

Article

Reflexive Morphology in the Kikongo Language Cluster: Variation and Diachrony

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Abstract: This paper provides a comparative and diachronic account of reflexive morphology in the Kikongo language cluster, a genealogically closely related group of 40+ West Coastal Bantu languages. This study is based on data from 34 grammatical descriptions from 1659 to 2017 and field-work data collected in 2012 and 2015. Previous studies have shown that Kikongo languages, despite being closely related to each other, demonstrate extensive phonological and morphological variation. This is also the case for reflexive morphology. First, six different reflexive prefixes are attested in the database. These are, in alphabetical order, *di-* (with cognate *li-*), *ké-*, *ki-*, *ku-*, *lu-* and a vocalic morpheme variably written as *i-*, *ii-* or *yi-*. Second, while most Kikongo languages have one reflexive prefix, some descriptions report the use of two or more different prefix forms in a single language. Languages with multiple reflexive prefixes fall into two groups: one group has different prefixes in free alternation, while the overall verbal construction is claimed to determine which prefix is used in the other group. Following an overview of the formal variation, I discuss the possible origins of the various reflexive prefixes. One hypothesis assumes that the vocalic prefix is inherited from Proto-Kikongo, the most recent common ancestor of the Kikongo languages. A second hypothesis relates the origin of some reflexive prefixes to object indexes of various noun classes, in particular, noun classes 5, 7 and 11. A third hypothesis suggests that in some Kikongo languages, the vocalic reflexive prefix became fused with other pre-stem verbal morphology and developed into *ku-* and *ki-*. A fourth hypothesis proposes the development of the reflexive prefix *ké-* from an auxiliary. These four hypotheses are not mutually exclusive, and I discuss how multiple diachronic scenarios are necessary to account for the full range of variation of reflexive morphology in the Kikongo language cluster. It is proposed that the distribution of *di-/li-* and *ki-* is contact-induced through borrowing, both between different Kikongo languages and between Kikongo and non-Kikongo languages. I tentatively reconstruct the vocalic reflexive prefix **i-* to Proto-Kikongo.



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1. Introduction

From a typological perspective, Bantu languages show little structural diversity in the coding of reflexive constructions. The vast majority use a verbal prefix immediately preceding the verb root,¹ as illustrated in (1)–(3).

- (1) Babole (C101)
bú-'á'-bimb-i
SBJ.3PL.2-REFL-hit-CMPL
'They hit themselves.'
(Leitch 2003, p. 415)
- (2) Sifwe (K402)
ndi-a-kí-remek-i
SBJ.1SG-PST-REFL-hurt-NPST.PFV
'I've hurt myself.'
(Gunnink 2022, p. 292)

- (3) Isindebele (S44)
ngi-ya-zi-khangel-a
SBJ.1SG-PRS-REFL-look_at-FV
'I look at myself.'
(Bowern and Lotridge 2002, p. 47)

This paper takes a microvariational approach by examining formal differences in reflexive verb prefixes across a set of closely related Bantu languages. Different features of variation pertaining to reflexive morphology have already been established in the literature on Bantu languages. For instance, the shape of reflexive morphemes exhibits a high degree of crosslinguistic variation in Bantu languages. Polak (1983, p. 276) lists at least 24 different forms attested in her sample of Bantu languages. Regarding morphosyntactic behavioral properties, Marlo (2014, 2015) discusses variation in Bantu languages pertaining to (i) the order of the reflexive prefix and the 1SG object prefix and (ii) the number of additional object indexes that can co-occur with the reflexive prefix. Semantic variation is also attested, for example, between Bantu languages in which the reflexive prefix only productively codes reflexive constructions and other Bantu languages having innovated their originally reflexive prefix to also code reciprocal constructions (Polak 1983, pp. 297–98; Dom et al. 2016, pp. 143–44; Schadeberg and Bostoen 2019, p. 183; Ngwasi 2021, pp. 141–60; Bostoen 2024) or anticausative constructions (Creissels 2002, p. 400; Ngwasi 2021, pp. 190–94).

I will focus here on the Kikongo language cluster (henceforth KLC), a group of approximately 40 genealogically closely related Bantu languages spoken in an area stretching from southern Gabon down to northern Angola (see the map in Appendix A). The KLC constitutes a relatively small genetic unity within the West-Western or West-Coastal Bantu clade, one of the major sub-branches of the Bantu language family (Grollemund et al. 2015; Pacchiarotti et al. 2019; Koile et al. 2022). Lexically based phylogenetic research has shown that the KLC can be further subdivided into five genealogical subgroups, four of which have been labeled according to the cardinal directions, i.e., North, East, South and West Kikongo, plus a Kikongoid subgroup to the east of the main area (de Schryver et al. 2015; Bostoen and de Schryver 2018a, p. 52). In the center of the four 'cardinal' genealogical subgroups, a contact zone has emerged whose members belong genealogically to North and South Kikongo, i.e., Kimanyanga (North) and Kimboma and Kindibu (South). Due to intensive contact between these languages, they now group together rather than with other North or South Kikongo varieties in lexicon-based phylogenies (Bostoen and de Schryver 2018a, p. 53). This subgroup is called Central Kikongo. With respect to Guthrie's (1948, 1971) updated referential classification (Maho 2009), the KLC consists of all languages in the B40 and H10 groups, H31 Kiyaka, H32 Kisuku, H42 Hungan and L12 Kisamba.

Previous studies report a high degree of variation between Kikongo languages with respect to phonology (Bostoen and Goes 2019; Goes and Bostoen 2019), morphology of noun class prefixes (Bostoen and Schryver 2015), diminutive (Goes and Bostoen 2021), reciprocal (Dom et al. 2024), tense-aspect (Dom and Bostoen 2015) and focus constructions (de Kind et al. 2015). This is typically the outcome of recent innovations and intensive contact between (subsets of) Kikongo languages. In this paper, I show that reflexive morphology is yet another domain where variation abounds in the KLC. I focus on formal variation in verbal morphology coding reflexivity. Semantic or constructional variation are not considered here.

The data for this study are drawn from 34 grammatical descriptions and two fieldwork trips. The grammatical descriptions were consulted from a digital documentation database established by the UGent Centre for Bantu Studies (BantUGent).² The written sources used for this study were published between 1659 and 2017, including the oldest extant grammatical description of any Bantu language (Brugiotti da Vetralla 1659). Unfortunately, information on reflexive morphology is very limited in the descriptions. Sometimes, different sources on varieties with the same glossonym provide diverging information. An overview of all consulted works is included in Appendix B. Fieldwork data were

collected during two trips in the Kongo Central province of the Democratic Republic of the Congo in 2012 and 2015.³

In the remainder of this paper, I present a detailed overview of two main parameters of variation in reflexive morphology in the KLC (Section 2): (1) the forms and their distribution over time and space (Section 2.1), and (2) the number of reflexive prefixes attested in individual languages (Section 2.2). In Section 3, I discuss the origins of the different reflexive prefixes attested in the KLC. I propose four hypotheses that account for the full range of reflexive morphology (Sections 3.1–3.4). An integrated historical account of the distribution of reflexive morphology is proposed in Section 3.5, with a tentative reconstruction of reflexive morphology to Proto-Kikongo. Conclusions are presented in Section 4.

2. Variation in Reflexive Morphology in the Kikongo Language Cluster

There are two main parameters of variation for reflexive morphology in the KLC. One pertains to the shape of the reflexive prefix. Nine orthographically different forms are attested in the database, namely (in alphabetical order), *di-*, *i-*, *ii-*, *kè-*, *ki-*, *ku-*, *li-*, *lu-*, and *yi-*. The prefixes *di-* and *li-* are near-identical reflexes of one proto-form.⁴ Although *ki-* and *ké-* also look like near-identical cognates or even allomorphs, I argue in Section 3 that these morphemes have different origins and, hence, are not reflexes of one single proto-form. The vocalic morphemes *i-*, *ii-* and *yi-* are most likely cognates whose formal variation is due to differences in orthographic tradition. The older Latin and French sources up to the early 20th century all write *i-* ([Brugiotti da Vetralla 1659](#); [Descourvières 1776](#); [Carrie 1888](#); [Ussel 1888](#); [Marichelle 1907](#)), while *ii-* is used only by the Portuguese missionary [Tavares \(1915\)](#),⁵ and *yi-* is used in English sources ([Bentley 1887](#); [Carter 1970](#); [Carter and Makoondekwa 1987](#)) and in the Kisikongo grammar by [Ndonga Mfuwa \(1995\)](#). The cognacy of *di-* and *li-* as well as the homogenization of the vocalic prefixes reduces the number of different forms from nine to six.

The second type of variation is the number of reflexive prefixes that a given docilect or language⁶ has. While most varieties have one, some have two or three reflexive prefixes. In some cases, different descriptions of supposedly the same language provide different prefixes. For example, Kizombo, as described in the works by Hazel Carter, is reported to have the prefixes *ki-* and *yi-* ([Carter 1970](#); [Carter and Makoondekwa 1987](#)), while [Del Fabbro and Petterlini \(1977\)](#) and [Fernando \(2008\)](#) describe Kizombo with reflexive prefixes *di-* and *ki-*, and [Mpanzu \(1994\)](#) only provides *ki-*. Such differences between multiple sources can be due to chronolectal or regiolectal variation, or variable degrees of descriptive detail, which is difficult to determine.

Table 1 presents the distribution of the six forms in those Kikongo varieties from the documentation database for which information on reflexive morphology is available. The language varieties are grouped together in their respective genealogical subgroups and, within subgroups, ordered chronologically based on the year of publication or fieldwork.

Table 1. Overview of variation in form and number of reflexive prefixes in the documentation database.

Subgroup	Docilect/Language	<i>di-</i>	<i>kè-</i>	<i>ki-</i>	<i>ku-</i>	<i>lu-</i>	<i>(y)i-</i>
South Kikongo	Mid-17th c. Kikongo documented in Mbanza Kongo ⁷ (Brugiotti da Vetralla 1659)						✓
	Late-19th c. Kisikongo (Bentley 1887)	✓			✓		✓
	Late-19th c. Kikongo documented in ‘the vicinity of Boma’ (Visseq 1889) ⁸				✓		
	Kisolongo (Angola) (Tavares 1915)				✓		✓
	Dihungu (Atkins 1954)	✓					

Table 1. *Cont.*

Subgroup	Docilect/Language	<i>di-</i>	<i>kè-</i>	<i>ki-</i>	<i>ku-</i>	<i>lu-</i>	<i>(y)i-</i>
	Kizombo (Quibocolo, Angola) (Carter 1970; Carter and Makoondekwa 1987)			✓			✓
	Kizombo (Del Fabbro and Petterlini 1977)	✓		✓			
	Kitsootso (Kimpemba, Angola) (Baka 1992)	li-					
	Kizombo (Ntaya, Angola) (Mpanzu 1994)			✓			
	Kisikongo (Ndonga Mfuwa 1995)	✓		✓	✓		✓
	Kizombo (Maquela do Zombo, Angola) (Fernando 2008)	✓		✓			
	Kinsoso ⁹ (Panda 2017)	✓					
West Kikongo	Late-18th c. Kikongo documented in Kakongo (present-day Cabinda) (Descourvières 1776)						✓
	Late-19th c. Kikongo documented in Kakongo (present-day Cabinda) (Carrie 1888)		✓				✓
	Late-19th c. Kikongo documented in Loango (present-day Republic of the Congo) (Ussel 1888)			✓			✓
	Cibili (Marichelle 1907)						✓
	Kiyombe (De Clercq 1907, 1921)			✓			
	Yipunu (Bonneau 1956)		✓				
	Yipunu (Nsuka-Nkutsi 1980)			✓			
	Iwoyo (Cabinda, Angola) (Mingas 1994)				✓		
	Ciwoyo (Democratic Republic of the Congo) (2012, 2015 fieldwork)						✓
	Cizali (2012 fieldwork)			✓			
	Yilumbu (Gamble 2013)				✓		
East Kikongo	Kintandu (Butaye 1910)			✓			
	Kintandu (Daeleman 1966)			✓			
	Kimbata (2012 fieldwork)			✓			
	Kimbeko (2012 fieldwork)			✓			
	Kinkanu (2012 fieldwork)			✓			
North Kikongo	Cilaadi (Jacquot 1982)			✓			
	Cilaadi (Samba 1989)			✓			
Central Kikongo	Kimanyanga (Laman 1912)			✓			
	Kindibu (Coene 1960)			✓			
	Kimboma (Kisilu and Samuel 2001)			✓			
Kikongoid	Kiyaka (van den Eynde 1968)		✓				
	Kisuku (Piper 1977)		✓			✓	
	Kisuku (Kifindi 1997)		✓				

2.1. Distribution of Reflexive Morphology in the KLC

Several observations can be drawn from Table 1. First, the prefix *ki-* is the most frequently attested reflexive form in the database, occurring in all genealogical subgroups except Kikongoid. It has a high prevalence in the West, North, East and Central Kikongo subgroups but is found in only two South Kikongo varieties, Kisikongo and Kizombo. The oldest attestation of reflexive *ki-* goes back to the late-19th c. West Kikongo doculects from the Kakongo and Loango kingdoms. Examples from these two historical doculects are presented in (4) and (5).

- (4) Late-19th c. West Kikongo documented in Kakongo (WK)¹⁰
*i-ki-bul-a*¹¹
 SBJ.1SG-REFL-hit-PRS
 'I hit myself.'
 (Carrie 1888, p. 79)
- (5) Late-19th c. West Kikongo documented in Loango (WK)
ki-long-a
 REFL-teach-FV
 'teach oneself'
 (Ussel 1888, p. 52)

Second, the vocalic prefix (*y*)*i-* only occurs in the South and West Kikongo subgroups and mostly (but not exclusively) in historical doculects. This prefix is reported as a variant of *ki-* in the historical West Kikongo sources illustrated in (4) and (5) (discussed further in Section 2.2). Importantly, the vocalic reflexive is attested in the oldest source, in the South Kikongo variety as spoken in Mbanza Kongo (Brugiotti da Vetralla 1659). An example is shown in (6).

- (6) Mid-17th c. Kikongo documented in Mbanza Kongo (SK)

<i>ongwe</i>	<i>ku-ku-i-zitis-a</i>	<i>ko</i>
PRON.2SG	NEG.SBJ.2SG-FUT-REFL-love-FUT	NEG
'You will not love yourself.'		

 (Brugiotti da Vetralla 1659, p. 77)

Third, the distribution of the reflexive prefix *di-* is restricted to the South Kikongo and Kikongoid subgroups. Reflexive *di-* is first mentioned in Bentley's (1887, p. 682) Kisikongo grammar, although without any examples. An example of this reflexive prefix in Kiyaka is shown in (7).

- (7) Kiyaka (KK)
lu-di-tadidi
 SBJ.2PL-REFL-look_at.CPC
 'You (pl.) have looked at yourselves.'
 (van den Eynde 1968, p. 78)

The cognate *li-* is only attested in Baka's (1992) Kitsootso description, illustrated in (8).

- (8) Kitsootso (SK)
a-li-mwene
 SBJ.3PL.2-REFL-see.CPC
 'They have seen themselves.'
 (Baka 1992, p. 93)

Fourth, the prefix *ku-* is attested only in South Kikongo doculects, namely, Kisikongo (Bentley 1887; Ndonga Mfuwa 1995), Kikongo as spoken in 'the vicinity of Boma' (Visseq 1889) and Kisolongo (Tavares 1915). An example from Visseq (1889) is given in (9).

- (9) Late-19th c. Kikongo documented in ‘the vicinity of Boma’ (SK)
yetu tu-a-ku-tules-a
 PRON.1PL SBJ.1PL-DPC-REFL-hurt.CAUS-DPC
 ‘We hurt ourselves.’
 (Visseq 1889, p. 40)

A fifth and last observation is that the remaining two of the six reflexive prefixes are only attested in one doclect each: *ké-* in Yipunu (Bonneau 1956, p. 35; Nsuka-Nkutsi 1980, pp. 108–9) and *lu-* in Kisuku (Piper 1977, p. 298). These are illustrated in (10)–(11).

- (10) Yipunu (WK)
ni-ma-ke-rung-il-a N-dau
 SBJ.1SG-CPC-REFL-build-APPL-CPC 9-house
 ‘I have built a house for myself.’
 (Bonneau 1956, p. 35)
- (11) Kisuku (KK)
wu-lu-bw-is-i
 SBJ.3SG.1-REFL-fall-CAUS-PRS
 ‘S/he makes her/himself fall.’
 (Piper 1977, p. 298)

Table 2 summarizes the distribution of the six reflexive prefixes in the five genealogical subgroups of the KLC and presents the time periods in which the prefixes are attested in the documentation.

Table 2. Distribution of the seven reflexive prefixes in the KLC in space and time.

Reflexive Prefix	Distribution in Space	Distribution in Time
<i>di-</i>	South Kikongo and Kikongoid	1880s–2010s
<i>ké-</i>	Yipunu (West Kikongo)	1950s–1980s
<i>ki-</i>	West, North, East, South and Central Kikongo	1880s–2010s
<i>ku-</i>	South Kikongo	1880s–1990s
<i>lu-</i>	Kisuku (Kikongoid)	1970s
<i>(y)i-</i>	South and West Kikongo	1650s–2010s

2.2. Kikongo Languages with Multiple Reflexive Prefixes

Six Kikongo varieties from various time periods are reported to have more than one reflexive prefix, ranging from two to four different morphemes. These varieties are Kisikongo, Kisolongo, Kisuku, Kizombo, and the late-19th c. doclects from Kakongo and Loango. In this section, I discuss for each of these varieties how many reflexive prefixes are attested, variation between different sources, and whether the multiple reflexive prefixes are in free variation or complementary distribution. The varieties are discussed according to genetic affiliation, that is, first, the late-19th c. West Kikongo doclects from Kakongo and Loango; then, the South Kikongo varieties Kisikongo, Kisolongo and Kizombo; and lastly, the Kikongoid variety Kisuku.

West Kikongo. Both historical doclects from Kakongo and Loango are described as having two reflexive prefixes, *ki-* and *i-* (Carrie 1888, pp. 84–85; Ussel 1888, pp. 52–56). For the Kakongo doclect, Carrie (1888, pp. 84–85) asserts that some TAM constructions combine with either *ki-* or *i-*, whereas with other TAM constructions, only *i-* can be used. For example, the two prefixes are in free variation when the verb takes the Present Tense construction as in (12a), but only *i-* is allowed with the Contemporal Past Completive construction as in (12)b.

- (12) Distribution of reflexive prefixes *ki-* and *i-* in late-19th c. Kikongo from Kakongo (WK)
- a. *t'-i-ki-i-bul-a*
SBJ.1PL-PRS-REFL-hit-PRS
'We hit ourselves.'
([Carrie 1888](#), p. 117)
 - b. *u-i-bul-izi*
SBJ.2SG-REFL-hit-CPC
'You (sg.) have hit yourself.'
([Carrie 1888](#), p. 84)

For the Loango doclect, [Ussel \(1888\)](#) claims that reflexive *i-* is preceded by a prefix *ku-* in some TAM constructions, such as the Present Tense construction in (13). This *ku-*-morpheme is attested in most Kikongo languages but has not yet received any detailed analysis. It always co-occurs with an object index or reflexive prefix and immediately precedes these morphemes. Because it does not have an explicit grammatical function, it has been labelled 'expletive' in recent studies on Kikongo ([De Kind 2014; de Kind et al. 2015; Dom et al. 2018, 2020](#)), a label which I also adopt here.

- (13) Expletive plus reflexive *ku-i-* in late-19th c. Kikongo from Loango (WK)
- u-aka-ku-i-long-a*
SBJ.3SG.1-PRS-EXPL-REFL-teach-PRS
'He teaches himself.'
([Ussel 1888](#), p. 53)

[Ussel \(1888](#), p. 52) writes that the combination *ku-i-* alternates with *ki-* but illustrates this only for infinitives, e.g., *ku-i-longa* or *ki-longa*, meaning 'teach oneself'. The verb in (13), thus, might have had an alternative form *u-aka-ki-long-a*, although this remains inconclusive due to the absence of data. In other TAM constructions, such as the Dissociative Past Completive in (14), reflexive *i-* is not preceded by *ku-* and does not alternate with *ki-*.

- (14) Reflexive *i-* in late-19th c. Kikongo from Loango (WK)
- u-a-i-long-a*
SBJ.3SG.1-DPC-REFL-teach-DPC
'He taught himself.'
([Ussel 1888](#), p. 54)

In summary, both doclects have a set of TAM constructions in which only *i-* is reportedly used versus other TAM constructions which exhibit some pattern of variation, either between *i-* and *ki-* in Kakongo or between *i-* and *ku-i-*, and probably *ki-*, in Loango. Interestingly, there is some overlap between the two doclects regarding the TAM constructions that have restrictions or free variation in reflexive morphology. In both doclects, free variation between multiple reflexive prefixes is observed in two cognate Present Tense constructions. In contrast, the cognate Contemporal Past Completive and Imperative constructions only allow the reflexive prefix *i-*. Table 3 gives an overview.

South Kikongo. Multiple reflexive prefixes are attested in three South Kikongo varieties, namely Kisolongo, Kisikongo and Kizombo. According to [Tavares \(1915](#), pp. 66–68), Kisolongo has two reflexive prefixes, *ku-* and *ii-*, which are in complementary distribution depending on the TAM construction of the verb. For example, *ku-* is used with the Future construction in (15a), while *ii-* is used with the Hesternal Past Perfective in (15b).

- (15) Complementary distribution of reflexive prefixes *ku-* and *ii-* in early 20th c.
 Kisolongo (SK)
- a. *sa be-ku-tal-a*
 FUT SBJ.3PL.2-REFL-look_at-FUT
 'They will look at themselves.'
 (Tavares 1915, p. 67)
- b. *i-a-ii-tadidi*
 SBJ.1SG-HST-REFL-look_at.HST
 'I looked at myself.'
 (Tavares 1915, p. 66)

Table 3. Comparison of TAM constructions and distribution of reflexive morphology in the late-19th c. Kakongo and Loango doculects.

TAM Constructions	Reflexive <i>i-</i> Only	Free Variation
Loango Present Tense 1 SBJ-...- <i>a</i>	—	✓
Kakongo Present Tense 1 SBJ- <i>i</i> -...- <i>a</i> (see (12a))	—	✓
Loango Present Tense 2 SBJ- <i>aka</i> -...- <i>a</i> (see (13))	—	✓
Kakongo Present Tense 2 SBJ- <i>eka</i> -...- <i>a</i>	—	✓
Loango CPC SBJ-...- <i>izi</i>	✓	—
Kakongo CPC SBJ-...- <i>izi</i> (see (12b))	✓	—
Loango Imperative (SBJ-)...- <i>a</i>	✓	—
Kakongo Imperative (SBJ-)...- <i>a</i>	✓	—

For Kisikongo, the different descriptions provide a series of snapshots of the language through time. An overview is presented in Table 4. The grammar by Brugiotti da Vetralla (1659) on mid-17th c. Kikongo as spoken at Mbanza Congo is included here, as the doculet has been identified as the direct ancestor of Kisikongo (Bostoen and de Schryver 2018b).

Table 4. Kisikongo multiple reflexive prefixes and variation between sources.

Source	<i>yi-</i>	<i>di-</i>	<i>ku-</i>	<i>ki-</i>
Brugiotti da Vetralla (1659)	✓	—	—	—
Bentley (1887)	✓	✓	✓	—
Ndonga Mfuwa (1995)	✓	✓	✓	✓

Table 4 shows how the number of reflexive prefixes increases from one in the oldest grammar to four in the most recent description.

Bentley (1887, pp. 682–86) describes a distributional pattern for the use of *di-*, *ku-* and *yi-* in late-19th c. Kisikongo similar to the pattern of the multiple reflexive prefixes in the late-19th c. West Kikongo doculects. That is, *di-* and *yi-* are in free variation but occur only with a subset of TAM constructions, and both are in complementary distribution with *ku-*, which is used with the remaining subset of TAM constructions.¹² According to Ndonga Mfuwa's (1995, pp. 212–13) analysis, three reflexive prefixes, *di-*, *ki-* and *yi-*, are attested in Kisikongo in free variation. An example of reflexive *di-* is given in (16).

- (16) Kisikongo (SK)
- | | |
|--------------------------------|--|
| <i>mono</i> | <i>yi-ku-di-tond-ang-a</i> |
| PRON.1SG | SBJ.1SG-EXPL-REFL-congratulate-HAB-PRS |
| 'I often congratulate myself.' | |
| (Ndonga Mfuwa 1995, p. 213) | |

Regarding the prefix *ku-*, Ndonga Mfuwa (1995, p. 213) explains that it either precedes or replaces the reflexive prefix but admits that he was not able to determine its function. When *ku-* precedes the reflexive, as in (16), I analyze it as an expletive like in other Kikongo languages. I consider *ku-* to function as a reflexive prefix in the situation described by Ndonga Mfuwa, where *ku-* is 'replacing' one of the other three reflexive prefixes. Unfortunately, no examples of reflexive *ku-* are provided in the grammar.

Similar to the historical West Kikongo Loango and Kakongo doculects, there is some overlap between early 20th c. Kisolongo and late 19th c. Kisikongo in the verbal constructions which combine with reflexive *ku-* and those which combine with *i-*. An overview is presented in Table 5.

Table 5. Comparison of TAM constructions and distribution of reflexive *ku-* and *i-* in Kisolongo and Kisikongo as described around the turn of the 20th century.

TAM Constructions	<i>ku-</i>	<i>i-</i>
Kisolongo Present Tense	✓	—
SBJ-...- <i>a</i>	—	—
Kisikongo Present Tense	✓	—
SBJ-...- <i>a</i>	—	—
Kisolongo Infinitive	✓	—
...- <i>a</i>	—	—
Kisikongo Infinitive	✓	—
...- <i>a</i>	—	—
Kisolongo CPC	—	✓
SBJ-...- <i>idi</i>	—	✓
Kisikongo CPC	—	✓
SBJ-...- <i>idi</i>	—	✓
Kisolongo DPC	—	✓
SBJ- <i>a</i> -...- <i>a</i>	—	✓
Kisikongo DPC	—	✓
SBJ- <i>a</i> -...- <i>a</i>	—	✓
Kisolongo Imperative	—	✓
(SBJ-)...- <i>a</i>	—	✓
Kisikongo Imperative	—	✓
(SBJ-)...- <i>a</i>	—	✓

The five grammatical descriptions of Kizombo differ in multiple ways in their description of reflexive prefixes. An overview of the reflexive prefixes attested in these sources is presented in Table 6. Only Del Fabbro and Petterlini (1977) and Fernando (2008) have the same number and forms of reflexive prefixes.

Table 6. Kizombo multiple reflexive prefixes and variation between sources.

Sources	<i>yi-</i>	<i>di-</i>	<i>ki-</i>
Carter (1970), Carter and Makondekwa (1987)	✓	—	✓
Del Fabbro and Petterlini (1977)	—	✓	✓
Mpanzu (1994)	—	—	✓
Fernando (2008)	—	✓	✓

Carter (1970, p. 130), Del Fabbro and Petterlini (1977, pp. 160–61), and Fernando (2008, pp. 83, 124) state that the reflexive prefixes are in free variation and conditioned by speaker preference and/or language contact with other Kikongo languages. In contrast, according

to [Carter and Makoondekwa \(1987\)](#), p. 87), the prefixes *yi-* and *ki-* are in complementary distribution, namely, *yi-* is used in infinitival verb forms, as in (17a), while *ki-* is used with all TAM constructions, such as the Subjunctive in (17b).

- (17) Complementary distribution of reflexive prefixes *yi-* and *ki-* in Kizombo (SK)
- a. *ku-yi-vaang-il-á*
15-REFL-cook-APPL-FV
'to cook for oneself'
([Carter and Makoondekwa 1987](#), p. 87)
 - b. *y-a-ki-suumb-il-á*
SBJ.1SG-SBJV-REFL-buy-APPL-SBJV
'that I may buy for myself'
([Carter and Makoondekwa 1987](#), p. 87)

Kikongoid. While [Kifindi \(1997\)](#), p. 23) describes one reflexive prefix *di-* in Kisuku, [Piper \(1977\)](#), p. 298) mentions both *lu-* and *di-*. [Piper \(1977\)](#) does not discuss whether *lu-* and *di-* are in free variation or complementary distribution. The grammar provides minimal pairs with the same lexical verbs and the same TAMP categories, e.g., *bá-lú-kúmung-á* and *bá-dí-kúmung-á* both translated as 'you (pl.) will throw yourselves down'.¹³ As we saw in the west and south Kikongo doculects, multiple prefixes might be in free variation in one set of TA constructions, while another set of TA constructions only allows one of the multiple prefixes. Although the minimal pair examples in Kisuku suggest that the prefixes are in free variation, the data are too limited to draw any firm conclusions.

In summary, the description of multiple reflexive prefixes in the six Kikongo languages varies considerably. Multiple sources on the same language often agree on neither the set of reflexive prefixes nor the conditions of their use. Overall, Kisuku and Kizombo seem to have multiple reflexive prefixes in free variation. The most recent description of Kisikongo by [Ndonga Mfuwa \(1995\)](#) claims this as well, which is at odds with older descriptions of the language. It is not unimaginable that the conditions governing the complementary distribution have weakened over time, resulting in the free variation of the prefixes in modern Kisikongo. More generally, all descriptions from around the turn of the 20th century describe the attestation of the reflexive prefix *yi-* and multiple reflexive prefixes that are in complementary distribution based on the TAM paradigm in the respective languages. Interestingly, some cognate TAM constructions are described in all four historical grammars to combine with *yi-* only, i.e., the Contemporal Past Compleutive SBJ-...-*idi* (or -*izi*), the Imperative ...-*a*, and, except for the Kakongo doculet, the Dissociative Past Compleutive SBJ-*a*-...-*a* (for a historical-comparative overview of TA morphology in the KLC, see [Dom and Bostoen 2015](#); for a semantic and diachronic description of the DPC in Kikongo languages, see [Dom et al. 2018](#)). A historical explanation on the relation between the TAM constructions and the use of *ki-*, *ku-* and *yi-* is given in Section 3.3.

3. On the Diachrony of Reflexive Prefixes in the KLC

In this section, I will discuss four diachronic pathways that account for the six different reflexive prefixes in the KLC, namely *di-*, *kè-*, *ki-*, *ku-*, *lu-* and *(y)i-*, and propose a reconstruction of reflexive morphology in Proto-Kikongo, the most recent common ancestor of the KLC.

3.1. Retention of Proto-Kikongo Reflexive Prefix **i*-

I assume the vocalic prefix *(y)i-* is a reflex of the Proto-Kikongo reflexive prefix **i*- (see Section 3.5 for a discussion of this reconstruction) which is, in all likelihood, a reflex of the reconstructed Proto-Bantu reflexive prefix **i*- ([Meeussen 1967](#), p. 109; [Polak 1983](#), p. 292). Vocalic reflexive prefixes with vowels /i/ or /e/ are widespread throughout Bantu ([Polak 1983](#), pp. 277–79). With attestations in the earliest historical grammars on South and West Kikongo languages ([Brugotti da Vetralla 1659](#); [Descourvières 1776](#)), as illustrated in (18) and (19), respectively, the prefix is the oldest known reflexive morpheme in the KLC.

- (18) Mid-17th c. Kikongo documented in Mbanza Kongo (SK) (repeated from (6))
*ongwe ku-ku-*i*-zitis-a ko*
 PRON.2SG NEG.SBJ.2SG-FUT-REFL-love-FUT NEG
 'You will not love yourself.'
 (Brugotti da Vetralla 1659, p. 77)
- (19) 18th c. Kikongo as documented in Kakongo (WK)
*ba-*i*-huk-eze*
 SBJ.3PL.2-REFL-hurt-CPC
 'They hurt themselves.'
 (Descourvières 1776, p. 19)

The time depth of the vocalic reflexive prefix in the KLC and its close formal resemblance to the reconstructed Proto-Bantu form **i*- (Meeussen 1967, p. 109; Polak 1983, p. 292) suggests that (*y*)*i*- is a retention from, at least, Proto-Kikongo.

3.2. Object Indexes

In this hypothesis, I assume that the reflexive prefixes *di*-, *lu*- and *ki*- are developed from verbal prefixes which index syntactic objects on the verb, specifically those of classes 5, 7 and 11. This hypothesis is based on two similarities between the reflexive prefixes and object index prefixes. First, following the general pattern of most Bantu languages (Polak 1983, p. 275), in all Kikongo languages, the reflexive prefix occupies the same slot in the morphological template of the verb as do object index prefixes, that is, the slot immediately before the verb root. Second, these three reflexive prefixes are formally identical to pronominal prefixes of classes 5 (*di*- or *li*-), 7 (*ki*-) and 11 (*lu*-) in the respective Kikongo languages in which they are attested. Importantly, pronominal prefixes are typically used in Bantu languages, among other functions, for object indexing on verbs (Katamba 2003, p. 111). However, due to a decline in the use of object index prefixes in most Kikongo languages, we can no longer compare these with the reflexive prefixes. Only a few grammars describe the use of object indexes, such as Ussel (1888, p. 79) for late 19th c. Kikongo spoken in Loango, Bonneau (1956, pp. 35–36) for Yipunu, or De Clercq (1907, p. 462) for Kiyombe, although he states that independent pronouns are preferred. Instead of object index prefixes, most Kikongo languages use independent pronouns for non-speech act participants. For example, Kimbata has a reflexive prefix *ki*-, as in (20), which is assumedly developed from the object index of class 7.

- (20) Kimbata (EK)
*u-ta-*ki*-mon-a*
 SBJ.2SG-PRS.PROG-REFL-see-PRS.PROG
 'You see yourself.'
 (Fieldwork data 2012)

However, because Kimbata's system of object indexes has declined and instead independent pronouns are used, such as *kyo* in (21), we can no longer compare the reflexive prefix *ki*- to the class 7 object index prefix.

- (21) Kimbata (EK)
ka-tobwele kyo ko
 NEG.SBJ.3SG.1-pierce.CPC OBJ.PRON.7 NEG
 'S/he did not pop it (*kibundu* 'pimple').'
 (Fieldwork data 2012)

The use of independent pronouns instead of object indexes prevents ambiguous readings of the pronominal prefixes *di*-, *lu*- or *ki*- as either object index or reflexive prefix. For example, the Kimbata sentence in (20) can only have a reflexive meaning, and not 'You are seeing it'.

Formal similarity between reflexive prefixes and object indexes of classes 5, 7, 8, 10 and 15 is observed throughout the Bantu languages, as discussed by Polak (1983, pp. 288–91).

Polak (1983) does not provide any hypotheses on the development of object indexes into reflexive prefixes in Bantu. In the general literature on the diachrony of reflexive morphology, only a few cases are discussed of languages in which pronominal morphemes indexing object arguments develop into reflexive markers. Heine and Reh (1984, pp. 222–23) describe how the Zande (Atlantic Congo)¹⁴ noun *he*¹ ‘thing’ grammaticalized into a third-person object pronoun *-he* and subsequently was recruited to form the reflexive pronoun *ti-e* ‘itself’ for inanimate referents. In a crosslinguistic study of some 150 languages, Schladt (2000, p. 110) only finds five languages whose reflexive markers have developed from personal object pronouns, namely, Chaplino (Eskimo-Aleut), Frisian (Indo-European), Tamil (Dravidian), Tolai (Austronesian) and Samoan (Austronesian). Schladt does not elaborate in more detail the historical processes behind these developments. What complicates a detailed understanding of the Kikongo (and, by extension, Bantu) hypothesis of object indexes becoming reflexive prefixes is their rich gender systems with multiple noun classes. In Zande, there is a semantically transparent path from a third-person object pronoun for inanimate referents to a compound reflexive pronoun, such as ‘it’ > ‘itself’ (Heine and Reh 1984, pp. 222–23), or in Samoan from a third-person object pronoun to a reflexive pronoun, such as ‘him’ > ‘himself’ (Schladt 2000, p. 105). However, the fact that object indexes of particularly classes 5, 7 and 11 have been reinterpreted as reflexive prefixes in Kikongo languages, and not those from other classes, needs to be motivated. Which nominal referents belonging to these noun classes allowed a reconceptualization of their pronominal object index as a reflexive prefix? Based on findings from crosslinguistic research, specific body part nouns such as ‘body’ or ‘head’ would be a likely source (Heine and Reh 1984, p. 272; Schladt 2000; Heine and Kuteva 2002, p. 57; Evseeva and Salaberri 2018). Yet, most body parts have nouns in classes 3/4 and 15/6 instead of 5, 7 or 11 in Kikongo languages, with the exception of *di-isu* ‘eye’ (class 5/6), found across the KLC and *lu-tu* ‘body’ (class 11/6), in Kisuku and Kiyaka.

The lack of remnants of previous stages of development complicates reconstruction. This absence also seems indicative of the considerable time depth to which the change can be attributed. Interestingly, the South Kikongo and Kikongoid languages having reflexive prefix *di-* share cognates with neighboring non-Kikongo languages, namely, Pende (L11) *di-*, Kwezo (L13) *di-*, Chokwe (K11) *li-* (all three to the east of Kikongoid) and Kimbundu (H21) *ri-* (to the south of south Kikongo). The areal attestation of these cognates in neighboring Bantu languages from a genealogically different subgroup, namely, South-Western Bantu, raises the question of contact-induced spread. What certainly supports such a scenario is the fact that the Kizombo speech community, the Bazombo, have the historical reputation of being specialized merchants within extensive trade networks that lead from the inland Kwango region and southern Angola, where non-Kikongo languages were spoken, to Mbanza Kongo, the capital of the Kongo kingdom where Kisikongo was (and still is) spoken. These historical trade routes overlap significantly with the isogloss of reflexive *di-/li-/ri-*. Evidently, more research on the sociolinguistic history of the speech communities from this zone is needed to substantiate such a contact scenario, but at this stage, it seems to be the most plausible explanation compared to internal innovation in the KLC.

3.3. Fusion of *ku-* and *i-*

For a number of West Kikongo languages, reflexive prefix *ki-* can be shown to originate not from the class 7 object index but from the fusion of two prefixes, *kV-* and *i-*. This process constitutes the third diachronic scenario and also accounts for the diachrony of the reflexive *ku-* in South Kikongo languages. Before elaborating on this hypothesis, I first argue why reflexive *ki-* in West Kikongo cannot originate from the class 7 object index prefix.

Most West Kikongo languages are characterized by the historical palatalization of the velar plosive consonant [k] into the palatoalveolar affricate [tʃ] (/c/) in front of reflexives of [*e] or [*i] (Goes 2022, pp. 100–1). The class 7 object index prefix is also affected by this, changing from **kr-* to *ci-*. In the oldest West Kikongo source by Descourviers (1776), the

frication of class 7 prefixes is, at least, orthographically absent.¹⁵ The first attestations of the palatoalveolar affricate are observed in late 19th c. West Kikongo doculects, illustrated in (22).

- (22) Palatalization of class 7 nominal and pronominal prefixes in late-19th c. West Kikongo doculects
- a. Late-19th c. West Kikongo documented in Kakongo (WK)

<i>ci-alu</i>	<i>ci-in-a</i>	<i>ci-mona</i>
7-chair	SBJ.3SG.7-be-FV	7-new
‘The chair is new.’		

(Carrie 1888, p. 47)

 - b. Late-19th c. West Kikongo documented in Loango (WK)

<i>ci-lumbu</i>	<i>a-ci</i>
7-day	DEM-7
‘this day; today’	

(Ussel 1888, p. 66)

In addition to the doculects described in Carrie (1888) and Ussel (1888), the palatalization of class 7 **ki*- into *ci*- is observed in the West Kikongo languages Ciwoyo, Cisundi and Civili, as evidenced by the noun class 7 prefix *ci*- in the glossonyms. In other West Kikongo languages, the consonant of the class 7 prefixes further weakened into a glide or completely disappeared, i.e., **ki*->**ci*->**y*->*y*- or *i*- as in Yilumbu, Yipunu and Iwoyo, again illustrated by the class 7 prefix of the glossonyms.

If the reflexive prefix would have developed from the class 7 object index prefix in these West Kikongo languages, we would expect the reflexive to be *ci*-, *yi*-, or *i*- instead of *ki*- . However, this is not the case. The Iwoyo examples in (23) show that the class 7 object index underwent palatalization, while the reflexive prefix has a plosive consonant, that is, *ci*- and *ki*-, respectively.

- (23) Iwoyo (WK)
- a. *njeyé* *véká* *u-ci-vang-a*
PRON.2SG self SBJ.2SG-OBJ.3SG.7-do-DPC
‘You did it (*cyuma* ‘thing’) yourself.’
(Mingas 1994, p. 352)
 - b. *njeyé* *u-i-ki-vond-á*
PRON.2SG SBJ.2SG-PRS-REFL-kill-PRS
‘you killed yourself.’
(Mingas 1994, p. 305)

The phonological difference between class 7 object indexes and the reflexive prefix *ki*- in a subset of West Kikongo languages indicates that the latter did not develop from the former but that *ki*- developed through another historical process in these languages. This process is detailed in the third hypothesis below.

The third hypothesis assumes that *ki*- in some West Kikongo languages and *ku*- in South Kikongo languages developed from the fusion of *ku*- and the reflexive prefix *i*- . This hypothesis is adopted from Polak (1983, pp. 282–83), who proposes the diachronic process for reflexive *ku*- in Kisolongo and Kisikongo. The fusion of *ku*- and *i*- took place in infinitival forms with the noun class 15 prefix *ku*- and in inflected forms with the expletive prefix *ku*- . The first attestation of the expletive in the database is found in 18th c. Kikongo as spoken in Kakongo (Descourvières 1773, p. 1776). An example is provided in (24).

- (24) 18th c. Kikongo as documented in Kakongo (WK)
- | | |
|------------------------------------|--|
| <i>u-li-ku-n-dim-a</i> | |
| SBJ.3SG.1-PRS-EXPL-OBJ.1SG-ask-PRS | |
| ‘He asks me (something).’ | |
- (Descourvières 1776, p. 18)

The expletive prefix is most likely a remnant of the class 15 prefix *ku*- of the infinitival verb of a grammaticalized auxiliary construction. I will use the TA construction SBJ-*li*-

STEM-*a* of the verb in (24) to illustrate this development. Another example of this TA construction but without object or reflexive prefix is shown in (25).

- (25) 18th c. Kikongo as documented in Kakongo (WK)
tu-li-sal-a
 SBJ.1PL-PRS-work-PRS
 'We work/are working.'
 ([Descourvrières 1776](#), p. 16)

This Present Tense construction developed from an auxiliary construction consisting of the verb *li* 'be' and a lexical verb in the infinitival form *ku*-STEM-*a*, e.g., **u-li ku-lim-a* 'he is asking' (lit. 'he is to ask'), or *tu-li ku-sal-a* 'we are working' (lit. 'we are to work').¹⁶ The auxiliary construction SBJ-*li* *ku*-STEM-*a* grammaticalized into the single verb construction SBJ-*li*-STEM-*a* as in (25) through a reanalysis of the auxiliary *li* into a TA prefix *li-* and the integration of the infinitival verb into the single verb structure. The noun class prefix *ku-* of the infinitival verb was omitted in the grammaticalization process, except in co-occurrence with object indexes and reflexive prefixes, as in (24). At this stage, *ku-* no longer functions as a nominal prefix coding deverbal nominalization. It has become a remnant of the older auxiliary construction without a clearly identifiable meaning, that is, an expletive morpheme. This diachronic explanation also motivates why the expletive is mostly attested in TA constructions which developed from auxiliary constructions, i.e., typically, future and present tense constructions, and why it is not attested in archaic TA constructions that did not develop from auxiliary constructions, such as those with the perfective suffixes *-idi* or *-izi* or imperative constructions.

It is from this point that I assume the development took place in which the reflexive prefix *i-* merged with *ku-* in infinitives and inflected verbs. Strong support for this hypothesis is found in the grammar by [Ussel \(1888\)](#), who asserts that *ku-i-* freely alternates with *ki-* in late 19th c. Kikongo documented in Loango. The free alternation is illustrated with an infinitival form of the verb *long* 'teach', i.e., *ku-i-long-a* [15-REFL-teach-FV] and *ki-long-a* [REFL-teach-FV] ([Ussel 1888](#), p. 52). Unfortunately, similar evidence for inflected verbs is absent.

This diachronic hypothesis implies that reflexive *ku-* in South Kikongo and *ki-* in West Kikongo languages developed from the same combination of morphemes, i.e., *ku-* and *i-*, but that a difference in vowel hiatus resolution resulted in two different prefix shapes. That is, in South Kikongo the second vowel became deleted, i.e., *ku-i->ku-*, while in West Kikongo the first vowel was lost, i.e., *ku-i->ki-*. The same effects of vowel hiatus resolution involving a sequence of /u/ and /i/ are found with subject index prefixes and a present tense prefix *i-* in both South and West Kikongo languages. Let us first consider West Kikongo. For late 19th c. Kikongo documented in Kakongo, [Carrie \(1888](#), p. 103) shows that the first- and second-person plural subject indexes *tu-* and *lu-* followed by the present tense prefix *i-* are realized either as *tu-i-* and *lu-i* or as *t-i-* and *l-i*, e.g., *tu-i-sal-a* or *t'-i-sal-a* 'we work', and *lu-i-sal-a* or *l'-i-sal-a* 'you (pl.) work'. Both instances involve the deletion of /u/ before /i/, which is the assumption for the development of the reflexive prefix *ki-* from *ku-i-*. The deletion of /u/ of the first- and second-person plural subject indexes in the Present Tense constructions with prefix *i-* is still observed in modern West Kikongo languages, as shown for the first-person plural *tu-* in Ciwoyo in (26).¹⁷

- (26) Ciwoyo (WK)
t-i-to:n' *i-syalu*
 SBJ.1PL-PRS-begin AUG-7.work
 'We start the work'
 (Fieldwork 2015)

The South Kikongo languages Kisolongo, Kisikongo and Kizombo also appear to have a present tense prefix *i-*. The prefix is typically dropped after most subject prefixes, but its presence is recoverable from subject prefixes with the vowel /a/, such as 3rd singular *ka-*, 3rd plural *ba-*, or class 6 *ma-*, which change into /e/ in the present tense, i.e., *ke-*, *be-* or

me-, respectively. This is shown in Table 7, which compares the form of the subject index prefixes of 3SG, 1PL, 2PL, 3PL and CL6 in the CPC and PRS constructions in late 19th c. Kisikongo. The gray shaded cells illustrate that subject prefixes with /a/ retain the vowel in the CPC SBJ-...-ele, while being /e/ in the PRS SBJ-i-...-a. This is the result of vowel hiatus resolution in the PRS, where /a + i/ > /e/. The white cells show that the subject prefixes with /u/ retain the vowel both in the CPC and PRS constructions, revealing that /u + i/ > /u/. The same vowel hiatus strategy also occurred in the development of the reflexive prefix *ku-* from *ku-i-*.

Table 7. Comparison of subject prefixes in Kisikongo CPC and PRS constructions (Bentley 1887, p. 666).

	CPC SBJ-...-ele	PRS SBJ-i-...-a
3SG	<i>ka-tond-ele</i> 's/he has loved'	<i>ke-tond-a</i> 's/he loves'
3PL	<i>ba-tond-ele</i> 'they have loved'	<i>be-tond-a</i> 'they love'
CL6	<i>ma-tond-ele</i> 'they have loved'	<i>me-tond-a</i> 'they love'
1PL	<i>tu-tond-ele</i> 'we have loved'	<i>tu-tond-a</i> 'we love'
2PL	<i>nu-tond-ele</i> 'you have loved'	<i>nu-tond-a</i> 'you love'

3.4. Auxiliary

The historical processes described above do not account for the form of the reflexive prefix *ké-* in Yipunu. At first glance, the prefix looks like a cognate of *ki-*, as found in other West Kikongo languages. However, the expletive *ku-*, which constitutes the first element in the sequence *ku-i-* that assumedly evolved into *ki-* (see Section 3.3), is not attested in the consulted Yipunu descriptions. Furthermore, even when assuming Yipunu either innovated *ké-* through the same fusion process (*ku-i- > ki-*) as other West Kikongo languages or it borrowed *ki-* from neighboring West Kikongo languages, the change from the close vowel /i/ of *ki-* to a close-mid vowel /e/ in *ké-* is unmotivated. The reflexive prefix *ké-* also did not develop from the class 7 object index (see Section 3.2). Just like other West Kikongo varieties (see Section 3.3), Yipunu underwent the palatalization of /k/ in front of close front vowel /i/ reflexes of */i/, affecting the object prefix of class 7 which changed from **ki-* to *yi-* (object index prefixes have the same form as subject index prefixes, see Bonneau 1956, pp. 35–36; Nsuka-Nkutsi 1980, pp. 70, 73).

An alternative diachrony for Yipunu *ké-* is proposed by Nsuka-Nkutsi (1980, pp. 108–9). According to the authors, *ké-* might originally have been an auxiliary verb that grammaticalized into a verbal prefix. The tonal behavior of the reflexive prefix is different from object index prefixes. Object index prefixes variably have a high or low tone depending on the overall verbal construction (Nsuka-Nkutsi 1980, p. 87), while reflexive *ké-* always has a high tone (Nsuka-Nkutsi 1980, pp. 108–9). The fact that the tonal processes which target object index prefixes do not apply to the reflexive prefix suggests that the reflexive did (or does) not occupy the same morphological slot in the verbal template as do the object index prefixes, and thus might have developed from a different structure such as an auxiliary construction. We also find supportive evidence for the auxiliary hypothesis in Yipunu's rich set of verbal prefixes. Bonneau (1956, pp. 50–54) presents a long list of so-called auxiliaries, many of which are, rather, prefixes encoding mainly tense, aspect and polarity (see also Nsuka-Nkutsi 1980, pp. 70–71). Clearly, Yipunu's verbal system is heavily innovated through the grammaticalization of auxiliary verbs into the prefical slots of the verbal template. The authors in Nsuka-Nkutsi (1980) do not discuss the source verb from which the reflexive *ké-* could have developed. Yipunu has other verbal prefixes similar in shape to the reflexive *ké-*, some of which Bonneau (1956, p. 50) claims to originate from a predicate meaning 'to be'. I could not find additional evidence in the Yipunu descriptions to elaborate the verbal source of the reflexive prefix.

3.5. Reconstructing Proto-Kikongo Reflexive Morphology

The diachronic scenarios discussed in the previous sections indicate that reflexive morphology in the KLC is highly innovative. In this section, I bring the different processes described in Sections 3.1–3.3 together and outline an integrated hypothesis of the diachrony of reflexive morphology in the KLC. In doing so, I also attempt to reconstruct reflexive morphology to Proto-Kikongo, the most recent common ancestor of the KLC.

As a first line of evidence, we can locate the earliest attestations of each form in time in the database and order them chronologically, as in Table 8.

Table 8. Distribution of reflexive prefixes in the KLC in space and time.

Reflexive Prefix	Distribution in Space	Distribution in Time
(y) <i>i</i> -	South and West Kikongo	1650s–2010s
<i>ku</i> -	South Kikongo	1880s–1990s
<i>ki</i> -	West, North, East, South and Central Kikongo	1880s–2010s
<i>di</i> -/ <i>li</i> -	South Kikongo and Kikongoid	1880s–2010s
<i>ké</i> -	Yipunu (West Kikongo)	1950s–1980s
<i>lu</i> -	Kisuku (Kikongoid)	1970s

The vocalic morpheme *i*- is the only reflexive prefix attested in the two oldest doculects in the database, from two different subgroups and different centuries, i.e., 17th c. South Kikongo spoken in Mbanza Kongo ([Brugiotti da Vetralla 1659](#)) and late 18th c. West Kikongo spoken in Kakongo ([Descourvières 1776](#)). Two centuries after Brugiotti da Vetralla's description, the vocalic prefix is still attested in Bentley's ([1887](#)) account of Kisikongo from Mbanza Kongo. The vocalic prefix was also maintained in West Kikongo from the late 18th century ([Descourvières 1776](#)) to the late 19th century, attested in the doculects from Kakongo ([Carrie 1888](#)) and Loango ([Ussel 1888](#)). In these late 19th c. South and West Kikongo doculects, we find the first attestations of the reflexive morphemes *ku*- and *ki*. My claim is that these two prefixes were innovated somewhere between the 17th and late 19th centuries from the fusion of the vocalic prefix with the expletive *ku*-, as explained in Section 3.3. This is schematized in Figure 1.

The development of *ki*- from the fusion of *ku*- and *i*- is better substantiated than its development out of the class 7 object index. The widespread attestation of *ki*- in the KLC, then, is most likely the outcome of the fusion hypothesis (see Section 3.3), possibly combined with contact-induced spread from one or more centers of innovation. The rise of reflexive *ki*- first occurred in the western or northwestern parts of the KLC, while the same process resulted in the development of reflexive *ku*- in some South Kikongo languages. Eventually, the reflexive prefix *ki*- also spread southward to Kizombo and Kisikongo. Interestingly, modern Kisikongo ([Ndonga Mfuwa 1995](#)) has both reflexive prefixes *ki*- and *ku*- . The prefix *ku*- was innovated in Kisikongo from *ku-i*, while *ki*- is more likely borrowed from neighboring Kikongo varieties.

The southern and eastern part of the KLC is characterized by the reflexive prefix *di*-/*li*-, whose oldest attestation in the database is found in late 19th c. Kisikongo ([Bentley 1887](#), p. 682), also included in Figure 1. As stated in Section 3.2, the attestation of this prefix in an area including Kikongo and neighboring non-Kikongo languages is indicative of a contact-induced scenario where the innovated prefix was adopted into KLC languages from genealogically unrelated (or rather, distantly related Bantu) non-KLC languages. The actual historical development of the prefix *di*- into a reflexive morpheme had presumably happened before it was borrowed into the KLC and is, therefore, outside the scope of this paper. Further research is also needed to better understand the sociohistorical and linguis-

tic details of the contact-induced spread of reflexive *di-/li-* and the link with reflexive *lu-* in Kisuku.

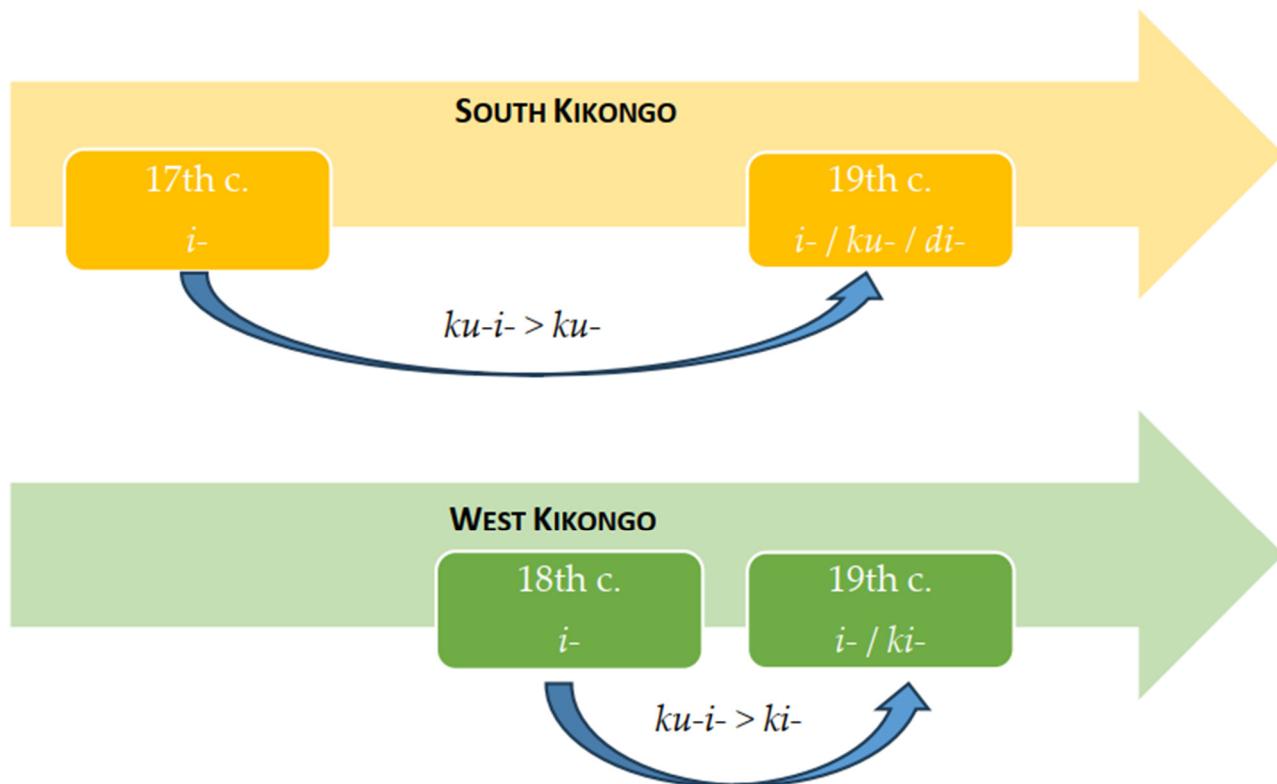


Figure 1. First attestations of vocalic reflexive prefix *i-* and development of *ki-* and *ku-* in South and West Kikongo in the 17th, 18th and 19th centuries.

The vocalic reflexive prefix *i-* is the best possible candidate for reconstruction to Proto-Kikongo. First, it is the only reflexive prefix attested in the oldest doculects. Second, the innovated reflexive prefixes *ki-* and *ku-* developed from the combination of *i-* with the prefix *ku-*. We can, thus, assume that the vocalic prefix was present in the many Kikongo languages (or their ancestral languages) that have these innovated forms. Third, a vocalic reflexive prefix **i-* has been reconstructed to Proto-Bantu (Meeussen 1967, p. 109; Polak 1983, p. 292), which was most likely retained in Proto-Kikongo and further inherited in Proto-Kikongo's daughter languages.

4. Conclusions

The approximately 40 languages of the Kikongo language cluster show a wide array of phonological, morphological and morphosyntactic variation. This paper has shown that reflexive morphology is one of those linguistic features that exhibits a great deal of variation in the KLC. Six different morphemes are attested in a diachronic documentation database which covers a time period from 1659 to 2015, namely *di-*, *kè-*, *ki-*, *ku-*, *lu-* and *(y)i-*. While most languages have a single reflexive prefix, some developed more than one, with Kisikongo reported to have four distinct reflexive prefixes. Languages with multiple reflexive prefixes fall into two groups: those in which the prefixes are in free variation, and those in which the prefixes are in complementary distribution. In the second group, the distribution is based on the TAM construction of the verb. The diversity of reflexive morphology in the KLC is suggested to originate from four sources:

- i. The Proto-Kikongo reflexive prefix, tentatively reconstructed as **i-*;
- ii. The borrowing of *di-/li-* from non-Kikongo languages;

- iii. The fusion of a verbal prefix *ku-* (either noun class 15 prefix or an expletive prefix) with reflexive *i-*;
- iv. The grammaticalization of an auxiliary construction.

Despite the rich historical data available on Kikongo languages, a number of diachronic issues remain unresolved. While I have proposed contact scenarios as the most plausible explanation for the distribution of *ki-* over a large part of the KLC and for the distribution of *di-/li-* in South Kikongo and Kikongoid, more research is needed to connect these hypotheses of language change with sociohistorical contexts of the speech communities involved. Trade routes running from the hinterland to the coast, connecting Kikongo speech communities with each other and with neighboring non-Kikongo communities, must have facilitated the contact-induced spread of not only reflexive morphology but other linguistic features as well. The Bazombo very likely played a crucial role in this development, as they were active as specialized merchants in long-distance trade.

In sum, this study provides a substantial contribution to our understanding of morphological variation in the Kikongo language cluster, the diachronic processes underlying this variation, the innovative capacities of Kikongo languages, and the complexities of variation in Bantu languages more generally.

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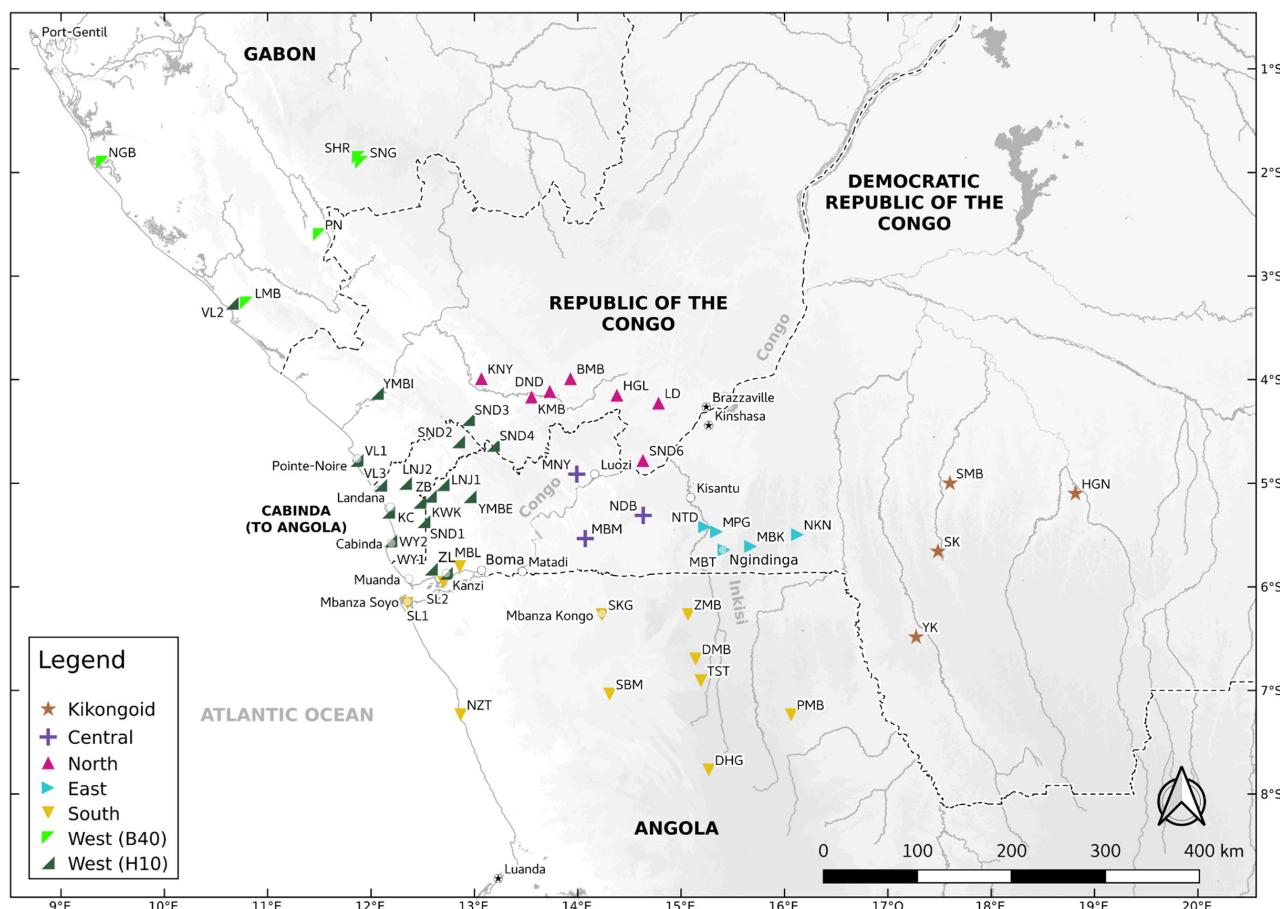
Conflicts of Interest: The author declares no conflicts of interest.

Abbreviations

1, 2, 3	noun class 1, 2, 3
APPL	applicative
AUG	augment
CAUS	causative
CK	Central Kikongo
CMPL	completive
CONN	connective
CPC	contemporaneous past completive
DEM	demonstrative
DPC	dissociative past completive
EK	East Kikongo
EXPL	expletive
FUT	future
FV	final vowel
HAB	habitual
HST	hesternal past
INTR	intransitive
KK	Kikongoid

KLC	Kikongo language cluster
NEG	negative
NK	North Kikongo
NPST	non-past
OBJ	object
PFV	perfective
PL	third-person plural
PROG	progressive
PRON	pronoun
PRS	present
PST	past
REFL	reflexive
SBJ	subject index
SBJV	subjunctive
SEP	separative
SG	singular
SK	sSouth Kikongo
TAM	tense-aspect-mood
WK	West Kikongo

Appendix A. Map of the Kikongo Language Cluster and Its Subgroups (from Dom 2018, pp. 250–51)



Language codes on map:

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; **KNK** 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

Appendix B. Overview Documentation Database and Attestation of Reflexive Morphology

		REFL
South Kikongo		REFL
• 17th–19th c. Kikongo as documented in Mbanza Kongo	- Brugiotti da Vetralla (1659) , translated into English by Guinness (1882b)	<i>yi-</i>
	- Bentley (1887)	<i>ku-</i> <i>yi-</i> <i>di-</i>
• Late-19th c. Kikongo as documented in the Cataract region	- Guinness (1882a)	NA
• Late-19th c. Kikongo as documented in the vicinity of Boma	- Craven and Barfield (1883)	NA
• Late-19th c. Kikongo as documented in the area south of the mouth of the Congo river	- Visseq (1889)	<i>ku-</i>
• Dihungu	- Atkins (1954)	<i>di-</i>
• Kisikongo	- Ndonga Mfuwa (1995)	<i>di-</i> <i>ki-</i> <i>ku-</i> <i>yi-</i>
• Kisolongo (Angola)	- Tavares (1915)	<i>ku-</i> <i>yi-</i>
• Kisolongo (DRC)	- KongoKing 2012 fieldwork	NA
• Kitsootso	- Baka (1992)	<i>li-</i>
	- Panda (2017)	<i>di-</i>
	- Carter (1970)	<i>ki-</i> <i>yi-</i>
	- Del Fabbro and Petterlini (1977)	<i>di-</i>
• Kizombo	- Carter and Makoondekwa (1987)	<i>ki-</i> <i>yi-</i>
	- Mpanzu (1994)	<i>ki-</i>
	- Fernando (2008)	<i>di-</i> <i>ki-</i>
	- Matsinhe and Fernando (2008)	NA

West Kikongo		
• 18th–19th c. Kikongo as spoken in Kakongo (present-day Cabinda)	- Descourvières (1773) [transcribed by S. Drieghe (2014)]	NA
• 19th–20th c. Kikongo as spoken in Loango (present-day southern Republic of the Congo)	- Descourvières (1776) [transcribed by E. Nshemezimana]	<i>yi-</i>
• Yilumbu	- Carrie (1888)	<i>ki-</i> <i>yi-</i>
• Yipunu	- Le Louët (1890)	NA
• Cisundi	- Ussel (1888)	<i>ki-</i> <i>yi-</i>
• Cibili	- Derouet (1896)	NA
• Ciwoyo	- Marichelle (1907)	<i>yi-</i>
• Iwoyo	- Gamille (2013)	<i>ki-</i>
• Kiyombe	- Bonneau (1956), Nsuka-Nkutsi (1980)	<i>kè-</i>
• Cizali	- Futi (2012)	NA
	- Ndamba (1977)	NA
	- Blanchon and Nsuka Nkutsi (1984)	NA
	- Loémbe (2005)	NA
	- I.LA.LOK (2008)	NA
	- Mavoungou and Ndinga-Kouumba-Binza (2010)	NA
	- N'Douli (2012)	NA
	- Humber and Tchimbakala (2013)	NA
	- KongoKing (2012) fieldwork	<i>yi-</i>
	- KongoKing (2015) fieldwork	<i>yi-</i>
	- Mingas (1994)	<i>ki-</i>
	- De Clercq (1907)	<i>ki-</i>
	- De Clercq (1921)	<i>ki-</i>
	- Bittermieux (1927)	NA
	- KongoKing (2012) fieldwork	<i>yi-</i>

Central Kikongo		
• Kimanyanga	- Westlind (1888)	NA
	- Laman (1912)	<i>ki-</i>
	- Laman and Meinhof (Laman and Meinhof 1928–1929)	NA
	- Nakutukeba (1980)	NA
	- Odden (1991)	NA
	- Makaya Lutumba (1999)	NA
	- Makokila Nanzanza (2012)	NA
	- KongoKing 2015 fieldwork	NA
• Kimboma	- Kisilu and Samuel (2001)	<i>ki-</i>
	- Wabelua (2006)	NA
• Kindibu	- Coene (1960)	<i>ki-</i>
	- Wanginavo Ntendo (2001)	NA
East Kikongo		
• Kimbata	- KongoKing 2012 fieldwork	<i>ki-</i>
• Kimbeko	- KongoKing 2012 fieldwork	<i>ki-</i>
• Kinkanu	- KongoKing 2012 fieldwork	<i>ki-</i>
	- Butaye (1909)	<i>ki-</i>
	- Butaye (1910)	NA
• Kintandu	- Daeleman (1966)	<i>ki-</i>
	- KongoKing (2012) fieldwork	<i>ki-</i>
	- KongoKing (2015) fieldwork	NA
North Kikongo		
• Kibembe	- Jacquot (1981)	NA
	- Nsayi (1984)	NA
	- Philipsson and Boungou (1999)	NA
	- Kouarata (2015, 2016)	NA
	- KongoKing (2016) fieldwork	NA
• Kidondo	- Williams-Ngumbu et al. (2015)	NA
	- KongoKing 2016 fieldwork	NA
• Kihangala	- Nkouanda (1997)	NA
	- KongoKing 2016 fieldwork	NA
• Kikamba	- Bouka (1989)	NA
	- KongoKing (2016) fieldwork	NA

	- Jacquot (1982)	<i>ki-</i>
• Cilaadi	- Samba (1989)	<i>ki-</i>
	- KongoKing (2016) fieldwork	NA
	- N'Landu Kitambika (1994)	NA
• Kisundi	- Baka (1998, 1999)	NA
	- KongoKing (2016) fieldwork	NA
Kikongoid		
	- Nsangu (1972)	NA
• Kisuku	- Piper (1977)	<i>di-</i> <i>lu-</i>
	- Kifindi (1997)	<i>di-</i>
• Kiyaka	- van den Eynde (1968)	<i>di-</i>
	- Kidima (1987, 1990)	NA

Notes

- 1 Exceptions to this general pattern can be found in Northwest Bantu languages. For instance, Basaa (A43) uses a reflexive suffix with three allomorphs, e.g., *-ba* in *hó-bâ* 'cover oneself' or *-b-a* in *nun-b-a* 'look at oneself' (Hyman 2003, p. 275); Nzadi (B865) expresses reflexive voice by adding a suffix *-ŋgizyâ* to person pronouns, such as *mi-ŋgizyâ* 'myself' in *mi á diir mi-ŋgizyâ kó taltál* 'I've looked at myself in the mirror' (Crane et al. 2011, p. 77).
- 2 For more information, see <https://www.bantugent.ugent.be/documentation/> (accessed on 18 March 2024).
- 3 The 2012 fieldwork trip was organized by the ERC-funded KongoKing research project (StG No. 284126, <https://www.kongoking.org/>; accessed on 18 March 2024) and the 2015 fieldwork trip was funded through a grant from the Research Foundation Flanders (FWO).
- 4 The consonants of *di-* and *li-* are reconstructed as allophones in Proto-Bantu (Meeussen 1967, p. 83; Hyman 2019, p. 128). Importantly, reflexive *li-* is only attested in Kitsootso as described by Baka (1992). For the same variety, Panda (2017) presents reflexive *di-*, which is also attested in other Kikongo varieties since at least the late-19th century (Bentley 1887).
- 5 The identity of *ii* in Tavares (1915) and *yi* in other sources is apparent from the following orthographic note in Tavares (1915, p. 1).

"São absolutamente dispensáveis as semi-vogais y e w, de que fazem uso vários autores, tanto nacionais como estrangeiros. As referidas semi-vogais foram introduzidas nos dialectos do kikongo apenas para diferenciar i, u, átonos, de i, u, tónicos. Ora, sendo certo que i, u, antes de outra vogal, são, regra geral, átonos, nenhuma razão ou conveniência justifica o emprego de y, w. Nesta conformidade, deve escrever-se: —ieto (nós), ienu (vós), etc., e não yetu, yenu, etc. E da mesma forma: —uaku (teu), uame (meu), e não waku, wame, etc. [The semi-vowels *y* and *w*, which are used by several authors, both national and foreign, are absolutely unnecessary. These semi-vowels were introduced into Kikongo dialects only to differentiate unstressed *i*, *u* from stressed *i*, *u*. Since *i*, *u*, before another vowel, are generally unstressed, there is no reason or convenience to use *y*, *w*. Accordingly, we should write: —ieto (we), ienu (you), etc., and not yetu, yenu, etc. And likewise: —uaku (yours), uame (mine), and not waku, wame, etc.; [my own translation]
- 6 I use the term 'doculect' as proposed by Cysouw and Good (2013, p. 342) to refer to 'a linguistic variety as it is documented in a given resource'.
- 7 The older grammars often lack a glossonym of the language described. While for some of these grammars the historical variety can be related to a present-day Kikongo language (for example, see Bostoen and de Schryver 2018b), this is not always the case. For full transparency, I am not making any such assumptions and use the geographical location where the language was documented, which is almost always mentioned.
- 8 This late-19th c. doculect, called 'Fiot(e)' in the respective works by the author, is most likely a northern regiolect of Kisolongo, as discussed by Bostoen and de Schryver (2018b, p. 76) and Goes (2022, pp. 141–43).
- 9 Kinsoso and Kitsootso are slightly different glossonyms used by Panda (2017) and Baka (1992), respectively, for the same language.
- 10 The genealogical subgroup of the illustrated Kikongo varieties is given for each example in brackets, with the following abbreviations: CK = Central Kikongo, EK = East Kikongo, KK = Kikongoid, NK = North Kikongo, SK = South Kikongo, WK = West Kikongo.
- 11 I have homogenized differences in orthography and morphological agglutination between the various sources.
- 12 Bentley (1887) does not provide examples with reflexive *di-*.

- ¹³ Examples are not glossed in [Piper \(1977\)](#). I could not confidently determine verb stem morphology and semantics except for the subject and reflexive prefixes and the final vowel.
- ¹⁴ Language family memberships and their names are based on [Hammarström et al. \(2023\)](#).
- ¹⁵ Palatalization of [k] into [tʃ] is mentioned once, in the section on the alphabet: “*Le k devant l’s se prononce comme ch en françois k’sia par exemple se prononce comme chia &c.*” [k in front of s is pronounced as ch in French k’sia for example is pronounced as chia &c; own translation, underlining in original] ([Descourvières 1776](#), p. 1). According to the specific conditioning detailed in this description, palatalization had not yet affected class 7 prefixes in all morphophonological contexts.
- ¹⁶ According to [Nurse \(2008](#), p. 60) this grammaticalization process and the use of cognates of the verb -li ‘be’ as auxiliary verb are widespread throughout Bantu.
- ¹⁷ It is unclear from Carrie’s description whether /u/ becomes a glide before /i/ in the examples written as *tu-i-* and *lu-i-*, i.e., *twisala* ‘we work’ and *lwisala* ‘you (pl.) work’. In Ciwoyo, glide formation does occur in these contexts.

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