever the tones) refer to P_1/ANT [near past/anterior; bold in original]." The semantic analysis of the *-a-R-a* construction in the varieties of the KLC in Section 6.4 shows that they clearly do not belong to the group of Bantu languages where this TA form denotes a contemporal past. Nurse and Philippson (2006: 163) and Botne (2014: 18) both propose semantic reconstructions that are similar to one another, for either early or Proto-Bantu **-a-R-a*, in their terminology, respectively, near past/anterior and perfect. Nurse (2008a: 237) reconstructs the verbal prefix **a-* to PB as a past marker which could be combined with the final **-a* (Nurse 2008a: 261), and suggests that the overall **-a-R-a* construction denoted a past perfective (Nurse 2008a: 279).

Table 20. Schematic overview of the various sentence-level meanings of the reflexes of the PKK *-a-R-a* construction and its semantic reconstruction.

	Kikongo Language Cluster	Proto-Kikongo
	SEGMENTAL STRUCTURE	
	-Ø-R-a [part of West] **-a-R-a** [KLC] **-Ø-R-a** [part of East]	***-á-R-a**
	CORE MEANING	
Gramm. Aspect	Completion + Remote Past	Completion + Remote Past
	USAGES	
Lexical Aspect	• Non-transitional i) **REMOTE PAST (+ ADVERB)** *(…) mu mvula 2012 (…)* ***tadengana***. '(…) in the year 2012 (…) we met each other.' (157)b ii) **EXPERIENTIAL PAST (+ NEGATION, QUESTION, …)** ***Uaria*** *mungue?* 'Have you eaten the salt?' (Meaning: 'Are you Christian?) (158)a	
Lexical Aspect	• Transitional iii) **PRESENT STATE** *Mfumu* ***wakala*** *(ye) mbongo zazingi.* 'The chieftain has much property.' (160)c iv) **PAST STATE (+ TAXIS)** *Watala yŏ, wămona vó* ***yătolok****' ekúulu.* 'He looked at it, he saw it had a broken leg.' (162)a v) **CONTINUOUS STATE (+ ADVERB)** *Tuka yatukila ko yela* ***kwambaka***. 'Ever since I came from there I have been ill (lit. 'being sick has caught me').' (163)a vi) **PAST CHANGE-OF-STATE** ***Twakwelana*** *mvu wakedi.* 'We married (each other) last year.' (164)c vii) **PERFECTIVE STATE** *Muna Ekongo* ***twakadila*** *ekulu.* 'We lived in Kongo previously.' (165)a	

The different PB proposals, all of which vary (sometimes only slightly so) in their semantic reconstructions, are hard to compare due to the use of different terminology and varying language samples and datasets, or because the methodology and/or sample is not presented. Meeussen's (1967) seminal 'Bantu grammatical reconstructions' was part of the output of the research program Lolemi at the Royal Museum for Central Africa in Tervuren, which aimed at collecting all Bantu grammars and, based on that collection, put forth comparative and diachronic studies (Bynon-Polak 1964). A bibliographical overview of the collection can be found in Doneux (1965) and Bastin (1975). Nurse (2008a) based his study on two language samples, i.e. a 'core' dataset of 100 Bantu languages and a larger set of 201+ Bantu languages (Nurse 2008b, 2008c). Botne (2014: 18) summarily discusses an early Bantu opposition between resultative *-*Ø-R-ile* and perfect *-*a-R-a*, but does not present the methodology or language sample(s) underlying that reconstruction, nor does he elaborate for which ancestral node in-between PB and the languages he describes the reconstruction holds.

Although it is widely accepted that PB had an *-*a-R-a* construction, it is clear from the multiple semantic reconstructions proposed by different authors that we do not yet have a good understanding of its original function, despite the significant progress made in the half century since Meeussen (1967). The reconstruction of PB grammar, based on the comparison of present-day languages, typically seems to result in broad, general proposals which are subsequently recycled in grammars using a top-down approach. In contrast, we argue that a bottom-up approach is a much more useful methodology in order to ultimately arrive at a semantic reconstruction for PB. With this study we demonstrated how an in-depth investigation of the semantics of one TA construction in a cluster of genealogically related language varieties could result in a robust and, more importantly, relatively exact and detailed reconstruction in the most recent common ancestor of such a genetic unity.[72] We are also convinced that such an approach could furthermore advance our knowledge about the present-day variation in both form and function of *-a-R-a* constructions in Bantu in general and how that variation came about.

[72] There are only a few other works in which a similar goal is pursued, e.g. Muzale (1998) for the Rutara languages and Proto-Rutara, Nurse and Muzale (1999) for Great Lakes Bantu, Walker (2013) for the Mara Bantu languages, and Crane (2012b) for the TA suffix *-ile* in Bantu Botatwe.

Chapter 7 Kisikongo present-future isomorphism: A diachronic conspiracy between semantics and phonology

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Abstract

Kisikongo, a Bantu language spoken in Northern Angola, has a present-tense construction (*-Ø-R-ang-a*) that is morphologically heavier than the segmentally null-marked future-tense construction (*-Ø-R-a*). In this chapter, we reconstruct how this typologically uncommon tense-marking feature came about. To do so we draw on both historical and comparative language data. Our diachronic corpus has a time depth of four centuries, which is exceptional for an African language, and consists of Kisikongo texts and language descriptions from three distinct time periods, viz. (1) mid-17th, (2) late-19th and early-20th, and (3) late-20th and early-21st centuries. Our comparative synchronic data stem from different varieties belonging to the so-called Kikongo Language Cluster (KLC). Several of them mark present and future in the same way as present-day Kisikongo, while others have preserved previous stages of how these two tenses were marked in the language. In the mid-17th century, Kisikongo had three distinct constructions: Simple Present *-Ø-R-a*, Present Imperfective *-Ø-R-ang-a*, and Future *-ku-R-a*. By the end of the 19th century the last construction is no longer attested, and both present- and future-time reference are expressed by a segmentally identical construction, namely *-Ø-R-a*. We argue that two independent diachronic evolutions conspired towards such present-future isomorphism: the universally common semantic extension from present to future leading to polysemy, and the loss of the *ku-* future prefix – as part of a broader phenomenon of prefix reduction – inducing homonymy. Ultimately, the Present Imperfective *-Ø-R-ang-a* construction evolved into the main present-tense construction.

7.1 Introduction[73]

In many Bantu languages, a lack of overt tense/aspect (TA) morphology in the dedicated prefix slot of the verb, combined with the so-called neutral final vowel *-a*, is typically one way of expressing present tense (Nurse 2008a: 117-120). This is also the case in many varieties belonging to the KLC (see Chapter 5, Section 5.2.4), a genealogically related group of language varieties spoken in an area that stretches from southern Gabon to northern Angola and from the Atlantic coast to the Bandundu province in Congo-Kinshasa (see Addendum 2). The KLC constitutes a distinct clade within a higher-level Bantu subgroup known as West-Coastal Bantu (de Schryver et al. 2015, Grollemund et al. 2015, Bostoen and de Schryver 2018a). The vocabulary-based phylogenetic classifications of the KLC by de Schryver et al. (2015) and Bostoen and de Schryver (2018a) show that the 40-odd Kikongo varieties can internally be further divided into four subgroups: North, East, West and South Kikongo, all of which surround a linguistic convergence zone labelled Central Kikongo.

This chapter deals with a shared innovation of the present- and future-tense constructions in Kisikongo in conjunction with comparative data from several other Kikongo varieties, such as Kindibu (Central Kikongo), Kintandu (East Kikongo), Kisolongo, Kizombo, Dihungu and Kitsootso (South Kikongo). Unlike most other varieties of the KLC, Kisikongo, Kisolongo, Kizombo, and Kindibu have a morphologically unmarked TA construction *-Ø-R-a* used specifically for future time reference (see also Chapter 5, Section 5.4.1.11). Present tense is expressed mainly by means of a TA construction having the suffix *-ang*, i.e. *-Ø-R-ang-a*. This Present Imperfective construction can be used in episodic, generic and habitual expressions, whereas in other Kikongo varieties the *-Ø-R-ang-a* construction is restricted to habituality and genericity (see Chapter 5, Section 5.2.5).[74] The two constructions are illustrated in examples (166) and (167) with fieldwork data from Kisolongo as spoken in Congo-Kinshasa.

[73] We are grateful to Ndonga Mfuwa and Andre Sebastiao Ngangu for their help with Kisikongo data. We wish to thank the participants of the workshop 'Patterns and Models of Semantic Change', held during the 22nd International Conference on Historical Linguistics (Naples 2015), as well as Sara Pacchiarotti for their helpful feedback on earlier versions of this chapter.

[74] Episodic sentences describe specific eventualities and refer either to dynamic, progressive events or stage-level, i.e. temporary, states (Carlson 2012: 830).

(166) The Present Imperfective *-Ø-R-ang-a* construction in Kisolongo

a. *Nkyáma **besálánga**?* → Progressive
nkyama *be-Ø-sal-ang-a*
what SP_2-PRS-do-IPFV-PRS
'What are they doing?'

b. *Asólóngo **bedyánga** mbóm'e?* → Generic
a-solongo *be-Ø-di-ang-a* *N-boma* *e*
CL_2-Solongo SP_2-PRS-eat-IPFV-PRS CL_9-snake Q
'Do the Solongo eat snake?'

c. ***Tukélánga** bééne.* → Habitual
tu-Ø-kel-ang-a *bééne*
SP_{1PL}-PRS-quarrel-IPFV-PRS often
'We often quarrel.'
(KongoKing 2012, fieldwork by S. Dom)

(167) The Future *-Ø-R-a* construction in Kisolongo
*Oyáwu mbízi **bedyá**.*
oyawu *N-bizi* *be-Ø-di-a*
$PRON_2$ CL_9-meat SP_2-FUT-eat-FUT
'They will eat (the) meat.'
(KongoKing 2012, fieldwork by S. Dom)

The general aim of this paper is to reconstruct the history of the Future *-Ø-R-a* and Present Imperfective *-Ø-R-ang-a* constructions as attested in these four Kikongo varieties. We will mainly focus on Kisikongo, which is spoken in and around the city of Mbanza Kongo (Angola), former capital of the ancient Kongo kingdom. This is because Kisikongo has an exceptionally rich historical documentation status, beginning as early as the mid-17th century.[75] In addition to grammatical descriptions written in the mid-17th, late-19th and late-20th centuries, a diachronic corpus exists which consists of texts from the mid-17th, late-19th, early-20th and early-21st centuries.[76] Kisikongo is therefore a unique language for the field of Bantu diachronic linguistics, in that grammatical changes can be observed empirically on the basis of data from three distinct time periods. The present study draws from both language descriptions and corpus texts, in order to investigate the development of the Kisikongo present- and future-tense paradigms.

[75] The only other Bantu language whose historical documentation equals the time depth of that of Kisikongo is Kimbundu, also spoken in Angola (Doke 1935).

[76] For a more detailed overview of the 17th c. documentation, see Bostoen and de Schryver (2015: 140).

Section 7.2.1 shows how three distinct TA constructions are attested in mid-17th c. Kisikongo: (i) Simple Present *-Ø-R-a*, (ii) Present Imperfective *-Ø-R-ang-a*, and (iii) Future *-ku-R-a*. In Section 7.2.2 we show that, by the end of the 19th century, the present- and future-tense paradigms are changing. In the late-19th and early-20th century, the Future *-ku-R-a* construction is no longer attested, and future-time reference is expressed by means of a construction without a TA prefix, namely *-Ø-R-a*. At the same time, the Present Imperfective is no longer attested only in habitual expressions—as is the case for the mid-17th century—, but is also found in the same sentence types (generic and episodic) as the Simple Present. In the third time period, discussed in Section 7.2.3, the usage of the Simple Present has become restricted and occurs only with a defective verb root, some auxiliaries and an irregular lexical verb. A short overview of the three stages is provided in Section 7.2.4.

The main question, then, is whether the mid-17th c. Simple Present (*-Ø-R-a*) or Future (*-ku-R-a*) construction is the source of the new Future *-Ø-R-a*. In other words, it needs to be established whether this isomorphism in Present and Future marking is the outcome of the universally common semantic broadening/shift from present (*-Ø-R-a*) to future or rather reflects homonymy due to the phonological reduction of the Future construction (viz. *-ku-R-a* > *-Ø-R-a*). Given that the documentation provides only momentary snapshots of Kisikongo language history, we cannot empirically study the gradual development of these changes. Therefore, Section 7.3 presents two possible explanations for the observed facts. Conclusions are presented in Section 7.4.

7.2 Grammars vs. corpus data: A diachronic assessment of the Kisikongo Present and Future constructions

This part consists of three subsections based on the three time periods into which the documentation has been divided. The first section deals with mid-17th c. Kisikongo (Section 7.2.1), the second looks at the late-19th and early-20th c. Kisikongo (Section 7.2.2), and the third section is on late-20th and early-21st c. Kisikongo (Section 7.2.3). In each subsection we start with the description of the future and present tenses in the grammar written in that time period. The descriptive information is then verified in the corpus texts. The corpus queries allow us to study the use of each construction in much more detail than what is provided in the brief overviews found in the grammars. However, we have also made a database of all sentence examples provided in each grammar. It is more often than not the case that that collection of examples also illustrates a broad range of uses which are not included in the description.

7.2.1 Mid-17th c. Kisikongo

The oldest Kisikongo documents from the 17th century—also the first written records on and in a Bantu language—comprise an interlinear Portuguese-Kisikongo catechism (Cardoso 1624), a manuscript of a Latin-Spanish-Kisikongo dictionary (Van Gheel 1652) (see also De Kind et al. (2012a)) and a grammar written in Latin (Brusciotto à Vetralla 1659). For the purpose of this study, both the catechism and the grammar provide valuable information: the latter succinctly discusses the forms of the future and present tenses (Brusciotto à Vetralla 1659: 48-50), and the former is an extraordinary corpus that allows for a detailed assessment of the form, meaning and usage of the Future and Present constructions. The grammar by Brusciotto à Vetralla (1659) was translated into English by Guinness (1882a). An annotated critical re-edition of the 1624 catechism was prepared by Bontinck and Ndembe Nsasi (1978), with an additional version of the Kisikongo text in modern spelling, a French translation, and a modern version of the original Portuguese text. We have mainly used these re-editions for both sources, although we checked all obtained data against the originals and also quote these.

Simple Present -Ø-R-a. The Simple Present *-Ø-R-a* construction, commonly found in present-day Kikongo varieties (Chapter 5, Section 5.2.4) and throughout Bantu (Nurse 2008a: 118), is not discussed in Brusciotto à Vetralla's (1659) description of mid-17th c. Kisikongo.[77] In his Kisikongo grammar, Brusciotto à Vetralla (1659: 48-49) states that present tense is denoted by an *-a-R-a* construction, which he illustrates with the verbs *zitiss* 'love' and *long* 'teach', as seen in (168).

(168) a. *y-**a**-zitiss-**a*** '*ego amo*, I love'
*ü-**a**-zitiss-**a*** '*tu amas*, you love'
*a-**a**-zitiss-**a*** '*ille amat*, he loves'
b. *y-**a**-long-**a*** '*ego doceo*, I teach'
*ü-**a**-long-**a*** '*tu doces*, you teach'
*a-**a**-long-**a*** '*ille docet*, he teaches'
(Brusciotto à Vetralla 1659: 48-49, Guinness 1882a: 53-54)

This construction is also found in the mid-17th c. corpus, as illustrated in (169).

[77] The Present *-Ø-R-a* construction might be identified in a small number of examples scattered throughout the grammar, although not straightforwardly so. In the example *Neútambula ezinbongo* 'I receive fruits' (Brusciotto à Vetralla 1659: 7) the verb *tambul* 'receive' clearly does not take an *-a-R-a* construction, but seems to have a subject prefix *ne-* (possibly an older form of the present-day SP_{1SG} *N-*) and an unknown prefix *u-*. On page 61 the verb *in* is discussed, as in *ina riúúlu* 'I have a book' or *ina múzala* 'I am hungry (literally: 'I have hunger'). However, this is a defective verb stem only used in the present-tense conjugation, i.e. *i-Ø-in-a* in both examples, with the verb *kal* being used for the past and future tenses.

(169) *Onguêye quiâquiûma* ***cualuluquila*** *mobo mampondi?* [78]
ongeye *kia* *ki-uma* *ku-a-luluk-il-a* *mo*
$PRON_{2SG}$ $CONN_7$ CL_7-thing $NEG.SP_{2SG}$-PRS-call-APPL-PRS $PRON_6$
bo *ma* *N-pondi*
CL_{14} $CONN_6$ CL_9-killing
'Why don't you call them (*masuumu* 'sins') mortal?'
(Cardoso 1624: 59, Bontinck and Ndembe Nsasi 1978: 162-163)

However, it is rather intriguing that, when looking forward in time, a Present *-a-R-a* is completely absent in the data of subsequent documented time periods. It must be stated, then, that our present understanding of the semantics, distribution and history of this construction is incomplete and that more research is needed.

Moreover, two other but segmentally identical *-a-R-a* constructions are attested in Cardoso's (1624) catechism which can occur in sentences with present-time reference. These are the Dissociative Past Completive *-a-R-a* (see Chapter 6), which can be used to refer to a present state with transitional verbs such as *fulukw* 'become overflown' and *ukw* 'become blessed' in (170), and the Subjunctive *-a-R-a*, as shown in (171).

(170) *Aue Maria,* ***üafulucua*** *oucundi, (...)* ***yaucua*** *embongo, yaquiuûmu quiâcu, (...).*
Ave *Maria* *u-a-fuluk-u-a* *o-u-kundi*
Ave Maria SP_{2SG}-DPC-overflow-PASS-DPC AUG-CL_{14}-grace
i-a-uk-u-a *o-N-bongo* *ya* *ki-vuumu*
SP_9-DPC-bless-PASS-DPC AUG_9-CL_9-fruit $CONN_9$ CL_7-womb
ki-aku
PP_7-$POSS_{2SG}$
'Ave Maria, you are full of grace, (…) blessed is the fruit of your womb, (…).'
(Cardoso 1624: 19, Bontinck and Ndembe Nsasi 1978: 90-91)

(171) *(...) cutuambulaco* ***tuabua*** *munâ lueleco, (...).*
ku-tu-ambul-a *ko* *tu-a-bu-a* *muna*
$NEG.SP_{2SG}$-OP_{1PL}-let-FV NEG SP_{1PL}-SBJV-fall-SBJV LOC_{18}
lu-eleko
CL_{11}-temptation
'(…) don't let us fall in temptation, (…).'
(Cardoso 1624: 13, Bontinck and Ndembe Nsasi 1978: 80-81)

[78] In the first line of the examples, the sentences are represented as they are written in the original work. In the gloss lines we present our own interlinear analysis where we write the morphemes in a more standard manner.

Despite the absence of the *-Ø-R-a* construction in Brusciotto à Vetralla (1659), the construction is regularly attested in various contexts in Cardoso's (1624) catechism. Example (172) illustrates the Simple Present construction being used in a stage-direction sentence (Binnick 1991: 248), which describes the action(s) that have to be performed by the priest at a certain point during the ceremony.

(172) *Baüaba* ***vtûma*** *odongui alêque ole (...).*
bauaba *u-Ø-tuum-a* *o-Ø-dongi* *a-leeke* *a-ole*
now SP_1-PRS-order-PRS AUG_9-CL_9-teacher CL_2-youngster CL_2-two
'Now the teacher orders two youngsters (to) (…).'
(Cardoso 1624: 5, Bontinck and Ndembe Nsasi 1978: 64-65)

It also appears with progressive meaning, as in (173). This example comes from a part in the catechism where the priest questions the student about the act of making the sign of the cross. During the questioning, the priest gives the student the following order.

(173) *Vfonga* ***oubanga****?*
u-song-a[79] *o* *u-Ø-bang-a*
SP_{2SG}-show-IMP $PRON_6$ SP_{2SG}-PRS-do-PRS
'Show what you're doing?'
(Cardoso 1624: 8, Bontinck and Ndembe Nsasi 1978: 68-69)

The *-Ø-R-a* construction is also used in generic expressions, as illustrated in (174) which is from the same part of the catechism as the sentence in (173). The first person plural subject is generic in that it does not refer only to the priest and the student, but to Christians in general.

(174) *Munquianfûcu,* ***tuicanduîla****?*
mu *nki* *a* *N-suuku* *tu-Ø-ikandwil-a*
LOC_{18} Q CONN CL_9-reason SP_{1PL}-PRS-make_sign_of_cross-PRS
'For what reason do we make the sign of the cross?'
(Cardoso 1624: 9, Bontinck and Ndembe Nsasi 1978: 70-71)

The corpus data thus evinces that a Present *-Ø-R-a* construction existed in mid-17th c. Kisikongo and was used in various contexts, even though the sole grammatical description of the language at that time does not mention it. Moreover, if a second Present

[79] Note that the imperative here has segmentally the same surface form as the present-tense construction on the second verb. A difference in tone pattern most likely distinguished both constructions from each other. Other related modal categories for which an unmarked construction is used are the hortative and optative.

construction did exist, namely *-a-R-a*, neither its origins nor its semantic character and difference with respect to the *-Ø-R-a* construction are clear.

Present Imperfective -Ø-R-ang-a. The verbal suffix *-ang* is only mentioned once in the grammar of Brusciotto à Vetralla (1659), in chapter VXII '*De formatione verborum mandatiuorum, & negatiuorum*' ['On the formation of verbs mandative and negative']. In a subsection on the formation of 'reciprocally communicative' verbs, it is stated that the addition of the particle *nga* makes the reciprocal verb *cubhobhesiana* [*ku-vov-esian-a* 'INF-speak-RECP-FV'] frequentative, i.e. *cubobhesiananga* 'loqui multoties' ['to speak often'] (Brusciotto à Vetralla 1659: 46, Guinness 1882a: 51-52).

The number of attestations of the imperfective suffix *-ang* in the catechism is also small. It appears only seven times throughout the entire text in five different TA(M) constructions. Each of these imperfective constructions is used in a context in which the event denoted by the verb is a habit, either overtly specified by means of temporal adverbials or implied through social conventions. The Present Imperfective *-Ø-R-ang-a* construction is attested three times. The examples are shown in (175) and (176). The phrases in (175) are by a student on what one has to do to show devotion towards a certain sacrament.

(175) *(...)* ***vquingulanga****yo quilumbu yaquilumbu (...); (...)* ***utambalanga****yo cumbu zazingui munâ muuu, (...).*

u-Ø-kingul-ang-a	*yo*	*ki-lumbu*	*ya*	*ki-lumbu*	
SP_{2SG}-PRS-visit-IPFV-PRS	$PRON_9$	CL_7-day	CONN	CL_7-day	
u-Ø-tambul-ang-a	*yo*	*Ø-kumbu*	*za*	*zi-ingi*	
SP_{2SG}-PRS-receive-IPFV-PRS	$PRON_9$	CL_{10}-time	$CONN_{10}$	CL_{10}-many	
muna	*mu-vu*				
DEM_{18}	CL_3-year				

'(…) you visit it every day (…); (…) you receive it multiple times a year (…).'
(Cardoso 1624: 68, Bontinck and Ndembe Nsasi 1978: 178-179)

The phrase in (176), which has the priest speaking, comes from a discussion on the Salve Regina. Here, the priest stresses that the student should pray that specific prayer. It is clear from the context that the sentence does not have a single-event reading, but that the priest advises the student to pray the Salve Regina regularly as a Christian.

(176) *(...) quieleca onguêye icutumini omêno* ***vbanganga*** *ô, (...).*

kieleka	*o-ngeye*	*i-Ø-ku-tum-idi*		*o-meno*
really	AUG-$PRON_{2SG}$	SP_{1SG}-CPC-OP_{2SG}-recommend-CPC		AUG-$PRON_{1SG}$
u-Ø-bang-ang-a	*oyo*			
SP_{2SG}-PRS-do-IPFV-PRS	DEM_9			

'(…), really I recommend you do it, (…).'
(Cardoso 1624: 24, Bontinck and Ndembe Nsasi 1978: 100-101)

In none of the attestations is the *-Ø-R-ang-a* construction used for progressive aspect.

Future -ku-R-a. A Future construction with the form *-ku-R-a* is attested in both Brusciotto à Vetralla's grammar and Cardoso's catechism. In Brusciotto à Vetralla (1659) the realization of the prefix *ku-* varies between its full form in the first person singular and a reduced form containing only the consonant in all other persons, as shown in the conjugational paradigm in (177)a.[80] However, further in the description the full prefix form is given throughout the paradigm for the same verb *zitiss* 'to love' (Brusciotto à Vetralla 1659: 63), or with the verb *ikal* 'to be' as illustrated in (177)b.

(177) a. *n-**cu**-zitiss-**a*** 'I will love'
*u/o-**c**-zitiss-**a*** 'you will love'
*o-**c**-zitiss-**a*** 's/he will love'
*tu-**c**-zitiss-**a*** 'we will love'
*nu-**c**-zitiss-**a*** 'you will love'
*e-**c**-zitiss-**a*** 'they will love'
(Brusciotto à Vetralla 1659: 49-50, Guinness 1882a: 55)

b. *n-**cu**-ical-**a*** 'I will be'
*o-**cu**-ical-**a*** 'you will be'
*o-**cu**-ical-**a*** 's/he will be'
*tu-**cu**-ical-**a*** 'we will be'
*nu-**cu**-ical-**a*** 'you will be'
*e-**cu**-ical-**a*** 'they will be'
(Brusciotto à Vetralla 1659: 57, Guinness 1882a: 64)

In Cardoso's (1624) catechism the Future construction is always attested with the full prefix *ku-*, as shown in (178). The example in (178)a is the reply of the student to the priest's counsel to serve God to the best of their abilities, so that they will be among the chosen ones on judgment day. (178)b is part of a reply given by the student in a conversation on the Apostle's Creed, saying that s/he does not know the Church's interpretation of the mysteries discussed in the Creed, but that religious scholars hold such information.

[80] Three other verbal prefixes with the same form (*ku-*) exist in Kisikongo and many other Kikongo varieties. One is the second person singular object prefix (OP_{2SG} *ku-*). The second is used only in combination with an object prefix and immediately precedes it. It is called 'expletive' (EXPL *ku-*) here, as its function seems to be to highlight the presence of the object prefix that follows it. The third prefix with this form is the reflexive (REFL *ku-*), which has a complementary distribution with the reflexive prefix *yi-/di-/ki-*.

(178) a. *Quieleca* ***tucubanga****ô Enganga (...).*
kieleka *tu-ku-bang-a* *yo* *e-N-ganga*
yes SP_{1PL}-FUT-do-FUT $PRON_9$ AUG_9-CL_9-Father
'Yes we will do that, Father, (…).'
(Cardoso 1624: 40, Bontinck and Ndembe Nsasi 1978: 130-131)

b. *(...) atangui (...)* ***ecuzâa*** *cucuuutulaüaüôte.*
a-tangi *e-ku-zaa-a* *ku-ku-vutul-a* *ua*
CL_2-scholar SP_2-FUT-know-FUT CL_{15}-OP_{2SG}-answer-FV $CONN_{14}$
u-oote
CL_{14}-goodness
'(…) scholars (…) who will know to answer you well.'
(Cardoso 1624: 30, Bontinck and Ndembe Nsasi 1978: 112-113)

Summary. In this section we have identified and discussed three main TA constructions in mid-17th c. Kisikongo: i) the Simple Present *-Ø-R-a*, ii) the Present Imperfective *-Ø-R-ang-a*, and iii) the Future *-ku-R-a* construction. The Simple Present, although absent in Brusciotto à Vetralla's (1659) grammar, was shown to occur in at least three sentence types in the catechism (Cardoso 1624), namely stage directions, progressives and generics. Secondly, the Present Imperfective appears only a few times in the corpus, so its use cannot be described in detail. Nevertheless, from the small dataset we have at least been able to show that it was certainly used in sentences which describe habitual eventualities. Finally, a Future construction *-ku-R-a* is found in both the grammatical description and the corpus.

7.2.2 Late-19th and early-20th c. Kisikongo

The available documentation on Kisikongo as spoken around the turn of the 20th century consists of a combined dictionary and grammar from the late-19th century (Bentley 1887, 1895), a translation of the New Testament (Bentley and Nlemvo 1895) as well as a revised edition of it (Anonymous 1926), a translation of John Bunyan's (1678) English novel 'The pilgrim's progress from this world, to that which is to come'[81] (Lewis 1929), and a hymn book (Various 1917). All texts except the hymn book have been included in the diachronic Kisikongo corpus used for this study.[82]

[81] The English version used for this study is an online reprint of the original work (Bunyan 2013 [1678]).

[82] The hymn book is excluded because it constitutes a rich collection of many different songs translated from foreign languages into Kisikongo. There is thus no complete, one-to-one parallel version of this work in another language, which could allow us to interpret the data relatively easily.

Present -Ø-R-a. Bentley (1887: 648-649) discusses three constructions that have present-time reference: i) the indefinite, "which simply denotes the time of the action", ii) the perfect, "which indicates that the action was accomplished and complete", and iii) the continuous, "which speaks of the action as prolonged or continued whether still imperfect or perfect". Bentley's Present Indefinite constitutes what is called here the Simple Present *-Ø-R-a* construction. Although the description of the semantics of this construction by Bentley (1887: 648-649) is rather vague, there are many examples in his grammar from which one can obtain a good idea of the uses of the Simple Present *-Ø-R-a* in late-19th c. Kisikongo. In the following paragraphs, we discuss some of the sentence types in which the Simple Present construction is attested with examples from both Bentley's grammatical description and the corpus.

Episodic (i.e. progressive) expressions are the first type. The Simple Present *-Ø-R-a* construction is used to indicate that the eventuality occurs at topic time, which can be either the moment of speech as in (179), or another time established in context as in (180).

(179) a. *Nkovolo andi **keyela**.*
Ṇ-kovolo andi ke-Ø-yel-a
CL_3-cough $POSS_1$ SP_1-PRS-be_sick-PRS
'He is suffering from a cough.'
(Bentley 1887: 209)

b. *Kadi diadi elongi **mvava**.*
kadi diadi e-Ø-longi N-Ø-vav-a
CONJ DEM_5 AUG_5-CL_5-counsel SP_{1SG}-PRS-seek-PRS
'For I'm seeking such counsel.'
(Lewis 1929: 14)

(180) *Ngwidi o muntu **oyatana**.*
N-Ø-w-idi o-mu-ntu o-Ø-yatan-a
SP_{1SG}-CPC-hear-CPC AUG_1-CL_1-person SP_1-PRS-scream-PRS
'I heard someone scream.'
(Bentley 1887: 187)

Secondly, the Simple Present construction is also attested in generic expressions, as shown in (181).

(181) a. *Asolongo (...) **betunga** e nzo nzau e mpila moxi.*
a-solongo be-Ø-tung-a e-N-zo nz-au
CL_2-Solongo SP_2-PRS-build-PRS AUG_{10}-CL_{10}-house PP_{10}-$POSS_2$
e-N-pila mosi
AUG_9-CL_9-manner one

‘The Asolongo (…) build their houses in the same manner.’
(Bentley 1887: 708)

b. *(...) e nuni z’ezulu (...) ke **zikuna** ko, (...).*
e-Ø-nuni *za* *e-Ø-zulu* *ke* *zi-Ø-kun-a*
AUG_{10}-CL_{10}-bird $CONN_{10}$ AUG_5-CL_5-heaven NEG SP_{10}-PRS-plant-PRS
ko
NEG
‘(…) the birds of the air (…) sow not, (…).’
(Matthew 6:26; Bentley and Nlemvo 1895: 15)

In Section 7.2.1, we illustrated the use of the Simple Present *-Ø-R-a* in a stage-direction sentence (see example (172)), which is a common sentence type in scripts such as a catechism. Although no stage-direction examples occur in our dataset for late-19th and early-20th c. Kisikongo, a different, rather specific, sentence type is frequently used in the Bible, illustrated in (182). Here, a speech-act verb in the Simple Present construction is predicated of an inanimate subject typically referring to a text. Although the verb root *vov* ‘say’ is normally used dynamically, in this particular context it is coerced into a stative reading. A similar metaphorical use of motion verbs is called fictive motion (Talmy 2000: Ch. 2), as in *The river runs through five different countries.* Examples of ‘fictive speech’ or ‘fictive motion’ expressions with the Simple Present construction do not occur in Bentley (1887).

(182) *Kansi kadi e sono, aweyi **kivova**?*
kansi *kadi* *e-Ø-sono* *aweyi* *ki-Ø-vov-a*
but CONJ AUG_7-CL_7-Scripture what SP_7-PRS-say-PRS
‘But what does Scripture say?’
(Galatians 4:30; Anonymous 1926: 177)

Lastly, the Simple Present *-Ø-R-a* is used with a number of auxiliaries, such as the modal auxiliary *lend* ‘can’ in (183), and with the defective root *(i)n* ‘be, have’ shown in (184).

(183) a. ***Tulenda** kio nata.*
tu-Ø-lend-a *kio* *Ø-nat-a*
SP_{1PL}-PRS-can-PRS $PRON_7$ CL_{15}-carry-FV
‘We can carry it.’
(Bentley 1887: 693)

b. *Mpova-zitu, on' **olenda** kusadisa (...).*
Mpova-zitu *ona* *o-Ø-lend-a* *Ø-ku-sal-is-a*
Civility REL_1 SP_1-PRS-can-PRS CL_{15}-OP_{2SG}-do-CAUS-FV
‘[whose name is] Civility, who can help you (…).’
(Lewis 1929: 16)

(184) a. *E lekwa **kina** e kekete.*
e-Ø-lekwa *ki-Ø-in-a* *e-Ø-kekete*
AUG_7-CL_7-thing SP_7-PRS-be-PRS AUG_7-CL_7-hardness
'The thing is crisp.'
(Bentley 1887: 295)

b. *Nuyangalela ina **nuna** yau: (...).*
nu-yangalel-a *ina* *nu-Ø-n-a* *yau*
SP_{2PL}-be(come)_happy-FV REL_9 SP_{2PL}-PRS-be-PRS $PRON_9$
'Be happy with the things you have: (…).'
(Hebrews 13:5; Bentley and Nlemvo 1895: 434)

Thus, data from both Bentley's (1887) grammatical description and the diachronic corpus provide evidence for the attestation and diverse usages of the Simple Present *-Ø-R-a* construction in Kisikongo as written around the turn of the 20th century.

Present Imperfective -Ø-R-ang-a. Bentley (1887: 644-645) labels the TA suffix *-ang* as the "continuative form", which "imparts the idea that the action is or was being continued at the time mentioned". As Bentley's description suggests, the morpheme occurs in TA constructions denoting all three temporal distinctions, i.e. past, present and future. However, we focus here specifically on the Present Imperfective *-Ø-R-ang-a* construction, which Bentley (1887: 649) calls the Present Indefinite Continuous. His description is strongly based on the grammatical analysis of the English language at that time. This is evident from i) the fact that the sole semantic property given for the Present Imperfective is its progressive and continuous meanings; ii) comparative statements such as "[it] has the same force as the termination *-ing* in English" (Bentley 1887: 644), and iii) the fact that not a single mention is made of the construction's present habitual meaning, which is an aspectual category without overt morphological encoding in English. Nevertheless, throughout the grammar many examples of the construction can be found illustrating that it is used in episodic, generic and habitual expressions (see the (a) examples in (185)-(187) and (189)-(191)). All of these uses have also been attested in the Kisikongo corpus for this time period.

Thus, despite the fact that habituality is not included in the semantic description of the suffix *-ang* in Bentley (1887), examples illustrating the habitual meaning of the Present Imperfective construction are attested both in the grammar and the corpus. This is shown in examples (185) and (186). In (185), the repetition of the habitual event is overtly specified, whereas this is not the case in (186).

(185) a. *Lumbu yawonso **kekwizanga** aka.*
Ø-lumbu *ya-onso* *ke-Ø-kwiz-ang-a* *aka*
CL_7-day CONN-every SP_1-PRS-come-IPFV-PRS always
'He comes every day.'
(Bentley 1887: 709)

b. *(...) oyu **kevavanga** ko (...) o kel' e yimeng' e lumbu ya lumbu, (...).*
oyu *ke-Ø-vav-ang-a* *ko* *o-Ø-kel-a*
REL_1 NEG.SP_1-PRS-need-IPFV-PRS NEG AUG_{15}-CL_{15}-pour_out-FV
e-i-menga *e-Ø-lumbu* *ya* *Ø-lumbu*
AUG_8-CL_8-sacrifice AUG_7-CL_7-day CONN CL_7-day
'(…) [a high priest] who needeth not daily (…) to offer up sacrifice, (…).'
(Hebrews 7:17; Bentley and Nlemvo 1895: 423)

(186) a. *Vana zandu dieto **tusumbanga** zo.*
vana *Ø-zandu* *di-eto* *tu-Ø-sumb-ang-a* *zo*
REL_{16} CL_5-market PP_5-$POSS_{1PL}$ SP_{1PL}-PRS-buy-IPFV-PRS $PRON_{10}$
'We buy them at our market.'
(Bentley 1887: 610)

b. *Okala vo kadi, ondion' **ovelelesanga** (...).*
okala_vo_kadi *o-ndiona* *o-Ø-velel-es-ang-a*
CONJ AUG_1-REL_1 SP_1-PRS-be(come)_pure-CAUS-IPFV-PRS
'For [both] he that makes holy (…).'
(Hebrews 2:11; Bentley and Nlemvo 1895: 416)

The construction is furthermore attested in generic expressions, as may be seen from the examples in (187). This use was not found in the mid-17th century for the Present Imperfective, but was attested only with the Simple Present *-Ø-R-a* construction (see example (174) in Section 7.2.1).

(187) a. *Muna nxi eyina o wantu **bekwendanga** e kimpene.*
muna *N-si* *eyina* *o-Ø-antu* *be-Ø-kwend-ang-a*
LOC_{18} CL_9-country DEM_9 AUG_2-CL_2-person SP_2-PRS-go-IPFV-PRS
e-ki-mpene
AUG_7-CL_7-nakedness
'In that country the people go naked.'
(Bentley 1887: 603)

b. *(...) konso nti ambote, mbongo ambote **uyimanga**;*
konso *Ṉ-ti* *a* *Ṉ-bote* *N-bongo* *a* *Ṉ-bote*
every CL_3-tree CONN CL_3-goodness CL_9-fruit CONN CL_3-goodness
u-Ø-yim-ang-a
SP_3-PRS-bear-IPFV-PRS
'(…) every good tree bears good fruit;'
(Matthew 7:17; Bentley and Nlemvo 1895: 17)

The Present Imperfective is also used in expressions describing fictive motion, as shown in (188). However, no examples of this use are attested in Bentley (1887).

(188) *Wau vo i nzila yiyi **itukanga** kuna mbanz'a Lubukumuku yakuna kivituvitu kiakina.*

wawu	*vo*	*i*	*N-zila*	*yiyi*	*i-Ø-tuk-ang-a*	*kuna*
CONJ	CONJ	COP	CL_9-road	DEM_9	SP_9-PRS-go-IPFV-PRS	LOC_{17}
Ṉ-banza	*Lubukumuku*	*yakuna*	*ki-vituvitu*		*kiakina*	
CL_3-city	Destruction	to	CL_7-doorway		DEM_7	

'Since this road goes from the city of Destruction to yonder gate.'
(Lewis 1929: 12)

The *-Ø-R-ang-a* construction is furthermore attested in episodic expressions, denoting that the eventuality is on-going at topic time. In this function, the Present Imperfective occurs with dynamic (189)a-b and stage-level (189)c verbs, as well as with emotive predicates (189)d. The topic time can be the moment of speech as in the examples in (189), a longer period of time coincidental with the moment of speech as in (190), or a moment dissociated from the moment of speech, which is established in context as in (191).

(189) a. *Kuna mongo wauna **tukwendanga**.*

kuna	*mu-ongo*	*wauna*	*tu-Ø-kwend-ang-a*
LOC_{17}	CL_3-hill	DEM_3	SP_{1PL}-PRS-go-IPFV-PRS

'We are going towards that hill.'
(Bentley 1887: 609)

b. *Adieyi **nutokanisinang**'o nkento?*

adieyi	*nu-Ø-tokanis-il-ang-a*	*o-Ṉ-kento*
why	SP_{2PL}-PRS-annoy-APPL-IPFV-PRS	AUG_1-CL_1-woman

'Why trouble ye this woman?'
(Matthew 26:10; Bentley and Nlemvo 1895: 59)

c. *Ovo yayi i nkal' aku, adieyi **odingalelanga** e?*

ovo	*yayi*	*i*	*N-kala*	*aku*	*adieyi*
if	DEM_9	COP	CL_9-condition	$POSS_{2SG}$	why
o-Ø-dingalel-ang-a			*e*		
SP_{2SG}-PRS-stand_still-IPFV-PRS			Q		

'If this is your condition, why are you standing still?'
(Lewis 1929: 7)

d. *Wete **monanga** muna ndebwa walebwa wakungikama.*

u-ete	*N-Ø-mon-ang-a*	*muna*	*N-debwa*
CL_{14}-happiness	SP_{1SG}-PRS-see-IPFV-PRS	LOC_{18}	CL_9-be_persuaded
u-a-leb-u-a	*u-a-ku-N-yikam-a*		
SP_{2SG}-DPC-persuade-PASS-DPC	SP_{2SG}-SBJV-EXPL-OP_{1SG}-accompany-SBJV		

'I am glad you are persuaded to go along with me.'
(Lewis 1929: 9)

(190) a. *Tukamena kiakadila e nsona, vava* ***nkalanga****.*
tukamena *ki-a-kal-il-a* *e-N̩-sona* *vava*
since SP_7-DPC-be-APPL-DPC AUG_3-CL_3-nsona DEM_{16}
N-Ø-kal-ang-a
SP_{1SG}-PRS-live-IPFV-PRS
'I have been living here since *nsona* (weekday name).'
(Bentley 1887: 194)

b. *Adieyi* ***nutelamenanga*** *vo o mwini amvimba, (...).*
adieyi *nu-Ø-telamen-ang-a* *vo* *o-mu-ini*
why SP_{2PL}-PRS-stand_up-IPFV-PRS CONJ AUG_3-CL_3-day
a *mvimba*
CONN complete
'Why stand ye here all the day, (…).'
(Matthew 20:6; Bentley and Nlemvo 1895: 44)

(191) a. *Muntu* ***olundumukanga*** *oviokele e nzo ame.*
mu-ntu *o-Ø-lundumuk-ang-a* *o-Ø-vyok-idi* *e-N-zo*
CL_1-person SP_1-PRS-run-IPFV-PRS SP_1-CPC-pass-CPC AUG_9-CL_9-house
ame
$POSS_{1SG}$
'A man running has passed my house.'
(Bentley 1887: 707)

b. *Nutoma tala ke nukumvakwil' o nkalu ndiona* ***ovovanga****; (...)*
nu-tom-a *Ø-tala* *ke* *nu-Ø-ku-N̩-vakul-il-a*
SP_{2PL}-do_well-FV CL_{15}-look NEG SP_{2PL}-FUT-EXPL-OP_1-give-APPL-FUT
o-N-kalu *ndiona* *o-Ø-vov-ang-a*
AUG_9-CL_9-refusal REL_1 SP_1-PRS-speak-IPFV-PRS
'See that ye refuse not him that speaketh;'
(Lewis 1929: 17-18)

Future. In 19th-20th c. Kisikongo a number of constructions are used for future-time reference, including both simple, single-verb and complex verbal constructions involving auxiliaries or free preverbal morphemes, but not the Future *-ku-R-a* construction attested in 17th c. Kisikongo. The most frequently attested in the corpus, [83] however, is the prefix-less Future *-Ø-R-a* construction.[84] According to Bentley (1887: 649), "[the] Indicative

[83] In a randomized sample of the English parallel corpus, we sampled 118 instances of the future auxiliary *will*. Then we checked which construction is used in the Kisikongo corpus for each of the English examples.

[84] With 'prefix-less' we mean specifically the lack of a TA prefix. Other verbal morphemes, such as the subject and object prefixes, do still occur in this construction.

mood in Kongo has no future tense. Whenever future time is spoken of, the time or circumstance of the action is distinctly mentioned, and the action is represented as being then present", alluding to the fact that, at least segmentally, this Future construction is identical to the Simple Present *-Ø-R-a*. The examples in (192) from both grammar and corpus illustrate the use of the Future *-Ø-R-a* construction.

(192) a. *O mbaji nkele mieto* ***tukala*** *miau.*
o-mbaji *N̩-kele* *mi-eto* *tu-Ø-kal-a* *myawu*
AUG-tomorrow CL_4-gun PP_4-$POSS_{1PL}$ SP_{1PL}-FUT-be-FUT $PRON_4$
'Tomorrow we shall have our guns.'
(Bentley 1887: 286)(Bentley 1887: 286)

b. *Kadi, se tadi, e lumbu* ***ikwiza****, ina* ***bevova*** *vo, (...).*
kadi *se_tadi* *e-Ø-lumbu* *i-Ø-kwiz-a* *ina*
CONJ behold AUG_8-CL_8-day SP_8-FUT-come-FUT REL_8
be-Ø-vov-a *vo*
SP_2-FUT-say-FUT that
'For, behold, the days will come, in which they shall say, (…).'
(Luke 23:29; Bentley and Nlemvo 1895: 169)(Bentley and Nlemvo 1895: 169)

Summary. In this section we have discussed three TA constructions in 19th-20th c. Kisikongo: Present *-Ø-R-a*, Present Imperfective *-Ø-R-ang-a* and Future *-Ø-R-a*. Compared to the mid-17th century (see Section 7.2.1), the Present Imperfective *-Ø-R-ang-a* construction is now attested in a wider range of sentence types, including habituals, generics, and episodic expressions. The multiple aspectual meanings it conveys overlap entirely with those of the Simple Present *-Ø-R-a*. As for the future tense, the mid-17th c. Future *-ku-R-a* construction is no longer attested, and future-time reference is now denoted by multiple constructions of which the Future *-Ø-R-a* is by far the most frequently attested in the corpus.

7.2.3 Late-20th and early-21st c. Kisikongo

For late-20th and early-21st c. Kisikongo, which we will refer to as 'Modern' Kisikongo, the documentation consists of one grammatical description (Ndonga Mfuwa 1995) and a corpus of half a million words, more specifically: 556,962 running words (tokens) and 23,108 distinct words (types). All texts in this corpus are online-accessible publications by the Jehovah's Witnesses. The queries have been performed on a subset of the corpus (198,174 tokens and 12,693 types), of which an overview is given in Table 21.

Table 21. Overview of the early-21st c. Kisikongo corpus sample.

Title	Year	Document type	Tokens	Types
Eyingidilu ('Watchtower'): Six monthly issues from February to October	2011	Magazine	88,551	7,775
Fimpanga e sono lumbu yawonso ('Examining the Scriptures daily')	2013	Book	61,393	6,042
Mbumba ya zingu kia nzo ya kiese ('The secret of family happiness')	2012	Book	48,230	5,619

Simple Present -Ø-R-a. In Modern Kisikongo the Simple Present *-Ø-R-a* construction has almost completely disappeared, being used only with (i) the verb stem *yeel* 'be sick', (ii) the defective verb stem *(i)n* 'be, have', and (iii) a small number of auxiliary verbs. This is illustrated in examples (193)-(197).

(193) *yeel* 'be sick'
[O Yesaya wa nguza wayika e ntangwa ina vo] "O ntungi kevova ko vo, ***Yela nyela****."*[85]
o-Ṇ-tungi *ke-Ø-vov-a* *ko* *vo*
AUG_3-CL_3-resident NEG.SP_1-FUT-say-FUT NEG that
Ø-yeel-a *N-Ø-yeel-a*
CL_{15}-be(come)_sick-FV SP_{1SG}-PRS-be_sick-PRS
'[The prophet Isaiah pointed forward to the time when] "No resident will say: I am sick."'
(Jehovah's Witnesses 2012: 126-127)

(194) *(i)n* 'be'
[Mun'elongi diadi, tuvovela vonza tatu. (...).] Kiezole, muna nitu eto ***kina****.*
ki-ezole *muna* *N-itu* *eto* *ki-Ø-in-a*
CL_7-two LOC_{18} CL_9-body $POSS_{1PL}$ SP_7-PRS-be-PRS
'[In this article, we will discuss three negative influences. (…).] The second [is] an internal one.' (Lit.: 'The second is in our body.')
(Jehovah's Witnesses 2011d: 10)

(195) *tom* 'do well, carefully, nicely, properly, correctly, thoroughly' (lexical meaning)
Nkia ngindu zatekama ***zitoma*** *longwanga kuna sikola?*

[85] A special predicate-centred focus construction is used here, i.e. the 'Fronted Infinitive Construction' (De Kind et al. 2015).

nkia N-gindu zi-a-tekam-a
Q CL_{10}-thought SP_{10}-DPC-be(come)_distorted.POS-DPC
zi-Ø-tom-a Ø-long-u-ang-a kuna Ø-sikola
SP_{10}-PRS-do_often-PRS CL_{15}-teach-PASS-IPFV-FV LOC_{17} CL_9-school
'What distorted views are often taught in schools?'
(Jehovah's Witnesses 2012: 94)

(196) *lut* 'pass, go beyond/by/past, surpass' (lexical meaning)
*O Yave ng'**oluta** yangalela muna tukau ye yimenga, [ke mu wila nding'a Yave ko e?]*
o-Ø-Yave nga o-Ø-lut-a Ø-yangalel-a
AUG_1-CL_1-Jehovah Q SP_1-PRS-pass-PRS CL_{15}-be(come)_happy-FV
muna tu-kau ye yi-menga
LOC_{18} CL_{13}-offer and CL_8-blood
'Does Jehovah have much delight in offerings and sacrifices, [but not in obeying the voice of Jehovah?]'
(Jehovah's Witnesses 2011b: 23)

(197) *lend* 'can'
*Konso muntu una ye fu **ilenda** fungisa o nkw'andi makasi.*
ki-onso mu-ntu u-Ø-n-a ye Ø-fu i-Ø-lend-a
CL_7-each CL_1-person SP_1-PRS-be-PRS with CL_8-flaw SP_8-PRS-can-PRS
Ø-fung-is-a o-N̩-kwa andi ma-kasi
CL_{15}-be(come)_angry-CAUS-FV AUG_1-CL_1-partner $POSS_1$ CL_6-anger
'Each one has flaws [that] can irritate one's partner.'
(Jehovah's Witnesses 2013: 12)

Although Ndonga Mfuwa (1995: 358) states that *yeel* 'be sick' occurs with the Present *-Ø-R-a*, which is indeed found in the corpus as shown in (193), the Present Imperfective *-Ø-R-ang-a* can also be used to express the state of being ill. This is illustrated in example (198), which is the title of a chapter on how to deal with a sick family member.

(198) *Vava o mwisi nzo **keyelanga**.*
vava o-mu-isi N-zo ke-Ø-yel-ang-a
when AUG_1-CL_1-inhabitant CL_9-house SP_1-PRS-be_sick-IPFV-PRS
'When a member of the household is sick.'
(Jehovah's Witnesses 2012: 116)

Present Imperfective -Ø-R-ang-a. It has been shown that in late-19th and early-20th c. Kisikongo the Present Imperfective construction was used in multiple sentence types. These were the same types in which the Simple Present *-Ø-R-a* was commonly found,

namely habitual, generic and episodic expressions. In Modern Kisikongo, however, the decline of the Simple Present leads one to assume that the Present Imperfective *-Ø-R-ang-a* has become the main present-tense construction.

In his grammar, Ndonga Mfuwa (1995: 383-386) describes an aspectual suffix *-ngV*, which occurs in combination with various other TA morphemes, and he attributes to it a number of meanings such as *le révolu* (the author's term referring to a completed and irreversible situation), progressivity and habituality. Because the description assumes a morphological approach to the TA system of Kisikongo, the Present Imperfective *-Ø-R-ang-a* as such is not discussed in this grammatical description. However, the corpus examples in (199) show that in Modern Kisikongo the Present Imperfective *-Ø-R-ang-a* is found in the same sentence types as it was in Kisikongo from the turn of the 20th century.

(199) a. Habitual
*Ntangwa zawonso **mvovananga** yau.*
N-tangwa za-onso N-Ø-vov-an-ang-a yau
CL_{10}-time $CONN_{10}$-every SP_{1SG}-PRS-talk-RECP-IPFV-PRS $PRON_2$
'Every time I talk to them.'
(Jehovah's Witnesses 2012: 108)

b. Generic
*O unu Akristu ke **bevananga** yimenga ko (...).*
o-unu A-kristu ke be-Ø-van-ang-a yi-menga
AUG-today CL_2-Christian NEG SP_2-PRS-give-IPFV-PRS CL_8-sacrifice
ko
NEG
'Christians today do not make the sacrifices (…).'
(Jehovah's Witnesses 2013: 65)

c. Episodic
*Nuyuvulanga kana nkia mambu **belongokanga**, (...).*
nu-yuvul-ang-a kana nkia ma-ambu
SP_{2PL}-ask-IPFV-IMP REL_7 Q CL_6-matter
be-Ø-long-ok-ang-a
SP_2-PRS-teach-SEP_{INTR}-IPFV-PRS
'Ask what they are learning, (…).'
(Jehovah's Witnesses 2012: 95)

d. Fictive speech
*(...) nga vena ye nkanda miakaka **miyikanga** lusansu lwa Yeu?*
nga ve-Ø-n-a ye N-kanda mia kaka
Q SP_{16}-PRS-be-PRS with CL_4-book $CONN_4$ other

mi-Ø-yik-ang-a *lu-sansu* *lwa* *Yeu*
SP_4-PRS-mention-IPFV-PRS CL_{11}-instruction $CONN_{11}$ Jehu
'(…) are there other texts that mention the instruction of Jehu?'
(Jehovah's Witnesses 2011c: 4)

Future -Ø-R-a. Ndonga Mfuwa (1995: 359-360) distinguishes three Future constructions: the Simple Future (*futur simple*) *-Ø-R-a*, the Imminent Future (*futur imminent*) *sè -Ø-R-a*, and the Near Future (*futur proche*) *sè -a-R-a*. In addition, he also describes two future-tense auxiliaries, namely *aza* (used in a Remote Future construction) and *singa* (termed *projectif*) (Ndonga Mfuwa 1995: 402-404).

The Future *-Ø-R-a* was first attested in the late-19th century (see Section 7.2.2), and is also the most commonly attested future-tense construction in the Modern Kisikongo corpus. In a randomized sample of 68 future-time reference contexts, *-Ø-R-a* occurs 49 times.[86] Examples from Ndonga Mfuwa's grammar and the corpus are provided in (200).

(200) a. *Kya lúmíngu* ***n'túnga*** *énzo.*
kya *Ø-lumingu* *N-Ø-tung-a* *e-N-zo*
$CONN_7$ CL_7-Sunday SP_{1SG}-FUT-build-FUT AUG_9-CL_9-house
'On Sunday I will build the house.'
(Ndonga Mfuwa 1995: 359)

b. *(...)* ***dikusadisa*** *kuna sentu, vava* ***osompa****.*
di-Ø-ku-sadis-a *kuna* *Ø-sentu* *vava*
SP_5-FUT-OP_{2SG}-help-FUT DEM_{17} CL_9-future DEM_{16}
o-Ø-somp-a
SP_{2SG}-FUT-marry-FUT
'(…) it will be helpful for you in the future, when you will marry.'
(Jehovah's Witnesses 2012: 18)

As for the other future-tense constructions discussed by Ndonga Mfuwa (1995: 359-360), only the auxiliary construction with *singa* is attested in the corpus, as in (201). It is much less frequently used in the corpus than the Future *-Ø-R-a*, having only five attestations out of 68 in the randomized sample of future-time reference contexts.

(201) *O nsilu wau* ***usinga lungana*** *muna nz'ampa eyi ifinamene.*
o-Ṇ-silu *wau* *u-singa* *Ø-lungan-a* *muna*
AUG_3-CL_3-promise DEM_3 SP_3-FUT CL_{15}-be_fulfilled-FV DEM_{18}
N-za *a* *Ṇ-pa* *eyi* *i-Ø-finam-idi*
CL_9-world CONN CL_3-new DEM_9 SP_9-CPC-approach-CPC

[86] We used the same method as for the late-19th and early-20th c. Kisikongo corpus study.

‘That promise will be fulfilled in the approaching new world.’
(Jehovah's Witnesses 2012: 127)

While a grammatical morpheme *se* is attested in the corpus, it is not found as part of a dedicated future-tense construction. The function of the particle as found in the Modern Kisikongo corpus is more accurately captured by the characterization given in Bentley (1887: 416), who writes that ‘[it] calls attention to a change of circumstances; some other state having previously existed, *now* something else has ensued or will ensue’ (italics in original). Therefore, it typically occurs with verbs whose lexical meaning refers to a change of state, as shown in (202). Note that its position in the sentence is not fixed. It can occur immediately before the conjugated verb, as in (202)a, or before a noun phrase, as in (202)b. Moreover, as the example in (202)a illustrates, it can be used with non-future TA constructions such as the Locative Infinitive Construction which has present-progressive meaning (De Kind et al. 2015: 131-135).

(202) a. *E zingu kia nzo mu soba* ***se*** *kina.*

e-Ø-zingu	*kia*	*N-zo*	*mu*	*Ø-sob-a*	*se*
AUG_7-CL_7-family	$CONN_7$	CL_9-house	LOC_{18}	CL_{15}-change-FV	COS

ki-Ø-in-a
SP_7-PRS-be-PRS
‘The family is changing.’
(Jehovah's Witnesses 2012: 7)

b. *(…) Kintinu kia Nzambi (…) kitula ntoto* ***se*** *paradiso.*

ki-Ṇ-tinu	*kia*	*N-zambi*	*Ø-kitul-a*	*Ṇ-toto*	*se*
CL_7-CL_3-king	$CONN_7$	CL_9-God	CL_{15}-transform-FV	CL_3-earth	COS

Ø-paradiso
CL_9-paradise
‘(…) God’s Kingdom (…) [will] transform the earth into a paradise.’
(Jehovah's Witnesses 2011a: 2)

Summary. In this section we have shown that in Modern Kisikongo the Present Imperfective *-Ø-R-ang-a* is used for present tense in general, whereas the Simple Present *-Ø-R-a* construction is restricted to a small number of verbs, most of which are auxiliaries. Compared to Kisikongo at the turn of the 20th century (see Section 7.2.2), where both constructions had overlapping uses, the present-tense paradigm in Modern Kisikongo has thus been simplified to one main construction. For future-time reference, the prefix-less *-Ø-R-a* construction is the most frequently attested in the corpus data, although other constructions—such as the auxiliary construction *-singa INF*—are also used.

7.2.4 Overview and discussion

In Sections 7.2.1 to 7.2.3 we have discussed the use of four Kisikongo TA constructions in three time periods, spanning some 400 years, on the basis of grammatical descriptions and empirical corpus data. The Simple Present *-Ø-R-a* construction is attested throughout the diachronic documentation. It functioned as an important present-tense construction from the mid-17th century to at least the early-20th century. It was used in two major present-tense sentence types, i.e. episodic and generic expressions. In the third and last period, i.e. the late-20th and early-21st centuries, the Simple Present *-Ø-R-a* construction is no longer used as productively as in previous times. It occurs only with the defective verb stem *in* 'be', some auxiliaries and the lexical verb stem *yeel* 'be sick'.

In theory, these few verbs can be used to compare the tone patterns of the Simple Present and Future *-Ø-R-a*. Although Ndonga Mfuwa (1995) does note tone, he provides no examples of the Simple Present *-Ø-R-a*. Out of the ten examples that are found in his PhD thesis of the Future *-Ø-R-a* construction, there are nine instances where the vowel of the verb root is marked with a high tone. Eight of these nine high-toned future-tense verbs are disyllabic with either a short or long root vowel, as in (203)a. One of these nine is a trisyllabic verb where the root is extended with a derivational suffix. As shown in (203)b, that derivational suffix also carries a high tone. The tone pattern of the tenth example differs from that of these nine in that a high tone is noted on the SP and not on the first syllable of the verb root. This is shown in (204).

(203) a. disyllabic: CVCV or CV:NCV
i. ***okóta*** 'you will enter'
ii. ***otú:nga*** 'you will build'
b. trisyllabic: CVCVCV
osónéka 'you will write'
(Ndonga Mfuwa 1995: 219, 460)

(204) *Dyanu kelámbilanga nzen(a)* ***ókwiza****ko.*

dyanu	*ke-Ø-lamb-il-ang-a*	*Ṇ-zenza*	*o-Ø-kwiz-a*
$PRON_1$	SP_1-PRS-cook-APPL-IPFV-PRS	CL_1-stranger	SP_1-FUT-come-FUT

ko
$PRON_{17}$
'He's cooking because a stranger will come [to visit him].'
(Ndonga Mfuwa 1995: 471)

Following personal communication with Ndonga Mfuwa, we furthermore found that the Simple Present construction with the verb *yeel* 'be sick' does have the same tone pattern as that of the Future construction, namely a high tone on the first syllable of the verb root, as in (205).

(205) *Yeela* ***beyééla***.

Ø-yeel-a	*be-Ø-yeel-a*
15-be(come)_sick-FV	(i.) SP_2-PRS-be_sick-PRS
	(ii.) SP_2-FUT-be_sick-FUT
	(i.) 'They are sick.'
	(ii.) 'They will get sick.'

(Ndonga Mfuwa, p.c.)

We have checked the possibility of using both the Simple Present and Future *-Ø-R-a* with the auxiliary verbs as well, with both Ndonga Mfuwa and a male Kisikongo language consultant who currently lives in Luanda. However, they were reluctant to accept the Future *-Ø-R-a* with these auxiliaries and prefer to use alternative Future constructions, most often the *se -a-R-a* construction.

The second construction which we tracked through time is the Present Imperfective *-Ø-R-ang-a*. In the earliest documentation period, attestations are found of the construction being used only in habitual expressions. However, from the late-19th century onwards the construction is found in the three sentence types, namely episodic, generic and habitual expressions. Thus, at the turn of the 20th century the Simple Present and Present Imperfective seem to have been used to convey largely the same aspectual meanings, apart from habituality. In Modern Kisikongo this is no longer the case, as the Simple Present has become unproductive and the Present Imperfective *-Ø-R-ang-a* is now the main construction used for present tense in general.

Finally, two single-verb Future constructions are attested in different time periods. In mid-17th c. Kisikongo, future-time reference was conveyed by means of a *-ku-R-a* construction. However, this construction is not found at the turn of the 20th c., nor is it found in Modern Kisikongo. Rather, in the last two time periods, a prefix-less *-Ø-R-a* construction is attested for future-time reference.

Table 22 gives a schematic overview of the four main constructions of the present- and future-tense paradigms for the three time periods in Kisikongo.

Table 22. Overview of four Kisikongo TA constructions and their attested usages over the course of three time periods.

		mid-17th c.	**late-19th and early-20th c.**	**late-20th and early-21st c.**
Present	Episodic	*-Ø-R-a*	*-Ø-R-a* AND *-Ø-R-ang-a*	*-Ø-R-ang-a*
	Generic	*-Ø-R-a*	*-Ø-R-a* AND *-Ø-R-ang-a*	*-Ø-R-ang-a*
	Habitual	*-Ø-R-ang-a*	*-Ø-R-ang-a*	*-Ø-R-ang-a*
Future		*-ku-R-a*	*-Ø-R-a*	*-Ø-R-a*

The main issue now is to identify the source of the Future *-Ø-R-a* construction as first attested in late-19th c. Kisikongo. The 17th c. Simple Present *-Ø-R-a* construction is a likely candidate. Two arguments in favor of this scenario are: (i) the Simple Present and

Future have the same segmental morphology; (ii) future constructions have been reported to originate from older present constructions in several unrelated language families (Haspelmath 1998). The second possibility is that the prefix-less Future construction is historically related to its functional predecessor from the mid-17th century, namely *-ku-R-a*. Due to the unavailability of historical data for much of the late-17th, 18th and 19th centuries, however, the evolution of the Future *-Ø-R-a* cannot be studied on the basis of empirical evidence. Therefore, we will work out both scenarios in Section 7.3 and discuss the likelihood of either two.

7.3 Reconstructing paradigmatic change

In this section we discuss and assess the two scenarios which might explain the paradigmatic change which occurred mainly between the mid-17th and late-19th centuries. In the first scenario, the Simple Present *-Ø-R-a* evolved into a dedicated Future construction through the expansion of its temporal meaning (present > present + future > future). We will therefore call this scenario the 'polysemy hypothesis'. In the second scenario, the original Future construction *-ku-R-a* is assumed to have undergone a formal change which resulted in the prefix-less Future *-Ø-R-a* construction in the late-19th and early-20th centuries. In that second time period, then, the Simple Present *-Ø-R-a* and the Future *-Ø-R-a* were segmentally identical but historically unrelated. This scenario is therefore called the 'homonymy hypothesis'.

7.3.1 The polysemy hypothesis

In this scenario, the first 'micro'-change assumed is that the Simple Present *-Ø-R-a* came to be used for future-time reference alongside the other available future-tense constructions, such as the Future *-ku-R-a*. In time, the Simple Present became the dominant future-tense construction resulting ultimately in the loss of the older *-ku-R-a* construction. This assumed change created an ambiguous paradigm with both present and future tense expressed by the same construction, namely *-Ø-R-a*. The semantic expansion of the Present Imperfective *-Ø-R-ang-a* from habitual to general present tense can then be explained as a development in order to resolve that ambiguity. In a first stage, the Present Imperfective would have come to be used gradually more frequently for the same functions as the Simple Present, in addition to its original habitual meaning. This is observable in late-19th and early-20th c. Kisikongo (see Section 7.2.2). From thereon, the Present Imperfective became the main present-tense construction and the older Simple

Present was reinterpreted as the Future *-Ø-R-a*. Traces of the Simple Present in Modern Kisikongo can still be found with a number of auxiliaries and the verb stem *yeel* 'be sick' (see Section 7.2.3).

The polysemy hypothesis is rather straightforward and plausible from a cognitive and typological perspective. Present-tense constructions are often used for future-time reference in languages of the world, and this is also found in present-day Kikongo varieties. Kintandu, for example, an East Kikongo variety, has a dedicated future-tense construction *si -Ø-R-a*, illustrated in (206)a. However, the Kintandu language consultant who uttered the sentence in (206)a used the Simple Present *-Ø-R-a* for the same time reference in (206)b.

(206) Kintandu (KongoKing 2015, fieldwork by S. Dom)

a. *Wunú mu kookilá mwamba **sí tudyá**.*
   wunu *mu* *kookila* *mwamba* *si* *tu-Ø-di-a*
   today LOC_{18} evening moambe FUT SP_{1PL}-FUT-eat-FUT
   'This evening we will eat moambe.'

b. *Nkí **túdyá** kookilá?*
   nki *tu-Ø-di-a* *kookila*
   what SP_{1PL}-PRS-eat-PRS evening
   'What will we eat this evening?'

In Haspelmath (1998) a similar scenario is offered as an explanation for a number of languages where the present-tense construction is morphophonologically 'heavier' than the future-tense construction, as is the case in Modern Kisikongo, or where future-tense constructions have a future/habitual polysemy. In Haspelmath's diachronic hypothesis, a language starts out with a TA paradigm in which future tense is not expressed by means of a dedicated construction. Instead, the present-tense construction is commonly used for future-time reference. The pivotal change is characterized by a restriction of the temporal semantics of the present-tense construction to future-time reference. This shift occurs as the result of the grammaticalization of a new progressive construction into a general present-tense construction, a development extensively discussed in Bybee et al. (1994: 140-149).

The polysemy hypothesis outlined at the beginning of this section is thus unlike Haspelmath's scenario. Indeed, thanks to the historical data, we know that mid-17th c. Kisikongo did have a dedicated future-tense construction different from the Simple Present *-Ø-R-a*. Moreover, given that the Simple Present *-Ø-R-a* is not attested with future-time reference in the mid-17th c. documentation, this scenario assumes either that the construction developed future-tense semantics after the mid-17th century, or that it already was polysemous at that time but was simply not used with that meaning in the limited number of texts now available. The second difference pertains to the new present-tense construction. In the case studies discussed in Haspelmath (1998), periphrastic

progressives grammaticalise into the general present-tense construction, whereas in Kisikongo it is the Present Imperfective *-Ø-R-ang-a*, a single-verb TA form and originally a dedicated habitual construction.

The main problem of the polysemy hypothesis is that it assumes the rather drastic change of the Future *-ku-R-a* being lost completely in Kisikongo over the course of two centuries due to a new, competing future-tense construction, namely the Simple Present *-Ø-R-a*. One would expect that when a construction takes over the function(s) of an already existing construction, the older form is retained with specialized uses or still occurs with a small set of irregular verbs. This is for example the case with the Simple Present *-Ø-R-a* in Modern Kisikongo. However, no traces of the older Future construction are found from the late-19th and early-20th c. documentation onwards.

7.3.2 The homonymy hypothesis

The assumption in the homonymy hypothesis is that the mid-17th c. Future *-ku-R-a* construction has become the prefix-less Future *-Ø-R-a* construction attested from the late-19th and early-20th c. onwards. The pivotal change leading from *-ku-R-a* to *-Ø-R-a* would then be a loss of the TA prefix *ku-*. This loss can be accounted for through another morphological change which happened within the same time period, i.e. in-between the mid-17th and late-19th centuries, namely prefix reduction.

Prefix reduction is a change by which prefixes undergo morphophonological attrition, possibly leading to complete loss. As described in detail by Bostoen and de Schryver (2015), in a number of Kikongo varieties prefix syncope has occurred specifically in nominal prefixes of the noun-class system. One of the nominal prefixes which has been targeted by prefix reduction is that of noun class 15, *ku-*. This nominal prefix attaches to verb roots to form deverbal nouns, which are commonly analysed as infinitives. We can thus formalize the specific change of the Infinitive construction as [*ku-R-a*] > [*Ø-R-a*], in which the 'new' Kisikongo Infinitive construction consists of the verbal root and the default final vowel *-a*. As reported by Bostoen and de Schryver (2015: 166-168), the 'old' Infinitive construction is still attested in mid-17th c. Kisikongo, yet by the late-19th century the class 15 prefix *ku-* had completely disappeared and the 'new', prefix-less infinitive is attested.

There is not only an obvious formal similarity between the noun-class prefix *ku-* and the prefix of the Future *-ku-R-a* construction, but it is furthermore quite likely that the latter is historically related to the deverbal nominal prefix. Although no empirical evidence is available to substantiate this, the mid-17th c. Future *-ku-R-a* construction is possibly the outcome of a grammaticalization process of an auxiliary (AUX) construction with an infinitive in complement position, i.e. [*SP-AUX ku-R-a*] > [*SP-ku-R-a*]. The

subsequent loss of the TA prefix *ku-* could be related to the loss of the infinitival prefix *ku-* as an analogical change of prefix syncope.

Additional cross-linguistic data strongly corroborate the connection between the two morphophonological changes (i.e. the loss of nominal vs. verbal morphology). Only a handful of other Kikongo varieties share the prefix-less Future construction with Kisikongo. These are Kindibu (spoken to the north of Kisikongo, see Addendum 2), Kisolongo (to its west) and Kizombo (to its east). In these three languages, prefix syncope also affected the Infinitive construction which thus also has the form *Ø-R-a* (Bostoen and de Schryver 2015: 163). The co-occurrence of the Future *-Ø-R-a* construction and the Infinitive *Ø-R-a* construction is furthermore attested in three late-19th c. grammars on South Kikongo varieties which were reportedly spoken along the part of the present-day Congolese-Angolan border that cross-cuts the KLC.

Table 23 gives an overview of all Kikongo varieties in which the Future *-Ø-R-a* and the Infinitive *Ø-R-a* are attested, with examples (207)-(209) illustrating the Future construction in three of these varieties.

Table 23. Overview of varieties (and sources) with both cognate Future *-Ø-R-a* constructions and prefix syncope of the noun class 15 prefix *ku-*.

Kikongo variety	**Source**
Late-19th c. Kikongo as spoken in the Cataract region	Guinness (1882b)
Late-19th c. Kikongo as spoken in the vicinity of Boma	Craven and Barfield (1883)
Late-19th c. Kikongo as spoken in the area south of the mouth of the Congo river	Visseq (1889)
Kisolongo	Tavares (1915)
	KongoKing 2012, fieldwork by S. Dom
Kindibu	Coene (1960)
Kizombo	Del Fabbro and Petterlini (1977)
	Carter and Makoondekwa (1987)
	Mpanzu (1994)

(207) Late-19th c. Kikongo as spoken in the vicinity of Boma (Craven and Barfield 1883: 209)

O mbăzimeni yandi kwandi ***tuvútuka*** *kunam Pălabala.*

o-mbazimeni	*yandi*	*kwandi*	*tu-Ø-vutuk-a*	*kuna*
AUG-tomorrow	FOC	FOC	SP_{1PL}-FUT-return-FUT	DEM_{17}

N-palabala

CL_9-Palabala

'Tomorrow we shall really return to Palabala.'

(208) Late-19th c. Kikongo as spoken in the area south of the mouth of the Congo river (Visseq 1889: 52)
Loumbou ki'e ia ***o kouiza****.*
Ø-lumbu ki-eya o-Ø-kwiz-a
CL_7-day PP_7-four SP_1-FUT-come-FUT
'He will come Thursday.'

(209) Kisolongo (Tavares 1915: 135)

a. Early-20th c. Angolan variety
Nki a ntangua ***tutelama*** *kuetu e?*
nkia N-tangua tu-Ø-telam-a kwetu e
Q CL_9-time SP_{1PL}-FUT-stand_up.POS-FUT FOC Q
'At what time will we leave?'

b. Early-21st c. Congolese variety (KongoKing 2012, fieldwork by S. Dom)
Mwana ***uzeng****'okooko mu kaayi.*
mu-ana u-Ø-zeng-a o-ku-oko mu N-kaayi
CL_1-child SP_1-FUT-cut-FUT AUG_{15}-CL_{15}-hand LOC_{18} CL_9-knife
'The child will cut his/her hand with the knife.'
(Elicited sentence in French: '*L'enfant se coupera les doigts avec le couteau*.')

Let us now consider two additional South Kikongo varieties, Dihungu and Kitsootso, which are spoken to the south of Kisikongo (see Addendum 2). In these two varieties, prefix syncope did not target the deverbal nominal prefix *ku-* of the noun class 15 (Bostoen and de Schryver 2015: 163). In addition, both have been described as having a Future *-ku-R-a* construction, as shown in examples (210) and (211).

(210) Dihungu (Atkins 1954: 162)
Tsutsu ***akuhondila*** *yo mbe:di yai.*
Ø-tsutsu a-ku-hond-il-a ya o-N-bedi yayi
CL_9-chicken SP_2-FUT-kill-APPL-FUT with AUG_9-CL_9-knife DEM_9
'The chicken will be killed with this knife.'
(Lit.: 'The chicken, they will kill it with this knife.')

(211) Kitsootso (Baka 1992: 91)
Mbazí ***yíkúyútuka****.*
mbazi yi-ku-yutuk-a
tomorrow SP_{1SG}-FUT-return-FUT
'I will return tomorrow.'

Table 24 offers an overview of the distribution of the two Future constructions, *-ku-R-a* vs. *-Ø-R-a*, and the distribution of prefix syncope in the targeted noun classes in South

Kikongo varieties. The relevant columns are highlighted in grey, demonstrating the co-occurrence of the two phenomena.

Table 24. Overview of Future constructions and distribution of prefix syncope in South Kikongo varieties.

Future	Variety	$CL_{1/3}$	CL_4	CL_7	CL_8	CL_{15}	Source
-Ø-R-a	Kisikongo	✓	✓	✓	✓	✓	Ndonga Mfuwa (1995)
	Kisolongo	✓	✓	✓	×	✓	Tavares (1915), KongoKing fieldwork 2012
	Kizombo	✓	✓	✓	✓	✓	Carter (1970)
-ku-R-a	Kitsootso	✓/×	✓/×	×	×	×	(Baka 1992)
	Dihungu	✓	×	×	×	×	Atkins (1954)

[The symbol '✓' indicates that the noun class prefix in that variety underwent syncope, '×' means that the prefix did not change. In case of conflicting data, '✓/×' is given. Table adapted from Bostoen and de Schryver (2015: 163).]

Assuming that the prefix of the Future *-ku-R-a* construction was lost, an ambiguity similar to that discussed in the polysemy hypothesis would exist, although now between the prefix-less Future and Simple Present *-Ø-R-a* constructions. The functional and semantic expansion of the Present Imperfective *-Ø-R-ang-a* can then be analysed in this homonymy scenario as a strategy that would resolve the newly created ambiguity of one form, *-Ø-R-a*, with two different temporal meanings, namely present and future.

7.4 Conclusions

In this chapter, we have reconstructed the evolution of a part of the present- and future-tense-marking paradigms in Kisikongo between the mid-17th century and today. Thanks to the corpus-based analysis of historical language data from both texts and grammars, we could establish that by the end of the 19th c. Kisikongo had reduced three of its mid-17th century present/future constructions to only two. According to sources from the mid-17th century, Kisikongo still distinguished at that stage between the Simple Present *-Ø-R-a*, Present Imperfective *-Ø-R-ang-a*, and Future *-ku-R-a* constructions. In Kisikongo sources from the late-19th and early-20th centuries, however, the Future *-ku-R-a* construction is no longer attested, while a null-marked construction similar to the mid-17th c. Simple Present *-Ø-R-a*, is used for both present- and future-time reference. At the same time, the Present Imperfective *-Ø-R-ang-a* construction is attested with not only habitual meaning, as in the mid-17th century, but is used for multiple imperfective expressions, including most importantly progressivity. By the end of the 20th century, however, the present/future isomorphism attested one century before no longer was. Nowadays, the *-Ø-R-a*

construction is only used to refer to future-time events, while the *-Ø-R-ang-a* construction has become the main present-tense construction. This historical scenario is motivated by the fact that Kisikongo today has a future-tense construction that is morphologically lighter than its present-tense construction, a situation that is rather uncommon in the world's languages. This typologically unusual feature is of rather recent origin, as exactly the opposite was still true in the mid-17th century, i.e. a null-marked present-tense construction vs. a prefix-marked future-tense construction.

By examining comparative synchronic data from other languages belonging to the KLC, we furthermore assessed two possible historical scenarios to account for the rise of a null-marked future construction by the end of the 19th century. We have shown that both the mid-17th c. Simple Present *-Ø-R-a* and the Future *-ku-R-a* are plausible source constructions for the Future *-Ø-R-a* attested from the late-19th century onwards. The Simple Present *-Ø-R-a* may have given rise to the Future *-Ø-R-a* through the universally common semantic extension from present to future inducing common present/future polysemy. On the other hand, the Future *-ku-R-a* may have evolved into Future *-Ø-R-a* due to the loss of the *ku-* prefix as part of a broader pattern of historical morphological change within the KLC, i.e. prefix reduction. Along with Kisikongo, several other closely related South Kikongo languages lost the prefix *ku-* not only in the future-tense construction, but also in the corresponding infinitive construction, from which the Future construction likely once grammaticalized. This strong correlation makes a homonymy scenario as plausible as the polysemy scenario sketched above. In this case, the present-future homophony would have emerged as the consequence of a phonological merger between the Future *-ku-R-a* and Simple Present *-Ø-R-a*.

To conclude, we wish to argue that the present-future homophony observed in late-19th c. Kisikongo might actually be the outcome of a 'diachronic conspiracy' between semantics and phonology. We use the concept of 'diachronic conspiracy' to refer to the independent concurrence of different historical evolutions towards an identical outcome, very much like, for instance, Vincent (1978: 425) with regard to the varied sources of Italian geminate consonants or Thomason and Kaufman (1988: 23-24) regarding the group of changes that led to a pattern in which all syllables in Proto-Slavic ended in a vowel. Given the plausibility of both scenarios, it seems highly likely that two independent diachronic evolutions conspired towards such present-future isomorphism in Kisikongo by the end of the 19th century: the universally common semantic extension from present to future leading to polysemy and the loss of the *ku-* future prefix – as part of a broader phenomenon of prefix reduction – inducing homonymy. The change from Future *-ku-R-a* to *-Ø-R-a*, in analogy to the Infinitive construction from *ku-R-a* to *Ø-R-a*, indeed resulted in formal similarity between the older Simple Present and new Future. From there on, the Kisikongo TA paradigm had two identical forms for two different tenses. However, because present-tense forms are often used for future-time reference, this homonymy was probably not perceived as a significant cognitive clash and did not

immediately lead to a dramatic shift or reorganization of the TA paradigm. Because the Kisikongo Simple Present was possibly also used for future-time reference, it was much easier to converge the semantics of the two homonymous constructions. It is only at a later stage, i.e. towards the end of the 20th century, that the Present Imperfective *-Ø-R-ang-a* construction evolved into the main present-tense construction and the *-Ø-R-a* construction lost its present-tense reference to remain with only future semantics.

Chapter 8 Conclusions

8.1 Summary of the findings

8.1.1 Part 1: Bantu verbal derivation and middle voice

We argued in Chapter 2 that the functions of five Bantu derivational affixes can be partially or completely related to the middle voice. In doing so, we highlighted the polyfynctional nature of these 'quasi-middle' affixes, which includes the coding of diathesis alternations and lexical situation types. Data from a variety of modern Bantu languages as well as Proto-Bantu (PB) lexical reconstructions were discussed. Regarding Kemmer's (1993: 24-28) typology of the formal marking of middle voice, we proposed a fourth middle marking system in addition to the three systems already established, namely a multiple-form system.

In Chapter 3 we discussed in more detail several aspects of the neuter suffix starting from a typology of construction types in which the suffix is used. We discussed the attestation of the neuter suffix in agentive passive constructions for the Bantu languages Manda, Tonga and Tumbuka, and related this to a wider tendency of Bantu quasi-middle suffixes being used for passive voice. Moreover, previous syntactic analyses and descriptions of the neuter suffix were challenged with respect to certain collocational properties. Specifically, the combination of a verb carrying a neuter suffix with an oblique agentive phrase is usually considered ungrammatical. However, based on several examples found across the Bantu literature we showed that this is not a clear-cut grammatical 'constraint' but a complex phenomenon which involves multiple interrelated elements such as i) the type of construction (anticausative, potential passive, etc.); ii) semantic features of the type of eventuality denoted by the verb (verbs of destruction [*break*], perception [*see*], non-translational motion [*close*], transaction [*borrow*], etc.); and iii) the thematic role of the oblique argument phrase (prototypical agent, experiencer, non-volitional causer, instrument, etc.). Finally, we discussed the interaction between the lexical-aspect semantics of neuter verbs and tense/aspect (TA) constructions as a new and almost completely unexplored dimension of Bantu verbal semantics.

In Chapter 4 we focused on two functionally near-identical reciprocal suffixes in several varieties of the Kikongo Language Cluster (KLC). Through a multiple logistic regression analysis of corpus data of four KLC varieties from the 1920s it was shown that the simplex reflex of the PB reciprocal suffix *-*an* is used predominantly for the coding of natural reciprocal eventualities and the complex reciprocal suffix codes uniquely productive reciprocity. We furthermore illustrated, with lexical data from various KLC varieties, that the simplex suffix is also used for the coding of middle situation types other

than natural reciprocity. The morphological structure of the complex suffix was identified as a compound of the historical long causative *-*ɪd-i* and the reciprocal *-*an*. The present-day morphophonological variation can be serialized according to three sound changes as in (212).

(212) Serialization of the formal variation of the complex reciprocal marker on the basis of three sound changes

-izyan > *-azyan* > *-asyan* > *-asan*

right-to-left vowel copying spirant devoicing Y-absorption

The serialization is furthermore assumed to reflect the historical stages through which the complex suffix went from the historically oldest to the newest form. Following this assumption, we thus reconstructed the morphophonologically most complex form to Proto-Kikongo (PKK), i.e. *-*izyan.* From the morphological composition of the complex suffix we can assume that the original meaning was most likely 'reciprocity of causation' which generalized into just 'reciprocity'.

8.1.2 Part 2: Tense and aspect in the Kikongo Language Cluster

Chapter 5 gave a comprehensive overview of the most common TA morphemes in the KLC. We identified five TA constructions and one individual TA suffix as retentions of PB grammatical reconstructions posited by Meeussen (1967) and Nurse (2008a). Two morphemes, namely the suffix *-idingi* and the preverbal future marker *sV*, were proposed to go back to PKK on the basis of their distribution in, respectively, all six or five subgroups of the lexically-based phylogenetic classification of the KLC (de Schryver et al. 2015). Fourteen innovations were subsequently described and their distribution was discussed in light of the phylogenetic classification. It was found that the distribution of some of these fourteen innovations could indeed support the existence of three subgroups that appear in the lexically-based classification, namely East, South and West Kikongo. However, further in-group innovations also divide these subgroups internally. For the North Kikongo and Kikongoid subgroups there is too little data to corroborate their independent status as individual subgroups. The varieties of northern West Kikongo were shown to be outliers with respect to common TA morphology. This is most likely related to their peripheral geographical position within the KLC. The TA morphology of these varieties seems to have been significantly influenced by neighbouring non-KLC varieties with which they have been in close contact. Finally, some TA morphemes are attested in an area that crosscuts multiple subgroups. Such patterns of distribution are the result of contact-induced spread.

In Chapter 6 we provided a detailed semantic analysis of the reflexes of the PB TA *-*a-R-a* construction in the KLC. Throughout the language sample, the construction is

attested expressing multiple TA meanings, i.e. remote past perfective or experiential past with non-transitional eventualities and present state, past state, continuous state, or a perfective state with transitional eventualities. These various uses were analysed as different outputs of one core function of the construction, which is to locate the complete(d) nucleus phase of an eventuality in a dissociative past. Examples of the default interpretations, i.e. remote past perfective and present state, are found in all 33 modern KLC varieties and historical doculects which were considered for this study. On the basis of this widespread distribution which covers all KLC subgroups, we tentatively reconstructed the core function back to PKK.

In Chapter 7 we investigated the development of the present-day Kisikongo TA paradigm, and more specifically the history of two TA constructions: Future *-Ø-R-a* and Present *-Ø-R-ang-a*. We showed through a combined study of a diachronic corpus and historical descriptive sources that the mid-17th c. Kisikongo TA paradigm had a two-way distinction for the present tense between a general Present *-Ø-R-a* construction and a Present Imperfective *-Ø-R-ang-a* construction, and also included a separate Future construction *-ku-R-a*. Due to a historical gap in the data, it proved impossible to empirically study the evolution from the mid-17th to the early-21st century. We therefore presented two hypotheses which might account for the transition from the older stage to the present-day paradigm. The first was called the polysemy hypothesis, in which we consider that the new Future construction evolved out of the older Present construction. The second one was called the homonymy hypothesis, in which we consider that the TA prefix of the original Future *-ku-R-a* construction was lost due to a morphophonological reduction, in analogy to the phenomenon of prefix syncope with verbal nouns (see Bostoen and de Schryver 2015). Additional comparative data showed, on the one hand, a systematic co-occurrence of the Future *-Ø-R-a* construction and prefix reduction in one group of South Kikongo varieties and, on the other hand, the retention of the Future *-ku-R-a* construction and the absence of prefix reduction in another group of South Kikongo varieties. Ultimately, we concluded that these two diachronic pathways do not necessarily exclude each other and may have possibly conspired together towards the current-day situation. In any case, the semantic expansion of the Present Imperfective *-Ø-R-ang-a* from habituality to general present is motivated as a development to resolve the ambiguity of the polysemous *-Ø-R-a* construction denoting both present and future time reference.

8.2 General conclusions and discussion

8.2.1 Part 1: Bantu verbal derivation and middle voice

The three chapters in Part 1 explore to what extent the functions of five Bantu derivational affixes can be related to the comparative concept of middle voice. As its title suggests, Chapter 2 sets the stage for this relatively new introduction of the concept from general-typological linguistics into Bantu linguistics. The study of middle voice in Bantu languages promises to lead to interesting new findings for both disciplines. The descriptive value of middle voice for Bantu derivational morphology is only tentatively demonstrated in Chapter 2, the reason being that adequate information for the relevant affixes is very limited. At the same time, however, this also demonstrates exactly the need for a new analytical framework which provides useful concepts to describe the complex semantics of Bantu derivational morphology.

It is shown and highlighted that all five affixes do not simply have one unique function, but are rather characteristically polysemous. It is furthermore argued that the polysemy patterns of these affixes significantly overlap with the middle domain, conceptualized as a structured network of related grammatical (i.e. diathesis alternations) and lexical (i.e. situation types) categories in a semantic space. The dual nature of middle-voice categories is extremely relevant for the description of the five affixes. In many Bantu grammars, neither the semantics of the derived verb roots nor the syntax of the constructions in which these suffixes appear is described in much detail. The coding of certain lexical situation types by the morphemes might, understandably but also unfortunately, be relegated to the domain of the lexicon. By relating this lexical function of the five Bantu affixes to middle voice it is hoped that more attention will be paid to this dimension in the domain of Bantu grammatical description. As is becoming more and more acknowledged, and as is convincingly demonstrated by the polyfunctionality of these affixes, grammar and lexicon are not categorically different components of a language, but form a gradient and interconnected taxonomic network which has been called the 'constructicon' in Construction Grammar (Hoffmann and Trousdale 2013a: 1-2, Traugott and Trousdale 2013: 13, Barðdal and Gildea 2015: 22-25). The lexical function of the affixes can be further described using the diachronic frameworks of lexicalization (Brinton and Traugott 2005) and constructionalization (Traugott and Trousdale 2013: Ch. 4). That is, when an affix is used for coding middle situation types a new node is created in the constructicon of that language. That newly created node is a fully specified realization of the more abstract construction [prefix – verb root] or [verb root – suffix]. The PB data in Chapter 2 illustrate that the coding of middle situation types has always been an integral part of the affixes' functions. The reconstructions of PB verb stems with the affixes in the Bantu Lexical Reconstructions 3 database (Bastin et al. 2002) indicates that lexicalization must

have occurred in early stages of Bantu, and that these lexical(ized) items have been inherited in many of its daughter languages. Reconstruction work on Bantu derivational morphology should thus involve the combination of both Bantu grammatical and lexical reconstructions.

Syntactic aspects of the derived verb roots have also been largely neglected. Little to no information is found in the literature on properties of their argument-structure constructions: How many arguments can they take? Can they combine with more than one argument-structure construction, and if so, which one has the highest frequency? What are the types of arguments? What are the thematic roles related to the syntactic arguments?

Not until these syntactic issues are explored for specific derivations in individual languages can we say anything about them for earlier stages of Bantu. The typology of construction types in which reflexes of PB **-ɪk* are used, outlined in Chapter 2 and summarized in Chapter 3, provides a first step towards such a syntactic reconstruction. However, the overview is based on an insufficient amount of data from too small a set of languages to have any strong historical significance. For this, the typology has to be examined in many more Bantu languages.

In Chapter 2 we furthermore discussed the relevance of Bantu derivational morphology for a typology of middle-voice systems. The typology outlined in Kemmer (1993: 24-26) is based on the relation between the reflexive and middle-marking strategies in a specific language, and moreover assumes only one middle-marking strategy to be available. Our findings of middle voice in Bantu do not fit in one of the categories of the typology, and we therefore proposed to add a fourth, i.e. a multiple-form system. Although Bantu is not unique in this respect, to our knowledge there are very few other multiple-form systems which are described in the literature. Hardy and Montler (1991: 4) identify "two (apparently historically distinct) morphemes in Alabama [a Muskogean language from North America], *l* and *-ka*, [which] combine the semantics of middle voice, passive middle (or mediopassive), and nominal […]." Nava and Maldonado (2004: 467) state that "middle voice in Tarascan [a Mesoamerican isolate from Mexico] is marked by a whole set of middle markers covering at least three semantic spaces: attributive predications, locative events, and what we call 'basic events' which, roughly speaking, involve some interaction between participants." These languages thus share with Bantu the feature that middle voice is expressed by means of multiple, different verbal morphemes. Yet it is clear from the descriptions that these multiple-form systems differ radically from each other. In Bantu, the verbal morphology associated with middle voice is part of the wider derivational system, which is not the same in for example Tarascan. We furthermore discuss in Chapter 2 how the Bantu middle-voice system is distributed over two conceptual spaces of the middle domain, namely agent-oriented versus patient-oriented meanings. This is, again, a specific feature of the Bantu multiple-form system.

The caveat accompanying our introduction of middle voice in Bantu linguistics in Chapter 2 must be repeated here. Our claim is not that there is such a thing as one, cross-

Bantu middle-voice system. The Bantu middle-voice system is an abstraction based on the comparison of individual languages. The manifestation of the system is thus language-specific also within Bantu. For example, the middle-voice functions of the separative intransitive in Swahili are different from those of Cuwabo. In the former it is restricted to the coding of lexical situation types whereas in the latter the suffix is also used in passive constructions. Diachronically, the middle-voice systems of individual languages are also not static but dynamically changing. As we show in Chapter 4, the direct reflex of PB *-*an* in the KLC is mainly reduced to marking *media tantum* and is no longer used for the expression of productive reciprocity. This contrasts with many Bantu languages where reflexes of *-*an* mark both types of reciprocity and other middle situation types. The directions of change which a specific affix can follow in a particular Bantu language are also not constrained by the semantic space of the middle domain. As illustrated in the typology of construction types marked with the neuter suffix, the stimulus-oriented perception and evidential constructions are generally not considered as middle-voice constructions, yet they are marked in a number of Bantu languages by the neuter suffix.

8.2.2 Part 2: Tense and aspect in the Kikongo Language Cluster

In Part 2 the focus is shifted from derivation in Bantu to TA in the KLC. The study, in Chapter 5, on variation in the expression of TA in the KLC was undertaken as part of a larger goal of the KongoKing project to investigate the internal genealogy of the KLC. The first step was to produce a phylogenetic classification based on lexical innovations in the basic vocabulary (de Schryver et al. 2015, Bostoen and de Schryver 2018a). This classification would subsequently be compared to the variation of grammatical features. One such grammatical feature was TA. However, as discussed in Chapter 5, the variation in innovative TA expressions does not straightforwardly correspond to the internal subgroups that come out of the lexical-phylogenetic classification. Stated bluntly, there is not one single TA construction or morpheme whose distribution is aligned with an entire KLC subgroup. Instead, we found:

a) innovations shared by KLC varieties within a subgroup, such as:
   - the loss of the TA prefix *a-* in the East Kikongo varieties Kimbata, Kimbeko and Kintandu but not in Kinkanu;
   - the Future constructions *-ala/ela-R-a* and *-kwiza R-a* in the West Kikongo varieties Ciwoyo, Iwoyo, Kiyombe and Cizali but not in Yilumbu, Yipunu and Isangu;
   - the TA construction *-ma/me-R-a* in the West Kikongo varieties Yilumbu, Yipunu, Isangu, Ciwoyo, Iwoyo and Kiyombe but not in Cizali;
   - a present-tense prefix *i-* in the West Kikongo varieties Yipunu, Ciwoyo and Iwoyo but not in Yilumbu, Isangu, Kiyombe and Cizali;

b) innovations shared by KLC varieties from two different subgroups, such as:

- the Present Progressive construction *-ta-R-a* in the East Kikongo varieties Kimbata, Kimbeko, Kinkanu and Kintandu and in the South Kikongo variety Kizombo;
- the TA construction *-eta/eti-R-a* in the West Kikongo varieties Ciwoyo and Kiyombe and the Central Kikongo varieties Kimanyanga and Kimboma.

Taken together, both distribution types point towards a history of rapid and late innovations (which is characteristic of Bantu (Nurse 2008a: 25)) and intense contact situations (which is to be expected given the social history of the region; see Bostoen and Brinkman (2018b)). The study of the Kisikongo paradigm shift in Chapter 7 illustrates how quickly such changes can take place. In Bostoen and de Schryver (2015) it is furthermore described how a grammatical feature, in this case prefix syncope, diffused after the 17th century from South Kikongo varieties into the ancestors of 25 (out of 32) modern KLC varieties due to intense contact.

Two TA morphemes were suggested to go back to PKK based on their attestation in either all six or five subgroups of the KLC, namely *-iCingi* and *sV* respectively. However, we have come to doubt the plausibility of these proposals. Arguments for a recent development of the preverbal future marker will briefly be elaborated in the following paragraphs.

As for the TA suffix *-idingi*, our new diachronic hypothesis would take too much space to elaborate in its full extent in this conclusion and consists of too many arguments to summarize in a few paragraphs. The history of *-idingi* is intertwined with that of the suffix *-idi*, the most widespread TA morpheme in the KLC, and involves different paradigmatic shifts in various Kikongo varieties. The hypothesis on the diachronic semantics of past-tense constructions involving *-idi* will be taken up in a future publication.

Now, as for the preverbal future marker, we first have to consider not only its attestation *across* the phylogenetic subgroups, but also the distribution *within* each subgroup. The morpheme *sV* is attested in all East and Central Kikongo varieties, but only in the three northernmost South Kikongo varieties (Kisikongo, Kisolongo and Kizombo), two West Kikongo varieties (Kisundi and Cizali), one North Kikongo variety (Kibembe) and one Kikongoid variety (Kiyaka). The distribution of the morpheme thus covers a single area of neighbouring varieties—except for Kibembe in the north—with the East Kikongo subgroup at its center.

Secondly, other future constructions in the KLC have to be considered. In Chapter 7 we do this in detail for South Kikongo, and show that the cognates *-ku-R-a* and *-Ø-R-a* are the most widespread, attested in Dihungu, Kindibu (probably originally South Kikongo, but now Central Kikongo; see de Schryver et al. (2015: 144), Bostoen and de Schryver (2018a: 53)), Kisikongo, Kisolongo, Kitsootso, and Kizombo. These two constructions are present-day reflexes of the older form *-ku-R-a* which can be dated empirically to have

existed in 1624. The southern West Kikongo varieties Ciwoyo, Iwoyo, Kiyombe and Cizali also share cognate future constructions, namely *-ala-R-a* or *-ela-R-a*. This construction is furthermore attested in the oldest extant sources of a West Kikongo variety, i.e. late-18th c. Kakongo as described in Descourvières (1773, 1776), and thus has a considerable time depth.

Both the South Kikongo *-ku-R-a* and the West Kikongo *-ala-R-a* Future constructions are the result of auxiliary grammaticalization. As discussed in Chapter 7, the TA prefix *ku-* is most likely a remnant of the structure [*AUX ku-R-a*] in which *ku-* was originally the common verbal noun prefix of the lexical verb. The hypothesis proposed in Chapter 5 on the origins of the *ala-* prefix in the West Kikongo future construction is also no longer believed to hold. Whereas in the 2015 article we related the morpheme to the reconstructed PB future-tense prefix **laa-*, in the new hypothesis it is proposed that the construction is actually a grammaticalized form of the auxiliary construction [*-a-li ku-R-a*] > [*-a-li R-a*] > [*-a-li-R-a*] [*-a-la-R-a*] > [*-ala-R-a*].[87] The South and West Kikongo Future constructions are thus innovations in advanced stages of grammaticalization. With these strong innovative tendencies in mind, it seems very counterintuitive to assume that the preverbal morpheme *sV* is not only inherited from PKK into those present-day varieties in which it is attested, but that it also preserved its form and position through time. This scenario furthermore assumes that the West and South Kikongo varieties have a strong tendency to innovate, having inherited (from PKK) and subsequently lost the future *sV* morpheme in an earlier stage to transition into the new cycle of innovations just described above. In contrast, the presumably archaic East and Central Kikongo varieties would have

[87] Additional historical and comparative data support this scenario:

1) Both stages 3 and 4 of the putative grammaticalization process are attested in late-18th c. Kakongo as described by Descourvières (1773, 1776);

2) It is assumed that the original Future auxiliary construction (stages 1 and 2) was built on a Present auxiliary construction *-Ø-li R-a* (also attested in Descourvières (1773, 1776)), by inflecting the existential auxiliary *li* with a Future inflectional construction *-a-R-a*: PRS ***-Ø-li*** *R-a* > FUT ***-a-li*** *R-a*. This Present auxiliary construction developed into the *-(l)i-R-a* (< *-Ø-li R-a*) construction found in Ciwoyo and Iwoyo (see Chapter 5). The Future inflectional construction *-a-R-a* is furthermore also attested in historical sources of South Kikongo varieties (Craven and Barfield 1883, Bentley 1887) and early-20th c. Kimanyanga (Laman 1912);

3) The negative counterparts of the affirmative Present and Future constructions have undergone exactly the same evolution. Thus, in present-day southern West Kikongo varieties the Negative Future construction is *-asa-R-a* and the Negative Present construction has the form *-si-R-a*. The same scenario is proposed here. Originally the negative existential auxiliary *si* could be inflected for present tense with the *-Ø-R-a* construction to form the Negative Present auxiliary construction *-Ø-si R-a*, or it could be inflected for future tense with the *-a-R-a* construction, i.e. *-a-si R-a*. Both the present and future auxiliary constructions grammaticalized over time into the present-day forms *-si-R-a* and *-asa-R-a*. Hence the parallel affirmative and negative constructions:

	PRS	**FUT**
AFF	*-(l)i-R-a*	*-ala-R-a*
NEG	*-si-R-a*	*-asa-R-a*

resisted any process of innovation in their expression of future tense. This seems highly unlikely. We believe it is more plausible to assume that the preverbal morpheme is a late innovation that spread from one variety or an area, possibly East Kikongo, to neighbouring varieties. On the basis of the preverbal position of the morpheme one can easily assume that it is just as well the result of a grammaticalization process. In many source examples and descriptions the morpheme can combine with verbs inflected with either one of two TA constructions, i.e. *sV -Ø-R-a* or *sV -a-R-a*. The former typically expresses a near future and the latter a remote future. This indicates that the grammaticalization process is still in an early stage: the morpheme has not yet cliticized onto the inflectional verb structure and can combine with different TA conjugations. The fact that the preverbal future marker occurs in five of the six subgroups would then be either the result of intensive borrowing through contact, or it would be the result of a cognitively salient metaphor which triggered the same or similar processes of grammaticalization in different Kikongo varieties; or it may have been both.

The first objective addressed in Chapter 5 was the identification of probable retentions of reconstructed PB TA morphology. The overview in Chapter 5 constituted the first initial step in the research project on TA in the KLC, and therefore we did not yet attempt to reconstruct either form or function of these retentions to PKK. In the second stage of the PhD project, however, with the necessary data collected in a corpus of examples from the documentation database, it was possible to fully explore the diachronic semantics of individual TA constructions via both empirical observations in (historical) sources and the Comparative Method. The tentative results of the first reconstructive research are presented in Chapter 6. The broader issues which were raised in the concluding section there should be echoed here as well. The common meaning of 'dissociative past completive' expressed by the *-a-R-a* construction throughout the KLC, ultimately reconstructed to PKK, differs significantly from the meaning 'P1/ANT' found in the majority of Nurse and Philippson's (2006) cross-Bantu sample for cognate constructions in other languages. The comparison of TA systems in zone F and S languages by Botne (2014) illustrates to what extent microvariation can be manifested between neighboring varieties, for which Botne goes into great detail working out different mechanisms of semantic change. The value of the explanations he provides go beyond the particular case studies discussed, and are undoubtedly applicable in research on wide-scale variation and deep-time changes of Bantu TA constructions, such as perhaps the conundrum of remote versus near past *-a-R-a*.

8.3 Areas for future research

Derivation and TA are two of the most intricate and complex domains of Bantu verbal morphology. The studies in this PhD thesis are concerned with specific research topics related to these two general categories. However, many aspects still remain understudied and are thus open for future research.

The introduction of middle voice in Bantu linguistics was made here at a very general comparative level, discussing only a handful of Bantu languages. The usefulness of the concept needs to be further established through detailed studies of the suffixes in individual languages, which should furthermore include the consideration and analysis of both lexical and syntactic data. Comparative studies focusing on individual affixes are needed in order to arrive at typologies of the middle situation types and/or syntactic construction types which are coded by that affix, similar to the one presented in this PhD thesis for the neuter suffix or in Bostoen et al. (2015) for the sociative suffix. Such comparative work would also lead to a better understanding of variation and innovations of these affixes pertaining to, for example, construction types, range of (middle) situation types, affix compounds, etc. The study on multiple-reciprocity marking in the KLC focuses on this last feature of innovation. However, we only considered one of a number of compound suffixes attested in the KLC, excluding for example *-angan* and *-akan*. Moreover, the corpus analysis was restricted in time (1920s) and number of varieties (four doculects). The range and scope of variables can thus definitely be expanded.

The initial overview of TA expressions in the KLC (Chapter 5) could be updated with the incorporation of more and new data that is now available, as the documentation database and the BantUGent diachronic Kikongo corpus have grown exponentially since the start of the KongoKing research project in 2012 and have continued to grow also after the first, broad survey of TA forms published in 2015. Such reassesments of the preliminary findings presented in Chapter 5 could lead to more fine-tuned diachronic hypotheses, such as the ones presented here for the Dissociative Past Completive construction and the paradigm shift in South Kikongo. Formal and semantic reconstructions to PKK could be worked out for the other two PB past-tense constructions, i.e. **-Ø-R-ile* and **-a-R-ile* as well as the innovated past-tense constructions **-Ø-R-idingi* and **-a-R-idingi*. Additionally, no straightforward picture for PKK future-time reference emerges out of the variation of future constructions in the KLC. The question remains whether any of the attested future-tense constructions in the KLC are a remnant of PKK, or whether these constructions are all late innovations and the PKK strategy for future-time reference has completely disappeared and thus cannot be reconstructed through the study of its daughter languages.

The set-ups of the studies on TA in the KLC relied mainly on the treatise of individual constructions. Chapter 5 dealt with many individual constructions in a comparative

perspective, discussing their distribution across the KLC and their diachronic status as retentions or innovations. Chapter 6 focused on the functional variation and diachronic semantics of one past-tense construction, again in as many Kikongo varieties as possible. Chapter 7 was concerned with the evolution of the strategies in Kisikongo for expressing present and future time reference, which involved the restructuring of only a part of the full Kisikongo TA paradigm. As a result of this construction-oriented approach, the entire TA system of no one Kikongo variety is provided or studied in detail. Such an in-depth study of the complete TA paradigm of individual Kikongo varieties should definitely be pursued in future research on this topic.

Lastly, the data collected in the field have not yet been fully exploited and await further analysis which can be used for synchronic descriptions of the semantics and tonology of the TA systems in Kimanyanga, Kintandu, and Ciwoyo. This will be especially interesting for Ciwoyo as almost no studies on this language variety exist.

To conclude, the interaction between the semantics of verbal derivation and TA morphology is an area where much more language-individual and comparative-typological research can be done. It is hoped that the findings in this PhD thesis, dedicated to these two domains of Bantu verbal morphology, may stimulate such explorations.

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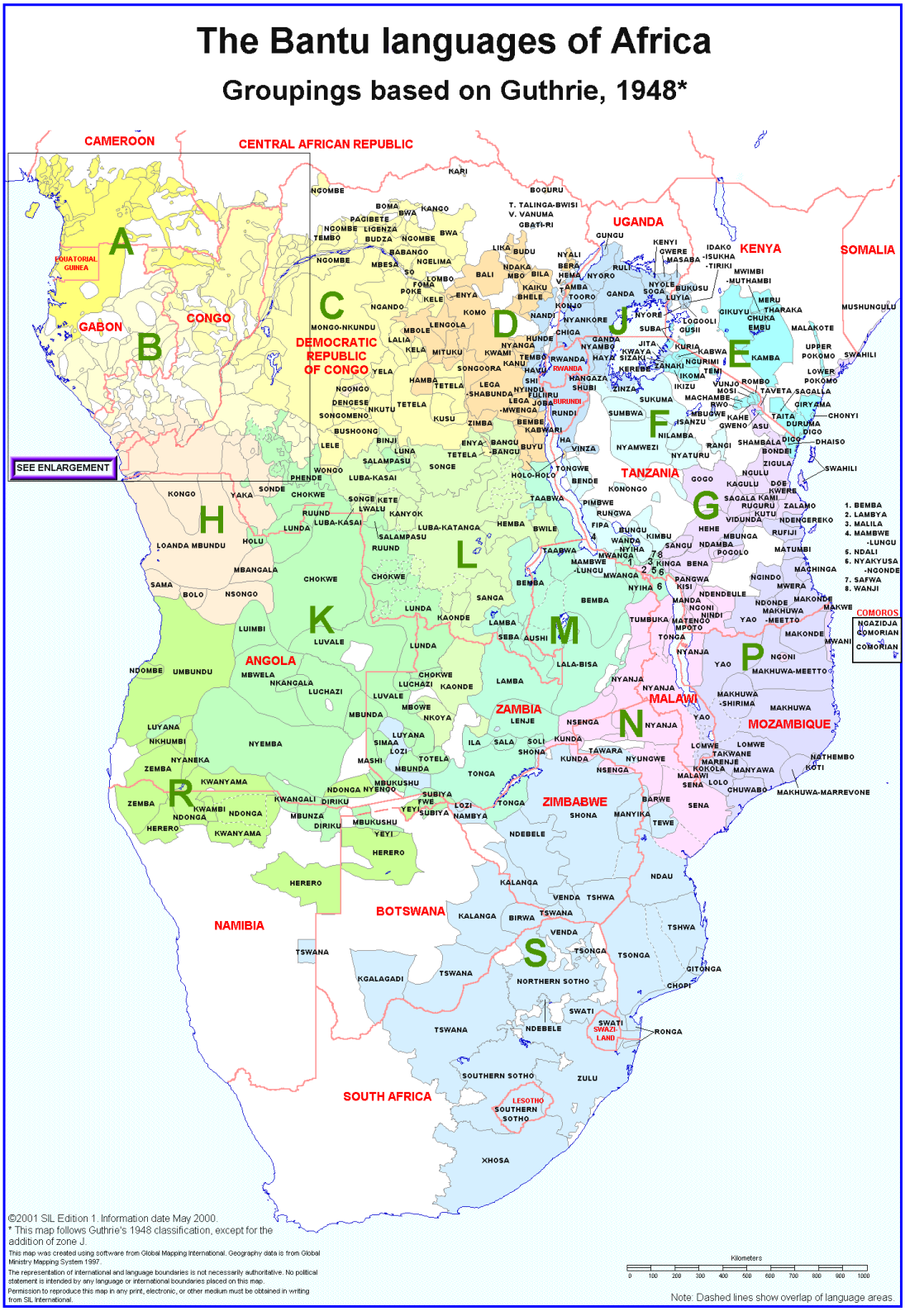
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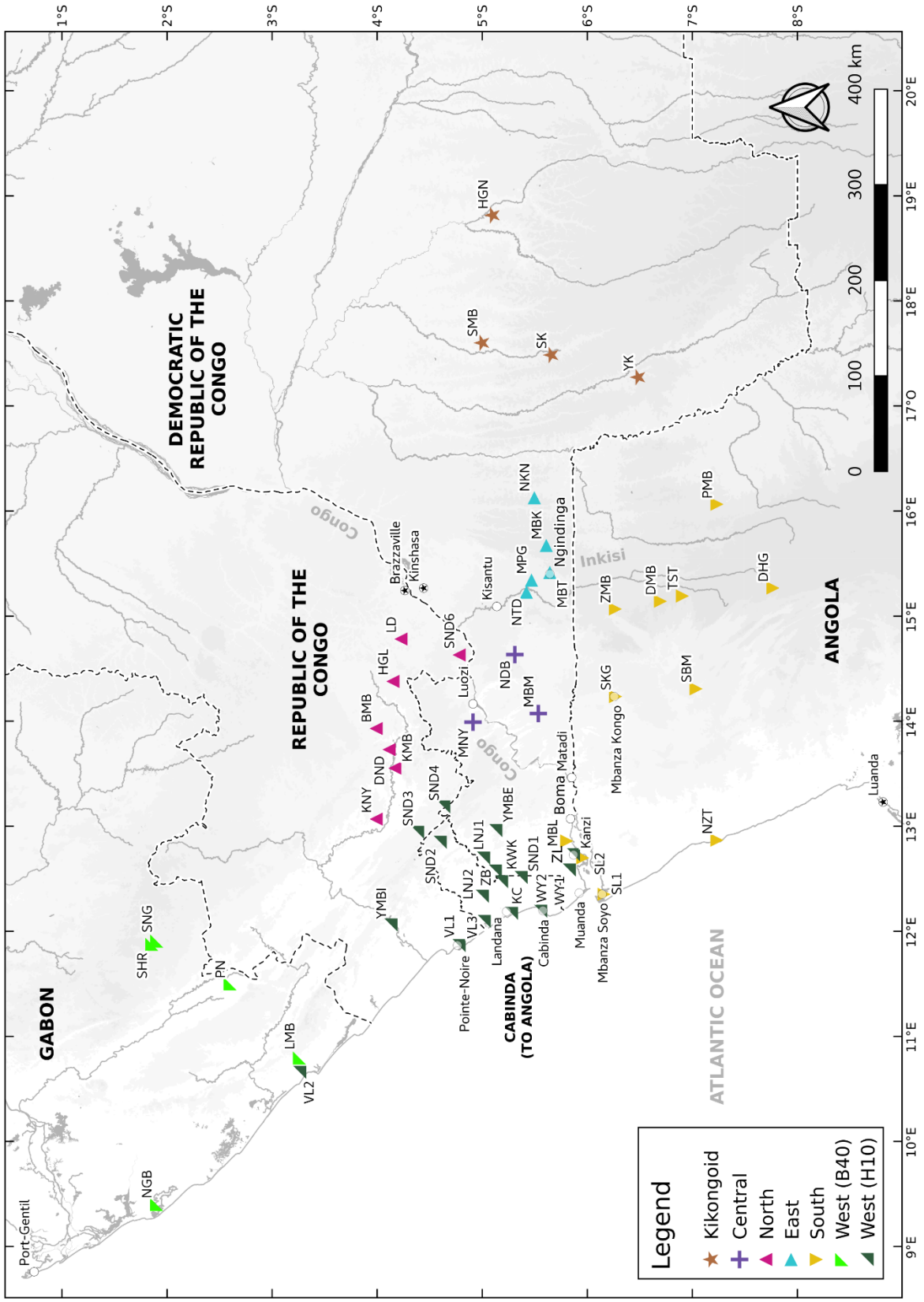
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Addendum 1. Map of Guthrie's (1948) referential classification of the Bantu languages (© SIL Intl.)



Addendum 2. Map of the Kikongo Language Cluster and its subgroups



KLC codes

BMB Kibembe; **DHG** Dihungu; **DMB** Kindamba; **DND** Kidondo; **HGL** Kihangala; **HGN** Kihungan; **KC** Ikoci; **KMB** Kikamba; **KNY** Kikunyi; **KWK** Ikwakongo; **LD** Cilaadi; **LMB** Yilumbu; **LNJ1** Cilinji (DRC); **LNJ2** Ilinji (Cabinda); **MBK** Kimbeko; **MBL** Kimbala; **MBM** Kimboma; **MBT** Kimbata; **MNY** Kimanyanga; **MPG** Kimpangu; **NDB** Kindibu; **NGB** Yingubi; **NKN** Kinkanu; **NTD** Kintandu; **NZT** Kikongo from N'zeto; **PMB** Kipombo; **PN** Yipunu; **SBM** Kisibemba; **SHR** Yishira; **SK** Kisuku; **SKG** Kisikongo; **SL1** Kisolongo (Angola) ; **SL2** Kisolongo (DRC); **SMB** Kisamba; **SND1** Cisundi (Cabinda); **SND2** Kisundi (Cabinda); **SND3** Kisundi (Kimongo); **SND4** Kisundi (Kifouma); **SND6** Kisundi (Boko); **SNG** Yisangu; **TST** Kitsootso; **VL1** Civili (Congo); **VL2** Civili (Gabon); **VL3** Civili (Cabinda); **WY1** Ciwoyo (DRC); **WY2** Iwoyo (Cabinda); **YK** Kiyaka; **YMBE** Kiyombe (DRC); **YMBI** Kiyombi (Congo); **ZB** Kizobe; **ZL** Cizali; **ZMB** Kizombo

Addendum 3. Kemmer's (1993: 267-270) 'A checklist for middle semantics'

Kemmer (1993: 267) precludes the checklist with the following elaboration:

> "The following is intended as a rough guide in determining the semantic range of the middle marker for any given language with a [middle marking] system. Suggested use: For a given language, the investigator should determine the form or construction used for the situation types represented by the following categories and verb meanings. The verb meanings listed below are in some cases attested as middle marked, in other cases my own hypotheses (based on the foregoing analysis of middle semantics) as to what meanings might be found to occur with middle marking.
>
> This list should not of course be presumed to be exhaustive; further empirical work will no doubt lead to its modification. In particular, investigators should keep track of all middle-marked uses for a language so that uses not on the list can be incorporated. Multiple motivation for middle marking is possible.
>
> The list below contains the entire continuum of middle uses regardless of their grammatical status (in keeping with the point illustrated in this work that the middle is a phenomenon that cuts across grammatical and lexical categories). The list is arranged in the general order of more grammatical (i.e. productive) situation types to ones that are more lexical (i.e. idiosyncratic, meaning inherent in lexical item). However, since the grammatical reflexive types shade into their related middle types, no attempts is made to separate reflexive from middle in these areas. The more grammatical types are in general listed first simply because in my experience, these types, particularly the reflexive and reciprocal, are easier to check in grammars. Use of native-speaker informants and, where available, dictionaries that gloss English words, will help to lessen the problems of data collection."

1. Emphatic domain
   (a) Emphatic/contrastive 'self' ('I did it myself')
   (b) Emphatic reflexive ('I hit MYSELF')
   (c) Identify etymology of emphatics where possible ('body', 'soul', 'head', 'breath', etc.)

2. Reflexive (and related middle) situations
   (a) Direct reflexive ('John saw himself in the mirror')
   (b) Indirect reflexive ('Mary gave herself a present')
   (c) Indirect middle: verbs of coming into possession, desiring to come into possession ('beg', 'acquire', 'receive', 'request', 'buy', 'seize'; also, perhaps, verbs of ingestion like 'eat')

(d) Logophoric reflexive: coreference in complements of verbs of saying, belief, feeling, etc. ('He said that he would go'). Check for restrictions on person, number.
(e) Logophoric middle: Does language contrast RM and MM in logophoric contexts?

3. Reciprocal domain
   (a) Prototypical reciprocal ('The girls looked at each other')
   (b) Chaining reciprocal ('The graduates followed each other onto the stage'). Check for other possible verb meanings in this type, e.g. 'chase'. Check whether marker for naturally reciprocal events appears in such situations (potential 'chaining middle')
   (c) Naturally reciprocal events ('wreste', 'struggle', 'meet', 'greet each other', 'fight', 'make love', 'converse', 'join', 'divide', 'stick together')
   (d) Collective, group actions (not strictly part of reciprocal domain, but related) ('leave together' and similar group actions)
   (e) Naturally collective actions ('flock together', 'huddle', 'nestle', 'scatter', 'tangle', 'mingle', 'multiply')

4. (Middle) passive ('lights are lit'). Check for constraints on person, aspect, etc.

5. Impersonal ('They say that…', 'One doesn't do that'). Check constraints on use as above

6. Facilitative ('This chapter reads easily', 'the book sold out in three weeks', 'he tested positive'). Check constraint on use as above

7. Grooming ('bathe', 'shave', 'wash', 'dress', 'adorn oneself', 'comb-hair', 'gird (loins)', 'arm oneself'). Check for distinctions in marking between whole-body and body-part actions

8. Non-translational motion ('twist', 'turn', 'bend', 'lean', 'nod', 'wave', 'bow', 'stretch')
   (a) Contained non-translational motion: no change in configuration ('shake', 'tremble', 'shudder', 'move', 'stir'). Particularly when non-volitional, there is expected lexical overlap with spontaneous events of motion.

9. Change in body posture: motion with reference to change in body configuration and with fixed locational endpoint ('sit down', 'stand up', 'lie down', 'kneel', 'squat', 'crouch down')

10. Other body actions ('scratch', 'sneeze', 'cough', 'breathe', 'relieve oneself', 'masturbate')

11. Translational motion: motion with reference to a path (‘go’, ‘fly’, ‘swim’, ‘leap’, ‘fall’, ‘approach’, ‘run’, ‘flee’, ‘move’, ‘wander’, ‘stroll’, ‘climb’, ‘crawl’, ‘stay’, ‘remain’ (negative motion)). Check whether roots are transitive or intransitive; check whether other semantic properties are typically associated with MM verbs of this class.

12. Positionals: express configuration of body or — by extension — object with relation to another, often supporting, object (‘be lying’, ‘be sitting’, ‘be standing’, ‘be hanging’)

13. Emotion middle
    (a) 1-participant (‘be glad’, ‘be frightened’, ‘wonder at’, ‘be amazed’, ‘be surprised’, ‘be amused’, ‘weep’, ‘mourn’, ‘suffer’, ‘endure’, ‘rejoice’, ‘feel (+ state)’)
    (b) 2-participant (‘love’, ‘hate’, ‘despise’, ‘pity’, ‘trust in’, ‘regret’)
    (c) desiderative (‘hope’, ‘need’, ‘expect’, ‘desire’, ‘await’)
    (d) speech action (‘denounce’, ‘lament’, ‘pray’ ‘ridicule’, ‘lie’, ‘boast’, ‘curse’, ‘vow’, ‘scold’, ‘deceive’). Are there semantic subtypes, e.g. emotive speech acts?

14. Cognition middle (‘know’, ‘suppose’, ‘think’, ‘recognize’, ‘realize’, ‘remember’, ‘forget’, ‘imagine’, ‘meditate’, ‘consider’). Check for use in simple and complex events.

15. Perception middle (‘see’, ‘hear’, touch’, ‘taste’, ‘smell’). Any connection with hierarchy in Viberg (1983) with regard to middle marking?
    (a) Intensional (‘intend’, ‘plan’, ‘try’)

16. Spontaneous events
    (a) Motion (‘rock’, ‘swing’, ‘oscillate’, ‘waver’, ‘droop’, ‘spin’, ‘revolve’, ‘rotate’); change of state (‘fall’, ‘sink’, ‘rise’, ‘spread out’, ‘approach’, ‘recede’)
    (b) Position (‘hang’, ‘float’, ‘be spread out’, ‘be draped’, ‘be hanging’, ‘be lying’)
    (c) Spontaneous events associated with:
        (i) animate beings (‘die’, ‘perish’, ‘drown’, ‘be born’, ‘hatch’, ‘grow’, ‘become [+ state]’)
        (ii) inanimate beings
            A. change of position/location (‘sink’, ‘rise’, ‘fall’). May be extended from body action verbs above.
            B. change of shape (‘swell up’, ‘puff up’, ‘expand’, ‘contract’, ‘spread out’, ‘lengthen’, ‘shorten’, ‘stretch’, ‘widen’)
            C. physico-chemical change (‘burn’, ‘cook’, ‘bake’, ‘ripen’, ‘rot’, ‘boil’, ‘melt’, ‘freeze’, ‘heat’, ‘cool’, ‘evaporate’, ‘dissolve’)

D. partial disruption of object's material integrity ('break', 'snap', 'crack', 'rip', 'tear', 'rupture', 'split', 'erode', 'erupt')
E. global disruption of object's material integrity ('burst', 'smash', 'explode', 'disintegrate', 'collapse', 'shatter', 'fall apart')
F. existential change/denaturement ('vanish', 'disappear', 'evaporate', 'dissipate', 'disintegrate', 'dissolve', 'arise', 'develop', 'originate')
G. object-specific: substance [state with respect to another substance coming into contact] ('saturate'); container [with respect to contained substance] ('flood', 'fill', 'empty'); port ('open', 'close'); general ('change', 'become/turn [+ specified state]', 'develop')
H. property of activities ('begin', 'end', 'start', 'finish', 'stop', 'succeed', 'take' (e.g. a tree graft))
I. inanimate state ('join', 'divide', 'branch', 'split' (waves etc.), 'split off', 'fork')

(iii) inanimate state/activity impinging on human sensory organs: visual ('flash', 'shimmer', 'twinkle', 'shine', 'glow', 'flicker'); auditory ('ring', squeak', 'rattle', 'sound'); tactile ('scratch', 'sting', 'burn', 'pinch', 'squeeze', 'hurt')

(iv) property of inanimate entity filtered through cognitive interpretive mechanisms: visual ('appear', 'look', 'seem' (complement: 'good', 'like a', etc.))

May have general cognitive extension, beyond purely visual: auditory ('sound'), olfactory ('smell'), gustatory ('taste'), tactile ('feel')

Addendum 4. Basic-grammar questionnaire (adapted from Tucker 1974)

Questionnaire des Phrases

Noms……
Langue……..Age……Sexe…….Fonction……
Village/Territoire……

I. Applicatif

1. Pour qui fais-tu cuire la viande ?
Je la fais cuire pour mon mari.
2. Sarcles-tu pour le chef ?
Non, je ne sarcle pas pour le chef. Je sarcle pour mon père.
3. Ne sarcle pas pour ton père, sarcle pour le chef.
4. J'ai perdu ma femme et maintenant ma sœur fait la cuisine pour moi.
5. La femme a semé des pois pour moi.
Elle n'a pas planté le maïs pour les blancs.
6. Qui veut construire une maison pour les nouveaux venus ?
Ils ne la construiront pas pour eux-mêmes.
7. Les villageoises ont pilé le manioc pour les chasseurs dans un mortier.
8. Pour une fois les hommes ont pétri le *fufu* pour les femmes.
9. Les vendeuses vont peler les tubercules pour vous.
10. Le chef est mort ici, il n'est pas mort là-bas.

II. Causatif

1. L'homme s'est réveillé.
Je me suis réveillé tôt.
2. Le garçon a réveillé l'homme. Le coq m'a réveillé.
3. Le bébé tête le sein. La mère allaite le bébé.
4. Un veau est né ce matin.
Je suis né il y a longtemps.
5. La chèvre a mis bas un chevreau.
Cette femme a mis au monde beaucoup d'enfants.
6. Le garçon boit de l'eau.
Le médecin faisait boire au garçon un médicament.
7. Le bétail court.
Ne laisse pas ton chien faire courir le bétail.

8. Vos élèves ne nous obéissent pas. Fais que vos élèves nous obéissent.
9. Cette racine m'a fait trébucher plusieurs fois. Fais-la enlever.
10. La maison brûle ? Qui a mis le feu (à la maison) ?
11. Nous avions faim. Les villageois nous avons donné à manger. Ils nous ont transmis des poissons.
12. Son bras est plié. Il a plié son bras. Il l'a plié.
13. L'enfant se tient debout. Le père tient debout l'enfant.
14. La roue s'est arrêtée. La fille a arrêté la roue avec un bâton.

III. Voix moyenne/neutre

1. L'herbe brûle. Les gens brûlent l'herbe
2. Qui a ouvert la porte ?
Personne, elle s'est ouverte toute seule. Je vais la fermer.
3. Qui a cassé le pot ?
Ce n'est pas moi qui l'ai cassé. Il s'est cassé comme ça.
4a. L'eau s'est répandue sur la cour. L'enfant n'a pas renversé le seau.
4b. Le garçon a dénoué la corde. La corde s'est dénouée (toute seule).
5. Les vaches se sont détachées. Le pasteur ne les a pas détachées.
6. La maison s'est écroulée. Nous ne l'avons pas détruite.
7. Les arbres se sont abattus. Leurs travailleurs ne les ont pas abattus.
8. Cette affaire a déjà été expliquée. Je ne l'explique plus.
9. Le furoncle a éclaté. Elle ne l'a pas percé.
10. J'ai pendu les vêtements pour les sécher. Peux-tu les dépendre ? Ils ne se dépendront pas comme ça.
11. La fumée se répand dans la chambre.
12. La boue colle à ses pieds
13. Le maçon a plâtré la paroi, mais l'argile blanche ne colle pas bien au mur.
14. Ce fardeau ne peut pas être porté. Il est trop lourd.
15. Le train est parti depuis dix minutes, mais il est encore visible.
16. Cette marchandise n'est plus vendable. Elle est complètement pourrie.

IV. Réfléchi (sens large)

1. Je me vois.
Tu te vois.
Il se voit.
Nous nous voyons nous-mêmes.
Vous vous voyez vous-mêmes.
Ils se voient eux-mêmes
2. Je le ferai moi-même.
Tu le feras toi-même.
Il le fera lui-même.

Nous le ferons nous-même.
Vous le ferez vous-même.
Ils le feront eux-mêmes.
3. Les étudiants se sont lavés d'abord ; puis ils se sont rasés ; ensuite ils se sont habillés ; enfin ils se sont peignés.
4. Le roi s'aime beaucoup. Il se loue tout le temps et il se fait louer.
5. Nous devons nous défendre. Je me suis toujours défendu contre les attaques. Nous nous protégerons contre ces bandits.
6. D'abord tu t'es couché, puis tu t'es assis, ensuite tu t'es agenouillé, après tu t'es accroupi, enfin tu t'es mis debout.
7. Il s'est tapé la tête, puisqu'il s'est fait volé par deux voleurs.
8. Il s'est frappé la tête contre le mur. Il s'est blessé ainsi.
9. Vous vous êtes d'abord tournés, puis vous vous êtes inclinés, ensuite vous vous êtes promenés jusqu'à la chaise, après vous avez sauté vers la table et enfin vous vous êtes appuyés contre la table.
10. Les notables ne se souvenaient pas de cette bataille.
11. Le clan avait honte pour cette défaite. Il s'effrayait pour l'ennemi.
12. L'enfant se coupera les doigts avec ce grand couteau.
13. Je voudrais voir le professeur lui-même Je l'aime pour lui-même.

V. Réciproque

1. Nous nous voyons les uns les autres.
Vous vous voyez les uns les autres.
Ils se voient les uns les autres.
2. Les deux ennemis se sont battus dans le foyer de sa maison.
3. Mon père et ma mère sont mariés il y a très longtemps.
4. Mon père s'est marié avec ma mère il y a très longtemps.
5. Les deux filles se rencontreront à l'école.
6. Ma femme et moi nous nous aimons beaucoup.
7. Les léopards se sont tués.
8. Les femmes se sont partagées les vêtements.
9. Si vous vous pardonnez, vous vous entendrez mieux.
10. Ne séparez pas ces enfants l'un de l'autre.
11. Les termites se succédaient dans une longue queue le long de la route.
12. Ils voyaient un grand groupe d'enfants qui se suivaient.
13. Les vieilles femmes plantent d'habitude du mil les unes pour les autres.
14. Le voleur entassait les noix de palme les unes sur les autres.
15. Le fils ressemble vraiment au père.
16. Ces voisins s'insultent tout le temps.

VI. Passif

1. Qui a tué l'antilope ? L'antilope a été tuée par le chasseur. Le pêcheur ne l'a pas tuée.
2. Pourquoi l'enfant pleure-t-il ? A-t-il été battu ? Il a été battu par qui ? Il a été battu par son père. Il a été battu avec quoi ? Il a été battu avec une canne.
3. Pourquoi ris-tu ? Je ris parce que mon frère a été piqué par une abeille.
4. Tout notre argent a été volé.
5. Où est la viande ? Elle a été mangée. Elle a été mangée par qui ? Mangée par le chien
6. Tout le monde au village a été brûlé et toutes les cases ont brûlé.
7. Le pot a été cassé par la potière elle-même. L'eau a été renversée par moi.
8. Cette corde a été défaite par l'un ou l'autre garçon.
9. On a soigné ce malade en vain depuis deux ans, il est toujours malade.
10. La table a été faite par notre menuisier. On ne l'a pas fabriquée en Europe.
11. Ces *chikwangues* ont été préparés pour nous. Ce n'est pas pour vous qu'ils ont été faits.

VII. Réversif

1. Il s'habille.

Il se déshabille pour se laver.

2. Elle a attaché la chèvre à cet arbre.

Elle a détaché la chèvre de cet arbre

3. Tu as ouvert la porte.

Tu as fermé la porte

VIII. Intensif

1. J'ai plié le drap (une fois) J'ai plié le drap (plusieurs fois)
2. J'ai déchiré le pagne en deux morceaux J'ai déchiré le pagne en petits morceaux.
3. Ta chemise est déchirée en petits morceaux
4. Sa robe est en lambeaux.
5. Coupe ce tubercule de manioc. Coupe-le en plusieurs morceaux.
6. La souris a mordu mon doigt. La souris a rongé le bois.
7. Pourquoi le bébé pleurniche-t-il ? Il est peut-être malade.
8. Il m'a raconté cette histoire à plusieurs reprises.
9. Son travail consiste à tailler les feuilles de palme.
10. Tu ne devrais pas étendre cette natte par terre.

IX. Directionnel

1. Va ! Cours ! Reviens ! Viens ! Retourne !
2. Allez ! Courez ! Revenez ! Venez ! Retournez !
3. Emporte la nourriture ! Rapporte-la
4. Apporte l'eau ! Remporte-la !
5. Rends-moi l'argent ! Rends-lui l'argent !

6. Pousse la bûche loin de moi ! Rends-lui l'argent !
7. Grimpe à cet arbre ! Redescends !
8. Descends dans ce puits ! Remonte !
9. Le lézard est monté à cet arbre et est redescendu ! Le lézard est descendu dans le puits et en est remonté.
10. La voiture est partie … hier et arrivera ici demain.
11. La voiture est partie d'ici hier et arrivera à … demain.
12. Où l'as-tu attrapé ? Par où est-il passé ? Par où ne peut-il pas passé ?
13. Où va-t-il ? D'où vient-il ?

X. Instrumental

1. A quoi sert cette pierre ? Elle sert à moudre le grain
2. A quoi utilises-tu ce coupe-coupe ? Je m'en sers pour couper le bois.
3. Avec quoi coupes-tu ce bois ? Je le coupe avec la hache de mon oncle maternel.
4. Les guerriers utilisent des lances pour le combat.
5. Les forgerons utilisent du charbon de bois pour fumer.
6. Les lances sont utilisées par les guerriers pour combattre.
7. Le charbon de bois est utilisé par les forgerons pour fumer.
8. Je veux un couteau pour tuer un poulet.

XI. Noms dérivés/composés

1. Travailler est bien, voler est mal.
2. Un…aime dormir Les hommes aiment chasser et pêcher
3. La cuisine est le travail des femmes. L'abattage des arbres est le travail des hommes.
4. Je n'aime pas sarcler.
5. Vérité
Mensonge
Nourriture
Travail
Ivresse
6. Cuisinier(s)
Travailleur(s)
Pêcheur(s)
Chasseur(s)
Tailleur(s)
Bûcheron(s)
Menteur(s)
Ivrogne(s)
7. Ustensile(s) de cuisine
Maillet(s)
Pince(s)

Instrument(s) pour pincer
Aiguille(s)
Pincette(s)
8. Lieu(x) pour faire la cuisine
Lieu(x) pour manger
9. Terrains de chasse
Terrains de pêche
10. Endroit(s) sablonneux
Endroit(s) boueux
Endroit(s) rocheux
11. Lieu(x) de travail
Ateliers

XII. Cas

1. a. Chef (*mfumu*)
   b. Notre chef.
   c. Le chef du village.
   d. Le chapeau du chef.
   e. Le chef est grand.
   f. Le chef a beaucoup de pouvoir.
   g. Le chef a tué un lion.
   h. Nous aimons le chef.
   i. Nous avons cuisiné pour le chef.
   j. Nous avons rencontré le chef. Nous sommes venus du chef et nous rentrons au chef.

2. a. Guérisseur (*nganga*)
   b. Notre guérisseur.
   c. Le guérisseur du village.
   d. Le sachet du guérisseur.
   e. Le guérisseur est grand.
   f. Le guérisseur a beaucoup de pouvoir.
   g. Le guérisseur a guéri le malade.
   h. Nous aimons le guérisseur.
   i. Nous avons cuisiné pour le guérisseur.
   j. Nous avons rencontré le guérisseur. Nous sommes venus du guérisseur et nous rentrons au guérisseur.

3. a. Queue (*nkila*)
   b. Sa queue.
   c. La queue de l'éléphant.
   d. Les cheveux de la queue.

e. La queue est longue.
f. La queue traîne par terre.
g. Le chasseur a coupé la queue
h. Il y a beaucoup de mouches sur la queue.

4. a. Nez (*mbombo*)
b. Mon nez.
c. Le nez du garçon.
d. Les narines du nez. Les cheveux du nez.
e. Le nez est grand.
f. Le nez s'est cassé.
g. Il s'est cassé le nez.
i. J'aime mon nez.
j. J'ai un furoncle/une mouche sur le nez.

XIII. Pronoms

1. Nous (toi et moi) toi (masc. et fém.)
nous (toi et nous) vous (deux)
nous (sans toi) (exclusif) vous (plus de deux)
2. Mon frère et moi nous viendrons demain. Je veux vous voir vous et votre frère.
3. Envoyez-moi Pierre et Paul
4. Je te vois tu me vois il me voit, elle me voit
Je le/la vois tu le/la vois il le/la voit, elle le/la voit
Je vous vois vous me voyez ils me voient
Je les vois tu les vois ils le voient
Nous nous voyons vous nous voyez ils nous voient
Nous les voyons vous les voyez ils les voient
5. Il pleut, c'est évident, c'est bien connu.
Il appartient au chef d'aider son peuple.
6. Mon frère dit qu'il est malade.
Ma mère dit qu'il n'est pas malade, mais seulement paresseux, et que mon père doit le battre.
7. Ma sœur dit qu'elle n'a pas volé la viande, mais que c'est le chien qui l'a prise.
Mon père dit qu'elle raconte des mensonges ; elle l'a volée elle-même.
8. Mon frère dit que sa femme l'a quitté, et qu'il veut la suivre et la battre.
Ma sœur dit que sa femme l'a quitté parce qu'il la bat toujours.
9. Le chef a dit : « Payez-moi dix vaches ! ».
Le chef a dit que je dois lui payer dix vaches.
Le chef a dit que je dois lui (à l'autre homme) payer dix vaches.
10. Le chef a dit « je suis fâché contre toi parce que tu es un menteur ».
Le chef a dit qu'il était fâché contre toi parce que tu étais un menteur. Fâché contre moi…

11. Qui m'appelle ? Qui appelles-tu ? (pl)
12. A qui est ce bâton ? Le bâton de qui désires-tu ?
A qui sont ces bâtons ? Les bâtons de qui désires-tu ?
13. Qu'est-ce que c'est ? Que sont ces choses-ci ?
14. Que veux-tu ? Qu'a-tu dit ?
15. Qu'est-ce qui a fâché ton père ? Lequel t'a frappé ? Lequel désires-tu ?
16. Cet homme…….femme…….lance……maison……..enfant…….-ci (près de moi)
cet homme (là, proche de toi)……
Ceux-ci……Ceux-là

XIV. Possessif

1. La tête de l'homme. Une tête humaine. La tête de l'éléphant. Une tête d'éléphant.
La défense de l'éléphant. Ivoire. Un os de chien. L'os du chien
2. Une lance d'homme (nom de la tribu). Une lance (de la tribu).
3. C'est le bouclier du chef. C'est un bouclier en buffle.
4. Le bâton est à moi. Où est le tien ? Je n'en ai pas. C'est le sien.
5. Ces bâtons sont les miens, ces bâtons sont les tiens, ces bâtons sont les siens, ces bâtons sont les nôtres, ces bâtons les vôtres, ces bâtons sont les leurs
6. Un… a perdu sa houe. Un… bat son enfant
7. Ceci est mon pied Cela est ton pied Ce son pied Ce sont leurs pieds
Ce sont mes pieds Ce sont nos pieds Ce sont vos pieds
8. C'est une patte de chèvre C'est une aile d'oiseau
9. Ceci est ma lance Cela est ta lance Cela est sa lance
Ce sont là leurs lances Ce sont là vos lances Ce sont là nos lances
10. C'est ma tête C'est ta tête C'est sa tête
Ce sont nos têtes. Ce sont vos têtes Ce sont leurs têtes

XV. Relatif et Participe

1. J'ai donné de l'eau au mourant
2. J'ai vu un chien mort dans la hutte
3. L'homme qui est mort était mon frère
4. Je l'ai trouvé mort
5. Ne réveillez pas les chiens qui dorment
6. Les chiens qui dorment n'aboient pas
7. Je les ai vues manger de la viande
8. Ils m'ont vu manger de la viande
9. Envoyez-moi un garçon qui parle bien
10. Envoyez-moi le garçon qui pleure
11. L'homme qui a tué l'étranger était le fils de notre chef
12. L'homme que tua l'étranger était le fils de notre chef

13. L’enfant arrive en chantant. Un enfant chantant arrive
14. Les années passées ont été chaudes Les années passées n’ont pas été chaudes
15. Son bras cassé lui fait mal
16. Arrivé en retard, il n’a pas mangé. Qu’il vienne manger
17. Qu’ils aient volé de l’argent, cela ne nous regarde pas
18. Elle chante en pilant Elle ne chante pas en pilant
19. Il tresse une natte tout en me racontant une histoire

XVI. Conjugaison des personnes

1. Je mange de la viande J’ai mangé de la viande Je mangerai de la viande
2. Tu manges de la viande Tu as mangé de la viande Il mangera de la viande
3. Il mange de la viande Il a mangé de la viande Il mangera de la viande
4. Nous mangeons de la viande. Nous avons mangé de la viande. Nous mangerons de la viande
5. Vous mangez de la viande vous avez mangé de la viande. Vous mangerez de la viande
6. Ils mangent de la viande Ils ont mangé de la viande Ils mangeront de la viande
7. L’homme mange de la viande
8. Les gens mangent de la viande
9. Tu le trompes de nouveau Tu les trompes encore
10. Trompons le de nouveau Trompons le encore

XVII. Présent continu et inaccompli

1. Que fais-tu ? Je ne fais rien. Que faites-vous ? Nous ne faisons rien
2. Je suis assis Je marche Je sarcle Je fais la cuisine
3. Tu es assis Tu marches tu sarcles tu fais la cuisine
4. Il est assis Il marche Il sarcle il fait la cuisine
5. Nous sommes assis. Nous marchons Nous sarclons Nous faisons la cuisine
6. Vous êtes assis Vous marchez Vous sarclez Vous faites la cuisine
7. Ils sont assis Ils marchent Ils sarclent Ils font la cuisine
8. Que font les gens ? Les gens dansent Les gens dorment Les gens boivent de la bière
Les gens mangent Les gens construisent une maison Les gens se querellent
9. Les gens se battent-ils ? Non, ils ne se battent pas, ils dansent.
10. Dors-tu ? Dormez-vous ? Non, je ne dors pas, je suis seulement couché.
Il dort déjà. Non, nous ne dormons pas. Nous sommes seulement couchés.
11. Que cuisines-tu ? Je fais cuire de la viande.
Ta femme fait-elle cuire de la viande ? Non, elle ne fait pas cuire de la viande, elle fait cuire du poisson.
12. Finis-tu le travail ? Je finis le travail. Je ne finis pas encore le travail.
Je n’ai pas fini le travail.

XVIII. Passé et parfait

1. As-tu vu mon fils hier ? Oui, je l'ai vu Non, je ne l'ai pas vu.
Je ne l'ai pas vraiment vu.
2. Vois-tu la voiture là-bas ? Oui, je la vois Non, je ne la vois pas.
Peux-tu voir quelque chose là-dedans ? Oui, je peux. Non, je ne peux pas
Voix-tu dans le noir ? Oui, je vois dans le noir. Non, je ne vois pas dans le noir.
3. As-tu moulu le maïs hier ? Oui, je l'ai moulu. Non, je ne l'ai pas moulu.
4. Qu'as-tu fais ce matin ? J'ai moulu du maïs.
As-tu moulu du maïs ce matin ? Oui, j'ai moulu du maïs. Non, je n'en ai pas moulu.
5. Qu'as-tu tué hier ? Je n'ai rien tué. J'ai seulement tué un rat.
6. Qu'as-tu vu au village ? Je n'ai vu personne. J'ai seulement vu un vieillard.
7. Qui t'a vu aller au village ? Personne ne m'a vu.
Seul un petit garçon m'a vu. Il t'a sûrement vu Il est certain qu'il t'a vu.
8. Quand le chef est-il venu ? Il est venu hier. Il n'est pas venu hier.
Est-il déjà venu ? N'est-il pas déjà venu ? Il n'est pas encore venu.
Il n'est pas venu du tout. Il est venu en vain, le chef était déjà parti.
Il était venu juste quand le chef allait partir.
9. As-tu fini le travail ? Oui, j'ai fini. Non, je n'ai pas fini.
10. Ont-ils trait la chèvre maintenant ? Oui, ils l'ont traité. Non, ils ne l'ont pas traité.
11. As-tu vu mon champ ? Ma femme a-t-elle pilé le manioc maintenant ?
Non, elle n'a pas encore pilé le manioc. Oui, elle en a certainement pilé.
12. Les gens ont-ils mangé toute la nourriture ? La femme a-t-elle fait cuire la nourriture ?
Ils en ont peut-être mangé. Ils en ont certainement mangé.
13. Le malade a-t-il pris ses médicaments ? (réponse positive et négative)
N'a-t-il pas mangé le poisson ? Il n'a pas encore mangé le poisson, il est toujours malade.
Il mange déjà le poisson.
Avais-tu mangé le poisson ? Non, je n'avais pas mangé le poisson, je n'avais pas faim.
Oui, j'avais mangé le poisson. Il avait tout mangé. Il n'a mangé que ce matin.
Il avait mangé depuis très longtemps. Il n'a pas mangé ce matin.

XIX. Narratif

1. Hier, je suis allé au village, j'ai acheté de la viande, je l'ai portée à la maison à ma femme, je lui ai dit de la faire cuire, elle l'a fait cuire et nous l'avons mangée.
2. Demain, j'irai au village, j'achèterai de la viande, je l'apporterai à la maison à ma femme, je lui dirai de la faire cuire, elle la fera cuire et nous la mangerons.

XX. Futur

1. Ta vache est morte. Que vas-tu faire ? Je ne ferai rien.
Ma vache est morte. Que vais-je faire ? Tu ne feras rien.
Notre vache est morte Qu'allons-nous faire ? Nous ne ferons rien.
2. Veux-tu voir le guérisseur ? Arrivera-t-il ici demain ? Oui, il arrivera.

Non, il n'arrivera pas ici demain mais après-demain.
3. Travailleras-tu pour le chef aujourd'hui ou demain ? Je travaillerai pour lui demain ; aujourd'hui je vais me reposer.
4. Qui ira ? J'irai Mr…ira Personne n'ira Tout le monde ira.
5. Pleuvra –t-il ? Oui, il pleuvra Non, il ne pleuvra pas.
Il ne pleuvra peut-être pas Il n'est pas certain qu'il pleuvra aujourd'hui

XXI. Présent
1. Que font les hommes de la (nom de la tribu) ?
Les hommes rassemblent le bétail, sarclent les jardins.
Ce sont les hommes qui chassent et font la pêche.
Que font les femmes (nom de la tribu) ? Les femmes font cuire de la nourriture.
Ce sont les femmes qui pilent et vont chercher de l'eau.
2. Que mangent les enfants ? Les enfants mangent du poisson.
3. Les enfants boivent-ils de la bière ? Non, les enfants ne boivent pas de bière, ils boivent du lait.
4. Les (nom de la tribu) mangent-ils du python ? Non, ils ne mangent pas de python, ils mangent du gibier.
5. Ce garçon dort (maintenant). Ce garçon est endormi maintenant.
Ce garçon dort tous les jours. Ce garçon dort alors qu'il devrait travailler.

XXII. Progressif
1. Viens-tu avec moi ? Non, je ne sais pas, je suis en train de travailler.
2. Où est ta femme ? Elle est dans la cuisine, elle est en train de cuisiner.
Où sont les femmes ? Elles sont en train de cultiver.
3. Je n'ai pas vu ton père aujourd'hui. Il est en train de chasser. Il est en train de garder le bétail.
4. Il fait quel temps ? Il est en train de pleuvoir.
5. C'est quoi ce bruit ? Les ouvriers sont en train de construire le chemin de fer. Les enfants sont en train de jouer.

XXIII. Persistif
1. Il était encore en train de manger, quand son frère est entré.
2. Parce-que nous n'avons pas d'argent, nous sommes encore en train de vendre des légumes.
3. Pourquoi ne sont-ils pas encore rentrés ? Ils sont encore en train de fêter. Ils sont encore en train de travailler.
4. Pourquoi tu n'es pas venu chez moi ? J'étais encore chez ma famille.

XXIV. Anterior/perfect
1. Est-ce que tu as déjà rencontré mon frère ?

2. Le chef a mangé de trop. Le chef a bien mangé. Le chef est décédé.
3. Ma mère a travaillé toute la journée, elle est fatiguée.
4. Les ouvriers ont travaillé toute la journée, ils sont fatigués.
5. Je suis marié depuis vingt ans.

XXVa. Pluractional et habituel

1. Les femmes se réunissent souvent.
2. Nous discutons souvent. Ils discutent souvent.
3. Les petits enfants pleurent souvent.
4. Il a l'habitude de frapper ses animaux.
5. Tu as l'habitude de boire trop.
6. Elle a l'habitude de chanter pendant qu'elle cuisine.

XXVb. Impératif et subjonctif

1. (sg et pl) Chante ! Qu'est-ce que je vais chanter ? Chante un air de danse !
Puis-je chanter ? Non, ne chante pas, sois calme, mon père dort.
Qu'elles chantent si elles en ont envie
2. Fais cuire ! Que ferai-je cuire ? Fais cuire de bouillie !
Ferai-je cuire la pintade que les Européens ont tuée ? Oui, fais-la cuire !
Non, ne la fait pas cuire ! Dis au cuisinier de ne pas cuire la viande mais de cuire du poisson.
3. Viens avec moi ! Non, je ne peux pas venir avec toi, je dois rester à la maison.
4. Pars tout de suite, tu vas être en retard. Ne pars pas de tout de suite, il va pleuvoir

XXVI. Prédicat non-verbal et les verbes « être, avoir ».

1. Mon père est un (nom de la tribu) ; ma mère est une….
2. Es-tu un …Non, je ne suis pas un…Je suis un…
3. Est-il un… Non, il n'est pas un….il est un…
4. Sommes-nous des…Non nous ne sommes pas de… Nous sommes des…
6. Je ne suis pas une femme, je suis un homme.
Nous ne sommes pas des femmes, nous sommes des hommes.
7. Ce n'est pas un homme ; c'est une femme.
Ce ne sont pas des hommes, ce sont des femmes.
8. Cet homme n'est pas un guerrier, il est forgeron.
Ces hommes ne sont pas de guerriers, ce sont des forgerons.
9. Ma maison est grande ; la tienne est petite.
10. Nos vaches sont grandes, les leurs sont petites.
11. Pourquoi la nourriture est-elle si rare ? Parce qu'il n'y a pas beaucoup d'argent.
12. Tous ces ouvriers sont mauvais ; les ouvriers de l'autre village sont bien.
13. Mon vêtement est noir, celui de ma sœur est blanc.
Les européens sont blancs. Les…sont noirs.

14. Un éléphant est-il grand ? Oui, il l'est. Est-il noir ? Oui, il l'est.
15. Un chat sauvage est-il grand ? Non, un chat sauvage n'est pas grand ; il est petit.
Un chat sauvage est-il noir ? Non, un chat sauvage n'est pas noir, il est rouge.
16. Un buffle est-il grand ou petit ? Un buffle est grand.
Le buffle que tu as tué était-il aussi grand qu'un éléphant ?
Non un éléphant est plus grand qu'un buffle.
L'éléphant est le plus grand de tous les animaux.
17. Où es ton frère ? Mon frère est à la maison, ….dans la concession
18. Ton père est-il à la maison ? Non, il pas à la maison, il est dans le champ.
19. Y a-t-il de l'eau dans le puits ? Oui, il y en a ; non, il n'y en a pas.
Y a-t-il des œufs ? il y en a . Non, il n'y en a pas. y a-t-il un trou dans le panier ?
Oui, il y en a ; non, il n'y en a pas.
20. J'ai une lance. tu n'as pas de lance Il a beaucoup de lances.
21. Je n'ai qu'un œil. Tu as deux yeux Un ver de terre n'a pas d'yeux.
22. As-tu un couteau ? Oui, j'en ai un, non, je n'en ai pas
23. Cet homme a-t-il un bouclier ? Oui, il en a un. Non, il n'en a pas.
24. Le chef a beaucoup de bétail. L'esclave n'a pas de bétail.
25. Combien de femmes as-tu ? J'en ai une seule.

XXVII. Qualificatifs

1. Cette houe est mauvaise, trouve m'en une autre. Ces houes sont mauvaises.
Nous en voudrions d'autres (de la même sorte) C'est une mauvaise sorte de houe.
Apporte m'en une autre apporte-nous en différentes sortes.
2. Cette nourriture est bonne. Apporte-m'en encore. Cette viande est pourrie.
Apporte un autre morceau.
3. Je ne veux pas un couteau émoussé, je le veux tranchant. Ce couteau n'est pas aiguisé.
Il est émoussé ; je ne le veux pas émoussé, je le veux tranchant.
4. Ne me donne pas de la mauvaise nourriture, donne-moi de la bonne nourriture.
5. Ces œufs ne sont pas bons, ils sont mauvais ; donne-m'en d'autres.
Les œufs que tu m'as donnés sont finis, apporte m'en d'autres.
6. Une femme bonne. Des femmes bonnes Une femme belle. Des femmes belles
Une femme jalouse. Des femmes jalouses Une femme dure. Des femmes dures
Une grande femme Une petite femme. Une autre femme. Une femme différente. (pl)
Toutes les femmes Chaque femme
7. Je vois un grand lion. Regarde le grand lion (pl).
8. J'ai construit une grande maison. Les…. construisent de petites maisons.
9. Tu as acheté une petite vache ? Les… aiment le grand bétail.
10. Pourquoi n'as-tu fait cuire qu'un peu de nourriture ?
Parce que tu ne m'as pas donné beaucoup d'argent.
11. Nous ne payons pas les mauvais ouvriers, seulement les bons.

12. Je ne veux pas un vêtement blanc, j'en veux un noir.
13. J'ai acheté des chèvres noires, mon frère en a acheté des blanches.
14. Quel couteau veux-tu ? Je veux le neuf. Quelle sorte de couteau veux-tu ?
Je veux un couteau à viande.
15. Quel sentier dois-je prendre ? Prends celui de droite (de gauche).
16. Combien de couteaux as-tu ? J'en ai beaucoup.
17. Combien de nourriture y a-t-il dans le garde-manger ? Beaucoup.
18. Combien de lion as-tu vu ? J'ai vu un lion. J'ai vu deux lions. Il a vu trois lions.
19. Combien de lion y avait-il là ? Il y avait quatre lions. Le premier lion m'a vu.
Le second lion t'a vu. Le troisième lion l'a vu. Le dernier lion est parti.
20. Combien de fois es-tu allé chez le chef ? J'y suis allé souvent.
21. Combien de coups (de bâton) t'ont-ils donné ? Ils m'ont donné beaucoup de coups.
22. Tout le monde est venu. Chacun portait sa nourriture.
Le chef a donné de la nourriture à chaque personne qui le lui demandait.
23. Tous les hommes se plaignaient. Seules les femmes étaient contentes.

XXVIII. Conditionnel

1. Si j'y vais, je serai battu. Si tu restes ici, tu seras tué.
2. Si j'y étais allé hier, j'aurais été tué.
3. Si j'étais resté à la maison, nous n'aurions pas été molestés.
4. Si l'enfant pleure, je lui donnerai du lait.
5. Si l'enfant ne pleure pas, ne lui donnerai pas de lait.
7. Si l'enfant n'avait pas pleuré, je ne lui aurais pas donné du lait.
8. Si tu avais bu cela, tu serais mort.
9. Il ferait cela pour moi. Il ne ferait pas ça pour moi.
10. Il pourrait tuer son frère pour de l'argent.
Il n'aurait pas pu tuer son frère pour de l'argent.
11. Nous ne l'aurions pas rencontré, nous aurions souffert en vain.
Nous l'aurions rencontré même si nous n'avions pas souffert.

XXIX. But et Résultat

1. Il est parti pour boire de l'eau.
2. Je suis venu pour voir ma sœur.
3. Il a pris la lance pour tuer du gibier avec.
4. La vieille femme a donné à son fils du poison pour qu'il meure.
5. Il a battu son fils si fort qu'il est mort.
6. Le chien a mangé tellement de viande qu'il en est tombé malade.
7. Elle a mis du poison dans ma nourriture pour me tuer, mais ça n'a pas réussi.
8. Il m'a jeté un sort pour que je sois malade, mais je me porte toujours bien.

XXX. Adverbial

1. Reste là, près de moi. Reste là près de lui Reste là-bas, où je ne te vois pas. Va t'en.
2. Comment chantent les enfants ? Ils chantent bien. Ils chantent mal.
3. Quand chantent les enfants ? Ils chantent le matin.
4. Pourquoi ne chantes-tu pas ? Je ne chante pas pour cause de maladie. Je ne chante pas parce que je suis malade.

XXXI. Optatif

1. Pourvu qu'il vienne ! Puissé-je vivre longtemps ! Que je vive longtemps !
2. Que la danse commence !
3. Je souhaite qu'il meure pour tout le mal qu'il m'a fait. Je ne souhaite pas qu'il meure malgré le mal qu'il m'a fait.
4. Puisses-tu mourir pour tout le mal que tu m'as fait ! Qu'il ne meure pas malgré le mal qu'il m'a fait.

XXXII. Concessif

1. Il est venu malgré la maladie. Il est venu bien qu'il soit malade.
2. Bien que sa case soit loin, je le visite tous les jours. Bien que sa case ne soit pas loin, je le visite tous les jours.
3. Il m'a frappé alors que je n'avais rien fait.
4. Bien qu'ils soient sept, ils traînent à faire ce travail.
5. Il est exactement le troisième mais il ne peut pas faire ce travail.
6. Bien qu'il soit le troisième, il ne peut pas faire ce travail.
7. Ils sont exactement sept, mais ils ne peuvent pas faire ce travail.

XXXIII. Inchoatif

1. Il commença à crier à cause d'une blessure qui lui faisait mal.
2. La femme se lève, menaçant l'enfant et se met à l'injurier.

XXXIV. Ingressif

1. Il se met à travailler Il ne se met pas à travailler Il s'est mis au travail
2. Il se mit à boire Il ne se mit pas à boire mais à danser
3. Elles se sont mises à pleurer

XXXV. Dubitatif

1. Je crois qu'il est venu hier Peut-être qu'il est venu hier
2. Je me demande s'il viendra Je crois qu'il va venir
3. Il va peut-être pleuvoir Il ne va peut-être pas pleuvoir

XXXVI. Potentiel

1. Nous pouvons venir Nous ne pouvons pas venir Je ne peux pas venir

2. Il est capable de marcher malgré sa maladie.
Il n'est pas capable de marcher à cause de sa maladie.
3. Il ne peut pas lire, il est aveugle Il peut lire, il n'est pas aveugle
4. Il ne peut pas parler, il est muet Il peut parler, il n'est pas muet

XXXVII. Permissif

1. Puis-je venir demain ? Pourrai-je venir avant l'heure ?
2. Est-ce que je peux aller jouer avec toi ? Est-ce que je pourrai aller jouer avec toi ?
3. Tu peux partir, le chef permet qu'on s'en aille.
4. Tu ne peux pas partir, le chef ne le permet pas.
Tu ne pourras pas partir, le chef ne le permet pas.

XXXVIII. Injonctif/Prohibitif

1. Chantez plus for Ne chantons pas, il dort
2. Qu'il parte, je ne veux plus le voir Qu'il ne parte pas, je dois le voir
3. Partons, c'est l'heure Ne partons pas sans lui
4. Partez vite Ne partez pas maintenant
5. Qu'ils ne partent pas sans aller voir le chef

XXXIX. Volitif

1. S'il veut venir, il le verra
2. Il veut venir. Il voulait venir et il n'a pas pu
3. Il a voulu sauter et il est tombé

XXXX. Intentionnel

1. Il est venu dans l'intention de le voir. Il n'est pas venu dans l'intention de le voir
2. Il a l'intention de venir voir. Il n'a pas l'intention de venir voir
3. Il avait l'intention de venir nous voir Il n'avait pas l'intention de venir nous voir

XXXXI. Augmentatif/Diminutif

1. Il mange de plus en plus. Il mange de moins en moins
2. Mon frère grossit de plus en plus. Mon frère devient de plus en plus maigre
3. Tous les jours, le fleuve monte un peu plus
4. Il est chaque jour plus malade
5. Il travaille de moins en moins

XXXXII. Montée et Contrôle

1. La réunion a duré longtemps. La réunion semble avoir duré longtemps.
2. Il semble que la réunion a duré longtemps.
3. Richard croit avoir trouvé la solution. Richard croit que la solution est trouvée.
4. La solution semble être trouvée.

5. Richard croit son fils rentré à la maison. Richard croit que son fils est rentré à la maison.
6. Ils se croient à la maison. Ils croient qu'ils sont à la maison.
7. Ils croient que Richard est à la maison. Ils croiront que Richard est à la maison.
8. Ils se croiront à la maison.
9. Il est facile de contenter Richard. Il n'est pas facile de contenter Richard.
10. Jean souhaite épouser Marie. Jean et Marie souhaitent se marier.
11. Jean pense épouser Marie Jean pense que lui et Marie se marieront.
Jean pensait que lui et Marie se marieraient.
12. Marie estime que Jean a raison. Marie estimait que Jean avait raison.
13. Marie a supplié Paul de s'entendre avec Jean. Marie a conseillé Paul de s'entendre avec Jean.
14. Marie m'a supplié de m'entendre avec Jean. Marie m'a conseillé de m'entendre avec Jean.
15. Ils veulent la guerre. Ils ne veulent pas obéir.
16. Je pense traverser la rivière le matin.
17. Je pense que Jean traversera la rivière le matin.
18. Je pense que Jean et Paul traverseront la rivière le matin.
19. Je pense que Jean fera traverser à Paul la rivière le matin.
20. Je pense que je traverserai avec Jean et Paul la rivière le matin.
21. Jean et Paul pensent traverser avec moi la rivière le matin

Addendum 5. Tense and aspect questionnaire

1. Identification

Je suis pêcheur.	J'étais pêcheur.	Je serai pêcheur
Tu es pêcheur.	Tu étais pêcheur.	Tu seras pêcheur.
Il est pêcheur.	Il était pêcheur.	Il sera pêcheur.
Nous sommes des pêcheurs.	Nous étions des pêcheurs.	Nous serons des pêcheurs.
Vous êtes des pêcheurs.	Vous étiez des pêcheurs.	Vous serez des pêcheurs.
Ils sont des pêcheurs.	Ils étaient des pêcheurs.	Ils seront des pêcheurs.

2. Attributif possessif

J'ai une chèvre.	J'avais une chèvre.	J'aurai une chèvre.
Tu as une chèvre.	Tu avais une chèvre.	Tu auras une chèvre.
Il a une chèvre.	Il avait une chèvre.	Il aura une chèvre.
Nous avons des chèvres.	Nous avions des chèvres.	Nous aurions des chèvres.
Vous avez des chèvres.	Vous aviez des chèvres.	Vous auriez des chèvres.
Ils ont des chèvres.	Ils avaient des chèvres.	Ils auront des chèvres.

3. Identification possessif

	…, mais je l'ai vendu	Quand j'ai assez d'argent pour l'acheter, …
La chèvre est la mienne.	La chèvre était la mienne.	La chèvre sera la mienne.
La chèvre est la tienne.	La chèvre était la tienne.	La chèvre sera la tienne.
La chèvre est la sienne.	La chèvre était la sienne.	La chèvre sera la sienne.
Les chèvres sont les nôtres.	Les chèvres étaient les nôtres.	Les chèvres seront les nôtres.
Les chèvres sont les vôtres.	Les chèvres étaient les vôtres.	Les chèvres seront les vôtres.
Les chèvres sont les leurs.	Les chèvres étaient les leurs.	Les chèvres seront les leurs.

4. Présent général

(Que mangent les lions ?) Les lions mangent de la viande.
Les femmes cultivent (le champ).
Tumba aime le *fufu*.
Pépé fume la pipe.
Je ne parle pas le kiyombe. Ma sœur parle le kiyombe.
Ernest joue le tambour. Il est même un membre de la chorale.
(C'est la coutume que) le mari donne une dot à la famille de son épouse.
Mes poules ne pondent pas (du tout).
Les pêcheurs utilisent des pirogues et des nasses pour la pêche.
Les crocodiles chassent le long de la rivière.

L'hippopotame est dangereux.
Il écrit avec sa main gauche/droite.
L'homme sens avec son nez.
Les antilopes ont une petite queue, deux cornes et quatre pattes avec lesquelles ils courent très vite.
(proverbes)

5. Habituel

5.1. Présent

Je bois toujours du café le matin. (Chaque matin je bois du café.)
Les petits enfants de Joseph pleurent tout le temps/souvent.
Une fois par ans, Céleste et son mari visite sa famille à Kinshasa.
Notre équipe de foot s'entraîne chaque jeudi soir.
Ma femme chante toujours pendant qu'elle fait la cuisine.
Les chefs du village se réunissent souvent pour discuter la politique.
Chaque jour Pinto se lève avec le soleil.
Tous les quatre ans nous choisissons un nouveau chef administratif.

5.2. Passé

Mon fils bavardait toujours quand il était jeune, mais maintenant il est timide.
Igor allait toujours au travail à pied, mais depuis qu'il a acheté un vélo, il prend le vélo.
Quand mon frère était petit, maman lui donnait toujours des bananes à manger.
L'année passée, Sese conduisait souvent à Kinshasa/Mwanda, mais depuis quelques mois sa voiture s'est cassée.
Cette été, Richard et Annie se voyaient (se sont vue ?) chaque semaine au marché.
Le chien de ma voisine aboyait chaque fois qu'il voyait une poule.

5.3. Futur

Quand je serai guéri, je ferai du sport chaque jour.
Quand Julie aura acheté ses lunettes, elle pourra de nouveau lire des magazines chaque semaine.
L'année prochaine les étudiants auront cours de maths chaque semaine/trois fois par semaine.
Avec la construction d'une nouveau chemin de fer, les trains passeront chaque jour par le village.

6. Questionnaire sur le progressif (Bertinetto 2000)

6.1. Définition tentative

Ma mère est en train de travailler.
A : Qu'est-ce qu'Anne fait chaque samedi matin ? / Anne fait quoi chaque samedi matin ?

B : Elle nettoie la maison/lis un livre.
Quand Jean rentrais, Anne étais encore en train de travailler.
L'année passée on nettoyait le samedi, maintenant on le fait le jeudi.
L'été passé, Jean nous a visités trois fois.

6.2. Verbes transitifs et valence

Jean est en train de nettoyer un couteau.
Jean est en train de lire un journal.
Jean est en train de construire un enclos pour les moutons.
Jean est en train de chanter une chanson.
Jean est en train de donner un cadeau à sa sœur.
Jean est en train de raconter une histoire à sa sœur.

6.3. Incorporation d'objet

Anne est en train d'éplucher des pommes de terre.
Anne est en train d'éplucher les pommes de terre.
Anne est en train d'éplucher trois kilos des pommes de terre.
Anne est en train d'éplucher toutes les pommes de terre.
Anne est en train de chasser les poules de la maison.
Anne est en train de chasser deux poules de la maison.
Anne est en train d'écrire son livre, mais je pense qu'elle ne va jamais (le) finir.

6.4. Verbes causatifs

Ted se fait couper les cheveux / Ted est en train de se faire couper les cheveux.
Ted est en train de nourrir son enfant de la bouillie / fait manger de la bouillie à son enfant.

6.5. Verbes de motions

Julie est en train de sortir.
Julie est en train de voler vers Lubumbashi. / Elle est sur un vol vers Lubumbashi.

6.6. Verbes des phases

Fred commence à éplucher les pommes de terre maintenant.
Fred finit/est en train de finir de réparer la lampe maintenant.
Fred commence un exercice linguistique maintenant.
Fred finit / est en train de finir un exercice linguistique maintenant.
Fred continue (à raconter) son histoire maintenant.

6.7. Verbes de la posture

Marie est assise dans la cuisine.

A : J'ai maintenant besoin de mon t-shirt bleu, où est-ce qu'il est?
B : Il est accroché à un clou.

6.8. Verbes non-duratifs

Je prenais une photo juste au moment que Jean était en train de jeter/jetait la pierre.
Á ce moment, le grimpeur atteint le sommet de la montagne.

6.9. Verbes non-intentionnels

George est sans vouloir en train d'insulter ses voisins avec ses questions stupides.
Philippe admet inconsciemment sa faute.

6.10. Processus intransitifs, non-agentifs

Jean est en train de réveiller sa copine.
Le soleil brille.
L'eau est en train de bouillir.
Les pommes sont en train de pourrir aux arbres.

6.11. Verbes statifs

Pierre connait la réponse.
Tess aime la musique.
La montagne entoure la plaine.

6.12. Verbes de copule

Tu es gentil.
Tu es très impoli ce soir.

6.13. Remoteness / invisibilité

A : Est-ce qu'Anne est avec toi maintenant ?
B : Non, elle est en train de danser dans l'autre chambre.
B : Non, elle est en train de jouer aux cartes dans l'autre chambre.
A : Est-ce qu'Anne est à la maison maintenant ?
B : Non, elle est en train de faire du shopping.
B : Non, elle est en train de jouer aux cartes dans le club, comme d'habitude.

6.14. Adverbes duratifs

Hier, pendant que je dormais, Anne a joué pendant deux heures toute seule.
Pendant toute la prière, Anne étais en train de parler avec sa voisine. En effet, elle continuait même après.
Pendant toute la prière, Anne étais en train de parler avec sa voisine. Mais lors que c'était finit, elle se taisait.

Moment par moment, le policier prenait notes de ce que le locuteur disait.
Graduellement, il oublie les noms des personnes.

6.15. Adverbes graduels

Le niveau de l'eau a augmenté légèrement/un peu depuis hier.
Quand j'arrivais, la situation était déjà en train de s'améliorer peu à peu.
Quand j'arrivais, la neige était en train de couvrir le paysage.

6.16. Sens imminent

Le train part !
Le vieil homme était en train de mourir [mais à la fin ils ont trouvé le bon médicament].

6.17. Sens temporel

Anne est dans l'entrée de la porte.
La statue est dans le jardin [pour l'été].
Le patron écrit ses propres lettres quand le secrétaire est malade.

6.18. Séquence et coordination des événements

Hier, quand Anne lisait dans sa chambre, Martin jouait dans la cour.
Qu'est-ce que Martin faisait hier soir ?
Il a étudié, il a lu un article, il a mangé, puis il est allé au lit.
Il a étudié de 2h à 6h, il a lu le journal de 6h à 7h, il a mangé de 7h à 8h.

6.19. Impératif

Travaille quand le patron revient !
[Une mère à sa fille qu'elle veut punir] : Tu ne vas pas à cette fête !

6.20. Passif

[Entre, s'il te plaît !] Le repas est servi (juste maintenant).

6.21. Négation

Le patron était fâché, parce que Jean ne travaillait pas quand il est venu.
[Sortons/Allons dehors], il ne pleut pas maintenant.
[C'est dégoutant], il est 8h30 et le train n'est pas encore parti.

6.22. Verbes modals

Tom doit nourrir les bêtes.
Anne devrait enseigner maintenant.

6.23. Localisation temporelle de l'événement

Je suis très fatigué, j'ai cuisiné toute la journée depuis que je me suis levé ce matin.
Quand Jean est rentré à la maison hier, il était très fatigué parce qu'il avait travaillé durement toute la semaine.
Si tu viens à 8h, je serai encore en train de cuisiner. [Viens un peu plus tard, s'il te plaît.]

7. Itératif

D'abord, il coupera la viande en petites morceaux, et après il les mélangera avec les herbes.
Quand tu as un rhume, tu éternue constamment.
Busuvu cligne des yeux à cause du soleil.
La lampe clignotait tout le temps, donc je l'ai réparé.
Le fermier cueillit les bananes pour les vendre.
Pour s'envoler, les oiseaux battent les ailes très rapidement.

8. Persistif

8.1. Positif

La lutte entre l'armée et les rebelles continue encore après six semaines des palabres.
Mon vélo est encore jaune, mais je veux le peindre en rouge.
La clôture est encore cassé. Quand est-ce que tu vas le réparer ?
[Sur une fête :]
A : Où est Mbame ?
B : Il est encore en train de danser.
La nourriture est encore en train de cuir.
Le forge est encore en train de faire des cloches.
Quand je suis tombé, ma tête faisait encore mal après trois heures !

8.2. Négatif

Je n'ai pas encore fini le livre.
La ligne n'est pas encore pendue.
Vous ne touchez pas la nourriture. Vôtres mains ne sont pas encore lavées.
Silence ! La chanson n'est pas encore terminée.
L'enseignant n'a pas encore corrigé les exercices de ses étudiants.
La tempête n'est pas encore finie.

9. Inchoatif

Les ouvriers commencent la grève.
Les femmes se mettent à cuisiner la nourriture.
Le chasseur se met à nettoyer son fusil.
L'éléphant se met à boire.

Quand l'ennemi attaquait le village, les habitants se mettaient à fuir.

10. Futur

L'année prochaine je veux planter des tomates, et peut-être je planterai aussi du manioc et maïs.
Demain, la sœur d'Antoine vient lui visiter de Lusaka.
Ce soir, nous mangerons du *moambe*.
A : Qu'est-ce que on mange ce soir ?
B : On mange / va manger des plantains à la sauce d'arachide avec du poisson.
[Maman contre son fils :] Quand est-ce que tu chercheras du travail ?
Quand je finirai mes cours, je pourrai / saurai parler l'Anglais !
La construction du nouveau bâtiment commencera en janvier.
J'espère que la jambe de Romelu Lukaku sera guéri contre la nouvelle saison de foot.
Si on ne fait rien, le pont va s'écrouler !
Ce soir il sera nuageux, et demain matin il pleuvra.

11. Parfait

11.1. Présent

La valise est cassée.
Le magasin est fermé à partir de 3h l'après-midi.
Regarde ! La porte est ouverte. Quelqu'un a volé nos meubles.
La semaine passée, le fils du chef s'est marié avec sa femme.
A : Est-ce que tu as été au Tanzanie ?
B : Oui, j'ai visité Tanzanie, il y a longtemps. Mon cousin habitait en Dar es Salaam, mais depuis l'année passée il a déménagé au Dodoma.
L'enfant a sali ses chaussures dans la boue.
Les soldats ont marché tout le matin.
Mpindi a reçu cette voiture il y a trois ans.
Je viens de parler avec le curé (prêtre).
Maman vient de planter les graines dans notre jardin.
Manuel veut cueillir des bananes. Maintenant, il a atteint le sommet de l'arbre.

11.2. Passé

J'avais mis la marmite à feu doux, mais la nourriture est quand même brûlée.
Mbala voulait manger des légumes, mais ils étaient pourris.
Lucien n'avait jamais vu son frère avant qu'ils se soient rencontrés deux semaines passées.

11.3. Futur

La colline sera été déboisée quand les constructions commenceront.

Quand tu arriveras demain, j'aurai préparé la nourriture.

11.4. Déjà

La plaie est déjà infectée pendant trois jours.
Les moutons ont déjà été rasés.
Les moutons sont déjà rasés.
La tempête est déjà passée.

12. Passé

12.1. Lointain

Je savais que tu étais le voleur !
Je me rappelle un jour il y a longtemps, ma grande mère s'était assises dehors, elle regardait les enfants jouer en buvant de la bière. À midi, ses copines venaient, et elles jasaient pendant une heure. Les vieilles dames racontaient ses souvenirs et riaient tout le temps. Ma grand-mère m'avait pris sur les genoux, et parfois elle me donnait de la bière à boire. C'est la première fois que j'ai bu de l'alcool.
L'année passée, Milou travaillait au Kinshasa. Elle est venu nous visité pendant les mois d'été. Au début de cette année elle avait un copain de Mbuji Maji, mais après quelques mois ils se sont séparés. Elle était vraiment triste ! Pendant ces semaines de douleur, elle envoyait beaucoup de lettres à sa sœur. Elle pensait d'aller vivre en Rwanda, mais sa sœur l'a convaincu de rester en RDC.

12.2. Hesternal

Hier, Benoit et Mukasa ont vu un léopard pour la première fois. Ils se sont enfuis, mais le léopard ne les a pas chassés.
[Hier], les ouvriers ont creusé une dizaine de trous.
[Hier], j'ai atteint le sommeil de la montagne.
[Hier], un serpent est entré dans la maison de Miko et il a mordu sa jambe. La voisine de Miko lui a conduit / pris à l'hôpital où les docteurs ont soigné la blessure.

12.3. Hodiernal

[Pendant l'après-midi]
Je me suis réveillé tôt ce matin, parce que c'est le premier jour de mon nouveau travail.
Nikita est tard parce qu'elle a raté le bus ce matin.
Deux vaches sont décédées ce matin à cause d'une maladie.
[Pendant la soirée]
Mikasa est allée chercher de l'eau ce matin. Elle a rencontrée Paul sur le chemin, et il l'a accompagné jusqu'à la source.
Un étranger est passé dans le village ce matin.
À midi une bande d'oiseaux énorme est volées à travers le lac.

13. Questionnaire sur les performatifs

13.1. Partie 1

Qu'est-ce que votre frère est en train de faire ?

A1 : Il écrit une lettre

A2 : Elle est en train de parler, ne faites pas de bruit.

[Devant la maison :] C'est une grande maison.

Mon frère sait qu'elle l'aime.

Hier, la chèvre a traversé la rue et puis elle a sauté par-dessus la tranchée.

Demain, je commencerai par écrire une lettre, puis je travaillerai pendant une heure.

13.2. Partie 2 (Pas d'impératifs, sauf si vous ne pouvez faire autrement)

13.2.1. Recettes

D'abord il faut ajouter du sucre, puis mettre le lait.

13.2.2. Stage directions

[e.g. as part of a play script; translate the stage direction between square brackets]

« Je suis fatigué » [Sam baille].

« Je suis fatigué » [Sam prend une chaise et s'assied.]

13.2.3. Démonstrations

Voilà, j'ouvre la boîte et prends les cartes.

13.2.4. Directives/explications

Maintenant vous prenez un papier, puis vous attendez.

Chaque fois que vous avez pris un papier, vous attendez quelques secondes.

13.2.5. Commentaires de sport

Pelé marque !

Neymar fait une passe, Messi tire et… marque !

Chaque fois que je fume, je me sens mal.

13.3. Partie 3

Je jure que je le ferai.

Elle ne se contente pas de dire qu'elle le fera, elle jure qu'elle le fera.

[général au soldat :] Je vous donne l'ordre de partir.

A cet instant, le général donne l'ordre au soldat de partir.

[soldat au général :] Je vous supplie de me laisser partir.

Je promets que je viendrai.

Il promet qu'il viendra.

Je vous remercie de venir.

Je m’excuse d’être en retard.
Il est juste en train de s’excuser.
Je dédie ce livre à mon mari.
Par le présent, je démissionne.
Elle ne démissionne pas.
Je déclare que je retire.
Je vous annonce Président.

Addendum 6. Log of the extraction of examples in Kikongo from the documentation database

Colour code (1st column)
done / no examples / in progress / too much work / unfamiliar translation language / corpus material / [*no colour*] not yet looked at

Bold (2nd column)
Grammatical descriptions with information on TA.

SOUTH KIKONGO

	Kionzo
	Goedleven 1911 (Recueil des lois du pays de Kionzo)
	Matadi
	Craven & Barfield 1883 (English-Congo and Congo-English Dictionary)
	Bangu 1987 (Esquisse de description d'une langue africaine. Le kikongo de Matadi)
	Mboma
	Tuckey 1818 (A Vocabulary of the Malemba and Embomma Languages)
	Nsangu Kinanga 1997 (Enquête dialectologique en kimboma … dans le territoire de Songololo)
	Kisilu Meso 2001 (Morphologie flexionnelle du kimboma)
	Nkiawete Wabelua 2006 (Parlers mboma de Palabala et ndibu de Gombe-Sud)
	Kisikongo
	Cardoso 1624 (Doutrina christaã)
	Cardoso 1624 - ed. Bontinck & Ndembe Nsasi 1978 (Le catéchisme Kikongo)
	Roboredo c. 1648 - ed. Thornton (Kikongo Sermon)
	van Gheel 1652 (Vocabularium Latinum, Hispanicum, e Congense) - Biblioteca Nazionale Centrale di Roma - JPGs
	Brusciotto 1659 (Regulae quaedam … Congensium idiomatis faciliori captu ad grammaticae normam redactae)
	Brusciotto 1659 - ed. Guinness, tr. Mew 1882 (Grammar of the Congo Language …)
	de Cannecattim 1805 - '1000-word lexicon'
	Guinness 1882 (Grammar of the Congo language … cataract region)
	Bentley 1887 (Dictionary and Grammar of the Kongo Language)
	Visseq 1889 (Dictionnaire fiot ou dictionnaire de la langue du Congo)
	Visseq 1889 (Grammaire fiote ou grammaire de la langue du Congo)
	Bentley 1895 (Appendix to the Dictionary and Grammar of the Kongo Language)
	Van Wing & Penders 1928 (Le plus ancien dictionnaire bantu)
	Bontinck 1976 (Remarques marginales à Vansina - 'The Dictionary and the Historian')
	del Fabbro & Petterlini 1977 (Gramática Kikongo) pp. 181-2 missing

Bontinck 1980 (Le Vocabularium Latinum, Hispanicum et Congense - nouvelles notes marginales)
Ndonga 1989 (I. Bibliographie …, II. Projet de these, III. Esquisse phonologique du kisikoongo)
Ndonga 1995 (Systématique grammatical du kisikongo (Angola))
Bonvini 1996 (Repères pour une histoire des connaissances linguistiques des langues africaines)
Kunzika 2008 (Dicionário de Provérbios Kikongo)
Narciso Cobe 2010 (Novo dicionário português-kikongo)
Hagemeijer 2011 (The Gulf of Guinea Creoles. Genetic and typological relations)
Rivair Macedo 2013 (Escrita e conversão na África central do século XVII. O catecismo Kikongo de 1624)
António 2016 (Estudo comparativo dos falres de Cabinda com a variante Kisikongo)

Kisolongo

Tavares 1915 (Gramática da língua do Congo (kikongo) (dialecto kisolongo))
Abranches 1991 (Sobre os basolongo. Arqueologia da tradição oral)
Lembe-Masiala 2007 (Le Káandu chez les Basolongo du Bas-Congo (RDC))

Kizombo

Carter 1973 (Syntax and Tone in Kongo)
Fernando 2013 (The causative and anticausative alternation in Kikongo (Kizombo))
Carter & Makondekwa 1987 (Kongo Language Course … Dialect of Zoombo)
Carter 1970 (Consonant Reinforcement and Kongo Morphology)
Carter 1974 (Negative Structures in the Syntactic Tone-Phrasing System of Kongo)
Fernando 2008 (An Analysis of Verbal Affixes in Kikongo with Special Reference to Form and Function)
Makondekwa & Carter 1968 (Legal Terminology in Zoombo)
Matsinhe & Fernando 2008 (A preliminary exploration of verbal affix ordering in Kikongo …)
Mpanzu 1994 (Éléments de description du zombo. Parler kongo H16k d'Angola)

Kikongo from N'zeto

De Neef 2013 (Het Kikongo van N'zeto)

Kitsootso

Baka 1992 (Essai de description du Tsootso)
Panda 2017/8 (Estudo morfossintático da voz)

Dihungu

Atkins 1954 (An Outline of Hungu Grammar)

WEST KIKONGO

Yishira

Blanchon 1987 (Les classes 9, 10 et 11 dans le groupe bantou B.40)
Blanchon 1988 (Relèvements tonals en eshira et en massango)
Blanchon 1990 (The Great HL Split in Bantu Group B40)
Blanchon & Van der Veen 1990 (La forge de Fougamou - deux versions)
Mouguiama 1994 (La perception de la maladie chez les Eshira)

Yisangu

Blanchon 1987 (Les classes 9, 10 et 11 dans le groupe bantou B.40)

Blanchon 1988 (Relèvements tonals en eshira et en massango)
Blanchon 1990 (Noms composés en massango et en nzèbi)
Blanchon 1990 (The Great HL Split in Bantu Group B40)
Hombert 1992 (Terminologie des odeurs dans quelques langues du Gabon)
Idiata-Mayombo 1993 (Eléments de phonologie diachronique du isangu (B 42))
Idiata-Mayombo 1994 (Perception et traitement de la maladie chez les Masangu)
Idiata 1998 (Morphosyntaxe de la langue isangu)
Ondo-Mebiame 2000 (Essai de description morphophonologique du Yisangu)
Idiata 2006 (Parlons isangu)

Yipunu

Bonneau 1956 (Grammaire pounou)
Blanchon 1984 (Présentation du Yi-Lumbu … Yi-Punu et le Ci-Vili)
Blanchon 1987 (Les classes 9, 10 et 11 dans le groupe bantou B.40)
Kwenzi-Mikala 1989 (… emprunts nominaux du yipunu au français)
Blanchon 1990 (The Great HL Split in Bantu Group B40)
Kwenzi-Mikala 1990 (L'anthroponymie chez les Bapunu)
Blanchon 1991 (Le pounou (B 43), le mpongwè (B 11a))
Kwenzi-Mikala 1993 (… la narration d'une épopée - l'exemple de Mumbwanga)
Blanchon 2008 (Dictionnaire punu)
Mavoungou & Plumel 2010 (Dictionnaire Yilumbu-Français (with Vili, Menaane and Punu slots))

Yilumbu

Blanchon 1984 (Présentation du Yi-Lumbu … Yi-Punu et le Ci-Vili)
Blanchon 1987 (Les classes 9, 10 et 11 dans le groupe bantou B.40)
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Mabiala 1992 (La situation linguistique de la région du Kouilou (Congo))
Gamille 2013 (Eléments de description phonologique et morphologique du Lumbu)
Mavoungou & Plumel 2010 (Dictionnaire Yilumbu-Français (with Vili, Menaane and Punu slots))

Loango

Ussel 1888 (Petite grammaire de la langue fiote. Dialecte du Loango)

Kakongo

Anon. [1772] (Dictionnaire Kikongo-Français) - Genova
Belgarde 1772 (Dictionnaire françois et congo) - London
Cuénot 1773 (Dictionnaire françois et congo) - Besançon, Bibliothèque Municipale, MS N° 525 - JPGs
Cuénot 1775 (Dictionnaire congo et françois) - Besançon, Bibliothèque Municipale, MS N° 524 - JPGs
Cuénot 1776 (Essai d'une grammaire Congo. Suivant l'accent de Kakongo) - Besançon, Bibliothèque Municipale, MS N° 523
Carrie 1888 (Grammaire de la langue fiote, dialecte du Kakongo)
Anon. [1890] (Dictionnaire français-fiote, dialecte du Kakongo)
van Bulck 1954 (Het oudste Kakongo-woordenboek (1768-1775))
Bleyenberg 2012 (Sound Change in Kikongo as spoken in 18th century Kakongo)
Drieghe 2014 (Het oudste Kakongo woordenboek (1772))

Civili
Derouet 1896 (Dictionnaire français-fiote, dialecte kivili)
Marichelle 1907 (Méthode pratique pour l'étude du dialecte vili)
Marichelle 1912 (Dictionnaire vili-français)
Ndamba 1977 (Syntagme nominal et groupe nominal en vili (Langue bantu du Congo))
Blanchon & Nsuka Nkutsi 1984 (Détermination des classes tonales des nominaux en Ci-Vili)
Blanchon 1984 (Présentation du Yi-Lumbu … Yi-Punu et le Ci-Vili)
Mabiala 1992 (La situation linguistique de la région du Kouilou (Congo))
Raponda-Walker & Sillans 1995 (Les plantes utiles du Gabon)
Mavoungou Pambou 1996 (Vili a travers les proverbes)
Mabiala 1999 (Phonologie comparative et historique du kongo …)
Ndinga-Koumba-Binza 2000 (Phonologie du civili de Mayumba. Langue bantu du Gabon (H12a))
Ndinga-Koumba-Binza 2004 (Vowel Duration Issue in Civili)
Loëmbe 2005 (Parlons vili)
Dello 2006 (Proverbes et contes vili (République du Congo))
Ndinga-Koumba-Binza 2006 (Mid-vowels and vowel harmony in Civili)
I.LA.LOK 2008 (Dictionnaire vili-français. Mpisukulu bi kum' bi tshi vili ku tshi mputu)
Ndinga-Koumba-Binza 2008 (Phonetic and Phonological Aspects of Civili Vowel Duration)
Ndinga-Koumba-Binza & Roux 2009 (Perceived duration in vowel-length based Civili minimal pairs)
Mavoungou & Ndinga-Koumba-Binza 2010 (Civili, langue des Baloango. Esquisse historique et linguistique)
N'Douli 2012 (Focalisation et variation de l'ordre des mots en Kikongo)
Humber & Tchimbakala 2013 (Une esquisse grammaticale de la langue civili)
Cisundi
Futi 2012 (Essai de morphologie lexicale du Cisuundi du Cabinda)
Kiyombi
Mabiala 1992 (La situation linguistique de la région du Kouilou (Congo))
Mabiala 1992 (Études du kiyoombi. Langue kongo du Congo)
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Mabiala 1994 (La perception de la maladie chez les Bayoombi)
Blanchon 1998 (Tonology of the Kongo Noun Phrase)
Mabiala 1999 (Phonologie comparative et historique du kongo …)
Kiyombe
De Clercq 1907 Grammaire du Kiyombe
De Clercq [1921] (Grammaire du kiyombe)
Bittremieux 1926 (Overblijfselen van den katholieken Godsdienst)
Bittremieux 1922-7 (Mayombsch idioticon)
Bittremieux 1936 (La société secrète des Bakhimba au Mayombe)
De Clercq 1939 (De Bakongo in hun taal. Spreekwoorden en fabels)
Meeussen & Ndembe 1964 (Principes de tonologie yombe (kongo occidental)

Bittremieux 1943-4 (… wegvallen van sommige prefixen in het Kikongo)
Tieleman 1969 (Kóongo, Yáká et Yoómbe. Essaie d'une morphotonologie comparée …)
Mabiala 1976 (Esquisse phonologique de la langue Yoómbe)
Tshimbalanga 1978 (Etude du diminutif et de l' augmentatif dans la zone H)
Ndembe Nsasi 1981 (Étude lexicale du verbe yombe)
Ndembe-Nsasi 1982 (Les verbes opérateurs yombe (H 16))
Ndembe-Nsasi 1982 (Sous-catégorisation sémantico-syntaxique du verbe central yombe)
Mbadu Kikhela Kupika 1987-8 (Pâques) in Kiyombe & KKyL
Makolo Miaka 2000 (Kintandu, Kiyombe, Kimanyanga)
Yengo-ki-Ngimbi 2004 (Emprunts portugais et français en kiyombe)
Nanga 2008 (Étude phonologique de la nasale homorganique en parler yoombe)
Nlunda Mbadu 2008 (Étude morpho-sémantique et socio-culturelle de quelques cours d'eau des territoies de Tshela & Lukula)
De Grauwe 2009 (Lexique yoómbe-français, avec index français-yoómbe (bantu H16c))
De Witte & Jambé 2009 (Taalstudie in het Luki-Reservaat)

Iwoyo

Mingas 1989 (Esquisse phonologique de l'oyo)
Mingas 1994 (Étude grammaticale de l'iwoyo (Angola))

Ciwoyo

Cornet 1980 (Pictographies Woyo)
Tshimbalanga 1978 (Etude du diminutif et de l' augmentatif dans la zone H)

Kisundi (Mongo)

N'landu Kitambika 1994 (Éléments de description du kisuundi (H13b). Rép. du Congo)
Baka 1998 (Questionnaire d'inventaire linguistique - Suundi)
Baka 1999 (Dictionnaire fondamental kisuundi-français)
Mbumba Nsasi 2001 (Création lexicale en kisundi (H16c))

CENTRAL KIKONGO

Kimanyanga

Westlind 1887 (Nkanda ubadukulwanga longüka tanga)
Westlind 1888 (Grammatikaliska anmärkningar öfver Kongospråket)
Nordenskiöld 1907 (Etnografiska bidrag af Svenska Missionärer i Afrika)
Laman & Westling 1911 (Malongi mantete mandinga akifalansa)
Laman 1912 (Grammar of the Kongo Language (Kikongo))
Laman & Meinhof 1928-9 (An Essay in Kongo Phonology)
Laman 1931 (Svensk-kikongo ordbok)
Meinhof 1932 (Kongo)
Laman 1936 (Dictionnaire kikongo-français)
Laman & Westling 1950 (Vocabulaire KK-FR, FR-KK)
Laman 1962 (The Kongo III)
Laman 1968 (The Kongo IV)
Fu-Kiau 1969 (N'Kongo ye Nza Yakun'Zungidila = Le Mukongo et le monde qui

l'entourait)
Waniakanu-Mbundani 1975 (Quelques éléments de Toponymie Nyanga)
Nakutukeba 1980 (Français-Kimanyaanga)
Hellberg 1985 (Lärobok i kikongo)
Zi Kabwiku 1986 (Recueil de littérature orale kongo)
N'kundiki 1987 (Mbumbulu a binzu ku Manianga Luozi)
MacGaffey 1991 (Art and Healing of the Bakongo)
Matuka 1991 (The pragmatics of palavering in Kikoongo)
Odden 1991 (The Intersection of Syntax, Semantics and Phonology in Kikongo)
Luntadila Makiese 1996 (Analyse morpho-sémantique)
Yema Babombakana Ngwamba 1996 (Enquête dialectologique)
Makaya Lutumba 1999 (Ntandu et Manianga)
MacGaffey 2000 (Kongo Political Culture)
Makolo Miaka 2000 (Kintandu, Kiyombe, Kimanyanga)
Tulunda wa Tulunda 2007 (Vocabulaire de la Chasse et Pêche)
Makokila Nanzanza 2012 (Le système verbal du kimanyaanga. Approche structuraliste)
Luyindula 2013 (Les chants du Kongo. Une merveille)
Luyindula 2014 (L'orthographe du Kikongo, Kimanianga)
Mpesa 2015 (Esperanto mu Kikongo)

Kindibu

Mpumpu --- (Grammaire Luba et Ndibu)
Coene 1960 (Vocabulaire français - kikongo, néerlandais, latin)
De Munck 1966 (Kinkulu kia nsi eto a Kongo - Histoire de l'ancien royaume du Kongo)
Lukanu Nguizany 1980 (Essai d'une étude comparative de quelques parlers ndibu dans leur aspect lexical)
Zi Kabwiku 1986 (Recueil de littérature orale kongo)
Lukoki 1996 (Proverbes Kongo - Cas de la Tribu Ndibu)
Lunzayila Wavuna 1996 (Les chansons de lamentation chez les Ndibu du groupement Tadila)
Wanginavo Ntendo 2001 (Expression du temps dans la langue ndibu (H16). Étude ethnolinguistique)

Kisingombe

Matondo-Diankenda 1999 (Proverbes Besi-Ngombe. Étude sémantique et impact social)

EAST KIKONGO

Kintandu

Anon. s.d. (Leçons de kintandu)
Daeleman s.d. (Kikóongo wordlists classified according to their respective tones)
Butaye 1909 (Dictionnaire kikongo-français, français-kikongo)
Butaye 1910 (Grammaire congolaise)
Polis 1933-38 (Lexique kikongo-français I)
Polis 1933-38 (Lexique kikongo-français II)
de Mahieu 1962 (Un cas isolé de click en langue Kongo)

Mfulani 1963 (Notes de recherches grammaticales sur le kintandu)
Van Roy 1963 (Proverbes kongo)
Anon. 1964 (Leçons de Kikongo par des Bakongo)
Daeleman 1966 (Morfologie van naamwoord en werkwoord)
Tieleman 1969 (Kóongo, Yáká et Yoómbe. Essaie d'une morphotonologie comparée …)
Lubasá 1974 (Locativity in Kikóongo and English)
Price 1975 (Kikoongo and Saramaccan - a reappraisal)
Bandoki 1977 (Document de dialectologie en ntandu et mbata)
Nongi Mayimona 1980 (Transmission des Connaissances)
Daeleman & Meeussen 1983 (The tonology of the noun in Kongo (Ntandu))
Daeleman & Pauwels 1983 (Notes d'ethnobotanique Ntándu (Kongo))
Daeleman 1983 (Les réflexes proto-bantu en ntándu)
Kikola Kabila 1999 (Prière Ntandu)
Makaya Lutumba 1999 (Ntandu et Manianga)
Makolo Miaka 2000 (Kintandu, Kiyombe, Kimanyanga)
Masembo Ndondo 2001 (Proverbes Ntandu)
Malolo Kisembo 2003 (Dérivation et Composition Kintandu)
Leso 2011 (Analyse thématique des Proverbes Ntandu)

Kimpangu

Van Wing 1959 (Études Bakongo. Sociologie - Religion et Magie)

Kimbata

Bandoki 1977 (Document de dialectologie en ntandu et mbata)
Nkey Iziasuma 2004 (Étude comparative du démonstratif entre sakata & kôngo … kimbata)

Kimbeko

Lukanda 1990 (Expression des Circonstances en Kimbeku)
Mampasi Kiyangika 2003 (Proverbes Mbééku)
Banzenza 2009 (Etude Toponymique Mbéeko)

Kinkanu

de Mahieu 1962 (Un cas isolé de click en langue Kongo)
Nkunga Panzu 1981 (L' image de l' Homme-les Nkanu)

NORTH KIKONGO

Kibembe

Jacquot s.d. (Notes sur la phonologie du beembe (Congo))
Jacquot 1962 (Notes sur la phonologie du beembe (Congo))
Jacquot 1981 (Études beembe (Congo). Esquisse linguistique. Devinettes et proverbes)
Nsayi 1984 (Approche du Kibeembe - Première et deuxième articulations)
Philippson & Boungou 1999 (Elements de tonologie beembe H11)
Tsouari 2001 (Mboongi - L'arbre des sagesses - The Tree of wisdom - 800 proverbes beembe de Mouyoundzi (Congo))
Kouarata 2015 (Grammaire beembe. Langue bantu (H10) du Congo-Brazzaville)
Kouarata 2016 (Dictionnaire beembe - français)

Kidondo
Mfoutou 1985 (Esquisse phonologique du kidoondo …)
Lusansu Mawa 2002 (Enquête dialectologique Doondo et Láari)
Nsakala 2009 (Etude Semantique du Titre chez les Dondo de Mongo-Luala)
Mpanda Mpanda 2011 (Etude systématique de titres chez les Dondo)
Mulongo 2011 (Etude toponymique Dôndo)
Williams-Ngumbu et al. 2015 (Petit guide d'orthographe et de grammaire dondo)
Kihangala
Nkouanda 1997 (Description phonologique du kigaangala. Parler bantou du Congo)
Kikamba
Bouka 1989 (Eléments de description du kaamba)
Cilaadi
Blanchon 1992 (Nouvel examen de la tonalité des noms en laadi de Brazzaville)
Blanchon 1999 (12 langues du Gabon et du Congo-Brazzaville)
Jacquot 1974 (Le nom personnel chez les laadi)
Samba 1989 (The System of Tone in Kikongo)
Jacquot 1982 (Etude descriptive de la langue laadi)
Jacquot 1984 (Études linguistiques laadi (République Populaire du Congo))
Lusansu Mawa 2002 (Enquête dialectologique Doondo et Láari)
Kisundi (Boko)

KIKONGOID

Kiyaka
_Hermans Publications (Yaka)
Van Den Eynde 1968 (Éléments de grammaire yaka. Phonologie et morphologie flexionnelle)
Van der Beken 1978 (Proverbes et vie Yaka)
Kidima 1987 (Object agreement and topicality hierarchies in Kiyaka)
Van der Beken 1993 (Proverbes Yaka du Zaïre)
Hyman 1995 (Nasal Consonant Harmony at a Distance - The Case of Yaka)
Ruttenberg 2000 (Lexique yaka-francais, français-yaka)
Makangu 2004 (Demonstratif dans Yaka et Kongo)
Kisuku
Piper 1977 (Elemente des Suku)
Nsangu 1972 (Le suku et le laadi, essai de rapprochement des systèmes verbaux)
Mufula Kimbre 1984 (Noms des Plantes Suku)
Kifindi 1997 (Recherches en grammaire du Suku)
Kihungan
Takizala 1974 (Studies in the Grammar of Kihungan)
Kasuku-Kongini 1984 (Langue Kihungana. Phonologie et syntagmatique)
Koni Muluwa 2010 (… en nsong, ngong, mpiin, mbuun et hungan)
Bostoen & Muluwa 2011 (Vowel split in Hungan)

Addendum 7. Overview of the language sample, data sources and reflexes of Proto-Kikongo **-a-R-a*

The order of the core subgroups is based on the time depth of the historical records: South Kikongo first with the 17th c. catechism of Cardoso, then West Kikongo with Descourvière's late-18th c. descriptions, etc. Varieties within each subgroup are arranged alphabetically, that is, disregarding the prefix of class 7 *ki-/ci-/i-* or 5 *di-*. Historical varieties up to the 20th century, however, always appear first. Multiple sources for one variety go from the oldest to the most recent. The data in Chapter 6 are based on what is seen in all these sources, but for reasons of space not all varieties/doculects are always illustrated.

South Kikongo		
• 17th-19th c. Kikongo as spoken in Mbanza Kongo	- Cardoso (1624)	*-a-R-a*
	- Brusciotto à Vetralla (1659), translated into English by Guinness (1882a)	*-a-R-a*
	- Bentley (1887, 1895)	*-a-R-a*
• Late-19th c. Kikongo as spoken in the Cataract region	- Guinness (1882b)	*-a-R-a*
• Late-19th c. Kikongo as spoken in the vicinity of Boma	- Craven and Barfield (1883)	*-a-R-a*
• Late-19th c. Kikongo as spoken in the area south of the mouth of the Congo river	- Visseq (1889)	*-a-R-a*
• Dihungu	- Atkins (1954)	NA
• Kisikongo	- Ndonga Mfuwa (1995)	*-a-R-a*
• Kisolongo (Angola)	- Tavares (1915)	*-a-R-a*
• Kisolongo (DRC)	- KongoKing 2012, fieldwork by S. Dom	*-a-R-a*

• Kitsootso	- Baka (1992)	*-a-R-a*
	- Panda (2017)	*-a-R-a*
• Kizombo	- Carter (1970, 1973, 1974)	*-a-R-a*
	- Del Fabbro and Petterlini (1977)	*-a-R-a*
	- Carter and Makoondekwa (1987)	*-a-R-a*
	- Mpanzu (1994)	*-a-R-a*
	- Fernando (2008)	*-a-R-a*
	- Matsinhe and Fernando (2008)	*-a-R-a*
West Kikongo		
• 18th-19th c. Kikongo as spoken in Kakongo (present-day Cabinda)	- Descourvières (1773) [transcribed by S. Drieghe (2014)]	*-a-R-a*
	- Descourvières (1776) [transcribed by E. Nshemezimana]	*-a-R-a*
	- Carrie (1888)	*-a-R-a*
	- Le Louët (1890)	NA
• 19th-20th c. Kikongo as spoken in Loango (present-day southern Republic of the Congo)	- Ussel (1888)	*-a-R-a*
	- Derouet (1896)	*-a-R-a*
	- Marichelle (1907, 1912)	*-a-R-a*
• Cisundi	- Futi (2012)	*-Ø-R-a*
• Kisundi	- N'Landu Kitambika (1994)	*-a-R-a*
	- Baka (1998, 1999)	*-a-R-a*
• Civili*	- Ndamba (1977)	*-a-R-a*
	- Blanchon and Nsuka Nkutsi (1984)	*-a-R-ə*
	- Loëmbe (2005)	*-a-R-a*
	- I.LA.LOK (2008)	*-a-B(-a)*
	- Mavoungou and Ndinga-Koumba-Binza (2010)	*-a-R-a*
	- N'Douli (2012)	*-a-R-a*
	- Humber and Tchimbakala (2013)	*-a-R-a*
• Ciwoyo	- KongoKing 2012, fieldwork by J. De Kind	*-a-R-a*
	- KongoKing 2012, fieldwork by S. Dom	*-a-R-a*
	- KongoKing 2015, fieldwork by S. Dom	*-a-R-a*

• Iwoyo	-	Mingas (1994)	*-Ø-R-a*
• Kiyombe	-	De Clercq (1921)	*-Ø-R-a*
	-	Bittremieux (1927)	*-Ø-R-a*
• Cizali	-	KongoKing 2012, fieldwork by S. Dom	*-a-R-a*
Central Kikongo			
• Kimanyanga	-	Westlind (1888)	*-a-R-a*
	-	Laman (1912)	*-a-R-a*
	-	Laman and Meinhof (1928-29)	*-a-R-a*
	-	Nakutukeba (1980)	*-a-R-a*
	-	Odden (1991)	*-a-R-a*
	-	Makaya Lutumba (1999)	*-a-R-a*
	-	Makokila Nanzanza (2012)	*-a-R-a*
	-	KongoKing 2015, fieldwork by S. Dom	*-a-R-a*
• Kimboma	-	Kisilu Meso (2001)	*-a-R-a*
	-	Wabelua (2006)	*-a-R-a*
• Kindibu	-	Coene (1960)	*-a-R-a*
	-	Wanginavo Ntendo (2001)	*-a-R-a*
East Kikongo			
• Kimbata	-	KongoKing 2012, fieldwork by S. Dom	*-Ø-R-a*
• Kimbeko	-	KongoKing 2012, fieldwork by S. Dom	*-Ø-R-a*
• Kinkanu	-	KongoKing 2012, fieldwork by S. Dom	*-a-R-a*
• Kintandu	-	Butaye (1909)	*-Ø-R-a*
	-	Butaye (1910)	*-a-R-a* *-Ø-R-a*
	-	Daeleman (1966)	*-Ø-R-a*
	-	KongoKing 2012, fieldwork by S. Dom	*-Ø-R-a*
	-	KongoKing 2015, fieldwork by S. Dom	*-Ø-R-a*
North Kikongo			
• Kibembe	-	Jacquot (1981)	NA
	-	Nsayi (1984)	*-a-R-a*
	-	Philippson and Boungou (1999)	NA
	-	Kouarata (2015, 2016)	*-a-R-a*

	-	KongoKing 2016, fieldwork by G. Kouarata	*-a-R-a*
• Kidondo	-	Williams-Ngumbu et al. (2015)	*-Ø-R-a*
	-	KongoKing 2016, fieldwork by G. Kouarata	*-a-R-a*
• Kihangala	-	Nkouanda (1997)	NA
	-	KongoKing 2016, fieldwork by G. Kouarata	*-a-R-a*
• Kikamba	-	Bouka (1989)	*-a-R-a*
	-	KongoKing 2016, fieldwork by G. Kouarata	*-Ø-R-a*
• Cilaadi	-	Jacquot (1974, 1982a)	*-a-R-a*
	-	Samba (1989)	*-a-R-a*
	-	KongoKing 2016, fieldwork by G. Kouarata	*-a-R-a*
• Kisundi	-	KongoKing 2016, fieldwork by G. Kouarata	*-a-R-a*
Kikongoid			
• Kisuku	-	Nsangu (1972)	*-a-R-a*
	-	Piper (1977)	NA
	-	Kifindi (1997)	*-a-R-a*
• Kiyaka	-	van den Eynde (1968)	*-a-R-a*
	-	Kidima (1987, 1990)	NA

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* Most Civili sources used for this study do not focus on tense and aspect (Ndamba 1977, Blanchon and Nsuka Nkutsi 1984, I.LA.LOK 2008, Mavoungou and Ndinga-Koumba-Binza 2010, Humber and Tchimbakala 2013), and the examples including an *-a-R-a* construction are scarce and do not provide enough context to understand its specific tempo-aspectual semantics. In the sole grammar sketch which does provide an overview of the TA paradigm, Loëmbe (2005: 71-75) defines an *-a-R-a* construction as a present completive ('*le présent de l'action accomplie*') and translates it with the French Passé Récent. In contrast to the Subjunctive, Future or Present *-a-R-a* constructions found throughout the KLC (see Chapter 6, Section 6.2.3), we do not exclude the possibility that the Civili 'near past' *-a-R-a* is historically related to the common 'remote' *-a-R-a*. The aspectual semantics of completion which the latter construction has, could have allowed a reinterpretation of its temporal specification. Such semantic changes have been shown to underlie paradigmatic innovations in other Bantu languages as well (Botne 2014). However, in Chapter 6 we focus only on those cognates of the *-a-R-a* construction that have clear remoteness semantics and which contrast with hodiernal and pre-hodiernal constructions in the wider past-tense paradigm. We leave it to future research to investigate the semantics of the Civili *-a-R-a* construction and its position in the variety's TA paradigm, and to provide a better understanding of its relation to the *-a-R-a* construction discussed in Chapter 6. Despite this, we have still chosen to indicate here that the *-a-R-a* construction is attested in Civili.