

# Transitivity alternations in Luragooli

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## 1 Introduction

This paper addresses the distribution and interpretation of the Luragooli 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, anti-causatives, and intransitivized constructions, among others (Mchombo 1993; Dubinsky & Simango 1996; Seidl & Dimitriadis 2003; Fernando 2013). For now, we will both refer to and gloss the suffix with the neutral term *-Vk*.

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

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

Based on the answers to the first two questions, we suggest that Luragooli *-Vk* should be analyzed as an anti-causative suffix. That is, *-Vk* can be treated as a marker of intransitivity analogous to the English anti-causative example in (1b) below (note that there is no morphological difference between the causative and anti-causative forms of the English verb *to break*):

- |     |    |                               |                       |
|-----|----|-------------------------------|-----------------------|
| (1) | a. | John broke the vase.          | <i>causative</i>      |
|     | b. | The vase broke.               | <i>anti-causative</i> |
| (2) | a. | <i>Sira a-han-i muriango.</i> | <i>causative</i>      |
|     |    | Sira 1-close-FV 3door         |                       |
|     |    | 'Sira closed the door'        |                       |
|     | b. | <i>muriango gu-han-ik-i.</i>  | <i>anti-causative</i> |
|     |    | 3door 3-close-Vk-FV           |                       |
|     |    | 'The door closed'             |                       |

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

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

## 2 Background on anti-causatives

An anti-causative verb is characterized as an intransitive, unaccusative verb which grammatically lacks the “cause” of the event denoted by the verb. Anti-causative alternations—alternations between the transitive and intransitive form—generally apply to the same lexical items across languages. For instance, it is generally true that the verb *break* has both an anti-causative and a causative (transitive) form:

- (3) a. The vase broke. *anti-causative*  
b. The ball broke the vase. *causative*

Likewise, it is generally true that *bloom* tends not to have a (simple) causative counterpart:

- (4) a. The flower bloomed. *anti-causative*  
b. \*The sun bloomed the flower. *causative*

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 2006; Schäfer 2008; among others). Although we set aside this larger question for now, we will note that languages can differentiate between three classes of anti-causative verbs (Haspelmath 1993; Schäfer 2008):<sup>2</sup>

**Class I:** Some intransitive forms need a special anti-causative marker.

**Class II:** Some intransitive forms cannot have the marker.

**Class III:** Some intransitive forms can optionally have the marker.

Such a partitioning is also present in Luragooli:

**Class I:** Intransitive verbs that require *-Vk*.

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<sup>2</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 with the marker are expected to be less likely to require an external effort, while verbs without the marker are perceived as requiring some external force to make the event occur.

**Class II:** Intransitive verbs that cannot occur with *-Vk*.

**Class III:** Intransitive verbs that optionally occur with *-Vk*.

We give examples of each of these verb classes in Table 1 below:<sup>3</sup>

*Table 1: Intransitive verb classes in Luragooli and the distribution of –Vk (ku-/kw- is the Luragooli infinitival prefix)*

<b>Class I</b> (intransitive only with <i>-Vk</i> )	<b>Class II</b> (intransitive cannot occur with <i>-Vk</i> )	<b>Class III</b> (intransitive with or without <i>-Vk</i> )
<i>kwoneka</i> ‘to be destroyed’	<i>kwigora</i> ‘to open’	<i>kuhana/kuhaneka</i> ‘to close’
<i>kubameka</i> ‘to be flattened’	<i>kumeeda</i> ‘to increase’	<i>kwiina/kwiineka</i> ‘to sink’
<i>kuzuganyika</i> ‘to be mixed’	<i>kugomagoma</i> ‘to roll’	<i>kwoma/kwomeka</i> ‘to dry’
<i>kuharagateka</i> ‘to be scraped’	<i>kumera</i> ‘to grow’	<i>kuzurula/kuzuruleka</i> ‘to wilt’

Thus, at first glance, *-Vk* seems to pattern as we might expect for an anti-causative marker. In the next section, we review further diagnostics of anti-causativity that have been observed cross-linguistically and show how they manifest in Luragooli. In §4, we address potential counterexamples.

### 3 The distribution of *-Vk* in Luragooli: comparison with passive and unmarked intransitives

*-Vk* attaches to transitive (causative) verbs to form non-passive intransitives (that is, anti-causatives). For instance, the Luragooli transitive verb *kuhana* ‘to close’ can be expressed as a (non-passive) intransitive in two different ways:

(5) **Transitive**

*Sira a-han-i murianggo.*

1Sira 1-close-FV 3door

‘Sira closed the door.’<sup>4</sup>

<sup>3</sup> See Table 5 in Appendix A for our current inventory of classified Luragooli verbs.

(6) **Intransitive**

- a. *murianggo gu-han-i.*  
3door 3-close-FV  
'The door closed.' *plain intransitive*
- b. *murianggo gu-han-ik-i.*  
3door 3-close-Vk-FV  
'The door closed.' / 'The door was closed.' *-Vk intransitive*

The example in (6a) is consistently translated as 'The door closed.' We will refer to this form as the *plain intransitive*, or *plain form*. However, the example in (6b) is translated more frequently as 'The door was closed.' We will refer to this form as the *-Vk intransitive* or *-Vk form*. Curiously, the passive gloss in (6b) is available despite the fact that the verbal passive suffix *-w* is not present. This shows 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 following sections, we outline some of the differences and similarities that the *-Vk* form has with the Luragooli passive and the plain intransitive. We conclude that, with respect to (oblique) theta-roles and interaction with event structure, the Luragooli *-Vk* form patterns similarly to what is reported for anti-causatives cross-linguistically.

### 3.1 Oblique theta-roles

Anti-causatives interact with thematic roles in cross-linguistically consistent ways. Anti-causatives generally do not license agents or instruments in oblique phrases. However, they do tend to license causers in oblique phrases (Levin & Rappaport-Hovav 1995; Schäfer 2008).<sup>5</sup>

#### 3.1.1 Oblique agents

Oblique agents (that is, agentive *by*-phrases) are licensed only by the Luragooli passive. Oblique agents are not licensed by either the *-Vk* intransitive or the plain intransitive:

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<sup>4</sup> In this paper, we have largely ignored the tense/aspect system. We also do not mark any tones. Luragooli is a tonal language; it is analyzed as having 2 tones (high and non-high). See Samuels & Paster (2015) for a description of the Luragooli (verbal) tonal system.

<sup>5</sup> For descriptions of the relevant theta-roles, see Levin & Rappaport-Hovav (1995).

(7) **passive**

- a. *muriango gu-han-w-i* (*na Sira*).  
3door 3-close-PASS-FV by Sira  
'The door was closed (by Sira).'

**plain intransitive**

- b. *muriango gu-han-l* (*\*na Sira*).  
3door 3-close-FV by Sira  
'The door closed (\*by Sira).'

**-Vk intransitive**

- c. *muriango gu-han-ik-i* (*\*na Sira*).  
3door 3-close-Vk-FV by Sira  
'The door closed (\*by Sira).'

### 3.1.2 Oblique causers

Oblique causers are licensed by both the plain intransitive and the -Vk intransitive, but not by the passive:

(8) **passive**

- a. *muriango gu-araminy-w-i* (*\*kutorona na imboza*).  
3door 3-open-PASS-FV from by 9wind  
'\*The door was opened (because of/from the wind).'

**plain intransitive**

- b. *muriango gu-aram-i* (*kutorona na imboza*).  
3door 3-open-FV from by 9wind  
'The door opened (because of/from the wind).'

**-Vk intransitive**

- c. *muriango gu-aram-ik-i* (*kutorona na imboza*).  
3door 3-open-Vk-FV from by 9wind  
'The door opened (because of/from the wind).'

### 3.1.3 Oblique instruments

Oblique instrument theta-roles are licensed only by the passive. (Note that in general, instrumental subjects are not permitted in Luragooli. The active version of (9a) with *itahoro* 'the towel' as the subject would be ungrammatical.)

(9) **passive**

- a. *imbwa y-um-iny-w-i* *na itahoro*.  
9dog 9-dry-CAUS-PASS-FV by 9towel  
'The dog was dried with a towel.'

**plain intransitive**

- b. *imbwa y-um-i (\*na itahoro).*  
 9dog 9-dry-FV PRT by 9towel  
 ‘The dog dried (\*with a towel).’

**-Vk intransitive**

- c. *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:

*Table 2: Theta-role properties of the intransitive verbs*

	<b>Passive</b>	<b>Plain intransitive</b>	<b>-Vk intransitive</b>
<b>Oblique agents</b>	yes	no	no
<b>Oblique causers</b>	no	yes	yes
<b>Oblique instruments</b>	yes	no	no

The Luragooli data in Table 2 parallels data on anti-causative constructions in other languages. Passives pattern distinctly from the marked and unmarked intransitive verbs with respect to the licensing of oblique thete-roles. (See Schäfer (2008) for a comprehensive cross-linguistic overview.)

### 3.2 Lexical Aspect

We have also discovered that -Vk can interact with event structure. This leads us to the generalization in (10):

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

In the next sections, we’ll review some of the diagnostics that support (10), and then review some evidence that (10) is too strong of a generalization. Again, we note that interactions with event structure are also typically reported with anti-causatives cross-linguistically (Labelle 1992; Folli 2002; Folli & Harley 2005). It’s reported that marked anti-causatives tend to entail a telic reading of the event denoted by the predicate.

#### 3.2.1 Negation

Negation can target different points of the event depending on the form of the verb:

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

**passive**

- a. *murianggo gu-han-w-i daave.*  
3door 3-close-PASS-FV NEG  
'The door wasn't closed.'

**plain intransitive**

- b. *murianggo gu-han-i daave.*  
3door 3-close-FV NEG  
'The door didn't close.'

**-Vk intransitive**

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

With the passive and the plain intransitive, the start of the event can be targeted by negation. That is, (11a) and (11b) can have a reading that "the event of the door starting to close didn't happen." However, the -Vk intransitive in (11c) is only compatible with a scenario in which the door moved, but didn't get all the way closed. (11c) has the reading "the state of the door being closed didn't happen." Only the end or result state can be targeted by negation in (11c).<sup>6</sup>

### 3.2.2 Complements of 'want'

There is also a contrast when embedding under a verb like *kwenya* 'to want':<sup>7</sup>

(12) Context: The door is closed.

**passive**

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

**plain intransitive**

- b. *#n-eny-a murianggo gu-han-ε.*  
1sg-want-FV 3door 3-close-FV  
'I want the door to close.'

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<sup>6</sup> This reading is also compatible with the passive and plain forms. This differs from what Dubinsky and Simango (1996) report for Chichewa.

<sup>7</sup> The form of the embedded verb in this context is subjunctive, indicated by the final vowel /ε/.

### **-Vk intransitive**

- c. *n-eny-a murianggo gu-han-ek-ε.*  
1sg-want-FV 3door 3-close-Vk-FV  
'I want the door closed.'

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. Conversely, in (12c), the object of wanting can be the result state: "I want the state of the door to be closed."

The two previous diagnostics might be taken to indicate that the -Vk form is a stative, as argued in Dubinsky & Simango (1996). However, note that (12c) can have the same reading as (12b). That is, the object of wanting can be the event of closing. Furthermore, recall that both intransitive forms can license causer theta-roles, which should be impossible with stative verbs.<sup>8</sup>

### **3.2.3 Progressive aspect**

There is also interaction with the progressive aspect. Putting the -Vk form into the progressive aspect results in ungrammaticality, as shown in (13c). In contrast, both the passive, (13a), and plain intransitive, (13b), are compatible with the progressive.

#### **(13) passive**

- a. *mpira gu-toony-w-a.*  
3ball 3-drop-PASS-PROG  
'The ball was being dropped.'

#### **plain intransitive**

- b. *mpira gu-toony-a.*  
3ball 3-drop-PROG  
'The ball is dropping.'

#### **-Vk intransitive**

- c. *\*mpira gu-toony-ik-a.*  
3ball 3-drop-Vk-PROG

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<sup>8</sup> We further note that a deverbal adjectival form would trigger a different set of agreement (concord) markers than verbal agreement. That is, it is unlikely that the -Vk form can be treated as an adjective.



Intended gloss: ‘The ball was being dropped.’

The ungrammaticality of (13c) follows if *-Vk* requires that the event culminate – that is, if *-Vk* requires a telic predicate, as proposed in (10).

### 3.2.4 Continuations

Lastly, certain continuations are infelicitous if they deny the end state, as in (14):

(14) **passive**

- a. *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).’

**plain intransitive**

- b. *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).’

***-Vk* intransitive**

- c. *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 (14a) and (14b) we get a reading in which the buttered has hardened somewhat, but still remains soft. However, (14c) is infelicitous when it is later asserted that the butter hasn’t completed the hardening process. Again, this follows if *-Vk* is required to attach only to predicates whose event has culminated.

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 below.

Table 3: Lexical aspect properties of intransitive verbs

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

This difference in (in)completion of the event has been argued for anti-causative alternations in other languages, including Greek (Alexiadou & Anagnostopoulou 2004), Italian (Folli 2002), and French (Zribi-Hertz, 1987). In these languages, it's argued that the presence of the anti-causative marker gives rise to a telic reading of the predicate. This then would support an analysis of -Vk as the Luragooli equivalent of the anti-causative marker.

However, there are a number of counterexamples to the generalization in (10). Not all verbs pattern similarly with respect to the tests above. For instance, *kwoma* 'to dry' fails the four diagnostics in Table 3:

(15) **negation**

a. *imbwa y-um-ek-i daave.*

9dog 9-dry-Vk-FV NEG

'The dog didn't dry.'

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

**complement of 'want'**

b. *n-eny-a imbwa y-um-ik-e.*

1sg-want-FV 9dog 9-dry-Vk-FV

'I want the dog to be dry.'

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

**progressive**

c. *imbwa y-um-ek-a.*

9dog 9-dry-Vk-FV

'The dog is drying.'

### continuation

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

In fact, rather than argue against a treatment of *-Vk* as an anti-causative marker, we take these seemingly contradictory data as an argument *for* such an analysis. Schäfer (2008) argues convincingly that the telicity restrictions for the languages cited above (Greek, Italian, and French) fail for a number of lexical items, and are not consistent across languages. Therefore, while there may be an overall tendency for an anti-causative marker in a language to co-occur with a telic reading of the predicate, telicity is not an absolute requirement for marked anti-causatives.

Nonetheless, we feel that there can be a discernible semantic effect when *-Vk* appears on the verb. This is evident in the class of verbs which yield a positive result with respect to the telicity diagnostics, as well as the tests involving theta-roles. It is still an open question as to why some telicity diagnostics fail with certain verbs. The natural hypothesis is that there is something inherent about the semantics of the verb root itself that should lead 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 (2005)) will be needed to tease apart the differences.

## 4. Verb classes

In the previous sections, we showed that *-Vk* intransitives in Luragooli pattern distinctly from both the passive and the plain intransitive forms. This led us to conclude that *-Vk* is the anti-causative marker in Luragooli. In this section, we detail some “anomalous” uses of the suffix that fall outside of what is typically associated with an anti-causative alternation.

We begin by designating two additional classes of verbs, Class IV and Class V:<sup>9</sup>

**Class IV:** Verbs that (loosely) denote an epistemic state, i.e., license a mental experiencer argument.

**Class V:** Verbs which have some sort of “affected” argument. (We return to what we mean by “affected” shortly.)<sup>10</sup>

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<sup>9</sup> Technically, since these verbs require *-Vk* to form an intransitive, they could also be thought of as subclasses of Class I.

Examples of verbs in these classes are shown in the following table:

Table 4: Transitivity alternations outside of the expected set of anti-causative verbs

	Transitive	Intransitive	Passive
<b>Class IV</b>	<i>kuhola</i> 'to hear'	<i>kuholeka</i> 'to be heard'	<i>kuholwa</i> 'to be heard'
	<i>kurora</i> 'to see'	<i>kuroreka</i> 'to be seen'	<i>kurorwa</i> 'to be seen'
	<i>kudiira</i> 'to touch'	<i>kudiirika</i> 'to be touched'	<i>kudiirwa</i> 'to be touched'
	<i>kumena</i> 'to taste/lick'	<i>kumeneka</i> 'to be tasted/licked'	<i>kumenwa</i> 'to be tasted/licked'
<b>Class V</b>	<i>kuhola</i> 'to punch'	<i>kuholeka</i> 'to be punched'	<i>kuholwa</i> 'to be punched'
	<i>kurasa</i> 'to throw'	<i>kurasika</i> 'to be thrown'	<i>kuraswa</i> 'to be thrown'
	<i>kuroomba</i> 'to make'	<i>kuroombika</i> 'to get made'	<i>kuoombwa</i> 'to be made'
	<i>kulia</i> 'to eat'	<i>kuliika</i> 'to be eaten'	<i>kuliwa</i> 'to be eaten'
	<i>kunyanya</i> 'to chew'	<i>kunyanyeka</i> 'to be chewed'	<i>kunyanywa</i> 'to be chewed'

The Class IV verbs 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, although they are consistently glossed in English with a passive.<sup>11</sup>

<sup>10</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>11</sup> However, an oblique argument is licensed with the addition of the reciprocal *-an*. Such facts have also been reported for Chichewa and Swahili (Dubinsky & Simango 1996; Seidl & Dimitriadis 2003).

In terms of the Class V verbs, the only commonality that we can identify is a notion of “affectedness.” Class V verbs all involve an affected object argument.<sup>12</sup> Things that are “punched,” “thrown,” “made,” “eaten,” and “chewed” are affected in a broad sense. 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>13</sup>

The Class IV and Class V verbs are a *prima facie* problem for our analysis of *-Vk* as an anti-causative marker, since these same classes of verbs are not generally reported to have anti-causative forms in other languages. Moreover, it’s unclear how the the diagnostics concerning thematic roles and telicity are applicable to the Class IV verbs, which seem to be inherently stative and non-agentive/non-causative.

In summary, we’ve shown that *-Vk* has a wide distribution. While coinciding nicely with what we expect from an anti-causative marker, this last section reveals that *-Vk*’s range extends beyond what are canonically seen as anti-causative contexts. Again, further investigation of the semantics of these exceptional classes should provide a clearer picture as to what governs the distribution of *-Vk*.<sup>14</sup>

## 5 Towards an analysis

There have traditionally been two strategies for dealing with (anti-)causative alternations: either “detransitivization” or “transitivization.”

- **Detransitivization** (Levin & Rappaport-Hovav 1995; Reinhart 1996; Chierchia 2004; a.o.): The underlying form of the verb is transitive, and something “suppresses” the subject, resulting in an intransitive.
- **Transitivization** (Williams 1981; Pesetsky 1995; a.o.): The underlying form of the verb is intransitive, and something adds an argument to form the transitive.

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<sup>12</sup> Note that Dubinsky and Simango (1996) make a similar claim for *-Vk* in Chichewa.

<sup>13</sup> The Class V 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 and Simango (1996) for discussion of change of state and *-Vk* in Chichewa.

<sup>14</sup> We note briefly that in terms of meaning, we have generally not found an “ability” reading of the *-Vk* form. *-Vk* forms in other Bantu languages have been reported to mean “V-able.” This reading does not seem to be present in Luragooli with *-Vk*, 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 straight-forwardly available. Middles generally give rise to habitual or generic readings, have restrictions on the type of subject arguments they allow, and often require adjuncts (as in *easily* above). Such restrictions and readings are not present in the Luragooli verbs we’ve elicited. Moreover, “true” middles appear to be possible without *-Vk*.

A third option has emerged recently in which neither the transitive nor the intransitive variant is the base form. We refer to this as the “shared root” approach. Under this proposal, lexical items consist of category-less roots; (some of) the syntactic and selectional processes are the results of what the root combines with (Alexiadou & Anagnostopoulou 2004; Schäfer 2008; Alexiadou et al., 2006). Both transitive and intransitive verb forms are derived from a single shared root form.<sup>15</sup>

For reasons of space, we are unable to fully explore each option. Nonetheless, we feel that the shared root option is the most promising. An appeal to the inherent semantics of the root seems to be necessary in order to deal both with the various classes of verbs, as well as the variability with respect to the telicity diagnostics. Both the detransitivization and transitivization approaches would have to stipulate additional operations on top of their core derivational process to account for all the facts. Moreover, the shared root approach also creates an avenue for dealing with the derivational morphology associated with transitive verbs in Luragooli (see Appendix C for lists of the transitive “causative” verbs).

## 6 Conclusion

In this paper, we presented evidence that *-Vk* should be treated as an anti-causative marker in Luragooli. However, *-Vk* does not solely have this function, as the Class IV and Class V verbs suggest. Nonetheless, we do not view this data as an insurmountable obstacle to our proposal. Even in Romance and Germanic languages, the “anti-causative” morpheme does not solely mark anti-causatives: it is also the reflexive morpheme. Having an anti-causative marker that does double-duty is therefore not cross-linguistically unusual. Still, the Luragooli data suggests that the Western view of the anti-causative alternation might merely be a subset of possible transitivity alternations associated with anti-causativity.

The work presented here is a first step in the process of documenting the lexical semantics of Luragooli. This project will contribute new and interesting data towards the cross-linguistic study of lexical semantics and (anti-)causativity.

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<sup>15</sup> See Fernando (2013) for this sort of analysis in Kikongo.

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## Abbreviations

Luragooli has 20 noun classes. Following Bantuist convention, we mark noun classes through numerals at the beginning of nouns and verbs. The following abbreviations are used in this paper: CAUS ‘causative,’ DEM ‘demonstrative,’ FV ‘final vowel,’ NEG ‘negative,’ PROG ‘progressive,’ PASS ‘passive,’ PRT ‘particle,’ and PLACT ‘plural act.’

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## Appendix A

Table 5: *Intransitive verb classes in Luragooli and the distribution of -Vk*

Class I (only with -Vk)	Class II (only without -Vk)	Class III (with or without -Vk)
<i>kwoneka</i> 'to be destroyed'	<i>kwigora</i> 'to open'	<i>kuhana</i> 'to close'
<i>kubameka</i> 'to be flattened'	<i>kumeeda</i> 'to increase'	<i>kwiina</i> 'to sink'
<i>kuzuganyika</i> 'to be	<i>kugomagoma</i> 'to roll'	<i>kwoma</i> 'to dry'



mixed'		
<i>kuharagateka</i> 'to be scraped'	<i>kumera</i> 'to grow'	<i>kuzurula</i> 'to wilt'
<i>kusundeka</i> 'to spill'	<i>kuriduha</i> 'to become heavy'	<i>kwiisunda</i> 'to move (one's self)'
<i>kukinggika</i> 'to cover'	<i>kusarana</i> 'to spread out'	<i>kwelela</i> 'to hang'
<i>kurombika</i> 'to fix'	<i>kugeha</i> 'to decrease'/'to reduce'	<i>kusaala</i> 'to be/get sick/injured'
<i>kuvuneka</i> 'to break'	<i>kuruha</i> 'to tire'	<i>kukomera</i> 'to fatten'/'to mature'
<i>kukunoreka</i> 'to open'	<i>kugeha</i> 'to shrink'/'to decrease'	<i>kwanguha</i> 'to thin'/'to lighten'
<i>kumegeka</i> 'to break off'	<i>kungeleha</i> 'to lengthen'	<i>kwarama</i> 'to open'
<i>kungerika</i> 'to grow tall and thin'	<i>kwakana</i> 'to redden'	<i>kuchama</i> 'to become crooked'
<i>kumwameka</i> 'to blacken'	<i>kwama</i> 'to bloom'	<i>kudinya</i> 'to harden'
<i>kufutika</i> 'to inflate'	<i>kusima</i> 'to be (shut) off'	<i>kwogeha</i> 'to sharpen'
<i>kufayiyika</i> 'to be obliterated'	<i>kuchiringana</i> 'to be quiet'	<i>kutoonya</i> 'to drop'
<i>kurandol(ol)oka</i> 'to peel'	<i>kuneneha</i> 'to grow'	<i>kukara</i> 'to cut'
<i>kusalaluka</i> 'to melt'/'to dissolve'	<i>kwelera</i> 'to swing'	<i>kuzura</i> 'to decay'
<i>kutanduka</i> 'to tear'		<i>kuzila</i> 'to get wet'
<i>kukunyeka</i> 'to wrinkle'		<i>kurava</i> 'to whiten'/'to clean'

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*kusiitika* 'to twist'

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## Appendix B

*Table 6: Transitivity alternations outside of the set of cross-linguistically expected anti-causative verbs. (Kunyara, 'to be able', does not have a passive form.)*

	<b>Transitive</b>	<b>Intransitive</b>	<b>Passive</b>
<b>Class IV</b>	kuhola, 'to hear'	kuholeka 'to be heard'	kuholwa 'to be heard'
	kurora, 'to see'	kuroreka 'to be seen'	kurorwa 'to be seen'
	kudiira, 'to touch'	kudiirika 'to be touched'	kudiirwa 'to be touched'
	kumena, 'to taste/lick'	kumeneka 'to be tasted/licked'	kumenwa 'to be tasted/licked'
	kwenya, 'to want'	kwenyeka, 'to be wanted/desired', "ought"	kwenywa, 'to be wanted'
	kusura, 'to hate'	kusureka, 'to be hated/refused'	kusurwa, 'to be hated'
	kuyanza, 'to like/admire'	kuyanzeka, 'to be liked/admired'	kuyanzwa, 'to be liked/admired'
	kusuvera, 'to believe'	kusuvereka, 'to be believed'	kusuverwa, 'to be believed'
	kumanya, 'to know'	kumanyeka, 'to be known'	kumanywa 'to be known'
	kuvuura, 'to discover'	kuvuureka, 'to be discovered/found out'	kuvuurwa, 'to be discovered'
	kuvoora, 'to say'	kuvooreka, 'to be said'	kuvoorwa, 'to be said'

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	kugan(agan)a, 'to think'	kugan(agan)eka, 'to be thought'	kugan(agan)wa, 'to be thought'
	kwizuriza, 'to remember'	kwizurizeka, 'to be remembered'	kwizurizwa, 'to be remembered'
	kwivela, 'to forget'	kwivelika, 'to be forgotten'	kwivelwa, 'to be forgotten'
	kutooroma, 'to realize'	kutooromika, 'to be realized'	kutooromwa, 'to be realized'
	kumoonya, 'to gossip'	kumoonyika, 'to be gossiped'	kumoonywa, 'to be gossiped'
	kukominya, 'to declare'	kukominyika, 'to be declared'	kukominywa, 'to be declared'
	kunyara, 'to be able'	kunyareka, 'to be possible'	–
	kuhenzelela, 'to expect'	kuhenzeleleka, 'to be expected'	kuhenzelelwa, 'to be expected'
	kunyoora 'to find'	kunyooreka 'to be found'	kunyoorwa 'to be found'
	kuromesi, 'to whisper'	kuromesiki, 'to be whispered'	kuromeswi 'to be whispered'
<b>Class V</b>	kuhola 'to punch'	kuholeka 'to be punched'	kuholwa 'to be punched'
	kurasa, 'to throw'	kurasika, 'to be thrown'	kuraswa, 'to be thrown'
	kuroomba, 'to make'	kuroombika 'to get made'	kuoombwa, 'to be made'
	kulia, 'to eat'	kuliika, 'to be eaten'	kuliwa, 'to be eaten'
	kunyanya, 'to chew'	kunyanyeka, 'to be chewed'	kunyanywa, 'to be chewed'

## Appendix C

The verbs in the following table form transitives either by dropping the *-Vk* suffix, or by dropping the *-Vk* suffix and adding a causative suffix. The causative suffix */iz/* has a phonologically conditioned suppletive allomorph, */Vny/*, that is triggered by a preceding nasal.

*Table 7: Transitive forms of the intransitive verbs in Table 1*

	Plain	With <i>iz/inny</i>
Class I (only with <i>-Vk</i> )	kuharagata, 'to scrape'	kwononya, 'to destroy'
	kutandora 'to tear'	kubaminya, 'to flatten'
	kusundora, 'to spill'	kuzuganya, 'to mix'
	kukinga, 'to cover'	kunyanya, 'to chew'
	kuromba, 'to fix'	kwatanya, 'to break'
	kukunora, 'to open'	kumwaminya, 'to blacken'
	kumega, 'to break off'	kukunya 'to wrinkle'
	kufuta, 'to inflate'	kuŋerihiza, 'to stretch/grow'
	kufayiya, 'to obliterate'	
	kurandol(ol)a, 'to peel'	
	kuchiringana, 'to be quiet'	
	kwona, 'to destroy'	
	kusiita, 'to twist'	

<b>Class II</b> (only without -Vk)	kwigora, 'to open'	kugomagominya, 'to roll'
	kumeeda, 'to increase'	kusaranya, 'to spread (out) kwakanya, 'to redden'
		kusiminya, 'to be (shut) off'
		kuchiriŋanya, 'to quiet'
		kumeriza, 'to grow'
		kuriguhiza, 'to make heavy'
		kuziliza, 'to wet'
		kuruhiza, 'to tire'
		kugehiza, 'to decrease, reduce, shorten'
		kujelehiza, 'to lengthen'
		kweleriza, 'to swing'
<b>Class III</b> (with or without -Vk)	kuhana, 'to close'	kutoonya, 'to drop'
	kwiina, 'to sink'	kwominya, 'to dry'
	kusunda, 'to move'	kwaraminya, 'to open'
	kukara, 'to cut'	kuchaminya, 'to be crooked'
	kuzura 'to decay'	kuchaminya, 'to bend, crook'
		kudinya, 'to harden'

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kuzuruliza, 'to wilt'

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kweleliza, 'to hang'

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kusaaliza, 'to injure, make sick'

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kukomeriza, 'to fatten'

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kwanjuhiza, 'to make thin'

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kwogehiza, 'to make sharp'

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kwanjuhiza, 'to lighten'

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kuraviza, 'to whiten, clean'

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