

# Chapter 11

## The behaviour of the Bantu morpheme *-ag-* in Greater East Ruvu

Leora Bar-el<sup>a</sup> & Malin Petzell<sup>b</sup>

<sup>a</sup>University of Montana <sup>b</sup>University of Gothenburg

The morpheme *\*-ag/ang-* (and its various realizations) is found across the Bantu language family and is most often associated with imperfective meanings. This paper describes the behaviour of *-ag-* in six Greater East Ruvu (GER) Bantu languages spoken in the Morogoro region of Tanzania: Kagulu, Kami, Kutu, Kwere, Luguru and Zalamo. While *-ag-* shows evidence of both progressive and habitual interpretations in these languages, *-ag-* is not obligatory. Rather, *-ag-* is more commonly used for habitual meanings in GER languages today. We suggest that this narrowing of the meaning of *-ag-* from imperfective to habitual may be a result of two factors: (i) the lack of a grammaticalized habitual construction in GER languages, and (ii) the loss of the perfective morpheme *-ile* in ER languages. This development of *-ag-* confirms Nurse's (2008: 144) suggestion that there is a "cognitive connection between imperfective and habitual, excluding progressive". That *-ag-* is not obligatory in GER languages is consistent with features of the GER temporal/aspectual systems which lack much of the tense and aspect morphology typical across Bantu languages. However, the non-obligatoriness of *-ag-* in imperfective contexts suggests that the GER temporal/aspectual systems are continuing to evolve.

### 1 Introduction

Bantu languages are known for their abundance of tense, aspect and mood categories (Dahl 1985: 176). The Greater East Ruvu (GER) languages are unique within the Bantu family in that they exhibit a decidedly reduced set of temporal and aspectual morphemes (cf. among others, Bar-el & Petzell 2021, Petzell 2020, Petzell & Aunio 2019, Petzell & Edelsten 2024, Dom et al. 2022). In this paper we focus



primarily on aspect, which Comrie (1976) describes as “different ways of viewing the internal temporal constituency of a situation” (2-3). A central contrast in aspectual systems is that between perfective and imperfective: perfective views a situation as a whole, without “explicit reference to the internal temporal constituency of the situation” (Comrie 1976: 21), while imperfective views part of a situation, from within, with “explicit reference to the internal temporal structure of a situation” (Comrie 1976: 24).

The morpheme *\*-ag/ang-* (and its various realizations) is found across the Bantu language family and is most often associated with imperfective meanings, namely progressive and habitual (Nurse & Devos 2019, Rose et al. 2002: 41). While *-ag-* is generally required for imperfective readings in those languages where it surfaces, in GER languages *-ag-* is found in imperfective contexts, but is not obligatory. The goal of this paper is to describe the behaviour of *-ag-* in the GER languages and to explain its function with respect to the temporal/aspectual systems of these languages. We show that while *-ag-* shows evidence of both progressive and habitual interpretations, it is more commonly used for habitual meanings in GER languages today. We suggest that this narrowing of the meaning of *-ag-* to habitual may be a result of two factors: (i) the lack of a grammaticalized habitual construction in GER languages, and (ii) the loss of the perfective morpheme *-ile* in GER languages.

This paper is organized as follows: after a brief introduction to the GER languages in §2, we provide a general description of the morpheme *-ag-* in Bantu languages in §3. We then examine the progressive and habitual usage of *-ag-* in the GER languages in §4. In §5 we suggest an account for the preferred habitual reading of *-ag-*, and we conclude in §6.

## 2 Greater East Ruvu Bantu languages

The six Greater East Ruvu (ER) languages form a subset of the eight Greater Ruvu languages, all of which are members of the Bantu language family and are spoken in the Morogoro region of central Tanzania (Figure 1). The GER languages are classified as Guthrie’s (1948) G-languages, following the Bantu tradition (henceforth NUG (Hammarström 2019)): Kagulu (ISO 639-3: kki, NUG code G12), Kami (ISO 639-3: kcu, NUG code G36), Kutu (ISO 639-3: kdc, NUG code G37), Kwere (ISO 639-3: cwe, NUG code G32), Luguru (ISO 639-3: ruf, NUG code G35), and Zalamo (ISO 639-3: zaj, NUG code G33). The number of L1 speakers range across the languages, from approximately 5,500 Kami speakers to over 400,000 Luguru speakers (Languages of Tanzania Project 2009).<sup>1</sup>

---

<sup>1</sup>These speaker numbers reflect those who consider themselves speakers of the respective languages. These numbers do not reflect an assessment of fluency.

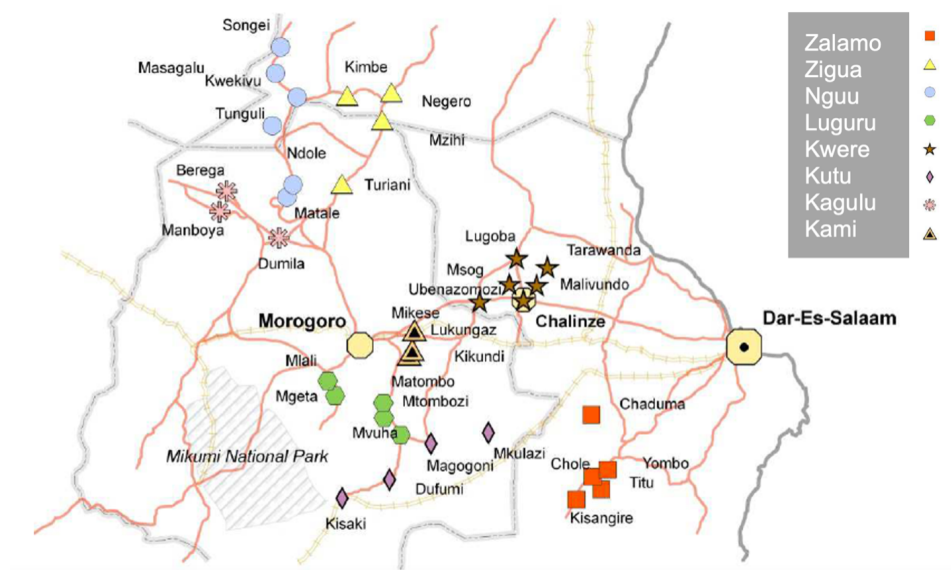


Figure 1: The linguistic centers of the eight Greater Ruvu languages (Petzell & Hammarström 2013).

There is relatively little research on the GER languages. There are some comparative works (Petzell 2012b, Petzell & Hammarström 2013), as well as grammatical descriptions of Luguru (Mkude 1974, Seidel 1898), Kagulu (Last 1886, Petzell 2008), and Kami (Velten 1900, Petzell & Aunio 2019). Additionally, there is some work on grammatical features in these languages (Bar-el & Petzell 2021, Petzell 2020, Petzell & Khül 2017, Dom et al. 2023, 2022).

The speakers consulted for this study are all first language speakers of their respective GER language variety and speak the language on a daily basis. All of them were born in the Morogoro region and still live in the region today. They are all bilingual in Swahili (Petzell 2012a) and many of them have worked as Bible translators and thus also speak English. The data on which this paper is based stem from fieldwork carried out in 2018-2019 with one to two speakers per language variety, and follow up digital correspondence in 2021-2022. A combination of direct translations, descriptive contexts and non-verbal stimuli were used to elicit the forms using both Swahili and English as metalanguages. We were unable to avoid translations altogether, however, we tried to minimize the impacts of translations from a metalanguage by supplementing translations with these other methodologies (e.g., asking speakers to describe acted out scenes, drawings, and asking for felicity judgements in the target languages). Apart from elicited

forms, examples are also taken from a database comprising more than 10,000 token sentences collected between 2009-2019 that are tagged for tense, aspect, and negation, among other features (Petzell & Jordan 2022).

### 3 The morpheme *-ag-* in Bantu

The morpheme *\*-ag-* (and its reflexes) is “largely attested in Bantu” (Meeussen 1967: 110) and most commonly encodes imperfective (Nurse 2008). Of the two reconstructed shapes (*\*-ag-* and *\*-ang-*), *-ag-* is the most widespread (Nurse & Philippson 2006: 192). As an imperfective marker, *-ag-* typically yields progressive and habitual interpretations. For example, in Ndengeleko (ISO 639-3: ndg, NUG code P11) *-ag-* is described as an imperfective with both progressive (1) and habitual (2) interpretations.

- (1) Ndengeleko (Ström 2013: 256)<sup>2</sup>  
 A-andik-**age** balua.  
 SM1-write-**PST.IPFV** 9/10.letter  
 ‘He was writing letters.’

- (2) Ndengeleko (Ström 2013: 223)  
 A-andik-**aga** balua.  
 SM1-write-**IPFV.FV** 9/10.letter  
 ‘He usually writes letters.’

In some Bantu languages such as Haya (ISO 639-3: hay, updated NUG code JE22) and Ndali (ISO 639-3: ndh, NUG code M301), *-ag-* encodes habitual only. In a few Bantu languages, *-ag-* encodes progressive only (Nurse 2008: 144).

There are some Bantu languages where reflexes of *-ag-* have a wider distribution than imperfective constructions alone, and in this way they can behave atypically. In Nyamwezi (ISO 639-3: nym, NUG code F22), habitual meanings are expressed by verbal constructions containing *-ag-*, as illustrated in (3) for present tense and (4) for past tense (Kanijo 2019).

- (3) Nyamwezi (Kanijo 2019: 57)  
 A-**kũ-zũg-ag-a** kílá lú-shikó.  
 SM1-**HAB-cook-IPFV-FV** every 11-day  
 ‘S/he cooks everyday.’

---

<sup>2</sup>For comparative purposes, throughout the paper, glosses from other sources are adapted to conform to the glossing used for GER languages. This primarily applies to the subject markers, which are glossed SM plus the noun class number, and *-ag-*, which is glossed IPFV, although it may also have different functions in other languages.

- (4) Nyamwezi (Kanijo 2019: 57)  
 ɔ-a-zug-ag-é kílá ló-shíkó.  
 SM1-PST-cook-IPFV-FV every 11-day  
 ‘S/he used to cook everyday.’

However, *-ag-* in Nyamwezi also appears in verbal constructions that express meanings other than habitual, such as the hodiernal past (5), hortative (6), habitual hortative (7), and imperative (8) (Kanijo 2019).

- (5) Nyamwezi (Kanijo 2019: 40)  
 ɔ-á-imb-ag-á lĩmĩ.  
 SM1-PST-sing-IPFV-FV daytime  
 ‘S/he sang this afternoon.’

- (6) Nyamwezi (Kanijo 2019: 67)  
 A-mál-ag-eé!  
 SM1-finish-IPFV-FV  
 ‘S/he should finish!’

- (7) Nyamwezi (Kanijo 2019: 67)  
 A-laa-mal-ag-é!  
 SM1-HAB\_HORT-finish-PFV-FV  
 ‘S/he should always finish!’

- (8) Nyamwezi (Kanijo 2019: 67)  
 Mal-ag-á!  
 finish-IPFV-FV  
 ‘(You.sg) finish (it)!’

The imperative function of *-ag-* can also be seen in Manda (ISO 639-3: mgs, NUG code N11), where reflexes of *\*-a(n)g-* can function as an imperative marker (Bernander 2020).

## 4 *-ag-* in Greater East Ruvu

*-ag-* has been attested in GER languages since the late 1800s (though there exist grammatical sketches only of Kagulu, Kami and Luguru from that period). The most extensive documentation is found for the Luguru language where both Seidel (1898) and Mkude (1974) report usage of *-ag-*. Seidel refers to *-ag-* as an

imperfect (1898: 465), while Mkude suggests that *-ag-* in Luguru has a variety of potential meanings and that “[w]hether the meaning is habituality, repeatedness or persistiveness depends entirely on context and the semantic meaning of the verb in question” (1974: 104). Last (1886) documents *-ag-* in Kagulu, stating that it denotes “a continuous imperfect state” (1886: 56). Furthermore, Last suggests that as an “imperfect” *-ag-* denotes “an action incomplete at the time of speaking” (Last 1886: 58). Describing *-ag-* in Kami, Velten (1900) suggests that it had both progressive and habitual meanings. While he describes it as denoting ‘length/lasting’ (“die Dauer”) as in *ni-to-ag-a* ‘I am (in the process of) beating/farming’ (“ich bin am Schlagen”) (Velten 1900: 16), Velten also includes examples of *-ag-* with ‘always’, suggesting a habitual meaning as well, as illustrated in (9) and (10) below. These older sources demonstrate that in these languages *-ag-* had both progressive and habitual interpretations.

- (9) Kami (Velten 1900: 16)  
Ka-kall<sup>3</sup>-ag-a            ku m-gunda.  
SM1-be/live-IPFV-FV 17 3-farm  
‘S/he always lives on the plantation.’

- (10) Kami (Velten 1900: 16)  
Wa-law-ag-a.  
SM2-go\_away-IPFV-FV  
‘They always go out.’

Among contemporary speakers of the GER languages, the habitual interpretation of *-ag-* is far more predominant, though progressive interpretations are available for some speakers in some of the languages. Thus, even in the languages where the progressive interpretation of *-ag-* does not emerge in our data collection, earlier sources document this progressive interpretation of *-ag-*. In this section we demonstrate progressive interpretations (§4.1) and habitual interpretations (§4.2) of *-ag-* among contemporary speakers of GER languages.

#### 4.1 Progressive interpretations of *-ag-* in GER

The progressive interpretation of *-ag-* is observed nowadays frequently in Kagulu and only occasionally in Kami and Luguru. The Kagulu sentence in (11) below yields an overlapping reading of the event in the clause containing the verb stem

---

<sup>3</sup>*kukala* ‘to be/live’ is no longer spelled with a geminate <l> in contemporary Kami.

*tung* ‘bead’ marked by *-ag-*, and the event in the temporal clause containing the verb *ingil* ‘enter’. The example in (12) illustrates the same overlapping reading with the verb stem *som* ‘read’:

- (11) Kagulu  
 Ha-ni-tung-**ag**-a                      salu    fo-ya-ingil-e.  
 PST-SM.1SG-bead-**IPFV**-FV 9.bead TEMP-SM1-enter-FV  
 ‘I was beading beads when she entered.’

- (12) Kagulu  
 Fo-ni-ingil-ile                      Leora ha-ka-som-**ag**-a.  
 TEMP-SM.1SG-enter-ILE Leora PST-SM1-read-**IPFV**-FV  
 ‘When I entered Leora was reading.’

The sentences in (13) and (14) below illustrate progressive interpretations of *-ag-* in Kami and Luguru, respectively. The Kami speaker was asked to translate a Swahili sentence containing the present progressive *-na-* (*Nyumbani, mwanafunzi anasoma*. ‘In the house, a student is reading.’<sup>4</sup>). The Luguru sentence was the description given for a scene acted out by the authors.

- (13) Kami  
 Ukaye                      ko-som-**ag**-a                      mw-anafunzi.  
 in\_the\_house SM1.non\_pst-read-**IPFV**-FV 1-student  
 ‘In the house a/the student is reading.’
- (14) Luguru  
 Leora ko-seg-**ag**-a                      ha-ku-ingil-a                      Malin.  
 Leora SM1.PRS-sweep-**IPFV**-FV TEMP-SM15-enter-FV Malin  
 ‘Leora is sweeping when Malin comes in.’

The Luguru sentences in (15) and (16) are examples containing *-ag-* in both clauses with progressive interpretations. The presence of the temporal adverbial *jana* ‘yesterday’ in (15) reinforces the progressive (rather than habitual) interpretation, as a habitual reading would not be expected for that time span.

---

<sup>4</sup>One reviewer suggests that the Swahili sentence could also be interpreted habitually. Our Swahili consultant confirms that while a habitual interpretation is possible, the default reading of this sentence is progressive. The same reviewer points out that speakers might be calquing when translating from Swahili. We recognize that a metalanguage can impact translations; however, in some cases when speakers are asked to translate Swahili sentences containing *-na-*, they do not offer corresponding GER sentences with *-ag-*.

(15) Luguru

Ahala Amina ha-tsum-**ag**-a                      jana                      ni-tow-**ag**-a  
 DEM Amina TEMP.SM-run-**IPFV**-FV yesterday SM.1SG-beat-**IPFV**-FV  
 makofi.  
 applause  
 ‘When Amina was running yesterday, I was clapping my hands.’

(16) Luguru

Amina ko-neneh-**ag**-a    lugaluga.  
 Amina SM1.NON\_PST-be/get\_fat-**IPFV**-FV slowly  
 ‘Amina is getting fat bit by bit.’

However, *-ag-* is not obligatory for progressive interpretations in GER languages. When translating English or Swahili progressive constructions or providing descriptions of progressive contexts, speakers rarely offer *-ag-* constructions. For instance, when acting out contexts such as Leora sweeping at the same time that Malin enters, speakers did not use sentences containing *-ag-*.<sup>5</sup> This is illustrated by the Zalamo sentence in (17) below in which the overlapping interpretation of the two events is available: the event of sweeping was ongoing when the event of entering took place. Nevertheless, *-ag-* does not surface:

(17) Zalamo

Amina ka-fagil-a                      (kibigiti) vi-ni-vik-ile.  
 Amina SM1-sweep-FV (when) TEMP-SM.1SG-enter-ILE  
 ‘Amina was sweeping when I arrived.’

Example (19) from Kwere was elicited using a questionnaire in which speakers were asked to translate the progressive Swahili sentence in (18) consisting of the auxiliary *kuwa* ‘to be’ (bolded in (18)). The Kwere translation given in (19) does not include the *-ag-* affix:

(18) Swahili

Ni-li-**kuw**-a                      ni-ki-lim-a    shamba l-angu  
 SM.1SG-PST-**be**-FV SM.1SG-IPFV-cultivate-FV 5.farm 5-POSS  
 a-li-po-fik-a.  
 SM1-PST-TEMP-arrive-FV  
 ‘I was cultivating my farm when s/he arrived.’

<sup>5</sup>The exception being the Luguru sentence in (14).



(19) Kwere

Ni-kal-a                      no-lim-a                      m-gunda w-angu  
 SM.1SG-be/live-FV SM.1SG.PRS-cultivate-FV 3-farm 3-poss  
 vi-ya-vik-ile.  
 TEMP-SM.1SG-enter-ILE  
 'I was cultivating my farm when s/he arrived.'

Progressive interpretations are available for non-past tense constructions without *-ag-*, as illustrated in the Kutu example in (20) below, or present tense constructions, as illustrated in the Kwere example in (21) below:

(20) Kutu

Amina ko-som-a                      sambi.  
 Amina SM1.NON\_PST-read-FV now  
 'Amina is reading now.' [context: I see her reading now as we speak]

(21) Kwere

Amina ko-kimbil-a                      vino sambi.  
 Amina SM1.PRS-run-FV DEM now  
 'Amina is running right now.'

To emphasize a progressive meaning, speakers of all languages but Kagulu offer the auxiliary *kala* 'be/live'. This is illustrated for Kami (22) and Zalamo (23) below. Kagulu makes use of *kuwa* 'to be', as shown in (24).

(22) Kami

Ni-kal-a                      no-som-a                      fi-ya-ingil-e                      Saidi.  
 SM.1SG-be/live-FV SM.1SG.non\_pst-read-FV TEMP-SM1-enter-FV Said  
 'I was (in the process of) reading when Said entered.'

(23) Zalamo

Vi-ni-vik-ile                      Amina ka-kal-a                      ku-som-a ki-tabu.  
 TEMP-SM.1SG-arrive-ILE Amina SM1-be/live-FV 15-read-FV 7-book  
 'When I arrived, Amina was reading a book.'

(24) Kagulu

Fo-ni-ingil-e                      ya-uw-ag-a                      ye-ku-som-a.  
 TEMP-SM.1SG-enter-FV SM1-be/live-IPFV-FV SM1-15-read-FV  
 'When I entered s/he was reading.'

In sum, a progressive interpretation of *-ag-* was documented in Kagulu, Kami and Luguru in older sources.<sup>6</sup> Contemporary data suggest that the progressive interpretation is available for speakers of Kagulu, is not as predominant as it once was in Kami and Luguru, and is absent altogether in the other GER languages. For all GER languages, alternative ways of expressing progressive meanings, such as auxiliaries or present/non-past tense morphology are available. These strategies are available in other Bantu languages as well, however, in many of those languages, *-ag-* is also obligatory.

#### 4.2 Habitual interpretations of *-ag-* in GER

*-ag-* in the GER languages is more commonly used for habitual interpretations in both present and past contexts. This is illustrated for the present tense Kwere example in (25) below where the sentence is translated using the English adverb *normally*, emphasizing the habitual meaning. The past tense Zalamo example in (26) is translated in English using the past habitual construction *used to*.<sup>7</sup>

(25) Kwere

Ng'howo zo-ol-ag-a.  
10.banana SM10.PRS-be(come)\_rotten-IPFV-FV  
'The bananas normally get rotten.'

(26) Zalamo

Amina ka-fagil-ag-a            mu-lao u-bit-ile.  
Amina SM1-sweep-IPFV-FV 3-year SM3-pass-ILE  
'Amina used to sweep last year.'

*-ag-* can co-occur with temporal adverbials encoding habitual meanings, such as *chila siku* 'every day' in Luguru, as illustrated in (27). However, the temporal adverbial is not required for the habitual meaning, as illustrated by the optionality of *chila siku* in the Kami sentence in (28):

(27) Luguru

Amina ko-fagil-ag-a            chila siku.  
Amina SM1.PRS-sweep-IPFV-FV every 9.day  
'Amina sweeps every day.'

---

<sup>6</sup>There is no previous documentation available for the other GER languages.

<sup>7</sup>Past tense is encoded in GER languages by null tense morphology; see Bar-el & Petzell 2021 for further discussion.

(28) Kami

Ti-gend-**ag**-a      Iringa (chila siku).  
SM.1PL-go-**IPFV**-FV Iringa (every 9.day)  
'We used to go to Iringa (every day).'

We have seen that habitual meanings can be encoded by *-ag-*, and that *-ag-* can co-occur with habitual temporal adverbials. However, as demonstrated for progressive interpretations in §4.1 above, *-ag-* is also not obligatory for habitual interpretations. That is, a temporal adverbial alone can provide enough context for a habitual interpretation. This is illustrated for the present tense sentences in Kwere (29)-(31) and Luguru (32), and the past tense sentences in Kutu (33) and Zalamo (34). None of these sentences contain the morpheme *-ag-*, though they each consist of a habitual temporal adverbial/clause and have habitual interpretations.

(29) Kwere

Chila siku chilugulu Amina ko-legel-a.  
every 9.day at.6pm      Amina SM.1.PRS-be/get\_tired-FV  
'Every day at 6pm Amina becomes tired.'

(30) Kwere

Amina ko-dumb-a                              chila ya-ha-on-a              umbwa.  
Amina SM.1.PRS-be(come).scared-FV every SM1-TEMP-see-FV dog  
'Amina is/becomes scared whenever she sees a dog.'

(31) Kwere

Lusita l-ose      cho-it-a              Dar es Salaam, vino samba  
11.time 11-every SM.1PL.PRS-go-FV Dar es Salaam DEM now  
cho-it-a              Nairobi.  
SM.1PL.PRS-go-FV Nairobi.  
'Normally, we go to Dar Es Salaam, but this time we are going to Nairobi.'

(32) Luguru

No-lim-a                              m-gunda gw-angu chila siku.  
SM.1SG.PRS-cultivate-FV 3-farm 3-POSS every 9.day  
'I cultivate my farm everyday.'

(33) Kutu

Kila vi-wa-tow-ile              ngoma tu-chez-a.  
every TEMP-SM2-beat-ILE 9.drum SM.1PL-play/dance-FV  
'Every time they played the drums, we danced.'

- (34) Zalamo  
 Mu-lao u-bit-ile      Amina kila    vi-ya-kal-ile      yo-kimbil-a  
 3-year SM3-pass-ILE Amina every TEMP-SM1-be/live-ILE SM1-run-FV  
 ka-donh-a.  
 SM1-be/get\_tired-FV  
 ‘Last year, whenever/every time she ran, she got tired.’

Kagulu, Kami, Kutu, and Zalamo have non-past constructions that give rise to habitual present interpretations in addition to present progressive interpretations. In (35)-(38) we observe that sentences without *-ag-* that are marked with non-past morphology get habitual interpretations.

- (35) Kagulu  
 Amina ye-ku-lut-a      ku-soko    chila i-juwa.  
 Amina SM1-NON\_PST-go-FV 17-market every 5-day  
 ‘Amina goes to the market every day.’
- (36) Kami  
 Dimwe kwa dimwe cho-it-a      Dar es Salaam.  
 one    for    one    SM.1PL.PRS-go-FV Dar es Salaam  
 ‘We go to Dar es Salaam frequently.’
- (37) Kutu  
 Amina sambi ko-zeng-a      ng’anda.  
 Amina now    SM.1PL.PRS-build-FV 9.house  
 ‘Amina builds a house (generally).’
- (38) Zalamo  
 No-chas-a      ki-valo    chi-angu.  
 SM.1SG.NON\_PST-lose-FV 7-clothes 7-POSS  
 ‘I usually lose my clothes.’

#### 4.3 Optional present/non-past morphology with *-ag-*

In GER languages, present tense (in Kwere and Luguru) or non-past tense (in Kami, Kutu and Zalamo) is marked with the affix *-o-* (see (25) and (27) above). The exception is Kagulu<sup>8</sup> in which non-past is marked by the affix *-ku-*. In Kagulu,

<sup>8</sup>The marker *-o-* may be used for the future in Kagulu, but does not occur together with *-ag-* in our data.

Kami, Kutu, Luguru and Zalamo, when *-ag-* is added for present habitual meanings, the present/non-past marker *-o-* (*-ku-* in Kagulu) unexpectedly becomes optional.<sup>9</sup> It is usually absent, but can be present with no apparent change in meaning (see (40) and (43)). This is illustrated for Kami (39)-(40), Kagulu (41), Luguru (42)-(43) and Zalamo (44) below. The sentences have no overt tense marker, which typically yields a past tense interpretation (see Bar-el & Petzell 2021), yet the sentences marked with *-ag-* yield a present tense habitual interpretation.

- (39) Kami  
 Malin ka-som-**ag**-a      ki-tabu.  
 Malin SM1-read-**IPFV**-FV 7-book  
 ‘Malin has the habit of reading a book.’
- (40) Kami  
 Amina ko-uk-**ag**-a                      mjini    chila siku.  
 Amina SM1.NON\_PST-read-**IPFV**-FV to town every 9.day  
 ‘Amina (usually) goes to town every day.’
- (41) Kagulu  
 Ka-som-**ag**-a.  
 SM1-read-**IPFV**-FV  
 ‘S/he usually reads.’
- (42) Luguru  
 Amina ka-tsum-**ag**-a      chila siku.  
 Amina SM1-run-**IPFV**-FV every 9.day  
 ‘Amina is running every day.’ [The answer to the question: ‘What exercise does she normally do?’]
- (43) Luguru  
 Amina ko-tsum-**ag**-a.  
 Amina SM1.PRS-run-**IPFV**-FV  
 ‘Amina runs.’ [sometimes/always]
- (44) Zalamo  
 Esta ka-vitang-**ag**-a.  
 Esta SM1-know-**IPFV**-FV  
 ‘Esta usually knows.’

---

<sup>9</sup>The exception seems to be Kwere in our data, though we have not overtly tested for it (see below).

In Kutu (45) and (46), the sentences with null tense morphology can yield present or past habitual interpretations:

- (45) Kutu  
Amina ka-fagil-**ag**-a.  
Amina SM1-sweep-**IPFV**-FV  
'Amina usually sweeps.' – present habitual  
'Amina used to sweep.' – past habitual
- (46) Kutu  
Rozadina ka-tung-**ag**-a      u-salu.  
Rozadina SM1-bead-**IPFV**-FV 14-bead  
'Rozadina (normally) beads.' – present habitual  
'Rozadina used to bead.' – past habitual [Speaker's comments: "Like it was her job"]

While Kwere marks present tense with the *-o-* morpheme, in our data *-o-* does not seem to be optional with *-ag-* sentences. In other words, present tense morphology is required in Kwere in order to get a present habitual interpretation. Thus, in our data, null tense marking plus *-ag-* is only interpreted as a past habitual in Kwere: *Nifagilaga* 'I swept (repeatedly)'. This stands out in relation to Kutu, which is grammatically most similar to Kwere (Petzell & Hammarström 2013: 149), where null tense plus *-ag-* can get either a past or a present reading (cf. (45) and (46)). We leave this issue for further research.

#### 4.4 Preferred habitual interpretation

Across all the GER languages, the habitual interpretation is the preferred interpretation of constructions with *-ag-*. When asked to translate GER sentences containing *-ag-*, speakers tend to interpret them as habitual rather than progressive. This is illustrated for Kwere in (47) where the progressive interpretation is not available. This is also illustrated for Luguru in (48) where the unavailability of a progressive interpretation of the *-ag-* construction is reinforced by the infelicity of the temporal adverb *sambi* 'now' with the *-ag-* construction.

- (47) Kwere  
No-fagil-**ag**-a.  
SM.1SG.PRS-sweep-**IPFV**-FV  
'I normally sweep.' (#'I am sweeping.')

(48) Luguru

Amina ko-fagil-**ag**-a (#sambi).

Amina SM1.PRS-sweep-**IPFV**-FV (#now)

‘S/he normally sweeps.’ (‘S/he is sweeping).

The question remains: what accounts for this preferred habitual interpretation of *-ag-*? We take up an explanation in §5 below.

## 4.5 Summary

Table 1 below summarizes the distribution of *-ag-* in the six GER languages. Parentheses indicate optionality. For instance, when *-ag-* is present, the present/non-past marker *-o-* in four of the GER languages is not required for a present/non-past reading. Note also that, although available, the progressive readings are rare in Kami and Luguru, indicated by two asterisks (\*\*) in the table.<sup>10</sup>

Table 1: Summary of the distribution of *-ag-* in the six GER languages.

| PST    | NON-PST/PRS                                |  |
|--------|--|--|
| Kagulu | ( <i>ha</i> )-SM-V- <i>ag-a</i> = HAB/PROG | SM- <i>ku</i> -V- <i>ag-a</i> = HAB/PROG     |
| Kwere  | SM-V- <i>ag-a</i> = HAB                    | SM+ <i>o</i> -V- <i>ag-a</i> = HAB           |
| Luguru | SM-V- <i>ag-a</i> = HAB/PROG**             | SM+( <i>o</i> )-V- <i>ag-a</i> = HAB/PROG**  |
| Kami   | SM-V- <i>ag-a</i> = HAB/ PROG**            | SM+( <i>o</i> )-V- <i>ag-a</i> = HAB/ PROG** |
| Kutu   | SM-V- <i>ag-a</i> = HAB                    | SM+( <i>o</i> )-V- <i>ag-a</i> = HAB         |
| Zalamo | SM-V- <i>ag-a</i> = HAB                    | SM+( <i>o</i> )-V- <i>ag-a</i> = HAB         |

## 5 Explaining the preferred habitual reading

We have shown that the Bantu imperfective *-ag-* is observed in all the GER languages. The progressive and habitual interpretation of *-ag-* is documented in older sources for three of the GER languages. The habitual reading of *-ag-* is available for contemporary speakers of all six languages, while the progressive interpretation of *-ag-* is available (but rare) in only some of the languages. However, *-ag-* is not obligatory for progressive or habitual interpretations in any of the GER languages. We propose that the fact that *-ag-* is more commonly interpreted as a habitual for contemporary speakers is due to two factors: (i) the

<sup>10</sup>The habitual without *-o-* is the most common form.

absence of a grammaticalized habitual construction in GER languages (§5.1), and (ii) the loss of the perfective morpheme *-ile* in GER languages (§5.2).

### 5.1 No dedicated habitual morphology in GER

In many Bantu languages, reflexes of *\*-ag-* serve as a habitual marker (Nurse & Devos 2019), as illustrated for Mbala (ISO 639-3: mdp, NUG code H41) below in (49) with the reflex *-aang-*:

- (49) Mbala (Ndolo 1972, as cited in Nurse & Devos 2019: 216)  
 Ga-loomb-aang-a.  
 SM1-request-HAB-PST  
 ‘She used to request.’

In some Bantu languages we observe other habitual constructions. For example, in Mbugwe (ISO 639-3: mgz, NUG code F34) there are two habitual constructions: SM-*ándaa*-ROOT-*a* (Habitual 1) and SM-*jée*-ROOT-*a* (Habitual 2) (Wilhelmsen 2018: 140). These two constructions are illustrated in (50) and (51):

- (50) Mbugwe (Wilhelmsen 2018: 131)  
 Á-ándaa-lang-a me-ikaló e-ané e-ónsɛ.  
 SM1-HAB1-look-FV 4-life 4-1SG.POSS 4-all  
 ‘She is the one who watches over my whole life.’
- (51) Mbugwe (Wilhelmsen 2018: 73)  
 Vá-kee-mo-órekery-a ne kee o-jée-r’-a.  
 SM2-IPFV-OM1-ask-FV COP what SM.2SG-HAB2-eat-FV  
 ‘They asked her: “What do you usually eat?”’

The habitual is expressed in Swahili by the prefix *hu-*, as illustrated in (52) (Ashton 1944: 38):

- (52) Swahili (Ashton 1944: 256)  
 Ma-yai hu-patikan-a soko-ni?  
 6-egg HAB-be\_got-FV 9.market-LOC  
 ‘Are eggs usually to be got in the market?’

There is no corresponding reflex of the Swahili habitual *hu-* prefix in the GER languages, nor is there an alternate habitual morpheme or construction in these languages. The auxiliary *kuwa* can be used in Kagulu and occasionally Zalamo to convey a habitual meaning, as shown in (53) and (54):



(53) Kagulu

Esta **ye-kuw-a** ka-many-a.

Esta **SM1-be-FV** SM1-know-FV

‘Esta used to know.’

(54) Zalamo

Esta **ko-uw-a** ka-vitang-a.

Esta **SM1.NON\_PST-be-FV** SM1-know-FV

‘Esta used to know.’

Even so, in none of the GER languages, including Kagulu, is *kuwa* used to express habitual meaning alone. In fact, in all GER languages its more common use is to express the future perfect. This is illustrated for Kutu in (55):

(55) Kutu

To-**kuw-a** tu-chez-a.

SM.1PL.NON\_PST-**be-FV** SM.1PL-dance-FV

‘We will have danced.’

Thus, the GER languages have only one grammaticalized morpheme available that can be used to convey habitual meaning: *-ag-*.

Although *-ag-* can be reconstructed for Proto-Bantu, it fell out of use in “Standard Swahili” (Abe 2009, Rugemalira 2010). Swahili developed two alternative ways to express habitual meaning: (i) the aforementioned prefix *hu-* (see (50) above) and (ii) the simple present construction combined with an adverbial phrase such as *mara nyingi* ‘many times’ (Abe 2009). However, *-ag-* is observed in most dialects of “Colloquial Swahili” and encodes habitual meaning. Its use is increasing in Colloquial Swahili (Abe 2009, Rugemalira 2010), and in some cases, *-ag-* is even re-entering into Standard Swahili (Abe 2009, Kutsukake & Yoneda 2019: 197; see also Rugemalira 2010). While this development of *-ag-* in Swahili is not entirely parallel to the development of *-ag-* in GER languages, it does point to the strength of the habitual meaning of this morpheme.

## 5.2 Loss of perfective *-ile* in GER

In Bantu languages in which the perfective is morphologically overt, it is typically encoded by the suffix *-ile* (and its associated constructions). Perfective *-ile* gives rise to simple past/perfective and perfect translations. This is illustrated for Southern Ndebele (ISO 639-3: nbl, NUG code S44) in (56):

- (56) Southern Ndebele (Crane & Persohn 2019)

uSipho u-cul-**ile**.

Sipho SM1-sing-**PFV**

‘Sipho sang.’ / ‘Sipho has sung.’

In GER languages, *-ile* has been lost in simple constructions. That is, simple past/perfective and perfect translations are conveyed by the past (null) tense alone, as illustrated for Kagulu in (57):

- (57) Kagulu

Amina ka-imb-a.

Amina SM1-sing-FV

‘Amina sang.’ / ‘Amina has sung.’

*-ile* is observed in GER languages, but only in dependent clauses, such as temporal clauses (58), relative clauses (59), and negative clauses (60), illustrated in Kami, Kutu and Kwere below:

- (58) Kami

Fi-ni-fik-**ile**                      Amina ka-andus-a    ku-som-a.

TEMP-SM.1SG-arrive-**ILE** Amina SM1-start-FV 15-read-FV

‘When I arrived, Amina started to read.’

- (59) Kutu

Utamu    u-ih-**ile**                      ng’ani Ukimwi.

14-disease SM14-bad-**ILE** very    Aids

‘A disease which is very bad is Aids.’

- (60) Kwere

Hu-lim-ile                              m-gunda w-ako                      igolo.

SM.2SG.NEG-cultivate-**ILE** 3-farm    3-POSS.2SG yesterday

‘You did not cultivate your farm yesterday.’

The morphemes *-ag-* and *-ile* are in complementary distribution in GER languages. Past tense in GER languages is not morphologically encoded. This is illustrated for Zalamo in (61). However, a negative sentence in the past appears with *-ile* as well as a negative subject marker (62). As we have seen, to convey the habitual in the past, *-ag-* is added (63). We might expect that a sentence conveying the negative habitual in the past would be encoded with both *-ag-* and *-ile*.

However, the sentence in (64) is infelicitous. In order to convey the negative habitual in the past, speakers offer an auxiliary construction plus *-ag-* on the main verb (65).

- (61) Zalamo  
Ni-lim-a.  
SM.1SG-cultivate-FV  
'I cultivated.'
- (62) Zalamo  
Si-lim-ile.  
SM.1SG.NEG-cultivate-ILE  
'I did not cultivate.'
- (63) Zalamo  
Ni-lim-ag-a.  
SM.1SG-cultivate-IPFV-FV  
'I used to cultivate.'
- (64) Zalamo  
#Si-lim-ag-ile.  
SM.1SG.NEG-cultivate-IPFV-ILE  
'I did not used to cultivate.'
- (65) Zalamo  
Ni-kal-a                      si-lim-ag-a.  
SM.1SG-be/live-FV SM.1SG.NEG-cultivate-IPFV-FV  
'I did not used to cultivate.'

The loss of *-ile* as a perfective marker and the narrowing of *-ag-* to habitual seem to correspond in GER languages. We suggest that as GER languages have lost perfective *-ile* in simple clauses, the morpheme *-ag-* is no longer necessary to contrast with *-ile*. Although languages likely deal with these morphological and contrastive losses in different ways, we suggest that while *-ag-* continues to encode "an unbounded situation that lasts over a period of time" (Nurse & Devos 2019: 212), its function has reduced this encoding to habituality in the GER languages. Our account of the narrowing of *-ag-* in GER mirrors the development of English modals. Cowper & Hall (2017: 86–87) suggest that the loss of the subjunctive in English led to the reanalysis of modality as a grammatical feature in

contrast with the indicative. Conversely, the grammatically contrastive function of imperfectivity in *-ag-* may have evolved into an independent aspectual meaning in the GER languages, following the loss of perfective *-ile*. We leave further exploration of the evolution of *-ag-* for future research.

## 6 Conclusions

We have argued that the lack of a grammaticalized habitual morpheme in GER languages, in addition to the loss of the perfective *-ile* in simple clauses has led to a narrowing of the function of *-ag-* to habitual in GER languages. The development of *-ag-* in GER from an imperfective marker covering both habitual and progressive, towards a narrower habitual use perhaps confirms Nurse’s (2008: 144) suggestion of a “cognitive connection between imperfective and habitual, excluding progressive”. That *-ag-* is not obligatory in GER languages is consistent with features of the temporal/aspectual systems of GER languages which lack much of the tense and aspect morphology typical across Bantu (Bar-el & Petzell 2021, Petzell & Edelsten 2024), a language family known for its “extraordinarily rich” tense and aspect systems (Dahl 1985: 32). However, the observation that in several GER languages present tense morphology is not obligatory with *-ag-* suggests that the GER temporal/aspectual systems are continuing to evolve, an exploration we leave for future research.

## Abbreviations

|             |   |      |  |
|-------------|---|------|--|
| 1, 2, 3 ... | Bantu noun class  | PFV  | Perfective   |
| COP         | Copula  | PL   | Plural   |
| DEM         | Demonstrative   | POSS | Possessive   |
| FV          | Final vowel   | PRS  | Present tense  |
| ILE         | The marker <i>-ile</i>  | PROG | Progressive  |
| HAB         | Habitual  | PST  | Past tense   |
| HOR         | Hortative   | SG   | Singular   |
| IPFV        | Imperfective  | SM   | Subject marker (the following number represent the Bantu noun class) |
| NEG         | Negative  |      |  |
| NON_PST     | Non-past (i.e. present or future).                                  |      |  |
| OM          | Object marker (the following number represent the Bantu noun class) | TEMP | temporal/conditional marker  |

## Acknowledgements

Our sincere thanks to the ACAL organization and to the local conference organizers at the University of Florida and Rutgers University. We are very grateful to all the language consultants we have worked with for their time and patience. Thank you also to two anonymous reviewers for helpful comments. Financial support for this work is provided by Riksbankens Jubileumsfond and the Swedish Research Council.

## References

- Abe, Yuko. 2009. The use of *-ag-* in colloquial Swahili in Tanzania: Report of a preliminary survey conducted in 2008. In Yuji Kawaguchi, Makoto Minegishi & Jacques Durand (eds.), *Corpus analysis and variation in linguistics*, 299–313. Amsterdam: John Benjamins. DOI: 10.1075/tufs.1.18abe.
- Ashton, Ethel O. 1944. *Swahili grammar (including intonation)*. London: Longmans, Green & Co.
- Bar-el, Leora & Malin Petzell. 2021. (Im)perfectivity and actionality in East Ruvu Bantu. *STUF - Language Typology and Universals* 74(3-4). 533–559.
- Bernander, Rasmus. 2020. On the “atypical” imperative verb form in Manda. *Studia Orientalia Electronica* 8(3). 22–42. DOI: 10.23993/store.69737.
- Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.
- Cowper, Elizabeth & Daniel Currie Hall. 2017. The rise of contrastive modality in English: A neoparametric account. *Linguistic Variation* 17(1). 68–97. DOI: 10.1075/lv.17.1.04cow.
- Crane, Thera Marie & Bastian Persohn. 2019. What’s in a Bantu verb? Actionality in Bantu languages. *Linguistic Typology* 23(2). 303–345. DOI: 10.1515/lingty-2019-0017.
- Dahl, Östen. 1985. *Tense and aspect systems*. Oxford: Blackwell.
- Dom, Sebastian, Leora Bar-el, Ponsiano Kanijo & Malin Petzell. 2022. Variation in the coding of the noncausal/causal alternation: Causative *\*-i* in East Bantu languages. *Linguistique and Langues Africaines* 8. DOI: 10.4000/lla.4604.
- Dom, Sebastian, Leora Bar-el, Ponsiano Kanijo & Malin Petzell. 2023. Middle voice in Bantu: Detransitivizing morphology in Kagulu. *STUF: Language Typology and Universals* 76(2). 195–216. DOI: 10.1515/stuf-2023-2008.
- Guthrie, Malcolm. 1948. *The classification of the Bantu languages*. London: Oxford University Press.

- Hammarström, Harald. 2019. An inventory of Bantu languages. In Mark Van de Velde, Koen Boeston, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages second edition*, 17–78. London: Routledge.
- Kanijo, Ponsiano. 2019. *Aspectual classes of verbs in Nyamwezi*. University of Gothenburg. (Doctoral dissertation).
- Kutsukake, Sayaka & Nobuko Yoneda. 2019. Contact-induced language divergence and convergence in Tanzania: Forming new varieties as language maintenance. *Swahili-Forum* 26. 181–204.
- Languages of Tanzania Project. 2009. *Atlasi ya lugha za Tanzania*. Dar es Salaam.
- Last, Joseph T. 1886. *Grammar of the Kaguru language, eastern equatorial Africa*. London: Society for promoting Christian knowledge (SPCK).
- Meeussen, Achille. 1967. Bantu grammatical reconstructions. *Africana linguistica* 3. 79–121.
- Mkude, Daniel. 1974. *A study of Kiluguru syntax with special reference to the transformational history of sentences with permuted subject and object*. University of London. (Doctoral dissertation).
- Nurse, Derek. 2008. *Tense and aspect in Bantu*. Oxford: Oxford University Press.
- Nurse, Derek & Maud Devos. 2019. Aspect, tense and mood. In Koen Boeston, Mark Van de Velde, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages second edition*, 204–236. London: Routledge.
- Nurse, Derek & Gérard Philippson. 2006. Common tense-aspect markers in Bantu. *Journal of African Languages and Linguistics* 27(2). 155–196.
- Petzell, Malin. 2008. *The Kagulu language of Tanzania: Grammar, texts and vocabulary*. Cologne: Rüdiger Köppe Verlag.
- Petzell, Malin. 2012a. The linguistic situation in Tanzania. *Moderna språk* 106(1). 136–144.
- Petzell, Malin. 2012b. The under-described languages of Morogoro: A sociolinguistic survey. *South African Journal of African Languages* 32(1). 17–26.
- Petzell, Malin. 2020. An analysis of the verbal marker *tsa* in Luguru. *Studia Orientalia Electronica* 8(3). 119–133. DOI: 10.23993/store.72806.
- Petzell, Malin & Lotta Aunio. 2019. Kami G36. In Mark Van de Velde, Koen Bostoan, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, 2nd edn., 563–590. London: Routledge.
- Petzell, Malin & Peter Edelsten. 2024. Tense and aspect marking in Bantu languages of the Morogoro region, Tanzania. In Hannah Gibson, Rozenn Guérois, Gastor Mapunda & Lutz Marten (eds.), *Morphosyntactic variation in East African Bantu languages*, 277–321. Berlin: Language Science Press. DOI: 10.5281/zenodo.10663779.

- Petzell, Malin & Harald Hammarström. 2013. Grammatical and lexical comparison of the Greater Ruvu Bantu languages. *Nordic Journal Of African Studies* 22(3). 129–157.
- Petzell, Malin & Caspar Jordan. 2022. Managing data for descriptive morphosemantics of six language varieties. In Andrea L. Berez-Kroeker, Bradley McDonnell, Eve Koller & Lauren B. Collister (eds.), *Open handbook of linguistic data management*, 609–616. Cambridge: MIT Press. DOI: 10.7551/mitpress/12200.003.0059.
- Petzell, Malin & Karoline Khül. 2017. The influence of non-linguistic factors on the usage of the pre-prefix in Luguru. *Linguistic Discovery* 15(1). 35–49.
- Rose, Sarah, Christa Beaudoin-Lietz & Derek Nurse. 2002. *A glossary of terms for Bantu verbal categories, with special emphasis on tense and aspect* (LINCOM Studies in African Linguistics 55). Munich: Lincom Europa.
- Rugemalira, Josephat M. 2010. The -ag- TAM marker and the boundary between cliticization and affixation in Bantu. In Karsten Legère & Christina Thornell (eds.), *Bantu languages: Analyses, description and theory*, 229–237. Cologne: Rüdiger Köppe.
- Seidel, August. 1898. Grundriss der Wa-Ruguru-Sprache. In C. Waldeman Werther (ed.), *Die mittleren Hochländer des nordlichen Deutsch-Ostafrika*, 436–455. Berlin: Hermann Paetel.
- Ström, Eva-Marie. 2013. *The Ndengeleko language of Tanzania*. Göteborg: University of Gothenburg. (Doctoral dissertation).
- Velten, Carl. 1900. Kikami, die Sprache der Wakami in Deutsch-Ostafrika. *Mitteilungen des Seminars für orientalische Sprachen* 3. 1–56.
- Wilhelmsen, Vera. 2018. *A linguistic description of Mbugwe with focus on tone and verbal morphology* (Studia Linguistica Upsaliensia 20). Uppsala: Uppsala University. <http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-347793>.

