## The Anterior-Passive Portmanteau Suffix in Tiania

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In this brief paper we show that the Bantu language Tiania (a variety of Kimeru spoken in Kenya) has a curious gap in the expression of the passive. In the anterior tenses that take an /-eet-ɛ/ inflectional ending, it is not possible to use the otherwise general -w passive suffix (\*-eet-w-ɛ). Instead, the inflectional final vowel /-i/ occurs as an anterior-passive "portmanteau". We describe and exemplify this gap in the verb system and speculate that \*-i was originally a stative marker that was extended as a "rule of referral" to the passive function it now has with transitive verbs.

**Keywords:** Kimeru, portmanteau, anterior past, passive, stative. lexical aspect

The purpose of this short note is to describe the curious /-i/ suffix in the Tiania [etianíá] verb paradigm which we analyze as an "anterior-passive portmanteau" when affixed to a transitive verb base. Tiania is an underdescribed variety of Kimeru [kemê:ro] (Guthrie Referential Code E53, ISO: mer] within the Central Kenya Bantu group. As in the case of other Bantu languages, the tense-aspect mood (TAM) system is quite complex. Table 1 represents the main clause affirmative TAMs we have looked at, with only the continuous/habitual having an extra [a] derived from the Proto-Bantu "prefinal" suffix \*-ag plus the final vowel (FV) /-al.

Passive           1         Present         í-SP-ko-R-a         í-SP-ko-R-w-a°         í-SP-ko-R-i-a°         í-SP-ko-R-u-a°           2         Habitual         í-SP-R-aá         í-SP-R-a-w-ă         í-SP-R-ak-i-ă         í-SP-R-ak-u-ă           3         Perf ('already')         í-SP-R-éet-ε°         í-SP-R-i°         í-SP-R-éet-i-ε°         í-SP-R-éet-u-ε°           4         Past0 ('just')         SP-ko-R-a         SP-ko-R-w-a°         SP-ko-R-i-a°         SP-ko-R-u-a°           5         Past1 (today)         í-SP-R-ér-ε°         í-SP-R-ér-w-ε°         í-SP-R-ér-i-ε°         í-SP-ñ-R-er-u-ε°           6         Past2 (yesterday)         í-SP-á-R-er-ε         í-SP-á-R-er-w-         í-SP-á-R-er-i-ε°         í-SP-á-R-er-u-ε°	
a°       i-SP-R-ak-i-ă       i-SP-R-ak-i-ă       i-SP-R-ak-u-ă         3 Perf ('already')       i-SP-R-éet-ε°       i-SP-R-i°       i-SP-R-éet-i-ε°       i-SP-R-éet-u-ε°         4 Past0 ('just')       SP-ko-R-a       SP-ko-R-w-a°       SP-ko-R-i-a°       SP-ko-R-u-a°         5 Past1 (today)       i-SP-R-ér-ε°       i-SP-R-ér-w-ε°       i-SP-R-ér-i-ε°       i-SP-R-ér-u-ε°	
2 Habitual	
3 Perf ('already')	
4 Past0 ('just') SP-ko-R-a SP-ko-R-w-a° SP-ko-R-i-a° SP-ko-R-u-a° 5 Past1 (today) í-SP-R-ér-ε° í-SP-R-ér-w-ε° í-SP-R-ér-i-ε° í-SP-R-ér-u-ε°	
5 Past1 (today) í-SP-R-ér- $\varepsilon$ ° í-SP-R-ér-u- $\varepsilon$ ° í-SP-R-ér-u- $\varepsilon$ °	
6 Past2 (yesterday)	
ε	
7 Past3 (earlier) í-SP-a-R-ér-έ í-SP-a-R-ér-w- í-SP-a-R-ér-í-έ í-SP-a-R-ér-ú-έ	
έ	
8 Anterior P1 (today) í-SP-ko-R-eet- í-SP-ko-R-i í-SP-ko-R-eet-i- í-SP-ko-R-eet-u-e	-ε
ε	
9 Anterior P2 (yest.)	;
10 Anterior P3 í-SP-a-R-éét-έ í-SP-a-R-í í-SP-a-R-éét-í-έ í-SP-a-R-éét-ú-έ	;
(earlier)	
11 Experiential SP-rá-R-a SP-rá-R-w-a SP-rá-R-i-a SP-rá-R-u-a	
12 Future SP-ká-R-a SP-ká-R-w-a° SP-ká-R-i-a° SP-ká-R-u-a°	
SP-R- $\varepsilon$ SP-R- $w$ - $\varepsilon$ SP-R-i- $\varepsilon$ SP-R-u- $\varepsilon$	
14 +OP SP-OP-R-έ SP-OP-R-í-έ	

15	Imperative	R-a° R-έ-i° (pl.)	R-w-á	R-í-á	R-ú-á
16	+OP	OP-R-έ		OP-R-í-έ	
		OP-R-έ-i° (pl.)		OP-R-í-έ-i° (pl.)	
17	Infinitive	ko-R-a	ko-R-w-a°	ko-R-i-a°	ko-R-u-a°

Table 1. Main Clause Affirmative Major Tense-Aspect-Moods

In the above, SP = subject prefix, OP = object prefix, R = root, (´) = H(igh) tone, no mark = L(ow) tone; (`) = LH rising tone; ° = prepausal level Low tone. The color coding represents the different tone patterns: Yellow = no suffixal H, Green = H from second to final mora; Orange = H from second mora to penult, final is L°; Gold = H from second mora to antepenult, penult = superhigh ("), final = L°; Blue = final LH.

In this note we are interested in a particular problem that arises in the inflectional suffixes. Looking at the first column, the main clause affirmative (MCA) TAMs that are not marked by a causative or passive suffix, we see the inflectional endings in Table 2, where [.] indicates a syllable break due to a "ghost consonant" deriving from the \*g of the \*-ag- suffix that is deleted by a general  $*g > \emptyset$  sound change in Tiania (Hyman & Mbûûi 2022a).

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Suffixes: TAMs:
-a Present, Past0, Experiential ('to have done X before'),
Future, Imperative (without OP), infinitive
-a.-a Habitual
-ε Subjunctive, Imperative (with OP or if plural, with enclitic -i°)
-er-ε Past1, Past2, Past3
-eet-ε Perfect, Anterior Past1, Past2, Past3
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Table 2. Inflectional Endings in the Tiania Verb Paradigm

As seen, we treat both -er- $\varepsilon$  and -eet- $\varepsilon$  as bimorphemic since, as we shall see, both the causative -i and passive -w suffixes occur between the two morphs. Although not illustrated, the -a-a ending in the habitual also occurs in the continous aspect of Past1, Past2, Past3, and Future, and -a- $\varepsilon$  occurs in the continuous aspect of the subjunctive and of the imperative with an object prefix. Similar inflectional endings are also found in the corresponding negative TAMs, the main difference being that the negative subjunctive and imperative take the FV /-al throughout. It should be noted that we use phonemic slashes // only when the underlying representation is unambiguous. For instance, causative -i can alternatively be interpreted as /il or /yl, while passive -w can be analyzed as /wl or /-ol in which case the fused causative-passive -u would be /-i-o/, /-y-o/, /i-w-/ or /y-w-/. We avoid such abstractions here.

<sup>&</sup>lt;sup>1</sup> All data is based on the speech of the second author from Ming'ong'ine village located near Kianjai township, in Tiania West. We would like to thank Thera Crane, Hilde Gunnink and an anonymous reviewer for comments on the original submission and Robert Botne and Derek Nurse for discussions concerning -i.

<sup>&</sup>lt;sup>2</sup> As can be seen in Table 1, there is allomorphy in the habitual where, instead of undergoing *g*-deletion, \*-*ag*-is realized -*ak* when followed by causative -*i: í-tó-mo-thamb-<u>ak</u>-i-á* 'we bathe him/her' (*|ðamb-ak-i|* 'bathe (tr.)' (Hyman & Mbûûi 2022a: 229).

Returning to Table 1, columns two through four provide the schemas when the verb root is extended by causative -i, passive -w or both, in which case the expected -i-w- sequence is realized as -u. As can be seen, the -i, -w or -u suffix appears before the FV /-a/, and -i and -u also occur before the FV /-e/, whether occurring alone or preceded by /-er-/ or /-eet-/. The interesting problem concerns the passive. As seen, -w is found before the FV -a, and it is also found before the FV -e when occurring alone in the subjunctive and imperative or when preceded by -er- in Past1-3. On the other hand, the output sequence  $*-eet-w-\varepsilon$  is totally ungrammatical. Where  $*-eet-w-\varepsilon$  is expected, the FV /-i/ is found instead, as seen in the Perfect and Anterior Past1-3 TAMs.

The most straightforward account would appear to be that /-il is an anterior-passive "portmanteau", defined as a single form that stands in the place of an expected more complex sequence, in this case trimorphemic -eet-w- $\varepsilon$ . The first question this raises is why \*-eet-w- $\varepsilon$  is not acceptable. The /-eet- $\varepsilon$ l suffix ending marks anteriority, either with respect to the present, in which case we get an 'already' perfect interpretation, as in (1a), or with respect to the past, in which case we derive a today, yesterday or before yesterday anterior past or past perfect, as in (1b).

(1) a. Perf: i-bá-thaámb-éet- $\varepsilon$ ° 'they have (already) bathed'

b. AntP1: í-bá-ko-thaamb-eet-ε 'they had (already) bathed' (today)

AntP2 : í-ba-á-thaamb-eet-ε (yesterday)

AntP3 : í-ba-thaámb-éét-έ (before yesterday)

As seen in (2), these TAMs can be causativized with /-i/, and also causativized and passivized with -u from -i-w, as in (3).

(2) a. Perf: í-bá-thaámb-éet-i-ε° 'they have (already) bathed (s.o.)'

b. AntP1: í-bá-ko-thaamb-eet-i-ε 'they had (already) bathed (s.o.)' (today)

AntP2 : i-ba- $\acute{a}$ -thaamb-eet-i- $\epsilon$  (yesterday)

AntP3 : í-ba-thaámb-éét-í-έ (before yesterday)

(3) a. Perf: í-bá-thaámb-éet-u-ε° 'they have (already) been bathed'

b. AntP1: í-bá-ko-thaamb-eet-u-ε 'they had (already) been bathed' (today)

AntP2: í-ba-á-thaamb-eet-u-ε (yesterday)

AntP3 : í-ba-thaámb-éét-ú-έ (before yesterday)

The examples in (3) are particularly important since they show that a transitivized verb -thamb-i- 'bathe' (lit. cause to bathe) can be passivized in /-eet- $\varepsilon$ / TAMs. On the other hand, the sentences in (4) show that a non-causative transitive verb cannot be passivized in an /-eet- $\varepsilon$ / TAM, which instead must be expressed with the FV /-i/, as in (5).

(4) a. Perf: \*í-bá-tharím-éet-w-ε° 'they have (already) been blessed'

b. AntP1: \*í-bá-ko-tharim-eet-w-ε° 'they had (already) been blessed' (today)

AntP2: \*í-ba-á-tharim-eet-w- $\varepsilon$ ° (yesterday)

AntP3: \*í-ba-tharim-éét-w- $\hat{\epsilon}^{\circ}$  (before yesterday)

(5) a. Perf: í-bá-tharím-i° 'they have (already) been blessed'

b. AntP1: í-bá-ko-tharim-i 'they had (already) been blessed' (today)

AntP2: í-ba-á-tharim-i (yesterday)

AntP3: í-ba-tharím-í (before yesterday)

There does not seem to be any semantic reason why TAMs which express the relation between an anterior and later time reference should not be able to accept the normal -w passive marking. Since there is nothing wrong with a transitivized verb being passivized, as in (3), we conclude that the prohibition has nothing to do with transitivity. Instead, there must be a specific output constraint against the -eet-w- sequence. We also can assume that the FV  $/-\varepsilon/$  is irrelevant since a homophonous  $/-\varepsilon/$  can occur with passive /-w/ in both  $-er-\varepsilon$  and  $-\varepsilon$  TAMs, as seen in (6).

(6) a. Past1: i-bá-tharím-ér-w- $\varepsilon$ ° 'they were blessed' (today)

Past2: í-ba-á-tharim-er-w-ε (yesterday)

Past3 : í-ba-tharím-ér-w- $\acute{\epsilon}$  (before yesterday) b. Sbjv : kã bá-thárím-w- $\acute{\epsilon}$  'let them be blessed!'

The FV /-i/ therefore seems to be a straightforward case of a portmanteau combining passive and anteriority. Or is it?

The question we raise now is: How do we know that the sentences in (5) are the passive equivalents of those in (7)?

(7) a. Perf: í-bá-tharím-éet-ε° 'they have (already) blessed (s.o.)'

b. AntP1: í-bá-ko-tharim-eet-ε 'they had (already) blessed (s.o.)' (today)

AntP2 :  $\text{i-ba-\'a-tharim-eet-}\epsilon$  (yesterday) AntP3 : i-ba-thar'im-'e'et-'e' (before yesterday)

First, we note that when asked to passivize the sentences in (7), the second author without any hesitation provided the sentences in (5). However, we wanted to make sure that the /-i/ TAMs are really passives rather than statives or anything else. As can be observed in (8), passives marked by -w can be combined with an agent, which is introduced by the focus marker, realized í before a consonant, né before a vowel, as in the (-er)- $\epsilon$  TAMs seen above in (6).

(8) a. Past1: í-bá-tharím-ér-w-ε í mo-cíari 'they were blessed by a parent'

(today)

Past2 : í-ba-á-tharim-er-w-ε í mo-cíari (yesterday)

Past3 : í-ba-tharím-ér-w-έ í mo-cíari (before yesterday)

b. Sbjv: kä bá-thárím-w-ε í mo-cíari
 cf. kä bá-thárím-w-ε né a-cíari
 'let them be blessed by parents!'

Parallel to (8), we see in (9) that the passive agent can also be expressed with the /-i/ passives seen above in (5).

(9) a. Perf: í-bá-tharím-i í mocíari 'they have been blessed by a parent'

b. AntP1: í-bá-ko-tharim-i í mocíari 'they had been blessed by a parent' (today)

AntP2: í-ba-á-tharim-i í mocíari (yesterday)

AntP3: í-ba-tharím-í í mocíari (before yesterday)

In addition, while languages often do not allow benefactives with statives, it is possible to express a benefactive by adding the applicative extension /-er-/ in a passive, as in (10), where the applicative + inflectional suffix sequence /-er-er-/ is realized as -e-er-:

(10) a. Past1: í-bá-tharím-é-er-w-ε mbóri (yesterday)
 Past2: í-ba-á-tharím-e-er-w-ε mbóri (yesterday)
 b. Sbịy: kã bá-thárím-ër-w-ε mbóri (the goat was blessed for them' (today)
 (yesterday)
 (before yesterday)
 (ithe goat was blessed for them' (today)
 (before yesterday)
 (ithe goat be blessed for them'

In (10) the benefactive object has become the subject of the corresponding passive, a more literal translation being 'they were blessed the goat' and 'let them be blessed the goat!'. Again, the same possibility exists with /-i/ passives:

(11) a. Perf: í-bá-tharím-ér-i mbóri 'the goat has been blessed for them'
b. AntP1: í-bá-ko-tharim-er-i mbóri 'the goat had been blessed for them' (today)
AntP2: í-ba-á-tharim-er-i mbóri (yesterday)
AntP3: í-ba-tharím-ér-í mbóri (before yesterday)

It would thus seem that we are on solid ground identifying sentences such as (11) as passive and /-i/ as an anterior-passive portmanteau. However, there is a potential problem. If /-i/ does mark a passive, it should be difficult, if not impossible to use it with intransitive verbs. However, in the Appendix, 40 intransitive verbs are exemplified with /-i/ besides 36 transitive verbs. As seen in (12), where the infinitive is the intransitive verb o-kír-a 'to be(come) quiet', it is possible for intransitive verbs to appear in all four TAMs with /-i/.

(12) a. Perf: í-bá-kír-i° 'they are quiet'
b. AntP1: í-bá-o-kír-i 'they had been/become quiet' (today)
AntP2: í-ba-á-kír-i (yesterday)
AntP3: í-ba-kír-í (before yesterday)

As seen, the perfect form  $i-b\acute{a}-k\acute{t}r-i$ ° is glossed as a stative 'they are quiet'. The corresponding perfect form  $?\acute{t}-b\acute{a}-k\acute{t}r-\acute{e}et-\varepsilon$ ° with the  $/-\mathbf{eet}-\varepsilon$ / ending, if acceptable, would mean 'they have become quiet (by now)' vs. at some point earlier and is felt to be awkward. Although also judged to be "rare", a closer to present perfect reading is obtained through the immediate Past0 tense,  $ba-o-k\acute{t}r-a$  'they have (just) become quiet'. While pinning down the context is not always straightforward (and such examples are sometimes viewed as "awkward"), it will be seen in other examples, that the  $/-\mathbf{eet}-\varepsilon$ / forms have a "lingering" effect, indicating a change of state or process that has subsequent relevance. This is also the case in the anterior past forms, e.g.  $i-b\acute{a}-o-k\acute{t}r-eet-\varepsilon$  'they had already

<sup>3</sup> Since Tiania does not allow multiple object marking on the verb, it is not possible to pronominalize *mbóri* 'goat' with the OP -*me*- at the same time: \**i*-bá-<u>me</u>-tharím-é-ér-w-ε 'it was blessed for them, they were blessed it' (Past1).

<sup>&</sup>lt;sup>4</sup> Compare the "linger past tenses" reported by Givón (1972:178) in Chibemba. As reported elsewhere, the exact semantics of cognates of the -er- $\varepsilon$  and -e(e)t- $\varepsilon$  endings varies across Bantu languages, involving anterior, resultative and stative meanings (Bastin 1983: 62-77, Botne 2010, Crane 2012: 87-91, 2013), and Nurse 2008: 264-268).

been quiet' (AntP1). The present tense *i-bá-o-kír-a* 'they are becoming quiet' and future *ba-á-kír-a* 'they will be(come) quiet (at some point)' have the expected meanings.

A further difference between  $/-eet-\varepsilon/$  and final /-i/ in the present perfect can be seen in (13a,b), where we have added the applicative suffix /-er/.

a. í-bá-kír-ér-éet-ε mocíari
b. í-bá-kír-ér-i í mocíari
c. í-bá-kír-eet-u-ε í mocíari
they have gone silent on their parent'
their parent has gone silent on them'
their parent has gone silent on them'
they have been silenced by their parent'

In (13a) the verb is active and mociari 'parent' appears as the affected applicative object. In (13b) the sentence remains intransitive with the subject  $lb\acute{a}-l$  'they' being the applicativized argument affected by passive agent i mociari 'by the parent' (lit. they have been silenced to by the parent). The acceptability of a "dative" applicative in (13b) shows that the meaning is not stative, as it appears to be in (12a), thereby showing some fluidity in l-il marking a state vs. change of state. Finally, we've included (13c), with the fused passive+causative suffix -u, indicating this time that the subject  $lb\acute{a}-l$  'they' has been silenced by the parent.

In comparing the use of l-il vs. l-eet-el on intransitive verbs we note that the latter conjugations, if acceptable at all, are rare with an interpretation that isn't always clear. The following examples in the perfect can be compared to the forms we saw from o-kir-a 'to be(come) quiet' in (12):

(14)	a.	í-bá-cíók-i°	'they are alert, awake'	o-cíok-a	'to be alert, awake'		
		í-bá-cíók-éet-ε°	'they are alert these days'				
	b.	í-bá-láró-i°	'they are careless'	ko-láro-a	'to be careless'		
		í-bá-láró-éet-ε°	'they have become careless	as of now (vs.	before)'		
	c.	í-bí-mat-í	'they are thick'	ko-mat-a	'to be thick'		
		?í-bí-mat-éet-ε°	'they have become thick' (rare)				
	d.	í-bá-nor-í	'they are fat'	ko-nor-a	'to become fat'		
		?í-bá-nor-éet-ε°	'they have become fat'				
	e.	í-bí-ər-í	'they are rotten'	kw-əər-a	'to be rotten'		
		í-bí-ɔr-έεt-ε°	'they have become rotten'				
	f.	í-bí-nuúnk-i°	'they smell bad'	ko-nuunk-a	'to smell bad'		
		?í-bí-nunk-éet-ε°	(idea of on-going, linger)				

As seen, in what we have been calling the perfect, intransitive verbs appearing with /-i/ have a present stative meaning.<sup>6</sup> In contrast, as was seen in examples like *i-bá-tharím-i* 'they have been blessed' in (5a), transitive verbs indicate a change of state. Other examples involving the inanimate class 8 subject prefix /bí-/ 'they' are seen in (15). All of these can be extended by *i munto* 'by someone':

<sup>&</sup>lt;sup>5</sup> As elsewhere in Bantu, the acceptability and exact meaning of these and other TAMs are intimately tied with the Aktionsart or lexical aspect of individual verbs (cf. also (17)), as shown recently in Totela (Crane 2013), Fwe (Gunnink 2022, chs. 8, 9) and elsewhere within Bantu and beyond (Crane & Persohn 2019, Crane et al 2021). It is interesting that cognate **-ite** is primarily a stativizer in both Totela (Crane 2013: 171) and Fwe (Gunnink 2022: 370), languages spoken over 2,000 miles away from Tiania.

<sup>&</sup>lt;sup>6</sup> Another way to express this is with the focus marker + an adjective, which takes a double prefix, the first being what is known as the Bantu "augment" (Hyman & Mbûûi 2022b), e.g. *i bi-bi-ɔr-ú* 'they are rotten' (cf.  $/ko- >r-a/ \rightarrow kw- >r-a/$ 'to rot, become rotten').

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(15)
           í-bí-íy-i°
                             'they have been stolen'
                                                         ku-íy-a
                                                                        'to steal'
      a.
           í-bí-rú-i°
       b.
                             'they have been cooked'
                                                         ko-rú-a
                                                                        'to cook'
       c.
           í-bí-túm-i°
                             'they have been sewed'
                                                         ko-túm-a
                                                                        'to sew'
       d. í-bí-tál-i°
                             'they have been counted'
                                                         o-tál-a
                                                                       'to count'
           í-bí-tambór-i°
                             'they have been torn'
                                                         o-tambor-a
                                                                       'to tear (tr.)'
       e.
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The last example, like many verbs having the transitive separative suffix  $/-orl \sim |I-oll|$  has a counterpart with the intransitive separative suffix |I-ok| which expresses a stative:  $(i-bi-tambók-i)^{\circ}$  'they are torn'. Other examples can be seen in (16).

(16)	a.	í-bá-nánók-i°	'they are pampered'	ko-nánok-a	'to be pampered'
		í-bá-nánór-i°	'they have been pampered'	ko-nánor-a	'to pamper'
	b.	í-bí-kəmbók-i°	'they are bent'	o-kəmbək-a	'to bend (intr.)'
		í-bí-kəmbál-i°	'they have been bent'	o-kəmbəl-a	'to bend (tr.)'
	c.	í-bá-témók-i°	'they are frightened'	o-témok-a	'to be frightened'
		í-bá-témór-i°	'they have been frightened'	o-témor-a	'to frighten, scare'

As we saw earlier, it is only in the transitive cases that an agent or cause of the change of state can be added, e.g. *i-bá-témór-i í ngátónyi* 'they have been frightened by a lion' (\**i-bá-témók-i í ngátónyi*). Note also that verb forms, including those ending in *I-iI* can occur as relative clauses, although without the initial focus marker. A demonstrative (here *bárá* "'those, class 2') is however required: *ána bárá* " *bá-témók-i* "frightened children' (state), *ána bárá* " *bá-témór-i* "frightened children' (by someone or something), literally 'those children who are frightened', 'those children who have been frightened'.

Returning to monomorphemic verb roots, there are independent indications that certain intransitive verbs do not go well with /-i/. In (17) we show the results of attempting to conjugate active intransitive verbs with either /-eet-ɛ/ or /-i/.

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ba-ko-w-a°
                                 'they have just fallen'
                                                                ko-wa°
                                                                             'to fall'
(17)
       a.
            í-bá-w-eét-ε°
                                 'they have fallen'
            *í-bá-w-i°
                                 'they have just arrived'
       b. ba-o-kiny-a
                                                                o-kiny-a
                                                                             'to arrive'
            í-bá-kiny-éet-ε°
                                 'they have arrived by now'
            ?í-bá-kiny-í
                                 ???
           ba-ko-thek-a
                                 'they have just laughed'
                                                                             'to laugh'
                                                                o-thek-a
            í-bá-thεk-έεt-ε°
                                 'they have laughed (+linger)'
            nóo bá-thek-éet-e°
                                 'they are still laughing' (nóɔ 'still')
                                 ???
            *í-bá-thɛk-í
       d. ba-ko-rer-a
                                 'they have just cried'
                                                                ko-rer-a
                                                                             'to cry'
            í-bá-rer-éet-ε°
                                 'they have cried (+linger)'
            *í-bá-rer-í
           ba-o-kɔʻɔrr-a
                                 'they have just coughed'
                                                                o-kɔʻərr-a
                                                                             'to cough'
            í-bá-kórr-éet-ε°
                                 'they've coughed (+current effect)'
            *í-bá-kɔʻərr-i°
                                 ???
```

As seen in the first line of each of the sets of examples the Past0 TAM is always available to express an immediate past action related to the present. The forms with /-eet-ɛ/ indicate an action that could have taken place some time ago but has a lingering effect on the present. Since /-eet-ɛ/ is possible with intransitive verbs, we have no explanation as to why passive -w cannot occur with a lingering effect in /-eet-ɛ/ TAMs. Assuming that \*-i originally marked a stative, we can interpret \*-eet-w-ɛ shifting to /-i/ by a process known as a "rule of referral" (Zwicky 1987, Stump 1993) or "take-over" (Carstairs 1987) marking the result of an action. Apparently the verbs in (17) cannot take /-i/ because we don't usually talk about people being in a fallen, arrived, laughed, cried, or coughed state. The last stage of the development would be to interpret the resulting state forms as a passive capable of taking a passive agent. We note that a FV /-i/ often marks statives in Northwest Bantu languages, although also with other functions. There are at least 80 Basaá [A43] examples of derived intransitivize -**i** verbs in Lemb & Degastine (1973), e.g. sop 'pour'  $\rightarrow sob$ -**i** 'be poured' (cf. Bitjaa Kody 1990: 423-4) and Van de Velde (2008: 122-30) shows both a detransitivizing and "impositive" function in Eton [A71], e.g.  $b\acute{u}g$  'break (tr.)  $\rightarrow b\acute{u}g$ -î 'break (intr.)' vs.  $s\acute{o}n$ -bô 'squat',  $s\acute{o}n$ -î 'make s.o. squat', raising the possibility that the portmanteau /-i/ is somehow related to the Tiania causative suffix -i found across Bantu languages (Bastin 1986). While Robert Botne (pers. comm.) has suggested to us that Tiania /-i/ might be related to the Bantu impositive \*-ik suffix, the vowel height does not correspond—and there are some relics of this suffix in Tiania, e.g. o-kúnd-ek-a 'to tie' (cf. o-kúnd-or-a 'to untie'). Whatever its original function might have been, the facts we have uncovered support the interpretation of /-i/ as an anterior-passive portmanteau—at least when the verb base is transitive.

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## **APPENDIX**

The following deverbal subject relative forms ending in the FV /-i/ in the perfect TAM have been identified with the indicated "adjectival" meanings (a subject prefix is required). The first group is derived from intransitive verbs, the second from transitive verbs. Only the latter can take a passive agent when used verbally, e.g. **ána bárá** "bá-tharím-i í mocíari 'the children who have been blessed by a parent'. They all can be used in the four TAMs we have illustrated in previous examples.

Group 1:	(n=40)	Intransitive Infinitive:		
áárám-i°	'wide'	w-aáram-a	'to become wide'	
átók-i°	'cracked'	w-aátok-a	'to crack'	
chéké-i°	'thin'	o-céke-a	'to be thin'	
cíók-i°	'alert, awake'	o-cíok-a	'to be alert, awake'	
έέró-i°	'white'	kw-ɛɛ́rɔ-a	'to be white'	
író-i°	'black'	ku-írə-a	'to be black'	
kír-i°	'quiet'	o-kír-a	'to be quiet'	
kóbók-i°	'caved, collapsed'	o-kóbok-a	'to cave, collapse'	
kəmbók-i°	'bent'	o-kəmbək-a	'to be bent'	
láró-i°	'careless'	o-láro-a	'to be careless'	
márámár-i°	'promiscuous'	ko-máramar-a	'to be promiscuous'	
mat-í	'thick'	ko-mat-a	'to be thick'	
nánók-i°	'pampered, spoiled'	ko-nánok-a	'to be pampered'	
nố-i°	'tired'	ko-nɔ́-a	'to be tired'	
nor-í	'fat'	ko-nor-a	'to be fat'	
nuúnk-i°	'bad smelling'	ko-nuunk-a	'to smell bad'	
nyaár-i°	'withered, dried up'	ko-nyaar-a	'to wither'	
óm-i°	'dry'	ko-óm-a	'to become dry'	
ό <b>ənj-</b> ί	'weak'	kw-əənj-a	'to be weak'	
ər-í	'rotten'	kw-əər-a	'to rot'	
óth-i°	'light (weight, import)'	ko-óth-a	'to be light weight'	
óyór-i°	'full'	ko-óyor-a	'to be full'	
rεέy-i°	'tall'	ko-rεεy-a	'to be long, far'	
ríit-i°	'stupid'	ko-ríit-a	'to be stupid'	
ritó-i°	'heavy'	ko-ritə-a	'to become heavy'	
tambók-i°	'torn'	o-tambok-a	'to tear'	

támbórók-i°	'straight'	o-támborok-a	'to be straight'
témók-i°	'frightened, scared'	o-témok-a	'to be frightened'
tɛndɛ́r-i°	'smooth, light (weight)'	o-tender-a	'to be smooth'
thér-i°	'clean, clear, empty'	ko-thér-a	'to be clean, clear'
thɛrók-i°	'boiled'	ko-therok-a	'to boil'
thíólóonk-i°	'surrounded'	ko-thíóloonk-a	'to go around'
thóok-i°	'bad'	ko-thóok-a	'to be bad'
thóor-i°	'angry, unhappy'	ko-thóor-a	'to be angry'
thuútér-i°	'hot, warm'	ko-thuuter-a	'to be warm'
təʻəng-i°	'rich'	o-təəng-a	'to be rich'
tórék-i°	'holed, punctured'	o-tórek-a	'to be with holes'
tór-i°	'holed, punctured'	o-tór-a	'to exit, go out'
		o-tórek-a	'to be with holes'
təták-i°	'out of shape'	o-tətək-a	'to be misshapen'
un-í	'miscarriaged'	ku-un-a	'to have miscarriage'

Group 2:	(n=36)	Transitive Infi	nitive:
၁ဴ၁−i°	'wrapped'	ko-śɔ-a	'to wrap, bandage'
áák-i°	'built'	w-aák-a	'to build'
áákór-i°	'castrated'	w-aákor-a	'to castrate'
átór-i°	'split'	w-aátor-a	'to split'
cámór-i°	'beaten up'	o-cámor-a	'to beat up'
chinék-i°	'tucked in'	o-cinek-a	'to tuck in'
cíár-i°	'born, given birth'	o-cíar-a	'to give birth'
íit-i°	'cut'	w-iít-a	'to cut'
íngór-i°	'open'	ku-íngor-a	'to open (tr.)'
íy-i°	'stolen'	ku-íy-a	'to steal'
kámát-i°	'carried, driven'	o-kámat-a	'to carry'
kíam-i°	'bent'	o-kíam-a	'to be bent, tilted'
kábár-i°	'caved, collapsed'	o-kóbər-a	'to make collapse'
kólók-i°	'passed by, surpassed'	o-kólok-a	'to pass'
kóng'-i°	'pecked'	o-kóng'-a	'to peck'
kúnékér-i°	'covered'	o-kúnek-a	'to cover'
mέn-i°	'despiser, hater'	ko-mέn-a	'to despise'
nánór-i°	'pampered, spoiled'	ko-nánor-a	'to pamper'
róm-i°	'bitten'	ko-róm-a	'to bite'
rú-i°	'cooked'	ko-rú-a	'to cook'
rúm-i°	'insulted, cursed'	ko-rúm-a	'to insult, curse'
ruór-i°	'opened''	ko-ruor-a	'to open (tr.)'
taán-i°	'circumcized	o-taan-a	'to circumcize'
tál-i°	'counted'	o-tál-a	'to count'
tambór-i°	'torn'	o-tambor-a	'to tear (tr.)'
tándék-i°	'spread'	o-tándek-a	'to spread'
témór-i°	'frightened, scared'	o-témor-a	'to frighten'
thaék-i°	'tied, tethered'	ko-thaek-a	'to tie'
tharím-i°	'blessed''	ko-tharim-a	'to bless'

thiíng-i°	'mudded'	ko-thiing-a	'to mud, plaster'
thốom-i°	'well-read'	ko-thɔ́ɔm-a	'to read'
thuránér-i°	'prepared'	ko-thuraner-a	'to prepare'
thuúr-i°	'chosen, selected'	ko-thuur-a	'to choose'
túm-i°	'sewed'	o-túm-a	'to sew, weave'
ún-i°	'broken'	ku-ún-a	'to break'
wεέt-i°	'mentioned'	ko-weet-a'	'to mention'

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