

# Chapter 11

## A comparative sketch of TA markers in Kilimanjaro Bantu: In search of the directionality of semantic shift and micro-parametric correlation

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This chapter presents a comparative overview of the tense and aspect (TA) systems in Kilimanjaro Bantu languages (KB), including those from which comprehensive information about the TA system has not been available in the literature. Fundamental description about the TA system of the eight varieties of KB, namely Rwa, Siha, Mashami, Kibosho, Uru, Vunjo, Rombo-Mkuu, and Gweno, reveals a general picture of geographical distribution and formal correspondences of shared TA markers. Based on the systematic correspondences, which can be described as grammaticalisation chains, we further discuss historical processes of semantic development of shared TA markers, as well as possible typological generalizations lying behind the observed variation of the TA systems in KB.

### 1 Introduction

This chapter provides comparative lists of tense and aspect markers (TAM) from eight Kilimanjaro Bantu languages (KB) covering all of the three major sub-groups, namely Western Kilimanjaro (WK), Central Kilimanjaro (CK), and Rombo, with the goal of presenting an overall picture of the distribution and semantic variation of common TA markers in KB<sup>1</sup>. Based on the data, I will discuss the

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<sup>1</sup>For a linguistic overview, see Philippon & Montlahuc (2003) and Shinagawa (forthcoming[b]).



diachronic processes and typological implications of TA systems, namely i) the semantic development and grammaticalisation processes of TA markers across boundaries between languages and between subgroups, and ii) highlight micro-typological correlations between morphosyntactic parameters including those related to TA systems.

The languages presented in this chapter constitute two groups. The first group includes the languages described by the author with a full list of core TA markers, which includes Rwa (E621A<sup>2</sup>, WK), Siha (E621C, WK), Uru (E622D, CK), and the Mkuu variety of Rombo (E623C). The second group consists of languages with reliable descriptions of TA forms in the existing literature; this group includes Mashami (E621B, WK; Rugemalira & Phanuel 2012), Kiboshu (Kiw'oso, E621D, WK; Kagaya 1989), Vunjo (E622C, CK; Nurse 2003b, Moshi 1994), and Gweno (E65; Philippson & Nurse 2000).

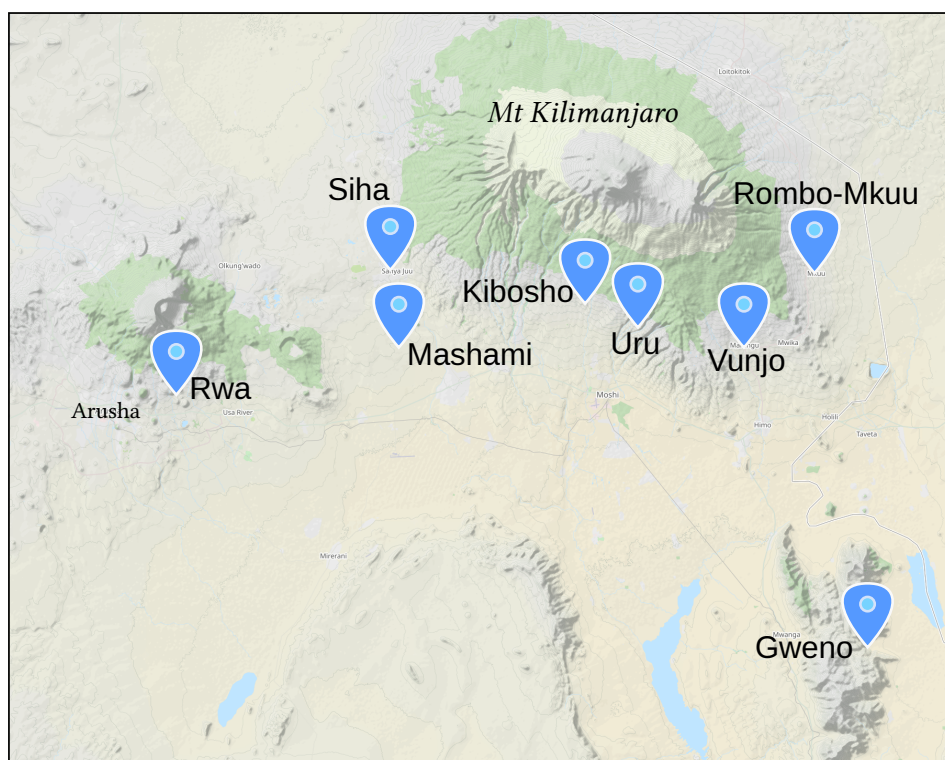
The study of TA systems in KB was pioneered by Derek Nurse. His “Tense and aspect in Chaga” (Nurse 2003b) provides a comprehensive overview of TA concepts and forms found in KB with a special focus on Vunjo. Following in this vein, this study intends to provide descriptive data for the languages which are only referred to in a limited way in his study (especially WK languages), as well as to present a more in-depth account of both historical and typological aspects of TA systems in KB.

It should be noted here that since the primary focus of this chapter is on the form-meaning correspondences of common TA markers in KB, the following topics are not included in the scope of this study: i) compound tenses, ii) forms with so-called limitatives (cf. Meeussen 1967), iii) TA in negative constructions, and iv) modality markers.<sup>3</sup> Although these points are of importance for a comprehensive

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<sup>2</sup>The five-digit codes shown in parentheses after language names are from the updated list of Guthrie codes by Maho (2009).

<sup>3</sup>Though these topics require further investigation in future research, the following points can be briefly mentioned as somewhat common features in KB: i) As for compound tenses, most of KB utilises the construction for aspectual forms with future tense, where the lexical stem meaning ‘find’ or ‘get’ (e.g. *koóya* or related forms in WK) is used as an auxiliary conveying future tense. ii) The limitative *ka-* is widely attested in KB with the meaning of consecutive; however, in Uru, it also expresses “ironical negation”, the use of which may have developed from “T inceptive” ‘already, not yet’ in Meeussen (1967: 109). iii) Negation is also an essential part of the TA system and there seems to be crosslinguistic variation in terms of strategies of negation marking in relation to tense and aspect categories. For example, in Siha, NEG<sub>2</sub> *ta-*, which is generally used as a non-main clause negation marker in other KB languages, has even spread to main clause verb forms; [Sih.] *tikaváa* ‘We will hit’ vs. *titakaváa pfo* ‘We will not hit’. iv) Most languages can take elements grammaticalized from ‘come’ and ‘go’ verbs in the TA slot, which essentially denote the modal concept that can be labelled as “certainty”. I will only briefly mention the forms when they are interpretable as denoting TA notions.



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Figure 1: Geographical distribution of the KB languages examined.

understanding of TA expressions, it should be noted that the core system of TA forms can be structurally described independently from these elements.<sup>4</sup>

This chapter is organised as follows. First, comparative lists of common TA markers from the above-mentioned languages are presented in §2, followed by a comparative analysis of semantic variation and its interrelation with each TA marker in §3. Based on these observations, the grammaticalisation processes and micro-typological correlations found in the TA systems of KB will be further discussed in §4. Conclusions are presented in §5.

<sup>4</sup>As Nurse (2003b: 73) mentions, generally in KB, negation in independent clauses is morphologically marked by a negative particle which has little influence on the morphological structure of the verb, i.e., it is relatively independent from broader TA-marking strategies.

## 2 Comparative lists of TAM

This section presents comparative lists of TAM of selected sample KB languages. Where available, sample sentences are tone-marked based on surface realizations, while the location of underlying lexical high tones is shown by an underscore. The lists are presented in the form of tables in which the morphological structure of the verb is indicated in rows and the core TA categories are shown in columns.

The morphological template of the verb in KB basically follows the typical Bantu structure, i.e., {Preinitial=SM-NEG<sub>2</sub>-TAM-OM≠Stem-Final=Postfinal} (cf. Rose et al. 2002), out of which the structurally essential parts are SM, TAM, Stem, and Final. In addition to these elements, some of the lists include Preinitial<sup>5</sup> and Postfinal slots, if they are relevant to the expressions of the core TA categories in the language in question.

Another point to be noted regarding the structure relates to the multiplicity of TAM slots. As the literature shows, a string of TAMs in a single verb structure is quite typical in KB. Reflecting this morphological feature, the list has three slots for TAMs to capture the gradual nature of the TAMs in a simplified way, i.e., TAM<sub>0</sub> and TAM<sub>2</sub> are positively defined on the scale and TAM<sub>1</sub> is defined as “in-between”. TAM<sub>0</sub> includes forms which are phonologically fused with the preceding SM (resulting in a monosyllabic cluster) and structurally self-standing, i.e., they can be realised without the co-occurrence of other TAMs, while TAM<sub>2</sub> forms tend to be realised in combination with preceding TAM(s), especially when denoting a past reference, and their lexical sources are relatively clear, i.e., they can be regarded as recently grammaticalised.

As for the core TA concepts, eight categories have been chosen to ensure sufficient semantic coverage and a clear formal distinction of the TAMs, namely two tense categories (past and future), four aspectual categories (progressive, anterior, completive, and habitual), and two combined categories (present and past statives). The so-called general present tense is not included in the list because, as Nurse (2008: 115–117) explains, the present time reference is normally expressed with an aspectual focus, with a typical situation involving the progressive aspect with a dynamic verb like “She is walking” or a stative aspect with an inchoative verb like “He sleeps”. Thus, a pure exponent of the perfective (i.e., aspectually unmarked) present is not always clearly identifiable, or in other words the cate-

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<sup>5</sup>The Mashami table includes the Preinitial slot, simply because all the examples suitable for examining TA expressions are presented as forms with the element in the original source, i.e., it does not (necessarily) mean that the Preinitial (generally understood as a Focus marker) directly affects the TA notion of the verb.

gory may be described as “empty” in TA matrices in many Bantu languages (see also Nurse 2003b: 77).

As shown in the following sections, all of the languages examined in this study have more than two distinct pasts and the non-WK languages have multiple futures. The four aspectual categories can be distinguished by TAMs throughout KB (although anterior and completive are not necessarily distinguished in some languages). Statives are adopted here as it may help identify the existence of a TA category that can be (tentatively) labelled as past imperfective, which may not be a common TA (combined<sup>6</sup>) concept in Bantu languages in general, but is widely attested in KB at least as a category frequently morphologised by a TA marker (cf. Nurse 2003b: 80). Examining these categories will thus help us identify how a TA marker diachronically expands or shifts its semantic coverage across KB languages.

## 2.1 Rwa

Rwa, the geographically western-most WK language, has three morphologically distinct pasts and a single future which is marked by Final *-áa*, apparently originating from a Prefinal-Final cluster *\*-ag-a*. Its tonally modified form *-aá* is used as a habitual marker. The formal distinction between PST<sub>1</sub> and PST<sub>3</sub> is only tonal, i.e., PST<sub>3</sub> has a grammatically assigned high tone<sup>7</sup> on the final vowel of the stem, e.g., [PST<sub>1</sub>] *va-a-fí≠kab-ís-a m-biíri* vs. [PST<sub>3</sub>] *va-a-fí≠kab-ís-á m-biíri* {SM2-PST<sub>1/3</sub>-OM7≠hit-CAUS#CPx9-stick}<sup>8</sup> ‘they hit (something in cl.7) by a stick’. However, if the verb stem is monosyllabic, the tonal difference is neutralised and the distinction is made by replacing the Final *-á* with *-é*<sup>9</sup>: [Rwa] *t-ā≠l-ā*{SM1sg-PST<sub>1</sub>≠eat-F} ‘we ate (PST<sub>1</sub>)’ vs. *t-ā≠l-ē*{SM1sg-PST<sub>3</sub>≠eat-F} ‘we ate (PST<sub>3</sub>)’. Though the historical background of PST<sub>2</sub> *nde*<sup>10</sup> is uncertain, one may relate it to *le-* as a common past marker or the segmentally identical *ndé-*

<sup>6</sup>As a TA concept, this may not necessarily be a “combined” category. Rather, the form in question may be regarded as a special form of past marker that appears in various contexts of imperfective aspects. For further discussion, see §3.1.5.

<sup>7</sup>This high tone may cause high tone plateauing, i.e., tone-less TBUs between this and an immediately preceding high tone may be realised as high flat tones, e.g., *avatobírlíá* ‘S/he made (something) for them’.

<sup>8</sup>Both SM2 and OM7 have an underlying high tone and the former is realised on the following syllable, while the latter is deleted by the so-called anti-Meeussen’s Rule (i.e., HH > LH).

<sup>9</sup>From a historical point of view, it may be suggested that this element might be regarded as an irregular manifestation of *\*-jle*, whose regular realisation is *-lé*.

<sup>10</sup>Note that *nde-* of PST2 is structurally different from *nde-* as a modality marker, relatively recently grammaticalised from the verb ‘go’, which can only appear with other tense markers.

in Gweno, which is a “verb-focusing” near past (cf. Philippson and Nurse [2000: 254]; see also §2.8).

The common markers *keé-* (from \**kad* ‘sit’), *ɲ-*, and *maa-* (both from \**mad* ‘finish’) are attested as denoting progressive, anterior, and completive, respectively. Stative is marked by *-ié* which originates from \**-ile* and its past tense is expressed by TAM *i-* with a lengthened final vowel (shown as =*V* in Table 1). This morphological template of past marking occurs repeatedly not only in various imperfective aspects of regular verbs including progressive, anterior/completive, and habitual, but also in non-verbal predicates such as existentials: [Rwa] *ti-Ø=ifō* {SM1pl-PRS≠EXT} ‘we are (in a specific place)’ vs. *tí-i=ifo=ó* ‘we were (in a specific place)’. Thus, it seems possible to posit a TA category morphologised by this template, which will be tentatively referred to as past imperfective. As shown in the following sections, this TA-combined category is often grammaticalized in other KBs as well.<sup>11,12</sup>

Table 1: List of the core TA markers in Rwa

TA category	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	PoF	translation
PST <sub>1</sub>	<i>t-</i>	<i>a-</i>			<i>kab</i>	<i>-á</i>		‘We hit’
PST <sub>2</sub>	<i>tí-</i>		<i>nde-</i>		<i>kab</i>	<i>-á</i>		‘We hit’
PST <sub>3</sub>	<i>t-</i>	<i>á-</i>			<i>káb</i>	<i>-á</i>		‘We hit’
FUT	<i>tí-</i>				<i>kab</i>	<i>-áa</i>		‘We will hit’
PRS.STAT	<i>tí-</i>				<i>lol</i>	<i>-ié</i>		‘We see/are watching’
PST.STAT	<i>tí-</i>		<i>í-</i>		<i>lol</i>	<i>-ié</i>	= <i>V</i>	‘We saw/were watching’
PROG	<i>tí-</i>			<i>keé-</i>	<i>kab</i>	<i>-á</i>		‘We are hitting’
ANT	<i>t-</i>	<i>a-</i>	<i>ɲ-</i>		<i>kab</i>	<i>-á</i>		‘We have hit’
COMP	<i>t-</i>	<i>a-</i>	<i>ɲ-</i>	<i>maa-</i>	<i>kab</i>	<i>-á</i>		‘We have finished hitting’
HAB	<i>tí-</i>				<i>kab</i>	<i>-āā</i>		‘We hit (regularly)’

<sup>11</sup>According to Nurse (2003b: 77), the category marked by *we-* in Vunjo seems to correspond to this combined category. On the other hand, the recurrent morphologisation of this rather uncommon category can support Nurse’s (ibid.: 85) claim from a cross-KB perspective that “TA categories are more stable than the morphemes which carry them.”

<sup>12</sup>Examples in the lists presented in Tables 1–4 are provided in morphophonemic description and those in the body of the text are in phonemic description. Others are quoted without modification from the source. For detailed information of the phonemic inventories of Rwa, Uru, and Rombo, see Shinagawa (forthcoming[b]). The phonemic inventories of Mashami, Kibosho, and Gweno are presented in their original sources. A Cross-KB comparative list of phonemes is provided in Philippson & Montlahuc (2003).

In addition to these TAMs, Rwa has two markers grammaticalised from ‘come’ and ‘go’ (referred to here as COM and GOM), which are *fe-* and *nde-*, respectively (N.B. this is a distinct form from the *nde-* of PST<sub>2</sub>). Although the former, in particular, is often used for future marking in some languages of CK and Rombo, these two markers clearly denote “certainty” as a modal concept in this language<sup>13</sup>: [Rwa] *fua y-a-ndé#nis-á* {SM9-PST<sub>1</sub>-GOM#rain-F} ‘It (certainly) rained/It rained (as expected)’ vs. *fua y-a-fe#nis-á* {SM9-PST<sub>1</sub>-COM#rain-F} ‘It rained (unexpectedly)’, where *nde-* expresses a past event (“raining”) as more certain (i.e., it is recognised by the speaker that the event certainly or expectedly happened), while *fe-* indicates less certainty and/or expectedness. Note also that they are used in a past tense (marked by *a-*), suggesting that both COM and GOM are highly grammaticalised as modality markers.

## 2.2 Siha

As in Rwa, Siha also has a tripartite past and a single future. Since this distinction is also attested in Mashami (see §2.5), it may be regarded as a typical tense division in WK. Note, however, that some exponents are different from those in Rwa (see Table 1). PST<sub>1</sub> is marked by *le-*, a common past marker throughout KB, while PST<sub>2</sub> uses the same form with an extra lengthened vowel in the Final, which can be regarded as semantically parallel to and morphologically homogenous with =V of the past stative in Rwa. Stativeness can be expressed by *-ile* or *-i*, a possible shortened allomorph of *\*-ile*, and its past is also marked by an extra lengthened vowel.

As for aspectual forms, progressive is marked by *li-*, which is also a common marker regarded as being grammaticalised from a copula *\*li* ‘be’. Otherwise, the aspectual exponents are similar to Rwa, i.e., completive is marked by *me-* (<*\*mad*) and *-aa* (<*\*-ag-a*) is used as habitual, though its tonal behaviour differs.

## 2.3 Uru

The tense system of Uru, a CK language, shows configurational differences from that of WK, since both past and future<sup>14</sup> are divided into two sub-categories with

<sup>13</sup>Interestingly, this semantic interpretation of GOM and COM is apparently the opposite to those found in Vunjo. For example, where COM marks a “more definite” intention while GOM marks a “less definite” intention (cf. Nurse 2003b: 87). For further discussion, see Shinagawa (forthcoming[b]).

<sup>14</sup>The number of tense categories of future is sometimes unclear since futurity can also be expressed by present progressive (cf. “present-used-as future” in Nurse 2003b) and this can be applied to other CK languages and Rombo. However, it is relatively clear that future tense is exclusively indicated by a single form (mostly with *-aa*) in WK.

Table 2: List of the core TA markers in Siha

TA category	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	PoF	translation
PST <sub>1</sub>	<i>ti-</i>		<i>(l)e-</i>		<i>káv</i>	<i>-á</i>		‘We hit’
PST <sub>2</sub>	<i>ti-</i>		<i>(l)e-</i>		<i>kav</i>	<i>-á</i>	=V	‘We hit’
PST <sub>3</sub>	<i>t-</i>	<i>á-</i>			<i>káv</i>	<i>-á</i>		‘We hit’
FUT	<i>ti-</i>				<i>lóli</i>	<i>-áa</i>		‘We will see’
PRS.STAT	<i>to-</i>				<i>ón</i>	<i>-i</i>		‘We see/are watching’
PST.STAT	<i>tó-</i>				<i>on</i>	<i>-í</i>	=V	‘We saw/were watching’
PROG	<i>ti-</i>		<i>li-</i>		<i>káv</i>	<i>-á</i>		‘We are hitting’
ANT	<i>ti-</i>		<i>(l)e-</i>		<i>káv</i>	<i>-á</i>		‘We have hit’
COMP	<i>ti-</i>		<i>(l)e-</i>	<i>me-</i>	<i>káv</i>	<i>-á</i>		‘We have finished hitting’
HAB	<i>ti-</i>				<i>loli</i>	<i>-aa</i>		‘We see (regularly)’

an extra future tense limitedly realised in main clause verbs. However, their exponents are interrelated with those in WK. The past markers *e-*(PST<sub>2</sub>) and *le-*(PST<sub>1</sub>) are parallel to PST<sub>3</sub> and PST<sub>2</sub> of Mashami, while *i-* of FUT<sub>1</sub> is regarded as a cognate of progressive *li-* in Siha, which is justified in terms of historical sound change (loss of intervocalic /l/, cf. Nurse 2003b: 79), as well as the fact that the semantic development process from progressive to future is a universally attested grammaticalisation pattern (cf. Bybee et al. 1994). FUT<sub>2</sub> *t/i-* is a common future marker in CK which is regarded as having been grammaticalised from \**ci* ‘know’ (cf. Nurse 2003b: 76). Stativeness is marked by *-ie* or *-i* as in Siha, while its past is marked by *e-* of PST<sub>2</sub>. Progressive is marked by *ke-* (<\**kad*) as in Rwa, contrary to its habitual usage in another CK language, Vunjo. The anterior marker *a-* (realised as *o-* in Table 3 as a result of vowel coalescence) is consistently fused with SM, as is widely attested in other CK languages and Rombo. Habitual has no segmental exponent in the TAM slots and is marked only by a high tone assigned to Final.<sup>15</sup>

It should be mentioned here that apart from the forms listed in Table 3, there is another morpheme that can be slotted in the TAM position. The morpheme *we-* is mentioned in Nurse (2003b) as “anomalous” in that in Vunjo it seems to indicate aspectual concepts (or more precisely the pastness of imperfective aspects), while

<sup>15</sup>The structural interpretation of this form can be rather controversial. It is reasonable to regard this as a “zero form,” which “refers to timeless action, an activity which does or can occur over a vast present” (Nurse 2003b: 81). However, it is also possible to regard this as a descendant form of \* $\emptyset \neq (\text{Stem})\text{-ag-a}$ , which will be discussed further in §3.3.



Table 3: List of the core TA markers in Uru

TA category	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	translation
PST <sub>1</sub>	<i>lú-</i>		<i>le-</i>		<i>ólok</i>	-a	'We fell down'
PST <sub>2</sub>	<i>lw-</i>	<i>é-</i>			<i>ólók</i>	-a	'We fell down'
FUT <sub>1</sub>	<i>lu-</i>		<i>í-</i>		<i>káp</i>	-a	'We will hit'
FUT <sub>2</sub>	<i>lú-</i>		<i>tí-</i>		<i>káp</i>	-a	'We will hit'
FUT/COND	<i>a'</i>		<i>e-</i>		<i>wón</i>	-a	'(If...) s/he would see'
PRS.STAT	<i>lú-</i>				<i>wón</i>	-í	'We see'
PST.STAT	<i>lw-</i>	<i>é-</i>			<i>wón</i>	-íé	'We saw'
PROG	<i>lú-</i>			<i>ke-</i>	<i>káp</i>	-a	'We are hitting'
ANT	<i>l-</i>	<i>ó-</i> ({a-})			<i>wón</i>	-a	'We have seen'
COMP	<i>l-</i>	<i>o-</i> ({a-})		<i>ṁ-</i>	<i>wón</i>	-a	'We have finished seeing'
HAB	<i>lú-</i>				<i>reí</i>	-á	'We write (regularly)'

it appears in the leftmost position of the TA string, where tense markers are usually slotted (ibid.: 77). However, in Uru *we-* appears between the TAM<sub>1</sub> and TAM<sub>2</sub> positions and seems to denote a kind of predicate focus function as in; *nálê:tfa* 'S/he came' vs *nálewê:tfa* 'S/he also came' (subject additive focus) or 'S/he came again' (event recurrence). This will be further discussed in §3.2.

## 2.4 Rombo-Mkuu

In the current classification, e.g., Maho (2009) based on the classifications of Nurse (1981) and Philippson & Montlahuc (2003), Rombo as a subgroup is further classified into (at least) four varieties, namely Useri, Mashati, Mkuu, and Keni (from North to South). However, its dialectal variation seems more diverse and complicated than this division suggests.

The tense system is basically comparable with that of Uru, i.e., both past and future are bipartite, though there may be more exponents denoting futurity. FUT<sub>1</sub>*fe-* is regarded as having grammaticalised from *fa* 'come', denoting a near future reference (possibly with epistemic modal connotations). The inherited form of *\*-ile* is used as part of past tense marking, while stativeness is marked by its shortened form. Its past tense is indicated by a possibly relevant form of *we-* in Vunjo. The aspectual patterns are similar to Siha, except that (present) habitual is marked by *e-*, which is segmentally identical to FUT<sub>2</sub>*e-*. However, it should be noted that the two markers occupy different slots, as shown in Table 4.

Table 4: List of the core TA markers in Rombo-Mkuu

TA category	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	translation
PST <sub>1</sub>	<i>dú-</i>		<i>le-</i>		<i>lolj</i>	<i>-a</i>	'We saw'
PST <sub>2</sub>	<i>dú-</i>				<i>lol</i>	<i>-ié</i>	'We saw'
FUT <sub>1</sub>	<i>dú-</i>			<i>fe-</i>	<i>rund</i>	<i>-a</i>	'We will work'
FUT <sub>2</sub>	<i>du-</i>		<i>é-</i>		<i>rund</i>	<i>-a</i>	'We will work'
PRS.STAT	<i>dú-</i>				<i>kund</i>	<i>-i</i>	'We want'
PST.STAT	<i>dú-</i>		<i>ve-</i>		<i>kund</i>	<i>-i</i>	'We wanted'
PROG	<i>du-</i>		<i>i-</i>		<i>eleke</i>	<i>-a</i>	'We are heading for'
ANT	<i>dw- á-</i>				<i>lolj</i>	<i>-a</i>	'We have seen'
COMP	<i>dw- á-</i>			<i>me-</i>	<i>lolj</i>	<i>-a</i>	'We have finished seeing'
HAB	<i>dw- é-</i>				<i>kab</i>	<i>-a</i>	'We hit (regularly)'

## 2.5 Mashami (Rugemalira & Phanuel 2012)

As examined in previous sections, it is clear from the data presented in Table 5 that the tense system of Mashami, as expected, clearly follows the WK type. Moreover, the TA system as a whole seems quite similar to that of Rwa.

Table 5: List of the core TA markers in Mashami

TA category	PreI	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	translation
PST <sub>1</sub>	<i>n=</i>	<i>lw- á-</i>				<i>many</i>	<i>-a</i>	'We knew'
PST <sub>2</sub>	<i>n=</i>	<i>lú-</i>		<i>le-</i>		<i>mány</i>	<i>-a</i>	'We knew'
PST <sub>3</sub>	<i>n=</i>	<i>lw- é-</i>				<i>mány</i>	<i>-a</i>	'We knew'
FUT	<i>n=</i>	<i>fí-</i>				<i>kór</i>	<i>-aa</i>	'I will cook'
PRS.STAT	<i>n=</i>	<i>lu-</i>				<i>salal</i>	<i>-ye</i>	'We are standing'
PST.STAT	<i>n=</i>	<i>lu-</i>		<i>é-</i>	<i>ké-</i>	<i>many</i>	<i>-a</i>	'We were understanding'
PROG	<i>n=</i>	<i>lú-</i>			<i>ké-</i>	<i>many</i>	<i>-a</i>	'We are knowing' [sic]
ANT <sup>A</sup> /COMP	<i>n=</i>	<i>lw- á</i>			<i>m-</i>	<i>many</i>	<i>-a</i>	'We have already known'
HAB	<i>n=</i>	<i>fí-</i>				<i>kor</i>	<i>-aa</i>	'I cook'

<sup>A</sup>According to the source, anterior can be marked without *a-*, as in *ku-n≠shani-shi-a≠kya* {SM2sg-ANT-come#FOC-SM1sg-PST1≠be cured} 'Since you have come, I am safe (Sw: Kwa kuwa umekuja, nimepona)'.

However, there are two points to be noted which are not explicitly shown in Table 5. First, TAM<sub>1</sub>*e-* as a past marker of stative verbs also marks the past-

ness of imperfective forms such as habitual: [Mas.] *n=lu-é≠many-aa* {FOC=SM1pl-PST.IMPF≠know-HAB} ‘We used to know’. Second, final *-aa* (<\*-ag-a) can be used not only as a future marker but also to indicate progressive meaning: [Mas.] *ni-a-koy≠aa # i≠kor-aa* {FOC-SM3sg≠find-FUT # INF≠cook-PROG} ‘He will be cooking’.

## 2.6 Kibosho (Kagaya 1989)

Though available data are rather limited, it can be said that Kibosho,<sup>16</sup> a WK language, shows a somewhat unique pattern.<sup>17</sup> First, the tense distinction seems to be a bipartite past and a single future, which is slightly different from the 3:1 pattern in the other WK languages examined in this study. Second, the descendant of \*-ag does not denote futurity as in other WK, but indicates progressive aspect, which is, however, observed in limited contexts in Mashami. While Kagaya (1989: 829) describes future as marked by the vowel lengthening of SM (shown as *V-* in Table 6), this element may well be identified as *i-* in other languages and the same element is attested in progressive forms as well, according to my own data.<sup>18</sup>

Table 6: List of the core TA markers in Kibosho

TA category	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	translation
PST <sub>1</sub>	<i>l-</i>	<i>o-</i> ({a-})			<i>ch</i>	<i>-a</i>	‘We arrived’ (Hodiernal)
PST <sub>2</sub>	<i>lu-</i>		<i>le-</i>		<i>ch</i>	<i>-a</i>	‘We arrived’ (Remote past)
FUT	<i>lú-</i>		<i>V-</i> ({i-})		<i>som</i>	<i>-a</i>	‘We will arrive’
PRS.STAT	<i>lu-</i>				<i>ke</i>	<i>-i</i>	‘We are (at a place)’
PST.STAT	<i>lw-</i>	<i>e-</i>			<i>ke</i>	<i>-i</i>	‘We were (at a place)’
PROG	<i>lú-</i>		<i>V-</i> ({i-})		<i>som</i>	<i>-áa</i>	‘We read/are reading’
HAB	<i>lú-</i>				<i>som</i>	<i>-aá</i>	‘We read (regularly)’

It is also to be noted that this language, too, seems to morphologise past imperfective, which is marked by *e-*: [Kib.] *η=lw-e≠som-aa* ‘We were reading’, where *e-* encodes the past tense of the progressive aspect.

<sup>16</sup>Though Kibosho is normally classified as WK in the linguistic literature, it is regarded as a variety of Vunjo in local narratives, according to Kagaya (2006).

<sup>17</sup>Note however, that there seem to be dialectal patterns which are more complicated than that which is presented here, e.g. *Ø≠(Stem)-ie* is also attested as a remote past form or as a variant of hodiernal past, while future may be denoted by a null-marked form or by *ende-* as GOM. I acknowledge Gérard Philippson for this information.

<sup>18</sup>The examples of FUT, PROG, and HAB in Table 6 were confirmed through elicitation with a native speaker in his 30s in my field research carried out in August 2018.

## 2.7 Vunjo (Nurse 2003b)

Vunjo exhibits a typical CK-Rombo pattern of a tense system with a bipartite distinction both in past and future. The exponent of  $\text{FUT}_1$  is *ci-*, which is shared with Uru. Though it is not shown in Table 7, there is a form which is realised in the past tense of some imperfective forms, which is *we-* as mentioned in §2.3: [Vun.] *lu-we-i≠kap-a* {SM1pl-P.I.-PROG≠hit-F} ‘We were hitting’. As observed above, *we-* in this example may well be regarded as a form functionally equivalent to *ve-* in Rombo and *i-* in Rwa, which denotes a certain range of past imperfective. As for aspectual categories, it should be noted that progressive *i-* is shared with Rombo, while habitual is marked by *ke-*, which is identical to the progressive marker in Uru.

Table 7: List of the core TA markers in Vunjo

TA CATEGORY	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	translation
PST <sub>1</sub>	<i>l-</i>	<i>o-</i>			<i>kap</i>	<i>-a</i>	‘We hit’
PST <sub>2</sub>	<i>lu-</i>		<i>le-</i>		<i>kap</i>	<i>-a</i>	‘We hit’
FUT <sub>1</sub>	<i>lw-</i>	<i>(e-)</i>		<i>ci-</i>	<i>kap</i>	<i>-a</i>	‘We will hit’
FUT <sub>2</sub>	<i>lw-</i>	<i>e-</i>			<i>kap</i>	<i>-a</i>	‘We will hit’
PROG	<i>lw-</i>		<i>i-</i>		<i>kap</i>	<i>-a</i>	‘We are hitting’
ANT	<i>lu-</i>				<i>kap</i>	<i>-ie</i>	‘We have hit’
COMP?	<i>l-</i>	<i>o-</i>		<i>m-</i>	<i>kap</i>	<i>-a</i>	‘We have/had already hit’
HAB	<i>lu-</i>			<i>ke-</i>	<i>kap</i>	<i>-a</i>	‘We hit regularly’

## 2.8 Gweno (Philippson & Nurse 2000)

According to Philippson & Nurse (2000), the community of Gweno speakers has long lived in Northern Pare, remote from Kilimanjaro, which may have caused the language to retain some archaic features and to develop differently from other languages of the three main subgroups.

The configuration of the Gweno tense system (Table 8) seems identical to the CK-Rombo type, where both pasts are morphologised by the *\*-ile* form. The TA forms which are more or less relatable to common forms in other KB languages include *le-* and less reliably *nde-* and *tfe-*. Progressive is not marked by a specific morpheme but is expressed as a “focused form of general present”. Though habitual *tfi-* appears to be identical to  $\text{FUT}_1$  in Vunjo, it is pointed out in Philippson and Nurse (ibid.: 255) that it is a shortened form of the verb *tfiβia* ‘be accustomed to’.

Table 8: List of the core TA markers in Gweno

TA category	Pre-Ini	SM	TAM <sub>0</sub>	TAM <sub>1</sub>	TAM <sub>2</sub>	stem	F	translation
PST <sub>1</sub> /ANT		<i>fu-</i>				<i>βúk</i>	<i>-íe</i>	‘We left’
PST <sub>2</sub>		<i>ni-</i>		<i>lé-</i>		<i>yend</i>	<i>-ie</i>	‘I went’
FUT <sub>1</sub>		<i>fw-</i>	<i>a-</i>	<i>ye-</i>		<i>fiy</i>	<i>-a</i>	‘We will look for’
FUT <sub>2</sub>		<i>fw-</i>	<i>a-</i>	<i>tfe-</i>		<i>yu</i>	<i>-a</i>	‘We will buy’
PROG <sup>A</sup>	<i>m=</i>	<i>fw-</i>	<i>â</i>			<i>yu</i>	<i>-a</i>	‘We are buying’
ANT/COMP		<i>í</i>		<i>nde-</i>	<i>(mi-)</i>	<i>pfw</i>	<i>-á</i>	‘It has died’
HAB		<i>ni</i>			<i>tfi</i>	<i>yend</i>	<i>-a</i>	‘I go’

<sup>A</sup>Progressive aspect seems to be expressed in several different ways in Gweno. According to Philippon & Nurse (2000: 253), in addition to the form cited in Table 8, there is another progressive marker, *ky-a-*, whose lexical origin is not explicitly stated in the source.

### 3 Semantic correspondence of each TAM

Based on the above observations, the distribution of all the common TA markers in the eight sample languages examined in this study are summarised in Table 9.

The following sections provide brief notes on the variation of TA categories that each TAM covers in the different languages.

#### 3.1 Inherent markers: TAM<sub>0</sub> and TAM<sub>1</sub>

##### 3.1.1 *a-*

This prefix is attested in all the languages examined. While its conceptual coverage in each language varies from past through anterior and even to future, the geographical distribution of each type appears to overlap with the boundaries of the subgroups, i.e., it is used as past in WK (N.B. two tonally distinctive markers in Rwa), anterior in CK and Rombo, and “general present-future” (including progressive when the verb is in Focus) in Gweno.<sup>19</sup>

##### 3.1.2 *e-*

The data suggest that two distinct TA categories can be encoded by the prefix *e-*. One is past imperfective, as a frequently morphologised category across KB, as

<sup>19</sup>For this apparently uncommon grammaticalisation process, see Nurse (2003b: 74–75).

Table 9: Comparative list of TAMs in eight sample languages of KB

	WK				CK		Rombo	Gwe.
	Rwa	Sih.	Mas.	Kib.	Vun.	Uru	Mkuu	
$a_1$ -	PST.N							
$a_2$ -	PST.R	PST.R	PST.N	PST.N	PST.N	ANT	ANT	PRS /FUT /CONT
$e_1$ -		P.I.	PST.R/ P.I.	P.I.		PST.R/ P.I.		
$e_2$ -					FUT.R	FUT	FUT/ HAB	
V-				FUT				
$le$ -	PST.M	PST.N/ M	PST.M	PST.R	PST.R	PST.N	PST.N	PST.R
$li$ -	P.I.	CONT			CONT	FUT.N	CONT	
$we$ -, $ve$ -					P.I.?	FOC	P.I	PST.M?
$ci$ -					FUT.N	FUT.R		
$ke$ -	CONT		CONT		HAB	CONT		CONT <sup>a</sup>
( $ker$ - $i$ -)					CONT	CONT		
$fe$ -	CERT↓				CERT↑		FUT	FUT.R
$nde$ -	CERT↑				CERT↓			
$\eta$ -, $mi$ -	ANT	ANT	ANT/ COMP		COMP	COMP	COMP	ANT
$maa$ -	COMP	COMP <sup>b</sup>	COMP					
$-ile$	STAT	STAT	STAT	STAT	ANT/ STAT	PST.ST	PST.R	PST
$-i$		STAT		STAT		STAT	STAT	
$-ag$	FUT/ HAB	FUT/ HAB	FUT/ HAB	CONT/ HAB		HAB		
=V	P.I.	PST.R?						

<sup>a</sup>Used as an auxiliary verb.<sup>b</sup>Used as an auxiliary verb.

attested in Uru (as past tense of stative, progressive, and anterior) and in Kibosho (as past tense of progressive): [Uru] *lw-é-ṁ≠rei-a* {SM1pl-P.I.-ANT≠write-F} ‘We had written’, [Kib.] *ṁ=lw-e-som-aa* {FOC=SM1pl-P.I.≠read-PROG} ‘We were reading’. The other is a series of markers denoting the future-habitual references as in Vunjo (remote future), Uru (future [with conditional]), and Rombo (remote future): [Uru] *kafiká fimbó, n=á-e≠wón-a ṁmeéku* {FOC=SM3sg-FUT.COND≠see-F} ‘If s/he arrives in Shimbwe (a name of a village), s/he will meet an old man’.

What is significant here is that in Uru and Rombo-Mkuu, the segmentally identical exponent appears in different TAM slots for marking different TA concepts, e.g., [Mkuu] *dw-é≠kab-a* ‘We hit (regularly)’ vs. *du-é≠rund-a* ‘We will work’. This may suggest that while the two TA categories are regarded as close to each other, they are still systematically differentiated, and that the multiple TAM slots are used in order to morphologise the semantic difference of the TA categories.

### 3.1.3 *le-*

This marker is attested in all the languages examined except Rwa and consistently denotes past tense throughout KB. It should be noted that in Siha, *le-* is also realised as *e-* especially when preceded by a SM with the syllable structure /Ci/ or /Cu/: [Sih.] *ti-le≠káv-á ~ te-e≠káv-á* ‘We hit (near past)’.

### 3.1.4 *li-*

*li-*, or its weakened form *i-*, is also a common TAM attested across KB and its typical function is progressive, as seen in Siha, Vunjo (cf. labelled as ‘present-used-as-future’ in Nurse 2003b), and Rombo-Mkuu. Uru also uses this prefix to encode a future reference more clearly. However, as mentioned in §2.1, *i-* in Rwa covers the past reference of imperfective aspects including progressive, anterior, habitual, stative, and even copula constructions.

### 3.1.5 *we-*

The forms originating from \**wa* ‘be, become’ are attested in CK and Rombo, and they are realised in past tense forms of various imperfective aspects such as anterior and progressive in Vunjo (*we-*), and the past of stative verbs in Rombo (*ve-*). In contrast, *we-* in Uru clearly shows a different direction of its grammaticalisation process, i.e., it appears to have developed as a marker of predicate focus. The interpretation that *we-* in Uru marks predicate focus can be justified by the fact that it is not allowed to appear in the ‘out-of-focus’ positions such as before a clause-final negation particle (as mentioned in §2.3) or in relative clauses, where

the preverbal clitic *ni=*, which denotes “main clause-ness” in the language, is also avoided, as in [Uru] *a-le-tf-a=se* ‘The one who came again’ vs. *\*a-le-we-tf-a* (for further discussion of *pi=*, see Shinagawa forthcoming(a)).<sup>20</sup>

### 3.2 Recently grammaticalised markers: TAM<sub>2</sub>

#### 3.2.1 *\*ci*

This marker is observed only in CK and scarcely found elsewhere. Its function is consistently future marking and it can be regarded as having grammaticalised from the verb *\*ci* ‘know’ (Nurse 2003b: 76), suggesting that it can be viewed as a rather recent innovation in the CK area. An apparent homophonic form (*tʃi-*) is also attested in Uru and Gweno, denoting habitual in both languages. However, as Philippson & Nurse (2000: 255) clarify, *tʃi-* should be regarded as a shortened form of a verb stem *tʃiβia* ‘be accustomed to’, since in Uru, too, speakers replace habitual *tʃi-* with a periphrastic structure involving *tʃiβia*.

#### 3.2.2 *\*kad*

TAMs grammaticalised from *\*kad* ‘sit, stay’ are broadly attested in WK (Rwa, Mashami), in CK (Vunjo, Uru) and in Rombo. Though the semantic category it denotes can be basically recognised as progressive aspect, it is also used as a habitual marker, as attested in Vunjo. If we follow the general tendency of the direction of grammaticalisation paths involving both concepts, it can be presumed that habitual is further grammaticalised from progressive (cf. Heine & Kuteva 2002: 93, Haspelmath 1998: 48). This grammaticalisation path from progressive to habitual (then to future) will be discussed again in §4.1.2.

#### 3.2.3 *\*mad*

TAMs originating from *\*mad* ‘finish’ stably denote anterior meanings (then to completive in some WK languages) and distributed throughout KB.<sup>21</sup> Two distinctive forms *maa-* vs. *m-* have developed in some WK languages, where the former is obviously a later innovation than the latter and seems to be in complementary distribution with anterior (to past) use of *\*-ile*.

<sup>20</sup>See Hyman & Watters (1984) for various examples of structural co-occurrence restrictions on (inherent) focused forms in Bantu. For a cross-Bantu discussion of the developmental process of progressive into focus, see Güldemann (2003) and Gibson (2019).

<sup>21</sup>*me-* in Rombo can be regarded as a relic of an anterior form of *\*mad* (*\*mad-jde > me*), which is also attested in Old Moshi (Gérard Philippson, p.c.).



### 3.3 Suffixes

#### 3.3.1 \*-ag

As previously pointed out by Philippon & Montlahuc (2003), the reflexes of \*-ag are distributed only in WK. In the data, it is attested (as -aa with various tonal realization) in Kibosho, Siha, Mashami, and Rwa, i.e., exactly covering the WK area. As Shinagawa (2015) suggests, the absence of \*-ag in non-WK languages may at least partly be explained by the lack (or weakness) of vowel length contrast in those languages. In this sense, it may be possible to regard the present habitual form of Uru, which has no segmentally overt TAM and is only marked by a high tone on the final vowel,<sup>22</sup> as a shortened form of a relic of \*-ag-a. Though its semantic coverage is essentially habitual and future as described in the literature, it is worth mentioning that -aa in Kibosho denotes progressive aspect. The historical process of the semantic split of this marker will be further discussed in §4.1.2.

#### 3.3.2 \*-ile

Reflexes of \*-ile, mostly realised as -ie, as well as its historical allomorphic form -i, are widespread throughout KB. While -ie denotes anteriority or past tense in CK,<sup>23</sup> Rombo, and Gweno, it encodes stativity in WK. For example, in Rwa, this element derives stative verb stems that are paradigmatically differentiated from default (-a ending) verb stems in that they follow different past-marking paradigms. In the following examples, the past tense is marked by the combination of TAM *i-* and a lengthened final vowel just as in existential predicates (see §2.1): [Rwa] *tí-Ø≠tisir-ié* {SM1pl-PRS≠write-STAT} ‘We have written (resultant state)’ vs. *tí-í≠tisir-ié=e* ‘We had written (resultant state)’. Parallel morphosyntactic behaviour is observed in stative -i in Rombo-Mkuu, where the past imperfective *ve-* denotes the past tense of stative verbs: [Mkuu] *du-Ø≠kund-i* ‘We love’ vs. *dú-ve≠kund-i* ‘We loved’.

<sup>22</sup>Of course, the form can be simply seen as a so-called “null form” which is unmarked for tense and aspect, thus denoting the general present or a generic situation (cf. Nurse 2008: 117–118). More investigation on this issue is needed.

<sup>23</sup>in Vunjo seems to exhibit an intermediate situation, i.e., Nurse (2003b) describes its function as anterior (presupposing that inchoative verb stems such as *won* ‘see,’ *lal* ‘lie, sleep’ etc. express a stative meaning when attached to the anterior marker), while Moshi (1994) rather consistently insists that, though it is greatly influenced by the lexical meanings of the verb, the core semantics of -ie forms can be regarded as stativity.

### 3.3.3 Vowel copy suffix

In some western WKs, there is a Postfinal clitic which is a copy of the Final (realised as a lengthened vowel), denoting the past tense of specific aspect forms. As stated in §2.1 and §3.3.2 the past tense of stative predicates is expressed by a combination of past imperfective *i-* and this vowel copy (VC) suffix in Rwa. Moreover, Siha apparently expands its use into default verb forms to encode remoteness of past tense (cf. the formal distinction between PST<sub>1</sub> vs. PST<sub>2</sub> in Table 2).

## 4 Grammaticalisation chains and a microparametric approach to regionally shared features

### 4.1 Grammaticalisation chains

As presented in the previous sections, there are several TAMs which are shared by different languages in the same subgroup or even across sub-group boundaries. TA categories encoded by such TAMs can be either shared throughout languages (e.g., *maa-* in WK is consistently used as a completive marker) or gradually shift from language to language. In the latter case, a gradual and systematic shift of the semantic coverage of common TAMs may clarify the grammaticalisation process of each TAM and shed light on the historical development of TA systems in KB. Figure 2 is a simplified illustration of this type of correspondence, found between Vunjo and Rwa.

The corresponding relation shown in Figure 2 clearly demonstrates that habitual and progressive are interconnected by a shared TAM grammaticalised from *\*kad* ‘sit, stay’ and, in parallel with the connection, the progressive *i-* of Vunjo in turn corresponds to the past imperfective in Rwa. Similarly, the common TAM *ṁ-* denotes completive in Vunjo and anterior in Rwa, while anterior *-ie* in Vunjo encodes stative in Rwa, and so on. The following sections will focus on two clusters of TA categories, in which such corresponding connections across languages are clearly observed. Note, however, that the following discussion will focus only on the interrelation between the three main subgroups, due to the limited materials on Gweno itself and its historical linguistic relations with other KB languages.

#### 4.1.1 PST-ANT-STAT continuum

As shown in Table 10, a semantic area ranging over past, anterior, and stative forms a cluster of TA categories interconnected by common TAMs such as *a-*, *le-*, *e-*, *-ie*, and various markers originating from *\*mad* ‘finish’. If we regard the

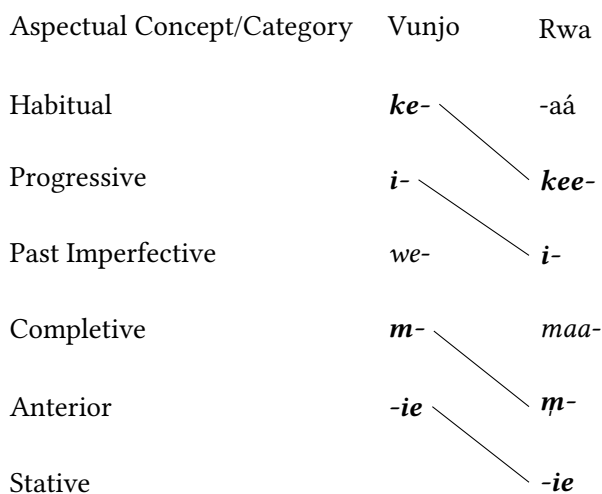


Figure 2: Schematised interrelation of TAMs between Vunjo and Rwa

prototypical semantic area of *\*-ie* as anterior, the following process can be suggested.

In WK, probably motivated by the connotation of resultant state that likely emerged from the concept of anterior (cf. Nurse 2003a: 96), the semantic area of *-ie* shifted to stative; and successively *ḡ-*, most probably grammaticalised as completive, was pulled to anterior. The apparently redundant innovation of *maa-* may be explained by the empty gap made after the movement of *ḡ-*. In contrast, *-ie* in Rombo-Mkuu moved in the other direction to past, which seems to be a more usual semantic shift of *\*-ile*, while *a-* occupies the semantic area of anterior.

The TAM *a-* in Vunjo and WK, on the other hand, plays the role of past-marking as in many other Bantu languages (cf. Nurse 2008: 82). With the exception of Siha, where *a-* (with a high tone) denotes the remotest past, the relative order of temporal distance denoted by these TAMs seems stable throughout different TA systems, i.e., *a-* occupies the temporal space closest to the present (or time of utterance), followed by *le-*, and *e-* occupies the furthest.<sup>24</sup>

#### 4.1.2 PROG-FUT-HAB continuum

The other TA cluster connected by common TAMs ranges over the progressive, future, and habitual areas. To clarify this interrelation, it would be necessary

<sup>24</sup>The order of temporal distance between *a-* and *le-* has already been proposed by Nurse (2003b: 74).

Table 10: Formal correspondence of TAMs denoting PST-ANT-STAT continuum

	WK				CK		Rombo
	Rwa	Mas	Sih.	Kib.	Vun.	Uru	Mkuu
PST.R	<i>a-</i>	<i>e-</i>	<i>a-</i>	<i>le-</i>	<i>le-</i>	<i>e-</i>	<i>-ie</i>
PST.M	<i>nde-</i>	<i>le-</i>	<i>le- (=V)</i>				
PST.N	<i>a-</i>	<i>a-</i>	<i>le-</i>	<i>a-</i>	<i>a-</i>	<i>le-</i>	<i>le-</i>
STAT	<i>-ie</i>	<i>-ie</i>	<i>-ie</i>	<i>-ie</i>	<i>-ie</i>	<i>-ie</i>	<i>-i</i>
ANT	<i>ṁ-</i>	<i>m-</i>	<i>m(e)-</i>			<i>a-</i>	<i>a-</i>
COMP	<i>ṁ-maa-</i>	<i>ṁ-maa</i>	<i>ṁ-maa</i>		<i>m-</i>	<i>a-ṁ-</i>	<i>a-me-</i>

to identify the original semantic area of *\*-ag-a* in the TA system at the Proto-KB stage. Though it is widely assumed that its prototypical meaning throughout Bantu may be a broad range of imperfective, with habituality or iterativity as core concepts (cf. Meeussen 1967: 110, Nurse 2008: 262–263), the data examined here suggest that while *-aa* denotes habitual and future in Rwa, Siha, and Mashami, it is also used as a progressive marker in Kibosho. Moreover, its progressive use is also, though limitedly, attested in Mashami, where habitual and future usages are also attested, i.e., the Mashami system can be regarded as an intermediate stage of the semantic shift of *-ag*. If this is the case, then it is reasonable to posit that the direction of semantic change may have started from progressive to habitual or future and not vice versa, as suggested by a widely attested tendency of the grammaticalisation path developed from present progressive to habitual or future (cf. Bybee et al. 1994: 158). Along the same lines, Haspelmath (1998) also explains how an old present form (*\*-ag* in this case) changes into a new future as a side effect of the emergence of a new present (*ke(e)-* as an apparently recent innovation of grammaticalisation) in a wide variety of languages. If we follow these assumptions, the distribution summarised in Table 11 would suggest the following process.

In Rwa and Mashami, *\*-ag-a* shifted and split into future and habitual due to the innovation of a novel progressive marker originating from *\*kad*.<sup>25</sup> In Siha, the same process was initiated by the progressive *li-*, which plays the same role in Vunjo, where *ke-* shifted to habitual aspect. As suggested in §2.3 and §3.3.1, *-á* of habitual in Uru might be regarded as a relic of *\*-ag-a*, which has completely

<sup>25</sup>For more detail on the semantic change of *\*-ag* in Rwa, see Shinagawa (2009).

vanished in non-WK areas probably due to the lack or weakness of vowel length contrast. Though the process is still uncertain, it is worth mentioning that in Rwa a reflex of *\*li*, which is used as a progressive marker in most languages, denotes past imperfective, which is encoded by *we-* in Vunjo and Rombo-Mkuu and by *e-* in other languages.

Table 11: Formal correspondence of TAMs denoting PROG-FUT-HAB continuum

	WK				CK		Rombo
	Rw.	Ms.	Sh.	Kb.	Vn.	Ur.	Mkuu
FUT2							
FUT1	-áa	-áa	-áa	(SM-)V-	<i>e-</i>	<i>ci-</i>	<i>e<sub>1</sub>-</i>
HAB	-aá	-aa	-aa	-áa	<i>ke-</i>	-á	<i>e<sub>0</sub>-</i>
PROG	<i>kée-</i>	<i>ke-</i>	<i>li-</i>	-aá	<i>i-</i>	<i>ke-</i>	<i>i-</i>
P.I.	<i>i-</i>	<i>e-</i>	<i>e-</i>	<i>e-</i>	<i>we-</i>	<i>e<sub>0</sub>-</i>	<i>ve-</i>

## 4.2 Microparametric approach to regional features

This section briefly presents a provisional sketch of micro-typological correlations between morphosyntactic parameters related to TA systems. As observed in §2, tense-marking systems in KB can be divided into two types, i.e., one is the WK type with a tripartite past and a single future, and the other is the non-WK type with a bipartite system for both past and future. If we focus on the future marking, the former can be classified as the mono-future type, while the latter as the pluri-future type. This distinction largely overlaps with the distribution of *\*-ag-a*, i.e., the languages classified as the mono-future type are those with *\*-ag*, while the others lack this element.

The first point of note is that this structural difference itself may suggest a typological correlation, i.e., if a language is the pluri-future type, then the language is likely to denote future time reference with pre-stem TAMs, while if a language is the mono-future type, then future tense is likely to be marked in the Final slot. This provisional correlation may be justified by the difference of “openness” of the morphological slots, i.e., pre-stem slots are relatively open for newly grammaticalised elements, while the Final slot is a rather closed slot for a limited number of inflectional elements.

The second point involves the relationship with the degree of grammaticalisation of the markers COM and GOM. As presented in §2.1, these markers are essen-

tially used to denote modality in Rwa and the situation seems similar in Vunjo (Nurse 2003b).<sup>26</sup> However, in pluri-future type languages, COM is more like a future tense marker (e.g., Rombo-Mkuu is a typical case, see §2.4), while GOM is asymmetrically less grammaticalised, e.g., as shown in §2.1. On the other hand, GOM is used even with past tense forms in Rwa, while its cooccurrence with a past marker is not grammatically acceptable in Rombo-Mkuu. While this may suggest a correlation between types of future tense categorisation and grammaticalisation types of ‘come’ and ‘go’ verbs, it should be noted that languages without a fully developed GOM also tend to have a fully developed focus-marking system with *ní-* (cf. Shinagawa 2015, forthcoming(a)).

## 5 Concluding remarks

This study has presented an overview of the distribution of common TAMs in KB and their semantic correspondences across the languages of this group, some of which have scarcely been examined in previous studies. Based on the systematic correspondences revealed by the data, it was shown that there are two clusters of TA categories, namely past-anterior-stative and progressive-future-habitual. These categories are interconnected across the boundaries of languages or subgroups through grammaticalisation chains of common TAMs. The findings have also suggested that some regionally shared features may also be regarded as reflecting micro-typological correlations, i.e., a typological distinction between a mono-future (WK) type and a pluri-future (non-WK) type may be correlated with different components of the TA-marking system such as grammaticalization types of COM and GOM and/or the existence of *ní-* as a focus-marking strategy in a broad sense.

However, there are various issues to be investigated further. First, comprehensive descriptions of the TA systems of under-described languages are needed to fill the gaps with reliable data. Second, the scope of description should also be expanded to cover the entire range of TA expressions including compound tenses, TA in dependent clauses, negative clauses. Finally, it would be valuable to explore the whole range of morphosyntactic microvariation of each language in order to investigate the possible micro-parametric correlations between TA systems and other logically independent properties of grammar, which may shed light on shared principles of KB grammar underlying the group’s internal linguistic diversity.

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<sup>26</sup>However, their meaning seems discrepant between WK and Vunjo, i.e., GOM denotes strong certainty in WK, while it denotes relatively weak certainty in Vunjo compared to COM (cf. Shinagawa forthcoming(b)).

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## Abbreviations

1, 2, 3 ...	Class numbers
1sg/pl ...	Person + Singular/Plural
ANT ...	Anterior
(↑/↓) CERT ...	(high/low) Certainty
COM	grammaticalised marker from 'come'
COMP	Completive
PROG	Progressive
EXT	Existential
FOC	Focus marker
FUT <sub>(1~2)</sub>	Future (near ~ remote)
G	Glide
GOM	grammaticalised marker from 'go'
H	High tone
HAB	Habitual
NEG <sub>2</sub>	Secondary Negative
P.I	Past Imperfective (Past tense for Imperfective aspect forms)
PRS	Present
PST <sub>(1~3)</sub>	Past (near ~ remote)
SM	Subject Marker
STAT	Stative
TAM	Tense and Aspect marker
v	Vowel (including a copied vowel of a preceding element)
VC	Vowel Copy (clitic)
VLC	Vowel Length Contrast
-	Affix boundary
=	Clitic boundary

≠	Verb stem boundary
#	Word boundary
Tonal annotation (broad phonetic):	
[á]	high
[ <sup>ˈ</sup> á]	upstepped high (descriptive expression of [á]: super high)
[ <sub>ˈ</sub> á]	downstepped high
[ā]	middle
[â]	falling
[ǎ]	rising

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