# Chapter 15 The anticausative alternation in Luragooli

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We discuss the distribution of the verbal suffix -Vk in Luragooli (Luyia, Bantu) based on original fieldwork with a native speaker. We show that -Vk patterns like an anticausative marker with respect to a number of different diagnostics, including licensing of theta-roles and interaction with lexical aspect. We compare Luragooli to other languages with anticausative morphology and identify different classes of verbs based on their behavior with the -Vk suffix.

# 1 Introduction

This paper addresses the distribution and meaning of the Luragooli (Luyia, Bantu) verbal suffix -*Vk* (variously realized as -*ek*, -*ik*, -*ok*, and -*uk*).<sup>1</sup> This suffix occurs in a number of Bantu languages, including Chichewa (Mchombo 1993; Simango 2009) and Swahili (Seidl & Dimitriadis 2003). -*Vk* constructions in these languages have variously been called statives, middles, neuter-passives, quasi-passives, anticausatives, and intransitivized constructions, among others (Mchombo 1993; Dubinsky & Simango 1996; Seidl & Dimitriadis 2003; Fernando 2013). For now, we will refer to and gloss the suffix with the neutral term -*Vk*.

The primary goal of this paper is to attain a descriptively adequate account of -Vk in Luragooli by addressing the following research questions through original fieldwork with a native Luragooli speaker:

<sup>&</sup>lt;sup>1</sup> Luragooli (also called Maragoli, Logoori, Lulogoori, and Logooli) is a Bantu language in the Luyia subfamily, spoken by approximately 618,000 people in Kenya and Tanzania (Lewis, Simons & Fennig 2015).



- What is the distribution of -Vk?
- What meaning(s) is/are associated with the use of -Vk?

Based on the answers to these two questions, we suggest that Luragooli -Vk should be analyzed as an anticausative suffix. That is, -Vk can be treated as a marker of intransitivity analogous to the English anticausative in (1b) below. While in English there is no morphological difference between the causative and anticausative forms of the verb *break* (cf. 1a and 1b), in Luragooli the difference between the two is marked by presence versus absence of the -Vk suffix, as in (2a-b):

(1)	a. John broke the vase.	(LEXICAL) CAUSATIVE
	b. The vase broke.	ANTICAUSATIVE
(2)	Luragooli	
	a. Sira a-han-i muriaŋgo. Sira 1-close-Fv 3door	(LEXICAL) CAUSATIVE
	'Sira closed the door.'	
	b. muriaŋgo gu-han-ik-i. 3door 3-close-Vк-ғv	ANTICAUSATIVE
	'The door closed.'	

We show that the distribution and use of *-Vk* pattern similarly to cross-linguistic diagnostics for anticausative markers. However, we also present a number of further uses that fall outside of the characteristic anticausative domain. It is therefore a matter of ongoing theoretical research as to whether these functions can be subsumed under the anticausative use.

This paper is organized as follows. We present a brief overview of the core anticausative alternation in §2. The remainder of the paper focuses on how the -Vk form differs from "plain" intransitives and from valency decreasing processes like passivization. In §3 we look at what sorts of oblique theta-roles are permitted with each of these three types of intransitive verb stem. In §4 we look at how the -Vk suffix interacts with Aktionsart, or lexical aspect, and show that -Vk anticausatives correlate with a telic reading of the event. In §5 we detail two sub-classes of -Vk intransitives which challenge our typology. §6 concludes the paper.

## 2 Background on anticausatives

The examples in (1) above show the anticausative alternation in English. The verb *break* can appear in a transitive construction where the PATIENT is a direct object (1a) or in an intransitive construction where the PATIENT is the subject (1b). Cross-linguistically, it

is generally true that a verb like *break* can have both a causative and an anticausative form.<sup>2</sup> Likewise, it is generally true that a verb such as bloom (3a) tends not to have a (simple) causative counterpart (3b).

- (3) a. The flower bloomed. ANTICAUSATIVE CAUSATIVE
  - b. \*The sun bloomed the flower.

What allows a given verb to have an (anti-)causative counterpart is a matter of ongoing research (Smith 1970; Haspelmath 1993; Levin & Rappaport Hovav 1995; Reinhart 1996; Folli 2002; Folli & Harley 2005; Alexiadou, Anagnostopoulou & Schäfer 2006; Schäfer 2008; among others). One of the core debates concerns the number of event subcomponents associated with each form in (1). One influential proposal is that anticausatives lack a CAUSE semantic sub-event (Haspelmath 1993), and hence, a CAUSER/AGENT argument which brings about the result state. Under this approach, the anticausative verb break in (1a) means, essentially, 'the vase BECAME broken', while the causative verb break in (1b) contains a CAUSE event: 'John CAUSED the vase to BECOME-broken.'<sup>3</sup>

Other proposals argue that causatives and anticausatives are identical in terms of the number of sub-events, and differ in, essentially, thematic structure determined by factors other than types of sub-events. According to these proposals, both verbs in (1) have the meaning 'CAUSE-break' (or 'CAUSE-BECOME-broken').<sup>4</sup> However, the verbs differ in whether or not they encode an external force which acts to bring about this event, i.e., an AGENT (Or INSTRUMENT) of the CAUSE sub-event (Levin & Rappaport Hovav 1995; Schäfer 2008). That is, while (1b) encodes that *John* is the AGENT that brings about the CAUSE event of the vase's breaking, (1a) does not encode reference (explicitly or implicitly) to such an argument.

Our study of Luragooli is consistent with this second hypothesis. We contend that Luragooli intransitive verbs with -Vk contain a CAUSE event, but lack an external argument which brings this event about. That said, this paper aims for descriptive coverage; as such, we do not take a strong theoretical stance. Our study starts from the well-known typological observation that languages can differentiate between three classes of verbs

<sup>&</sup>lt;sup>2</sup> Throughout the literature on transitivity alternations, there is a great deal of variation in terminology. Here we follow the terminology of Schäfer (2008; 2009) and Alexiadou, Anagnostopoulou & Schäfer (2015). We use the term *causative (verb)* to refer to any transitive verb which is semantically reducible to CAUSE-verb. We will not go into detail on the various possible causative forms in Luragooli. See the appendix in Bowler & Gluckman (2015a) for an overview of these forms. We use the term anticausative (verb) to refer to a nonpassive intransitive use of a causative verb. If an anticausative form uses special morphology, we refer to this as a marked anticausative. Since we aim to be as neutral as possible in our terminology classification, where possible we will try to use the terms transitive instead of causative, and marked and unmarked intransitive instead of marked and unmarked anticausative. We suggest the reader consult Schäfer (2008; 2009) and Alexiadou, Anagnostopoulou & Schäfer (2015) for a more substantive debate about terminological issues.

<sup>&</sup>lt;sup>3</sup> The second core debate concerns the derivational relationship between the forms in (1). We will not be concerned with this issue here.

<sup>&</sup>lt;sup>4</sup> Among other things, this allows for the possibility of a spontaneous internal CAUSE.

that display anticausative alternations, i.e., intransitive "causer-less" forms (Haspelmath 1993; Schäfer 2008):<sup>5</sup>

- Class I: Intransitive forms that need a special anticausative marker
- Class II: Intransitive forms that cannot have an anticausative marker
- Class III: Intransitive forms that can optionally have an anticausative marker

Such a partitioning is also present in Luragooli. Three classes of verbs can be distinguished based on how the intransitive version of an otherwise syntactically transitive verb is morphologically expressed:

- Class I: Intransitive forms that must occur with -Vk
- Class II: Intransitive forms that cannot occur with -Vk
- Class III: Intransitive forms that optionally occur with -Vk

We give examples of each of these verb classes in Table 1.6

Class I (intransitive with -Vk)	<b>Class II</b> (intransitive without <i>-Vk</i> )	<b>Class III</b> (intransitive with or without <i>-Vk</i> )
<i>kwoneka</i>	<i>kwigora</i>	kuhana/kuhaneka
'to be destroyed'	'to open'	'to close'
<i>kubameka</i>	<i>kumeeda</i>	<i>kwiina/kwiineka</i>
'to be flattened'	'to increase'	'to sink'
<i>kuzuganyika</i>	<i>kugomagoma</i>	<i>kwoma/kwomeka</i>
'to be mixed'	'to roll'	'to dry'
<i>kuharagateka</i>	<i>kumera</i>	<i>kuzurula/kuzuruleka</i>
'to be scraped'	'to grow'	'to wilt'

Table 1: Intransitive verb classes in Luragooli based on the distribution of -Vk

Thus, at first glance, -Vk seems to pattern as we might expect for an anticausative marker. In §3-4 we review further parallels in Luragooli to anticausative alternations that have been observed cross-linguistically. We begin §3 by introducing the basic distribution of -Vk in Luragooli.

<sup>&</sup>lt;sup>5</sup> This three-way classification is reported to reflect a scale of "spontaneity," or how likely it is that the event is perceived as needing an external force to bring it about (Haspelmath 1993). Verbs without the marker are expected to be less likely to require an external effort (that is, they are "internally caused"), while verbs with the marker are perceived as requiring some external force to make the event occur.

<sup>&</sup>lt;sup>6</sup> The forms in Table 1 bear the infinitival prefix ku-/kw- and the -a final vowel. For a more complete list of all the verbs of the types discussed in this study, see the appendix in Bowler & Gluckman (2015b).

## 3 The distribution of -Vk in Luragooli

The suffix *-Vk* attaches to certain transitive verbs (roots or stems) to form non-passive intransitives, i.e., anticausatives. For instance, the Luragooli transitive verb *kuhana* 'to close' can appear as a (non-passive) intransitive in two different ways:

- (4) causative
   Sira a-han-i muriaŋgo.
   1Sira 1-close-FV 3door
   'Sira closed the door.' <sup>7</sup>
- (5) anticausative
  - a. plain intransitive muriango gu-han-i.
     3door 3-close-FV
     'The door closed.'
  - b. -Vk intransitive muriango gu-han-ik-i.
    3door 3-close-VK-FV
    'The door closed.'/'The door was closed.'

Example (5a) is consistently translated as 'The door closed.' We refer to this form as the *plain intransitive*. However, (5b) is translated more frequently as 'The door was closed.' We refer to this form as the *-Vk intransitive* or *-Vk form*. Curiously, the English passive translation in (5b) is available despite the fact that the verbal passive suffix *-w* is not present. We take this as initial evidence that *-Vk* makes a semantic contribution in addition to its syntactic contribution of detransitivization. The question that this data raises is exactly how to define this semantic contribution. In the remainder of §3, we investigate this question by looking at how oblique theta-roles interact with intransitives in Luragooli. We conclude that the Luragooli *-Vk* form patterns similarly to what is reported for anticausatives cross-linguistically.

#### 3.1 Diagnostics for oblique theta-roles

Our first set of diagnostics concerns the interaction of the three intransitive classes (Table 1) with oblique theta-roles. Anticausatives interact with theta-roles cross-linguistically in consistent ways. Anticausatives generally do not permit AGENTS or INSTRUMENTS in oblique phrases (Levin & Rappaport Hovav 1995). However, they do tend to license

<sup>&</sup>lt;sup>7</sup> Luragooli has an extremely complex tense/aspect system, which we largely ignore in this paper. We also do not mark any tones. Luragooli is analyzed as having 2 tones (high and non-high). See Samuels & Paster (2015) for a description of the Luragooli (verbal) tonal system.

CAUSERS in oblique phrases (Schäfer 2008).<sup>8</sup> In this they differ from passives, which generally permit AGENTS in oblique phrases, but do not permit INSTRUMENTS OF CAUSERS.

For example, German passives generally permit AGENTS (6a) but not CAUSERS (i.e. FORCES) in oblique phrases (6b), while German anticausatives permit CAUSERS (FORCES) but not AGENTS (6b, 6c).<sup>9</sup> Note that German anticausatives have an unmarked and marked form; the latter is accomplished with the reflexive *sich*, as in (6c).

- (6) German (Schäfer 2008)
  - a. passive

Die Tür wurde von Peter/??vom Windstoß geöffnet. the door was by Peter/by.the wind.gust opened 'The door was opened by Peter/??by the gust of wind.'

b. unmarked anticausative

Das Segel zerriss (\*von Peter/durch den Sturm) the sail tore by Peter/through the storm.

(\*'The sail tore by Peter.)/'The sail tore from the storm.'

c. marked anticausative

Die Tür öffnete sich (\*von Peter/durch einen Windstoß).

the door opened REFL by Peter/through a wind.gust

('The door opened by Peter.')/'The door opened from a gust of wind.'

Note that the availability of a CAUSER (or FORCE) semantic role is not predicted under the proposal that anticausatives lack a CAUSE event (Haspelmath 1993, among others). This type of data is therefore used by Schäfer (2008), among others, to argue that anticausatives do contain a CAUSE event, but do not encode (in their terms, "license") an AGENT which brings this event about.

The following three sub-sections show how oblique theta-roles combine with the three types of intransitives in Luragooli: passives, plain intransitives, and -Vk intransitives. The plain and -Vk intransitives pattern similarly with respect to the theta-roles they license in oblique phrases, as we expect from anticausatives.

#### 3.2 Oblique AGENTS

In this section, we determine whether an oblique AGENT (that is, an agentive 'by'-phrase) is permitted with each type of Luragooli intransitive construction. Oblique AGENTS are permitted only with the Luragooli passive (7a). Oblique agents are not permitted with either the -Vk intransitive (7b) or the plain intransitive (7c):

<sup>&</sup>lt;sup>8</sup> For descriptions of the relevant theta-roles, see Levin & Rappaport Hovav (1995). Also, the reader should be aware that the properties reviewed here are robust crosslinguistic trends, but are not universally true, even within a single language. In this section, we present these diagnostics merely to establish that both intransitive *-Vk* forms are distinct from a true passive in the relevant respect.

<sup>&</sup>lt;sup>9</sup> German examples are adapted from Schäfer (2008). For reasons of space, we present a slight oversimplification of the data in that there is variability with respect to which verbs permit which oblique theta-roles. We find the same complexities in Luragooli as well.

- a. passive muriango gu-han-w-i (na Sira).
  3door 3-close-PASS-FV by Sira
  'The door was closed (by Sira).'
  - b. plain intransitive muriango gu-han-i (\*na Sira).
    3door 3-close-Fv by Sira
    'The door closed (\*by Sira).'
  - c. -Vk intransitive muriango gu-han-ik-i (\*na Sira).
    3door 3-close-Vк-Fv by Sira 'The door closed (\*by Sira).'

### 3.3 Oblique CAUSERS

Oblique CAUSERS are permitted with both the plain intransitive (8b) and the -Vk intransitive (8c), but not with the passive (8a):

(8) a. passive muriango gu-araminy-w-i (\*kutorona na imboza). 3-open-PASS-FV from 3door by 9wind 'The door was opened (\*because of/from the wind).' b. plain intransitive muriango gu-aram-i (kutorona na imboza). 3-open-FV from by 9wind 3door 'The door opened (because of/from the wind).' c. -Vk intransitive muriango gu-aram-ik-i (kuturona na imboza). 3door 3-open-VK-FV from by 9wind

'The door opened (because of/from the wind).'

### 3.4 Oblique INSTRUMENTS

Oblique INSTRUMENT theta-roles are licensed only by the passive in Luragooli (9a). IN-STRUMENTS are not permitted with plain intransitives (9b) or -Vk intransitives (9c).<sup>10</sup>

(9) a. passive imbwa y-um-iny-w-i (na itahoro).
9dog 9-dry-CAUS-PASS-FV PRT 9towel
'The dog was dried (with a towel).'

<sup>&</sup>lt;sup>10</sup> In general, instrumental subjects are not permitted in Luragooli. The active transitive version of (9a) with *itahoro* 'the towel' as the subject would be ungrammatical.

- b. plain intransitive imbwa y-um-i (\*na itahoro).
  9dog 9-dry-FV PRT 9towel 'The dog dried (\*with a towel).'
- c. -Vk intransitive imbwa y-um-ik-i (\*na itahoro).
  9dog 9-dry-VK-FV PRT 9towel
  'The dog dried (\*with a towel).'

Thus, in terms of oblique theta-roles, the plain intransitive and the -Vk intransitive pattern together, separately from the Luragooli passive. This is summarized in Table 2.

	Passive	Plain intransitive	-Vk intransitive
Oblique agents	yes	no	no
Oblique causers	no	yes	yes
Oblique instruments	yes	no	no

Table 2: Theta-role properties of the intransitive constructions

The Luragooli patterns in Table 2 largely parallel properties of anticausative versus passive constructions in other languages. The anticausative forms do not permit oblique AGENTS OF INSTRUMENTS, but are compatible with oblique CAUSERS.

## 4 Lexical aspect

In §3 we demonstrated how both plain and -Vk intransitives are distinct from the passive. In this section, we will show how -Vk intransitives are distinct from the plain intransitive and the passive. The data in §4 concerns lexical aspect, or Aktionsart. We use four pieces of evidence to show that -Vk intransitives differ from the other two intransitive forms with respect to lexical aspect. Our evidence involves interaction with negation, complementation under 'want', progressive aspect, and continuations. Our data suggest the provisional generalization in (10), which we will revise in §4.4.

(10) Telicity Restriction
 *-Vk* only attaches to telic predicates. (*to be revised*)

This generalization is consistent with cross-linguistic findings on anticausatives; an interaction with telicity is also reported for anticausatives in other languages (Labelle 1992; Folli 2002; Folli & Harley 2005). Marked anticausatives tend to entail a telic reading of the event denoted by the predicate in Greek (Alexiadou & Anagnostopoulou 2004), Italian (Folli 2002), and French (Zribi-Hertz 1987). For example, in Italian, the marked

anticausative (with the reflexive si) cannot occur with a 'for'-temporal phrase (11b), while the unmarked intransitive form can (11a).<sup>11</sup>

(11) Italian

- a. Il cioccolato è fuso per pochi secondi/in pochi secondi. the chocolate is melted for few seconds/in few seconds
- b. Il cioccolato si è fuso \*per pochi secondi/in pochi secondi.
  the chocolate REFL is melted for few seconds/in few seconds.
  'The chocolate melted for a few seconds/in a few seconds.' (Schäfer 2009)

We are not aware of a convincing explanation for why such a correlation between anticausatives and telicity should exist. It is not our aim to explain this correlation. Instead, we will merely show that such a pattern is consistent with what we find in Luragooli as well.

Finally, we note that the next two pieces of evidence involving complementation under 'want' and negation are, as far as we know, specific to Luragooli (or perhaps Bantu languages more generally). The negation test is inspired by Dubinsky & Simango's (1996) work on Chichewa. It remains to be seen what the results of such tests are in other languages.

## 4.1 Complements of 'want'

We first observe a contrast in interpretation when embedding the three intransitives under a verb like *kwenya* 'to want.'<sup>12</sup> We find that with the passive (12a) and plain intransitive (12b) the object of wanting can only be the beginning of the event, not the result state.<sup>13</sup> Conversely, with the *-Vk* intransitive in (12c), the thing that is wanted can only be the result state of the embedded verb. Thus, in a context where the door is already closed, it is infelicitous to use either (12a) or (12b). We take this as evidence that *-Vk* imposes a telicity restriction, i.e. requires a telic predicate; only with the *-Vk* form is the result state entailed.

(12) Context: The door is closed.

a. passive
# n-eny-a murianggo gu-han-w-ε.
1sg-want-FV 3door 3-close-PASS-FV
'I want the door to be closed.'

<sup>&</sup>lt;sup>11</sup> We refer the reader to the large body of work on Italian anticausatives, in particular Folli (2002), for a full explanation of the data.

 $<sup>^{12}</sup>$  The form of the embedded verb in this context is subjunctive, indicated by the final vowel /ɛ/.

<sup>&</sup>lt;sup>13</sup> The term "beginning of the event" is possibly not quite accurate. For passive and plain intransitive complements of 'want', the object of wanting is perhaps best described as "anything that is not the result state," which includes the beginning, but may also include the middle of the event as well.

- b. plain intransitive
  # n-eny-a murianggo gu-han-ε.
  1sg-want-FV 3door 3-close-FV
  'I want the door to close.'
- c. -Vk intransitive
   n-eny-a murianggo gu-han-ek-ε.
   1sg-want-FV 3door 3-close-VK-FV
   'I want the door closed.'<sup>14</sup>

The plain intransitive and the passive again pattern similarly in that the object of wanting is the movement of the door: 'I want the event of door-closing.' These forms cannot target the result state. In contrast, in (12c), the object of wanting can be either the event of door-closing or the result state: 'I want the state of the door to be closed.' This second reading is not available in (12a) and (13b).

Lastly, we note that at first glance, the data in (12) might be taken to indicate that the -*Vk* form is a stative, as argued in Dubinsky & Simango (1996). However, we observe that (12c) can have the same reading as (12b). That is, the object of wanting can be the event of closing. In other words, -*Vk* intransitives can still be interpreted as eventive. Furthermore, recall that both the plain and -*Vk* intransitive forms permit CAUSER thetaroles, which should be impossible with stative verbs.<sup>15</sup>

#### 4.2 Negation

Our second piece of evidence that -Vk intransitives differ from the other two intransitive constructions comes from which parts of the event can be targeted by negation. We find that -Vk intransitives only permit the end of the event, i.e. the result state, to be negated, while both passives and plain intransitives permit either the beginning or end of the event to be negated. While less obvious, we think this can also be taken as evidence for a telicity restriction in the -Vk form. If the end of the event is entailed by the assertion, then it can be targeted by negation.

Given the context below in (13) in which the door has not moved at all, both the passive (13a) and plain intransitive (13b) are felicitous. Conversely, the *-Vk* intransitive (13c) is infelicitous. Example (13c) is only felicitous if the door moved, but didn't finish closing.

(13) Context: The door hasn't moved at all.

a.	passive		
	murianggo	gu-han-w-i	daave.
	3door	3-close-pass-fv	NEG
	'The door v	vasn't closed.'	

<sup>&</sup>lt;sup>14</sup> A reviewer asks whether (12c) can be translated as 'I want the door to be closed.' We think this translation is misleading for two reasons: a) it either suggests a passive reading of this sentence, or, b) it suggests a stative reading.

<sup>&</sup>lt;sup>15</sup> It is unlikely that the -Vk form can be treated as an adjective. In Luragooli, a deverbal adjectival form would trigger a different set of agreement (concord) markers than verbal agreement.

- b. plain intransitive murianggo gu-han-i daave.
  3door 3-close-FV NEG
  'The door didn't close.'
- c. -Vk intransitive
  # murianggo gu-han-ek-i daave.
  3door 3-close-VK-FV NEG
  'The door didn't close'

Out of context, both (13a) and (13b) are ambiguous. They mean that either 'the door didn't start to close' or 'the door didn't finish closing.' That is, (13a) and (13b) can have a reading that the event of the door starting to close – the beginning of the event – didn't occur. However, the -Vk intransitive in (13c) is only compatible with a scenario in which the door moved, but didn't get all the way closed. Example (13c) only has the reading that the state of the door being closed didn't occur.<sup>16</sup> We suggest that this follows if the result state is entailed in the -Vk form, and so can be targeted by negation. Since there is no such entailment with either the plain or passive form, the result state is not a possible target for negation.

#### 4.3 Progressive aspect

Telic predicates require the culmination of the event that they denote. As a result, we should expect to see an interaction with progressive (grammatical) aspect, since the progressive aspect asserts that the event is on-going, i.e., incomplete, with respect to a reference time. In Luragooli, both the passive (14a) and plain intransitive (14b) forms are compatible with the progressive.<sup>17</sup> In contrast, *-Vk* verb forms are ungrammatical in combination with the progressive aspect, as shown in (14c).

- (14) a. passive mpira gu-toony-w-ang-a.
   3ball 3-drop-PASS-PROG-FV
   'The ball was being dropped.'
  - b. plain intransitive mpira gu-toony-ang-a.
     3ball 3-drop-prog-fv

'The ball is dropping.'

<sup>&</sup>lt;sup>16</sup> This reading is also compatible with the passive and plain forms in Luragooli. This differs from what Dubinsky & Simango (1996) report for Chichewa. We find our Luragooli data curious. It is unclear to us why the start of the event is not a possible target for negation with the -Vk form.

<sup>&</sup>lt;sup>17</sup> A similar set of facts is apparently reported for Greek in Mavromanolaki (2002), as cited in Alexiadou, Anagnostopoulou & Schäfer (2015), although we have not been able to locate this source.

c. -Vk intransitive
\*mpira gu-toony-ik-ang-a.
3ball 3-drop-Vк-ркод-гv
('The ball is being dropped.'/'The ball is dropping.')

The ungrammaticality of (14c) follows if -Vk requires that the event culminate — that is, if -Vk must combine with a telic predicate, as proposed in (10).

#### 4.4 Continuations

Our last piece of evidence on the interaction of -Vk and telicity concerns overt continuations. Related to the negation diagnostic above, we examine the felicity of continuations that deny the result state of an intransitive verb form. We find that continuations of both the passive (15a) and plain intransitive (15b) forms are felicitous if the result state is denied. However, the result state of a -Vk intransitive cannot be felicitously denied (15c). This supports the generalization in (10) in that only -Vk forms entail that the event culminate. As a result, it is infelicitous to later assert that the event did not culminate.

(15)	a.	passive maguta ga-diny-iz-w-i (netare ga-ker-e ma-doto). 6butter 6-harden-CAUS-PASS-FV but 6-be.still-FV 6-soft
		'The butter was hardened (but it's still soft).'
	b.	plain intransitive maguta ga-diny-i (netare ga-ker-e ma-doto). 6butter 6-harden-FV but 6-be.still-FV 6-soft
		'The butter hardened (but it's still soft).'
	c.	- <i>Vk</i> intransitive maguta ga-diny-ik-i (#netare ga-ker-e ma-doto). 6butter 6-harden-VK-FV but 6-be.still-FV 6-soft
		The butter hardened (#but it's still soft).

In (15a) and (15b) we get a reading in which the butter has hardened somewhat, but still remains soft. However, (15c) is infelicitous if it is later asserted that the butter hasn't completed the hardening process. This follows if -Vk is required to attach only to telic predicates that denote a culminated event (i.e., telic predicates).

Thus, for contexts targeting lexical aspect, the -Vk form patterns distinctly from the passive and plain forms. These data suggest that -Vk requires that the event of the verb culminate, supporting the telicity generalization in (10). We summarize the aspectual properties of the Luragooli passive, plain intransitive, and -Vk intransitive in Table 3.

However, there are a number of counterexamples in Luragooli to the telicity generalization in (10). Not all verbs pattern similarly with respect to the four tests above. For instance, the -Vk form of *kwoma* 'to dry' fails the four diagnostics in Table 3. Given a -Vk form of *kwoma* 'to dry,' the object of wanting cannot be the result state (16a) of the

	Passive	Plain intransitive	-Vk intransitive
Negation	entire event	entire event	result state
'want'	entire event	entire event	result state
Progressive	grammatical	grammatical	ungrammatical
Continuations	can deny result state	can deny result state	cannot deny result state

Table 3: Lexical aspect properties of passive, plain intransitive and -Vk intransitive

event described by the verb. Negation can target the beginning of the event as well as the result state (16b). The -Vk form is compatible with progressive aspect (16c). Finally, a continuation that denies that result state is felicitous (16d).

- (16) a. complement of want
  - n-eny-a imbwa y-um-ik-e.

1sg-want-fv 9dog 9-dry-Vк-fv

'I want the dog to be dry.'

Consultant's comment: Strange if the dog is already dry.

b. negation

imbwa y-um-ek-i daave.

9dog 9-dry-Vк-fv neg

'The dog didn't dry.'

Consultant's comment: OK if the dog doesn't dry at all, or only dries halfway.

c. progressive

imbwa y-um-ek-a.

9dog 9-dry-Vк-fv

'The dog is drying.'

d. continuation imbwa y-um-ik-i (netare i-ker-e i-nzilu hadi).
9dog 9-dry-Vĸ-Fv but 9-be.still-Fv 9-wet some.of 'The dog dried (but it's still a little wet).'

That said, these exceptions do not necessarily argue against a treatment of -Vk as an anticausative marker, since such variation is consistent with what is observed crosslinguistically. Schäfer (2008) argues convincingly that the telicity restrictions for Greek, Italian, and French fail for a number of lexical items, and are not consistent across languages. For instance, in Italian, some marked anticausatives permit modification by 'for'-temporal adverbial phrases, and so are not necessarily telic. (17) Italian (Schäfer 2008)
 La temperatura si è alterata per due ore.
 the temperature REFL is altered for two hours
 'The temperature altered for two hours.'

While there is an overall tendency for anticausatives to co-occur with a telic reading of the predicate, telicity is not an absolute requirement for morphologically marked anticausatives. It is still an open question as to why some telicity diagnostics fail with certain Luragooli -*Vk* verbs. Our hypothesis, adopted from Schäfer (2008), is that there is something inherent about the semantics of the verb root itself that leads to the failure of a particular diagnostic. Further in-depth examination of lexical classes in Luragooli (along the lines of Levin & Rappaport Hovav 1995 and Haspelmath 1993) are needed to tease apart these differences.

# 5 Subclasses of Class I verbs

In §3 and 4 we provided evidence that Luragooli -Vk intransitives generally pattern distinctly from the passive and the plain intransitive forms in terms of theta-roles and lexical aspect. The accumulated evidence led us to conclude that -Vk is the anticausative marker in Luragooli. Our conclusion was based largely on a comparison with cross-linguistic observations. In this section, we detail some "anomalous" uses of -Vk that fall outside of what is typically associated with an anticausative alternation cross-linguistically.

We begin by designating two additional subclasses of Class I, that is, verbs which require -Vk to form non-passive intransitives: Class Ia and Class Ib.<sup>18</sup> These classes are differentiated based on semantic criteria.<sup>19</sup>

- Class Ia: Verbs that (loosely) denote an epistemic state, i.e., that license a mental experiencer argument.
- Class Ib: Verbs that have an affected argument. (We will return shortly to what we mean by "affected.")

Examples of verbs in these classes are shown in Table 4.

The Class Ia -*Vk* intransitives are productively formed with any verb that takes an experiencer subject. They pattern separately from the passive in not being able to occur with an oblique "demoted" subject (18b).<sup>20</sup> Passives, however, are acceptable with an EXPERIENCER subject that is expressed obliquely (18a).

<sup>&</sup>lt;sup>18</sup> We thank a reviewer for helping us with the overall classification of the verbs.

<sup>&</sup>lt;sup>19</sup> As far as we know, there is one exceptional verb, kunwa 'to drink.' The (true) passive of this verb is expressed with the -Vk form kunwahuka 'to be drunk.' This verb must be listed as an idiosyncratic exception.

<sup>&</sup>lt;sup>20</sup> However, an oblique argument is sometimes licensed in the presence of -Vk with the addition of the reciprocal -an. Such facts have also been reported for Chichewa and Swahili (Dubinsky & Simango 1996; Seidl & Dimitriadis 2003).

	Transitive	Intransitive with -Vk	Passive
Class Ia	kuhola	kuholeka	kuholwa
	'to hear'	'to be heard'	'to be heard'
	kurora	kuroreka	kurorwa
	'to see'	'to be seen'	'to be seen'
	kudiira	kudiirika	kudiirwa
	'to touch'	'to be touched'	'to be touched'
	kumena	kumeneka	kumenwa
	'to taste/lick'	'to be tasted/licked'	'to be tasted/licked'
Class Ib	kuhola	kuholeka	kuholwa
	'to punch' <sup>a</sup>	'to be punched'	'to be punched'
	kurasa	kurasika	kuraswa
	'to throw'	'to be thrown'	'to be thrown'
	kuroomba	kuroombika	kuroombwa
	'to make'	'to be made'	'to be made'
	kulia	kuliika	kuliwa
	'to eat'	'to be eaten'	'to be eaten'
	kunyanya	kunyanyeka	kunyanywa
	'to chew'	'to be chewed'	'to be chewed'

Table 4: Non-canonical anticausative verb classes

 $^{a}$  In Luragooli, 'to hear' and 'to punch' are entirely homophonous (kuhola), with no tonal differences.

(18)	a.	passive		
		iroli i-ror-w-e	na Sira.	
		9truck 9-see-pass	-Fv by 1Sira	
		'The truck was se	en by Sira.'	
	b.	-Vk intransitive		
		inali i non alt a	(*no Sino)	

iroli i-ror-ek-e (\*na Sira). 9truck 9-see-Vк-Fv by 1Sira 'The truck was seen (by Sira).'

The only commonality that we can identify among Class Ib verbs is a notion of "affectedness." Class Ib transitive verbs all involve an affected object argument.<sup>21</sup> Things that are 'punched,' 'thrown,' 'made,' 'eaten,' and 'chewed' are affected in a broad sense.

<sup>&</sup>lt;sup>21</sup> Dubinsky & Simango (1996) make a similar claim for *-Vk* in Chichewa.

However, a verb like *kwomba* 'to sing' does not have a form with *-Vk* (\**kwombeka*), presumably because songs are not affected by the action of singing.<sup>22</sup>

The Class Ia and Class Ib verbs are a prima facie problem for our analysis of -Vk as an anticausative marker; these classes of verbs are not generally reported to have anticausative forms in other languages. Moreover, it is unclear how the diagnostics concerning thematic roles and lexical aspect are applicable to the Class Ia verbs, some of which seem to be inherently stative and non-agentive/non-causative. A potential way to incorporate these verbs into the more general analysis of anticausativization in Luragooli would be to appeal to Beavers's (2011) criteria for affected objects.<sup>23</sup> Objects of the Class Ib verbs can be thought of as being "physically impinged on" to some extent. We could possibly extend this to the experiencer verbs in Class Ia by assuming that experiencer subjects are also (mentally) impinged on. Thus, the descriptive generalization is that -Vk attaches to any verb that takes an affected ("impinged") argument, in the sense of Beavers (2011). This generalization subsumes canonical anticausative verbs (e.g. *break* and *melt*) as well, since these verbs also involve affected arguments: the PATIENT. We find this a promising avenue for further research, but we must leave it open for now.

## 6 Conclusion

In this paper, we have shown that the Luragooli morpheme -Vk has a wide distribution. While coinciding nicely with what we expect from an anticausative morpheme, as documented in §3 concerning theta-roles, and §4 concerning lexical aspect, §5 has shown that -Vk's range extends beyond what are canonically seen as anticausative environments. Further investigation of the semantics of Classes Ia and Ib should provide a clearer picture as to what governs the distribution of -Vk.<sup>24</sup> Nonetheless, we do not view this exceptional data as an insurmountable obstacle to our proposal. Even in Romance and Germanic languages, the 'anticausative' morpheme does not solely mark anticausatives: it is also the reflexive morpheme. Having an anticausative marker that does double-duty with other functions is therefore not cross-linguistically unusual. Still, the Luragooli data suggest that more in-depth cross-linguistic research would be beneficial to our understanding of anticausatives in general, since the majority of in-depth work on anticausatives has been done for western European languages.

<sup>&</sup>lt;sup>22</sup> The Class Ib verbs might all be classified as change of state verbs, although it requires us to loosen the definition of change of state considerably. See Dubinsky & Simango (1996) for discussion of change of state and -Vk in Chichewa.

 $<sup>^{23}</sup>$  We thank an anonymous reviewer for pointing out the relevance of this work to us.

 $<sup>^{24}</sup>$  -Vk forms have been reported to mean 'V-able' in Chichewa (Simango 2009) and Kikongo (Fernando 2013). This reading does not seem to be present with -Vk for our consultant, although further investigation is required to settle the matter. We further note that treating -Vk as a marker of a middle voice (e.g., 'This cheese cuts easily') is not straightforwardly possible.

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# Abbreviations

Luragooli has 20 noun classes. Following Bantuist convention, we mark noun classes via numerals at the beginning of nouns and verbs.

CAUS	causative	PASS	passive
DEM	demonstrative	PRT	particle
FV	final vowel	PLACT	plural act
NEG	negative	REFL	reflexive
PROG	progressive		

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