Subject agreement in Amharic complex verbs: the role of Kinyalolo's Constraint[*]

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1. Introduction

Amharic *complex verbs* consist of (i) a main verb and (ii) an encliticized non-past auxiliary *-allä*. Both can bear subject agreement (N.B. all (complex) verbs are given in their underlying forms):

- *Complex gerunds* combine a verb stem/gerund ((1)) with *-allä* and are interpreted as present perfect.

(1) säbrä-**a** (> *säbra*) (GERUND)
break.GER-**3FSG**
'her having broken' (adapted from Leslau 1995: 355)

(2) säbrä-**a** -allä-**ätʃtʃ** (> *säbrallätʃtʃ*) (COMPLEX GERUND)
break.GER-**3FSG** -AUX.NPST-**3FSG**
'she has broken' (adapted from Leslau 1995: 387)

- *Complex imperfectives* combine a simple imperfective verb ((3)) with *-allä* and are interpreted as present (progressive) or future.

(3) **tɨ**-säbr-**i** (> *tɨsäbri*) (SIMPLE IMPERFECTIVE)
2-break.IPFV-**2FSG**
'you (F.SG) break' (Leslau 1995: 301)

(4) **tɨ**-säbr-**i** -allä-**ʃ** (> *tɨsäbriʸalläʃ*) (COMPLEX IMPERFECTIVE)
2-break.IPFV-**2FSG** -AUX.NPST-**2FSG**
'you (F.SG) {break / will break}' (adapted from Leslau 1995: 342)

The puzzle: in certain subject φ-feature combinations, agreement disappears

(5) *Missing auxiliary agreement*
säbrä-**ʃ** -allä (*-**ʃ**) (> *säbräʃall*) (COMPLEX GERUND)
break.GER-**2FSG** -AUX.NPST (*-**2FSG**)
'you (F.SG) have broken' (adapted from Leslau 1995: 387)

(6) *Missing main verb agreement*
yɨ-säbr (*-**u**) -allä-**u** (> *yɨsäbrallu*) (COMPLEX IMPERFECTIVE)
3-break.IPFV (*-**PL**) -AUX.NPST-**PL**
'they {break / will break}' (adapted from Leslau 1995: 342)

Previous approaches to agreement disappearance (see section 6) either:

- do not offer a formal analysis (Bulakh 2014),
- do not treat all the data (Kramer 2020), or
- do not make uniformly correct predictions (Diertani and Eilam 2010)

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Kinyalolo's Constraint blocks multiple insertion of the same exponent at Vocabulary Insertion

(7) Vocabulary Insertion in two steps
a. *Select*: For a terminal node X^0, choose the vocabulary entry α that maximally realizes the features of X^0 in accordance with the *Subset Principle* (Halle 1997: 48).
b. *Insert*: Add the exponent associated with α to X^0.

(8) **Kinyalolo's Constraint (on Insert)**
In an M-word, the exponent associated with a vocabulary entry α is Inserted no more than once.

The effects of Kinyalolo's Constraint are mediated by its interaction with:

- **Bottom-up Vocabulary Insertion** (Bobaljik 2000; Embick 2010; Kalin 2022) (sections 2–3).
- The formation of **M-words** (Embick and Noyer 2001; Arregi and Nevins 2012) (section 4).
- **Contextual allomorphy** of erstwhile homophonous agreement markers (section 5).

2. Disappearing AUX agreement in Amharic complex gerunds

Amharic gerunds (also called 'converbs') typically appear in subordinate/adverbial clauses and are interpreted as aspectually perfective (Leslau 1995: sec. 59.2).

(9) [sädbä-^{w}-ññ] mätta-hu-t.
[insult.GER-3MSG-1SG.O] hit.PFV-1SG-3MSG.O
'I hit him [because he insulted me].' (adapted from Leslau 1995: 361)

(10) *Gerund of* säbbärä *'break'* (Leslau 1995: 355)

	SG	PL
1	säbɨrr-**e**	säbrä-**n**
2M	säbrä-**h**	säbrä-**atʃtʃɨhu**
2F	säbrä-**ʃ**	säbrä-**atʃtʃɨhu**
3M	säbrä-^{w}	säbrä-**u**
3F	säbrä-**a**	säbrä-**u**

When combined with the enclitic non-past auxiliary *-allä* ((11)), auxiliary agreement mysteriously disappears in all cells except 1SG and 3FSG ((12)) (N.B. boxes indicate where AUX agreement is expected but missing).

(11) *Non-past auxiliary agreement*
(adapted from Leslau 1995: 342)

	SG	PL
1	-allä-**h**^{w}	-allä-**n**
2M	-allä-**h**	-allä-**atʃtʃɨhu**
2F	-allä-**ʃ**	-allä-**atʃtʃɨhu**
3M	-allä-**ä**	-allä-**u**
3F	-allä-**ätʃtʃ**	-allä-**u**

(12) *Complex gerund of* säbbärä *'break'*
(adapted from Leslau 1995: 387)

	SG	PL
1	säbɨrr-**e**^{y}[-allä-**h**^{w}]	säbrä-**n**[-allä ☐]
2M	säbrä-**h**[-allä ☐]	säbrä-**atʃtʃɨh**^{w}[-allä ☐]
2F	säbrä-**ʃ**[-allä ☐]	säbrä-**atʃtʃɨh**^{w}[-allä ☐]
3M	säbrä-^{w}[-allä-**ä**]	säbrä-**w**[-allä ☐]
3F	säbrä-**a**[-allä-**ätʃtʃ**]	säbrä-**w**[-allä ☐]

(13) AUX AGREEMENT GENERALIZATION IN AMHARIC COMPLEX GERUNDS
Auxiliary agreement disappears whenever it would be homophonous with main verb agreement.

Excursus: regular phonology can mask the presence of non-homophonous agreement suffixes

In the surface forms of 3MSG complex gerunds, AUX agreement appears to be missing despite not being homophonous with the main verb suffix:

(14) säbrä-**w** -allä-**ä** (COMPLEX GERUND)
break.GER-**3MSG** -AUX.NPST-**3MSG**
'he has broken' (adapted from Leslau 1995: 387)

↪ When two identical vowels meet in hiatus, one is deleted (Leslau 1995: 35–36).

↪ Word-final *-ä* is generally truncated on *allä*, especially when encliticized (Leslau 1995: 387, 527).

(15) a. UNDERLYING FORM: säbrä-^{w}-allä-ä
b. VOWEL HIATUS RESOLUTION: säbrä-^{w}-allä
c. TRUNCATION: säbrä-^{w}-all

UPSHOT: The surface forms of complex verbs in Amharic are predictable from regular phonology.

But why should homophony matter for the (dis)apearance of AUX agreement? Enter, *Kinyalolo's Constraint*.

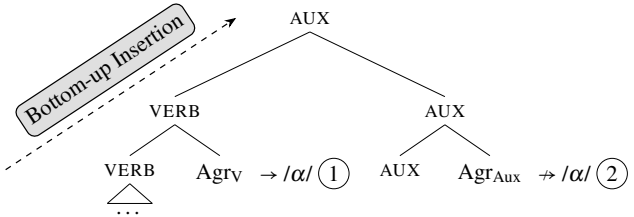
3. Kinyalolo's Constraint at work: anti-homophony at Vocabulary Insertion

IN A NUTSHELL: Vocabulary Insertion of AUX agreement fails when the following conditions hold:

- ∗ The exponent chosen to realize AUX agreement is homophonous with main verb agreement ((13)).
- ∗ The main verb and AUX form a single complex head.

The asymmetric disappearance of AUX agreement stems from *bottom-up insertion* (e.g. Bobaljik 2000; Embick 2010; Kalin 2022): main verb agreement is lower, hence inserted first, bleeding insertion of (higher) homophonous AUX agreement.

(16)



We propose a **novel, exponence-based implementation** of *Kinyalolo's Constraint* to account for this anti-homophony pressure.

Kinyalolo's Constraint

Originally proposed to explain agreement in complex verbs in Kilega (Kinyalolo 1991; Carstens 2005), extended to explain similar patterns in other languages (Alok and Baker 2018; Tyler and Kastner 2022).

(17) **The gist of Kinyalolo's Constraint**
A single argument is indexed by no more than one agreement marker within a complex head.

✗ PREVIOUS WORK: Kinyalolo's applies to agreement markers qua *feature bundles*.

✓ OUR INNOVATION: Kinyalolo's applies to agreement markers qua *vocabulary entries* (see (13)).

Before laying out our version of Kinyalolo's Constraint, we must set the stage on Amharic clause structure.

3.1. Background on Amharic clause structure

Previous work on Amharic clause structure has delivered the following results (see also Girma Halefom 1994; Baker 2012; Kramer 2014, 2023; Mulusew Asratie Wondem 2014; Leung and Girma Halefom 2017; Desalegn Workneh 2020, 2021, 2022).

✓ Main verb agreement is located on (high) Aspect (Girma Awgichew Demeke 2003: 45).

↪ This accounts for aspect-sensitive subject agreement allomorphy (compare (10) and (38)).

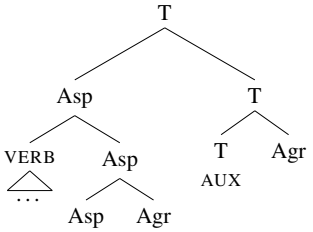
✓ Auxiliaries are located in T (Girma Awgichew Demeke 2003; Baye Yimam 2006) because they correlate with tense distinctions (see Goldenberg 1964; Meyer 2016a,b).

↪ Auxiliaries independently probe the subject for φ-features, yielding AUX agreement.

✓ The verb and associated functional heads (e.g. Asp, T) typically combine to form a complex head (Baker and Kramer 2014), along the lines of (18).

↪ Gerunds (and imperfectives) are flavors of Asp (see Girma Awgichew Demeke 2003: 180–182).

(18) *Basic structure of Amharic complex verbal heads* (see also Diertani 2011: 47–52, esp. (3.40))



3.2. A novel, exponence-based implementation of Kinyalolo's Constraint

We propose that Vocabulary Insertion be broken down into two steps:

(19) Vocabulary Insertion in two steps

a. *Select*: For a terminal node X^0, choose the vocabulary entry α that maximally realizes the features of X^0 in accordance with the *Subset Principle* (Halle 1997: 48).

b. *Insert*: Add the exponent associated with α to X^0.

Kinyalolo's Constraint forbids inserting an exponent more than once within a single M-word:

(20) **Kinyalolo's Constraint (on Insert)**
In an M-word, the exponent associated with a vocabulary entry α is Inserted no more than once.

(21) **M-word**
An M-word is a 0-level node that is not dominated by any other 0-level node. (Arregi and Nevins 2012: 239, (4); see also Embick and Noyer 2001: 571, (33))

3.3. Deriving agreement in the Amharic complex gerund

Kinyalolo's Constraint ((20)) does not block non-homophonous agreement (1SG, 3MSG, 3FSG)

(22) säbrä-**a** -allä-**ätʃtʃ** (> *säbrallätʃtʃ*) (COMPLEX GERUND)
break.GER-**3FSG** -AUX.NPST-**3FSG**
'she has broken' (adapted from Leslau 1995: 387)

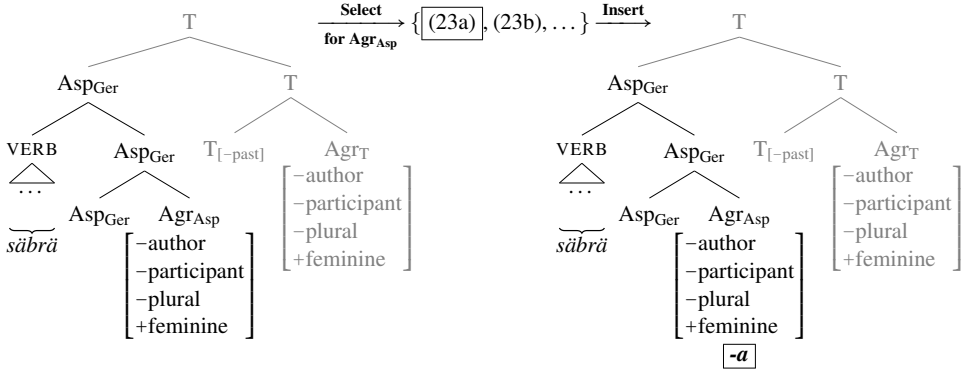
Focusing just on the realization of agreement (and not on that of the verb, Asp, T, etc.):

(23) *Vocabulary entries for* 3FSG *agreement*

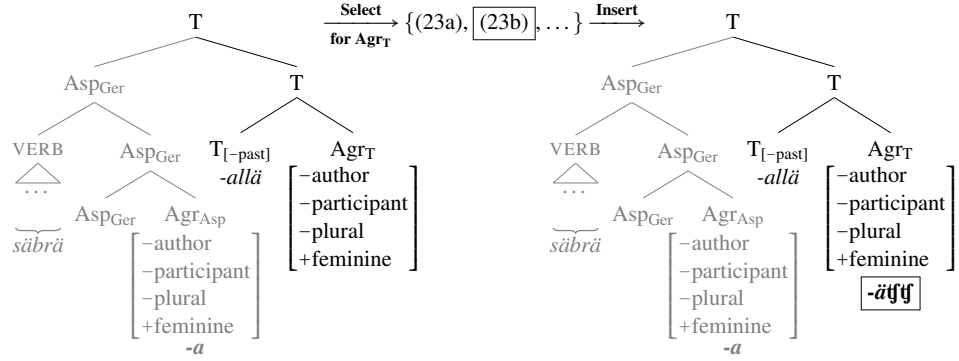
a. $\begin{bmatrix}-\text{participant}\\-\text{plural}\\+\text{feminine}\end{bmatrix} \rightarrow$ *-a* / Asp_{Ger} ___

b. $\begin{bmatrix}-\text{participant}\\-\text{plural}\\+\text{feminine}\end{bmatrix} \rightarrow$ *-ätʃtʃ*

(24) *Cycle of Vocabulary Insertion at* Agr_{Asp}



(25) *Cycle of Vocabulary Insertion at* Agr_T

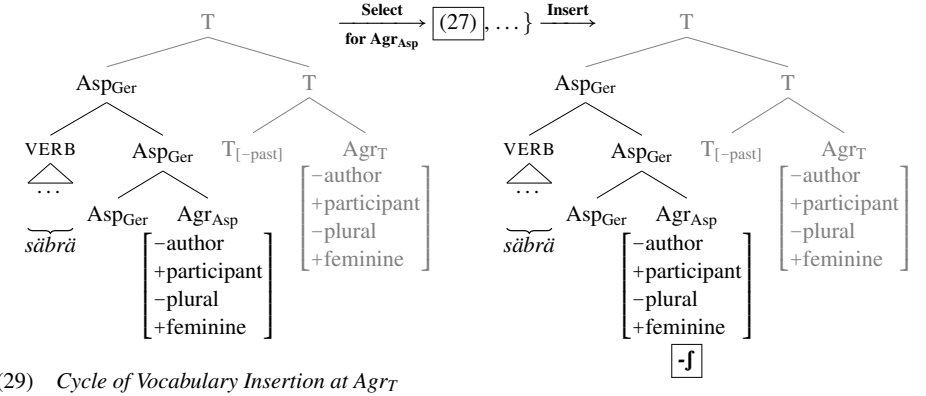


Kinyalolo's Constraint ((20)) blocks insertion of higher homophonous AUX agreement

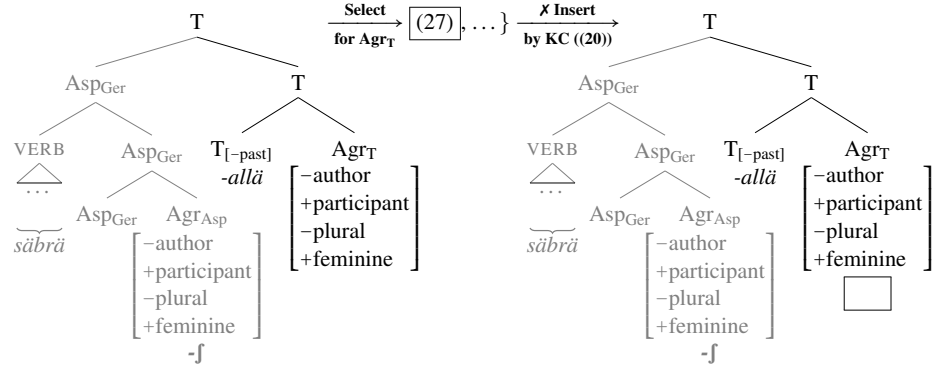
(26) säbrä-**ʃ** -allä (*-**ʃ**)
break.GER-**2FSG** -AUX.NPST (*-**2FSG**)
'you (F.SG) have broken' (< Leslau 1995: 387)

(27) *Vocabulary entry for* 2FSG *agreement*
$\begin{bmatrix}+\text{participant}\\-\text{plural}\\+\text{feminine}\end{bmatrix} \rightarrow$ *-ʃ*

(28) *Cycle of Vocabulary Insertion at* Agr_{Asp}



(29) *Cycle of Vocabulary Insertion at* Agr_T



Interim summary: complex gerunds and Kinyalolo's Constraint

✓ Kinyalolo's Constraint applies during Vocabulary Insertion to prohibit repeated insertions of an exponent associated with one vocabulary entry within a single M-word.

✓ Disappearing AUX agreement in the Amharic complex gerund is accounted for with (i) bottom-up Vocabulary Insertion and (ii) Kinyalolo's Constraint, accounting for (30).

(30) (= (13)) AUX AGREEMENT GENERALIZATION IN AMHARIC COMPLEX GERUNDS
Auxiliary agreement disappears whenever it would be homophonous with main verb agreement.

PREDICTION: Because Kinyalolo's Constraint is defined to operate over insertion within a single M-word, we expect it to *fail to apply across M-words*, with the result that homophonous exponents resurface.

↪ This prediction is borne out with *complex gerunds inside relative clauses*.

4. No Kinyalolo's across M-words: reappearing AUX agreement inside relative clauses

Amharic relative clauses are prenominal and are headed by the complementizer *yä-*, which appears prefixed to the highest verb within the relative (Baker and Kramer 2014: 157–160).

When the highest verb is the lexical verb (e.g. in the perfective aspect), *yä-* prefixes to V (N.B. definite markers modifying the head N attach to the right edge of the relative clause, see Kramer 2010):

(31) [$_{CP}$ k'äyy mäkina **yä**-gäzz-a]-w astämari
[$_{CP}$ red car **C**-buy.PFV-3MSG]-DEF teacher.M
'the teacher who bought a car' (Baker and Kramer 2014: 159, (63a))

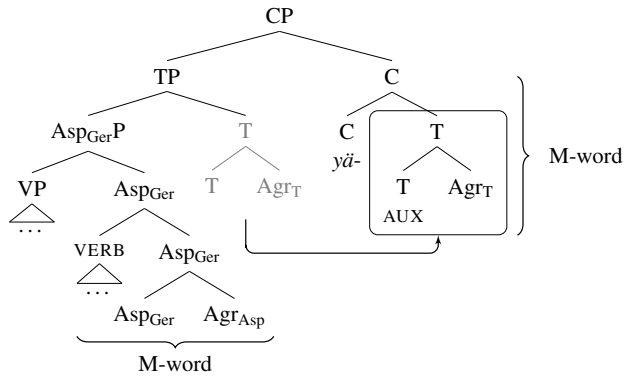
When the highest verb is an auxiliary like *-allä*, as in clauses with a complex gerund, *yä-* prefixes to AUX. In such cases, homophonous AUX agreement strikingly *reappears* (compare (32) with (33)):

(32) [$_{CP}$ k'ädmän därsä-**n** **y**-allä-**n**]-äw ĩññä nän.
[$_{CP}$ first arrive.GER-**1PL** **C**-AUX.NPST-**1PL**]-DEF we COP.1PL
'It is us who arrived first.' (Leslau 1995: 390)

(33) därsä-**n** -allä (*-**n**) (> *därsänall*)
arrive.GER-**1PL** -AUX.NPST (*-**1PL**)
'we have arrived'

PROPOSAL: in relatives, C and AUX form a separate M-word from the main verb, e.g. via T-to-C movement.

(34)



A note on the timing of head movement

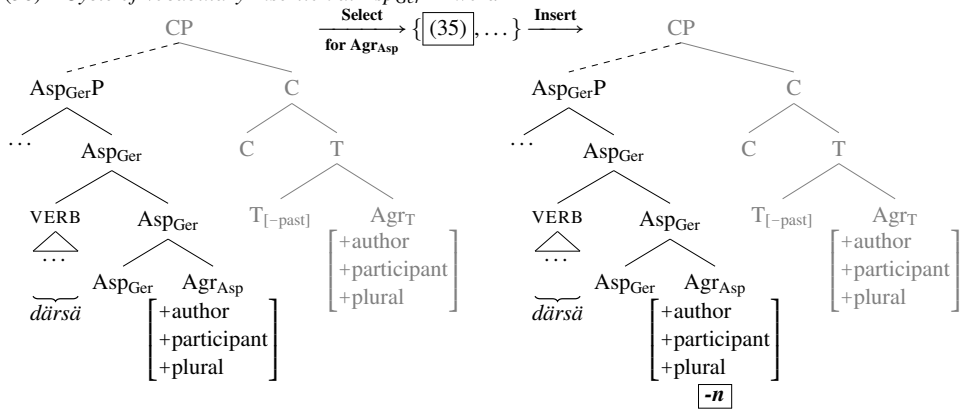
Amharic T-to-C movement must precede (and hence bleed) the mechanism which combines T and V into a complex head (e.g. in (33)) (note the parallel with English *do*-to-C bleeding T lowering to V).

One possibility: T-to-C movement is syntactic, while T and V undergo postsyntactic *amalgamation* (see Harizanov and Gribanova 2019: 481, fn. 23 for a similar account of English T movement).

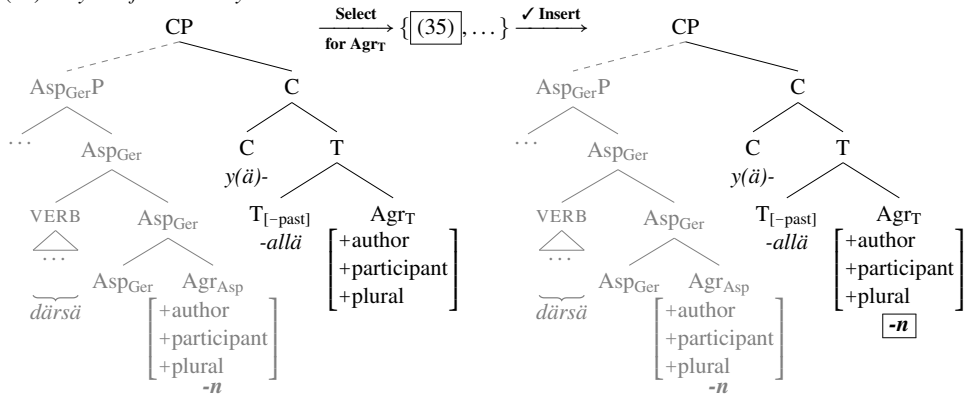
Kinyalolo's Constraint won't block insertion of homophonous agreement in two separate M-words:

(35) *Vocabulary entry for* 1PL *agreement*
$\begin{bmatrix}+\text{author}\\+\text{participant}\\+\text{plural}\end{bmatrix} \rightarrow$ *-n*

(36) *Cycle of Vocabulary Insertion at Asp$_{Ger}$ M-word*



(37) *Cycle of Vocabulary Insertion at C M-word*



UPSHOT: the domain over which Kinyalolo's Constraint applies is the M-word.

5. Kinyalolo meets allomorphy: disappearing & reappearing agreement in the complex imperfective

A prediction: low allomorphy should bleed application of Kinyalolo's Constraint

Our analysis of disappearing AUX agreement predicts that, if for some reason a distinct vocabulary entry is used to realize main verb agreement (i.e. allomorphically), auxiliary agreement should resurface.

↪ This prediction is borne out in the *complex imperfective* in Amharic.

5.1. Disappearing main verb agreement in Amharic complex imperfectives

Amharic simple imperfectives are used in (i) negative non-past main clauses and (ii) all non-past subordinate clauses (Leslau 1995: 311).

Imperfective verbs bear *discontinuous agreement* (Kramer 2020, 2023; see Harbour 2008, 2023; Hewett 2023a,b; and Shlonsky 2023 on discontinuous agreement in Afro-Asiatic and beyond).

(38) *Simple imperfective of* säbbärä *'break'* (Leslau 1995: 301)

	SG	PL
1	**ɨ**-säbr	**ɨnnɨ**-säbr
2M	**tɨ**-säbr	**tɨ**-säbr-**u**
2F	**tɨ**-säbr-**i**	**tɨ**-säbr-**u**
3M	**yɨ**-säbr	**yɨ**-säbr-**u**
3F	**tɨ**-säbr	**yɨ**-säbr-**u**

When combined with non-past *-allä* ((39)) to form *the complex imperfective*, main verb suffixal agreement disappears in the 2PL and 3PL cells while AUX agreement is present throughout ((40)).

(39) *Non-past auxiliary agreement* (adapted from Leslau 1995: 342)

	SG	PL
1	-allä-**h^{w}**	-allä-**n**
2M	-allä-**h**	-allä-**aʧʧɨhu**
2F	-allä-**ʃ**	-allä-**aʧʧɨhu**
3M	-allä-**ä**	-allä-**u**
3F	-allä-**äʧʧ**	-allä-**u**

(40) *Complex imperfective of* säbbärä *'break'* (adapted from Leslau 1995: 342)

	SG	PL
1	**ɨ**-säbr[-allä-**h^{w}**]	**ɨnnɨ**-säbr[-allä-**n**]
2M	**tɨ**-säbr[-allä-**h**]	**tɨ**-säbr-□[-allä-**aʧʧɨhu**]
2F	**tɨ**-säbr-**i^{y}**[-allä-**ʃ**]	**tɨ**-säbr-□[-allä-**aʧʧɨhu**]
3M	**yɨ**-säbr[-allä-**ä**]	**yɨ**-säbr-□[-allä-**u**]
3F	**tɨ**-säbr[-allä-**äʧʧ**]	**yɨ**-säbr-□[-allä-**u**]

Unlike with disappearing AUX agreement in the complex gerund, the key predictor of disappearing main verb suffixes does not appear to be related to homophony/Kinyalolo's Constraint ⇝ see especially 2PL forms:

(41) **tɨ**-säbr-[u] -allä-[**aʧʧɨhu**] (> *tɨsäbrallaʧʧihu*) (COMPLEX IMPERFECTIVE)
2-break.IPFV-PL -AUX.NPST-**2PL**
'you (PL) break, will break'

Rather, the generalization is about the disappearance *of a particular exponent*—namely, plural *-u*.

5.2. Disappearing *-u* is adjacency-based allomorphy

We propose (*pace* Kramer 2020: sec. 4.1) that the 'disappearance' of plural *-u* is *contextual allomorphy*:

(42) *Vocabulary entries for plural agreement*
a. $[_{Agr}$ +plural] → -u
b. $[_{Agr}$ +plural] → -∅ / Asp_{Ipfv} ___ $T_{[-past]}$

The more specific entry in (42b) requires that main verb Agr be *left-adjacent* to $T_{[-past]}$ (more on this below):

(43) MAIN VERB SUFFIX GENERALIZATION IN AMHARIC COMPLEX IMPERFECTIVES
The plural suffix *-u* on lexical verbs in complex imperfectives disappears (= 'is realized as a null allomorph') whenever the lexical verb is adjacent to the non-past auxiliary.

(See Hewett 2023a,b; Kramer 2023 on other instances of linearity-based allomorphy of Semitic agreement.)

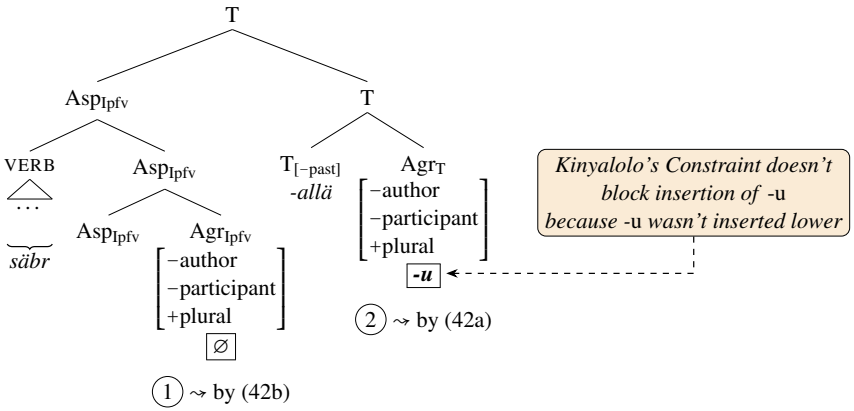
Crucially, whenever main verb agreement is realized as -∅ (and not as *-u*), AUX agreement is free be realized as *-u* because *Kinyalolo's Constraint does not apply*.

Low allomorphy of verbal agreement allows erstwhile homophonous AUX agreement to resurface

Focusing just on the realization of agreement *suffixes* (on prefixes, see Hewett 2023a,b; Kramer 2023):

(44) yɨ-säbr-[∅] -allä-[**u**] (> *yɨsäbrallu*) (COMPLEX IMPERFECTIVE)
3-break.IPFV-**PL** -AUX.NPST-**PL**
'they break, will break' (adapted from Leslau 1995: 342)

(45)



5.3. Reappearing main verb *-u* and disappearing AUX *-u*

The plural -∅ allomorph in (42b) requires *linear adjacency* between the main verb suffix and T.

↪ If an element X linearly intervenes between main verb Agr and $T_{[-past]}$, (i) 2/3PL main verb Agr should be realized as *-u* ((42a)) and (ii) Kinyalolo's Constraint should block homophonous *-u* on AUX.

Linear intervention bleeds allomorphy, feeds Kinyalolo's Constraint

Object clitics are sandwiched between main verb suffixes and AUX ((46)–(47)):

✓ Plural *-u* reappears on the main verb with both 2PL and 3PL agreement.

✓ Plural *-u* disappears on AUX *only in the* 3PL where the two agreement markers are homophonous.

(46) **tɨ**-nägr-**u** -t -allä-**aʧʧɨhu** (> *tɨnägrutallaʧʧɨhu*) (COMPLEX IMPERFECTIVE)
2-tell.IPFV-**PL** -3MSG.O -AUX.NPST-**2PL**
'you all tell him'

(47) **yɨ**-nägr-**u** -t -allä □ (> *yɨnägrutall*) (COMPLEX IMPERFECTIVE)
3-tell.IPFV-**PL** -3MSG.O -AUX.NPST
'they tell him' (adapted from Leslau 1995: 422)

The focus marker *-mm* can either appear between the main verb and AUX ((48)) or to the right of AUX ((49)).

↪ Only when *-mm* intervenes between V and AUX is allomorphy bled and Kinyalolo's Constraint fed.

(48) **yɨ**-nägr-**u** -mm -allä □ (> *yɨnägrummall*) (COMPLEX IMPERFECTIVE)
3-tell.IPFV-**PL** -FOC -AUX.NPST
'and they will tell' (adapted from Leslau 1995: 882)

(49) **yɨ**-nägr-∅ -allä-**u**-mm (> *yɨnägrallumm*) (COMPLEX IMPERFECTIVE)
3-tell.IPFV-**PL** -AUX.NPST-**PL**-FOC
'they will tell' (*ibid.*)

UPSHOT: the distribution of plural *-u* on main verbs and AUX in complex imperfectives in Amharic is predicted by a combination of adjacency-based allomorphy and Kinyalolo's Constraint.

6. Recap of results and comparison with alternative approaches

What have we said so far (section 6.1) and what are other approaches to missing agreement (section 6.2)?

6.1. Recap of results

(Dis)appearing AUX agreement

(50) AUX AGREEMENT GENERALIZATION, GENERALIZED
Auxiliary agreement in complex {gerunds / imperfectives} disappears whenever it would be homophonous with main verb agreement.

(51) därsä-**n** -allä (*-**n**) (> *därsänall*) (COMPLEX GERUND)
arrive.GER-**1PL** -AUX.NPST (*-**1PL**)
'we have arrived'

(52) **yɨ**-nägr-**u** -mm -allä (*-**u**) (> *yɨnägrummall*) (COMPLEX IMPERFECTIVE)
3-tell.IPFV-**PL** -FOC -AUX.NPST (*-**PL**)
'and they will tell' (adapted from Leslau 1995: 882)

↪ Accounted for with Kinyalolo's Constraint ((20)), which only applies to insertion within M-words, cf.

(53) [$_{CP}$ k'ädmän därsä-**n** **y**-allä-**n**]-äw ɨññä nän.
[$_{CP}$ first arrive.GER-**1PL** **C**-AUX.NPST-**1PL**]-DEF we COP.1PL
'It is us who arrived first.' (Leslau 1995: 390)

(Dis)appearing main verb agreement

(54) MAIN VERB SUFFIX GENERALIZATION IN AMHARIC COMPLEX IMPERFECTIVES
The plural suffix *-u* on lexical verbs in complex imperfectives disappears whenever the lexical verb is adjacent to the non-past auxiliary.

(55) **yɨ**-nägr-∅ -allä-**u**-mm (> *yɨnägrallumm*) (COMPLEX IMPERFECTIVE)
3-tell.IPFV-**PL** -AUX.NPST-**PL**-FOC
'they will tell' (adapted from Leslau 1995: 882)

↪ Accounted for with plural suffix allomorphy constrained by linear adjacency ((42)).

6.2. Comparison with alternative analyses of the (dis)appearance of subject agreement in Amharic

Disappearing agreement isn't impoverishment/obliteration

✗ The disappearance of agreement is a result of postsyntactic feature deletion (= impoverishment, à la Bonet 1991) or terminal node deletion (= obliteration, à la Arregi and Nevins 2007).

PROBLEM #1: absence of AUX agreement is conditioned by local, homophonous main verb agreement.

↪ Impoverishment/obliteration apply before VI, hence cannot refer to (properties of) *exponents*.

PROBLEM #2: absence of V agreement is (i) exponent-specific (*-u*) and (ii) sensitive to linear adjacency.

↪ Impoverishment/obliteration apply *before* postsyntactic linearization of terminal nodes, hence cannot refer to linear adjacency (see Arregi and Nevins 2012: sec. 4.5; Božič 2020).

Diertani and Eilam (2010)

The disappearance of *-u* in the complex imperfective is explained via a KC-like constraint:

(56) **Morphological Anti-Redundancy Condition (MARC)**
Speakers will delete a morpheme when they assume its feature content is identical to that of another morpheme within the same Morphological-word. (Diertani and Eilam 2010: 4)

The agreement on the auxiliary is retained because the auxiliary is in C and C requires AgrS.

However, there is some evidence that (56) is not the right tool (Kramer 2020):

- Too powerful: incorrectly predicts that agr prefixes could be deleted in the complex imperfective
- Too weak: no clear reason why agr on main verb retained when material intervenes between the verb and the auxiliary, e.g., (48)

Kramer (2020)

What about Kramer 2020 on the disappearance of *-u* in complex imperfectives?

(57) **Local Dislocation of *-u***
-u undergoes Local Dislocation when it is left adjacent to *allä* (Kramer 2020)

Promising, but not ideal:

- Does not extend easily to complex gerunds (incorrectly predicts Local Dislocation in 3pl)
  ⇝ *säbrä-w-all* 'they have broken' (break.GER-PL-AUX.NPST) (**säbrä-all-u*)
- Needs to posit post-VI haplology for 2PL ((41)), rather than pre-VI haplology (see Kramer 2023).

UPSHOT: KC approach covers the most data the most successfully!

7. Conclusion

(58) **Kinyalolo's Constraint (on Insert)**
In an M-word, the exponent associated with a vocabulary entry α is Inserted no more than once.

This anti-homophony constraint restricts the second step in a two-step Vocabulary Insertion process:

(59) Vocabulary Insertion in two steps
  a. *Select*: For a terminal node X^0, choose the vocabulary entry α that maximally realizes the features of X^0 in accordance with the *Subset Principle* (Halle 1997: 48).
  b. *Insert*: Add the exponent associated with α to X^0.

✓ Kinyalolo's Constraint (= anti-homophony during Vocabulary Insertion) accounts for the *directionality* of disappearing agreement in Amharic ⇝ higher homophonous agreement is predicted to disappear.

✓ KC approach covers the most empirical ground in accounting for the distribution of agreement markers in complex verbs in Amharic…

  ↪ … and beyond: see Appendix A for independent support for both Kinyalolo's Constraint and adjacency-based allomorphy of (3)PL *-u* from agreement in other Ethiosemitic languages.

✓ Further developing our understanding of the most central operation in a realizational morphological theory like DM—namely, Vocabulary Insertion.

7. References

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A. Demonstrating the independent plausibility of each piece of the analysis

Our analysis accounts for the disappearance of agreement in Amharic with two postsyntactic tools:

- Kinyalolo's Constraint blocks insertion of AUX agreement in the presence of homophonous main verb agreement.
- Allomorphy (i.e. competition at Vocabulary Insertion) can result in insertion of a -∅ PL suffix on the main verb.

Each of these pieces—Kinyalolo's Constraint and zero allomorphy—boasts independent support from similar patterns of disappearing agreement in other Transversal South Ethiosemitic languages.

[+KC, −allomorphy]: Eastern Gurage

Gurage languages are Ethiosemitic languages spoken in the Gurage Zone. The Eastern Gurage languages (Wolane, Silt'e, and Zay), also have complex imperfective verbs (Meyer 2011: 1246) (and have innovated discontinuous 1PL agreement, see Hewett 2023b: sec. 4 for discussion and analysis).

- ∗ [+KC]: Like in Amharic, Kinyalolo's Constraint is active.
- ∗ [−allomorphy]: Unlike in Amharic, there is no zero allomorphy of plural *-u* in the complex imperfective when it is left-adjacent to non-past AUX.
  - ↪ Main verb agreement appears throughout.
  - ↪ AUX agreement disappears in (60) when it would be homophonous with the main verb suffix, cf. (61).

(60) *Wolane complex imperfective of* $\sqrt{\text{sbr}}$ *'break'* (underlying forms; adapted from Meyer 2006: 97)

	SG	PL
1	**y**-sɛbr[-ā-**h^{w}**]	**y**-sɛbr-**nɛ**[-ān □]
2M	**t**-sɛbr[-ā-**hɛ**]	**t**-sɛbr-**u**[-ā-**h^{w}m**]
2F	**t**-sɛbr-**i**[-ā-**ʃ**]	**t**-sɛbr-**u**[-ā-**h^{w}m**]
3M	**y**-sɛbr[-ān-**ɛ**]	**y**-sɛbr-**u**[-ān □]
3F	**t**-sɛbr[-ā-**t**]	**y**-sɛbr-**u**[-ān □]

(61) *Expected (perfective) agreement on* AUX (adapted from Meyer 2006: 108, Table 15)

	PL	
1	**-h^{w}**	-**nɛ**
2M	**-hɛ**	**-h^{w}m**
2F	**-ʃ**	**-h^{w}m**
3M	**-ɛ**	-**u**
3F	**-t**	-**u**

[−KC, +allomorphy]: Argobba

The variety of Argobba spoken in the villages of Shonke and T'ollaha (see Demeke 2015 for an overview of Argobba varieties) also has complex gerunds and complex imperfectives (Wetter 2010: 205–206).

- ∗ [−KC]: Unlike in Amharic, Kinyalolo's Constraint is *inactive*; homophonous agreement in M-words is permitted.
  - ↪ AUX agreement appears in all cells of the complex gerund paradigm in (62) (see esp. 2nd person cells).
- ∗ [+allomorphy]: Like in Amharic, there is adjacency-based zero allomorphy of *-u* in the complex imperfective.
  - ↪ Complex imperfective 3PL suffixal agreement on the main verb is realized as *-∅* before direct object clitics and as *-u* elsewhere ((63); see Hewett 2023a: 1133–1136.

(62) *Argobba complex gerund of* $\sqrt{\text{sbr}}$ *'break'* (underlying forms; adapted from Wetter 2010: 401)[1]

	SG	PL
1	sɛbirr-**e**[-ll-**ɛw**]	sɛbirr-**ɛna**[-ll-**na**]
2M	sɛbirr-**x**[-ll-**x**]	sɛbirr-**xum**[-ll-**xum**]
2F	sɛbirr-**ʃ**[-ll-**ʃ**]	sɛbirr-**xum**[-ll-**xum**]
3M	sɛbirr–**o**[-hall-∅]	sɛbirr-**ɛm**[-ll-**ɛy**]
3F	sɛbirr-**a**[-ll-**ɛʧʧ**]	sɛbirr-**ɛm**[-ll-**ɛy**]

(N.B. Agreement is realized everywhere in the complex imperfective, but there are no homophonous suffixes, making it impossible to determine if KC is (in)active from that paradigm alone.)

(63) *Argobba allomorphy of* 3PL *suffixal agreement on complex imperfective main verbs*

a. **y**- awd **-u** -ll -ɛy
3- tell.IPFV -**3.PL** -AUX -3.PL
'they tell' (Wetter 2010: 171)

b. **y**- awid **-∅** **-yyɛm** -ll -ɛy
3- tell.IPFV -**3.PL** -**3.PL.OBJ** -AUX -3.PL
'they tell them' (Wetter 2010: 394)

[−KC, −allomorphy]: non-standard Amharic

Full homophonous agreement is attested in complex gerunds/imperfective in non-standard varieties of Amharic (including in Old Amharic, pre-mid-19th century, see Getatchew Haile 1983: 163; Appleyard 2003a: 234, 2003b: 115).

- ∗ [−KC]: Unlike in standard Amharic, KC is *inactive*; homophonous agreement in M-words is permitted.
  - ↪ Homophonous *-u*/*-w* plural suffixes appear on both the main verb and AUX in the complex gerund in (64).
- ∗ [−allomorphy]: Unlike in standard Amharic, there is no zero allomorphy of plural *-u* in the complex imperfective when it is left-adjacent to non-past AUX.
  - ↪ Main verb agreement appears throughout the complex imperfective, even when homophonous e.g. in (65).

(64) tä-zägtä-**w** -allä-**u** (COMPLEX GERUND)
NACT-close.GER-**PL** -AUX.NPST-**PL**
'they have been closed' (Old Amharic; Appleyard 2003a: 234)

(65) yi-säbr-**u** -allä-**u** (> *yisäbruallu*) (COMPLEX IMPERFECTIVE)
3-break.IPFV-**PL** -AUX.NPST-**PL**
'they break, will break' (Non-standard Amharic; adapted from Leslau 1995: 342; see Goldenberg 1977: 494)

[1] Wetter (2010: 400, fn. 7) notes that, in the 2PL, an epenthetic [i] vowel (realized as [u] due to vowel harmony with the suffix vowel /u/) is typically inserted between the auxiliary *-ll-* and its agreement suffix *-xum*.