

BE Auxiliary Verb Constructions in Kihehe

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Abstract

Kihehe (G62) has a rich inventory of auxiliary constructions (> 120) grounded in different forms of BE: copula *-li* and *-va* ‘be’. This paper addresses those constructions in which the auxiliary is marked for one of three pasts – hodiernal, pre-hodiernal, or remote – or one of two futures – near and remote – comparing the differences in use and distribution. The study investigates both single and double auxiliary constructions in which the main verb is in the simple perfective form: SM-B(ase)-*iC-e*. I describe two evolutionary paths of auxiliary forms derived from these recent and remote past forms of BE: SM-*ká-li* > SM-*ké* > *ké=* and SM-*áá-li* > SM-*eé*, all of which continue in use, although having different senses at different times. The 18 past constructions all have an English translation of ‘had VERBED’, the four future constructions a translation of ‘will have VERBED’. In addition, there are three double auxiliary constructions with *-ké/ké=* or *-eé* plus the future of *-va* that induce a modal interpretation, ‘would have VERBED’. The study analyses the differences noted above in the Domains and Regions framework (Botne 2025), elucidating the differences between these constructions in tense/tenor and the referential/indexical roles of the auxiliary verbs.

Keywords: grammaticalization, single versus double auxiliaries, modal use of auxiliary, referential index, Domains and Regions framework

DOI: 10.53228/2wsgwa11



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1 Introduction

Auxiliary verb constructions (AVCs) comprise one or more auxiliary components – verbal elements typically having their origins in lexical verbs and expressing some functional semantic category – “operating on a lexical predicate verb” and situated on a “diachronic form-function continuum standing between a fully lexical verb and a bound grammatical suffix” (Anderson 2011; Bernander et al. 2022 following Heine 1993; Anderson 2006). Eastern Bantu languages, and likely many other Bantu languages as well, often employ variants of the verb BE in functional roles as auxiliary verbs. Anderson (2011, 62) asserts that “a common function of ‘be’ as an auxiliary verb (...) is as a dummy stem that serves as an anchor for expressing obligatorily encoded formally realized grammatical categories.” However, as I proposed in Botne (1986) and will reiterate here, as auxiliary elements, BE verbs in Bantu are not simply ‘dummy’ verbs, but exhibit both referential and indexical functions, referring to a temporal locus of orientation – point or time span – and indexing a second (and even third) reference time as this locus. In this study, I describe and analyse a number of such constructions in Kihehe.

Kihehe (autonym *Ikíhehe*; Guthrie code G62, ISO 639-3 code *heh*) is a Bantu language spoken in south-central Tanzania, primarily in the Iringa region. The variety investigated here is centred around Kitelewasi village, southeast of Iringa. Data were obtained from conversations recorded between the primary language consultant and seven individuals from the Kitelewasi and Iringa areas, a folk tale, the Kihehe translation of the Bible (Matthew, Mark, and the Book of Exodus), and elicitation from the primary consultant.

Kihehe has an extraordinarily rich inventory of auxiliary constructions – numbering over 120 – many grounded in different forms of BE: copula *-li* or *-va* ‘be(come)’. This paper focuses on a relatively small number of those constructions, primarily those in which the auxiliary is marked for a past: hodiernal, recent, or remote past time – comparing the differences in use of the two BE types, each construction of which can be loosely translated as ‘had Ved’ – as well as several future perfective constructions. The study examines both single and double auxiliary constructions in which the main lexical verb is in the simple perfective form: SM-B-*iC-e*, *-iC-e*, representing abstractly a variety of perfective endings: *-il-e*, *-it-e*, *-i-e*, and imbricated *-iC-e* (Botne in prep).¹ In so doing, I describe two developmental paths of auxiliary forms derived from the recent and remote past forms of BE: SM-*ká-li* > SM-*ké* > *ké=* and SM-*aá-li* > SM-*eé*, all of which continue to exist in use, although in some cases differing in sense. Also addressed are several constructions in which the same auxiliary verbs occur coupled with a second auxiliary verb in a non-perfective form.

The remainder of the paper is laid out as follows:

- 2 Background basics
- 3 Contraction of basic pluperfect(ive) forms
- 4 Developmental path I: SM-*ká-li* > SM-*ké* > *ké=*
- 5 Developmental path II: SM-*aá-li* > SM-*eé*
RECAP
- 6 Auxiliary *-va*
RECAP
- 7 Auxiliary SM-T-*li* vs. SM-T-*v-e*

¹ Imbrication refers to a common process in Bantu languages in which the perfective marker *-iC* is interleaved with the ending of the verb stem, the *C*-slot being filled by the final consonant of said stem (cf. Bastin 1983). For example, the perfective form of *-lovan-a* ‘become soaked’ is *-loviin-e* (< *-lova-in-e*), with the vowel [a] being deleted preceding the compensatorily lengthened [i], and with [n] filling the *C*-slot.

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- 8 Auxiliary with complement auxiliary clause (1a): [SM-*ké* [SM-T-*v-e* SM-^HB-*iC-e*]]
 9 Auxiliary with complement auxiliary clause (1b): [SM-*ké* [SM-*v-é* SM-^HB-*iC-e*]]
 10 Auxiliary with complement auxiliary clause (2): [SM-*aa-li* [SM-T-*v-e* SM-^HB-*iC-e*]]
 11 Auxiliary with complement auxiliary clause (3): [SM-*eé* [SM-T-*v-e* SM-^HB-*iC-e*]]
 12 Auxiliary with complement auxiliary clause (4): [SM-*eé* [SM-*aa-li* SM-^HB-*iC-e*]]
 RECAP
 13 Future auxiliaries: (*sá=*)SM-*v-á* SM-T-B-*iC-e*
 14 Auxiliary with complement auxiliary clause (5): (SM-)*ké* [SM-*v-á* SM-^HB-*iC-e*]
 RECAP
 15 Summary and conclusion

2 Background basics

Kihehe has six basic temporal constructions: three pasts, two futures, and one aspectual-like relative present (Figure 1). The latter can express a current present event or one that denotes a relevant reference time, a shifted *origo*. These temporal constructions are analysed here in the Domains and Regions (DaR) framework (see Botne and Kershner 2008; Botne 2012, 2023, 2025 for more detailed discussion), which is founded upon two complementary perspectives on the timeline. In the first perspective, imagine the timeline as a sequence of “mentally projected” cognitive worlds, labelled domains, one P(rietary) domain (including UT) and two D(issociated) domains, Preterite and Futurum. These are the realm of tense marking – remote past and remote future. In the second perspective on the timeline, the prevailing P-domain, tenor relations situate events in one of several regions: two past regions P1 and P2, one (or potentially two) tangible future regions F1 (and F2), as well as an immediate time region at utterance time. The two pasts (typically) designate Hodiernal and pre-Hodiernal regions, i.e. Proximal (PrxTR) and Distal (DisTR) time regions, respectively.

The DaR framework posits a constrained schema of the organization and limits of temporal relations in tense/tenor systems. In particular, it entails the following: if there are three distinct past forms, two will mark regions in the P-domain, one (the most remote) in the D-domain. Thus, in Kihehe, Ø- marks the PrxTR, *káa-* the DisTR in the P-domain, *aa-* the D-domain (Figure 1). More generally, a single past form in a language will typically mark the preterite D-domain, as with Kiswahili *li-*, while two forms will refer either to the two regions in the P-domain or to a region in the P-domain and to the D-domain, the analysis depending on morphological form and/or use (Botne and Kershner 2008, Botne 2012, 2023, 2025). As an example, Sibhende (F.12) has two past forms SM-*a-Ø-B-a* and SM-*a-ká-B-a* referring to the proximal (PrxTR) and distal (DisTR) time regions in the P-domain. On the other hand, Ekoti (P.30) also has two past forms, SM-*a-B-a* and SM-*aa-B-iyé*. However, in this case they refer to the P-domain and D-domain, respectively (Botne and Kershner 2008, based on Schadeberg and Mucanheia 2000). One piece of evidence for this distinction comes from the expression of the past of the proposition PORTUGUESE BUILD FORTRESS. If the Portuguese are the salient agents, the remote past is employed; when the fortress is the salient entity, as in the passive, the recent past form is employed, expressing its current extant status.²

The placement of simple Kihehe verb forms in Figure 1 indicates where, temporally, an event is predicated to occur.

²I wish to thank Thilo Schadeberg for pointing out this interesting and significant fact about Ekoti, following an incident in which a speaker used both in speaking with him.

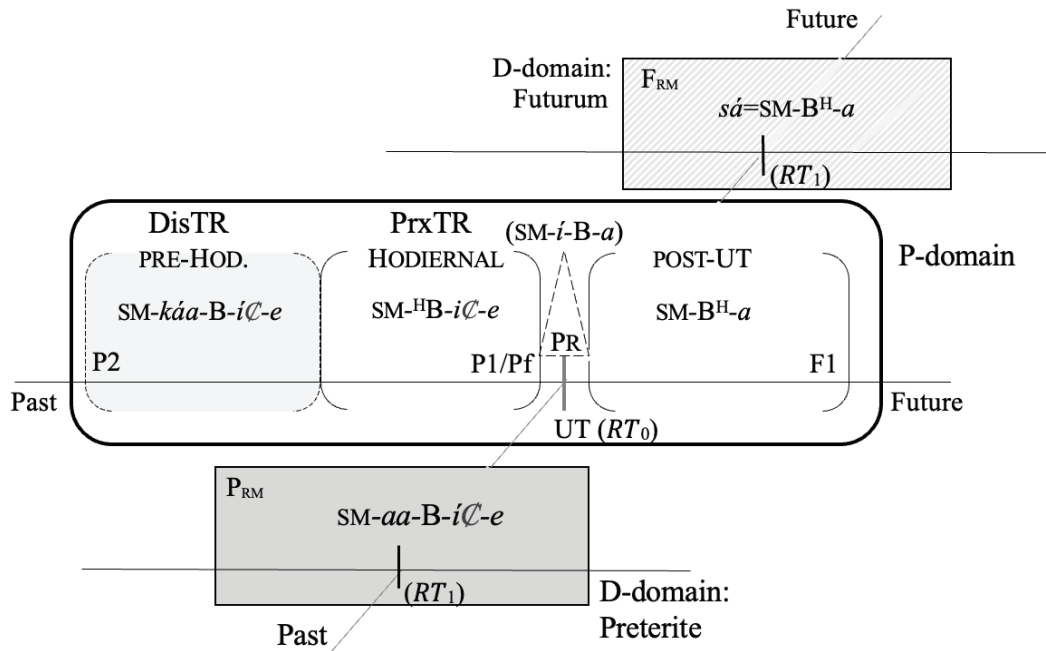


Figure 1: Basic Kihehe tenses and tenors in the Domains and Regions (DaR) framework

In Kihehe, conjugated forms of the verb *-va* ‘be(come)’ fully fill out this framework (Figure 2). That is, *-va* behaves like any other lexical verb in its temporal marking potential. Copula *-li*, on the other hand, is deficient; it does not occur with either of the future markings or the recent pre-Hodiernal past (Figure 3). This asymmetry between the two verbs is significant for the analysis of their use as auxiliaries.

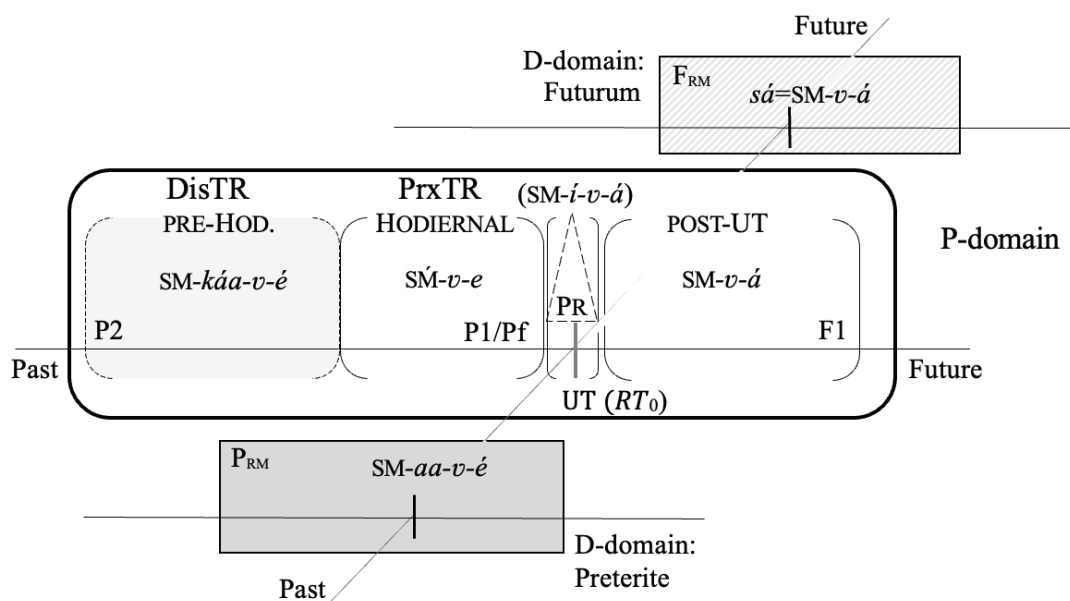


Figure 2: The verb *-va* ‘be(come)’ in the Domains and Regions framework

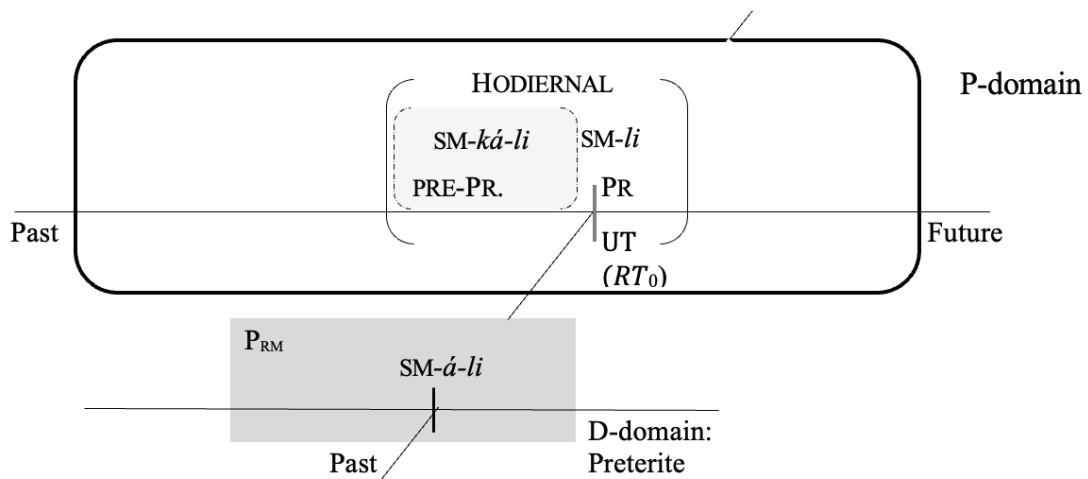


Figure 3: Copula *-li*

Crucial to understanding the differences in distribution is the marker *káa-* with *-va* but *ká-* with *-li*, which are best analysed as two forms of the same morpheme *ká(a)-*. Notice first that *ká-* has a short vowel before *-li*. Second, it superficially appears to have a different meaning: pre-hodiernal past with *-v-é*, hodiernal with *-li*. Upon closer inspection, however, we see that there is an analogous relationship between the unmarked forms of each verb and the two *ká(a)-* forms. That is, *SM-li* has the same relationship to *SM-ká-li* as *SM-v-e* has to *SM-káa-v-é*; the *ká(a)-* forms mark that region that immediately precedes the present *origo* – the deictic pivot of an utterance (UT), typically construed as utterance time, indexed as *R(eference) T(ime)₀* – which is understood to be earlier today preceding UT in the case of *ká-*, but before today (pre-hodiernal) preceding the *origo* ‘today’ in the case of *káa-* (Figure 4).

Significantly, one cannot say either **tu-káa-li* or **ki-ká-v-é* (1). We can conclude, consequently, that the two markers are variants of the same morpheme. More generally, we can consider *-li* to situate an event earlier than some reference point, *RT*. On the other hand, *-v-e* situates an event within a temporal space, represented as \sqsupset , terminating in *RT*.

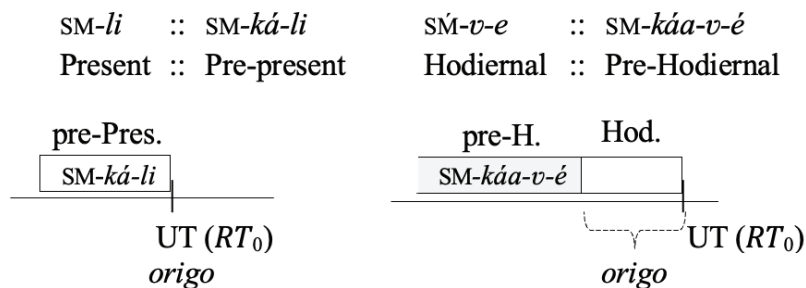


Figure 4: *-ká-li* vs. *-káa-v-é*

- (1) a. *Iki-koove ki-ká-li pa=meésa.* [*ki-ká-v-é]
 7-basket_for_flour SM7-P2-COP 16=9.table
 'The flour basket was on the table.' [earlier today]
- b. *Tu-káa-v-é i-pa p=liliinga.* [*tu-káa-li]
 1P-P2-be-PFV.FV DEM-16 16-Iringa
 'We were here in Iringa.' [recently]

As noted, both *-va* and *-li* can function as auxiliary elements. In this paper, we will focus first on examining those auxiliary constructions that have either copula *-li* or *-va* 'be' as an auxiliary followed by a perfective form of the main verb. Each simple past of the verb *-va* has a corresponding pluperfect(ive) form of the simple past perfectives (Table 1a), as does *-li* (Table 1b). Several illustrative examples are given in (2) and (3).

Table 1: Basic Kihehe pasts and pluperfect(ive)s

[B = verb base, SM = subject marker, *Ç* = imbricated consonant; Hodiernal = today]

a. *-va*

| | <u>PAST</u> | | <u>PLUPERFECT(IVE)</u> | |
|---------------|-----------------|---------------------------------|------------------------|--|
| Hodiernal | P1/Pf | SM- ^H B- <i>iÇ-e</i> | PP1 | SM- <i>v-e</i> SM- ^H B- <i>iÇ-e</i> |
| pre-Hodiernal | P2 | SM- <i>káa</i> -B- <i>iÇ-e</i> | PP2 | SM- <i>káa-v-é</i> SM- ^H B- <i>iÇ-e</i> |
| Remote | P _{RM} | SM- <i>aa</i> -B- <i>iÇ-e</i> | PP _{RM} | SM- <i>aa-v-é</i> SM- ^H B- <i>iÇ-e</i> |

b. *-li*

| | <u>PRESENT & PASTS</u> | | <u>PLUPERFECT(IVE)</u> | |
|-----------|----------------------------|------------------|------------------------|--|
| Present | P _R | SM- <i>li</i> | — | |
| Hodiernal | P _{HOD} | SM- <i>ká-li</i> | PP _{HOD} | SM- <i>ká-li</i> SM- ^H B- <i>iÇ-e</i> |
| Remote | P _{RM} | SM- <i>aa-li</i> | PP _{RM} | SM- <i>aa-li</i> SM- ^H B- <i>iÇ-e</i> |

(2) *-va*

- a. *A-fih-it-e ama-gobóle.* b. *Á-v-e a-fih-it-e ama-gobóle.*
 1S-hide-PFV-FV 6-money 1S-be-PFV.FV 1S-hide-PFV-FV 6-money
 'S/he (has) hid(den) the money.' 'S/he had hidden the money.'
- c. *A-káa-fih-ít-e ama-gobóle.* d. *A-káa-v-é a-fih-it-e ama-gobóle.*
 'S/he hid the money.' [before today] 'S/he had hidden the money.'
- e. *Tw-aa-fih-ít-e ama-gobóle.* f. *Tw-aa-v-é tu-fih-it-e ama-gobóle.*
 'We hid the money.' [remote] 'We had hidden the money.'

(3) *-li*

- a. *A-li mu=ki-pugu.*
 1S-COP 18=7-canoe
 'He is in the canoe.'
- b. *va-ká-li mu=ki-pugu.* c. *va-ká-li v-íinj-e mu=ki-pugu.*
 1P-COP 18=7-canoe SM2-COP SM2-enter.PFV-FV 18=7-canoe
 'They were in the canoe.' [earlier today] 'They had gotten into the canoe.'

| | | | | |
|----------------------------------|--------------------|---------------------------------|------------------|--------------------|
| d. <i>Tw-aá-li</i> | <i>mu=kí-pugu.</i> | e. <i>Tw-aá-li</i> | <i>tw-íinj-e</i> | <i>mu=kí-pugu.</i> |
| 1P-COP | 18=7-canoe | 1P-COP | 1P-enter.PFV-FV | 18=7-canoe |
| ‘We were in the canoe.’ [remote] | | ‘We had gotten into the canoe.’ | | |

3 Contraction of basic pluperfect(ive) forms

In addition to the five basic pluperfective auxiliary constructions shown in Table 1, we also find six similar constructions that are also translated as pluperfect(ive) ‘had Ved’ (Table 2). The auxiliaries listed there are contractions of one of the BE forms. At issue is whether they are contractions of the *-li* or the *-va* forms observed in Table 1. Botne (2023) posited that the contracted forms derive from the *-va* auxiliary constructions. Although plausible, it is not probable. There are four reasons – one semantic, three phonological – that the *-li* constructions are undoubtedly the source of the contracted forms. First, the contracted forms with *ké* refer to the Hodiernal past and not the pre-Hodiernal past. This correlates with the temporal range of *-ká* observed for the *-li* constructions. Second, phonologically, loss of [l] is common in the language. For example, the perfective of the verb *-galul-a* ‘capture’ is *-galw-e*, with loss of the final [l] before [e] and with glide formation of [u] before [e]. I do not know of any comparable loss of [v]. Third, coalescence of [á] and [i] results in a short [é], rather than a long [ée], which one would expect if the temporal marker had been *káa-*. The long vowel is exactly what we do find with contraction of *SM-aá-li* becoming *SM-eé*. Fourth, the retained high tone occurs where one would expect to find it in the coalescence of these vowels. We are led to conclude therefore that the contracted forms arise from the *-li* auxiliary constructions.

Table 2: Contracted auxiliary forms of *-li*

- a. From *SM-ká-li* *SM-^HB-iC-e*
SM-ké *SM-^HB-iC-e* > *ké=SM-^HB-iC-e*
SM-ké *SM-káa-B-iC-e* > *ké=SM-káa-B-iC-e*
- b. From *SM-aá-li* *SM-^HB-iC-e*
SM-eé *SM-Ø-^HB-iC-e*
SM-eé *SM-aa-B-iC-e*

As a graphic means of exposition of the extensive system of auxiliary constructions, various simple verb forms [grey font above] are shown in contrast with comparable auxiliary constructions below in Figure 5. The verb *-va* can occur as an auxiliary element in any of the temporal regions [upper sets] and domains, followed here by the simple perfective form of the main verb in the pasts, by either the simple or past perfective form in the non-past. Copula *-li* (lower set below dotted line) is restricted to the hodiernal or remote pasts when functioning as an auxiliary. Recall that *SM-ká-li* refers only to the hodiernal region. That is, *ká-* has a different temporal range than *káa-*, which is always interpreted as pre-hodiernal.

4 Developmental path I: *SM-ká-li* > *SM-ké* > *ké=*

Let us consider first the situation with copula *-li*. Auxiliary *-li* functions to refer to and index some reference point before which the situation named by the main verb has occurred. The full form is *SM-ká-li*, *ká-* referring to a near past in the P-domain. Note, first, that the simple copula refers to some time earlier today (4). This is also the case when it functions as an auxiliary (5a).

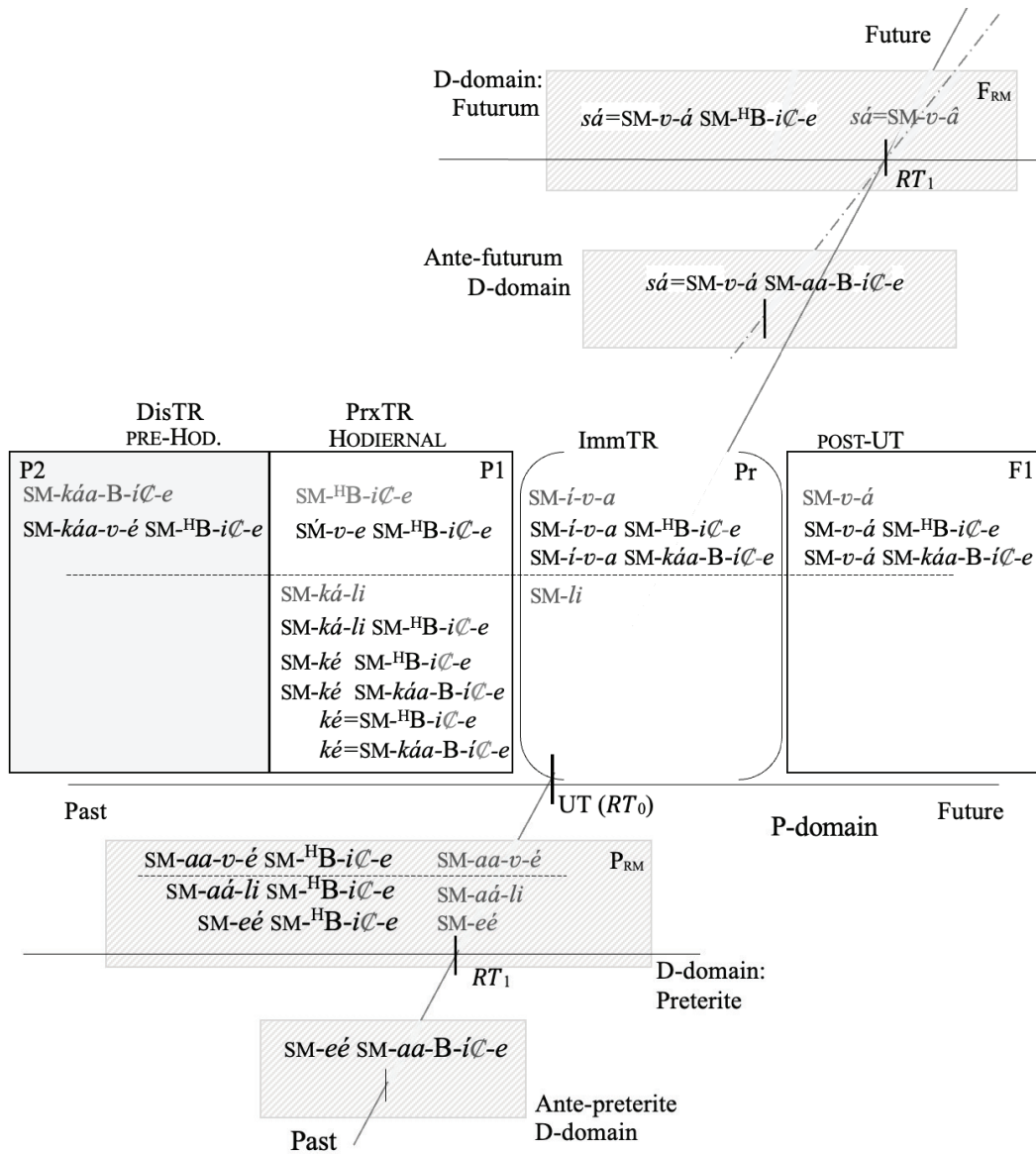


Figure 5: Some simple *-li* and *-va* vs. auxiliary constructions in Kihehe

However, it may also refer to an occurrence on the same day as some other event at some earlier time (5b).

- (4) *kí-koove* *kí-ká-li* *pa=meésa pé=tw-ii-vaáng-a* *ukú-haalúla.*
 7-basket_for_flour SM7-P2a-COP 16=9.table when=SM2-PRO-start-FV 15-grind
 ‘The flour basket was on the table when we started to grind.’ [earlier today]

- (5) a. *Pé=fík-it-e pamílaáwu va-ká-li va-héle ku=káaye.*
 when=1s.arrive-PFV-FV morning SM2-P2a-COP SM1-go.PFV.FV 17=home
 ‘When I arrived this morning, they had gone home [earlier in the day].’
- b. *Tu-ká-li tu-vály-e imí-kaate gí-la mbeé=gi-li pamílaáwu*
 1P-P2-COP 1P-count.PFV-FV 4-bread 4-DEM all=SM4-COP morning
pé=tw-ii-heg-a.
 when=1P-PRO-leave-FV
 ‘We had counted all those loaves of bread in the morning before [Lit. when] we left.’

The auxiliary form *SM-ká-li* at some point in time became contracted to *SM-ké*, ostensibly via a process in which the [l] was deleted – a common occurrence in Kihehe – with [á]+[i] becoming realized as [é], the high tone being retained. The contracted form has the same sense as the full form. The main verb can be either in the simple perfective form (6) or in the recent past form marked by P2 *káa-* (7). The former denotes an event that occurred earlier in the day (6a) prior to some contextually-determined reference time, for example, ‘start washing clothes’ (6b), or earlier on the same day as some other contextually-determined event (6c), but not one that is conceptually connected to it.

- (6) a. *Tu-ké tu-héle ku=boóma pamílaáwu pé=si=tu-láa-bit-á*
 1P-AUX 1P-go.PFV.FV 17=9.town morning when=NEG=1P-NEG_{YET}-go-FV
ku=mu-guúnda.
 17=3-field
 ‘We had gone to town in the morning before we went [Lit. when we had not yet gone] to the field.’ [today]
- b. *va-ké va-lím-it-e umu-guúnda pé=v-ii-vaáng-a ukú-fuwa*
 SM2-AUX SM2-till-PFV-FV 3-field when=SM2-PRO-start-FV 15-wash
imy-eénda
 3-clothes
 ‘They had tilled the field [earlier] when they started washing the clothes [at a later time the same day].’ [no connection between events]
- c. *Ava-támwa va-ké va-pám-iis-é ulú-piindo lw-a umw-eénda*
 2-sickly SM2-AUX SM2-touch-PFV-FV 11-hem 11-ASV 3-cloth
gw-ǎkwe héla.
 3-3S.POSS only
 ‘The sickly had touched only the hem of his clothes.’ [on that same day]

Use of the recent past *káa-* on the main verb indicates that the event must have occurred prior to today (7), the reference time RT_1 indexing a new *origo* earlier today shifted from RT_0 . The event ‘stealing’ in (7a) marked by *i-* – occurring today or before, that is, in the recent past.

- (7) a. *Tu-ké tu-káa-helé kw=lílinga pé=v-ii-hiis-a ku=káaye.*
 1P-AUX 1P-P2-go.PFV.FV 17=Iringa when=SM2-PRO-steal-FV 17=9.home
 ‘We had gone to Iringa [before today] when they were stealing from [our] home.’

- b. *A-bit-e kú=kú-saka yí-la y-é=yi-ké* .
 SM1-go-SUB RED=15-search 9-DEM 9-REL=SM9-AUX

yi-káa-yas-il-e

SM9-P2-become_missing-PFV-FV

‘He should go expressly to search for that that had gone missing.’

In sum, *SM-ké* indexes a reference *origo* RT_1 earlier in the day with respect to which the main event occurs either earlier than that on the same day or on some day preceding that day, the latter marked with the recent past P2 *káa-* (Figure 6).

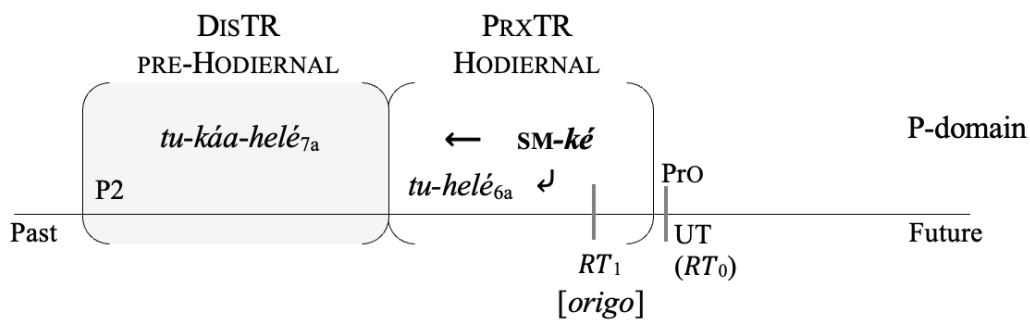


Figure 6: Auxiliary *SM-ké*

A final step in the evolution of this *-li*-based auxiliary resulted in loss of the subject agreement marker and *ké=* becoming a proclitic. The proclitic form differs from the full *SM-ké* forms in that the latter are indexed to another event, as in (8a), while the former implies that the event is explanation or motive, for example, for some query concerning a state at reference time (8b-d).

- (8) a. *Tu-ké tu-lím-it-e pa-kómi pé=l-í-vaáng-a ukú-vala.*
 1P-AUX 1P-till-PFV-FV 16-large when=SM5-PRO-start-FV 15-shine
 ‘We had tilled a large area when [= before] it [sun] started to get hot [later].’
 [this morning]
- b. *Ké=tu-lím-it-e pamílaáwu.*
 AUX=1S-till-PFV-FV morning
 ‘We had tilled this morning.’ [possible response to Q: ‘Why aren’t you working?’]
- c. *Ké=ń-dy-e ili-píindigeesi héla.*
 AUX=1S-eat-PFV.FV 5-peach only
 ‘I had eaten only a peach.’ [possible response to Q: ‘Why are you hungry now?’]

This difference between the proclitic *ké=* and the other two forms can also be observed with an adjectival complement rather than a verbal one. Thus, in (9a), proclitic *ké=* denotes some generic situation in the past countenancing (and indexing) the later act of ‘buying’. With a subject marker, auxiliaries *-ké* and *-ká-li* are both grammatically correct, but not in the context of (9a). The former, for example, would indicate that the beer was good specifically at some past

time – for instance, when we were there – but that beer which is here now is no longer so (9b). The latter implies a span of time earlier in the day up to some reference time, but intimates that this point was a while back and that there is no beer now (9c).

- (9) a. *Ngoné w-eéng-e súkumwí na ngoné uwu-giimbi ké=wú-nofu*
 if 2S-brew-SUB once and if 14-beer AUX=14-good
néke wu-sil-e, u-wáan-it-e u-gúl-e ili-gunila ly-a
 then AGR14-finish-CMPL 2S-can-PFV-FV 2S-buy-SUB 5-sack 5-ASV
amá-sebele.
 6-maize
 ‘If you brew once and if the beer was good and has been completely consumed, you could buy a[nother] sack of maize.’
- b. *Uwu-giimbi wu-ké wú-nofu pamilaáwu.*
 14-beer SM14-AUX 14-good morning
 ‘The beer was good in the morning (but is no longer so).’ [there is some here now]
- c. *Uwu-giimbi wu-ká-li wú-nofu mbeé=pa-li.*
 14-beer SM14-P2a-COP 14-good all=SM16-COP
 ‘The beer was good all the time (up to reference time).’ [no beer remaining]

As described for the full SM-*ké* form previously, the main verb in the proclitic construction can also be marked for the recent past P2. The narrated event has occurred before today (10a) or before some contextually determined day (10b,c), *ké=* still implying a rationale for (and indexing) a reference event on a day preceding the main event, as described for (8) above. Thus, in (10b), grinding the flour occurred before the day on which the speaker steeped it.

- (10) a. *Kwakúva ké=mu-káa-helé néke m-loong-án-e ulú-kaani lú-la.*
 because AUX=2P-P2-go.PFV.FV then 2P-speak-REC-CMPL 11-issue 11-DEM
 ‘Because you had gone [before today] and discussed that issue.’
- b. *N-gw-éeng-a uwu-sé w-é=ké=n-gáa-twaan-z-íl-e wú-la.*
 1S-PRO-brew-FV 14-flour 14-REL=AUX=1S-P2-grind-PFV-FV 14-DEM
 ‘I steep that flour that I had ground [before that day].’
- c. *v-aákú-m-peel-ág-a g-eéki wakáti ye=ké=va-káa-hoomb-ít-e*
 SM2-HAB-OM1-give-DUR-FV 6-what while already=AUX=SM2-P2-pay-PFV-FV
ili-fuungu?
 5-brideprice
 ‘Why do they give it [money] to him when they had already paid the bride price?’

In sum, the recent past SM-*ká-li* auxiliary underwent two stages of contraction: 1) contraction of SM-*ká-li* to SM-*ké*, and 2) loss of the subject marker and cliticization to *ké=*. The main verb, originally only occurred in the simple perfective, denoting earlier in the day. Subsequently, it came to be marked as well for the pre-Hodiernal past with either the SM-*ké* or *ké=* auxiliary (Figure 7).

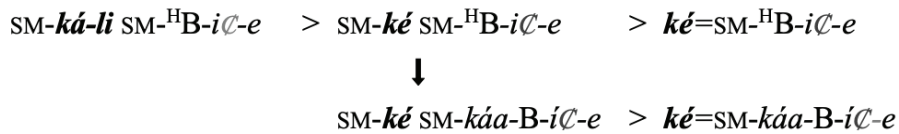


Figure 7: Stages in the evolution of *SM-ká-li SM-t-B-iC-e*

5 Developmental path II: *SM-aá-li* > *SM-eé*

A second path of development occurred with the auxiliary marked for the remote past, *SM-aá-li*. In this case, the auxiliary indexes a reference time (RT_1) – a shifted *origo* – temporally situated in the preterite D-domain with respect to RT_0 (UT), the main verb – in the simple perfective – interpreted as a past perfect(ive) in the same domain. Thus, *SM-aá-li* indexes *-tegwé* (11a) as RT_1 , which the predicated event precedes at some earlier time (Figure 8). Note that in (11b) the reference time is not specified (though it is likely to be interpreted as the point of forgetting), but is inferred as some point in the remote past.

- (11) a. *Aa-tegw-é* *gá-la* *amá-sebele* *g-é=nd-aá-li* *ndi-ga-póond-it-e*.
 SM1.P_{RM}-take.PFV-FV 5-DEM 5-maize 6-REL=1S-P_{RM}-COP 1S-OM6-pound-PFV-FV
 ‘She took that maize that I had pounded [at some earlier time].’
- b. *Yuúva* *aá-li* *a-n-dóonj-e;* *inó* *nd-aá*
 1.mother SM1.P_{RM}-COP SM1-1S-speak.APPL.PFV-FV now 1S-AUX
n-gw-iwúk-a *gú-mw-aáka* *swê*.
 1S-PRO-remember-FV AUG-2-year only
 ‘My mother had told me; now I remember only the year.’

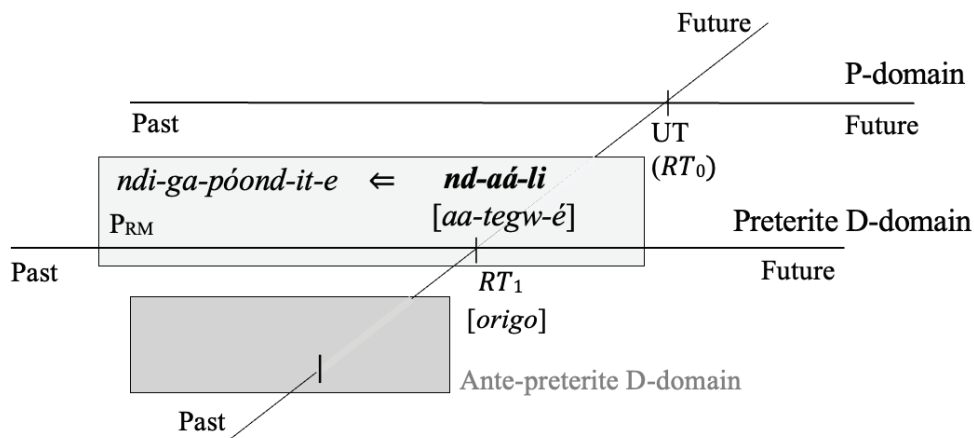


Figure 8: Perfective in the Preterite D-domain; auxiliary *SM-aá-li*

Auxiliary *SM-aá-li*, like *SM-ká-li*, has undergone contraction, again through loss of [l] and coalescence of [aá] and [i], thereby becoming *SM-eé*. The original full auxiliary construction only occurred with the simple perfective form of the main verb (12). However, like the *-ké* forms, its use was extended to include the remote past form of the main verb (13), which, in this case, situates the event in an Ante-preterite D-domain. In both cases, the auxiliary still functions to

index RT_1 (Figure 9). The time gap between main event and reference event is perceived as greater in (13) where the main verb is marked for remote past.

- (12) a. *Pé=gu-fik-it-e umw-aka gw-a wu-hulu, ye=w-eé*
 when=SM3-arrive-PFV-FV 3-year 3-ASV 14-independence already=2S-AUX
u-héle ukw-íkála koóno kúu-ngi lú-bali na iing'i y-a
 2S-go.PFV 15-stay 17.place 17-other 11-side with 9-land 3-ASV
vá-Hehe?
 2-Hehe

‘When the year of independence arrived, had you ever gone to stay at another place outside of Heheland?’

- b. *Tw-eé tu-mu-lóonj-e we=si=a-láas-á íla*
 1P-RMCOP 1P-OM1-speak.APPL.PFV-FV while=NEG=SM1-NEG.come-FV but
a-séem-il-w-e.
 SM1-forget-PFV-PASS-FV

‘We had told him before he came, but he has forgotten.’

- (13) *Iki-lo iki-mwí nd-eé nd-aa-helé kú-paána um-píla ku=ki-waánja*
 7.day 7-one 1S-AUX 1S-P_{RM}-go.PFV 15-play 3-ball 17=7-field
na vá-y-ǎngu; néke pé=v-aas-il-e ku=ki-waánja,
 with 2-EP-1S.POSS then when=SM2-P_{RM}.come-PFV-FV 17=7-field
se=tw-ii-vaáng-a ukú-paána um-píla.
 MOD=1P-PRO-start-FV 15-play 3-ball

‘One day I had gone to play soccer at the field with my friends; then, when they came to the field, we could start to play soccer.’

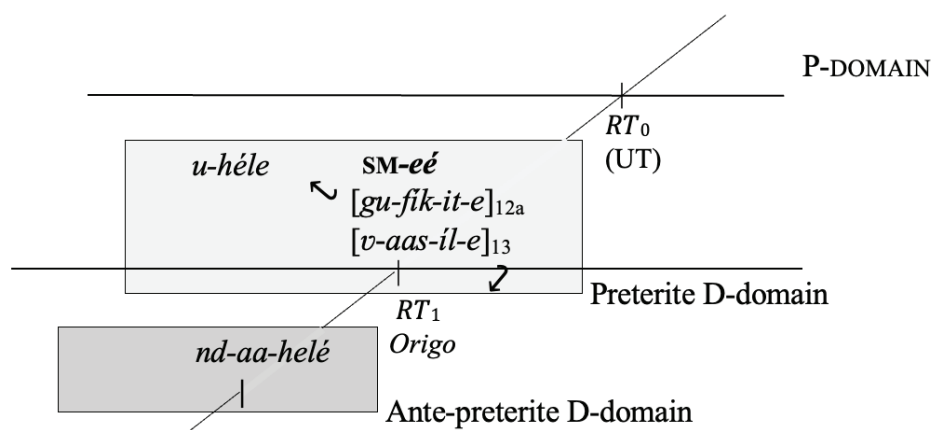


Figure 9: Auxiliary *SM-eé* with main verb in simple perfective (10a) in the Preterite D-domain or in the Remote Past (11) in the Ante-preterite domain

Figure 10 summarizes the stages in the evolution of SM-*aa-li*: first, a contraction of *-aa-li* to *-eé*, followed by subsequent use of the remote past perfective in addition to the simple perfective.

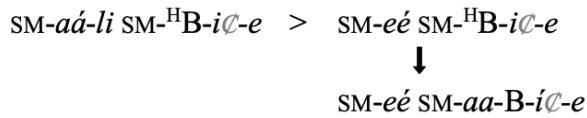


Figure 10: Stages in the evolution of auxiliary SM-*aa-li*

RECAP

Auxiliary *-li* refers to a locus of orientation, indexing that locus as a reference point to which the event named by the main verb is related temporally. Original near (*ká-*) and remote (*aa-*) past marking contracted with *-li* to form *-ké* and *-eé*, respectively, the former contracting further to become a proclitic *ké=*. The main event is always at some earlier time than reference time, as evident in examples (4) to (13), i.e. there is a clear temporal gap between reference time and event time. Table 3 tabulates various constructions grounded in *-li* as an auxiliary verb.³

Table 3: Compound auxiliary constructions grounded in the COPULA *-li*: *-ká-li* > *-ké* > *ké=* *-aa-li* > *-eé*

| | |
|---|---|
| SM- <i>ká-li</i> SM- ^H B- <i>iC</i> - <i>e</i> | |
| SM- <i>ké</i> SM- ^H B- <i>iC</i> - <i>e</i> | SM- <i>ké</i> SM- <i>káa</i> -B- <i>iC</i> - <i>e</i> |
| <i>ké=</i> SM- ^H B- <i>iC</i> - <i>e</i> | <i>ké=</i> SM- <i>káa</i> -B- <i>iC</i> - <i>e</i> |
| | |
| SM- <i>aa-li</i> SM- ^H B- <i>iC</i> - <i>e</i> | |
| SM- <i>eé</i> SM- ^H B- <i>iC</i> - <i>e</i> | SM- <i>eé</i> SM- <i>aa</i> -B- <i>iC</i> - <i>e</i> |

6 Auxiliary *-va*

Turn now to the verb *-va* ‘be’, which may be marked for any of the three pasts, unlike *-li*. The Hodiernal Past has no overt temporal prefix (14a), but rather a high tone on the subject marker. The recent, or pre-Hodiernal, Past, as noted above in Figure 1, is marked with the prefix *káa-* plus a high tone on final *-é*, as in (14b). The Remote Past (14c) has prefix *aa-* plus a high tone on final *-é*, like the pre-Hodiernal past.

- (14) a. *Á-v-e* *i-pa* *iki-múuny’i* *mbe=ki-li*.
 SM1-be-PFV.FV DEM-16 7-day all=SM7-COP
 ‘She has been here all day.’

³ Johnson (2015, 2021) discusses *ke=* constructions in the Mufindi variety, which appears to be much simplified. In the first paper, she implies that *ke=* has come to mark a remote past in contrast with a proximal past SM-B-*iC*. She mistakenly assumes *ke=* to have been the same as *káa-*, which seemingly has disappeared from the language. However, in Johnson (2021) she provides an example with *ka-* as a past tense, stating that *ke* is an auxiliary (p. 7). There is no discussion of the equivalent *-eé* auxiliary.

- b. *Tu-káa-v-é pála p=Iliínga.*
 1P-P2-be-PFV.FV 16.there 16-Iringa
 ‘We were there in Iringa.’ [recently]
- c. *Kú-la, ii-suúle y-aa-v-é n-gomi-n-gómi lu-dóodo.*
 17-DEM 9-school SM9-PRM-be(come)-PFV.FV 9-hard-9-hard 11-little
 ‘There, school was/became a little bit harder.’ [remote]

As an auxiliary verb, *-va* may also be marked for any of the past forms: hodiernal, pre-hodiernal, or remote. In the cases considered in (15)–(17), the main verb is in the simple perfective form, interpreted as having occurred at some earlier time within the reference time span in the hodiernal (15), pre-hodiernal (16), and remote (17) pasts. Auxiliary *-va*, as described previously, situates an event in a time span whose terminal point acts as a reference point. In each of these examples, that reference point is marked for the Relative Present *origo* (PrO). That is, in (15a) for example, ‘started to rain’ is the endpoint of the reference time span indexed by auxiliary *tú-v-e*, which began with the event ‘tilled’. Hence, the implication is that the rain didn’t interfere with the tilling.

- (15) a. *Pé=y-ii-vaáng-a ukú-toóny’a, tú-v-e tu-lím-it-e.*
 when=SM9-PRO-start-FV 15-rain 1P-be-FV 1P-tilled-PFV-FV
 ‘When it started to rain, we had tilled [earlier today].’
- b. *vá-v-e va-lím-it-e umu-guúnda, swe v-ii-vaáng-a ukú-vyála.*
 SM2-be-PFV.FV 1P-tilled-PFV-FV 3-field then SM2-PRO-start-FV 15-plant
 ‘They had tilled the field, then [in due course] they started to plant [earlier today].’
- (16) a. *Tu-káa-v-é tu-lím-it-e umu-guúnda mbeé=gu-li pé=y-ii-vaáng-a*
 1P-P2-be-FV 1P-tilled-PFV-FV 3-field all=SM3-COP when=SM9-PRO-start-FV
ukú-toóny’a.
 15-rain
 ‘We had tilled the whole field [at some earlier time before today] when it started to rain.’
- b. *N-gáa-v-é ndi-va-péel-y-e ama-gobóle i-g-ó*
 1S-P2-be-PFV.FV 1S-OM2-give-PFV-FV 6-money DEM-6-DIS
*pé=n-gú-mu-wón-a.*⁴
 when=1S-PRO-OM1-see-FV
 ‘I had given them that money [at some earlier time before today] when I saw him.’
- (17) a. *v-aa-v-é va-vyâl-it-e, pé=y-ii-vaáng-a ukú-toóny’a*
 SM2-PRM-be-FV SM2-plant-PFV-FV when=SM2-PRO-OM1-start-PFV-FV 15-rain
híilo.
 much
 ‘They had planted [at some earlier time], when it started to rain a lot.’

⁴The Relative Present *origo* marker is realized as *kú-* (*gú-* following a nasal) preceding an object marker.

- b. *Pé=l-ii-sot-a* *ilí-suwa,* *tw-aa-v-é* *tu-fis-il-e.*
 when=SM5-PRO-arrive-FV 5-sun 1P-P_{RM}-be-PFV 1P-arrive-PFV-FV
 ‘When the sun (was) set(ting), we had arrived.’

Auxiliary SM-*aa-v-é* cannot co-occur with the main verb marked for the recent past P2 *káa-* (18a); that is, *káa-* is only admissible for pre-hodiernal times expressed in the P-domain. The main verb can, however, occur with the remote past P_{RM} *aa-* (18b), which implies a relatively large interval between the event and reference time.

- (18) a. *Aa-tegw-é* *amá-sebele* *gá-la* *g-é=*nd-aa-v-é*
 SM1.P_{RM}-take.PFV-FV 5-maize 5-DEM 6-REL=1S-P_{RM}-be-FV
ndi-ká-ga-poond-ít-e.
 1S-P2-OM6-pound-PFV-FV
 ‘She took that maize that I had pounded.’
- b. *Tw-aa-v-é* *tw-aa-limít-e* *umu-guúnda* *mbeé=gu-li*
 1P-P_{RM}-be-FV 1P-P_{RM}-till-PFV-FV 3-field all=SM3-COP
gw-é=tw-aa-vyál-ít-e *amá-sebele.*
 3-REL=1P-P_{RM}-plant-PFV-FV 6-maize
 ‘We had tilled the whole field, in which we planted maize.’

Related to the *-va* auxiliary constructions described above is a similar construction in which perfective *-it* is absent. In this case, there is just a final *-e*, a completive aspect marker (Botne in prep). This construction is analogous semantically to the previous construction except that it means that the time span between the event and the reference event is short; that is, the former immediately preceded the latter (19). The auxiliary occurs with all three past tense forms.

- (19) a. *vá-v-e* *va-lím-e* *umu-guúnda* *mu-kómi,* *va-súup-it-e*
 1P-be-PFV.FV SM2-till-CMPL 3-field 3-big SM2-rest-PFV-FV
paány'i *pa=m-bíki.*
 16.under 16=3-tree
 ‘Having [just] tilled a large field, they rested under a tree.’
- b. *Tu-káa-v-é* *tu-telék-e* *tu-ká-va-peel-y-é* *va-ly-é.⁵*
 1P-P2-be-PFV.FV 1P-boil-CMPL 1P-P2-OM2-give-PFV-FV SM2-eat-SUB
 ‘Having [just] cooked, we gave them [sth.] so that they should eat.’
- c. *li-seénga* *yí-la* *y-aa-v-é* *yi-kiimbíl-e,* *y-aa-bumiil-w-é*
 9-cow 9-DEM SM9-P_{RM}-be-PFV SM9-run-CMPL SM9-P_{RM}-strike.PFV-PASS-FV
n=umú-tuka.
 by=3-car
 ‘That cow having [just] run away, it was struck by a car.’

⁵The recent past P2 *káa-* becomes *ká-* preceding an object marker.

This completive form only occurs in two contexts that I have been able to identify: (i) following an auxiliary verb, as above, and (ii) following the conjunction *néke* ‘and then’ (20). The latter is in contrast with the similar *swe* ‘then, in due course’, which does not permit the completive, but typically takes the Relative Present *origo* marker *i-*, as in (20c), where the same verb *-peel-* ‘give’ occurs in different forms following the two conjunctions.

- (20) a. ... *néke va-mém-e muú=ng'i mbeé=yi-li.*
 and_then SM2-fill-CMPL 18=9.world all=SM9-COP
 ‘... and then they filled the whole world.’
- b. *Aa-helé ku=va-ny'a-lú-kolo v-ǎkwe néke*
 SM1.P_{RM}-go.PFV.FV 17=2-of-11-clan 2-3S.POSS and_then
a-lu-loóng-ag-e ulú-gudolw-ǎwo.
 SM1-OM11-speak-DUR-CMPL11-struggle 11-3P.POSS
 ‘He went to his clan relatives and then he spoke [more] about their struggle.’
- c. ... *néke a-va-peél-e ava-ny'-i-geéndo swe ava-ny'-i-geéndo*
 and_then SM1-OM2-give-CMPL 2-of-9-journey then 2-of-9-journey
va-kú-va-peél-a v-a ma-lúgu.
 SM2-PRO-OM2-give-FV 2-ASV 6-group
 ‘... and then he gave the disciples [bread and fish] and in due course the disciples gave [them] to the crowds.’

The *-li* auxiliary forms do not occur with the completive form. Rather, they may occur with a predicative adjective that, like the completive, ends in *-e*. However, there are two differences of note. First, they follow different agreement patterns. The completive requires the usual subject agreement marker, whereas the predicative adjective requires the adjectival agreement pattern, a copy of the noun class prefix. Thus, in (21a) for example, the auxiliary takes the usual class 6 subject prefix *ga-*, while the predicative adjective takes *ma-*. Second, the tones of the two forms differ, completive having a high tone on the penultimate mora, the predicate adjective a high tone on the stem-initial mora. The full form of the auxiliary appears to highlight the process (21), while the contracted forms – with no apparent difference in sense – appear to focus on the resultant state (22).

- (21) a. *Amá-figa ga-ká-li ma-válil-e mbeé=ga-li.*
 4-cooking_stone SM4-P2-COP AGR4-COUNT-PA all=SM6-COP
 ‘All the cooking stones were [in a state of having become] counted.’
 [Focus = process]
- b. *A-ká-li mu=táambul-e híilo mu=Kítelevási.*
 SM1-P2-COP AGR1=state_of_being_known-PA much 18=Kitelewasi_village
 ‘He was [in a state of having become] well-known in Kitelewasi village.’
- (22) a. *Amá-figa ga-ké ma-válil-e mbeé=ga-li.*
 ‘All the cooking stones were already [in a state of having been] counted (by that time).’ [Focus = state]

- b. *Amá-figa ké=ma-válil-e mbeé=ga-li.*
 ‘All the cooking stones had been counted.’

The predicative adjective also occurs with the auxiliary marked for the remote past. The full form denotes a state having occurred earlier than reference time, the focus on the process that has occurred (23).

- (23) a. *Umu-guúnda gú-la gw-aá-li mu-kátul-e wé=si=va-láa-vyal-â.*
 3-field 3-DEM SM3-P_{RM}-COP SM3-harrow-PA while=NEG=SM2-NEG-plant-FV
 ‘That field was [in a state of having already become] harrowed while they had not yet planted [i.e. before they planted].’
- b. *S-aá-li m-búyap-il-e ich-uúma ch-a ii-sába.*
 SM10-P_{RM}-COP AGR10-make-APPL-PA 7-metal 7-ASV 9-copper
 ‘They were [in a state of having become] made of copper metal.’

The contracted form, like the full form, denotes a state as having occurred earlier, but the focus is on the state rather than the process. Thus, in (24a), the focus is on the process of the tree becoming uprooted, while in (24b), the focus is on the current state. A similar distinction is shown in (25).

- (24) a. *Umu-biki gw-aá-li mu-kímufu.*
 3-tree SM3-P_{RM}-COP AGR3-uprooted
 ‘The tree was [in a state of having become] uprooted.’ [Focus = process]
- b. *Umu-biki gw-eé mu-kímufu.*
 3-tree SM3-RMCOP AGR3-uprooted
 ‘The tree was already [in a state of having been] uprooted.’ [Focus = state]
- (25) a. *Umu-hiisi aá-li mu-díind-il-e.*
 1-thief SM1.P_{RM}-COP AGR1-become_closed-APPL-PA
 ‘The thief was [in a state of having become] taken into custody.’ [Focus = process]
- b. *Na-vé, eé mu-díind-il-e.*
 even-3S.PRO SM1.RMCOP AGR1-be_closed-APPL-PA
 ‘Even him, he was already [in a state of having been] taken into custody.’
 [Focus = state]

RECAP

Auxiliary *-va* refers to some time span as a locus of orientation, indexing a reference time at the terminal point of that span to which the event named by the main verb is related temporally. The auxiliary may be marked for any of the three pasts, Hodiernal, pre-Hodiernal, or Remote (Table 4). It may also be followed by the main verb in a completive form lacking perfective *-it* but ending in *-e*, with a high tone on the penultimate mora. This differs from the *-li* auxiliary, which cannot co-occur with the completive, but can occur with a predicative adjective.

Table 4: Auxiliary constructions grounded in *-va*

| | | |
|--------------------|---------------------------------|--|
| SM- <i>v-e</i> | SM- ^H B- <i>iC-e</i> | |
| SM- <i>káa-v-é</i> | SM- ^H B- <i>iC-e</i> | |
| SM- <i>aa-v-é</i> | SM- ^H B- <i>iC-e</i> | SM- <i>aa-v-é</i> SM- <i>aa-B-íC-e</i> |
| SM- <i>v-e</i> | SM-B ^H - <i>e</i> | |
| SM- <i>káa-v-é</i> | SM-B ^H - <i>e</i> | |
| SM- <i>aa-v-é</i> | SM-B ^H - <i>e</i> | |

7 Auxiliary SM-T-*li* vs. SM-T-*v-e*

As the reader may have noticed, there is a subtle difference between the use of *-li* and *-va* as the auxiliary verb, one that has been challenging to determine. Each can be marked with hodiernal, recent, or remote past temporal markers followed by the simple perfective form of the main verb. In (26), both auxiliary constructions refer to an event happening today, hence they are hodiernal; they appear to differ in the temporal gap implied between the reference time and the event –notionally greater with *-li*, shorter with *-va*.

- (26) a. *Tu-ká-li tu-vály-e imi-kaate gí-la mbeé=gi-li*
 1P-P2-COP 1P-count.PFV-FV 4-bread 4-DEM all=SM4-COP

pamilaáwu pé=tw-ii-heg-a.
 morning when=1P-PTP-leave-FV

‘We had counted all those loaves of bread [earlier] in the morning when we left.’

- b. *Tú-v-e tu-vály-e imi-kaate gí-la mbeé=gi-li*
 1P-be-PFV 1P-count.PFV-FV 4-bread 4-DEM all=SM4-COP

pamilaáwu pé=tw-ii-heg-a.
 morning when=1P-PRO-leave-FV

‘We had all those loaves of bread counted in the morning when [not long before] we left.’

Auxiliary *-ká-li* also contrasts with *-káa-v-é*. As noted for (26a), the former indicates that the event ‘go home’ had occurred today (27a), whereas the latter indicates that the event had occurred at some earlier time before today, but on the same day as (or before) reference time (27b). A similar distinction is observed with the remote past marker (28)–(29b), *-á-li* denoting some earlier imprecise time, while *-aa-v-é* implies that the event happened on the same day as the reference time. Note that auxiliary *-á-li* cannot cooccur with the main verb also marked with the remote past (29a); the reason for this is not clear.

- (27) a. *Pé=nd-ii-fik-a, va-ká-li va-héle ku=káaye.*
 when=1S-PRO-arrive-FV 1P-P2a-COP SM1-go.PFV 17=9.home

‘When I arrived, they had gone home [earlier today].’

- b. *P=ií-fík-a* *íísuusi,* *tu-káa-v-é* *tu-héle*
 when=SM1.PRO-arrive-FV two_days_ago 1P-P2-be-PFV.FV 1P-go.PFV.FV
ku-káaye.
 17-9.home
 ‘When he arrived two days ago, we had gone home.’ [same day or before that day]

- (28) a. *Yuúva* *aá-li* *a-n-dóonj-e;* *inó* *nd-aá*
 1.mother.1S.POSS SM1.P_{RM}-COP SM1-1S-tell.PFV-FV now 1S-AUX
n-gw-iíwúk-a⁶ *gú-mw-aáka swé.*
 1S-PRO-remember-FV AUG-2-year only
 ‘My mother had told me [at some earlier time]; now I remember only the year.’

- b. *Yuúva* *aa-v-é* *a-n-dóonj-e* *pé=v-íí-vaáng-a*
 1.mother.1S.POSS SM1.P_{RM}-be-PFV.FV SM1-1S-tell.PFV-FV when=SM2-PRO-start-FV
ukú-m-buúsa
 15-1S-ask
 ‘My mother had already told me when they were starting to question me.’ [same day]

- (29) a. *Aa-vyal-ít-e* *amá-sebele* *gá-la* *mu=mu-guúnda* *gw-é=*nd-aá-li*
 SM1.P_{RM}-plant-PFV-FV 6-maize 6-DEM 18=3-field 6-REL=1S-P_{RM}-COP
nd-aa-lim-ít-e.
 1S-P_{RM}-till-PFV-FV
 ‘He planted that maize in the field that I had tilled [at some earlier time].’

- b. *Aa-vyal-ít-e* *amá-sebele* *gá-la* *mu=mu-guúnda*
 SM1.P_{RM}-plant-PFV-FV 6-maize 6-DEM 18=3-field
gw-é=nd-aa-v-é *nd-aa-lim-ít-e.*
 6-REL=1S-P_{RM}-be-PFV.FV 1S-P_{RM}-till-PFV-FV
 ‘He planted that maize in the field that I had tilled.’

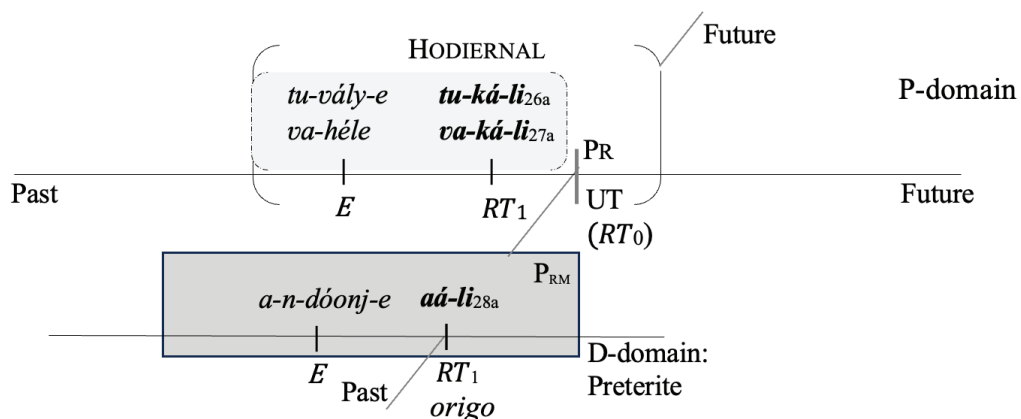


Figure 11: Copula *-li*

⁶The Relative Present *origo* marker *i-* is realized as *kw-* (*gw-* following a nasal) before V-initial verbs.

The schemas in Figures 11 and 12 illustrate the temporal relations between the reference times and the events expressed in (23)–(26) above for the *-li* and *-v-e* auxiliaries, respectively.

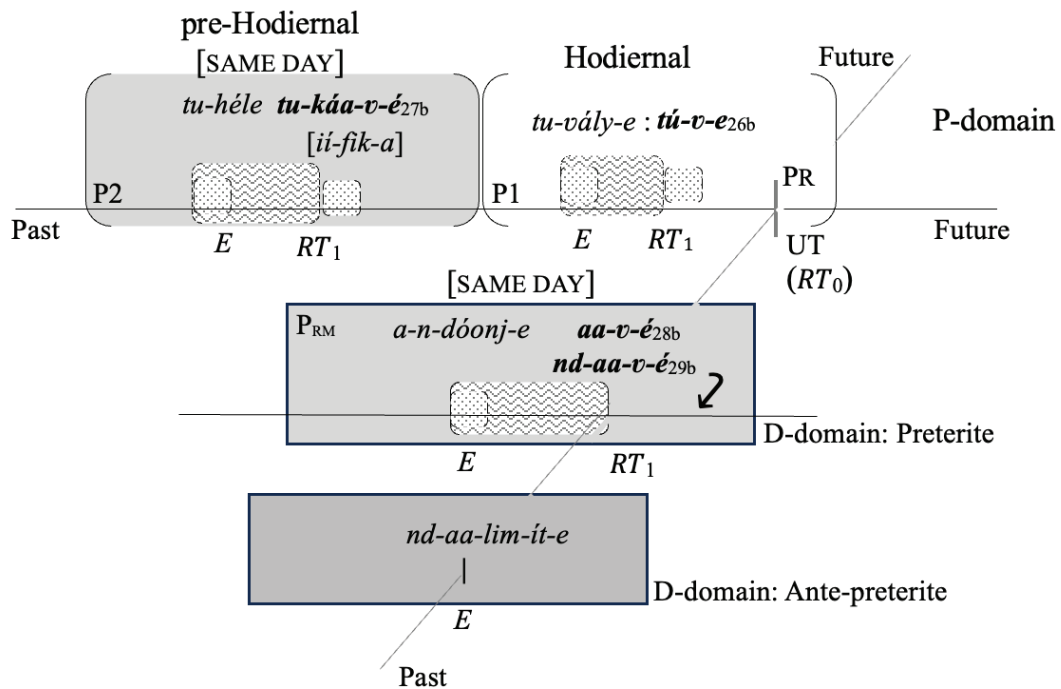


Figure 12: Auxiliary SM-t-v-e

8 Auxiliary with complement auxiliary clause (1a): [SM-ké [SM-T-v-e SM-^HB-iC-e]]

The auxiliary constructions discussed above may occur as the complement of another auxiliary, invariably a contracted form of *-li*. The auxiliary in the complement clause is usually a form of *-va*. Although translated as ‘had Ved’, there are two reference times indexed, which in English would ostensibly be the ungrammatical ‘had had Ved’. In (30a), there is a conceptual connection between the *E(vent) -límite* ‘tilled’, which had occurred before the reference time span RT_2 , which indexes the event E_2 *-vyale* ‘planted’, RT_1 indexing E_1 ‘start [to rain]’. This connection can be observed in the single auxiliary construction with *vá-v-e* (30b). On the other hand, there is no conceptual connection between *-límite* and *-iivaánga ukútoóny’a* ‘start to rain’, as illustrated for the single auxiliary with *-ké* (30c).

- (30) RT_1 RT_2 E E_2
 a. [*va-ké* [*vá-v-e* *va-lím-it-e* *umu-gúnda*]] *néke va-vyál-e*
 SM2-AUX SM2-be-PFV.FV SM2-till-PFV-FV 3-field then SM2-plant-CMPL
 E_1
pé=yi-váang-iig-é ukú-toóny’a.
 when=SM9-start-DUR.PFV-FV 15-rain
 ‘They had tilled the field and then planted [today], when it was starting to rain.’

- b. *vá-v-e* *va-lím-it-e* *umu-guúnda*, *swe* *v-íi-vaáng-a* *ukú-vyála*.
 SM2-be-PFV.FV SM2-till-PFV-FV 3-field then SM2-PRO-start-FV 15-plant
 ‘They had tilled the field, then [in due course] they started to plant.’
 [earlier in the day] [conceptual connection implied between the two events]
- c. *va-ké* *va-lím-it-e* *umu-guúnda* *pé=v-íi-vaáng-a* *ukú-fuwa*
 SM2-AUX SM2-till-PFV-FV 3-field when=SM2-PRO-start-FV 15-wash
imy-eénda.
 3-clothes
 ‘They had tilled the field [at some time earlier in the day] when they started to wash clothes.’ [no conceptual connection implied between the two events]

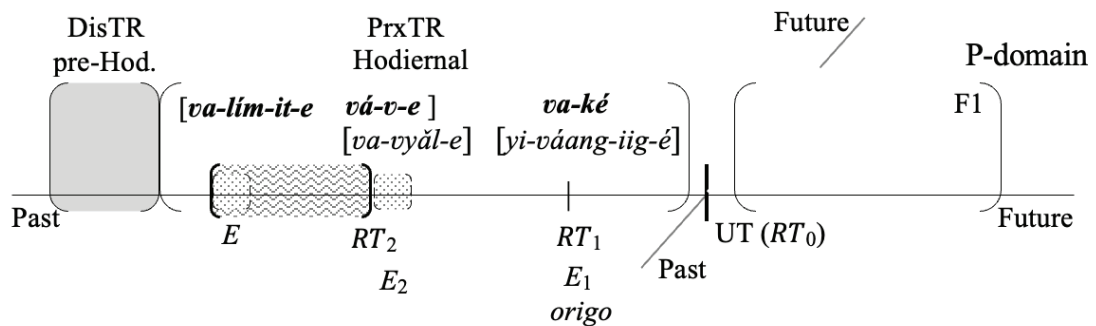


Figure 13: Schema of auxiliary *-ké* with complement auxiliary clause in (30a)

A second example of this construction is provided in (31). The language consultant made the comment that the event of ‘washing’ was perceived as beyond two steps back in time, i.e. as occurring prior to two reference times, as noted above. The washing and the rain occurred on the same day, but there is no conceptual connection implied between them.

- (31) [*va-ké* [*vá-v-e* *va-fúf-il-e* *imy-eénda j-áwo*]]
 SM2-AUX SM2-be-PFV.FV SM2-wash-PFV-FV 4-clothes 4-3P.POSS
néke *v-aánik-e*, *pé=yi-vaáng-iig-é* *ukú-toóny’a*.
 and_then SM2-spread_to_dry-CMPL when=SM9-start-DUR.PFV-FV 15-rain
 ‘They had washed their clothes and then spread [them] to dry before it was starting to rain.’

The *SM-ké* auxiliary may be reduced further, to a proclitic, occurring without the subject marker. There is apparently no semantic difference between this form and the *SM-ké* form of the construction.

- (32) *Ké=vá-v-e va-fúf-il-e imy-eénda j-ǎwo, pé=li-kw-éleelúk-a .*
 AUX =SM2-be-PFV SM2-wash-PFV-FV 4-clothes 4-3P.POSS when= SM5-PRO-reappear-FV
ilí-suva.
 5-sun
 ‘They had washed their clothes [at some earlier time] when the sun reappeared.’ [today]

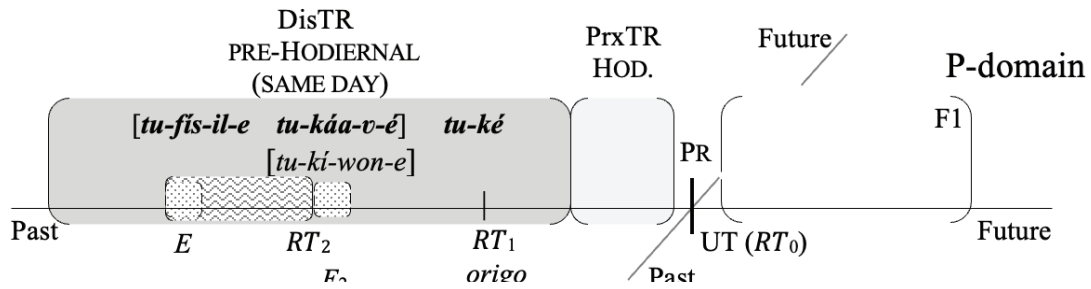


Figure 14: Schema of auxiliary *-ké* with complement auxiliary clause in (33)

The second auxiliary, *-va*, may occur with the P2 marker *káa-*, which indicates that the event had occurred during some span of time before today. The *-ké* auxiliary indicates that the two reference times are on the same day.

- (33) RT_1 RT_2 E E_2
[Tu-ké [tu-káa-v-é tu-fís-il-e], néke tu-kí-won-e iki-lugu.
 1P-AUX 1P-P2-be-PFV.FV 1P-arrive-PFV-FV then 1P-OM7-see-CMPL 7-group
 ‘We had arrived and then we saw the crowd [before today].’

As with the *-ké* auxiliary construction in (33) above, that in (34) with complement *-káa-v-é* can also be reduced to the proclitic *ké=*. Again, the consultant was unable to articulate a difference in meaning.

- (34) *Ké= tu-káa-v-é tu-fís-il-e, p=ií-vaáng-a ukú-loóng-a.*
 AUX=1P-P2-be-PFV 1P-arrive-PFV-FV when=SM1.PRP-start-FV 15-speak
 ‘We had arrived [at some earlier time before today], when he started speaking.’ [same day]

9 Auxiliary with complement auxiliary clause (1b): [SM-ké [SM-v-é SM-^HB-iC-e]]

In an auxiliary construction with a complement auxiliary clause similar to that described above, the complement auxiliary *-v-e* may be marked as irrealis via the subjunctive final vowel, with commensurate shift of the high tone from stem-initial mora to final mora, hence [SM-ké [SM-v-é SM-^HB-iC-e]]. Use of the simple auxiliary construction SM-v-é SM-^HB-iC-e (35) seems to imply a future possibility, as yet unrealized. The double auxiliary construction changes the meaning from possibility to unrealized supposition (36). Note that the verb in the main clause has either auxiliary SM-ké (36a) or proclitic ké= (36b) with the main verb marked for the future, with no apparent difference in meaning.

- (35) *Néke a-bihíl-e, swe va-kú-mu-sóp-a muu=n-diinde mbáka*
 then SM1-refuse-CMPL then SM2-PRO-OM1-relocate-FV 18=9-prison until
pé=a-v-é a-hóomb-it-e umú-kole mbeé=gu-li.
 when=SM1-be-SUB SM1-pay-FV 3-debt all=SM3-COP
 ‘Then he refused, and in due course they sent him to prison until [that time] when he would have paid the debt in full.’
- (36) a. [*Tu-ké [tu-v-é tu-fís-il-e]*], *tu-ké tu-va-taáng-a.*
 1P-AUX 1P-be-SUB 1P-arrive-PFV-FV 1P-AUX 1P-OM2-help-FV
 ‘Had we arrived [earlier today], we would have helped them.’
- b. [*va-ké [va-v-é va-lím-it-e umu-guínda]*], *ké=va-vyál-a*
 SM2-AUX SM2-be-SUB SM2-till-PFV-FV 3-field AUX=SM2-plant-FV
neéng’ino.
 today
 ‘Had they tilled the field [at some earlier time today], they would have planted today.’

In the above constructions, too, auxiliary *-ké* may be reduced to a proclitic *ké=*. In (37), the verb in the conjoined clause is marked as completive following *néke*. Again, the event in the protasis clause has not occurred. There appears to be no difference in meaning between the contracted and non-contracted forms *ké=* and *SM-ké*.

- (37) a. *Ké=va-v-é va-fís-il-e néke va-tu-loóng-el-e*
 AUX=SM2-be-SUB SM2-arrive-PFV-FV then SM2-1P-speak-APPL-CMPL
ké=tu-va-taáng-a.
 AUX=1P-SM2-help-FV
 ‘Had they arrived and then spoken to us, we would have helped them.’ [today]
- b. *Ké=tu-v-é tu-mu-lóonj-e héla úlwa á-su-pá-li,*
 AUX=1P-be-SUB 1P-OM1-tell.PFV-FV only that SM1-NEG-SM16-COP
si=ké=áas-a ndâ.
 NEG=AUX=SM1.come-FV NEG
 ‘Had we only told him that she was not here, he would not have come.’ [today]

10 Auxiliary with complement auxiliary clause (2): [SM-*aá-li* [SM-T-*v-e* SM-^HB-*iC-e*]]

The main auxiliary verb may be the full remote past form *SM-aá-li* or the contracted *SM-eé*, unlike the hodiernal past, which only occurs in the contracted form *SM-ké* or proclitic *ké=* (see Section 6 above). The [SM-*aá-li* [SM-*v-é* SM-^HB-*iC-e*]] construction denotes an event that occurred in the remote past on the same day as, and just before, the reference time. There is, in (38a), a conceptual link between ‘tilling’ and ‘planting’, denoted by *vá-v-e va-lím-it-e*, but no such link between ‘tilling and planting’ and ‘arriving’.

- (38) a. [*v-áá-li* [*vá-v-e* *va-lím-it-e* *umu-guúnda*]] *néke*
 SM2-P_{RM}-COP SM2-be-PFV.FV SM2-till-PFV-FV 3-field and_then
va-vyál-e *ama-doógi pé=nd-aa-fík-iig-é* *pála.*
 SM2-plant-CMPL 6-bean when=1S-P_{RM}-arrive-DUR.PFV-FV 16.there
 ‘They had tilled the field and then directly planted beans [remote] when I was arriving there.’
- b. [*Tw-áá-li* [*tú-v-e* *tu-fúf-il-e* *imy-eénda j-étu*]]
 1P-P_{RM}-COP SM2-be-PFV.FV SM2-wash-PFV-FV 4-clothes 4-1P.POSS
pé=y-aa-vaang-iig-é *ukú-toóny’a.*
 when=SM9-P_{RM}-start-DUR.PFV-FV 15-rain
 ‘We had washed our clothes [remote] when it was starting to rain.’

The complement auxiliary *-v-e* may occur with the remote past marker *aa-*. The two examples in (39) illustrate the difference between the two different verbal forms of *-v-e*. The remote tense marker on *-v-e* (39b) situates the specified event in the Ante-preterite D-domain, illustrated diagrammatically in Figure 15. The unrealized ‘had not yet left’ functions as E_2 , implied ‘leaving’ as the reference time indexed by *ch-áá-li*.

- (39) a. *Ifi-pigo fi-ify-o* [*fy-áá-li* [*fí-v-e* *fi-pígiik-e*]] *ku=káaye*
 6-task DEM-6-DIS SM6-PRM-COP SM6-be-PFV SM6-be_done-PFV-FV 17=home
y-áwo.
 9-3P.POSS
 ‘Those very tasks had just been done at their home.’
- b. *Iki-pigo kí-la* [*ch-áá-li* [*ch-aa-v-é* *ki-pígiik-e*]]
 7-work 7-DEM SM7-RMCOP SM7-P_{RM}-be-PFV.FV SM6-be_done.PFV-FV
wé=si=tu-láa-wuuk-á.
 while=NEG-1P-NEG_{YET}-stand_up-FV
 ‘That work had been done [earlier] before we had left [Lit. while we had not yet left].’

The example in (39b) is significant for two reasons. First, Anderson (2011,23) states that “one salient way in which a number of languages in Africa stand out (...) is the doubled inflectional pattern of AVCs”, as, for example, with doubled subject or tense marking. This doubled subject marking, as we have observed, is found in Kihehe AVCs. However, while both auxiliary and main verb may have the same tense marking, it is not the case that this represents Anderson’s doubling in this language, and probably not in many other Bantu languages. As the example in (39) demonstrates, double *aa-* on the auxiliary verbs indicates two different tense relations – that between RT_0 (UT) and RT_1 , and a second between RT_1 and RT_2 – illustrated in Figure 15. Second, the existence of the Ante-preterite is relevant to the analysis of tense in many Bantu and even European languages, such as Portuguese and French (Botne 2023).

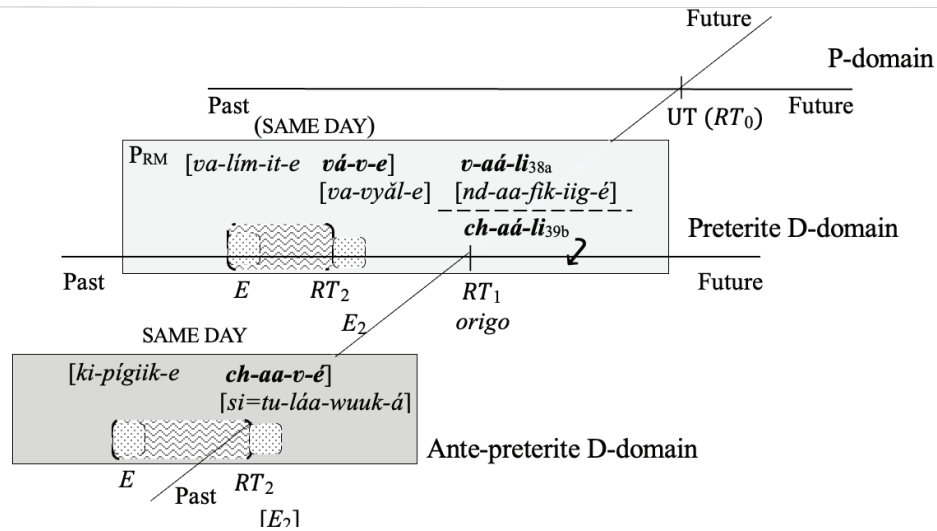


Figure 15: Double auxiliary SM-*aá-li* SM-*t-v-e* with main verb in the simple perfective in the Preterite D-domain (38a), in the Ante-preterite D-domain (39b)

11 Auxiliary with complement auxiliary clause (3): [SM-*eé* [SM-T-*v-e* SM-^HB-*iC-e*]]

The contracted remote copula SM-*eé*, reduced from SM-*aá-li*, occurs with the same auxiliary complements as the full form (40). The event specified by the main verb has occurred at some time earlier than two indexed reference times. Thus, in (40a), there is a conceptual connection between the event -*fúfile* ‘washed’ and the event -*ánike* ‘spread to dry’, the former preceding the latter, which is indexed at RT_1 . The event -*vaangiigé ukútoóny’a* ‘start to rain’ is indexed at RT_2 . That is, both E and E_2 have occurred at some earlier time with respect to the onset of rain. The same analysis applies to (40b). In (40c), two reference times are indexed, but the event E_2 is implied.

- (40)
- a. RT_2 RT_1 E
 a. [*v-eé* [*vá-v-e* *va-fúf-il-e* *imy-eénda* *j-áwo*]] *néke*
 SM2-RMCOP SM2-be-PFV.FV SM2-wash-PFV-FV 4-clothes 4-3S.POSS and_then
 E_2 E_1
va-ánik-e *pé=y-aa-vaang-iig-é* *ukú-toóny’a*.
 SM2-spread_to_dry-CMPL when=SM9-PRM-start-DUR.PFV-FV 15-rain
 ‘They had washed their clothes and spread [them] to dry when it was starting to rain [at a later time].’
- b. [*v-eé* [*vá-v-e* *va-lim-it-e* *umu-gúinda*]] *néke*
 SM2-RMCOP SM2-be-PFV.FV SM2-till-PFV-FV 3-field and_then
va-vyäl-e *pé=ly-aa-vaang-iig-é* *ukú-vala*.
 SM2-plant-CMPL when=SM5-PRM-start-DUR.PFV-FV 15-shine
 ‘They had tilled the field and then directly planted, when the sun was starting to shine [at a later time].’

- c. *Pakúva imi-ítu i-j-ó [j-eé [gí-v-e gi-pígiik-e]] ku=Tiilo,*
 because 4-miracle DEM-4-DIS SM4-RMCOP SM4-be-PFV SM4-do.PFV-FV 17=Tiilo
v-eé va-v-á va-pés-il-e i-daáha iinz-ánaangífu i-s-ô.
 SM2.RMCOP SM2-be-FV SM2-stop-PFV-FV 9-long_time 10-bad_actions DEM-10-DIS
 ‘Because those miracles had happened in Tilo, they would have stopped those bad actions long ago.’

If the main auxiliary verb is in its full form, i.e. SM-*aa-li*, rather than contracted SM-*ee*, the construction indicates that the relevant event occurred just prior to reference time RT_1 , as in (41a), in contrast with the contracted form, which implies some greater gap in time (41b).

- (41) a. *Ifi-pigo fi-ify-o [fy-aa-li [fi-v-e fi-pígiik-e]] ku=káaye*
 8-task 6-6-DEM SM6-RMCOP SM6-be-PFV.FV SM6-be_done.PFV-FV 17=home
y-áwo pé=v-ii-sogól-a ulu-geéndo lw-áwo.
 9-3P.POSS when=SM2-PRO-head_out-FV 11-trip 11-3P.POSS
 ‘Those tasks had [just] been done at their home when they headed out on their trip.’
- b. *Ili-pigo li-ily-o [ly-ee [li-v-e li-pígiik-e]] ku=káaye*
 5-work DEM-5-DIS SM5-RMCOP SM5-be-PFV SM5-be_done-PFV-FV 17=home
y-áwo.
 9-3P.POSS
 ‘That work had been done at their home [at some earlier time].’

The complement auxiliary clause can occur with auxiliary *-v-e* marked with remote past *aa-*, hence [SM-*ee* [SM-*aa-v-é* SM-B-*iC-e*]]. In (42b), RT_1 – the shifted *origo* – is understood as that time at which I arrived, while RT_2 indexes the time of a non-event ‘my not yet having arrived’.

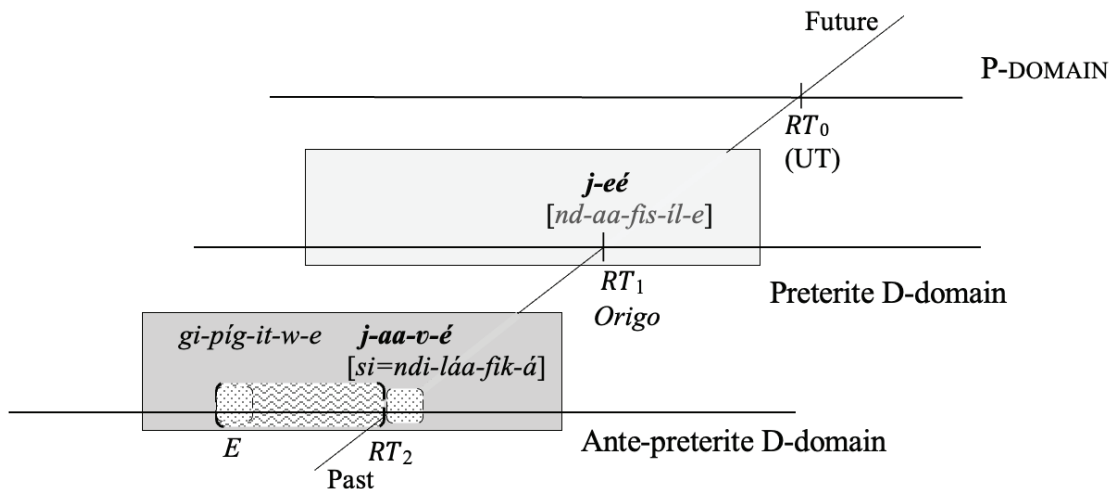


Figure 16: Auxiliary SM-*ee* marking reference time in the Preterite D-domain, auxiliary SM-*aa-v-é* marking a second reference time span RT_2 in the Ante-preterite D-domain, with the main verb marked as perfective with respect to RT_2

- (42) a. [*Tw-eé* [*tw-aa-v-é* *tu-lím-it-e* *umu-guúnda*]] *néke*
 1P-RMCOP 1P-P_{RM}-be-PFV.FV 1P-till-PFV-FV 3-field and_then
tu-vyál-e pé=y-aa-vaang-iig-é ukú-toóny'a.
 1P-plant-CMPL when=SM9-P_{RM}-start-DUR.PFV-FV 15-rain
 'We had tilled the field and then planted [very remote] when it was starting to rain.'
- b. [*J-eé* [*j-aa-v-é* *gi-píg-i-it-w-é*]] *mbeé=gi-li*
 SM4-RMCOP SM4-P_{RM}-be-PFV.FV SM4-do-PASS-PFV-PASS-FV all=SM4-COP
wé=si=ndi-láa-fik-â.
 even_though=NEG=1S-NEG-arrive-FV
 'They [tasks] had all been done even though I had not yet arrived.'

12 Auxiliary with complement auxiliary clause (4): [SM-*eé* [SM-*aa-li* SM-^HB-*iC-e*]]

The contracted main auxiliary verb SM-*eé* can also occur with copula *-li* as the auxiliary in the complement clause. In this case, the copula must be in the remote past tense. In (43a), then, the *origo*, here RT_1 , is that implied point at which 'I' had arrived. 'He' had told everyone by some earlier point in time when I had not yet arrived (RT_2). This second reference time is located in the Ante-preterite D-domain, and preceded by the main event, 'told', as schematized in Figure 17.

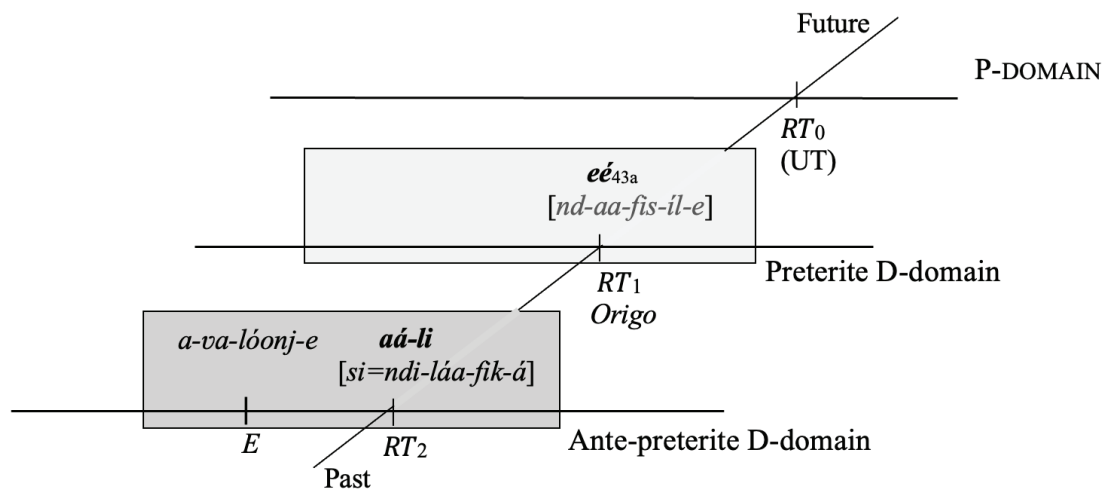


Figure 17: Auxiliary SM-*eé* + auxiliary *-aa-li* with main verb in simple perfective in the Ante-preterite D-domain

- (43) a. *Ye=[eé* [*aa-li* *a-va-lóonj-e* *mbeé=va-li*]]
 already=SM1.RMCOP SM1.P_{RM}-COP SM1-OM2-speak.APPL.PFV-FV all=SM2-COP
wé=si=ndi-láa-fik-â.
 even_though=NEG=1S-NEG_{YET}-arrive-FV
 'He had already told all of them even though I had not yet arrived.'

- b. [*Tw-eé* [*tw-aá-li tu-lím-it-e umu-guínda mbeé=gu-li*]]
 1P-RMCOP 1P-P_{RM}-COP 1P-till-PFV-FV 3-field whole=SM3-COP

pé=tw-kú-va-gusikis-â.

when=1P-PRO-OM2-sell_{to}-FV

‘We had [already] tilled the whole field [earlier] when we sold [it] to them.’

RECAP

Double compound auxiliary constructions invariably have a form of *-li* as the first auxiliary, followed by an auxiliary complement clause. However, although there is a construction with *-aá-li*, there is no full auxiliary with *-ká-li*, only the contracted form. The second auxiliary is usually constructed from one of three temporal forms of *-v-e*, but from the remote past form of *-li* in one case. These constructions index two reference times, auxiliary *ké* referring to a point, auxiliary *-v-e* to a temporal span.

Table 5: Double compound auxiliary constructions grounded in COPULA *-li*

| | | | | | |
|------------------|----------------|---------------------------------|----------------------|--------------------|---------------------------------|
| SM- <i>ké</i> | SM- <i>v-e</i> | SM- ^H B- <i>iC-e</i> | SM- <i>ké</i> | SM- <i>káa-v-é</i> | SM- ^H B- <i>iC-e</i> |
| <i>ké=SM-v-e</i> | | SM- ^H B- <i>iC-e</i> | <i>ké=SM-káa-v-é</i> | | SM- ^H B- <i>iC-e</i> |
| | | | | | |
| SM- <i>ké</i> | SM- <i>v-é</i> | SM- ^H B- <i>iC-e</i> | | | |
| <i>ké=SM-v-é</i> | | SM- ^H B- <i>iC-e</i> | | | |
| | | | | | |
| SM- <i>aá-li</i> | SM- <i>v-e</i> | SM- ^H B- <i>iC-e</i> | SM- <i>aá-li</i> | SM- <i>aa-v-é</i> | SM- ^H B- <i>iC-e</i> |
| SM- <i>eé</i> | SM- <i>v-e</i> | SM- ^H B- <i>iC-e</i> | SM- <i>eé</i> | SM- <i>aa-v-é</i> | SM- ^H B- <i>iC-e</i> |
| | | | SM- <i>eé</i> | SM- <i>aá-li</i> | SM- ^H B- <i>iC-e</i> |

13 Future auxiliaries: (sá=)SM-v-á SM-T-B-iC-e

Although the focus of this study has been on auxiliary verbs marked for different pasts, it should be noted that future auxiliary constructions, based on auxiliary *-va*, also exist. Just as there are two future forms of the verb *-va* ‘be’ – near SM-*v-á* and remote *sá=SM-v-á* – there are two sets of auxiliary constructions based on them. As near future auxiliary, SM-*v-á* may occur with either the simple (44a) or recent *káa-* (44b) perfective form of the main verb, having the sense ‘will have Ved’ (in the future of the P-domain).

- (44) a. *Ná=l-o ulú-leénga lw-é=u-v-á u-tégw-e ukú-huma*
 even=11-DEM 11-water 11-REL=2S-be-FV 2S-take.PFV-FV 15-come_{from}

mu=mú-koga lu-v-á lu-sís-il-e.

18=3-river SM11-be-FV SM11-finish-PFV-FV

‘Even that water that you will have taken from the river will have been depleted.’

- b. *M-swámú va-ángu a-v-á a-káa-naambul-y-ê.*

1-son 2-1S.POSS SM1-be-FV SM1-P2-1S.tell-PFV-FV

‘My son will have told me.’ [the day before or earlier than reference time]

The remote future is formally like the near future but with the addition of the proclitic *sá=*. In the first instance, the main verb in the auxiliary construction is in the simple perfective (45a), in the second the remote past perfective (45b). The latter is then interpreted as occurring in the Ante-futurum D-domain, analogous to the Ante-preterite D-domain described previously above (Figure 17). Note that the dotted timeline through the Ante-futurum is for legibility.

- (45) a. *Sá=mu-teng'emál-a pamwiínga na umú-twa pé=sá=a-v-á*
 $F_{RM}=2P$ -sit-FV together with 1-chief when=FUT-SM1-be-FV
a-téng'em-e mu=ki-goda ch-a uwu-kómi.
 SM1-sit-PFV.FV 18=7-chair 7-ASV 11-power
 'You will sit together with the chief when he will have been seated in the chair of power.'
- b. *Sá=tu-v-á ye=tw-aa-hes-il-e ku=Mbigili pé=v-ii-pilúk-a.*
 $F_{RM}=1P$ -be-FV already=1P- P_{RM} -leave-PFV-FV 17=Mbigili when=SM2-PRO-return-FV
 'We will have already left from Mbigili when they return.'

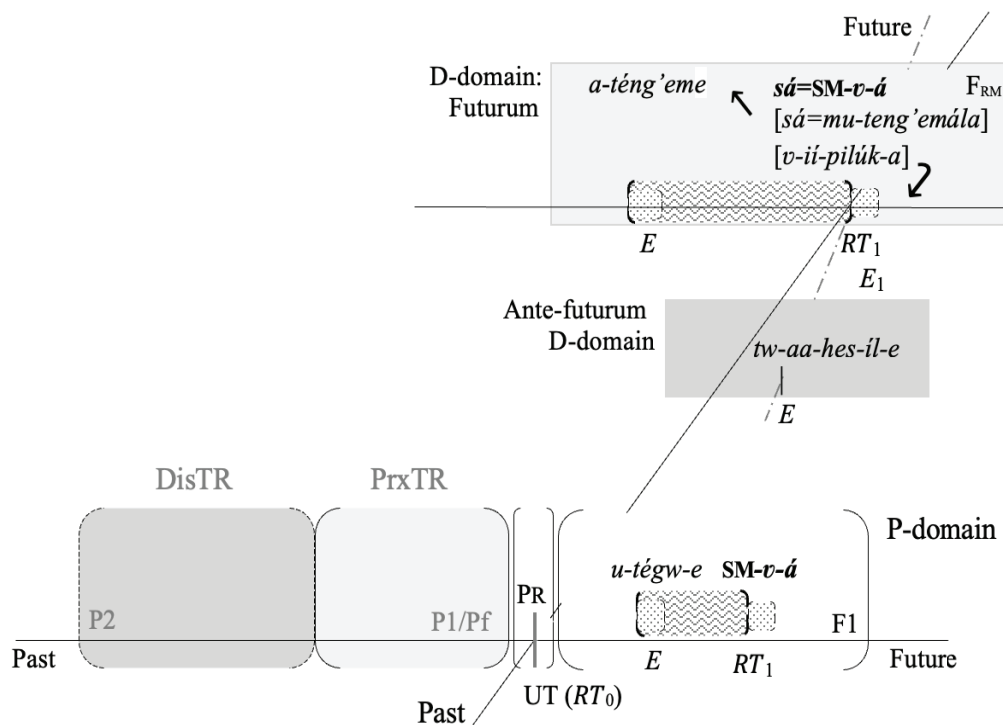


Figure 18: Auxiliary *-va* in the future

Note the difference between the auxiliary construction in the subordinate clause (45a) and in the main clause (45b). In the former, reference time is marked with the remote future proclitic *sá=* in the main clause, while in the latter it is marked by the Relative Present *origo í-* in the subordinate clause. Thus, in (45a) both clauses are interpreted with respect to UT, while in (45b) the verb in the subordinate clause is construed as a 'present origo' indexed by RT_1 .

14 Auxiliary with complement auxiliary clause (5): (SM-)ké [SM-v-á SM-^HB-iC-e]

As described in Section 11 above, the auxiliary construction SM-v-á SM-^HB-iC-e indexes a reference time in the tangible future F1 of the P-domain. However, when the auxiliary SM-ké precedes the construction, the new construction acquires a conditional reading (46a), that is, finding us at home would have occurred but for some unspecified issue. The form with proclitic ké= differs in that it does not specify whether the event occurred immediately before reference time or much earlier today.

- (46) a. *va-ké* [*va-v-á* *va-tu-fis-il-e*] *pa=káaye*.
 SM2-AUX SM2-be-FV SM2-1P-make_contact-PFV-FV 16=9.home
 ‘They would have found us at home (but didn’t).’ [at that point today]
- b. *Ké=va-v-á* *va-tu-fis-il-e* *pa=káaye*.
 AUX=SM2-be-FV SM2-1P-make_contact-PFV-FV 16=9.home
 ‘They would have met us at home (but didn’t).’ [today; no specific time]

Note that there is no equivalent original construction SM-ká-li SM-v-á SM-^HB-iC-e, presumably because the *ká-li* specifies overtly a recent past, whereas *ké* has acquired a conditional interpretation.

The conditional sense of auxiliary -*va* use arises as well in its future form as an auxiliary verb in a complement auxiliary clause, with either contracted primary auxiliary SM-ké (47) or proclitic ké= (47). These constructions indicate that the event named in the main verb of the main clause did not occur. There is no apparent difference between the full form and the contracted ké= proclitic (48).

- (47) a. *va-ké* *va-lemw-é* *ukú-hweelelela* [*va-ké* [*va-v-á* *va-tu-fis-il-e*]]
 SM2-AUX SM2-fail-SUB 15-be_late-FV SM2-AUX SM2-be-FV SM2-1P-arrive-PFV-FV
pa=káaye.
 16=9.home
 ‘Had they not been late [Lit. had they failed to be late], they would have found us at home.’ [today]
- b. *Ngali* [*u-ké* [*u-v-á* *yé=u-héj-e*] *ng’aani*]
 is_it 2S-AUX 2S-be-FV already=2S-leave.PFV-FV completely
uluhumamuú=ng’i]?
 11.from 18=9.country
 ‘Is it that you would have already left the land completely?’ [on that day or today]
- (48) a. *Ké=va-v-á* *va-lím-it-e* *umu-guúnda* *gú-la* *pamílaáwu* *íla*
 AUX=SM2-be-FV SM-till-PFV-FV 3-field 3-DEM morning but
y-íi-toóny’-a.
 SM9-PRO-rain-FV
 ‘They would have tilled that field in the morning, but it rained.’

- b. *Pamilaáwu, ké=tu-v-á tu-lím-it-e umu-guínda gú-la swê,*
 morning AUX=1P-be-FV 1P-till-PFV-FV 3-field 3-DEM only_that
ké=va-v-é si=v-íí-vaw-á.
 AUX=SM2-be-PFV.FV NEG=SM2-PRO-ail.PASS-FV
 ‘In the morning, we would have tilled that field only, had we not been ill.’

There is also a double auxiliary construction SM-*eé* SM-*v-á* SM-B-*iC-e*, which is understood only as not having been realized, and is hence translated as ‘would have Ved’ (49) in the remote past.

- (49) [*v-eé* [*va-v-á va-hés-it-e n=av-án-áwo mbeé=va-li*]]
 SM2-RMCOP SM2-be-FV SM2-leave-PFV-FV with=2-children-3P.POSS all=SM2-COP
 i. *íla si=v-aa-lamw-í ukú-hega.*
 but NEG=SM2-P_{RM}-decide-NEG 15-leave
 ii. *pé=v-íí-haám-a pála.*
 when=SM2-PRO-move-FV 16.there
 ‘They would have left with all their children
 i. but they decided not to leave.’
 ii. had (when) they moved there.’

RECAP

The verb *-va* also occurs in double compound auxiliary constructions with *-ké*, *ké=*, or *-eé* as the first auxiliary. In each case, the event is unrealized. The construction has a conditional sense ‘would have Ved’ (Table 6).

Table 6: Double compound auxiliary constructions grounded in *-va*

| |
|--|
| <i>WOULD HAVE VED</i> |
| SM- <i>ké</i> SM- <i>v-á</i> SM- ^H B- <i>iC-e</i> |
| <i>ké=</i> SM- <i>v-á</i> SM- ^H B- <i>iC-e</i> |
| |
| SM- <i>eé</i> SM- <i>v-á</i> SM- ^H B- <i>iC-e</i> |

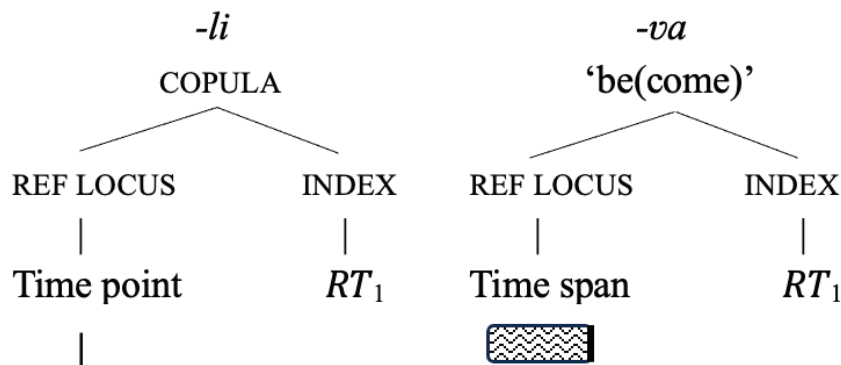


Figure 19: Functions of the BE verb

15 Summary and conclusion

In this study, we have explored just a few of the many, many auxiliary constructions in Kihehe. The focus has been on two auxiliary BE verbs, especially when they have as a complement a perfective matrix verb or second auxiliary verb. Notably, we have seen that each functions in two ways, (i) referring to a temporal locus of orientation – a temporal point, a temporal span, or a temporal span culminating in a point; and (ii) indexing that locus as a reference time *RT*, summed up in Figure 19. Their dual nature implies that they are advantageously analysed as shifters, much like other deictic elements. As the data have shown, auxiliary BE verbs do not simply serve as ‘dummy’ hosts for grammatical inflections.

The data have shown as well that original forms of auxiliary copula *-li* have contracted into new forms *SM-ké*, *ké=*, and *SM-eé*, the contracted forms taking on new modal roles in certain contexts. These original and contracted forms occur in both single and double auxiliary constructions, the latter indexing two reference times. These double auxiliary constructions always have one of the *-li* forms as the first auxiliary. If the construction has perfective *-v-e* as the complement auxiliary, it expresses a temporal relationship in the past between some event and two reference times. On the other hand, we have observed just the contracted auxiliary with a complement auxiliary *-va* that expresses conditional modality.

As posited throughout, auxiliary *-li* refers to and indexes a point as *RT*. It has contracted in various ways so that original *-li* itself is no longer transparent. These contracted forms have come to compete with the original full forms so that there is now an inventory of auxiliary constructions grounded in one form or another of *-li*. Auxiliaries based on *-va*, on the other hand, have remained in their full forms, but unlike *-li* auxiliaries, refer to time spans with the terminal point indexed as *RT*. Thus, the two types can be used to express different relations.

One significant aspect of the double auxiliary constructions is that the primary auxiliary is invariably a form of *-li* followed, in all cases but one, by an auxiliary clause headed by a form of *-va*. It is not clear why this should be the case; presumably it has something to do with the difference in the expression of reference times as points or intervals. More research in this area is certainly warranted.

We have seen, too, that double auxiliary constructions, with a contracted form of *-li*, have come to express a conditional or deontic modality if the complement auxiliary is headed by *-vá*. Thus, these auxiliaries have acquired roles separate from the full forms.

The two auxiliary BE verbs investigated in this study do bear grammatical information, as Anderson (2011, 62) posits, in particular tense and aspect, but they also impart information about reference indices, in Kihehe as many as two, which reflect a shifted origo. What is important here is that these compound auxiliary constructions communicate relevant information about complex temporal relations among events, fruitfully analysed in the Domains and Regions framework. We have seen, for example, the difference between preterite and ante-preterite marking (D-domains), and preterite and ante-preterite perfects, construction types not overtly found in English or in many European languages (but compare Portuguese and French (Botne 2023), hence the repeated ‘had VERBED’ translation for many of these auxiliary forms. Further investigation using the DaR framework may usefully provide new insights into these or related types of constructions.

Abbreviations

| | | | | | |
|------|--------------------|-------|-----------------------|---------|-------------------------------|
| AGR | agreement | FV | final vowel | PrO | relative present <i>origo</i> |
| APPL | applicative | HOD | hodiernal | PRE-PR. | pre-present |
| ASV | associative marker | IMMTR | immediate time region | PRM | remote past |
| AUX | auxiliary | LOC | locative | PRO | pronoun |
| B | verb base | NEG | negative | Q | question marker |
| CMPL | completive | OM | object marker | REC | reciprocal |
| COP | copula | P1 | hodiernal past | RED | reduplicant |
| DEM | demonstrative | P2 | recent past | REL | relative marker |
| DIS | distal | PA | predicate adjective | RM COP | remote past copula |
| DUR | durative | PASS | passive | RT | reference time |
| E | event | PFV | perfective | SM | subject marker |
| EP | epenthetic element | POSS | possessive | SUB | subjunctive |
| F1 | near future | PP | pluperfect(ive) | T | tense |
| FRM | remote future | PR | present | UT | utterance time |

1S, 2S, 1P, 2P = first person singular, etc.; 1, 2, ... = noun classes 1, 2, ... [with SM, OM, AGR, and DEM]

B^H = high tone on final mora of verb base; ^HB = high tone on first mora of verb base

Acknowledgements

I wish to thank Richard Nyamahanga for his long partnership in exploring the Kihehe language, especially its verbal system. I thank, too, other speakers who contributed directly and indirectly in providing language data. I also express my gratitude to two reviewers who contributed to making this a better paper. This work was funded in part by Indiana University Research through their Grant-in-Aid Program. Errors or misanalyses rest solely with the author.

References

- Anderson, Gregory D. S. 2006. *Auxiliary Verb Constructions*. Oxford University Press.
- Anderson, Gregory D. S. 2011. "Auxiliary verb constructions in the languages of Africa." *Studies in African Linguistics* 40:1–2.
- Bastin, Yvonne. 1983. *La finale verbale -ide et l'imbrication en bantou*. Tervuren: Musée royal de l'Afrique centrale.
- Bernander, Rasmus, Maud Devos, and Hannah Gibson. 2022. "Modal auxiliary verb constructions in East African Bantu languages." *Journal of African Languages and Literatures* 3:22–85.
- Botne, Robert. In preparation. *The Verb in Kihehe: Grammar, Dictionary, Texts*.
- Botne, Robert. 1986. "The temporal role of Eastern Bantu -ba and -li." *Studies in African Linguistics* 17,3:303-317.
- Botne, Robert. 2012. "Remoteness distinctions." In *The Oxford Handbook of Tense and Aspect*, edited by Robert Binnick, 536-562. Oxford University Press.

- Botne, Robert 2023. “Domains and Regions: Tense and the pluperfect(ive) in Kihehe, Bantu, and beyond.” In *Domains and Regions in Bantu Tense and Aspect*, edited by Robert Botne and Axel Fanego Palat, 51–103. Rüdiger Köppe Verlag.
- Botne, Robert. 2025. “Tense and aspect.” In *The Oxford Guide to the Bantu Languages*, edited by Lutz Marten, Ellen Hurst, Nancy Kula, and Jochen Zeller, 269–292. Oxford University Press.
- Botne, Robert. and Tiffany L. Kershner. 2008. “Tense and cognitive space: On the organization of tense/aspect systems in Bantu languages.” *Cognitive Linguistics* 19,2: 145–218.
- Eberhard, David M., Gary F. Simons, and Charles D. Fennig, eds. 2025. *Ethnologue: Languages of the World*. 28th ed. Dallas, Texas: SIL International. Online version: <https://www.ethnologue.com/>
- Heine, Bernd. 1993. *Auxiliaries: Cognitive forces and grammaticalization*. New York: Oxford University Press.
- Johnson, Martha Booker. 2015. “A contribution toward a grammar of Kihehe.” <https://www.researchgate.net/publication/338593548>
- Johnson, Martha Booker. 2021. “Subject marker optionality in Kihehe: How prior states can disrupt ‘optimal’ affix order.” <https://www.researchgate.net/publication/362113721>
- Schadeberg, Thilo C. and Francisco Ussene Mucanheia. 2000. *Ekoti: The Maka or Swahili language of Angoche*. Rüdiger Köppe Verlag.