Persistive in Bende[*]
—On the grammaticalization path—

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This paper sketches the Bende persistive aspect, which occurs in the forms *sí-* or *syá-* in the T(A) slot of a verb construction. The Bende persistive has relatively complicated realization because it has two forms, *sí-* or *syá-*, makes five types of constructions, and identifies four meanings in five tenses. This paper attempts an exhaustive description of all the patterns of the Bende persistive, especially in terms of its constraints. Next, the Bende persistive is located in the general grammaticalization path of the Bantu persistive. Finally, a Bende-internal development of the persistive is suggested.

1. Introduction: The persistive and related phenomena across Bantu languages
2. The persistive reflexes in Bende
3. Grammaticalization path for persistive
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1. Introduction: The persistive and related phenomena across Bantu languages

The persistive is a type of aspect that occurs widely and specifically across Bantu languages including Bende which is labeled as F12 according to the Guthrie's Bantu classification.[1] The persistive typically affirms that a situation has held continuously since an implicit or explicit point in the past up to the time of speaking (Nurse 2008: 145) as in example (1) in Bende.

  Bende is a Bantu language (Niger-Congo family) spoken in the Mpanda district, Katavi Region in western Tanzania. The speakers of Bende are estimated 27,000 by Ethnologue (Lewis 2009) or 41,490 by Language of Tanzania Project (UDSM 2009), none of those estimations would be difficult to be verified at the moment. The Bende data cited in this paper were collected by the author.
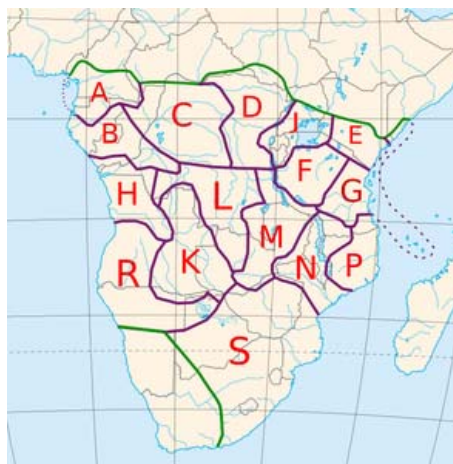[1] Guthrie's classification is basically an areal-typological exercise, it exhibits anything from much to no linguistic-genetic validity, depending on what part of the classification one looks at (Maho 2001: 41). Bende's classification as F12 has been disputable by several scholars.

(1) Typical persistive in Bende (F12)

　　tu-sí-kol-a　　　　　*mú-límó*
　　1PL-PER-do-F　　　CL3-work
　　'We are still working.'

The widespread aspectual categories of the world's languages are mainly 1) imperfective, 2) perfective, and 3) anterior (perfect / retrospective), and less so 4) progressive and 5) habitual. However, the next frequent type, persistive, is characteristic in Bantu languages (Nurse 2003: 96). Nurse (2008: 145-146) also presents an interesting statistic that the persistive is lexicalized in at least 56% of surveyed Bantu languages, and it is more common than the habitual aspect (43%).

Map 1: Guthrie's classification of Bantu languages (Wikipedia)

The persistive distribution among Bantu is introduced by Nurse (Nurse 2008: 145) according to Guthrie's reference numbers for the classification of Bantu languages of Map 1 (Guthrie 1948, Maho 2009). He presents that the persistive is distributed mostly in zones E, K, L, and M; it is partly distributed in zones E, F, N, R, and S; little is reported in zones A, B, and C.

Across Bantu languages, the persistive aspect is encoded most often by reflexes of **kí-*[2] as was reconstructed by Meeussen (1967: 109).[3] The persistive marker i.e., the reflex of **kí-,* may occur both in the affirmative and negative inference (Nurse 2008: 148). The marker appears mostly in the T(A) position of the verb structure shown in (2), which is the most common verb structure among Bantu languages.

(2) Initial-Subject-Negative-T(A)-Object≠root-Extension(s)-Final-Suffix

(Nurse 2003: 90, based on Meeussen 1967: 108)

Some languages in zone S have the reflexes of **kí-* in both Initial and T(A) positions. In these languages, the reflex of **kí-* in the T(A) position means the persistive whereas that of the Initial position is often described as inceptive/alterative.[4] A Siswati (S43)

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[2] [*] indicates primarily Proto-Bantu forms except for (11b), in which [*] means ungrammatical.

[3] Meeussen (1967) reconstructed it with high tones and the degree two vowel (the near-close near-front unrounded vowel) i.e. *i̧*, although he applied the letter *i* for that. In this paper we use the letter *i* following the IPA chart.

[4] The term 'alterative' was proposed by Nichols (2011) for the traditional term of 'inceptive' applied to languages especially in zone S.

example is presented in (3). The inceptive ("alterative" by Nichols' terminology) *kí- no longer means continuity, but indicates an inchoative action.

(3) Siswati (S43): Alterative *se-* vs. Persistive *sa-*
    a. **se**-*ngi-(ya)-phek-a*   Alterative (inceptive)
       ALT-1SG-(DIS.PRES)-cook-F
       'I now/already/then cook.'
    b. *ngi-**sa**-phek-a*   Persistive
       1SG-PER-cook-F
       'I still cook.'

                                    (Nichols 2011: 35)

The persistive reflex *kí- has a variant *kí-a-, which is widely observed in D60, E10-20, F10, and S30-40.[5] Bende example (4a, b) has both forms of reflexes of *kí- and *kí-a- used as allomorphs, while Haya example shows a distinction of forms *kí- and *kí-a-, applying *kí-a- for affirmative persistive (5a), and *kí- for negative (5b).

(4) Bende (F12)   =(1)
    a. *tu-**sí**-kol-a / tu-**syá**-kol-a*   *mú-límó*
       1PL-PER-do-F   CL3-work
       'We are still working.' or 'Let us work first.'
    b. *tu-**sí**-kos-ílé / tu-**syá**-kos-ílé*   *mú-límó*
       1PL-PER-do-F   CL3-work
       'We have finished working just now.'

(5) Haya (JE22)
    a. *tu-**kiáá**-gur-a*   b. *ti-tu-**ki**-gur-a*
       1PL-PER-buy-F   NEG-1PL-PER-buy-F
       'We are still buying.'   'We are no longer buying.'
                          (Nurse 2008: 147, glossed by the author)

The persistive *kí- often combines with defective copulative marker -*lɪ* 'be.' *kí- and *-*lɪ* usually form the auxiliary verb in the first element (or the first clause) followed by a gerund (6a) or a finite verb form (6b).

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[5] The combination *kí+a- is considered somewhat unusual, and the *a-* is supposed as a past marker. The tense marker *a-* is expected to precede the more lexical aspect marker *kí- (Nurse 2008: 147 footnote).

(6) Bende (F12)

   a. *tu-syá-lí*   *kú-ɣúl-a*
     1PL-PER-be   GER-buy-F
     'We haven't bought yet./We are still going to buy.'

   b. *tu-syá-lí*   *tu-líkú-ɣúl-a*
     1PL-PER-be   1PL-PROG-buy-F
     'We are still buying.'

The tenses or aspects to which reflexes of *kí- refer do not exclusively indicate the persistence of an act. *kí- typically means the persistence of an act in examples (4a), (5a) and (6b), that is, 'S(ubject) is still VERBing.' However, at least four other meanings are now identified with the reflexes of *kí- and *kí-a-. The first meaning is sometimes labeled as 'inceptive' in some references, especially for zone S, i.e., 'S now/already/then VERBs./ Let S VERB first./ S is about to VERB.' as in (6a). The second meaning is observed in Bende example (4b), which indicates 'immediate past.'

The third is explained by Güldemann (1998 :163) as 'persistive proximative,' i.e., 'S has not VERBed yet./ S is still about to VERB.' as in (6a). Finally, the verb with a negative marker indicates 'S is no longer VERBing.' as in (5b). We label these meanings M1 to M5, respectively, for descriptive purposes in this paper.

(7) Labels for meanings

     M1: 'S is still VERBing.' (Typical persistive)
     M2: 'S now/already/then VERBs./ Let S VERB first./ S is about to VERB.'

                                                            (Inceptive)
     M3: 'S has VERBed (finished VERBing) just now.' (Immediate past)
     M4: 'S has not VERBed yet./ S is still about to VERB.' (Persistive proximative)
     M5: 'S is no longer VERBing.' ('No-longer')

However, no language has all the five meanings above. For example, Bende has four: M1 to M4, Ha (JD66) has only two: M1 and M5 (Nurse 2008: appendix). M1 to M5 do not share the same aspectual reference, but all are considered to be derived from M1.

More developed and different meanings from *kí- origin are typically observed in Swahili (G43), i.e. simultaneous and conditional. They have been developed from the persistive as a result of grammaticalization. They are mentioned later in 3.1.

(8) Swahili (G43)

   a. *Tu-li-wa-ona*   *wa-toto*   *wa-**ki**-cheza.*   Simultaneous
     1PL-PST-3PL-see   CL2-child   3PL-SIM-play

'We saw the children playing.'

b. *U-**ki**-mw-ona   Hamisi,   mw-ambi-e   n-a-m-taka.*   Conditional
2SG-COND-3SG-see   \<name\>   3SG-tell-SUB   1SG-PRS$_i$-3SG-want
'If you see Hamisi, tell him I want him.'

Ashton (1944: 138)

2. Persistive reflexes in Bende

The Bende persistive occurs in the T(A) slot, which is similar to most Bantu languages (see (2)). The slot is located by most Tense-Aspect-Mood prefixes. The Bende persistive has two forms (*sí-* / *syá-*), makes four types of constructions, identifies four meanings, and is used in all five tenses. Hereafter, we abbreviate the five types of constructions as C(onstruction)1, C2, C3-1, C3-2, and C4, and use M1, M2, M3, and M4 for the four meanings (see their meanings in (7)). As for tenses, Bende usually has five temporal categories, and the same is true with the persistive except for C2 and C3-2. 0 shows an inventory of finite verb forms with the persistive reflexes *sí-* / *syá-*. Examples are represented with the first-person plural *tu-* and the verb stem *-tendá* 'say,' i.e., *tusítendá* means 'we are still saying.'

Table 1: Finite verb inventory for persistive reflexes (SM: *tu-* 1PL, *-tendá* 'say')

Tns	C1 (M1/M2)	C2 (M3)	C3-1 (M1)	C3-2 (M1)
PR	*tusítendá/tusyátendá*	*tusítensílé/tusyátensílé*	*tusyálí tulikútendá*	*tusyali tútensiílé*
PT1	*tuβeélé tusítendá*	N/A	*tuβeélé tusyálí tulikútendá*	N/A
PT2	*tukáβeélé tusítendá*	N/A	*tukáβeélé tusyálí tulikútenda*	N/A
F1	*tulóóβa tusítenda*	N/A	*tulóóβa tusyálí tulikútenda*	N/A
F2	*tulookáβa tusítenda*	N/A	*tulookáβa tusyálí tulikútenda*	N/A

Tns	C3 (M4)
PR	*tusyálí kútendá*
PT1	*tuβeélé tusyálí kútendá*
PT2	*tukáβeélé tusyálí kútendá*
F1	*tulóóβa tusyálí tulikútenda*
F2	*tulookáβa tusyálí tulikútenda*

(PR: Present, PT1: Hodiernal past, PT2: Distant past, F1: Hodiernal future, F2: Distant future)

2.1. Forms

As mentioned above, Bende has two forms for the persistive (*sí-* / *syá-*), although *sí-* is used only in C1 and C2. Both *sí-* and *syá-* occur as free variants in these constructions.

For the constructions C3-1, C3-2, and C4, *syá-* is the only form. *Syá-* has most likely been derived from *sí-* (**kí-*) and *á-* of the perfective.[6]

Map 2 presents a tentative distribution of the persistive across 159 Bantu languages whose persistive data are available at the moment.[7] The map shows the languages with the reflexes **ki-* and/or **ki-a-*, and those that contain neither form. The green dots show a rough picture of absence of the reflexes **ki-* or **ki-a-*. We can observe two tendencies in the map. First, the green dots are plotted on both sides, and second, the other colors are in between. That is, few persistive forms are observed in West Bantu languages and the eastern part of East Bantu languages, while the persistive mainly occurs in a belt-like distribution from zone J to S.

Map 2: Persistive distribution among 159 Bantu languages

2.2. Types of constructions

Bende has five types of constructions for the persistive. Both C1 and C2 can take either *sí-* or *syá-* in the T(A) slot that mainly marks Tense-Aspect-Mood. All the other constructions (C3-1, C3-2, and C4) have only *syá-* which is used in combination with *-li* 'be,' i.e., SM-*syá-li* makes a compound with another verbal component.

Table 2: Five types of constructions and their corresponding forms/meanings in Bende

	Construction	Forms	Meanings
C1	[SM-PER-VERB(Indicative)]	*sí-/syá-*	M1, M2 (Persistive/Inceptive)
C2	[SM-PER-VERB(Anterior)]	*sí-/syá-*	M3 (Immediate past)
C3-1	[SM-PER-be + Present Simple]	*syá-li*	M1 (Persistive)
C3-2	[SM-PER-be + Anterior]	*syá-li*	M1 (Persistive)
C4	[SM-PER-be + Gerund]	*syá-li*	M4 (Proximative 'not yet')

Out of the five types above, C1 and C2 have a simple verb form [SM-PER-VERB], where C1 takes Indicative verb form of *-a* ending with two meanings (M1 and M2), and C2 takes Anterior verb form of *-ílé* ending with a single meaning (M3). Although no significant functional distinction between the two forms *sí-/syá-* is explained by the Bende

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[6] The **kí-a-* form is found in its reflexes in D60, E10-20, F10 (Bende), S30-40, and K20 (Nurse 2008: 147).
[7] The languages investigated for this paper is listed in the endnote "Data in Maps 2 and 3."

consultants, two interpretations are possible for the same sentence of C1. The example in
(9) can be interpreted in two ways: 'We are still working.' or 'Let us work first.'

(9)   C1 [SM-PER-VERB(Indicative)]   =(6)
         tu-sí-kol-a / tu-syá-kol-a   *mú-límó*
         1PL-PER-do-F   CL3-work
         'We are still working.' (M1) or 'Let us work first.' (M2)

Although both interpretations of M1 and M2 are possible and they are distinguished only
in context, the M2 interpretation is predominant, since M1 can also be expressed by C3-1
and C3-2.

   C3-1 and C3-2 are in the compound form, i.e., [SM-PER-be (SM-*syá-li*)] is followed by
a finite verb, Present Simple (= Progressive), or Anterior, respectively. Both C3-1 and
C3-2 are explained to have an identical meaning, although C3-2 can occur only under
certain constraints.

(10)   a. C3-1 [SM-PER-be + Present Simple], b. C3-2 [SM-PER-be + Anterior]
         a. *tu-syá-lí*   *tu-líkw-íkál-á*   b. *tu-syá-lí*   *tw-íké-élé*
            1PL-PER-be   1PL-PRS-sit-F   1PL-PER-be   1PL-sit-ANT
            'We are still sitting.'

   There are two constraints for C3-2. The first one is that C3-2 can occur only in the
present tense, as shown in Table 1. The second constraint is phonological, i.e., C3-2
cannot be used with verbs with the stem final -*i,* which is realized as a glide *y* of -*Cya*[8] in
the verb ending, such as -*lyǎ* 'eat' or -*seésya* 'greet.' For these verbs, only C3-1 is
applicable. See (11a) for C3-1, (10b) for C3-2 as an ungrammatical form, and Table 3.

(11)   *Cya*-ending verb constraints for C3-2
         a. *tu-syá-lí*   *tu-líkú-lyǎ*   b.**tu-syá-lí*   *tu-li-ílé*
            1PL-PER-be   1PL-PRS-eat   1PL-PER-be   1PL-eat-ANT
            'We are still eating.'

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[8] C represents 'consonants.' -*Cya* consists of 'a consonant + the stem final -*i* + a final vowel -*a*.'

Table 3: Verb stems and their distribution per construction type

V Stems	C1[SM-PER-VERB]	C3-1[SM-PER-be+PRS]	C3-2[SM-PER-be+ANT]
-já	*tusíjá/tusyájá*	*tusyálí tulíkújá*	*tusyálí tujíílé*
-lyă	*tusílyă/tusyályă*	*tusyálí tulíkúlyă*	N/A
-seésya	*tusíseésya/tusyáseésya*	*tusyálí tulíkúseésya*	N/A
-jíkálá	*tusííkálá/tusyájíkálá*	*tusyálí tulíkwíkálá*	*tusyálí tuwíkéélé*
-tendá	*tusítendá/tusyátendá*	*tusyálí tulíkútendá*	*tusyálí tutensílé*
-nyomwă	*tusínyomwă/tusyányomwă*	*tusyálí tulíkúnyomwă*	*tusyálí tunyomílwé*

-já 'go,' *-lyă* 'eat,' *-seésya* 'greet,' *-jíkálá* 'sit,' *-tendá* 'say,' *-nyomwă* 'like'

The C3-2 constraint described above, however, did not derive from the nature of Anterior form. *-Cya* ending verbs usually appear in the main clause of Anterior or Persistive Anterior forms like in (15a, b).

(12) *Cya*-ending verb (*-lyă* 'eat') in the Anterior form

    a. *tu-li-ílé*   *fí-saka*   *múlááßó*   Anterior

        1PL-eat-ANT   CL8-corn   morning

        'We ate corn in the morning.'

    b. *tu-syá-li-ílé*   Persistive Anterior = C2/M3

        1PL-PER-eat-ANT

        'We have finished eating just now.'

   C2 indicates Immediate past as in (12b) and (13), while Simple Anterior (12a) implies the past on the same day in general.[9]

(13)   C2 [SM-PER-VERB(Anterior)][10]   =(4b)

        *tu-**sí**-kos-ílé / tu-**syá**-kos-ílé*   *mú-límó*

        1PL-PER-do-F   CL3-work

        'We have finished working just now.'

   C4 is formed in the compound, i.e., [SM-PER-be (SM-*syá-li*)] is followed by Gerund, a nonfinite complement. 'S has not VERBed yet./ S is about to VERB.' as in (14).

(14)   C4 [SM-PER-be + Gerund]

        tu-syá-lí   *kú-kol-á*   *mú-límó*

        1PL-PER-be   GER-do-F   CL3-work

        'We haven't worked yet. / We are still about to work.'

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[9] Bende distinguishes the past of the same day (hodiernal past) and that of before yesterday (distant past). See also (9).

[10] Bende Anterior ending *-ílé* palatalizes a preceding consonant (so-called "spilantization" in Bantu historical phonology): *-kol-a > -kos-ílé* (*l > s/ _-ílé*).

The C4/M4 is usually interpreted into negative sentences in Swahili by Bende consultants: 'Hatujafanya kazi (We haven't worked yet).' There is a negative inference despite the fact that the construction does not contain any negative marker. According to Nurse (2008: 148) and Kiessling, Mous, and Nurse (2008: 202), the M4 pattern has been treated as negative in some descriptions such as Sukuma (F21), Nilyamba (F31), Kimbu (F24), Nyaturu (F32), and Langi (F33), as a characteristic feature of zone F.

Güldemann (1998: 163) interprets this negative inference of M4 as an (affirmative) 'persistive proximative.' The 'persistive proximative' can be reanalyzed by taking into consideration the negative inference, resulting in the interpretation 'be still about to VERB.'

(15)   Persistive proximative (with a negative reading) in Masaaba (JE31)

      ba-ki-ri   *ku-tek-a*

      2PL-PER-be   GER-cook-F

      'They are still (about) to cook, and so they have not yet cooked.'

                               (Purvis 1907: 71, quoted in Güldemann 1998: 163)

Going back to M4 of Bende, it is better to be interpreted as an (affirmative) 'persistive proximative,' but not necessarily negative, if we consider the M5. Some languages, especially in zone J, a persistive marker can occur with a negative marker on a verb as in (5b). The main interpretation of this form is 'no longer' (M5). Since M5 is a more 'genuine' negative persistive with a negative marker, it is better to analyze M4 in the affirmative. However, M4 and M5 should be closely related semantically, since they are in complementary distribution. This topic is discussed in more detail in 4.3.

2.3. Discussion: Two interpretations for [SM-PER-be]

[SM-PER-be] may have two interpretations because of the nature of verb *-li* 'be'. One use of [SM-PER-be] is with a locative clitic (=*ho* /=*ko* /=*mo*)[11], and the other is considered to be an elliptic construction. The locative use is interpreted as a typical persistive (i.e., M1), while the elliptic use is interpreted as a proximative (i.e., M4).

(16)   [SM-PER-be]=LOC   (M1)

    a. *li-syá-lí=ko*   b. *n-syá-lí=ho*

       CL5-PER-be=LOC17   1SG-PER-be=LOC16

       '(The sun, CL5) is still there.' (a greeting in daytime)   'I'm still here.'

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[11] Bende has three locative clitics =*ho* (CL16), =*ko* (CL17), =*mo* (CL18), that refer 'definite place,' 'indefinite place,' and 'inside' respectively.

(17) [SM-PER-be]#   (M4)

a. *u-syá-lí?*   b. *n-syá-lí.*
   2SG-PER-be   1SG-PER-be
   'Haven't you (cooked) yet?'   'Not yet.'

If [SM-PER-be] is followed by a locative clitic as in (16), the interpretation is typically the affirmative persistive of M1, i.e., '(The sun, CL5) is still there.' On the other hand, when [SM-PER-be] ends by itself as in (17), *usyálí* and *nsyálí* are interpreted with a negative inference (i.e., M4). This analysis assumes that (17) is missing an expected gerund *kú-teék-a* (GER-cook-F) 'to cook,' and it represents an elliptic use of C4. The only difference between (16) and (17) is a locative clitic; however, [SM-PER-be] seems to function quite differently in both cases. In (16) [SM-PER-be]=LOC, the defective copulative -*lí* is used more as an existential content word like C1, while in (17) [SM-PER-be]#, the complex of SM-*syálí* functions more as an auxiliary verb which is supposed to be followed by Gerund.

3. Grammaticalization path for the persistive aspect

Since the persistive is widely observed among Bantu languages with diverse developments in morphology and semantics, some generalizations have been made in previous studies. Güldemann (1998) investigated three Bantu imperfective affixes including the persistive *kí-. He suggested a development path of *kí- that represented the "late stages of grammaticalization" by clause types. This section first introduces Güldemann's grammaticalization scenario. Then, the Bende persistive variants sketched above are located on this grammaticalization path. Finally, internal developments of the Bende persistive variants are suggested.

3.1. Güldemann's grammaticalization scenario for *kí-

Many grammaticalization studies have been conducted for Bantu languages. One of the most noteworthy conclusions of Bantu grammaticalization is that Bantu verbal affixes were developed from the 'lexemes' of pre-Bantu. The verbal word is the most complex part of speech in Bantu languages, as was shown in (2), since it encodes clause linkage, certain focus types, or TAM-features in its structure (Güldemann 2003: 183). Given the comparative accounts and internal reconstruction processes observed today, we now know that *kí- historically originated from a more independent syntactic structure. That is, historically, lexemes have developed into today's Bantu grammatical affixes. *kí- is a good example of this grammaticalization, since Bantoid languages, i.e., Bantu's closest

relative, have a cognate to Bantu *kí- as an auxiliary. For example Tikar (Bantoid, Cameroon) has *kɛ* 'être encore' as an auxiliary (Güldemann 2003: 186).[12]

Güldemann (1998, 2003: 191-193) goes further than the lexical grammaticalization proposal (in his remarks it is the "phonological and lexical comparison"). He presents Bantu examples, including *kí-,* as evidence of a "morphology and syntax" process of grammaticalization, which he considers as "late stages of grammaticalization." Here, he exemplifies *kí-* developments and treats them by clause type. This analysis suggests a grammaticalization scenario for Bantu internal classification.

From a cross-Bantu survey of *kí-* reflexes, Güldemann found the following three language types shown in (18).

(18) The occurrence of *kí-* among Bantu is found

    [1] exclusively in main clauses;

    [2] in main and dependent clauses;

      [2a] without semantic alternation;

      [2b] with a semantic alternation;

    [3] exclusively in dependent clauses.

                                        (Güldemann 1998: 162)

The scenario is gradual process from [1] to [3]. C1, C2 and C4 patterns of Bende which is used only in main clauses, which means they correspond to Type [1]. On the other hand, C3-1 and C3-2 with compound forms can be analyzed as asyndetic dependent clause, i.e., they correspond to Type [2]. The constructions used in the main clauses C1, C2 and C4 affects a semantic alternation, whereas C3-1 and C3-2 of the dependent clauses have only persistive interpretations (neither simultaneous nor conditional). Therefore, we conclude that Bende is located at [2b] in the scenario.

Type [3] is typical for Swahili. Standard Swahili *ki-* is used only in dependent clauses and works as a simultaneous or conditional Tense-Aspect marker, although not all Swahili dialects have the conditional.[13]

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[12] If we look more widely across Niger-Congo phyla, we find a similar example in Yoruba (West-Benue-Congo). Yoruba has *ṣì* as a preverb in a Serial Verb Construction that means 'be still.'

kò	sí	ẹni	tí	ó	ṣì	sòrọ̀
(It)not	exist	person	that	he	still	speak

'Nobody has spoken yet.' (Shiota 2014)

[13] Swahili varieties such as those spoken in Congo, i.e., Katanga Swahili (Swahili of Lubumbashi), Bukavu Swahili, and Kingwana, have only simultaneous uses; the conjunction *kama* is required for the conditional (Schicho 1988, Goyvaerts 2007).

(19) Swahili (G43) = (6)

    a. *Tu-li-wa-ona*   *wa-toto*   *wa-**ki**-chez-a.*   Simultaneous

       1PL-PST-3PL-see   CL2-child   3PL-SIM-play-F

       'We saw the children playing.'

    b. *U-**ki**-mw-ona*   *Hamisi,* *mw-ambi-e*   *n-a-m-tak-a.*   Conditional

       2SG-COND-3SG-see   <name>   3SG-tell-SUB   1SG-PRS$_i$-3SG-want-F

       'If you see Hamisi, tell him I want him.'

                                                          Ashton (1944: 138)

Table 4 presents the summary of Güldemann's scenario of grammaticalization for the persistive *kɨ́-* including the lexical and syntactic grammaticalizations. Lexical grammaticalization determines the pre-Bantu stage (Bantoid and its root of Benue-Congo) or the Bantu stage. The pre-Bantu stage is shaded and labeled as Type 0 in Table 4. Next, the syntactic grammaticalization occurs, i.e., it shows the development by clause types. The latter grammaticalization is considered to be morphological-syntactic representing the "late stages of grammaticalization."

Table 4: The summary of Güldemann's grammaticalization scenario for persistive *kɨ́-*

Type [0] > [pre-Bantu]	Type [1] > Type [2 a.b] > Type [3] [Bantu internal classification]		
Independent or Aux. verb >	Verb prefix		
Main	clause (MC) >	Main clause (MC) > Dependent clause (DC)	Dependent clause (DC)
e.g., Tikar, Bantoid (*kɛ*), Yoruba (*ṣí*)	e.g., Mwenyi (K30), Masaaba (JE31)	2a: e.g., Rwanda (JE61) 2b: e.g., Bende (F12) Bemba (M42) Shona (S10)	e.g., Swahili (G42) Venda (S21)

3.2. Bende-internal development of the persistive

The Bende persistive can be located at the Type [2b] stage in the grammaticalization scenario shown in Table 4. However, we still need an internal investigation of the Bende persistive, since Bende has some variants, as we saw in Table 2. We now rearrange Table 2 by clause types and meanings, as shown in Table 5.

Table 5: The Bende persistive by clause types and meanings

	Construction types		Meanings	Forms
MC	C1	[SM-PER-VERB(Indicative)]	M1, M2 (Persistive/Inceptive)	*sí-/ syá-*
	C2	[SM-PER-VERB(Anterior)]	M3 (Immediate past)	*sí-/ syá-*
	C4	[SM-PER-be + Gerund]	M4 (Proximative "not yet")	*syá-*
DC	C3-1	[SM-PER-be + Present Simple]	M1 (Persistive)	*syá-*
	C3-2	[SM-PER-be + Anterior]	M1 (Persistive)	*syá-*

First, we trace the constructions for the typical persistive meaning (M1), since M1 can be expressed in C1, C3-1, and C3-2. Given the presupposition that Type [1] (which is used in main clauses only) develops into Type [2] (in both main and dependent clauses), the order C1 > C3-1/C3-2 is clear. Out of the two forms *sí-/ syá-*, *syá-* seems to be the more recent development, since the later developed C3-1 and C3-2 have only *syá-*. Thus, we could assume the order *sí- > syá-*. Now, if we compare C3-1 and C3-2, C3-1 is used more frequently and with less constraints, while C3-2 occurs only in a limited use and it seems to have just started to develop. Thus, we propose a tentative path for the persistive development in (20).

(20)   Typical persistive development of Bende on the grammaticalization path.
   [C1   > C3-1   > C3-2   ]
   tu-sí-tend-á > tu-syá-tend-á > tu-syá-lí#tu-likú-tend-á > tu-syá-lí#tú-tens-ílé
   'We are still saying.'

C1 (*tu-sí-tend-á > tu-syá-tend-á*) has two meanings: M1 and M2. However, M2 is most probably a later development from the several evidences of other Bantu languages. It is plausible that the development of persistive in C3-1 and C3-2 may trigger to partake another meaning M2 on C1.

The development processes of other constructions C2/M3 (*tu-sí-tens-ílé > tu-syá-tens-ílé* 'We have said just now.') and C4/M4 (*tu-syá-lí#kú-tend-á* 'We have not said yet. / We are still about to say.') are not very clear. However, we see some semantic properties of the persistive constructions in the next section, 4.1.

4. Discussion

In this section, we want to discuss some remaining problems related to the persistive from a wider cross-Bantu perspective. Four topics are covered here with a special focus on persistive semantics.

4.1. Five meanings of persistive origin

According to Güldemann, "Results from typologically informed grammaticalization research regarding morphotaxis and attested or plausible meaning changes improve today our ability to reach firmer conclusions – and this even when an item has changed semantically" (Güldemann 2003: 192). The persistive *ki-* is a good example of this. The five meanings, M1 to M5 listed in (7), create a "family resemblance category," although this is not obvious at first glance. Figure 1 tries to distinguish the relevant meanings schematically with reference to act of speech, subject's volition, speaker's reference point, and the realizability (realis/irrealis) through time (Past > Present > Future).
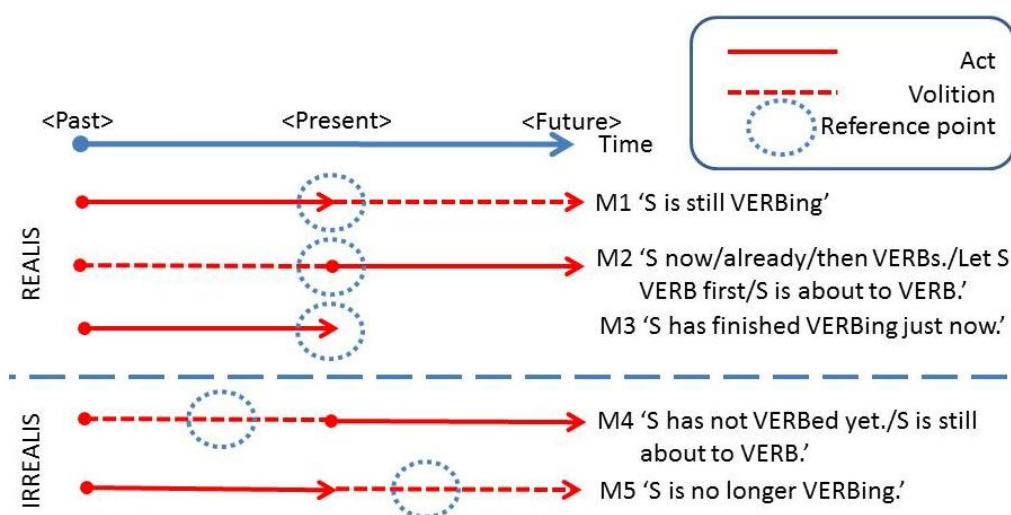
Figure 1:M1-M5 with reference to act, volition, reference point, and realizability

M1 is most likely basic and encodes a persistive state of affairs. M1, M2, M3 are realis, while M4 and M5 are irrealis, which are indicated by the reference point circle. I.e. when the reference point contains a solid line (real act) and indicates "now" (present), it means realis, while the circle contains only the dotted line, it means irrealis.

In M1, the act has started in the past and is expected to continue, while in M2, preparation or volition for the act has started in the past, and the act is going to start now and will be realized in the immediate future. M1 and M2 are mirror images with regard to act and subject's volition.

M2 and M4 share some features, i.e., the act and subject's volition are the same, but they are distinguished by the speaker's reference point. That is, in M4 the speaker focuses on the irrealis state that has not been realized yet.

M3 shares the same act and reference point with M1, but differs in subject's volition. However, it shares the reference point with M1 and M2, especially focuses on the immediateness which is shared with M2 (M2: Immediate future, M3 immediate past).

M1 and M5 also share some features in act and subject's volition, but they do not share the speaker's reference point. That is, in M5, the speaker focuses on the irrealis state that will not be realized.

M4 and M5 share the features of irrealis and negative inference, but they are mirror images in terms of the act, volition, and reference point.

M1 to M5 create a family resemblance category in which things may be thought to be connected by one essential common feature may in fact be connected by a series of overlapping similarities, where no one feature is common to all.

4.2. Inceptive meaning (M2)

Among all the five meanings above, M2 is quite difficult to detect in many languages especially from the references of Bantu studies. In some reference grammars, it is treated as a homonymy, not described at all, or is misunderstood.

In Southern Bantu languages, such as those in zone S, M2 as inceptive seems easy to detect because in these languages the inceptive use is usually located in a different slot than the persistive, as in (21).

(21)   Siswati (S43): Alterative *se-* vs. Persistive *sa-*   =(3)
     a. ***se**-ngi-(ya)-phek-a*   Alterative (inceptive) =M2
       ALT-1SG-(DIS.PRES)-cook-F
       'I now/already/then cook.'
     b. *ngi-**sa**-phek-a*   Persistive =M1
       1SG-PER-cook-F
       'I still cook.'

                                               (Nichols 2011: 35)

However, the inceptive M2 is located in the T(A) slot in many languages, similar to the persistive in Bende or Lwena/Luvale (K14) as in (22).

(22)   Lwena /Luvale (K14)
       iman-a   *ngu-ci-tal-e*   *mu-zuvo*
       wait-IMP   1SG-PER-look-SUB   LOC18-house
       'Wait, let me look in the house yet, i.e., before anything else is done.'
                      (Horton 1949: 126, quoted in Güldemann 2003: 192)

The distribution of the inceptive use with the *kí-reflex is tentatively plotted in Map 3. This map suggests that M2 is distributed sporadically among the languages in zone J, Bende, and some languages in zone S. However, it is doubtful that many "uncovered" M2s of *kí- origin still exist.

A good example of this point is reported in Matengo
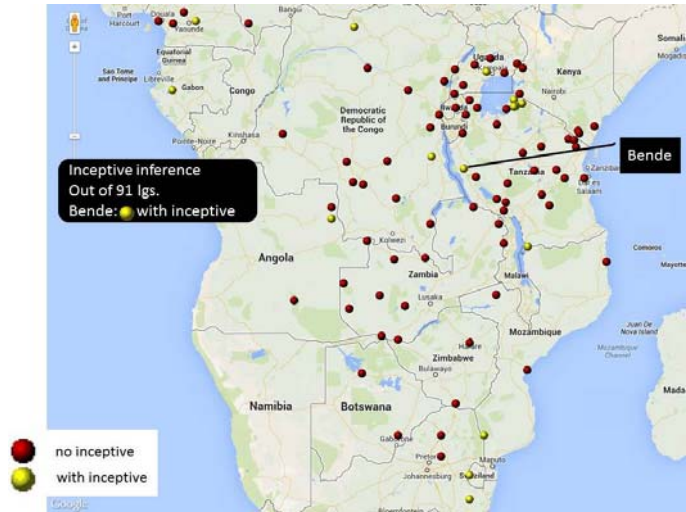
Map 3: Persistive-to-Inceptive distribution

(N13). The Matengo 'near future' *ŋgití* has been newly uncovered by Yoneda (p.c.) as having inceptive inference. The 'near future' is composed of an adverb *ŋgití* followed by the subjunctive or optative as in (23).

(23) Matengo's 'near future' (N13)

    a. *ŋgití*   *n-dɔm-â*   *kitâbu*   < *ŋ-gV-ití*
       ADV   1SG-read-SUB   CL7.book   1SG-PER-ANT
       'I will read a book now.'

                              (Yoneda 2000: 201; glosses revised by the author)

    b. *ŋgití*   *dʒu-hɛmɛl-adʒé*   *ŋɔmbi*   *pa*   *dʒu-ba*   *na*   *silingi*
       ADV   3SG-buy-OPT   CL9.cattle   when   s/he   has   money
       'S/he will buy cattle when s/he has money.'

                              (Yoneda 2006: 131; glosses revised by the author)

The adverb *ŋgití* can be analyzed originally into 1SG-PER-ANT, i.e., *gV-,* which most likely is the reflex of persistive *kí-* and was voiced by the preceding nasal *ŋ-* (1SG). The form *ŋgití* seems to be a lexicalized adverb with inceptive inference, since it is followed by the subjunctive or optative regardless of its person (no concord).

The *ŋgití* future is different from other futures because it implies relations to the present, i.e., the plan or preparation was implied at the moment of the speech act. In (29a), for example, s/he has been planning and saving money for buying cattle. Such implications actually agree to those of M2 in Bende.

It is very plausible that there are many uncovered cases of the persistive-origin-inceptive (M2) as we saw in Matengo. We need to pay more attention to the origins of grammatical components and reinvestigate the related phenomena of Bantu languages.

4.3. Complementary distribution of M4/M5

Although 4.1. tried to distinguish M1 through M5 schematically, a fact has emerged from the data of the 159 languages investigated. Among these languages, we can observe the almost complete complementary distribution of M4 and M5 (the only exception is Ewondo (A72a), as described in Nurse 2008: appendix).

For example, the Bende persistive has M4, and this automatically means that it cannot take a persistive negative (M5). On the other hand, many languages in zone J, such as Haya (JE22), have a negative persistive with the meaning of 'no longer' (M5), but they do not have 'proximative' (M4).

(24)   Haya (JE22)   =(5b)
     ti-tu-ki-gur-a
     NEG-1PL-PER-buy-F
     'We are no longer buying.' (M5)

                         (Nurse 2008: 147, glossed by the author)

As previously illustrated in Figure 1, M4 and M5 share features of irrealis and negative inference, but they are different in terms of the act, volition, and reference point. In fact, M5 is a mirror image of M4 with regard to act, volition, and reference point.

At the moment, we have neither a hypothesis nor an evidence to explain the complementary distribution, but the mirror image may imply some semantic backgrounds to induce the complementary distribution.

4.4. Neologism with persistive use

Although the persistive is distributed widely among Bantu languages, Swahili (G43) no longer retains persistive *ki-* in its original meaning; rather, it is used only in the simultaneous or conditional to encode clause linkage. If you want to express the persistence of a state in Standard Swahili, the adverb *bado* 'not yet' is used instead in sentence-final position as in (25).

(25)   Standard Swahili (G43)
     Mpishi   *ha-ja-pik-a*   *chakula*   *bado.*
     CL1.cook   NEG.3SG-NEG.ANT-cook-F   CL7.food   ADV
     'The cook has not yet prepared the meal.'

However, *bado* is reported to be an auxiliary verb in the T(A) slot in informal use in Lubumbashi Swahili (a.k.a. Katanga Swahili).[14] Both examples in (32a, b) express the same meaning ('The cook has not yet prepared the meal.'), but (32b) uses *bado* as an auxiliary verb in the T(A) slot.

(26) Lubumbashi Swahili 'The cook has not yet prepared the meal.'

Mpishi	*ha-ya-pik-a*	*chakula*	*bado.*
CL1.cook	NEG.3SG-NEG.ANT-cook-F	CL7.food	ADV
Mpishi	*ha-ya-bado-ku-pik-a*		*chakula.*
CL1.cook	NEG.3SG-NEG.ANT-AUX.PER-GER-cook-F		CL7.food

(Schicho 1992: 82-83)

This informal use of *bado* is an obvious influence from neighboring languages to Lubumbashi where is surrounded by many indigenous Bantu languages with persistive **kí-*. It is natural for speakers of those indigenous Bantu to locate any form to express persistency in T(A) position, then the adverb origin *bado* was chosen for a persistive prefix.[15]

As in the Lubumbashi Swahili case, the persistive does not necessarily take the reflex form of **kí-*. These are some more examples that only the concept of persistive may have been introduced in neighboring languages. For example, Sukuma (F21) does not have a reflex of **kí-*, but uses *-taalí* for persistive. See examples (27), the persistive *-taalɪ* is used in both affirmative and negative (i.e., 'proximative' in this paper).

(27) Sukuma (F21) Kɪɪya dialect

	Affirmative			Negative (=proximative)	
a.	*dŏ-taalí*	*dǒ-líí-gǒl-a*	b.	*dʋ-taalí*	*dʋ-dʋ́ʋ́-gʋl-aga*
	1PL-PER	1PL-PROG-buy-F		1PL-PER	1PL-NEG-buy-IPRF
	'We are still buying.'			'We have not bought yet.'	

(Nurse 2008: appendix)

The concept of the persistive may have influenced other language families as well. Kiessling, Mous, and Nurse (2008: 212-213) discuss the persistive with regard to language contact in the Tanzanian Rift Valley. The Bantu persistive is assumed to be one

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[14] Lubumbashi is located in the southeastern part of the Democratic Republic of the Congo. It is the second largest city in the country and the capital of Katanga Province. Katanga Swahili was introduced here with the copper-mining industry at the beginning of twentieth century and became the mother tongue of the inhabitants. It is "colonial made" and became a Swahili creole without passing a stable phase of pidgin (Schicho 1992: 72).

[15] Schicho (1988, 1992) cited only negative examples ('not yet'), although he does not exclude the affirmative persisitive use in the text. "*Hapana* and *bado*, usually particles in post-verb position, are used as copulas preceding the main verb by speakers with limited competence in Lubumbashi Swahili or in strongly emotional speech events." (1988: 577). The typical persistive use of Lubumbashi Swahili needs to be surveyed in more depth.

of the areal features of language contact in that area, i.e., the (originally Bantu) persistive may have influenced to Cushitic and Nilotic languages in the Tanzanian Rift Valley. Cushitic languages typically express only aspect and have no morphological tense system similar to Nilotic. Despite the absence of tense system in those languages in general, the (originally Bantu) persistive and past tenses were introduced to West Rift Cushitic and Nilotic (Gisamjanga Datooga) as a result of contacts with Bantu languages, especially those in zone F, although the persistive of West Rift Cushitic and Nilotic does not reflect the Bantu original form *kí-.

Kiessling, Mous, and Nurse state the following: "All the modern West Rift Cushitic languages have developed a tense system with two pasts…operating on the basis of a contrast of the preverbal clitic *in* for persistive vs. *gaa* for past. Nilotic Datooga also has two tenses with a past-reference component, i.e., perfect and persistive… the persistive *gudu* can be traced back internally to a periphrastic construction with the verb 'finish'" (2008: 212).

These phenomena discussed above support the influential nature of the persistive. The persistive is widely distributed across Bantu languages, and its meaning can be introduced with different forms not only Bantu-internally but also to those beyond the Bantu languages.

5. Concluding remarks

In this paper, we first reviewed previous studies related to the persistive across Bantu languages in Section 1. We then described some variants of the Bende persistive and organized them according to their contexts in Section 2. Section 3 presented conclusions on the Bende persistive from the view point of grammaticalization. These conclusions were simply proposed in Table 4 and (20). In sum, the Bende persistive is located at the Type [2b] stage in Güldemann's grammaticalization scenario, which attempts a Bantu-internal classification from a syntactic point of view. Bende-internally, the persistive variants have the following cline in the persistive meaning (M1): C1 > C3-1 > C3-2 (eg. *tu-sí-tend-á > tu-syá-tend-á > tu-syá-lí#tu-likú-tend-á > tu-syá-lí#tú-tens-ílé* 'We are still saying.').

Some semantic developments of the persistive were discussed in Sections 4.1. to 4.3., although we still need a more in-depth survey on the inceptive uses with persistive origins. However, the semantic varieties of the persistive marker create a family resemblance category. Finally, in 4.4., we observed newer developments of the persistive in Lubumbashi Swahili, Tanzanian Rift Valley Cushitic, and Nilotic languages, which have newly adopt the persistive.

For this paper, however, only a limited number of Bende verbs were investigated. To clarify the semantic system of the development of the persistive in more depth, we should continue to work on individual verbs and check their lexical aspects, since the persistive is an aspectual system that is inseparable with the lexical aspects of each verb. A more detailed picture of the semantic development of the persistive will contribute not only to a cross-Bantu investigation, but also to larger cross-linguistic studies.

Abbreviations and examples

Example sentences are given in three lines. The first shows the original sentence with boundaries; the second shows the glosses; and the last shows the free translations. The transcription rules of each language are based on the original sources.

Abbreviations are as follows:

(word boundary), = (clitic boundary), ≠ (pre-(micro-)stem boundary), - (morpheme boundary), 1 (first person; class 1), 2 (second person; class 2), 3 (third person; class 3), 4 (class 4), 5 (class 5), ADV (adverb), ALT (alterative), ANT (anterior), AUX (auxiliary), CL (noun class), COND (conditional), DIS (distal), F (final), GER (gerund), IMP (imperative), IPRF (imperfective), LOC (locative), NEG (negative), OPT (optative), PER (persistive), PL (plural), PROG (progressive), PRS (present), PRS$_i$ (present indefinite), PST (past), SG (singular), SIM (simultaneous), SM (subject marker), SUB (subjunctive)

Data in Maps 2 and 3

For this paper, data from 159 languages were investigated, and Maps 2 and 3 are taken from the following sources. Most of the language data are from Nurse (2008: appendix) with some exceptions (sources are given in the parentheses; otherwise, they are from Nurse 2008: appendix).

A11:Londo, A15c:Akɔɔse, A22:Mokpwe/Bakweri, A24:Duala, A34:Benga, A43:Basaá, A44:Nen, A46:Nomaade, A53:Kpa, A62:Gunu, A72a:Ewondo, A74:Bulu, A83:Makaa, A84:Kɔɔzime, A93:Kakɔ, B11a:Myene/Mpongwe, B25:Kota, B302:Himbaka, B43:Punu, B51:Duma, B52:Nzɛbi, B63:Ndumu, B73c:Yaa, B82:Boma, B84:Mpuono, B85:Yansi, C101:Babole, C14:Leke/Bomitaba, C25:Mboshi, C32:Bobangi, C36d:Lingala, C41:Ngombe, C53:Poke/Gesogo, C55:Kele, C61:Mɔ́ngɔ, C75:Kɛla, C76:Ombo, C83:Bushoong, D13:Mituku, D14:C-ɛnyá, D23:Kumʊ, D25:Ke-lɛga, D27:Bangubangu, D28:Holoholo, D311:Forest Bira, D33:Nyali, JD42:Nande, D43:Nyanga, JD53:Shi, JD61:Rwanda, JD65:Hangaza, JD66:Ha (Harjula 2004, p.c.), JE102:Bwisi, JE11:Nyoro, JE16:Soga, JE21:Runyambo (Rugemalira 2005), JE22:Haya, JE24:Kerebe,

JE253:Ruri/Ruuli, JE31c:Bukusu, JE42:Gusii, E46:Temi/Sonjo, E51:Kikuyu (Leakey 1989), E56:Daisu, E64:Vunjo/Chaga, E701:Ilwana, E71:Pokomo, E72:Giryama, E74:Dawida/Taita, E74b:Saghala, F12:Bende (Abe 2006), F21:Sukuma, F22:Nyamwezi (Maganga and Schadeberg 1992), F24:Kimbu, F25:Bungu, F31:Nilyamba, F32:Nyaturu, F33:Langi, F34:Mbugwe, G11:Gogo, G12:Kagulu, G221:Mbugu/Ma'a, G22A:North Pare/Asu, G23:Shambaa, G33:Zaramo, G35:Lugulu, G403:Mwani, G412:Chimwiini, G43:Swahili, G44d:Maore/Comorian, G51:Pogoro, G52:Ndamba, G62:Hehe, H10A:Tuba/Congo, H16:Kongo/Zombo, H21:Mbumdu, H32:Suku, H41:Mbala, JE13:Nyankore (Morris and Kirwan 1957, Turamyomwe 2011), JE14:Kiga (Turamyomwe 2011), JE15:Ganda (Ashton, Mulira, Ndawula, and Tucker 1954), JE31:Masaaba (Güldemann 2003), JE402-4:Ikizu (Walker 2013), JE405:Kabwa (Walker 2013), JE43:Kuria (Walker 2013), JE431:Simbiti (Walker 2013), JE44:Zanaki (Walker 2013), JE45:Ikoma (Walker 2013), K11:Cokwe, K13:Lucazi, K14:Luvale/Lwena (Güldemann 2003), K21:Lozi, K31:Luyana, K332:Gciriku, K352:Mwenyi, K42:Ikuhane/Subiya, L12b:Holo/Hungu, L13:Kwezo, L21:Kete, L23:Songe, L31a:Luba/Kasai, L32:Kanyok, L33:Luba-Katanga, L41:Kaonde, L52:Lunda, L53:Wund, L62:Nkoya, M11:Pimbwe, M14:Lungu, M23:Nyiha (Asheli 2013), M24:Malila (Kadoya 2004), M25:Safwa, M301:Ndali, M42:Bemba, M54:Lamba, M63:Ila, N101:Ndendeule, N13:Matengo (Yoneda 2000, 2006), N14:Mpoto, N21:Tumbuka, N30:Nyanja, N44:Sena, P13:Matumbi, P22:Mwera, P311:Koti, R11:Umbundu, R21:Kwanyama, R22:Ndonga, R31:Herero, R43:Yeyi, S10:Shona, S20:Venda, S31:Tswana, S32:Northern Sotho (Shenk unknown), S42:Zulu, S43:Swati (Nichols 2011), S44:Northern Ndebele, S53:Tsonga, S62:Tonga

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