

# Chapter 3

## Tense in Proto-Bantu

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The focus of this chapter is the appearance of tense in Proto-Bantu (PB). Most Niger-Congo (NC) languages are aspect-prominent, having no tense contrasts, and the same is generally assumed for ancestral Proto-Niger-Congo. PB emerged from part of an eastern subgroup of NC to which we refer as Bantoid. Some 5000 years ago or earlier, tense was innovated at an early stage in a region along and to the east of the Cameroon Volcanic Line. This means that tense is not unique to PB but is inherited by PB from its forebears. We propose two lines of verbal development for Narrow Bantu (NB) based on the verbal phenomena we traced. The data did not always allow us to base our analysis on the strict application of the Comparative Method to the exponents of tense and aspect, but examination of specific systematic features of the verbal systems in NB and parts of Bantoid led us to infer plausible paths of verbal development to explain the data.

### 1 Introduction

This chapter is organised as follows. §2 deals with what can reasonably be reconstructed for Proto-Bantu (PB). Our reconstruction differs somewhat from that in two earlier works, partly because we took into consideration new evidence from the north-western Narrow Bantu (NB) languages. §3 sets out something of the rich and complicated tense systems that have evolved in NB's eastern Bantoid siblings: Grassfields Bantu, Tikar, Beboid, Yemne-Kimbi, and parts of Mambiloid. In §4 we integrate the first two sections, by juxtaposing the PB reconstructions with what we find in eastern Bantoid.

Reconstruction of tense in these eastern Bantoid languages differs crucially from the reconstruction of tense in other language families, e.g. Romance (Indo-European). Tense categories and their morphological exponents in today's Romance languages can be mostly shown to develop organically from a single set



of categories and exponents in Latin. That is not the case for the eastern Bantoid languages: while their categories are generally relatable, each has a distinct set of morphological exponents, not derivable from a common ancestral system. We think that tense contrasts developed in two stages. The initial stage saw a single past and maybe a single future developing, most likely at one geographical locus, probably in an early eastern Bantoid lect<sup>1</sup> or a small set of closely related eastern Bantoid lects, in south-western Cameroon. At a later stage, multiple pasts and future contrasts evolved from their respective single earlier tense, probably in Eastern Grassfields. In both cases, we see tense diffusing out from an initial point into adjacent groups, each group imitating the tense category/-ies but using its own morphology, hence the disparity in morphological exponence. Our focus is to identify within the Bantoid variation those exponents of tense that we can relate to reconstructed PB forms.

We would add three caveats. First, any distinctions we may make between groupings within NB on the basis of differing distributions of verbal features, e.g. in §2.2.1 and §2.2.2 below, may or may not correspond to distinctions made by others using different features or criteria. We are not proposing a new classification, but rather we are attempting to account for periods of verbal development within PB, based on specific phenomena.<sup>2</sup> We think proto-languages are like real languages in having temporal and regional variation. Our distinction might or might not correspond to proposals made by others using different methods.

Second, reconstructing cognitive-systemic-morphological entities such as tense/aspect (TA) differs from the classic Comparative Method (CM). Where the CM has a long and established tradition involving a defined methodology and mostly well-defined results, it will be seen that what we are doing here has no established tradition. It involves some results that few would disagree with, but also several issues for which we have several plausible explanations but no tools to make a definite choice among them. Probability plays an important role in this chapter.

Third, the two foci of this chapter are the Eastern Grassfields languages and the presence of tense and aspect in PB. However, we are mindful that some readers may turn back when faced with the combination of a mass of unfamiliar languages and an unfamiliar topic and/or theory, so we – and our editors – have

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<sup>1</sup>We use “lect” as a neutral term to cover language, dialect, or other local varieties.

<sup>2</sup>The latest overall classification of Bantu languages is Grollemund et al. (2015). It is a phylogeny of over 400 Bantu languages relying on basic vocabulary. Despite our reservations about lexicon-based quantitative approaches to language classification, we can identify the present study on the origin of tense in Bantu and Bantoid as primarily concerning nodes 0 and 1 in the tree proposed by Grollemund et al. (2015).

tried to make the content transparent. For definitions of central terminology, see Appendix A. For geographical location, see Figure 3 in the introduction to §3, Figure 5 in §3.4.3, and Figure 6 in §4.4.

## 2 Reconstructing tense for PB

There have been two previous attempts at reconstructing tense for PB: Meeussen (1967: 112–113) and Nurse (2008: 226–283).<sup>3</sup> Their conclusions are quite similar. This is not surprising as their basic assumptions and procedures are similar. They surveyed pre-stem and final vowel (FV) morphemes occurring widely across an array of NB languages and then assembled them to represent categories.<sup>4</sup> These categories involved drawing on their experience with languages mainly in the east, south, and centre of the NB area. Moreover, they assumed the PB verb had an agglutinating structure. Both scholars worked from morphemes to meaning, because it is easier to work from concrete morphology and structure than from the more elusive semantics.

Following the phylogenetic tree proposed for NB in Figure 1 of Grollemund et al. (2015: 2), we include in this chapter a short but crucial section on tense/aspect categories in NB languages of the North-Western Bantu Cameroon (NWB Cameroon) and Gabon (NWB Gabon), Central-Western Bantu (CWB), and West-Western Bantu (WWB). These include languages of Guthrie zones A, B, C, and D, namely NWB Cameroon (A10-70), NWB Gabon (A80-90, B10-30), CWB (C10-18 and D10-30), and WWB (B40-80 and H10-30-42).<sup>5</sup> We note that languages of zones D10, D20, and D30 are found in both CWB and Eastern Bantu (EB) in Grollemund et al. (2015). Our concern is with those in CWB. The lower branches in the phylogeny of Grollemund et al. (2015), i.e. EB and South-Western Bantu (SWB), are only of limited relevance to our present purposes.

Of the north-western NB languages, our particular interest is the NWB Cameroon and NWB Gabon languages, partly because Meeussen and Nurse paid

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<sup>3</sup>We do not present the data here, leaving it to readers to consult them. Meeussen's database was (part of) Bastin (1975). Nurse provides his data in Nurse (2019). Previous argumentation is also not repeated but can be seen in Meeussen (1967), Nurse & Philippson (2006), and Nurse (2008).

<sup>4</sup>Meeussen calls them "tense formulae", Nurse "tense-aspect forms". Meeussen uses "tense" as a single cover term for several categories (tense, aspect, focus, etc.) here treated as distinct. Meeussen's formulae "are intended as illustrating guesses rather than as real reconstructions" (Meeussen 1967: 113).

<sup>5</sup>For Guthrie's zones (A, B, ...) and groups (A10, A20, ...), and his referential classification of the Bantu languages in general, see Guthrie (1948; 1971).

less attention to them, and partly because they are involved in what studies to date consider the borderland between NB and other Bantoid language groups. Along with the NWB languages, we engage also with the outgroup Grassfields languages. Of the Bantoid groups along the borderland with NB, the Grassfields is geographically closest to NWB languages and displays behaviour with tense and aspect that indicate a close relationship with NWB.

What follows in Table 1 is a partial comparison, including only pre-stem forms referring partly or exclusively to tense and not primarily to non-tense categories. It includes the FV morphemes *\*-a*, *\*-ile*, *\*-a(n)g-a*, the latter of which Meeussen treats as ‘pre-final’ (see also Sebasoni 1967). Brackets in the second column indicate doubtful status.

Table 1: Tense reconstructions in Meeussen (1967) and Nurse (2008)

Meeussen (1967)	Nurse (2008)
<i>*á-stem-a</i> preterite IPFV	<i>*a-stem-ile</i> past RET
<i>*a-stem-a</i> recent IPFV	—
<i>*á-stem-ide</i> preterite PFV	<i>*a-stem-ile</i> past RET
<i>*a-stem-idé</i> recent PFV	—
—	<i>*ø-stem-ile</i> present RET
<i>*ø-stem-a</i> present 1 IPFV (= CONJ)	<i>*ø-stem-a</i> present
—	<i>*a-stem-ang-a</i> past IPFV
—	<i>*ø-stem-ang-a</i> present IPFV
<i>*da-stem-a</i> present 2 IPFV (= DISJ)	<i>*la-stem-a</i> DISJ ( <i>-laa-stem-a</i> future)
<i>*ka-stem-a</i> future	( <i>*ka-stem-a</i> itive/future)

The use of uppercase (e.g. PAST, IPFV) refers to a concrete category in a specific language, but the use of lowercase (past, imperfective) refers to a general category.

Note that Meeussen has a binary contrast for the past between preterite and recent past while Nurse has only one past. See §2.2 for discussion.

These reconstructed morphemes/formulae reflect primarily what occurs in NB outside the NWB languages. However, the NWB languages are crucial to reconstruct PB by identifying what are retentions of PB and what are innovations.

Meeussen (1967) and Nurse (2008) also have in common that they treat PB as the parent language of all current NB languages. They set out mainly to account for the variation they found across NB. Relative to tense they give particular attention up to node 5 in Grollemund et al. (2015), i.e. excluding NWB. This contrasts with our goal. We seek to review PB tense from node 4 up to node 1 and

then bring in node 0. Node 0 involves including Bantoid languages outside NB that may shed light on the development of tense in NB within Bantoid (cf. end of §2.2.1). However, as stated above, we also do consider NB languages from Guthrie’s zones B, C, D, and H, which are north-western geographically speaking, but belong to the CWB and WWB branches in genealogical terms. When we use north-western in a purely geographical sense, we will not abbreviate it. When we refer to the phylogeny of Grollemund et al. (2015), we will use the abbreviations NWB, CWB and WWB.

## 2.1 The north-western NB languages

Structures expressing TA in north-western NB languages share certain features. Significantly, nearly all have three structures with no pre-stem morpheme reflexes (“pre-stem zero (- $\emptyset$ -)”) and reflexes of the characteristic suffixes in the FV slot. In NB, the pre-stem position typically indicates tense while FV is the dedicated position for aspect. Table 2 displays these recurrent structures.

Table 2: TA structures in north-western NB without tense prefixes

In an aspect system		In a tense-prominent system	
* $\emptyset$ -stem- <i>a</i>	Imperfective	* $\emptyset$ -stem- <i>a</i>	Present
* $\emptyset$ -stem- <i>í</i>	Perfective	* $\emptyset$ -stem- <i>í</i>	Past
* $\emptyset$ -stem- <i>aga</i>	Habitual/Iterative	* $\emptyset$ -stem- <i>aga</i>	Habitual/Iterative

Sebasoni (1967: 131) considers the “Habitual/Iterative” in Table 2 to involve a set of three forms distributed in complementary fashion across NB. Specifically, “-*ag*- prevails in the north-east and east of the NB region, -*ak*- in the north, and -*anga*- in the west and south” [our translation from the original French].

In the perfective \* $\emptyset$ -stem-*í* high tone is marked. Where high tone is marked we are fairly confident of the tone. Lack of any tone marking means either low tone or that we are unsure because the data is not conclusive (Nurse & Philippson 2006).

In Table 2, the structures in the left column express aspectual meaning, while those on the right express a mix of aspectual and tense meanings. This is a set of forms which nicely bridge the shift from an aspect-prominent to a tense-prominent system, or thus from Niger-Congo (NC) to NWB. Indeed, the structures in the column on the left occur often across NC (-*ag(a)* in Bantoid, less frequent elsewhere in NC) and they form the skeleton for NWB systems, exemplified in (1).

- (1) Benga A34 (Nurse 2019: Addendum 1)  
*mbi-a-kal-a* 'I talk' (1SG-Ø-talk-a)  
*mbi-Ø-kal-i* 'I talked'  
*mbi-Ø-kal-ak-a* 'I am talking'

Tense-prominent systems in north-western languages also differ in certain ways. For example, most have a small set of tense contrasts, with one/two pasts and one future (Lundu-Akoose A11-15C, Duala A24, Benga A34, Njem A84, Kako A93, Himba-Vove B302-305, Mbuun B87, Babole C101, Mboshi C25, Mbudza C36c, Gesogo C53, etc.), while a few have developed multiple contrasts (Kpe A22, Basaa-Nen-Maande A43a-44-46, Kpa A53, Yangben-Gunu A62A-622, Ewondo A72a, Kwakum A91, Myene-Nkomi B11e, Kota B25, Duma-Nzebi B51-52, Ndumu B63, Teke Yaa B73c, Boma-Yanzi B82-85, Kela C75, Bushong C83, Mbole D11).<sup>6</sup> To put these on a map gives a haphazard impression as we considered only two languages per Guthrie group (A10, A20, etc.). The picture would probably be more coherent if we included data for all north-western languages. Several morphemes involved in expressing the extra categories in the multiple contrasts in Basaa-Nen, ?Maande, Kpa remain to be investigated. Some of these resemble morphemes in Bantoid languages. For example, a characteristic feature of Bamileke lects is a structure of the shape *N-B*,<sup>7</sup> which occurs in imperfectives and P1.<sup>8</sup> It also occurs in Basaa: *a-n-jé* 'he ate P1' and *a-ń-jé* 'he eats'.

## 2.2 Past tense in PB

### 2.2.1 One or more pre-stem *a-* 'past' in PB?

Across NB, *a*⁹ is by far the commonest TA pre-stem marker and the commonest marker of past reference. As can be seen in Table 1, Meeussen postulates a consistent binary contrast between *á-* 'preterite' and *a-* 'recent past'. Nurse has but a single *a-* 'past', based on Nurse & Philippson (2006), which used as its database the same 100 languages as in Nurse (2008). 75% of the languages in that database have a form of *a-* with some past reference, which might mean it is the only past

<sup>6</sup>The referential Bantu language codes seen here, first introduced by Guthrie (1948; 1971), were last updated by Maho (2009).

<sup>7</sup>*N* represents a homorganic nasal which assimilates in place of articulation to the initial consonant of the verb base (B).

<sup>8</sup>P1 stands for "today past"; see the key at Table 3, and in general for abbreviations the section on Abbreviations at the end of this chapter.

<sup>9</sup>In most north-western languages this is prefixed to the verb, so strictly *a-*, while in a few (e.g. A80) it is described as self-standing, so *a*. For the sake of simplification, we describe both here as *a-*.

pre-stem marker, or marks one form of past (near, far) and not another, or combines with another marker to indicate past. It occurs in all 16 of Guthrie's zones, although less frequently in the north-west. There is clear phonetic and phonological evidence for several distinct *a-* morphemes with past reference across NB. Some 22% of the languages examined by Nurse & Philippson (2006) have contrastive *a-*, that is, it is the tone or length of *a-* that distinguishes two tenses, but only a very small number of languages distinguished two pasts on the basis of a suprasegmental contrast alone. Table 1 in Nurse & Philippson (2006: 162) sets out the data for the 53 languages for which they had reliable tonal data. Like Bastin (1994), Nurse & Philippson (2006) conclude that the evidence is good for a contrast in the *a-* involved but not so good in terms of a correlation with meanings. They further conclude that a *\*a-stem-a* form originally had near past and/or retrospective (RET) reference, tonal and length distinctions being later innovations. Nurse & Philippson (2006: 164) finally conclude: "We think [pre-stem] *\*a* can certainly be reconstructed for Proto-Bantu with past reference [... but] would be reluctant to say more than one past *\*a*, with different tonal profiles and meanings, can be reconstructed at the level of the proto-language [...] it seems likely that as tense reference, especially past reference, multiplied in Proto- or early Bantu, one of its vehicles was the multiplication of *\*a*."

We also consider in more detail two factors barely or not at all examined by Meeussen (1967) or Nurse (2008), namely the distribution of *a-* 'past' in the north-western languages, especially zone A, and in the Bantoid languages.

Sifting through Bantoid and even Wider NC (see Williamson & Blench 2000: 18) leads to limited enlightenment. Pre-stem *a* is fairly widespread and scattered in some members of Kordofanian, Mande, Atlantic, Kru, Senufo, Gur, Ubangi, Zande, Kwa, West Benue-Congo (BC) (Yoruba, Nupe), among others, with a considerable range of meanings: past, retrospective, non-past, future (Nurse et al. 2016), and focus. However, a mere listing of the languages and meanings is largely meaningless without being able to systemically link the semantics of the various *a-* and to systematically link *a-* to particular branches and the branches to each other. Bantoid languages are NB's nearest relatives, and some of the 20 Bantoid languages in Watters (2018c) show traces of *a-* 'past' (see Table 10 and its discussion). It is risky to place too much weight on such a short morpheme. There may have been more than one *a-*. Nevertheless, we find it encouraging to find these Bantoid *a-* 'past', and feel they support the hypothesis that a PB *a-* 'past' was inherited from a pre-PB stage.

Table 3 shows that the distribution of *a-* 'past' in zones A, B, C, and bits of D is not as widespread as might be expected. Since *a-* 'past' is so widespread across NB, it should be reconstructable for PB, and was so reconstructed by Meeussen

(1967) and Nurse (2008). Following what is said above, we might expect to find it at least in simple forms, that is, with one past meaning and simple in shape, in the north-western NB languages.

Table 3 can be summarised as follows:

- *a-* ‘past’ is not omnipresent across north-western NB. It is absent from A10-20-30-40, B30-40-60-80, C20 and C60. It occurs in all A50 and also in

Table 3: *a-* ‘past’ in north-western languages with multiple pasts

Language	Code	P3, P4	P2	P1
Kpa	A53			á-
Yambasa	A62		á-	
Ewondo	A72a		á-	
Makaa	A83		a-	
Myene	B11	a-	a-	a
Kota	B25	á-	a-	
Duma	B51	á-	a-	
Nzebi (as per Guthrie 1968)	B52g	á-	a-	
Nzebi (as per Marchal-Nasse 1989)	B52m	á-	á-	
Teke Yaa	B73c	a-		
Babole	C101		a-	
Lingala	C30B		á-	
Ngombe	C41		a(a)-	
Soko-Kele	C50		á-	
Ombo	C76	á-ka-	á-	
Bushong	C83			a-
Mituku	D13	a-P3-6	a-	a-
Enya	D14		a-	á-
Lega	D25	a-	a-	a
Holoholo	D28		á-	á
Nyali	D33		á-	á

Key to the temporal semantics of the categories in this table: languages with four pasts distinguish P1 = today past, P2 = yesterday, P3 = a few days, weeks, or months ago, P4 = remote past. If they only use P1, P2, and P3, then P1 = today past, P2 = recent past, P3 = distant. If they only use P1 and P2, then P1 = recent past and P2 = more distant past. Futures work identically, so if only F1 and F2, then F1 = near future, F2 = distant future, etc. Note: P3-6 in the row for D13 refers to its six past tenses, P1, P2 and P3-6, all using *-a* (see §2.5).



B10-20-50-C10, etc., and in some A60-70-80-90 languages. If we had had access to more languages and better data, this picture might be clearer.

- Parts of north-western NB have a single *a-* ‘past’.
- A few have a binary *a-* ‘past’ contrast.
- Other than B11, D13, and D25 none has a three-way *a-* ‘past’ contrast.
- Not shown for reasons of space is the distribution of this *a-* in the rest of NB, where binary and three-way *a-* contrasts are frequent.
- We can tentatively propose that there is a general development from a single, earlier *\*a-* to multiple, later *a-* pasts, but it is not a straight line.

We think the best explanation for the absence of reflexes of *\*a-* in A10-20-30-40 (and the B and C languages above) is to posit that *\*a-* was part of early PB but subsequently lost in a later PB lect or lects ancestral to A10-20-30-40. This scattered distribution mirrors what we find in Bantoid: *a-* ‘past’ occurs in some Bantoid languages (Ndemli, Ngie, Aghem, Babanki, Mambiloid (Vute)), but not in many others (cf. §3.2.1 and §3.2.2 below). All this suggests that *a-* was once more widespread in Bantoid than it is today, but is now retained in a rather haphazard pattern. We know of no concrete cases where *a-* is lost from synthetic structures – A10-20-30 and most A40 languages are synthetic today – but early PB is more likely to have been analytic (see §2.4) in which situation *a-* could have been more easily replaced, and thus lost, in the ancestral forms of A10-20-30-40 and adjacent Bantoid lects. The ancestors of A10-20-30 and most of A40 subsequently became synthetic.<sup>10</sup>

### 2.2.2 Verb-final *-ile* vs. *-i*

Meeussen (1967) and Nurse (2008) reconstruct for PB verb-final *\*-ile*, regarded as bimorphemic *-il-e* (cf. Table 1). This is a complicated issue. Closer examination of north-western NB, of Bantoid languages, and of Wider NC suggests a possible different situation. Most zone A, B, C, and some D languages have just *-i*; a few have *-i* and allomorphic variants such as *-ili*, where *-ili* occurs after CV stems, with *-i* after CVC or longer stems.<sup>11</sup> Where Bantoid languages have this

<sup>10</sup>For zone B and C languages, it also has certain implications, which we prefer to ignore here.

<sup>11</sup>Lundu A11, Lue A12, Mbo A15, Mbuu A15A, Akoose A15C, Kpe A22, Duala A24, Myene B11, Duma B51, ?Ntomba-Bolia C35a-b, Idakho JE411 (Grégoire 1979; Hedinger et al. 1981: 54, 62 (verbs 8); Bastin 1983; Hedinger 1985: 11; 2008: 111 (verbs 12 and 13); Ebarb & Marlo 2015: 248). Also, consider the discussion in §3.5.1 of this chapter on *-i* and *-ile* in Wider Bantoid. A number of unanswered questions remain about their distribution and origin.

suffix at all, they mostly have it as *-i*; the evidence for *-ile* is sparse and less clear (see §3.5.1.2 below). As far as we know, Wider NC has *-i* and no *-ile* (Nurse et al. 2016). This suggests the original shape was *-i* or *-i//ili*, although we cannot convincingly account for the emergence of *-ile*. It may relate to the notion of suffixal phrasemes in verbal derivation, set out in Bostoen & Guérois (2022 [this volume]).<sup>12</sup> These are historically complex suffixes/extensions which become semantically non-compositional and include the older and shorter simplex suffix with the same meaning (e.g. *\*-ibv* PASS including *\*-v* PASS, *\*-angan* RECP including *\*-an* RECP, *\*-idi* CAUS including *\*-i* CAUS). Could *\*-ile* also be such a phraseme but in TA marking? Most of these suffixal phrasemes in verbal derivation arise after NWB split off, just as we argue here for *\*-ile*.

Consequently, we propose a historical scenario with three stages. Stage 1 involves NC and Bantoid<sup>13</sup> with a basic aspectual contrast between perfective versus imperfective, perfective being widely (not exclusively) represented by *-í*. Stage 2, seen in all languages in zones A, B, C, plus D10, D20, and D30, has *-í*, principally representing ‘past’. A dramatic change then led to Stage 3: in the rest of NB *-ile* came to predominate, with some areal retention of *-i* and some cases of the vowel copy (VC) suffix, where the FV reflects the stem vowel ([CaC]-a, [CeC]-e, [CiC]-i, etc.).<sup>14</sup> In the rest of NB, *-ile* represents primarily retrospective with *a*-taking over the role of ‘past’.

In Figure 1 *-í* is italicised, the VC suffix is underlined, and *-ile* and its many variants are bolded. VC thus occurs when the final vowel is a copy of the first root vowel instead of *-i* and *-ile*. The reconstructions in Meeussen (1967) and Nurse (2008) reflect this large and later (Stage 3) area. We display stages 2 and 3 in Figure 1. So, the shape changes from *-í* in most NC to *-ile* in most NB, the north-west being a transition area, while the meaning shifts from NC ‘perfective’, to north-western NB ‘past’, to ‘retrospective’ in most of NB.

We conclude that *-í* ‘past’ should be reconstructed to PB, rather than *-ile*. That leaves certain unexplained phenomena: why do A10 and A20 languages, Myene B11, Duma B51, Idakho JE411 (and maybe a few others?) have two allomorphs? Why do the *-í* form and meaning change outside the north-west?

An alternative version of Stage 3 would be that while *-ile* widely replaced *-i*, in some languages *-i* and *-ile* coexisted with different meanings. They still do today in a small group of languages based on K10, K20, K40, L10, L30, and

<sup>12</sup>We acknowledge Koen Bostoen’s major contribution to this whole section.

<sup>13</sup>The evidence in Bantoid and north-western languages is obscured by widespread loss of final vowels.

<sup>14</sup>The VC suffix is a separate development, with which we do not deal here. See Grégoire (1979).

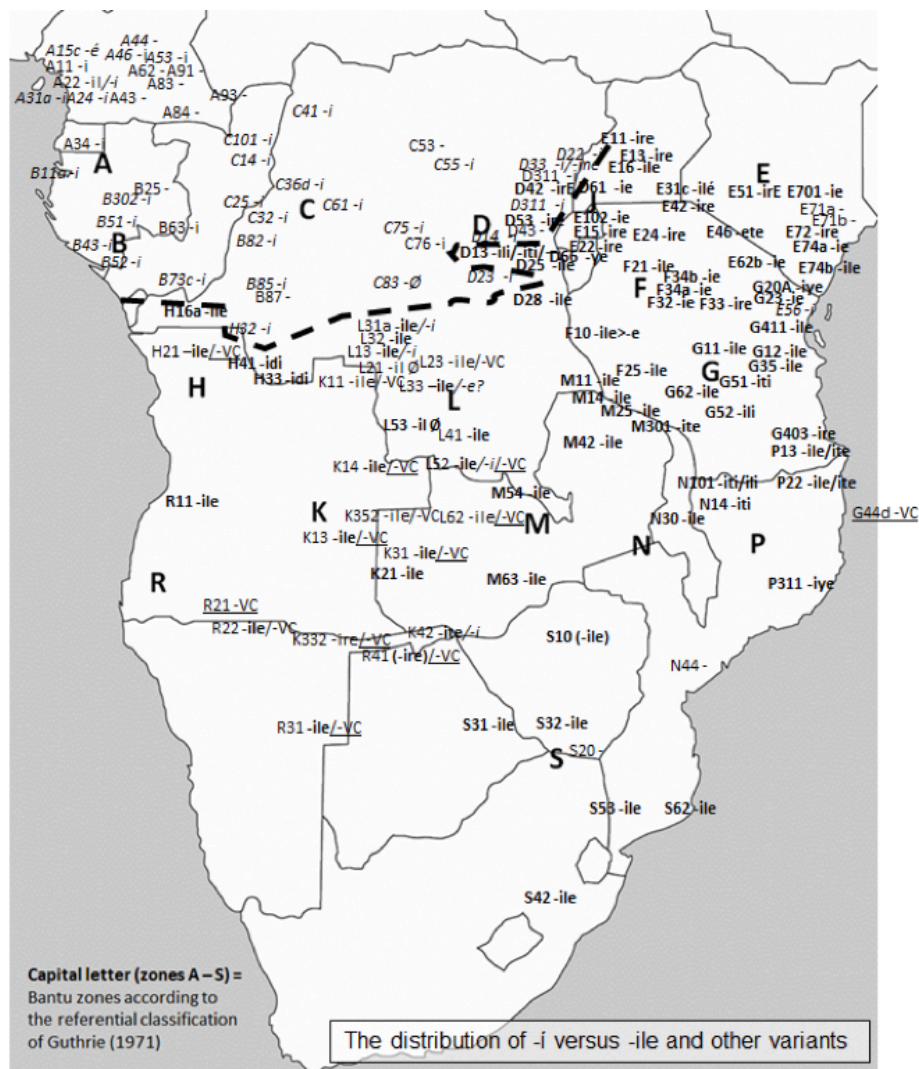


Figure 1: Distribution of *-i*, *-ile*, and other minor variants

L50, with some isolates in D10, JE411, E60, and Kongo H16. Where they do co-exist, *-i* represents predominantly ‘near past, anterior, resultant state’, while *-ile* represents a more ‘distant past’.

### 2.2.3 How did the new pre-stem *a-* fit with *-i*?

We suggested above that the best explanation for the absence of reflexes of *\*a-* in A10-20-30-40 is to posit that *\*a-* was part of early PB but subsequently lost in a later PB lect or lects ancestral to A10-20-30-40.<sup>15</sup> Examination of the languages retaining *a-* shows numerous combinations of pre-stem  $\emptyset$  and pre-stem *a-* with suffixal *-í*.<sup>16</sup> Common to nearly all is a pair of features: forms with *a-* encode predominantly past reference, and *a-* with past reference predominantly represents a time further removed than pasts without *a-*, so past vs. present, or further past vs. near past, etc.

Hence, *a-* acts as a ‘shifter’ added to another structure.<sup>17</sup> A corollary of this is that *-í* came to be associated with nearer past. This may explain why it finishes up as primarily retrospective (see §2.4). Most retrospectives are associated with events in the more recent past.

## 2.3 Did PB have future tense(s)?

In contrast to past reference, where one marker predominates, future marking is diverse across NB (Nurse 2008: 85–87). Future morphology is frequently renewed. Nurse’s database has many future markers, all geographically limited and many obviously grammaticalised forms. The only two with any claim to reconstructability are *ka-* and *la(a)-*. Attested in 29% of the languages in the sample of Nurse (2008), *ka-* is the most widespread future marker; *ka-* in general is widespread (71%) in NB in several affirmative functions: itive, narrative, (far) future, (far) past consecutive, if/when/conditional/participial/persistent, subjunctive. It occurs as ‘future’ in all zones, including some zone A languages, though sparse in zones C, G, and S. Nurse & Philippson (2006: 171) hypothesised that *ka-* in its itive function might be the source of many of these other functions,

<sup>15</sup> Loss of *a-* in some B and C languages (B30-40-60-80, C20-60: cf Table 3, above) might or might not be related. The pre-stem marker *a(-)* is also lost in most adjacent Bamileke lects.

<sup>16</sup> Because of widespread loss of final vowels in zone A, examples from zone B or C are sometimes more transparent.

<sup>17</sup> Recall that Mituku D13 has six past tenses. Five of them (P1-5) also have two variants, one with and one without *a-*. Robert Botne (p.c.) has suggested to us that the variants with *a-* may refer to a time further in the past than those without. If so, this would be a remarkable example of the role of *a-*.

including the future. As a future marker, it occurs mainly in SWB and EB languages stretching from the East African Great Lakes region down western Tanzania to Zambia and Namibia: JE30, F10, Kagulu G12, Mbundu H21, Mbala H41, Mpoto N14, K10-20-30, L30-40-50-60, M10, M30-40-50-60, Umbundu-Ndonga R11-22. This distribution does not suffice to reconstruct *ka-* ‘future’ to PB. However, it also occurs as a future marker in some NWB languages (i.e. Benga A34, Basaa A43a, Maande A46, Yangben A62A, and maybe Akoose A15C) and one WWB language (i.e. Nzebi B52). However, some of these futures might derive from an original itive meaning (‘go’) through parallel innovation and others might result from more recent grammaticalisation of auxiliaries or adverbials. All this suggests that reflexes of *ka-* are spread widely enough across NB to warrant its reconstruction for PB, certainly as ‘itive’, possibly in the derived set of meanings, including ‘future’ (cf. Meeussen 1967: 109). A morpheme of the shape *ka* occurs in Wider NC and Bantoid in several functions, i.e. past, (immediate) future, conditional, subjunctive, consecutive, etc. In Bantoid, we only found it as a future in Tikar. This disparate set suggests that while one or maybe more *ka* occurred in NC, no firm statement can be made about the original meaning of *ka* in Wider NC.

Pre-stem *la(a)-*<sup>18</sup> occurs in 17% of the database languages, in a restricted swathe of EB languages from the East African Great Lakes region down western Tanzania to Zambia: Mituku D13, JD60, JE10-20-30-40, maybe E50-60, F20, maybe Rimi F32, Gogo G11, G60, M10-40-50-60, Manda N11. It is maybe also attested in one CWB language (i.e. Kele C55) and one WWB language (i.e. Yombe H16c). The prefix *la(a)-* also occurs in other functions, but is, with 22%, much less frequent than *ka-* and does not occur in NWB. Short vowel morphemes of similar shape, and both future and past reference, occur in some Grassfields languages, but an exact relationship remains to be established. On this basis, we doubt the reconstruction of *\*la(a)-* as a future tense marker for PB (contra Nurse 2008: 297) and think it is a later innovation. Because *ka-* as a future occurs more widely, including NWB, though sparsely, its reconstruction for PB is more plausible.

## 2.4 Was the PB verb synthetic or analytic?

Part of the discussion at the end of §2.2.1 involved making a distinction between an analytic and a synthetic verb structure. As discussed more extensively in Nurse (2007), of which this section is a summary, most NC languages have or had an analytic verb structure in which the nucleus [root-EXT-FV] was preceded

<sup>18</sup>Larry M. Hyman (p.c.) suggests /*laa*/ might be bimorphemic, so /*la*+V/.

by a variable number of independent items related to the verb. FV is/was the site for expression of aspect. We assume NC had that structure and that such analytic structures today are retentions from early NC, unless it can be proved in individual cases that the opposite happened, i.e. that synthetic structures broke down into analytic ones. In five millennia, much is possible. Our general impression is that early Bantoid inherited analytic structures from NC but that there has been a tendency towards synthetic ones. Outside zone A, almost no NB languages have an analytic verb structure. Within zone A there are different degrees of analyticity as demonstrated in Figure 2.

Basaa	A43a	[H-SBJP] TAM clitics/particles [T-root-EXT-ak-H-na] NEG OP
Makaa	A83	[SP + T H] P1 NEG + CM HAB PROG ADV AUX [OM-root-EXT-FV-H]

Figure 2: Different degrees of analyticity in NB zone A

Although descriptions vary, within zone A, essentially A40 (Maande A46?), A80, and A90 are analytic, while the rest is synthetic.<sup>19</sup> The zone A situation is similar to that in Bantoid (and other NC): most of the few Bantoid languages examined are analytic, but some have tendencies towards becoming synthetic, i.e. Ejagham, Nyang, Jukun, and most Cross River languages. Individual distant NC languages have also become synthetic (Dogon, Kordofanian, Obolo, Zande, etc.). Some analytic languages in Grassfields and zone A show movement to synthetic structures (cf. Nurse et al. 2016: 22). While we need more local detail to better see the overall picture, our general impression is that no coherent synthetic area exists across zone A and Bantoid, so syntheticity seems to have developed among early Bantu lects, around or following the Bantu exodus (cf. Hyman 2004). Since NB languages outside zone A are virtually all synthetic, they must descend from an ancestral lect that was synthetic.

## 2.5 Our current view of PB tense

Pre-stem morphemes reconstructable to PB are *ø* ‘vast present’ (interpretable as an absence of marking), *a* ‘past, shifter’, *ka* ‘itive, future’, *kí* ‘persistive, situative’, *a* ‘disjunctive’ (Nurse 2008: 236–257). These are not marked as being prefixal because, as just noted, there was a move from analytic to synthetic status within PB.

<sup>19</sup> Also some B70 and B80 languages are partly analytic.

However, they are preverbal and particles, since most are not clearly derivable from auxiliaries.

Suffixes at the end of the verb form reconstructable to PB are *-a* ‘imperfective’, *-í* ‘past/perfective’, *-ag-(a)* ‘habitual/iterative’, *-é* ‘subjunctive’.

Below, because our focus is on tense, we ignore the role of *kí* ‘persistive, situative’, *a* ‘disjunctive’, the itive function of *ka*, *-ag-(a)* ‘habitual/iterative’, and *-é* ‘subjunctive’.

Starting with Table 2, an early or pre-PB, pre-tense stage, and repeating it as a matrix gives Table 4.

Table 4: An earlier pre-PB aspect-prominent stage

Imperfective	Perfective	Progressive
<i>*tò-ø-gòd-a</i> ‘we buy’	<i>*tò-ø-gòd-í</i> ‘we bought’	<i>*tò-ø-gòd-ag-à</i> ‘we are buying, buy HAB’

Adding past and maybe future should give Table 5, possibly a later PB stage.

Table 5: An innovated TA stage

<i>-a</i> Past	<i>*tw-a-gòd-a</i> ‘we bought’	<i>*tw-a-gòd-i</i> ‘we had bought’?	<i>*tw-a-gòd-ag-a</i> ‘we were buying, we used to buy’
<i>-ø</i>	<i>*tò-ø-gòd-a</i> ‘we buy’	<i>*tò-ø-gòd-i</i> ‘we have bought’?	<i>*tò-ø-gòd-ag-a</i> ‘we are buying, we buy HAB’
<i>-ka-?</i> Future	<i>*tò-ka-gòd-a</i> ‘we will buy’	<i>little evidence</i>	<i>*tò-ka-gòd-ag-a</i> ‘we’ll be buying’

The problem here is what stage would Table 5 represent? The significant change between Table 4 and Table 5 is the appearance of pre-stem *a* as ‘past’, beside earlier *-í*, slowly replacing it. Across NC *-í* was primarily a perfective, which most often refers to past time. What Table 5 displays must be unstable because it contains three forms referring to ‘past’ or ‘perfective’: *twagula*, *twagulí*, *tugulí*, so how to label the three columns? Table 5 is a still photo of a slowly changing situation. The evidence shows *a* and *-í* co-existing in north-western languages

and gradually resolving the situation in different ways. As far as we know, *a* and *-í* only co-exist in one zone A language, i.e. Kpa A53. However, more B and C languages combine *a* and *-í* in past reference. Only in zone D, which would be about node 5 in the Bantu phylogeny of Grollemund et al. (2015), does *-í* become *-ile* and ‘past’ become ‘retrospective’. This is much later than PB.

Finally, we think it worth mentioning that a construction consisting of (BE-at) + (locative prefix) + verbal noun occurs widely across NB, Bantoid, and NC; e.g. *tu-li-mu-kugula* ‘we are buying’ (lit. we-are-in-buying) with a progressive meaning or a set of meanings derivable from progressive (Bastin 1989a,b; De Kind et al. 2015). This kind of grammaticalisation is common universally and across Africa (Heine et al. 1993; Heine & Kuteva 2002). We assume it happened often before NB, maybe during PB, and certainly since PB. This is why we do not include it in our reconstruction. This construction could well have co-existed with what is set out in Table 4 and 5.

### 3 The emergence of tense in Bantoid

In his comprehensive analysis of tense and aspect in NB, Nurse (2008) raises the issue of the origin of tense as a morphological category within NB. From the information available, particularly concerning tense in Bantoid Grassfields Bantu, Nurse (2008) proposes that PB tense likely had a pre-Bantu origin involving ancestor languages of Grassfields and Cross River (CR). At that time, the known distribution of TA systems within Bantoid and CR was limited.

In response to Nurse (2008), Watters (2012) presented the distribution of TA versus aspect-only languages within Bantoid. Aspect-prominent languages appear to the west of the mountain range of the Cameroon Volcanic Line (CVL), while TA languages exist along the CVL and to its east towards the Sanaga River Basin. This present-day distribution points towards a likely origin of tense along the CVL and to its east, in the direction of NB, where tense may have emerged as a morphological category in PB some 5000 years ago. More specifically, the “Grassfields Bantu” group lies along the CVL and to its east, and it is the closest neighbour to the location from which NB is commonly thought to have originated. One implication of eastern Bantoid being involved in the origin of tense in Bantoid and NB is that not all Bantoid languages participated in the innovation of tense, namely, those groups west of the CVL. See the map in Figure 3 for geographical details.

To further clarify the possible presence of the category “tense” elsewhere in East BC, Watters (2018c) expands the coverage of verb systems to include CR and



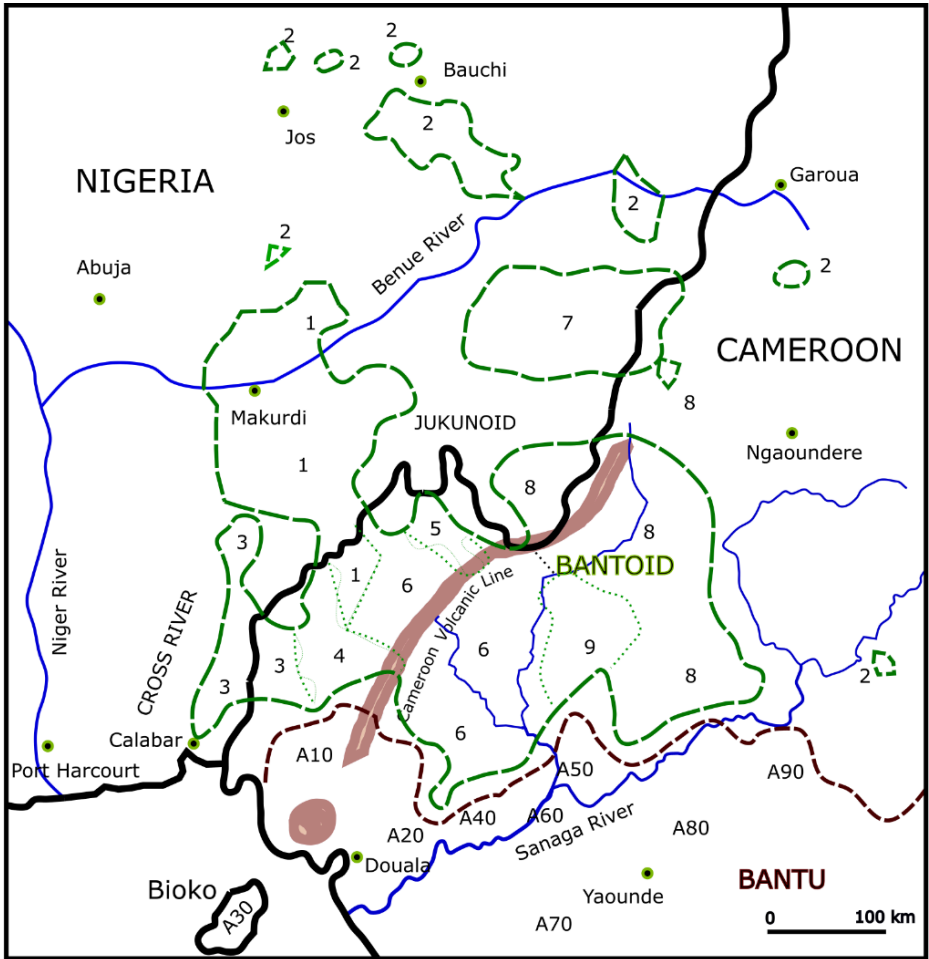
Jukunoid languages within East BC. The evidence from this wider view supports the 2012 conclusion. It also provides additional insight that Proto-CR and Proto-Jukunoid were most likely aspect-prominent and did not participate in the early genesis of tense.

Finally, seeking to test the distribution of tense in the remaining branches of East BC and to review one language claimed to mark tense, Watters (2019) demonstrates that the Plateau and Kainji branches of East BC are essentially aspect-prominent. This conclusion includes the Plateau language Birom that has at times been said to mark tense in its verbal system. Birom is better viewed as aspect-prominent, but if one wants to use the term “tense” for Birom, it only concerns the retrospective and potential aspects using “yesterday/tomorrow”, “today”, and “just now” as degrees of time. Such a system does not resemble the one that led to the TA systems in NB and eastern Bantoid. We can say with fair confidence that we present here a verbal system that developed among lects in southern Cameroon possibly some 5000 years ago or more and nowhere else in BC.

### 3.1 Position of NB within Bantoid

The NB languages belong to the Bantoid subgroup of East BC. NB languages distinguish themselves linguistically from the other Bantoid groups through their use of passive verb morphology (Watters & Leroy 1989: 445). The passive is absent in the other Bantoid groups with the Sanaga River Basin serving as a boundary. Another distinguishing feature may possibly be NB’s use of the applicative (Hyman 2018: 190; Watters 2018a: 20). Hyman reports that for Bantoid beyond PB he only found Metta and Vute with possible applicative extensions. However, he concluded that the Metta suffix *-ri* is not clearly cognate with the PB applicative *\*-Id* and that the Vute suffix *-nà* is a Vute innovation (see also Blench (2022 [this volume])). In contrast to these distinctions between PB and other Bantoid groups, in this section we demonstrate that NB and the eastern region of Bantoid share the verbal category of tense. Ancestors of a subset of Bantoid languages engaged with the PB ancestor to innovate tense as a morphological category.

According to Grollemund et al. (2015: Figure 1), in expanding our focus from NB in §2 to include other Bantoid groups in §3, we move from node 1, i.e. PB at 4000-5000 BP, to node 0 at possibly 5000 BP or older. At node 0 Grassfields, sometimes referred to as “Grassfields Bantu”, and Tiv (Tivoid) represent the other Bantoid groups outside NB. Grassfields and Tiv serve as the outgroups to root the phylogenetic tree.



Key to the codes and numbers on this map: (Narrow) Bantu subgroups identified from A10 to A90; Bantoid subgroups: 1 Tivoid, 2 Jarawan, 3 Ekoid, 4 Nyang, 5 Beoid & Yemne-Kimbi, 6 Grassfields, 7 Dakoid (not included in study – no data), 8 Mambiloid, 9 Tikar, (10 Bendi – if it were included in Bantoid, it lies in the space between 1 Tivoid and 3 Ekoid)

Figure 3: Borderlands of (Narrow) Bantu, Bantoid, Cross River and Jukunoid

### 3.2 Genealogy of Bantoid outside of NB

In engaging with the Bantoid groups outside of NB, we want to clarify certain relationships within Bantoid and the terminology related to those relationships. First, Bantoid includes the Tivoid, Jarawan, Ekoid, Nyang, Beboïd, Grassfields, Dakoid and Mambiloid groups, as shown on Figure 3 above. It also includes the isolate Tikar and possibly Fam. It likely includes the Bendi languages that previously were part of CR. More recently, Good et al. (2011) revised the Beboïd group and separated out a new group, i.e. the Yemne-Kimbi languages. Thus, we could say there are ten Bantoid groups and two isolates outside of NB that bear some historical relationship with NB. Dakoid will not figure any further in this study due to a lack of relevant data.

#### 3.2.1 Genealogical relationships

Considering genealogical relationships based on innovations and retentions, Bantoid may appear as a set of scattered groups without much coherence. However, relationships among these languages have gained the attention of linguists over the past fifty years. We consider three of the more recent attempts. One involves a proposed genetic division between Northern Bantoid and Southern Bantoid. Blench & Williamson (1987) proposed this division, and it provided the template for the Bantoid chapters in Bender-Samuel & Hartell (1989), with Hedinger (1989) presenting Northern Bantoid, and Watters & Leroy (1989) presenting Southern Bantoid. Hedinger (1989: 424, fn. 4) provides the set of thirteen lexical innovations upon which Blench & Williamson (1987) had based their classification of Northern Bantoid as a distinct genealogical subgroup. Northern Bantoid includes Dakoid, Mambiloid, and the isolate Fam. Southern Bantoid includes NB as the major group as well as the seven remaining groups and the isolate Tikar.<sup>20</sup>

Shifting from lexical innovations to using lexicon-based quantitative methods of genealogical classification, we consider Piron (1995; 1997) and Grollemund et al. (Forthcoming). Piron (1995; 1997) concludes that her lexicostatistic study<sup>21</sup> does not support a clear division within Bantoid between Northern and Southern Bantoid. Using phylogenetics, Grollemund et al. (Forthcoming) confirm that the Northern-Southern division within Bantoid is not relevant from a genealogical point of view. Figure 4 displays the major Bantoid branches emerging from the

<sup>20</sup>Compare, however, with Blench (2022: Figure 2 [this volume]), for Blench's current understanding of the sub-classification of BC.

<sup>21</sup>Unlike the newer phylogenetic methods, lexicostatistics builds trees based on lexical similarities and does not distinguish between retentions and innovations (and implicitly assumes a constant rate of lexical change).

new phylogeny of Grollemund et al. (Forthcoming), together with an indication of their tense/aspect systems (for which, see next section, §3.2.2).

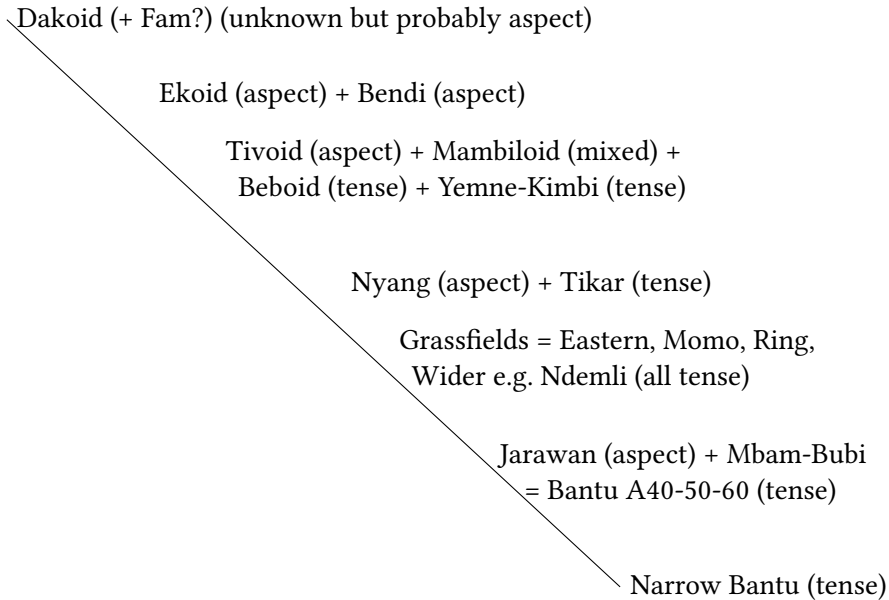


Figure 4: Simplified schema of Bantoid (Grollemund et al. Forthcoming) with an indication of their tense/aspect systems

Note that instead of placing Dakoid and Mambiloid in a separate Northern Bantoid unit, the analysis of Grollemund et al. (Forthcoming) separates them, placing Dakoid as a first group and Mambiloid in the middle of the Bantoid groups as part of a larger group with Tivoid, Beboïd and Yemne-Kimbi.

### 3.2.2 Geographical relationships

Besides genealogical relationships, a more crucial distinction for the study of tense involves the geographical framework for the Bantoid groups. Again, consider Figure 3. Bantoid outside of NB occupies land primarily along the Cameroon-Nigeria border region. A primary feature of the geography are the mountains in Cameroon that originate from the CVL. To the west of the CVL are groups located primarily in Nigeria. To the east are groups located along the CVL and further east into the Sanaga River Basin located primarily in Cameroon. The languages of the western region are aspect-prominent while those of

the eastern region have primarily TA systems. This contrast became clear back in 2011 when preparing the Watters (2018b) manuscript on Ejagham (Ekoid) and its aspect-prominent verb system. All of Bantoid is not like NB when it comes to the matter of tense. The western groups are aspect-prominent. The eastern geographical region is the region that shares tense as a verbal feature with NB. It is from this eastern region that PB emerged. To re-emphasise, “western” and “eastern” Bantoid refer to geographical categories and not to (former) genealogical ones like “Northern” and “Southern”. It is the eastern region that serves as the home of marked tense in their verbal systems similar to NB. The Grassfields group is one eastern group, and it is geographically closest to NB. It displays a TA system like that in NB, yet with some significant differences as well.

One final note, Bantoid languages with tense do not correspond with the phylogenetic units in Grollemund et al. (Forthcoming), as may also be seen from Figure 4. Tivoid is to the west of the CVL and is aspect-prominent. However, it groups with Beboid and Yemne-Kimbi that are along the CVL and have TA systems. Similarly, Nyang and Tikar form a phylogenetic unit, but Nyang is west of the CVL and is aspect-prominent while Tikar is to the east of the CVL and has a TA system. This difference points to tense being developed as an areal feature rather than an inherited feature. The eastern region of Bantoid was the key area for innovating tense.

### 3.3 Major issues about the origin of tense

We want to focus here on two major issues relevant to the claims about the origin of tense. Nurse (2008) proposed a systematic structure for the PB TA system with a set of exponents for each category. The first issue concerns the systemic structure. Does the proposed PB structure match that of the Bantoid languages that share this possible origin? It appears that general structures do match. This strengthens the claim that tense in NB and other Bantoid languages has a common origin. The concepts “system” and “structure” are illustrated in Table 8 for Bantoid and Table 9 for NB in §3.5.4 below.

The second issue concerns the morphological exponents of tense. Are the exponents of tense that we find in other Bantoid languages cognate with those proposed by Nurse (2008) for PB, and listed in Table 1? The answer to this question is more complicated. The exponents proposed for PB suffixes find some potential matches in Bantoid suffixes in the various Bantoid subgroups along the CVL but fewer in the case of prefixes. There are some possible prefix matches, but many of the Bantoid prefixes differ from PB and even from each other. These Bantoid subgroups present a variety of forms. 5000 years of change no doubt is a

contributing factor. The challenge is explaining the significant variation within the various Bantoid groups including those proposed for PB. At the same time, the critical goal for PB reconstruction is identifying those languages which most closely relate to the PB tense exponents presented in §2 above.

The relevant Bantoid groups in Figure 3 involve more than ninety languages or lects: sixty-seven Grassfields languages (#6), fifteen to twenty Mambiloid lects (Connell 2019) (#8), nine Beboid and five Yemne-Kimbi (#5), and the isolate Tikar (#9). Those Bantoid groups that we have found to date that do not have tense but use aspect-only systems include Tivoid (#1), Jarawan (#2), Ekoid (#3), Nyang (#4), and some Mambiloid lects (#8). Mambiloid is the only group from Northern Bantoid included in this study. Dakoid (#7) is not included because we have no data on its verb systems. The (former) Northern-Southern distinction within Bantoid is not relevant to the discussion about the emergence of tense. Instead, the geographic categories western-eastern are the relevant ones at this point.

Of the Bantoid groups with tense, those in the Grassfields are of the greatest interest since they border on the north-west boundary of what has been referred to as “zone A” (A10 to A90 in Figure 3) of the NB languages, the most north-western NB languages and the closest geographically to the other Bantoid groups with tense. As indicated in Figure 3, the approximate location of the NB groups A10–90 is immediately to the south of the other Bantoid groups.

To represent the details of the more than ninety languages or lects relevant to this topic, we have chosen twenty-four sample languages to represent the five groups. Noni, Nchane and Mungong represent Beboid. Mugbam and Mundabli represent Yemne-Kimbi.<sup>22</sup> Sixteen languages represent four subgroups of Grassfields (Eastern, Momo, Ring, and Wider Grassfields). Vute and Ju Ba represent Mambiloid. Tikar represents its own group. Watters (2003) provides an overview and further details about Grassfields. The twenty-four eastern Bantoid languages serving as examples throughout this §3 and the resource(s) used for each of these languages are referenced in Appendix B. Since Bantoid languages in the western region do not mark tense, we are excluding them from the remainder of this study. These involve Tivoid, Jarawan, Ekoid, and Nyang.

Certain morphological categories are important in answering the two questions about structure and exponents. These categories include the distinction between perfective and imperfective aspects, disjoint (+verb focus) and conjoint (+argument focus) forms, and tenses involving past and non-past (present and

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<sup>22</sup>The languages of Yemne-Kimbi used to be included with Naki as “Western Beboid”. However, Good et al. (2011: 108) argue that there is no substantial evidence to link these languages with Eastern Beboid. They proposed the new name based on two bordering rivers, “Yemne-Kimbi”. Consequently, Eastern Beboid becomes simply “Beboid” with Naki joining this new “Beboid”.

future). Aspects such as retrospective (perfect), habitual, progressive/continuous may also prove helpful, but are not the main concern. In our review of the available literature about these languages, we were not always able to find imperfective forms. In most cases, we were not able to find distinct disjoint and conjoint forms. They may not exist in every language under review. We sought to identify at least perfective forms in all relevant tenses.

### 3.4 Tenses occurring in a sample of Bantoid

Table 6 presents the number of tenses in the twenty-four sample languages in their TA verbal systems. Appendices C, D and E present them with P0 and F0 included.

Only Vute and Ju Ba represent Mambiloid, both of which mark tense. However, not all of the 15–20 Mambiloid lects have TA systems. While Vute and Ju Ba do have such systems, elsewhere there is variation (Connell 2019). Some lects even seem to vary internally between marking tense and at other times not marking tense. Others only have an aspect-prominent system. These aspect-prominent lects are geographically closer to the western region of Bantoid languages that only have aspect-prominent systems. This indicates a likely areal phenomenon occurring within Mambiloid. It is also probably indicative of how tense diffused among the eastern Bantoid languages as an areal rather than a genetic feature.

#### 3.4.1 Making historical sense of all the past tenses

All twenty-four languages in Table 6 have multiple pasts and all but five (i.e. Nchane, Mungbam, Mfumte, Mengaka, Ngie) have multiple futures. All twenty-four have at least two past tenses, P1 and P2. Four have only two past tenses (i.e. Ngie, Aghem, Obang, Vute). All others in Table 6 have three or four past tenses. These data raise three questions.

The first question concerns the number of past tenses that initially emerged when the Bantoid lects, including the pre-Bantu lects, transitioned from lects with only aspect to lects using tense some 5000 years ago. Some NB zone A languages have one past tense, some two, some three, some four. No language in the eastern Bantoid region has only one past tense. Some have two, but most have three or four. Why is this?

This relates to another issue. Did PB only have one past tense as Nurse (2008: 279, Table 6.4) proposes? Could it be that PB actually marked two degrees of past and NB zone A languages subsequently reduced the number of pasts to one? Hypothetically, it is possible. However, we assume that it is simpler to propose that

Table 6: Tenses in the selected Bantoid groups with TA systems

GROUP / Sub-group / <u>Sub-sub-group</u> / <i>Sub-sub-sub-group</i> / Language	P4	P3	P2	P1	F1	F2	F3	F4
BEBOID								
Noni		✓	✓	✓	✓	✓	✓	
Nchane		✓	✓	✓	✓			
Mungong		✓	✓	✓	✓	✓	✓	
YEMNE-KIMBI								
Mungbam		✓	✓	✓	✓			
Mundabli		✓	✓	✓	✓	✓		
GRASSFIELDS								
Eastern								
<u>North</u>								
Limbum		✓	✓	✓	✓	✓	✓	
Mfumte		✓	✓	✓	✓			
<u>Mbam-Nkam</u>								
<i>Nun</i> : Shupamem		✓	✓	✓	✓	✓	✓	
<i>Ngemba</i> : Bafut		✓	✓	✓	✓	✓	✓	
<i>Bamileke</i> :								
Ngiemboon	✓	✓	✓	✓	✓	✓	✓	✓
Ngomba	✓	✓	✓	✓	✓	✓	✓	✓
Yemba		✓	✓	✓	✓	✓	✓	✓
Mengaka		✓	✓	✓	✓			
Momo								
Mundani		✓	✓	✓	✓	✓	✓	
Ngie			✓	✓	✓			
Ring								
Babanki		✓	✓	✓	✓	✓	✓	
Babungo	✓	✓	✓	✓	✓	✓		
Kom	✓	✓	✓	✓	✓	✓		
Aghem			✓	✓	✓	✓		
Wider								
Obang			✓	✓	✓	✓		
Ndemli		✓	✓	✓	✓	✓		
MAMBILOID								
Vute			✓	✓	✓	✓		
Ju Ba		✓	✓	✓	✓	✓		
TIKAR: Tikar		✓	✓	✓	✓	✓		



the innovation of multiple past tenses begins with a single, general past followed by the addition of one or more pasts. This process is adequate in explaining the presence of languages with single pasts and those with multiple pasts. It is also simpler than positing the development of multiple pasts only to then add another process of losing one or more past tenses until only one is retained. There is no evidence requiring an original two pasts. Zone A indicates a need for only one past tense. In addition, the transition from an aspect-prominent language to a TA language likely begins with the development of one past tense rather than a full array of pasts whether two or more. A transition directly to multiple past tenses is far more complex than an initial transition to one past tense. Furthermore, the natural direction of tense development appears to be from simpler to more complex rather than from more complex to simpler. Is there actual evidence in NB for a language reducing its pasts from two to one, or three to two? Therefore, for reasons of parsimony and current evidence, we posit one past tense for PB.

The second question focuses on the process that led to each of the eastern Bantoid groups developing tense systems. What process was involved? Did each group inherit it from a most recent common ancestor? This is unlikely. It is impossible to identify a common ancestor of all the languages that have TA systems. For example, in the lexicostatistical classification of Piron (1997: 625), Mambiloid (tense) and Tikar (tense) are high on the Bantoid tree and what follows below are both aspect-prominent and TA languages. Tivoid (aspect-prominent) and Beboïd (TA) also cluster together based on lexicon. In Figure 4 in §3.2.1 we noted that in the lexicon-based phylogeny of Grollemund et al. (Forthcoming), Mambiloid (tense in some lects), Tivoid (aspect), and Beboïd (tense) cluster, while Nyang (aspect) groups with Tikar (tense). In addition, the wide variety of morphological exponents of tense that these languages currently use makes formal morphological inheritance from a common ancestral form doubtful. Therefore, we have no strong basis to conclude they had a common ancestor. They gained tense from another source.

As noted in §3.2.2, the groups that share TA systems also share a geographical region but not a genealogical lineage. Thus, we are left with two choices. Did each group of Bantoid languages innovate tense independently or does a lateral diffusion process account for the spread of tense from a single point of innovation? We think it is very unlikely that all these closely related and geographically close languages would have innovated tense independently. Instead, in some unidentified location among them, the first tense developed and was then inherited or appropriated by related or neighbouring lects. The first step was the innovation of a single past tense. All the lects which invented tense, including the lect that

emerged as PB, must have had this single past tense, despite there being no evidence for a single past in today's Bantoid languages. As PB lects began to separate from the rest of Bantoid, somewhere among the non-NB Bantoid lects a second past tense was innovated, separating "near past" from "more distant past". As Table 6 shows, today all Bantoid languages with tense, apart from NB, have at least two past tenses. Thus, we consider diffusion as the means that led multiple eastern Bantoid groups to gain tense (see §4.4). Later, the spreading of a second past took place among the non-NB Bantoid lects after the PB lect had left the region.<sup>23</sup>

The third question concerns the derivation of the multitude of tenses found in the Bantoid languages. Where did they come from? The answer seems to be twofold. The preverbal space allowed for the use of serial verb constructions. The first verb in the sequence gradually took on the role of a tense marker. As these innovations of "verb-as-tense plus verb-root/stem" were shared with neighbouring languages, they used a calque or an analogical formation process to develop their own parallel tense. The variation of tense markers is discussed in §3.5 below.

#### **3.4.2 Making historical sense of the future tenses**

The past tenses always involve both a perfective and an imperfective form. Even if in some cases the grammars or briefs have not provided the imperfectives, we assume, by analogy to closely related languages, that imperfectives are available. In the future tenses, however, there is less consistency. Some languages have perfective and imperfective forms. Others have only imperfective forms. In some cases, one future may involve a perfective and the other an imperfective form. These facts point to a less than settled pattern for future forms. In fact, the Ring Grassfields languages Babungu and Aghem only use the imperfective for future time. This is also true for Tikar. For Vute, Thwing & Watters (1987) listed the near future as imperfective and distant future as perfective in form. However, Vute may have formed the morpheme of the perfective from imperfective forms, so Vute may use only imperfective for the future.

In Babungu, Aghem, Tikar, and Vute, the use of the imperfective for future time is essentially a continuation of one of the functions of the imperfective in their earlier aspect-prominent systems. The imperfective in aspect-prominent languages has a default reading as either present or future time. Thus, in these languages today the perfective with its historically default reading as a general

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<sup>23</sup>See §4.4 below which references Dimmendaal's (2011: 189–194) description of two Nilotic languages that adopted tense distinctions into their inherited aspect-prominent languages.

past temporal reference has transitioned to tense with two innovated past tense forms while their future forms essentially remain unchanged. They maintain their previous imperfective forms to refer to future time as they had done originally.

Of these four languages, if we exclude P0 as we have done in Table 6, Aghem and Vute only have two pasts, as opposed to Tikar and Babungo which have three and four pasts respectively. Aghem and Vute speech communities are not geographically close to one another. Thus, we think Aghem and Vute may represent the simpler process of a Bantoid language transitioning from an aspect-prominent system to a TA one. They expanded beyond the single past to two past tenses (P1, P2) but did not change the imperfective into one or two distinct forms with future reference. Development of future tense was a later expansion that happened independently in different branches.

Working off Anderson's insight (footnote 29 §3.5.3) about the Bamileke languages, these eastern Bantoid speakers first innovated past tense. Then later, perhaps much later, they developed future tenses through the same use of preverbal auxiliaries. The past tense markers are now fully grammaticalised and their history is no longer transparent, but future markers are more recent and tend to be more transparent. See example (2) in §3.4.3 below. So the development of future tenses may have had more than one location of development, either within a given group or sometimes in languages independently. As we have seen, four languages continue to use the imperfective for the future and never developed distinct future tense markers.

### 3.4.3 Making historical sense of Eastern Grassfields

Eastern Grassfields languages, among all the Grassfields languages, have the largest inventories of pasts and futures (Watters 2003: 246). Considering Table 6 and Appendices C to E where P0 and F0 are included in the tables, several of these languages have up to five pasts and five futures. This is particularly true of the Bamileke subgroup of Eastern Grassfields, except for Mengaka that has only one future. By contrast, three of the Ring Grassfields languages have four pasts as well, but their futures are more limited. Mundani, Ndemli, Noni, and Ju Ba have fewer pasts but still have robust systems. The more limited systems are found in Ngie (Momo), Aghem (Ring), Obang (Wider Grassfields), and Vute (Mambiloid). In all cases, they are definitely TA languages, in contrast to other Bantoid languages to the west.

In considering the Eastern Grassfields, note that they subdivide into a North branch and a Mbam-Nkam branch as referenced in Table 6 and Appendices C

to E. The Mbam-Nkam branch further subdivides into the Nun, Ngemba and Bamileke groups. Of these, the Bamileke is the one that borders on NB. We assume that the ancestor lects of the Eastern Grassfields languages, in particular the Bamileke languages, had a central role in the development of tense in Bantoid. See Figure 5 which displays the eleven Bamileke languages bordering NB as well as the location of the Nun and Ngemba groups.

Anderson (footnote 29 §3.5.3), from his study of Ngiemboon (Anderson 1983) and research on related Bamileke languages, concludes that past tense markers developed before future tense markers. He notes that the future markers behave

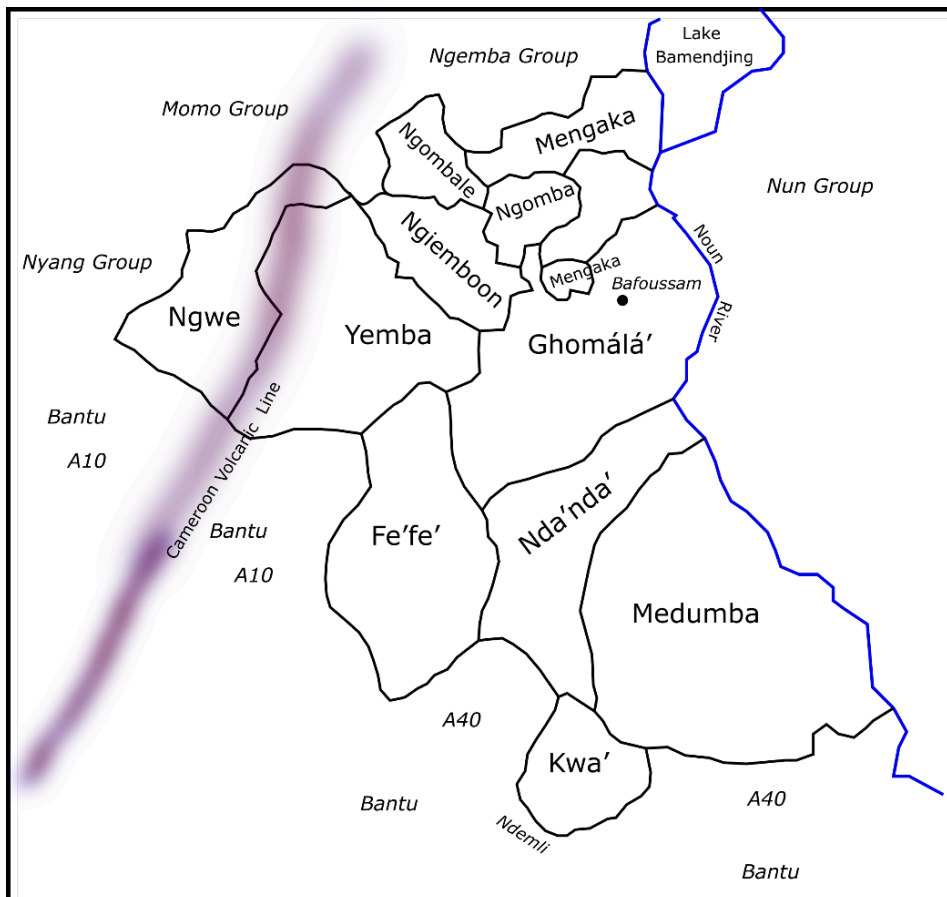


Figure 5: The eleven Bamileke languages, a subgroup of Mbam-Nkam of Eastern Grassfields, bordering NB

as auxiliary verbs with some verbal features while the past tense markers behave as straightforward frozen, verbal morphemes, occurring in a different position than future markers. Thus, we can plausibly conclude that the early lects of Eastern Grassfields languages developed a single past and then eventually developed a second past tense shared among the other eastern Bantoid. However, the Bamileke languages innovated additional past tenses, up to five in some, if P0 is included in the count. From the data in Appendices C to E, it appears that the early forms of Bamileke coalesced around at least three and maybe four past tenses. We assume that these additional past tenses developed after PB had emerged and began expanding.

Thus, we can plausibly conclude that Bamileke developed an initial past tense and later, after separation from the PB lect, developed additional past tenses and tense markers. Later they moved beyond using the imperfective for the future and began developing future tenses using serial verb constructions for which the meaning of the initial tense-marking verb is still transparent today. Hyman (1980: 230) gives the examples in (2) for future tenses in Yemba/Dschang (Eastern Grassfields > Bamileke), using the infinitival prefix *lè-* ‘to’ with the stem.

(2) Future tense derivations in Yemba/Dschang (Hyman 1980: 230)

- a. F1 *píŋ* < *lè-pìŋ* ‘to return’
- b. F2 *lù* / *fù?* < *lè-lù* ‘to get up’ ~ *lè-fù?* ‘to come’
- c. F3 *lá?* < *lè-<sup>h</sup>lá?* ‘to spend the night’
- d. F4 *fú* < *lè-<sup>h</sup>fú?*

Harro & Haynes (1991: 41–43) compared the Hyman data from the southern/central dialect with their data from the northern dialect. The past tenses were approximately the same, while the future tenses in the northern dialect used *pìŋŋ* (F1), *fù?* (F2), *luū* (F3), and *fú* (F4). Also, in their phonological analysis of these tenses, they posited a floating H tone as the basic marker of past and a floating L tone as basic to the future.<sup>24</sup> Lonfo & Anderson (2014: 108–109) report a similar process for future markers in Ngiemboon,<sup>25</sup> a closely related Bamileke language.

We therefore attribute the expansion of tenses in various Grassfields and Beboïd languages over the millennia to the grammaticalisation of serial verbs into tense markers.

<sup>24</sup>In the case of the Yemba/Dschang data, we are treating what Hyman as well as Harro and Haines refer to as P1 and F1 as approximate present tenses P0 and F0. So we have renumbered the tenses changing P2 to P1 and F2 to F1 and so forth.

<sup>25</sup>Note that here we have omitted the Ngiemboon F0 seen in Appendix E.

### 3.4.4 Conclusion on merging tense with aspect

In terms of systems, the crucial point concerns the combining of tense and aspect. In the eastern Bantoid languages, the perfective and imperfective aspects form pairs in each of the tenses. Table 7 represents the synthesis of tense and aspect that characterises the eastern Bantoid languages. NB languages share this system as well, suggesting a possible shared history.

Table 7: Systemic structure involving tense and aspect

Tense	Aspect	
	Perfective	Imperfective
Past	Past perfective	Past imperfective
Present	Present perfective	Present imperfective
Future	Future perfective	Future imperfective

The eastern Bantoid languages and many NB languages share the structure in Table 7. The few exceptions are the languages noted above (Babungo, Aghem, Tikar, and Vute) that do not make the perfective-imperfective contrast in their future time reference. They only use imperfectives.

## 3.5 Exponents of tense

We now examine whether these languages share not only TA categories but also their morphological exponents, one of the issues raised in the introduction to §3.

### 3.5.1 Exponents of past perfective

Where the data is available, we have expanded Table 7 as Appendix C to include the contrast between disjoint (+verb focus) and conjoint (+argument focus) forms. Both types of perfective may exhibit relevant comparative evidence.

Appendix C shows that innovation in these languages has been entirely pre-verbal, apart from Tikar, demonstrating the recycling of auxiliary verbs that become pre-clitics or prefixes only to be replaced by another auxiliary.

There is a difference between Table 6 and Appendices C to E. Appendices C and D include a column labelled P0, absent from Table 6. Appendix E includes a column labelled F0. The labels P0 and F0 have been a feature of nearly all work on Bantoid languages since the 1980s. However, it is not clear to us that P0 really

is a past tense. It can refer to recent past events, but it has several other functions. It is often, for example, the narrative form in the verbal system. It is typical of aspect-prominent systems to use the least marked, or non-tense-marked, verbal form, i.e. the perfective, to carry the storyline of a narrative, see for instance Watters (1981: 374) for Ejagham (Ekoid) or Paterson (2015) for Țt-Ma'in (Kainji), both East BC languages. However, we leave P0 and F0 in Appendices C to E as part of the relevant data, even though we omitted P0 from Table 6<sup>26</sup> as part of the display of past tenses, and do not discuss it further here. For a different treatment, see Sonkoue (2020a) and Sonkoue (2020b).

Appendix C does show some pre-stem *a* possibly cognate with PB \**a* 'past'. Mundani has *a* 'P2'. Ngie (a Momo language) uses a preverbal *a* [ə] in all its past forms, both (+verb focus) and (–argument focus). Babanki has generalised a preverbal ə for all (+verb focus) pasts (and also, see Appendix E, for all (+verb focus) futures) which may derive from an earlier preverbal *ā*.

In considering the exponents in Appendix C, we find some morphemes relevant to PB forms in §2 as well as some morphemes that do not have a clear link to such PB forms – see §2.2, §2.4, and §2.5.

#### 3.5.1.1 Preverbal *ā* for 'past' cognate with PB \**ā*

Appendix C displays some pre-stem *a* possibly cognate with PB \**a* 'past'. Evidence is found in all three major divisions of Grassfields. Bamileke languages Yemba/Dschang have *a* in P1. In Momo, Mundani has *a* 'P2' and Ngie uses a preverbal *a* [ə] in all its past forms, both (+verb focus) and (–argument focus). In Ring languages, preverbal *ā* occurs in the Aghem P2 and P1 (+argument focus) forms, merging with the verbal prefix *mā*. Babanki has generalised a preverbal ə for all (+verb focus) pasts (but also all (+verb focus) futures), which may derive from an earlier preverbal *ā*. In Wider Grassfields, Ndemli uses prefixes *ā* and *ā* for P2 and P1, respectively. In Yemne-Kimbi, Mundabli uses *a* for P2. See Figure 3 and 5. It is likely that the use of \**a* for 'past' was more widely present within Bantoid before PB emerged.

#### 3.5.1.2 Postverbal *-i/-ile* possibly cognate with PB \**-i/-ile*

As for the NB distinction between *-i* and *-ile* (cf. §2.2.2 and §2.2.3 above), Bantoid data exhibit the following. In the North subgroup of Eastern Grassfields, *-i*

<sup>26</sup>Just as we omitted F0. Cf. footnote 25.

occurs in Limbum with every verb, perfective and imperfective. Limbum apparently makes no distinction between (+verb focus) and (+argument focus). However, in the Momo group, *-i* occurs in Ngie in its (+argument focus) forms. This contrasts with the (+verb focus) forms which have no suffix. In Ring, Babanki uses *lí* as a post-clitic in its P3 (+argument focus) and P0 (+argument focus) forms, contrasting with no suffix in the (+verb focus) forms. In the isolate Tikar, it occurs in P1, and possibly P2 (*-e*). Like Limbum, Tikar does not distinguish (+verb focus) and (+argument focus). In Beboid, Noni uses a post-clitic *lɔ* in all its past perfective (+argument focus) forms, which may be related. The (+verb focus) forms have no suffix. We think the *-i* forms are probably cognate with PB *\*-í* and that the *-li* in Babanki may be related to NB *\*-ile*. Of interest is evidence from farther away in western Bantoid involving Ejagham and Mbe. Ejagham has a suffix *-i* used in the perfective with (+argument focus) that carries three tones, perhaps indicating an earlier disyllabic form like *-ile* and Mbe has a suffix *-le/-li* in the perfective with (+argument focus) (Watters 2017: 941–942).

Thus, across Bantoid groups outside of Bantu, potential cognates of NB *\*-ile* or of one of its historical components appear to correlate with (+argument focus). They contrast with (+verb focus) forms that have no suffix. Where the vowel *-i* and other vowel cognates occur, the language (e.g. Limbum, Tikar) does not distinguish between (+verb focus) and (+argument focus). The significance of these distinctions is not immediately clear but it may be that earlier *\*-i* occurred in (+verb focus) contexts and *\*-lV* or *\*-le* occurred in (+argument focus) contexts.

Further afield, Emai, an Edoid language in West Benue-Congo, has suffixal *-í* and a postverbal particle *lé* as dual, not co-occurring exponents of anteriority/perfectivity according to Schaefer & Egbokhare (2021). They speculate that “dual exponents of anteriority or perfectivity may have co-existed among the dialectal ancestors of East and West Benue Congo, i.e. Proto Benue Congo, and perhaps late-stage ancestors in Niger-Congo that preceded the Benue Congo split into East and West” (Schaefer & Egbokhare 2021: 5).

### 3.5.1.3 Forms possibly derived from *\*màd* ‘finish’ BLR 2143

The Ring language Aghem uses *mɔ* in P1 and P2, Tikar has a suffix *-mɛ*, and Vute P0 has a suffix *-mɛ*. In the North subgroup of Grassfields, Limbum has preverbal *m* in P3 and *mú* in P2. Mfumte has *ma* in both P2 and P0, only distinguished by tone. In the Ngemba subgroup, Bafut has *mə* in P0. These forms possibly derived from *\*màd* ‘finish’ BLR 2143.



3.5.1.4 Variants of *ka/ke* and *le/la* for past tense

In the Bamileke languages, we note the presence of pre-stem morphemes such as *lè*, *là*, *l̥*, *lò* and *lú*, and *kà*, *kè* and *k̥* distributed among the past tense markers P1, P2 and P3. In P4 three use *lá/dá*. In Mundani, *lè* also appears as P3, similar to its Bamileke neighbour Yemba/Dschang. Bafut uses *leŋ* for P3. Kom uses a *læ* in P4 and P2, distinguished from each other only by tone. In some Mungbam dialects *le* occurs in P3 and P2. Ju Ba uses *lo* (P3), *le* (P2), and *la* (P1). The relationship between all of these IV past tense markers is uncertain, but it appears that a morpheme IV acquired a role in multiple distant pasts. Across NB *la(a)*, infrequent, and *ka*, slightly more frequent, also occur as future markers.<sup>27</sup> We have chosen to see past and future *ka* as deriving from an earlier itive ‘go and verb’, whereas Botne sees them as linked through the concept of distal: a distinction in place deixis that indicates location far from the speaker or other deictic centre (cf. Botne 1999). We do not judge here between these two possibilities.

In addition, Mungbam, geographically separated from the Bamileke subgroup by the Ring languages, uses *ka* and *le* in past forms. In two Mungbam dialects, *ka* or *kə/ha* occur in P3, P2, and P1, and in three other Mungbam dialects *le* or *lə* occur in P3, P2, and P1. In Ngiemboon *la* occurs in P3 and *ka* occurs in P2 and Yemba/Dschang has *ke* in P3 and *le* in P2. Ngomba has *ka* in P3 and *la* in P1. These shared exponents point to a particular likely shared history between Yemne-Kimbi languages and the Bamileke languages. It also distinguishes the Yemne-Kimbi languages, once referred to as “Western Beboïd”, from the Beboïd of today (the old “Eastern Beboïd”). Even though various languages have forms possibly related to -IV, it is only in Bamileke and Yemne-Kimbi that we see this interplay between -IV and -kV, suggesting a possible earlier relationship between the two groups despite their current distance from one another.

## 3.5.1.5 Possible Proto-Beboïd forms for P2, P1

Furthermore, the Beboïd (old “Eastern Beboïd”) forms suggest a possible set of Proto-Beboïd forms: *cí* P2, *bé* P1, and *né* ~ *ø* P0. There may be echoes of these in Grassfields, particularly in Bafut (Eastern Grassfields > Mbam-Nkam > Ngemba) *kì* P2 and *nîŋ* P1, and in Limbum (Eastern Grassfields > North) *bá* P1.

<sup>27</sup>Thanks to Robert Botne for noting how similar Mungbam exponents are to those in Bamileke and for data on Bamileke lects other than those in our data.

### 3.5.1.6 Nasal verbal prefix *N-*

In Bamileke and Ring languages, some verb forms, mainly imperfectives and P1, take a nasal verbal prefix *N-*. The two are tonally distinct. It appears in at least P1 in three Bamileke languages, with Ngomba extending it to P2 (and P0) and Mengaka using it in P2. In Babanki, it is present in P3. In the Nun Grassfields language Shupamem, it is present in all tenses of the past and the future imperfective forms. Otherwise, it is not found elsewhere in Bantoid, but it does appear in some nearby NB zone A languages.

### 3.5.1.7 Summary

In conclusion, given the diversity of exponents for the perfective, it is not currently possible to reconstruct an original, single, full set of tense markers for Bantoid. As for subgroups, Beboïd displays a possible set of past tense exponents, and there are strong indications of a set of past tense forms for the Bamileke languages. Otherwise, a few individual forms do stand out across the eastern Bantoid languages:  $\emptyset$  as P0/retrospective, *-i* and *-IV* associated with ‘non-near past’, *yV* with ‘past’, and *a* ‘past’. It is plausible that *-i* and *-IV* combined or it may be that the suffix *-iIV* was reduced to *-i* through the loss of *l* and reduction of the resulting long vowel (*-ile* > *-ii* > *i*) or *-IV* through the loss of the initial *-i*.

## 3.5.2 Exponents of past imperfective

Appendix D displays the various forms of the imperfective aspect, combined with the various tenses where relevant. The matching of the imperfective with the tense categories for each language is not always as uniform as for the perfective.

The imperfective aspect is generally more complex morphologically and semantically than the perfective. Languages find various ways to represent the internal temporal structure of a situation or event. Various category labels capture these differences. The generic label is IMPERFECTIVE (IPFV), but the nuances found often compel researchers to use more specific labels to capture the meanings involved, such as HABITUAL (HAB), PROGRESSIVE (PROG), CONTINUOUS (CONT), DURATIVE (DUR), and INCOMPLETIVE (INCOMP). We are not sure in some cases of the accuracy of the labels. It is clear that the eastern Bantoid languages had imperfective forms to correspond to the perfectives, and that for each morphologically marked tense category there is both an overtly marked perfective and imperfective aspect.

3.5.2.1 Imperfective suffix *-á* vs. PB *\*-a(n)g-a*

Two suffixal forms are associated with imperfective marking: one is *-a* and the other involves a velar plosive *g* plus accompanying vowels similar to *\*-a(n)g-a*.<sup>28</sup> Whether these two markers are cognate within Bantoid is unknown at this time.

The suffix *-a* IPFV is the most common marker of the imperfective in Appendix D. It is present throughout the Grassfields, across P1–P4 as *-a*, *-a*, *-e*, or a copy of the verb stem vowel. Tikar, Noni (Beboid), and Vute (Mambiloid) have all also developed CV suffixes for some IPFV forms. The historical relationship between these CV suffixes and the suffix *-a* is not clear. Vute has also developed separate forms for both (+verb focus) and (+argument focus).

The second suffix involves the velar plosive *g*. It only appears in Ndemli among the languages of the eastern Bantoid region. Ndemli uses the suffix *-ŋgè?* IPFV. Relative to the PB form it displays *g* with the optional PB prevelar nasal, but the vowel *ɛ* differs from the PB postvelar *a*.

The Ndemli suffix seems to be unique among the eastern Bantoid languages in its use of the *g* IPFV suffix. However, looking more widely, two languages of the western Bantoid region also use *g* IPFV suffixes. These suffixes appear cognate with PB *\*-ag-a* in Table 5.

Denya (Mamfe group), in the western Bantoid region, uses a suffix *-gè* IPFV. Western Ejagham (Ekoid), also in the western Bantoid region and in the Cross River basin with Denya, presents a more elaborate relationship with an internally reconstructed Proto-Ejagham *\*-ág-á* or *\*-ág*.

Example (3a) displays the suffix *-á* with CV(C)(V) roots; (3b) shows that CV roots use a velar plosive *-g*; (3c) presents the irregular verb root ‘to go’. The imperfective continuous IPFV:CONT, hortative HORT and conditional COND are provided to show that the underlying vowel of the verb root is *i*. However, unlike the other Ejagham CV roots, the historical sequence *-ji-ág* froze into the form *-jǎg*. Rather than deleting the vowel *a* of the suffix it maintained it and deleted the root vowel *i*. This frozen form *a-j-ǎg* gives evidence of an earlier *-ág* suffix that is now mostly divided into allomorphs *-a* and *-g*. This frozen form *a-j-ǎg* is used for both the perfective and the imperfective. Finally, (3d) shows that CV roots may also use an allomorph *-gá* instead of the simple *-g*. This *-gá* often refers to a general situation. This evidence suggests a Proto-Western Ejagham IPFV suffix *\*-ágá* or at least *\*-ág*.

<sup>28</sup>The presence of the homorganic nasal before the stop occurs spasmodically in Bantu and Bantoid. To date no one has been able to explain its erratic appearance, hence our representation ‘*a(n)g*’.

(3) Habitual/concomitant forms in Western Ejagham (Watters 1981: 383–389)  
[low tone unmarked, all other tones marked]

- a. Roots using -á
  - CVC *a-nâm* ‘she bought’ PFV > *a-nám-á* ‘she buys’ IPFV:HAB
  - CVV *a-sáε* ‘she sharpened’ PFV > *a-sá-á* ‘she sharpens’ IPFV:HAB
  - CVCV *a-káŋε* ‘she fried’ PFV > *a-káŋ-á* ‘she fries’ IPFV:HAB
- b. Roots using -g
  - CV *a-dí* ‘she ate’ PFV > *a-dí-g* ‘she eats’ IPFV:HAB
- c. Irregular root -ág
  - CV \**a-jî* ‘she went’ PFV
  - a-j-äg* ‘she went/goes’ PFV/IPFV:HAB
  - a-kí-ji* ‘she is going’ IPFV:CONT
  - a-jǐ* ‘she should go’ HORT
  - á-jǐ* ‘if she goes’ COND
- d. Extended suffix -gá
  - CV *á-dí* ‘they ate’ > *á-‘dí-gá* ‘they eat’

Even further to the west outside of Bantoid, in Obolo, a Lower Cross River language, one of the imperfective suffixes is *-ga*. This distribution of a *-g* imperfective suffix suggests an origin within wider Bantoid and even beyond (Obolo).

3.5.2.2 Imperfective *shí/sí/tsé* and PB \**kí* ‘persistive, situative’

Two other recurring imperfective morphemes are worth noting. One involves the forms *shi* and *si*. In Limbum *shi* is the IPFV, in Bafut *si* marks the IPFV for P2 and P3, and in Yemba/Dschang *si* is one of the variants for the IPFV (PROG). Mengaka uses *tsé* for IPFV. These could be (de)palatalised versions of another morpheme occurring in NB and various BC languages outside NB, i.e. *ki*, but such an analysis needs to be checked against their diachronic phonologies. In Babungo, *yàa kî* ‘- marks the PAST HAB and in the North subgroup of Eastern Grassfields it marks HAB in Limbum and in Mfumte it marks the IPFV (PROG). In fact, in Mfumte *ki* with no tense marker indicates the present. In Bafut, it serves as the F0 present marker. We interpret these as being related to PB \**kí* ‘persistive, situative < imperfective’ (Nurse 2008: 246, 6.2.4(iv)). Looking further afield, *kî* is also found in the western region of Bantoid. In Ejagham *kí*- marks continuous or progressive aspect (Watters 1981: 379–383). In Mbe *-ki* serves as the imperfective or progressive suffix. Even further afield in Obolo in CR we find *kî*- marking the imperfective (Aaron 1999). This morpheme appears to have a long history in CR and Bantoid.

### 3.5.3 Exponents of future tenses

It appears that 5000 years ago or earlier the innovation of past tense among lects of what is today the eastern region of Bantoid was not matched by a similar innovation of future tense. Future tense appears to be a later development. The earliest form of future reference likely involved the use of imperfective forms from their original aspect-prominent systems, the semantics of which provided a present and a future reading, depending on context. As may be seen from Appendix E, three languages use only imperfective forms for the future even today: Babungo, Aghem, Tikar, and possibly Vute.<sup>29</sup>

By contrast, while some lects did not participate in the innovation of future tenses, other languages today have developed elaborate combinations of future tense and aspect, as seen in Appendix E. For example, the Bamileke (Eastern Grassfields > Mbam-Nkam), apart from Mengaka, display a full set of future tenses, each with a perfective, imperfective, and a second imperfective (“progressive”) form.

Given this disparity, we ask two questions. First, does the marking of future time reference show signs of developing into a system similar to their past time reference, with each tense realised in both a perfective and imperfective form? Second, do those forms or exponents point to likely shared or proto-forms within Bantoid that relate to Proto-Bantu as discussed in §2.3? Consider the twenty-four languages presented in Appendix E.

What of the systems involving future tenses and perfective/imperfective aspects?

From the data available in the various grammars, it is clear that the development of systems for future tenses was not as systematic as it was for past tenses. There is a spectrum. Some languages have multiple future tenses in both perfective and imperfective aspects. At the other end of the spectrum, some only have one future form or two imperfective forms. From the most elaborate to the least, we find the following.

- One Bamileke lect (Fe’fe’) has five futures.
- Four Bamileke lects (Ngomba, Ngiemboon, Yemba, Nda’nda’) and one NWB language (Nen A44) have four futures, F1 to F4, in both perfective and imperfective aspects. Mengaka only has one future tense, having both a PFV and IPFV form.

<sup>29</sup>About Grassfields, Stephen C. Anderson (p.c.) says that it is his “[...] belief that Grassfields past tense markers developed before future tense markers, because 1) future markers in Ngiemboon, etc. function as auxiliary verbs, with certain verb characteristics, while past markers do not, and 2) they occur in different slots in the verb phrase.”

- Four Bamileke lects (Ngombale, Ngwe, Ghomala', Medumba), Bafut (Eastern Grassfields > Mbam-Nkam > Ngemba), Mundani (Momo Grassfields), Babanki (Ring Grassfields), Noni and Mungong (Beboid), Wawa (Mambiloid), maybe Tikar, Maande A46, Kpa A53, Gunu A622, Ewondo A72a, maybe Kwakum A91, and some zone B languages (north-western NB) all have three futures, F1 to F3. Bafut and Noni have all four in the perfective and imperfective aspects, but Mundani has it only in the perfective. In the imperfective, Mundani uses a general future form. Babanki has (+FOC) and (–FOC) forms for F1, F2, and F3.
- Many languages have two futures, F1 and F2: Limbum (Eastern Grassfields > North), Shupamem (Eastern Grassfields > Mbam-Nkam > Nun), Babungo, Kom, Oku, Aghem, Mmen (Ring Grassfields), Ndemli, Obang (Wider Grassfields), Mundabli, Koshin (Yemne-Kimbi), Ju Ba, Vute (Mambiloid), and several Bantu zone A and B languages. Limbum and Shupamem have forms for each future in the perfective and imperfective aspects. Obang has one form reported for F1, and F2. Babungo, Kom, Aghem (all Ring Grassfields), Ndemli (Wider Grassfields), Tikar (isolate), Mundabli (Yemne-Kimbi) and Vute and Ju Ba (both Mambiloid) all use two future tenses, F1 and F2. Babungo, Aghem and likely Vute only use forms of the imperfective aspect. Kom, Mundabli, and Ju Ba likely only use imperfective forms also, but it was not possible to verify this likelihood. These languages likely developed a second imperfective out of their earlier aspect-prominent verbal system and never took the second step of developing parallel future perfective forms.
- Mfumte (Eastern Grassfields > North), Ngie (Momo Grassfields), Nchane (Beboid), Mungbam, Ajumbu, Buu (Yemne-Kimbi), and several zone A and B NB languages use a general future. Again, these may represent their inherited imperfective, but we are unable to verify.

In summary, at least five and perhaps nine of these twenty-four Bantoid languages, 20% to 40%, have not expanded their tense system so that it would include perfective and imperfective future time references. Three are using only the imperfective from their original aspect-prominent system to indicate future time reference and another six may be doing the same.

What exponents of future time reference occur in these Bantoid languages, and how do they relate to PB? In §2.3 we stated that of all the various forms for future tense, only two have any claim to possible status as PB forms. They are pre-stem *ka* and *la(a)*. Both of these are present in our data and are the most widespread within the non-NB Bantoid languages:

- The most common exponent is *IV*, especially in Grassfields. Reflexes are most widespread in Grassfields, with one possible cognate in Beboi. Those in Grassfields represent various future tenses from F1 to F4. The Beboi form represents General Future.
- The next most widespread exponent is *ka* and its possible cognates; for which see Appendix F. In terms of Bantoid groups, this form is distributed among a more diverse set of subgroups than *IV*.
- Another five exponents of future tense also occur.

So *IV* and *ka* appear as possible cognates to *\*la* and *\*ka* of PB discussed in §2.3. PB did not adopt any of the other future markers, so possibly these were the earliest markers used for the future in the mix of lects in the eastern region of Bantoid.

### 3.5.4 An alternative representation

Appendices C, D and E are essentially lists of comparative data for the 23 Bantoid languages under discussion, but tense and aspect in real languages are not lists and speakers do not learn lists. They learn systems. Elsewhere up to this point, we have made much mention of structure and system, but have so far not really illustrated them. The verb consists of several interlocking systems, involving tense, aspect, conjunctive vs. disjunctive, focus, positive vs. negative. We cannot include all those here but simply sketch tense and aspect, which we represent as an interlocking system, as in Tables 8 and 9. For Table 8 we choose just one Bamileke (Eastern Grassfields > Mbam-Nkam) language, Ngiemboon, with data from Appendices C, D and E. We opted for Ngiemboon because the data on aspect for it are richer than for the other Bamileke languages.

To clarify similarities between Bantoid Grassfields and north-western NB, we present Table 9, with Mpongwe B11a as the NB language (data from Nurse 2019: Addendum 2). We have simplified the data by including only one-word forms, omitting compounds and the categories represented by them. The original sources of the data are Gautier (1912) and Gérard Philippson (p.c.). Gautier writes all pre-stem morphemes of Mpongwe B11a discretely. Philippson suggests that in Galwa B11c only the 1sg is an independent pronoun.

There are certain obvious differences between Table 8 and 9. One is that between the analytic in Table 8 and the (largely) synthetic structure of the verb in Table 9, mentioned before and dealt with in the next section. Another is the

Table 8: Tense and aspect in Ngiemboon, a Grassfields (Bamileke) language

	PFV, unmarked	IPFV	PROG, nè N-verb- <i>a</i>
P4 <i>là lá?</i>	<i>là lá?</i> N-verb	<i>là lá?</i> N-verb- <i>a</i>	<i>là lá?</i> nè N-verb- <i>a</i>
P3 <i>là</i>	<i>là</i> verb	<i>là-a</i> N-verb	<i>là nè</i> N-verb- <i>a</i>
P2 <i>kà</i>	<i>kà</i> verb	<i>kà-a</i> N-verb	<i>kà nè</i> N-verb- <i>a</i>
P1	<i>ne</i> N-verb	<i>kǒ</i> N-verb- <i>a</i>	<i>kǒ nè</i> N-verb- <i>a</i>
P0 $\emptyset$	$\emptyset$ verb	$\emptyset$ N-verb- <i>a</i>	$\emptyset$ nè N-verb- <i>a</i>
F0 $\emptyset$	n.a.	$\emptyset$ verb- <i>a</i>	$\emptyset$ nè verb- <i>a</i>
F1 <i>gè</i>	<i>gè</i> verb	<i>gè</i> verb- <i>a</i>	<i>gè nè</i> verb- <i>a</i>
F2 <i>tó/gyò</i>	<i>tó/gyò</i> verb	<i>tó/gyò</i> verb- <i>a</i>	<i>tó/gyò nè</i> verb- <i>a</i>
F3 <i>lù</i>	<i>lù</i> verb	<i>lù</i> verb- <i>a</i>	<i>lù nè</i> verb- <i>a</i>
F4 <i>lá?/fó</i>	<i>lá?/fó</i> verb	<i>lá?/fó</i> verb- <i>a</i>	<i>lá?/fó nè</i> verb- <i>a</i>

Notes: We have used Anderson (1983) as our basis. Sonkoue (2020b) deals with a second, slightly different, Ngiemboon lect. As a paradigm Table 8 is complete. F0 PFV does not exist. F0 only occurs in the IPFV and PROG. As pointed out above in §3.5.1, we are not happy with the semantics of categories here labelled P0 and F0. They are unmarked for time, as can be seen. There may also be tonal details omitted in those categories (see Sonkoue 2020b). Verb-final /-a/ may rather be a copy of the verb stem vowel.

Table 9: Tense and aspect in Mpongwe B11a, a NWB language

Tense	PFV	IPFV
P3 <i>a-verb-í</i>	<i>my a-yen-í</i> 'I saw'	<i>my a yen-áy-í</i> 'I was seeing, ...'
P2 <i>a-verb-i</i>	<i>my a-dyên-î</i> as above	<i>my a-dyên-áy-i</i> as above
P1 <i>a-verb-a</i>	<i>my a-dyén-â</i> as above	<i>my a-dyén-áy-a</i> as above
$\emptyset$ -verb- <i>a</i>	<i>mi Ø-dyén-a</i> 'I see, am seeing, will see, I seeing, ...'	
Future <i>bé-verb-a</i>	<i>mi bé-dyén-á</i> 'I will see'	



richness of the Ngiemboon system. A third is the completely different set of morphemes involved – most of the pre-stem morphemes in Ngiemboon appear to derive from auxiliaries.

### 3.6 Synthetic or analytic verb structure

We can now answer the question as to whether the Bantoid languages with tense outside of Bantu are synthetic or analytic. Of the eighteen NB languages in Nurse (2019), ten are clearly synthetic, six analytic, and two are mixed or unclear, whereas all the 23 non-NB languages above are analytic.

In terms of their internal structure, verbs in non-NB Bantoid languages are synthetic in their use of suffixes but are analytic in their use of preverbal morphemes, particles and auxiliaries. Suffixes mark aspect, inherited from their earlier aspect-prominent stage. The common example is the imperfective suffix *-a(g)* or the perfective suffixes *-IV* (Babanki, Noni) or *-i* (Aghem) involved in the (+/–focus) systems. Suffixes may also include verbal extensions in some languages. The preverbal location is where the innovative work has occurred, where full verbs in serial constructions became auxiliary verbs and, when finally reduced, became particles and prefixes marking tense and modal categories.

## 4 Tense in PB and its rise in Bantoid

Our primary motivation in this study was to examine tense in Proto-Bantu. In the process, we found it necessary to look more widely. Since (Narrow) Bantu is part of Bantoid and other Bantoid groups border on the north-western region of Bantu, we expanded our search to include the wider Bantoid region. In the process, we identified a set of Bantoid groups in the eastern region of Bantoid immediately bordering north-western Bantu that also have TA verbal systems similar to those in Bantu. These groups are Grassfields, Beoid, Yemne-Kimbi, Tikar, and some Mambiloid lects. It is from a common ancestor with a subset of this group of eastern Bantoid lects that (Narrow) Bantu emerged, assumedly some 5000 years ago. It is reasonable to assume that these groups participated in some way in innovating tense in what would have been a set of aspect-prominent languages. In the innovation of tense, past and future categories were developed. The process, however, was not straightforward, simple, or transparent, and the results are not uniform. Investigating what happened in early Bantoid, especially in past tense development, needs more space and time than are available here.

#### 4.1 Early “past tense”

From the available evidence, tense originated within a set of eastern Bantoid lects. They had inherited a set of verbal suffixes from their original aspect-prominent verbal system. These suffixes encoded aspects: perfective, general imperfective and other more specific imperfective categories (habitual, iterative, progressive). There were no pre-stem affixed morphemes. These suffixed forms shifted semantically into a past perfective and an imperfective present. All of these involved the suffixes already present and the pre-stem zero  $\emptyset$ , this playing a role in representing tense (cf. Tables 2, 4, 5). The suffixes continued to mark aspect. Nearly all NB zone A languages, as well as some in B, C, and D10-30, share these features.

This possible shift is repeated graphically in Table 2.

Table 2: TA structures in north-western NB without tense prefixes (repeated from page 109)

In an aspect system		In a tense-prominent system	
* $\emptyset$ -stem- <i>a</i>	Imperfective	* $\emptyset$ -stem- <i>a</i>	Present
* $\emptyset$ -stem- <i>í</i>	Perfective	* $\emptyset$ -stem- <i>í</i>	Past
* $\emptyset$ -stem- <i>aga</i>	Habitual/Iterative	* $\emptyset$ -stem- <i>aga</i>	Habitual/Iterative

From the evidence, we conclude that when tense developed, the first stage would have been a single initial past, contrasting with a present/non-past, with an imperfective used for the future.<sup>30</sup> Alternatively, maybe there was a marked “potential” (i.e. future), but more likely the future came later. Given that futures are often renewed, a future marker may have existed at an early stage but was not retained. Multiple contrasts developed later. Most north-western NB languages do not have multiple past contrasts, the exceptions being Kpe A22, A40-50-60, Ewondo A72a, Kwakum A91, and some zone B languages.<sup>31</sup> The A40-50-60 languages likely developed their multiple pasts from contact with the Eastern Grassfields languages, particularly the neighbouring Bamileke languages, which were prolific in developing multiple tense forms.

The single pre-stem \**a* ‘past’ posited for PB (see §2.2 above) existed in the ancestor lect(s) before 5000 years ago and before the Bantu exodus south and east of the CVL, likely in the Sanaga River Basin. However, the ancestor(s) of A10-20-30-40 lost this pre-stem sometime after the Bantu exodus began. Meanwhile, as

<sup>30</sup>Recall our comments concerning Babungo, Aghem, Tikar, and possibly Vute, and the lack of a perfective form for the future.

<sup>31</sup>Readers should bear in mind that we only examined a sample so there may be more.

other Bantu communities moved away, more ‘past’ *a* contrasts developed. This pre-stem *a* probably first combined with the older *-í* perfective suffix (cf. Table 2) and then slowly but widely replaced it in the representation of “past”. Reconstruction of a future tense for PB is less certain.

We do not pursue here the issue of the kind of contact between NB A40-50-60 languages and Bantoid communities to their north-west that later resulted in the multiple contrasts found in those zone A languages.

Other eastern Bantoid groups also developed tense systems: Beboïd, Yemne-Kimbi, Grassfields, and Tikar. Contrary to Watters (2012), we now think they gained their tense from a diffusion process either before or after PB emerged. Some Mambiloid languages also have tense (e.g. Vute and Ju Ba) but not all. This fact suggests that tense was not a feature of Proto-Mambiloid. Instead, Vute and Ju Ba gained tense later as it dispersed into Mambiloid more recently from the south to the north in the eastern Grassfields region.

## 4.2 System with typological similarities

In the process of innovating multiple tenses, all the Bantoid lects involved, the one that developed into PB and those that developed into other non-Bantu groups, shared a common system inherited from their NC past. The structure involved a contrast between each past perfective and a past imperfective form. The imperfective in non-Bantu Bantoid commonly used an inherited suffix *\*-a*, probably derived from the fuller imperfective suffix *\*-a(g)-a*. The fuller form is retained in Bantu.

## 4.3 Expansion to multiple tenses

There are no traces today of a single past among the non-NB Bantoid languages. All have at least two past tenses. In contrast, NB zone A languages are much more variable in this respect: a few have one, some two, some three, and some four pasts. More diagnostic than the number of pasts is whether they use the new pre-stem *a* in their past formation. The pre-stem *a* occurs in A50 and some A60-70-80 languages, and widely outside zone A (B10-20-50-C10, etc.). It is absent from all A10-20-30-40, A90 languages (also B30-40-60-80, C20, C60). These zone A groups build on the relatively simple morphological structures in the first two lines of Table 2 but in different ways, to create one, and later, several pasts. Languages in zones A50-60-70-80 had a single *a*, later expanded as different *a*. Languages in zones A10-20-30-40, A90 instead add a considerable range of pre-stem morphemes to represent past, which vary from language to language and group to group (cf. Nurse 2019: Addenda 1 and 2).

After the initial development of past tenses, the eastern non-NB Bantoid lects also probably followed different paths in the development of multiple tenses from the NB lects. The development in the non-NB lects involved multilingualism, borrowing, calquing, analogy and recycling. The details of the morphology of past and future tenses in these languages involve significant variation and it is impossible to reconstruct any original morphology with confidence.

Ancestral Eastern Grassfields, especially Bamileke, and possibly Yemne-Kimbi lects appear to have been central in the early development of tense. Early developments then spread to Momo and Ring languages, as well as Beboid, Tikar, and southern and eastern Mambiloid lects. Eastern Grassfields as well as Beboid and some other Grassfields lects continued the development of new tenses beyond the first two by using serial verbs that mutated into tense markers. A few of these lects never created more than a binary past contrast, and never fully developed future tenses. Some Mambiloid lects have not transitioned to a TA system, while others are apparently on the border between aspect-prominent and TA systems. The development of more than two past tenses in most Bantu languages occurred later, separately from the eastern Bantoid lects.

Bantoid languages show limited traces of a ‘past’, and most groups also encode pasts (and futures) using morphology not clearly or widely found in any of the others. Compare this with the situation in the Romance languages, which share many morphological and systemic similarities, making it possible to reconstruct a proto-system that closely resembles that of their predecessor, Latin (Hewson & Bubenik 1997). Bantoid/NB is not like this, suggesting that the different systems do not derive directly from a single Proto-Bantoid system.

#### **4.4 The dispersal of tense**

An alternative model is suggested by what we find in Mambiloid. Vute has two pasts and two futures (Thwing & Watters 1987). A few other Mambiloid varieties have also developed tense; for instance, Ju Ba has three degrees of past remoteness and two futures. Other Mambiloid languages have simple past and future tenses with no degrees of remoteness, while others have no traces of tense (Connell 2019, and p.c.). The geographical location of Vute and Ju Ba suggests that these tense contrasts are not original but may have spread into them from adjacent languages on their western border. That is, they would have adopted the notion of tense distinctions from Grassfields, but encoded it differently, using their own morphology, thus a calque. Such a model is described in some detail by Dimmendaal (2011: 189–194) for two varieties of Nilotic in Kenya. Nilotic languages are aspect-prominent with no inherited tense. However, Southern Nilotic

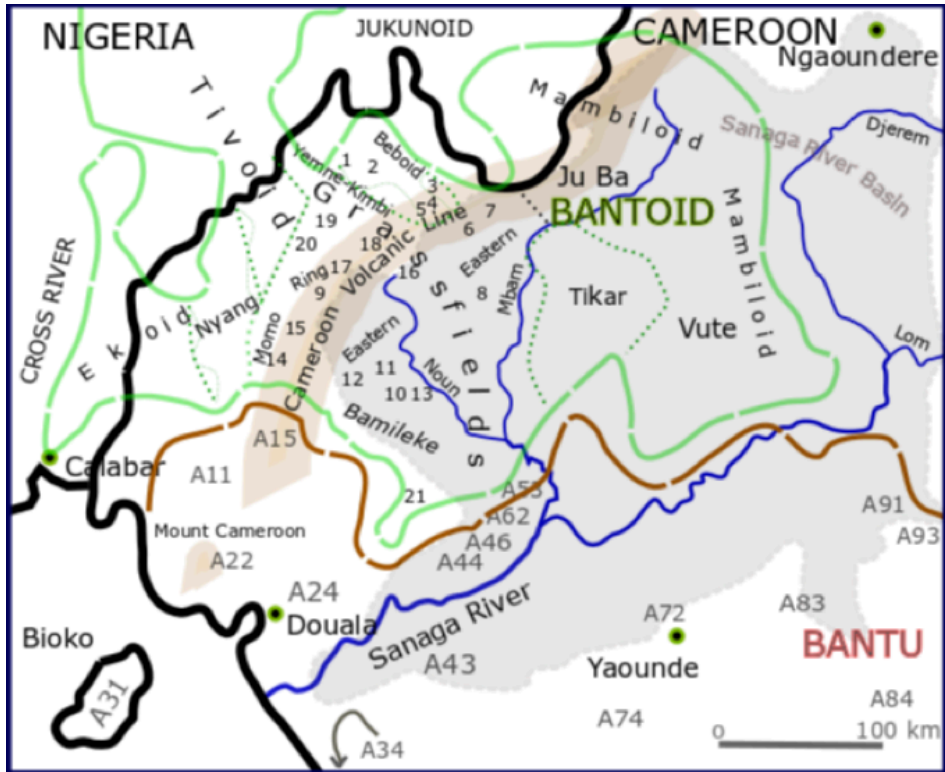
Kalenjin (three past tenses) and Western Nilotic Luo (four pasts) both developed tense contrasts independently along the lines of their Bantu neighbours. The new tense markers are transparently grammaticalised forms of time adverbials. Dimmendaal suggests that trade and intermarriage apparently led to shift-induced interference, whereby speakers of a Bantu language introduced these distinctions into Kalenjin and the innovation became the norm. Alternatively, the Bantu-speaking mothers of Kalenjin husbands used them in their speech, which their children then copied.

If we apply this dispersal model here, the following questions arise: In which of the six groups (Beboid & Yemne-Kimbi, Tikar, Bamileke, the rest of Grassfields, Mambiloid, early Bantu) did tense initially appear, how did tense initially disperse, and how did multiple tense contrasts then develop and spread? Because the methodology is not clear, we do not claim to have all the answers, but we can offer some pointers.

Where did tense initially appear? Proto-Mambiloid is unlikely because, assuming Mambiloid is a valid genetic unit, tense is limited to some lects and not others, and in those that have it (Vute, Ju Ba) the encoding is different. In fact, Mambiloid serves as a northern and eastern boundary to the development of tense in Bantoid, and the CVL region to the west serves as a western boundary. Our best hypothesis is that tense initially appeared among the ancestral lects of Eastern Grassfields (Bamileke), Bantu, and maybe Yemne-Kimbi. From these lects it then spread to other regions of Grassfields (Momo, Ring and Wider) and to neighbouring groups Beboid, Tikar and Mambiloid.

How did multiple tense contrasts develop? We think it unlikely that multiple tense contrasts developed in early Bantu in the north-west. Multiple pasts and futures in Bantu are more common outside the north-west, and parts of the morphology encoding the few multiple contrasts that we do find in zone A, especially in A40-50-60, do not occur elsewhere in zone A. Bits of the innovated morphology involved in these multiple tense contrasts in A resemble some morphology in Bantoid. We think it more likely that these multiple contrasts probably intruded into these north-western languages from a Bantoid source, such as Eastern Grassfields. In addition, since we think simple tenses did not develop in Proto-Mambiloid, multiple contrasts did not originate there either. The origin for this activity was towards the Sanaga River Basin rather than the mountains of the Mambiloid region; see Figure 6.

Wider Bantu offers a possible model for the development of multiple tense contrasts. The building blocks for past tense in early Bantu were fairly restricted: *-a-*, *-í*, tone. Combining these, and combining them with pre-stem focus marking,



Key to the codes and numbers on this map:

(Narrow) Bantu languages: Lundu A11, Mbo cluster A15, Kpe A22, Duala A24, Bubi (Bioko) A31, Benga (Equatorial Guinea/Gabon) A34, Basaa A43a, Nen A44, Maande A46, Kpa A53, Yambasa A62, Ewondo A72a, Bulu A74a, Makaa A83, Njem A84, Kwakum A91, Kako A93

Bantoid languages: MAMBILOID: Ju Ba/Mambila, Vute; Isolate TIKAR: Tikar; YEMNE-KIMBI: 1 Mungbam, 2 Mundabli; BEBOID: 3 Nchane, 4 Mungong, 5 Noni; EASTERN GRASSFIELDS, North: 6 Limbum, 7 Mfumte; EASTERN GRASSFIELDS, Mbam-Nkam, Nun: 8 Shupamem; EASTERN GRASSFIELDS, Mbam-Nkam, Ngemba: 9 Bafut; EASTERN GRASSFIELDS, Mbam-Nkam, Bamileke: 10 Ngiemboon, 11 Ngomba, 12 Yemba/Dschang, 13 Mengaka; MOMO GRASSFIELDS: 14 Mundani, 15 Ngie; RING GRASSFIELDS: 16 Babanki, 17 Babungo/Vengo, 18 Kom, 19 Aghem; WIDER GRASSFIELDS: 20 Obang, 21 Ndemli

Other features: Sanaga River Basin = grey area, Cameroon Volcanic Line = wide brown band

Figure 6: NB and Bantoid languages in the region of tense innovation

vowel lengthening, and other tools gave many tense and encoding possibilities over five millennia, as language communities were dispersing.

We assume that multiple tense contrasts developed in the wider Bantoid area beyond NB starting with the common serial verb construction. Serial verb > Auxiliary <aspect> > Auxiliary <tense>, finally becoming integrated as a pre-stem tense marker, is a typical grammaticalisation shift.<sup>32</sup> It seems unlikely that multiple contrasts developed independently in the other three language groups, given their adjacency, the small geographical area, and the categories being so similar. We see from the Nilotic example above that a completely calqued mini-system consisting of a set of several tense distinctions can be transferred simultaneously, so we think it plausible that these multiple contrasts dispersed from one source, with each early language group developing its own morphology.

## 5 Conclusion

We propose that a Bantoid lect or a set of Bantoid lects innovated tense before PB separated from other Bantoid lects – a pre-Bantu stage. Speakers of these lects likely resided on the eastern slopes of the Cameroon Volcanic Line into the Sanaga River Basin. Some 5000 years ago some of these lects emerged from this region as PB forms and other lects formed the beginning of Eastern Grassfields, plausibly the Bamileke and Mbam-Nkam languages. A single initial past probably emerged first, possibly followed by a future. This innovation of this single past tense dispersed to the others, in the circumstances sketched in §4.4 above. Later, multiple pasts developed among the non-NB Bantoid languages. We admit to being unsure exactly where this first developed, but our sense is that the locus was early Eastern Grassfields, and then dispersed to the north and east to the rest of Grassfields, Beboïd, Tikar, parts of Mambiloid, and even some NB zone A languages. Later, multiple pasts also developed among the NB languages expanding south and south-east, but that is a separate story.

To conclude, we sketch here an overview of how what we are proposing compares to Meeussen (1967) and Nurse (2008) (cf. Table 1), the focus being on tense. Not surprisingly, our ideas more resemble Nurse's than Meeussen's.

## Acknowledgements

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<sup>32</sup>Thanks to one anonymous reviewer for help here.

Table 10: PB reconstructions by Nurse & Watters (2022 = this chapter), Nurse (2008), and Meeussen (1967)

this chapter	Nurse (2008)	Meeussen (1967)
<i>a</i> -stem- <i>a</i> past	<i>a</i> -stem- <i>a</i> past <i>a</i> -stem- <i>a</i> recent IPFV	<i>á</i> -stem- <i>a</i> PRET IPFV
<i>a</i> -stem- <i>í</i> past RET	<i>a</i> -stem- <i>ile</i> past RET <i>a</i> -stem- <i>idé</i> recent PFV	<i>á</i> -stem- <i>ide</i> PRET PFV
<i>a</i> -stem- <i>ag-a</i> past IPFV	<i>a</i> -stem- <i>ang-a</i> past IPFV	
<i>ø</i> -stem- <i>i</i> RET	<i>ø</i> -stem- <i>ile</i> RET	
<i>ø</i> -stem- <i>a</i>	<i>ø</i> -stem- <i>a</i>	<i>ø</i> -stem- <i>a</i> PRS 1 IPFV (CONJ)
<i>ø</i> -stem- <i>ag-a</i> IPFV	<i>ø</i> -stem- <i>ang-a</i> IPFV	
<i>l(a)</i> -stem- <i>a</i> DISJ	<i>l(a)</i> -stem- <i>a</i> DISJ	<i>da</i> -stem- <i>a</i> PRS 2 IPFV (DISJ)
<i>ka</i> -stem- <i>a</i> itive/future	? <i>ka</i> -stem- <i>a</i> itive/future	<i>ka</i> -stem- <i>a</i> future

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## Abbreviations

A, B, C, ... ‘zones’ or categories of Bantu languages (Guthrie 1948; 1971; Maho 2009)

ADV	adverb
AUX	auxiliary
B	verb base
BC	Benue-Congo
C	consonant
CAUS	causative
CM	Comparative Method; clause marker
COND	conditional
CONJ	conjunctive
CONT	continuous



CR	Cross River
CV	consonant + vowel
CVL	Cameroon Volcanic Line
CWB	Central-Western Bantu
DISJ	disjunctive
DUR	durative
EB	Eastern Bantu
EXT	(verb root) extension
F	future
F1	near future (see the Key of Table 3 for further detail)
F2	distant future (see the Key of Table 3 for further detail)
–FOC	focus on lexical and phrasal constituents
+FOC	focus including aspect and truth value
FV	final vowel
H	high tone
HAB	habitual
HORT	hortative
INCOMP	incompletive
IPFV	imperfective
IRR	irrealis
ITER	iterative
N	homorganic nasal
NB	(Narrow) Bantu
NC	Niger-Congo; nasal + consonant
NEG	negation
NWB	North-Western Bantu
OM	(prefixal) object marker
OP	object pronoun
P	past
P1	today past (see the Key of Table 3 for further detail)
P2	yesterday past (see the Key of Table 3 for further detail)
P3	days, weeks, months, or distant past (see the Key of Table 3 for further detail)
P4	remote past (see the Key of Table 3 for further detail)
PASS	passive
PB	Proto-Bantu
PFV	perfective
PRET	preterite
PROG	progressive
RECP	reciprocal

RET	retrospective
SBJP	subject pronoun
SG	singular
SP	subject prefix
SUB	subject
SWB	South-Western Bantu
T	tense
TA(M)	tense/aspect/(mood)
V	vowel
VC	vowel copy
WWB	West-Western Bantu

## Appendix A Definitions

The following definitions of some basic terms are mostly from Nurse (2008: 308–318).

*aspect*: verb category expressing the internal temporal constituency of a situation. All finite verbs have aspect, marked or not. Verbs may have more than one aspect. Commonest NC/Bantu aspects are imperfective and perfective. Less common: retrospective, and subdivisions of imperfective (progressive, habitual, iterative).

*aspect-prominent (language)*: language having aspect but not tense.

*conjunctive (focus) (CONJ)*: refers to verb forms focusing on a postverbal constituent (object, adverbial, second verb) or new material.

*disjunctive (focus) (DISJ)*: verb forms indicating no special relationship between that verb and a following constituent. Emphasis is on the verb or one of its categories.

*extension (EXT)*: in NC the verbal base can consist of a root or root followed by one or more productive derivational suffixes known as extensions.

*final vowel (FV) or just final*: the tenth of eleven positions in Meeussen's template of the Bantu verb, but also used of the verb in NC. See also Pre-final.

*focus (FOC)*: special prominence given to some element to mark it as expressing the most important (new) information or to contrast it with something else.

*habitual (aspect) (HAB)*: refers to a situation characteristic of an extended period of time; the situation is viewed as a characteristic of a whole period.

*imperfective (aspect) (IPFV)*: contrasts with perfective and represents an unbounded situation that lasts over a period of time.

*iterative (aspect) (ITER)*: refers to a repeated situation; an incomplete series of events.

*itive (directional)*: refers to the agent moving away from the current location or time, often using the verb ‘go’ and may include intention and future time.

*perfective (PFV)*: represents a situation as a single bounded whole, without regard to its constituent phases.

*pre-final*: the ninth of eleven positions in Meeussen’s template of the Bantu verb.

*preterite (tense) (PRET)*: for languages with two degrees of past, some authors, mainly francophone, refer to the near one as recent past, the farther one as preterite.

*progressive (PROG)*: represents an unbounded situation ongoing at or around reference time.

*retrospective (RET), also called perfect or anterior*: refers to a past event with present relevance (with dynamic verbs), or to a situation that started in the past and continued into the present (stative verbs).

*tense*: the grammaticalised representation of, or verbal inflection for, location in time, relative to some reference point, often the present.

*tense/aspect system*: we use it to refer to an interlocking morphological/grammaticalised system of tense and aspect in the verb.

*vowel copy (VC)*: a process in which final vowels, in the near past or retrospective, assimilate to those of the verb stem. It applies to a single suffix involving a (more or less) complete copy of the stem vowel into that suffix.

## Appendix B Eastern Bantoid languages and their resource(s) serving as examples throughout §3

GROUP/ Sub-group	Sub-sub-group/ <i>Sub-sub-sub-group</i> / Language	Source(s)
BEBOID	Noni	Hyman (1981)
	Nchane	Boutwell (2020)
	Mungong	Boutwell (2014)
YEMNE-KIMBI	Mungbam	Lovegren (2013)
	Mundabli	Voll (2017)
GRASSFIELDS		
Eastern	<u>North</u>	
	Limbum	Fransen (1995)
	Mfumte	McClean (2014)
	<u>Mbam-Nkam</u>	
	<i>Nun</i> : Shupamem	Nchare (2012)
	<i>Ngemba</i> : Bafut	Mfonyam (1989)
	<i>Bamileke</i> :	
	Ngiemboon	Anderson (1983), Lonfo & Anderson (2014)
	Ngomba	Satre (2004)
	Yemba/Dschang	Hyman (1980), Harro & Haynes (1991)
	Mengaka	Sonkoue (2019)
Momo	Mundani	Parker (1991), Magba (1995)
	Ngie	Watters (1980)
Ring	Babanki	Akumbu & Chibaka (2012), Akumbu et al. (2019)
	Babungo	Schaub (1985)
	Kom	Shultz (1997)
	Aghem	Anderson (1979)
Wider	Obang	Asoshi (2015)
	Ndemli	Ndedje (2013)
MAMBILOID	Vute	Thwing & Watters (1987)
	Ju Ba	Perrin (1972), Connell (2019)
TIKAR	Tikar	Stanley (1991)

Note: For data on more Bamileke languages than the four included, see Botne (2020).

## Appendix C Exponents of past perfective in eastern Bantoid

GROUP .../ Language	P4	P3	P2	P1	P0
<b>BEBOID</b>					
Noni (+FOC)		tò nǎǎ verb	cí nǎǎ verb	béé verb	ø nǎǎ verb
Noni (–FOC)		tò verb lǎ	cí verb lǎ	bé verb lǎ	ø verb lǎ
Nchane		gē verb	ché SUB verb	bé SUB verb	ø verb
Mungong		kà bé verb	yí verb	bí verb	nǎ verb
			kà (general PAST)		
<b>YEMNE-KIMBI</b>					
Mungbam		lē ~ kà verb+IRR	lē ~ kà verb	fǎ <sup>h</sup> ~ ha <sup>h</sup> ~ kà verb	ø verb
Mundabli		kà verb.PFV	à ~ nǎ verb.PFV	fǎ verb.PFV	ø verb.PFV
<b>GRASSFIELDS</b>					
Eastern					
<b>North</b>					
Limbam		m verb-í	mú verb-í	bá verb-í	ø verb-í
Mfumte			má verb	nu verb	má verb
<b>Mbam-Nkam</b>					
<i>Nun</i> : Shupamem		kápi `verb	pí `verb	pé `verb	ø `verb
<i>Ngemba</i> : Bafut		lēŋ verb	kí verb	nāŋ verb	mā verb
<i>Bamileke</i> :					
Ngienboon	là lá? n-verb	là verb	kà verb	ně n-verb	ø verb
Ngomba	nídá'n-verb (gen.)	ka verb	n-verb	lá'n-verb	ø n-verb
	ka lá'n-verb (def.)				
Yemba/Dschang	lè lá? n-verb	lè verb'ŋ	kè verb'ŋ	áá n-verb	á' verb
Mengaka		kà verb	^ n-verb	, verb	ø verb

GROUP .../ Language	P4	P3	P2	P1	P0
Momo					
Mundani		<i>lè</i> verb	<i>à</i> verb (= P2 & general PAST) <i>a</i> verb <i>a</i> verb- <i>i</i>	<i>ghê/lɔ/lí</i> verb <i>à</i> verb <i>à</i> verb- <i>i</i>	$\emptyset$ verb
Ngie (+FOC)					
Ngie (-FOC)					
Ring					
Babanki (+FOC)		<i>N-</i> verb (')	<i>tà</i> verb	<i>yì</i> verb	' verb
Babanki (-FOC)		<i>á N</i> verb <i>lí</i>	<i>á tà</i> verb	<i>á yì</i> verb	<i>á</i> verb <i>lí</i>
Babungo	<i>nà</i> '-verb <i>nín læ</i> verb	<i>yàa</i> '-verb <i>ti</i> verb	<i>sí</i> '-verb <i>læ</i> verb ' <i>má</i> verb <i>má'á</i> verb	<i>níi</i> '-verb <i>nì</i> verb <i>má</i> verb <i>má'á</i> verb	$\emptyset$ verb <i>m'</i> verb
Kom					
Aghem (+FOC)					
Aghem (-FOC)					
Wider					
Obang					
Ndemli		<i>ní-</i> verb	<i>yà</i> verb <i>á-</i> verb	<i>kà</i> verb <i>á-</i> verb	$\emptyset$ verb ' verb
MAMBILOID					
Vute (+FOC)			<i>yí</i> ' verb <i>tí</i>	<i>tí</i> ' verb <i>tí</i>	$\emptyset$ ' verb <i>tí</i>
Vute (-FOC)			<i>yí</i> verb- <i>á</i>	<i>tí</i> ' verb- <i>á</i>	$\emptyset$ ' verb- <i>á</i>
Ju Ba		<i>lā nā</i> verb	<i>lā nā</i> verb	<i>lanā</i> verb	$\emptyset$ verb
TIKAR					
Tikar		verb- <i>ka?</i>	verb- <i>e</i>	verb- <i>i</i>	verb- <i>mε</i>

## Appendix D Exponents of past imperfective in eastern Bantoid

GROUP .../ Language	P4	P3	P2	P1	P0
<b>BEBOID</b>					
Noni		tà verb-e lǎ	cí verb-e lǎ bé	verb-e lǎ	∅ verb-e lǎ
Nchane		gē verb-é	ché SUB verb-é	bé SUB verb-é	∅ verb-é
?Mungong		ká bè verb	yí verb	bí verb	ná verb
		ká (genaral PAST)			
<b>YEMNE-KIMBI</b>					
Mungbam		lē ~ kà verb.IRR	lē ~ kà verb	fǎ <sup>h</sup> ~ha <sup>h</sup> ~ká verb	∅ verb
Mundabli		kà verb.IPFV	à ~ ná verb.IPFV	fǎ <sup>h</sup> verb.IPFV	∅ verb.IPFV
<b>GRASSFIELDS</b>					
Eastern					
<u>North</u>					
Limbum					
PROG		m shí verb-í	mú shí verb-í	bá shí verb-í	∅ shí verb-í
HAB		m kíí verb-í	mú kíí verb-í	bá kíí verb-í	∅ kíí verb-í
Mfumte					
PROG			mǎ kí verb	nu kí verb	má kí verb

GROUP .../ Language	P4	P3	P2	P1	P0
Mbam-Nkam					
Nun: Shupamem		kápú mbú n-verb	pú mbú n-verb	pá mbú n-verb	pá mbú n-verb
Ngemba: Bafut		lêŋ si verb	kí si verb	^ nîŋ' verb	^ verb
Bamileke:					
Ngiemboon					
HAB		là lá? n-verb-a	kà-a n-verb	kǒ n-verb-a	n-verb-a
PROG	là lá? n-verb-a	là nè n-verb-a	kà nè n-verb-a	kǒ nè n-verb-a	nè n-verb-a
Ngomba					
NON-PRESENT					
IPFV		míbó n-verb			pǒ
GENERAL IPFV		míbó			
PRESENT PROG		sé n-verb			
HAB		lò n-verb			
Yemba					
PROG	ŋ-gǒ é-si n-verb-a	sí n-verb-a	sí N-verb-a	*	sí n-verb-a
PROG	nŋŋ n-verb-a	nŋŋ n-verb-a	nŋŋ N-verb-a	n-nŋ N-verb-a	ø-nŋ ø-verb-a
Mengkaka		kà tsé n-verb-Ŵ	^ tsé n-verb-Ŵ	bé tsé n-verb-Ŵ	ø-tsé n-verb-Ŵ
Momo					
Mundani					
PAST IPFV		lè wúá n-verb-à			
PRESENT IPFV		à n-verb-à			
Ngie					
IPFV			māà verb-à	māà verb-à	
PAST HAB			bāà verb-à		



GROUP .../ Language	P4	P3	P2	P1	P0
Ring					
Babanki		<i>tă N-verb-ə</i>	<i>verb-ə</i>		
Babungo					
IPFV	' - verb	' - verb	' - verb	' - verb	ø' - verb
PAST HAB		<i>yàa kî' -</i>			
PROG		$C_1 V_1 > C_1 i - C_1 V_1 \dots$			
Kom					
INCOMP		<i>verb -a [= IPFV]</i>			
PROG		<i>nin verb</i>			
DUR		<i>nà verb</i>			
Aghem					
Wider			<i>mó verb -à</i>	<i>mó verb -à</i>	ø <i>verb -à</i>
Obang					
PROG		' - verb -(ə)			
HAB		ø			
PERSISTIVE		<i>bé</i>			
Ndemli					
IPFV		<i>verb -ngě?</i>			
MAMBILOID					
Vute (+FOC)			<i>yi' verb ni</i>	<i>ti á verb ni</i>	<i>á verb ni</i>
Vute (-FOC)			<i>yi' verb-ko</i>	<i>ti' verb-ko</i>	<i>á verb-á</i>
Ju Ba			Uncertain		
TIKAR					
Tikar		<i>béka?</i> <i>verb -CV</i>	<i>bé verb -CV</i>	<i>bi verb -CV</i>	<i>tá verb</i>
		(CV = -', -li, -e-, -ó, -a, -ni, -bi, -mi, -ø)			

Note: For Yemba/Dschang, Harro & Haynes's (1991) P1–P5 are P0–P4 here.

## Appendix E Exponents of future perfective & imperfective

GROUP .../ Language	F0	F1	F2	F3	F4
<b>BEBOID</b>					
Noni					
PFV	nú ∅ verb	nú géé verb	nú bóy verb	nú yúú verb	
IPFV	nú ∅ verb-e	nú géé verb-e	nú bóy verb-e	nú yúú verb-e	
Nchane	lé SUB verb (general FUT)				
Mungong	nā verb	nā fá verb	nā bí verb	nā tá verb	
<b>YEMINE-KIMBI</b>					
Mungbam	á verb (general FUT)				
Mundabli		dí verb	ká verb		
<b>GRASSFIELDS</b>					
Eastern					
North					
Limbum					
PFV	bí verb	bí lò verb	bí fá verb		
IPFV	bí shí verb	bí lò shí verb	bí fá shí verb		
Mfumte					
PFV	kà SUB verb (general FUT)				
IPFV	kà SUB kí verb (general FUT)				
<b>Mbam-Nkam</b>					
<i>Nun:</i>					
Shupamem					
PFV	ná twó verb	ná ló? verb	ná ló twó verb		
IPFV	ná twó píú n-verb	ná ló? píú n-verb	ná ló twó píú n-verb		
<i>Ngemba:</i>					
Bafut					
PFV	kā ∅ verb	kā lā verb	kā lō verb	kā yī verb	
IPFV	kā kí verb	kā lā kí verb	kā lō kí verb	kā yī kí verb	

GROUP .../ Language	F0	F1	F2	F3	F4
<i>Bamileke:</i>					
Ngjemboon					
PFV		gè verb	tó/gyò verb	lù verb	lál/ fõ verb
IPFV	verb-V	gè verb-a	tó/gyò verb-a	lù verb-a	lál/ fõ verb-a
PROG	nè verb-a	gè nè verb-a	tó/gyò nè verb-a	lù nè verb-a	lál/ fõ nè V-a
Ngomba		ge/gu n- verb	N' verb	ngɛ/ndɔ n-verb	nda' verb
Dschang					
(PFV?)	d'á verb	àà 'piŋ'ɨ verb	àà 'lù'ú/ shuɪ'ɛ verb	d'á lá'ɛ' verb	d'á fú' verb
Yemba					
(PROG)		nɔŋɔ è-verb-V	é-gó é-sí é-verb-V	← =	← =
(PROG)			← =	← =	← =
Mengaka					
PFV		' ní/dé n-verb-'			
IPFV		' ní/dé tsé n-verb-V'			
Momo					
Mundani					
PFV	ā verb	ā ghā/ à ló'ó ē-verb	ā sà'á ē- verb	ā lí ē- verb	
IPFV	ná á wúá verb				
Ngie					
PFV (+FOC)		mü verb			
PFV (-FOC)		wī verb			
IPFV (+FOC)		mī māā verb -á			
IPFV (-FOC)		wī māā verb -á			

GROUP .../ Language	F0	F1	F2	F3	F4
Ring					
Babanki					
(+FOC)		à verb	nè verb	lù verb	
(-FOC)		á à verb '	á nè verb '	á lù verb '	
Babungo					
IPFV		táa' - verb	ndǝ' - verb		
Kom		nĩ verb	læ verb		
Aghem					
IPFV		sì + verb -à	lɔ' + verb -à		
Wider					
Obang	mí verb	wúlí verb	dúlí verb		
Ndemli		i` verb	tá- verb		
MAMBILOID					
Vute					
IPFV		bá verb nĩ	kwá' verb		
Ju Ba		ndē bá verb	ndē né verb		
TIKAR					
Tikar		ka...ka?			
PFV		yè verb -CV	ywime verb -CV		
IPFV					

## Appendix F *ka* and its cognates as exponents of future tenses in Bantoid

Bantoid Group	Language	Exponent
Yemne-Kimbi	Mundabli	<i>ká</i> (F2)
Grassfields > Eastern > North	Mfumte	<i>kà</i>
Grassfields > Eastern > Mbam-Nkam > Ngemba	Bafut	<i>ká</i> (F0-F3)
Mambiloid	Vute	<i>kwâ</i> (F2)
Isolate	Tikar	<i>ka...ka?</i> (FUT PFV)

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