# The syntax and semantics of helping: Sociative causation in Kinande

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*Abstract*

*We investigate the syntax and semantics of the sociative causative in Kinande (D42), a Bantu language spoken in eastern DRC. We present our discovery that Kinande, apparently unique among Bantu languages, grammaticalizes this type of causation with a specialized morpheme. In sociative causatives, the causer causes through social interaction rather than physical manipulation (direct causation) or words (indirect causation). We propose sociative causation in Kinande more exactly means 'y carries out a subevent of P to help x do P.' Helping here is by doing and is not comitative: rather, it is partitive—each actor does part of the action. This accounts for the classes of verbs that can undergo sociative causation. We establish that the construction is mono-clausal and note that the sociative morpheme is closely related to the benefactive applied morpheme. A second extension that occurs in this construction marks transitivity. We observe that the transitive extension can co-occur with the passive extension which tells us there is*

*more than one voice projection in Kinande. Finally, we look more closely at the partitive reading of the caused event and note that the partitivity can be morpho-syntactically manifested either through partitive marking of the object of the caused event or through partitive marking of the caused event itself.*

*key words: causative, sociative causative, partitive construction, applicative, verbal extension*

## 1 Introduction[1]

In studies of causatives, linguists have proposed a continuum of causative types ranging from direct causation—causation brought about by direct physical

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manipulation of a patientive causee (an example from English would be “John broke the vase.”), to indirect causation: causation brought about by speaking to/persuading an agentive causee to do something (an example from English would be “John made Bill break the vase”). This paper investigates a type of causation called sociative causation, as manifested in the Bantu language Kinande. Here is an example:

(1) **Kámbalɛ a-ká-hụm-ịk-a-y-a Maryá y’ ɔkɔ bakɔlɔ̂**

1Kambale 3s-IMPF-beat-SOC-aC-TRANS-FV 1Mary 1LK’ 17LOC 2pupil

‘Kambale helps Mary beat pupils.’

Sociative causation has been proposed (Shibatani and Pardeshi 2002) as a category intermediate between direct and indirect causation, in that it shares properties with both types of causation. Shibatani and Pardeshi (2002) observe that for sociative causation, the caused event is brought about by means of the social interaction of a causer with an agentive causee. The agent of the caused event has independent volitionality. Furthermore, the causing event and caused event are essentially the same. Physical manipulation of a caused event as well as co-temporality of a causing and caused event are typical of direct causation. However, the causee being a volitional agent is typical of indirect causation. Therefore, as Shibatani and Pardeshi point out, elements of both direct and indirect causation are relevant for sociative causation.

Shibatani and Pardeshi (2002) propose a continuum within sociative causation itself. Specifically, they note and illustrate with data from various languages the following possible categories of sociative involvement: "(i) joint-action, (ii) assistive, and (iii) supervision." In short, they note that there is some kind of jointly carried out social interaction, with the causer holding different degrees of physical control over the event. Shibatani and Pardeshi (2002) characterize (i) *joint action* as the causer and causee both carrying out the same action; (ii) *assistive* as the causer and causee not carrying out the same action, but both being physically involved in the caused event; and (iii) *supervision* as the causer simply supervising the caused event and there possibly being physical distance between them. We will see that sociative causation in Kinande essentially falls along the joint-action periphery of the continuum.

Schadeberg (2003: 73) investigates Bantu languages in this regard where he documents sociative causation mainly in southeastern Bantu languages, with Zulu (S42) as a specific example. He notes that for these languages the usual causative morphology can convey a type of sociative meaning, specifically one called *adjutive,* from the Latin for 'to help.' A rough paraphrase of an adjutive sociative causative would be as follows: *X helps Y to (verb phrase)*. Adjutive sociative causation is the type of sociative causation that is relevant to Kinande as illustrated by the following and previous example:

**(2) Magulú a-ká-hek-ek-a-y-a Mábɔkɔ́ y' ɔkɔ mbágɔ**

1Magulu 3s-IMPF-carry-SOC-aC-TRANS-FV 1Maboko 1LK 17LOC 10plank

'Magulu helps Maboko carry planks.'

We note that the description of sociative causation, and especially of causation by *helping*, is vague and discussed only in general terms in the literature. Schadeberg (2003:73), who gives the most detailed statement of adjutive causation that we could find, suggests that "the adjutive meaning is typically associated with verbs denoting communal activities where helping makes the event possible." We introduce in this work an aspect of sociative *causation by helping* that has to the best of our knowledge not been reported previously in the causative or Bantu literature. In Kinande, at least, *helping* is not a strictly comitative co-participation in the caused event or a mutual reciprocating one. Instead the *helping* is a partitive one: a division of the caused event such that the causer helps by carrying out part of the event and the causee the other part. We develop this idea in what follows.

Kinande is, as far as we can determine, unique in an additional way: among Bantu languages that have sociative causatives, Kinande uses a morpheme other than the usual causative suffix(es) to signal sociative causation. In particular, the suffix with allomorphs **–ik-/-ek-** , whose functions in Kinande we discuss more fully shortly, indicates sociative causation when it co-occurs with the causative morpheme **-ị-**. Having a specialized sociative causative morpheme appears to be a rarity even among the broader Niger-Congo language family.

Guillaume and Rose (2010) point to Wolof as being the only (other) language within this larger family and indeed almost the only language outside a region of South America to have a specialized morpheme for sociative causation. Mutaka (2010) and Mutaka and Kavutirwaki (2006/2011) note the existence of such a morpheme in Kinande and especially Mutaka (2010) exhorts Bantuists to examine the construction more closely. This paper is a response to his exhortation.

## 2 Verbal extensions and the morphology of causation

We turn our attention first to the relevant verbal extensions, or suffixes that extend the verbal base, as these extensions include the morphemes related to sociative causation and causation in general. We consider first direct and indirect causation. Kinande has been analyzed (Hyman 2003, and Mutaka and Kavutirwaki 2006/2011) as having two formatives: **-is-** and **-ị-** (with allomorphs –**es**- and –**y**- respectively), that can form a discontinuous causative.[2] As noted in Good (2005), and Hyman (2003), the difference between these two component morphemes often can be related to direct and indirect causation in

[2] Good (2005), Hyman (2003), and others point out that discontinuous causatives are closely related to Proto-Bantu causative formatives **–ic-ị-**. The original comparative study that provided a reconstruction was done by Bastin (1986).

Bantu languages that have this kind of bi-morphemic causative. This is true of Kinande. The morpheme **-ị-** can occur as the sole causative-related morpheme in the verbal complex in Kinande. In this case, there is a meaning of direct causation (physical participation in the caused event). The following sentences from Mutaka and Safir (2007) illustrate the contribution of the sole causative morpheme **-ị-** toward a meaning of direct causation:

(3) a. **n-ká-tịtịr-a-y-a ɔmwána**

1s-IMPF-dance.frenetically-aC-TRANS-FV 1child

'I make a child dance frenetically.' (direct causation)

b. **n-ká-tịtịr-ịs-a-y-a ɔmwána**

1s-IMPF-dance.frenetically-CAUS-aC-TRANS-FV 1child

'I have a child dance frenetically.' (indirect causation)

Mutaka and Safir (2007) note that in (3a), where the causative morpheme **-ị-** alone occurs, "the first person is holding the child and making him dance by direct physical intervention, but in the second case [ 3b ], causativization can be indirect." In (3b), which involves indirect causation, the causative extension **–is-** co-occurs with **-ị-**. They suggest that this would be appropriate if, for example, the causer gave the child a gift that causes the child to dance frenetically.

The causative extension, **-is-**, the one related to indirect causation, cannot occur on its own. Instead, as Mutaka and Safir (2007), Mutaka and Kavutirwaki (2006/2011), and others observe, the **-is-** and **-ị-** extension must co-occur, and

they can be discontinuous. Whereas the **-ị-** extension is a marker of direct causation when it appears on its own, it appears to not contribute this same meaning when is co-occurs with **-is-**. Later, we will argue that the **-ị**- extension marks the introduction of a causative agent into a structure and a null morpheme marks direct causation. Table 1 summarizes the overt morphology associated with direct and indirect causation.

**Table 1. Causative extensions in Kinande**

| causative extensions | |
|---|---|
| **direct causation** | ...-ị- |
| **indirect causation** | ...-is- ... -ị- |

Sociative causation in Kinande, like indirect causation, involves two overt extensions that create a discontinuous causative: **-ik-** and the **-ị-** morpheme, which signals direct causation when it occurs on its own. There are widely distributed **–ik-/-ek-** extensions that have been little studied in Bantu languages—an exception is the work of Dom (2014). However, in so far as they have been studied, a sociative meaning has not been identified for the

extension(s). Instead, scholars have noted a detransitivizing/stativizing use for **–ik-**, the NEUTER,[3] and a transitivizing use, the IMPOSITIVE.

Before we discuss the sociative **–ik-**, we summarize the already established findings related to the meanings and functions of the **–ik-/-ek-** extensions. Hyman (2007), in his overview of verbal extensions in Niger-Congo languages, identifies the Proto-Bantu NEUTER **–ik-** as productive. Dom (2014) provides a detailed overview of scholars' pan-Bantu understanding of the neuter **–ik-** extension at the time of his study, in addition to carrying out his own careful investigation. Dom notes three major functions of the neuter **–ik-** extension:

(4) a. It mediates an ergative or passive alternation, depending on the verb type.

b. It realizes a potential construction ('to be X-able').

c. It realizes an idiosyncratic form.

The first function is illustrated below, where the **–ik-** extension is used to express the ergative member of an ergative alternation pair. The illustrative sentences are cited in Dom (2014). Note that in the language in question, Bena, **–ih-** is the reflex of the neuter, rather than the more familiar **–ik-**:

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[3] In fact, a variety of names have been used for the detransitivizing extension, reflecting various views of its function(s). Some examples Dom observes from the literature are: NEUTER, POTENTIAL, STATIVE, NEUTRO-PASSIVE, and RESULTATIVE. This is discussed more thoroughly in Dom's 2014 work (p33).

(5) BENA (G63) (Morrison 2011: 370) (glosses adapted)

a. **umuana** **a-haa-deeny-il-e** **utubihi** **igólo.**

1child 3s-PST-break-TM-FV 13tree yesterday

'The child broke the twig yesterday.'

b. **utubihi** **a-haa-deeny-ih-il-e** **igólo.**

13tree 13-PST -break-NT- TM-FV yesterday

'The twig broke yesterday.'

Dom points out that non-ergative verbs in some Bantu languages can also take the neuter extension **–ik-**. In that case, there is a passive-like interpretation. However, unlike passives created by the passive extension, with **–ik-** an agent cannot be expressed, even in an adjunct phrase. The following Chewa example from Dubinsky and Simango (1996), cited in Dom (2014), illustrates the passive-like interpretation:

(6) **CHEWA (N31b)** (Dubinsky and Simango 1996)

mbale zi-na-tsuk-ik-a (*ndi Naphiri).

plates SM-PST-wash-NT-FV by Naphiri

'The plates were washed (*by Naphiri).'

The second function of the neuter noted by Dom is for it to realize a POTENTIAL construction (to be X-able). This use of the neuter is quite productive in Kinande as we illustrate in the following examples from our own data:

(7) a. KINANDE (D42)

**ɔbúlɔ́ bunɔ́ bu-ká-swɛs-ɛk-á ndɛkɛ**

14millet 14this 14-IMPF-grind-NT-FV well

'The millet is (easily) grindable.'

b. **enyúmba yi-ká-langir-ik-a omo-tụtụtụ**

9house 9-IMPF-see-NT-FV 18LOC-morning

'The house is visible in the morning.'

Finally, Dom reports a third function for the NEUTER as that of creating an idiosyncratic form. In that case, the occurrence of the NEUTER adds additional meaning to the root. Example (8b) from our own data illustrates this function for Kinande:

(8) a. **ɛri-gɛ́nd-a** (base form)

5-leave-FV

'to go'

b. **ɛri-gɛnd-ɛ́k-a** (idiosyncratic interpretation)

5-leave-NT-FV

'to do well (e.g. said of goods being sold)'

There is a homophonous extension **–ik-**, which is called the IMPOSITIVE **–ik-** in the Bantu literature. Hyman (2007) and Schadeberg (2003) identify it as unproductive. Schadeberg (2003: 74) notes that the impositive has been widely understood as a causative which clearly has the meaning of "to put (s.th.) into some position." This, he

points out, is the reason for the term impositive, from the Latin (*im*)*positus* for 'put.' He comments that the impositive typically involves "'direct causation' (i.e., adding 'cause to' to an intransitive verb), but some "locative" element of meaning has also been observed in several older descriptions (cf. Dammann 1958). Inspection of any list of verbs carrying this extension …confirms that the more precise meaning is 'to put (sth.) into some position'."

The impositive is illustrated by the following general Bantu example from Mutaka and Tamanji (2000: 174):

(9) - **kụk-ik-**

kneel-IMPOS

'put in a kneeling position'

Kinande lacks such an impositive verb. However, the root exists in Kinande where we note the verb: **erị kụkáma**, which means 'to kneel down,' where the shared root **-kụk-** clearly means 'to kneel.'

It was quite difficult for us to find examples of the impositive extension in Kinande, where the extension is indeed unproductive. Here is one example, although even here the suffix appears to carry a lexicalized meaning component. In (10a), we observe an unaccusative verb. With the addition in (10b) of the direct causative **-ị-**, we get a meaning where an agent acts on a patient. Finally, when the impositive is added (10c), the meaning of 'put in a position' is clearly present, although not in a completely compositional way:

(10) a. **ɛrí-hɛ́r-a**

5-get.lost/disappear-FV

'to get lost/to disappear'

b. **erɟ-her-ɟ-a ɛritúndâ**

5-get.lost-TRANS-FV 5fruit

'to lose the fruit'

c. **erɟ-her-ek-ɟ-a ɛritúndâ**

5-get.lost-IMPOS-TRANS-FV 5fruit

'to send the fruit somewhere as a kind of dowry'

An additional example involving the historical impositive extension is given below. Again, the meaning of 'put in a position' is evident as clearly illustrated in (11):

(11)a. -**tu̱lik-**

-touch. IMPOS-

'put in an upside down position'

b. **erɟtu̱ljk' ɛnyúngu**

5touch.IMPOS' 9pot

'to put a pot upside down'

Although there is an impositive meaning component here, the extension **–ik-** in this verb is best treated as part of the root due to the non-compositional meaning of the verb. Instead, the verb should be given as **–tu̱lik-** as indicated in Mutaka and Kavutirwaki (2011:173), rather than –**tu̱l-ik**-, as the root **–tu̱l-** in **erɟtúla** means 'to

touch, to tell.' Therefore, the putative impositive would have to be adding the idea of 'upside down' as well as that of 'place in a position.' Not only would such a meaning be unpredictable, it also is not similar to the additional idea of 'send as a dowry' that goes with addition of the putative impositive in (10c).

In sum, we see that Kinande has the neuter **-ik-** and a residue of the impositive **-ik-** extensions and they display predictable characteristics given what we know about such extensions from historical and comparative studies. We turn our attention back to the sociative causative. Recall that it involves two extensions, or perhaps more clearly, a discontinuous causative: the direct causative extension **-ị-**, and a homophonous extension **-ik-** that roughly stated adds a meaning of 'to help,' rather than 'put' or 'potential,' or other neuter-related meanings. We will refine the sociative meaning more exactly shortly. For now, we note the observation of Marcel den Dikken (p.c.) that sociative 'helping' and impositive 'putting in a position' are in fact not completely unrelated semantically. Den Dikken points out that "English 'x put y in a position to VP' (as in "she put me in a position to realize my full potential"; cf. also Dutch "iemand in staat stellen om te VP" 'to put someone in a state to VP') has the facilitative interpretation that the sociative causative of Kinande also has." Furthermore, the sociative causative shares with the impositive a common meaning of causation. In addition, Marcel den Dikken (p.c.) observes that the sociative causative has an indirect semantic connection to the "potential (or abilitive) meaning" of the neuter. If a causative component of meaning is added to the neuter, den Dikken points out that

"causing someone to be able to do something is very similar in meaning to helping someone do something." Therefore, although the sociative causative is distinct in meaning and function from the impositive and neuter extensions, it is possible that a deeper connection exists between these three extensions.

Table 2 summarizes the causative extensions in Kinande.

**Table 2. Overview of causative extensions in Kinande**

| causative extensions | |
|---|---|
| **direct causation** | ...-ị- |
| **indirect causation** | ...-is- ... -ị- |
| **sociative causation** | ...-ik- ... -ị- |

The literature on sociative causation observes that, cross-linguistically, its manifestation is very frequently parasitic on the means a language uses to express direct and indirect causation (See, for example, the discussion in Bostoen and Mundeke 2011). Furthermore, it appears to be a rarity for a language to have a morpheme specifically reserved for expressing sociative causation. We see that in Kinande, sociative causation is grammaticalized in a way that is distinct from both direct and indirect causation in the language. We do note however, that the morpheme that marks sociative causation does not

have that function alone as it is homophonous with both the neuter and impositive extension. We observed that the impositive is the most likely source for this morpheme since it shares with the sociative causation a meaning of causation. We also noted that the impositive is virtually non-existent in the grammar of modern Kinande. Therefore, it appears possible that the meaning of the impositive shifted to that of sociative causation and it is indeed consistent with the data to claim that Kinande marks sociative causation with a specialized sociative causative morpheme: a typological rarity.

## 3 Semantic properties of sociative causation in Kinande

In this section, we propose the following denotation for the sociative causative extension **-ik-** , which we will justify in the discussion:[4]

(12) [[help-cause]] = λP.λx.λy. ∃e,e'[P(e) ∧ P(e') ∧ e' < e ∧ agent(e') = y ∧
beneficiary(e) ∧ agent(e) = x]

That is, help-cause takes a predicate of events and two individuals, then asserts that there are two events of P (for example, carrying), e and e', with e' a proper part of event e; y (the helper, for example, Kámbale) is the agent of the sub-event e' and x (the person being helped, for example, Mábokó) is the beneficiary

[4]We gratefully acknowledge discussion with and help and suggestions from G. Scontras for this part of our proposal. All mistakes here are ours.

and agent of the super-event *e*. In short, y carries out a subevent of P to help x do P.[5] We also give a tentative structure of the meaning in Figure 1.

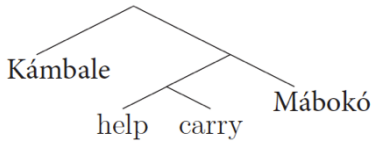


**Figure 1. Structure of meaning of help-cause**

There is not a comitative meaning built into the sociative causative as we will demonstrate during the course of this paper. That is, there is not a requirement that Y necessarily accompanies X during the period that X does P and we cannot make the inference that Y does P with X.

### 3.1 Causer physically participates in caused event

In this section, we consider verbs that are compatible with all the possible causative extensions in order to clarify the semantic contribution of the sociative extension. We demonstrate the facts with the verb **ɛrihɛka** 'to carry.' If, of the causative extensions, the extension **-ị-** alone is added, it necessarily implies that the causer physically participated in causing the event:

(13) **erj̩-hek-j̩-a** **Kámbalɛ́** **y'** **ɛsyɔmbágɔ**

5-carry-TRANS-FV 1Kambale 1LK' 10plank

'to make Kambale carry planks (via direct causation)'

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[5]Clearly there is a tension between applied benefactives and the beneficiary of help-cause which will be discussed in Section 4.3.

Here, the idea is that someone is lifting the planks and physically putting them on Kambale's head. This is a case of direct causation as the caused event is brought about by physical interaction.

The meaning of the **-ị-** causative can be contrasted with the meaning of a causative that involves the (discontinuous) causative extensions **-is-** and **-ị-**:

(14) **erị-hek-es-ị-a Kámbalɛ y' ɛsyɔmbágɔ**

5-carry-CAUS-TRANS-FV 1Kambale 1LK' 10plank

'to cause Kambale to carry planks (via indirect causation)'

In this case, the causer does not have to be present. Instead, for example, the causer can simply give an order to Kambale to carry planks. This is then indirect causation; that is, causation by saying, rather than by doing.

The final example is of sociative causation, where **-ik-** and **-ị-** co-occur:

(15) **erị-hek-ek-ị-a Kámbalɛ́ y' ɔkɔ mbágɔ**

5-carry-SOC-TRANS-FV 1Kambale 1LK' 17LOC 10plank

'To help Kambale carry planks.'

In this case, there is, for example, a pile of planks that the causee wants to move somewhere else. The causer and causee move the planks by the causer carrying some of the planks and the causee carrying some of the planks. That is, we see that the causer physically co-participates in the caused event. However, they are not co-participating in the sense of carrying the planks together as would be the case if the causer necessarily accompanied the causee. That is, there is not a

comitative participation in plank-carrying. Instead, we will see that the co-participation is a partitive one: the causer and causee each share part of the event. This last observation will be elaborated in more detail shortly.

We continue exploring the nature of the co-participation by considering additional transitive verbs. They are all felicitous as sociative causatives. We first give examples of the verbs in infinitive form, with and without the sociative extension, and then illustrative sentences:

| | | | |
|---|---|---|---|
| (16) **ɛri-húm-a** | to hit | **erị-hụm-ịk-y-â** | to help someone hit |
| **ɛrí-túm-a** | to send | **erį́-tụm-ịk-y-â** | to help someone send |
| **ɛri-sw-â** | to grind | **erị-sw-ek-y-â** | to help someone grind |
| **ɛry-ôg-â** | to purge | **ery-óg-ek-y-â** | to help someone purge |
| **ɛry-êr-â** | to wash | **ery-ér-ek-y-â** | to help someone wash |
| **ɛrí-ry-â** | to eat | **erį́-l-ịk-y-â** | to help someone eat |

(17) a. **Kámbalɛ a-ká-hụm-ịk-a-y-a** **Maryá y’ ɔkɔ bakɔlô**

Kambale 3s-IMPF-beat-SOC-aC-TRANS-FV 1Mary 1LK’ 17LOC 2pupils

‘Kambale helps Mary beat pupils.’

b. **Kámbalɛ a-ká-tụm-ịk-a-y-a** **Maryá y’ ɔkɔ́ baná**

1Kambale 3s-IMPF-send-SOC-aC-TRANS-FV 1Mary 1 LK’ 17LOC 2child

**kw’ɛkalási**

17LOC’19school

‘Kambale helps Mary send children to school.’

c. **Kávirá a-ká-swes-ek-a-ya Maryá y' ɔkɔ́ búlɔ**

Kavira 3s-IMPF-grind-SOC-aC-TRANS-FV 1Mary 1LK' 17LOC 14millet

'Kavira helps Mary grind the millet.'

d. **Kávirá a-k'-óg-ek-a-y-a Maryá y' ɔkɔ́ bána**

Kavira 3s-IMPF-purge-SOC-aC-TRANS-FV 1Mary 1LK' 17LOC 2child

'Kavira helps Mary purge the children.'

e. **Kávirá a-k'-ér-ek-a-y-a Maryá y' ɔkɔ ngímba**

Kavira 3s-IMPF-wash-SOC-aC-TRANS-FV 1Mary 1LK' 17 LOC 10clothes

'Kavira helps Mary wash her clothes.'

f. **Kávirá a-ká-l-ịk-a-y' ɔ́mwaná y' ɔkɔ byályá bíwɛ**

Kavira 3s-IMPF-eat -SOC-aC-TRANS' 1child 1LK' 17LOC 8food 8his/her

'Kavira helps the child eat his food.'

We ask what is the nature of the co-participatory *helping*. In principle, *helping* could be carried out in a variety of ways. For example, could helping while hitting mean co-hitting? Or could it be helping by holding down the victim? Could helping send the children to school involve buying shoes or school supplies for them? Or must it involve an act of actual co-sending? Could helping grind millet consist of giving moral support while the causee grinds or must the helping be by doing some of the grinding work? In fact, we will see that the helping to hit/send/grind, etc. requires the causer's physical participation in the caused event as agent, or as agent of a subevent of the caused event. In the case

of hitting (17a), Mary is the main one hitting the pupils. Kambale also hits some of the pupils as a way to help Mary. With regards to sending (17b), while Mary is sending the children to school, Kambale is also sending some of the children to school. Likewise, with grinding (17c), Mary is the one grinding the millet. Kavira comes and helps her, maybe using a different grinding stone. As far as purging is concerned (17d), Mary purges some of the children and Kavira assists her by purging the other children. For washing clothes (17e), Mary is washing the clothes and Kavira assists her by washing some of the clothes. Finally, with eating (17f), we can imagine a situation where the child has a hard time eating his food. Kavira eats part of it as a way to help the child eat. It may also mean that Kavira introduces food into the mouth of the child as a way to help him eat. This example is important because it illustrates that the sociative causative does not necessarily require that the causer be understood as a co-agent of the entire caused event. However, the causer is carrying out some of the same physical actions during the caused event that the causee would engage in as agent of the entire caused event. In this way, it contrasts with the kind of help (such as holding down the recipient of the beating—which does not involve shared agency in the caused event) that is rejected as a possible interpretation of *help* for hitting (17a).

Consider next that verbs of internal cognitive states and unaccusative verbs cannot undergo sociative causation. These are verbs where shared agency of

causer and causee in the same event is impossible. Consider first the impossibility of verbs of internal cognitive states such as **erílengekaníà** 'to think' and **eríkíríríà** 'to believe' as sociative causatives:

(18) a.***Kámbalɛ a-kírírík-a-y-a Magulú y' ɔkɔ́ bútunganɛnɛ́**

Kambale 3s-believe-SOC-aC-TRANS-FV Magulu 1LK'17LOC 14faithfulness

**bwa Nyamuhanga**

14of 1God

'Kambale helped Magulu believe in the faithfulness of God.'

b.***Kámbalɛ a-lengekana-k-á-y-a Magulú y' ɔkɔ sakasak'**

1Kambale 3s-think-SOC-aC-TRANS-FV 1Magulu 1LK'17LOC 9problem

**éy' eyísábhu**

9of Math

'Kambale helped Magulu think about the math problem.'

The data in (18) are ungrammatical, even though, for example, it is possible to imagine that Kambale, through the inspiration of his own example of believing deeply in the faithfulness of God, inspired, and thus helped, Magulu to believe in the faithfulness of God. Nonetheless, the ungrammaticality is not surprising from a semantic point of view if our generalization about sociative causatives requiring shared agency in the same event is correct. This is because it is impossible to share in the agency of an internal cognitive event, such as

believing or thinking—each act of cognition is internal to a different individual. Therefore, such events are necessarily individual rather than social acts.

Likewise, we see that unaccusative verbs, that is, intransitive verbs with a single patientive argument, cannot take sociative causative morphology. The following examples illustrate this:[6]

(19) a.***Kámbalɛ a-a-holek-ek-á-y-a Magúlu**

1Kambale 3s-PST-die-SOC-aC-TRANS-FV 1Magulu

'Kambale helped Magulu die.'

b.* **Kámbalɛ ahịk-ịk-a-y-a Magúlu**

1Kambale 3s-PST-arrive-SOC-aC-TRANS-FV 1Magulu

'Kambale helped Magulu arrive (e.g. safely).'

c.***eri-ter-ek-y-â**

5-fall-SOC-TRANS-FV

'to help fall'

First note that the English translations are grammatical. Therefore, in principle these are all events where helping is possible. However, if sociative causatives

[6] We do not consider here unaccusatives with inanimate arguments as the recipient of help needs to be animate at least at some level. Therefore, even in English, which lacks morphologically complex sociative causatives, it sounds odd, unless one is being facetious, to say: '#John helped the vase break.'

require co-participation in the same event such that the causer and causee both are agents of the same caused event, then the above sentences are problematic, first of all because unaccuasative verbs are of the aspectual type ACHIEVEMENT and as such cannot be partitively shared events—achievements are indivisible, single points in time. If these verbs could undergo sociative causation, it would mean that Kambale helped Magulu die by doing part of the dying himself; or Kambale helped Magulu arrive (safely) by himself doing part of the arriving (safely); or someone helped someone fall by doing part of the falling him/herself, etc. Although it is possible to imagine someone helping the other die by dying first or helping someone fall by falling themselves (and thus, for example, illustrating good falling form), this is only felicitous if there are two distinct events of dying/falling/etc. each time. However, the sociative causative in Kinande involves a partitive sharing of the same event. Clearly, it is not possible to help someone die by doing part of their dying for them, etc. In sum, unaccusatives and verbs of cognition pattern together: neither class of verbs, by virtue of their meaning, allow for social participation in a single shared event and neither class of verbs allow sociative causation.

We identified at least two unergative verbs (ones where the subject is agentive) that can readily undergo sociative causation. Here is one example:

(20) a. **ɛrí-imb-â**

5-sing-FV

‘to sing’

b. **erį́-imb-ịk-y-â**

5-sing-SOC-TRANS-FV

‘to help sing’

To ‘help sing’ clearly does fall under the denotation given in (12). Singing is a noticeably social activity. One can imagine many ways a singer can help another singer sing, such as providing on-pitch singing to facilitate the causee staying on-pitch during a group event of singing, etc. However, what is understood here by ‘help sing’ is that the causee is the main singer and the causer does at least some of the singing to accompany the causee. We see then that direct physical interaction is not required for sociative causation although it is prototypically the case.

The following example, noted in the Kinande-English dictionary (Mutaka & Kavutirwaki 2006/2011), also involves an unergative verb. Sleeping is arguably a social event:

(21) a. **ɛri-gɔtsɛ́r-a**

5-sleep-FV

‘to sleep’

b. **erị-gotser-ek-y-â**

5-sleep-SOC-CAUS-FV

‘to help sleep’ (by lying down next to someone and sleeping along with them)

In this example, there can be a shared activity of sleeping where the causer carries out a subevent of the sleeping.

Additional examples we found of unergative verbs that had undergone sociative causation are questionable although not completely out:

(22) a. **erɟ-sek-es-ɟ-a** **ɔmwána** (indirect causation)

5-laugh-CAUS-TRANS-FV 1child

'to cause a child to laugh'

b. ?(?)**erɟ-sek-ek-ɟ-a** **ɔmwána** (sociative causation)

5-fall-SOC-TRANS-FV 1child

'to laugh as a way of participating in the laughing of the child'

(reported by native speakers as difficult to process)

(23) a. **ɛrɟ- pɟnʊ́k-a**

5-run.away-FV

'to run away'

b. **erɟ-pɟnʊk-y-â** (direct causation)

5-run.away- TRANS-FV

'to make (s.o.) run away'

c. #**erɟ-pɟnʊk-ɟk-y-â** (sociative causation)

5-run.away-SOC-TRANS-FV

'to help (s.o.) run away'

The preceding sociative causative (23c) is reported by native speakers to be grammatical, but to have a bizarre meaning because it does not seem that one can do part of the running away for someone as a way of helping them run away. This example also underscores that the sociative causative does not have an inherently comitative meaning, as opposed to a partitive one. If it did have a necessarily comitative meaning (to Z with X), it could very naturally mean that the causer and causee run away together and the causer's participation somehow benefited the causee.

In the grammatical and pragmatically natural cases, sociative causatives of unergative verbs can be paraphrased as comitatives: for Y to help X sing is for Y to sing with X; for Y to help X sleep is for Y to sleep with X. However, they can also be captured by the denotation we provided that does not require accompaniment of one agent by the other. Furthermore, the pragmatically strange case of running away demonstrated that what is at play is not a notion of accompaniment, but rather beneficial shared agency in the caused event.

Similarly, consider the verb: **ɛríkirúka**, meaning 'to jump,' which can be used to mean 'to cross (the road).' It can easily undergo direct and indirect causation:

(24) a. **erɟ́-kɟrʊ̣k-y-á** **ɔ́mwaná y'** **endákɟ** (direct)

5-jump-TRANS-FV 1child 1LK 9road

'to make a child cross the road'

b. **erɟ-kɟrʊk-ɟs- y- á ɔ́mwaná y' endákɟ** (indirect)

5-jump-CAUS-TRANS-FV 1child 1LK 9road

'to cause a child to cross the road'

Although it is straightforward to imagine that one can help a child cross the road by crossing the road together, this is not an available reading when sociative causation is involved. Instead, native speakers find a sociative causative of **ɛríkirúka** 'to jump/cross' grammatical, but pragmatically bizarre:

(25) **#erɟ-kɟrʊk-ɟk-y-á ɔ́mwaná y' (ɔkɔ) ndákɟ**

5-jump-SOC-TRANS-FV 1child 1 LK (17LOC) 9road

'to help a child cross (part of) the road'

This is because the partitive interpretation of the sociative causative would suggest that the above would mean that someone helps a child cross a road by crossing part of the road and expecting the child to cross the other part of the road by him/herself. Even if someone were to carry the child part of the way while crossing the road and then set the child down to cross the road by him/herself, speakers still find this odd which is to be expected given the meaning of sociative helping we have argued for here.

### 3.2 Helping, reflexives, and reciprocals

Helping is other-oriented, therefore, the causer and causee have different referents when sociative causation is involved. This is evident if we consider the use of a reflexive causee. Although a reflexive causee is possible when direct

causation (with the **-ị-** extension alone) (26) or indirect causation (27) is involved, it is impossible when sociative causation is involved (28):

(26) **erị-yị-hek-ị-a** **ɛsyɔmbágɔ**

5-REFL-carry-TRANS-FV 10plank

'to make oneself carry planks (direct causation)'

The phrase in (26), corresponding to direct causation, can be used felicitously in a situation where someone else is supposed to put the planks on the causee's head, but instead the causee does it him/herself.

The phrase in (27) illustrates indirect causation with the use of a reflexive:

(27) **erị-yị-hek-es-ị-a** **ɛsyɔmbágɔ**

5- REFL-carry-CAUS-TRANS-FV 10plank

'to cause oneself to carry planks (indirect causation)'

The above phrase can be used felicitously if the causation is brought about by talk. For example, one is really not wanting to carry planks but it is necessary. The following internal monologue can have taken place: "Self! You must now carry planks." Plank carrying ensues. This is a clear case of indirect causation.

A causative that has a reflexive causee and uses the sociative causation markers **-ik-** and **-ị-** is not possible:

(28) ***erị-yị-hek-ek-ị-a** **(ɔkɔ)** **mbágɔ**

5-REFL-carry-SOC-TRANS-FV 17LOC 10plank

*'to help himself carry planks'

The ungrammaticality of a sociative causative with a reflexive causee follows if sociative causation means the causer helped the causee do *P* by doing a subpart of *P*, as indicated in our proposed denotation for [[help-cause]]. More specifically, in response to a suggestion by S. Ouwayda (personal communication) with all mistakes our own, we suggest it can be ruled out on pragmatic grounds because it is redundant to say one did a subevent of P and by doing a subevent of P one helped one's self do P. Note that the sentence we are considering is different than something like the English "John helped himself carry the planks." That construction does not require a partitive sharing of the event. A more equivalent translation of the ungrammatical (18) might be "to help himself in plank carrying," which seems to more closely suggest partitive sharing and also sounds odd.

Supporting the proposal that the problem is pragmatic in the way described above, we note that reflexives are marginally possible if there are plural subjects. In that case, a distributed reading is at least marginally possible, and so there is not a redundancy problem. We note that the following example with a plural causer and reflexive causee can be understood as there being several people who are helping each other. More specifically, each causer is understood as helping a different causee:

(29) ?**Abandú bánɛnɛ́ mó-ba-líg-íṛ-ɛ ɛrí-by-á bá-ka-yị-hek-ek-y-a**

2person 2several AFF-2-accepted- TM -FV 5-be-FV 2-IMPF-SELF-carry-SOC-TRANS-FV

**ɔkɔ mbágɔ**

17LOC 10plank

'Several people accepted to be helping themselves carry planks.'

As expected, a reciprocal causee is fully grammatical:

(30) **Abandú bánɛnɛ́ mɔ́-ba-bɛ́rɛ́ bá-ka-hek- ek- an- ị- a ɛsyɔmbágɔ**

2person 2several AFF-2-be 2-IMPF-carry-SOC-REC-TRANS-FV 10plank

'Several people were helping each other carry planks.'

In sum, in this section we have given additional support for our proposed denotation of sociative causation in Kinande where we assert that [[help-cause]] means that the causee benefits in doing P by the causer doing a subpart of P.

## 4. Syntax of sociative causation in Kinande

We now consider the syntax of the sociative causative. We begin with a section that provides a brief descriptive overview. Following that, we consider formal accounts of the properties we have uncovered. Readers who are interested in the descriptive generalizations but not the formal accounts will want to focus in particular on the immediately following section. From there, they will be directed to various other sections of possible interest in the formal syntactic account.

## 4.1 Descriptive overview of the syntax of the sociative causative

Traditionally it is held that some types of causatives have a bi-clausal syntax, whereas other causatives are lexical, and thus involve no more than a single clause. Sociative causatives in Kinande behave as if they are monoclausal, as established in Section 4.2. More specifically, we demonstrate that agent-oriented adverbs can modify the causer, but not the causee in a sociative causative sentence. This means that only the causer is syntactically available as a modifiable agent. Furthermore, non-agent-oriented adverbs can only modify the helping predicate and not the caused event. That is, we do not observe evidence of a second clause, corresponding to the caused event, embedded below a help-cause predicate.

In Section 4.3, Kinande's verbal morphology related to causation is examined. Recall that the sociative causative consists of two potentially discontinuous elements: **-ik-** and **-ị-**. The element **-ik-**, which is unique to sociative causatives, must occur very close to the root, and closer to the root than the indirect causative morpheme **–is-**. Furthermore, as explored in detail in Section 4.3, **-ik-** is in complementary distribution with the applied morpheme **–ir-**. The morphosyntactic and semantic relation between these two morphemes is investigated and it is proposed that the sociative morpheme **-ik-** is a type of benefactive applied morpheme.

In Section 4.4, we observe that the morpheme that marks transitivity, **-ị-**, and the one that marks the passive can co-occur. That tells us there is not just a single *voice* projection in Kinande. We discuss what this implies for the theoretical framework within which we are working.

Finally, in support of the partitive analysis of sociative causatives, it is observed in Section 4.5 that partitive morphology is an obligatory feature of transitive sociative causatives. Specifically, we note that semantically partitive phrases in Kinande are preceded by the class 17 locative marker **ɔkɔ**:

(31) **ɔkɔ bitábu**

17LOC 8book

'some of the books'

This same locative morpheme obligatorily precedes the direct object of a transitive caused event in sociative causatives. We note that what is partitive in sociative causation is actually the event. However, the partitivity is morphologically indicated on the object of the verb that expresses the caused event. In this section we also consider what happens in periphrastic helping constructions, when there is a morphologically independent verb of *helping*. Finally, we point out the affinity between the partitive morphology in Kinande and languages such as Finnish where the relation between partitive and aspectual properties of the verb has been more extensively studied and is better understood.

We also briefly draw the reader's attention to an aspect of the syntax of Kinande that is evident in the glosses of the examples we are considering. Namely, a particle we have glossed as LK, or LINKER, appears within the verbal domain in Kinande. The linker occurs whenever two phrases are present within the verbal domain and it is positioned between those two phrases. The two phrases can either be both arguments, or both adjuncts, or a combination of arguments and adjuncts; the linker occurs in all of these cases and expresses agreement with the phrase that precedes it. Its syntax is not yet well understood; it has been proposed to be a licenser of the phrase immediately following it (Baker and Collins 2006), or to be a copular element that facilitates predication within the verbal domain (Schneider-Zioga 2015a, Schneider-Zioga 2015b, and Schneider-Zioga and Mutaka 2015). We abstract away from the linker for the remainder of this paper as its syntax does not seem central to an understanding of sociative causation.

### 4.2 The help-cause head selects a root

An exploration of the syntax of sociative causation tells us something about the structure close to the verb(al root) and its related functional projections such as v. Typological work on causatives, due to Pylkkänen (2002/8), suggests that there are two main dimensions along which causatives vary. One dimension, which rests on the widely accepted hypothesis that there is a CAUS(E) head, has to do with how big of a syntactic constituent the causative

head selects. As pointed out in the relevant literature, this dimension adds new depth to the traditional view that causatives are not structurally uniform. Where traditionally it is held that some types of causatives have a bi-clausal syntax, whereas other causatives are lexical, and thus involve no more than a single clause, Pylkkänen (2008) proposed that those differences fall out from the size of constituent that the CAUSE head selects (√Root, vP, etc.). The other dimension that Pylkkänen proposed has to do with the idea that the head that introduces the causative event is not the same head that introduces the external argument (the causer). This second dimension then is the idea that in some languages, some of the articulated verbal projections, such as voice and v, can be "bundled" together as a single syntactic constituent, as a language specific option. In other languages, there is no such bundling. We assume that articulated verbal projections have a reflex in the morphosyntax in a way that reflects syntactic structure, at least to some extent. Since Kinande is a highly agglutinative language, it offers the possibility of probing the syntax of the articulated verbal periphery, also with respect to Pylkkänen's second parameter. With this in mind, we turn to a formal account of the syntax and morpho-syntax of sociative causatives.

We consider first the dimension of variation that Pylkkänen (2008) posits regarding how big of a constituent the causative head selects. Pylkkänen proposes that in principle it is possible for a causative head to select a root, a

verb or a phase. Among the diagnostics that might show us the parametric choice a particular language makes is the scope of modification by an adverb.

In the traditional bi-clausal/lexical view of causatives there was really only one issue to probe: could an agent-oriented adverb modify the actions of either the causer or the causee? If so, the causative would be bi-clausal; if not, the causative was lexical. Pylkkänen demonstrates that the possibilities are more nuanced. She argues that if the causative head selects a phase, it should be possible for an agent-oriented adverb to modify the action of an agentive causee of the selected phase, as well as being able to modify the action of the causer. That is, the causative will behave as if it is bi-clausal. Pylkkänen (2008) notes that if, however, the causative head selects a constituent smaller than a phase, such as a verb (vP) or root, then the causative will not behave like it is bi-clausal, with the actions of two agents available for modification, but rather like it is mono-clausal in various ways. More specifically, if the cause head selects a verb, that is, a root with category identifying morphology such as v, then adverbs that refer to actions of an agent would be unambiguous, as there is only one voice phrase. Moreover, Pylkkänen (2008) points out that non-agent-oriented adverbs could still refer to non-agents or resultant state of the causatives, as they can modify vP. Finally, if the cause head selects a root, agentive adverbs would not allow ambiguous, bi-clausal interpretations where they could modify either the actions of the causer or that of the causee, only the

actions of the causer could be modified. Furthermore, there would be no ambiguity of non-agent-oriented adverbs as there is only one vP. Instead, ambiguity of modification would be relevant only at the root level in that case. Furthermore, it should prove impossible for non-root morphology to intervene between the root and the causative head if the head selects the root, following Pylkkänen's proposal.

When adverbial modification is considered in Kinande, we will see that sociative causatives behave like root-level causatives. To investigate the scope of adverbs, we applied the same truth value judgment task that Pylkkänen (2008) used in her discussion of Venda causatives to sociative causatives in Kinande. We considered the following sentence:

(32) **Magulú á-gʉ́l-ị́k-á-y-a Kámbalɛ́ y' ɔkɔ́ mútɔká n' ɔbútsɛmɛ̂**

Magulu 3s-buy-SOC-aC-CAUS-FV 1Kambale 1LV' 17LOC 3car with'14joy

'Magulu helped Kambale buy the car with enthusiasm.'

The agent-oriented modifier **n' ɔbútsɛmɛ̂** 'with enthusiasm'[7] modifies the helping but not the buying. Specifically, the sentence can be said in the context where a) Magulu is very excited to pay for part of the car because he knows it will help his son, Kambale. It does not fit the following context b) where Magulu is reluctant to pay for part of the car but goes ahead and does it, and Kambale, in

[7]The same results ensue if the locative class **ɔmɔ́bútsɛmɛ̂** 'in enthusiam' is used.

the meantime, is very excited to buy the car. The fact that modification of the action of the causee is not possible in this case clearly suggests that help-cause does not select a phase as a complement. This conclusion is further supported by the fact that help-cause cannot embed a high applicative, in light of the proposal (McGinnis 2001) that high applicatives constitute phases. That is, we do not find applicative morphology intervening between help-cause and the root:

(33) * …√-ir-ik…….-ị-…

√-APP-SOC-…-TRANS

If Baker's (1985) Mirror Principle (MP) is correct, the order of morphemes in a word should reflect syntactic and morphological constituency, which is reflected in semantic interpretation. Furthermore, according to the MP, the order of morphemes outside of the root should reflect the order of syntactic operations. Therefore, if a morpheme can intervene immediately between help-cause and the root, it forms a constituent with the root and the entire structure is a sister of help-cause. Therefore, the lack of phasal level morphology intervening between help-cause and the root is consistent with the claim that help-cause does not select a phase.

However, it should be noted, as documented and cogently argued by Hyman (2003), Bantu languages are not well-behaved with respect to the Mirror Principle. Good (2005) and Hyman (2003) have argued that Bantu languages

adhere to a template that interacts with the MP rather than Bantu languages strictly following the MP. Safir and Bassene (2017) argue that sub-word head movement is responsible for some of the ordering within the verbal complex in at least one Niger-Congo language. Clearly, order of affixation arguments must be interpreted with caution in Bantu languages. Nonetheless, what we observe for order of extension morphemes in the verbal complex when the sociative causative is considered is consistent with the conclusion that the sociative causative does not select a phase.

We will see that the sociative causative head in Kinande selects the smallest possible constituent: a root. We can demonstrate this by considering additional adverbial scope facts. Pylkkänen (2008) argues that if a causative head selects vP (a root + a verbal category identifying head—which is a constituent smaller than a phase, but larger than a root), then adverbial modification of the caused event should be possible as long as a non-agent-oriented adverb is involved. If there is no additional vP, that is, if a root is selected instead of a verb (i.e., instead of vP), then non-agent modification will be unambiguous. It will necessarily be of the causative alone if this is the only vP constituent in the clause. In sociative causatives in Kinande, the only reading possible with non-agentive adverbs is modification of the structurally higher *help-cause*, rather than of the caused event, which suggests there is only a single vP in the construction, at the level of helping:

(34) a.**Kámbalɛ a-a-hek-ek-a-y-a Magulú y' ɔkɔ mbagɔ́ lụbálụ́ba**

Kambale 3s-PST-carry-SOC-aC-TRANS-FV Magulu 1LK'17LOC 10plank quickly

'Kambale quickly helped Magulu carry the planks.'

b. **Kámbalɛ mw-á-hék-ek-ɻ́r-y-ɛ́ lụbálụba Magulú y' ɔkɔ**

Kambale AFF-3S-PST-carry- SOC- TM-TRANS-FV quickly Magulu 1LK 17LOC

**mbágɔ**

10plank

'Kambale quickly helped Magulu carry the plank.'

(34) illustrates different possible word orders for the adverb. Of the possible orders, the immediate post verbal position (34b) is more natural sounding in spontaneous speech, but both orders are grammatical and the reading is the same—the helping is modified.

We note also that no verb-defining morphology can intervene between the root and help-cause. We observe that only the derivational extensions **–ul-** (reversive) and the purposive **–irir-** can intervene between the root and causative morpheme:

(35) a. **Kámbalɛ a-a-kịng-ụl-ịk-á-y-a Magulú y' ɔkɔ bitû**

1Kambale 3S-PST-close-REV-SOC-aC-TRANS-FV 1Magulu 1LK' 17LOC 8box

'Kambale helped Magulu open the packages/boxes.'

b. **mó-n-ká-hụk-ịrịr-ịk-a-y-a Nadɻ́nɛ́ y' ɔkɔ́ bíkɛnɛ**

AFF-SM-IMPF-cook-INT-SOC-aC-TRANS-FV 1Nadine 1LK'17LOC 8yam

'I intentionally (with insistence) helped Nadine cook yams.'

These particular extensions do not interact with argument structure and at least **–ul-** can be found also within nominals, which demonstrates that it belongs to the class of sub-lexical category morphology:

(36) **ɛ-mí-sɛ́ng-ul-ir-ɛ**

4-close-REV-STAT-DERIVED_N

'opening'

Therefore, even though affixation can occur between the root and the sociative-causative morpheme, the affixation is not category defining, which is consistent with our proposal that sociative causation involves root level selection.

There is abundant evidence that help-cause in sociative causation in Kinande selects a root, rather than a larger unit such as a verb or a phase. Here, we have clarified the nature of one dimension of sociative causation in Kinande following Pylkkänen's proposal for the typology of causatives.

### 4.3 Help-cause and voice are independent heads

We turn now to the other dimension of the typology of causatives, namely whether or not cause and voice are bundled together in sociative causation in Kinande. Because Kinande is a highly agglutinating language, the morphology associated with sociative causation gives us insight into the articulation of the region above the verb and below T. We consider first the obvious fact, noted by Hyman (e.g., 2003) and others, that causatives are discontinuous in Kinande:

often unmistakably consisting of two distinct morphemes which can be separated from each other by intervening material. Clearly, at least some types of causatives in Kinande do not consist solely of a single head. If we review the three causative constructions identified in this paper, we see that they all have in common the morpheme **-ị-,** and so we might ask if this is the locus of causativity. However, the morpheme **-ị-** does not appear to consistently have the same meaning. We observe that it might then appear that there are two morphemes **-ị- :** one that means "direct causation" (37) and one that means "indirect causation (38)." When we consider now direct (37a) and sociative causatives (37b), we note that they have a direct causative meaning in common:

(37) a. **erị-hek-ị-a**

5-carry-TRANS-FV

'to make carry' (direct causation)

b. **erị-hek-ek-ị-a**

5-carry-SOC-TRANS-FV

'to help carry' (direct causation=hands on causing)

In contrast, when we consider the indirect causative, **-is--ị-** there is no direct causation reading available despite the presence of **-ị-**:

(38) **erị-hek-es-ị-a**

5-carry-CAUS-aC-TRANS-FV

'to let have carry' (indirect causation)

Therefore, either there are two closely related morphemes **-ị-**, one signaling direct causation and the other indirect, or there is a single morpheme **-ị-**, and it is not the locus of the meaning of 'direct (or indirect) causation.'

In the name of economy, it seems most plausible to hypothesize that there is a discontinuous causative construction which includes a morpheme **-ị-**. By hypothesis, the function of **-ị-** is identical across all the constructions: it introduces an agent. We follow Good (2005) then where **-ị-** is analyzed as a "transitivizer" that Good labels TRANS(ITIVE) as opposed to a causative morpheme per se.[8] In that case, the meaning difference between direct versus indirect versus sociative causation would be due to the morpheme closest to the verbal root, such as **-is-** or **-ik-** rather than to **-ị-**. If this is the correct approach, it means that when there is apparently only a single causative morpheme, as in the example of direct causation (37), the most typical case of direct causation, there must actually be a second morpheme, closer to the root in keeping with the pattern of audible causative morphemes, that is responsible for the direct

[8] However, although for Good (2005) the term "transitive" is used, this does not have any special syntactic status in his system as far as we can determine. That is, it is not associated with, e.g., a transitive head such as the head of vP, although Good does group it with the passive suffix as a type of voice in a functional sense. For us, the transitive morpheme is associated with a distinct type of functional head, TRANS, as will be discussed in more detail in what follows.

causation meaning. The causative morpheme in this case would be silent. Table 3 gives an overview of the hypothesized morphemes for the various types of causatives found in Kinande.

**Table 3. Form of causative morphemes found in Kinande**

| | specific causative morpheme: | +transitive: |
|---|---|---|
| **direct causation** | ∅ | ***-ị-*** |
| **indirect causation** | -is- | ***-ị-*** |
| **sociative causation** | -ik- | ***-ị-*** |

We conclude that the data is consistent with the view that the morpheme closest to the root is the causative head and the second morpheme, **-ị-**, is not a causative morpheme, but instead is something else, as Good (2005) and Hyman (2003) suggested. We propose that this "something else" is actually a head that introduces an external argument, in this instance, of CAUSE.[9]

[9]We note with Good (2005), Hyman (2003), and Mutaka and Safir (2007) that the distribution of **-ị-** is complicated and further research is required. In Kinande, often, but not always, the intransitive/causative alternation involving verbs such as 'to melt' is regulated by the occurrence of **-ị-/y** for the transitive expression of the verb: **eriyayúka** 'to melt (intransitive)' versus **erịyayụkyâ** 'to melt (transitive).' Most non-alternating verbs such as **erítúma** 'to send'

An additional argument for the separation of cause from voice/external argument introducing head is found in Pylkkänen (2008) and can be replicated in Kinande. Specifically, we saw from adverb modification facts that help-cause in Kinande selects a root rather than a larger constituent such as vP or a voice phrase. Nonetheless, as documented throughout this paper, transitive and unergative verbs, that is, verbs with external arguments, can be embedded under help-cause. As noted by Pylkkänen, if a causative morpheme selects a root as its argument, the external argument of that root, the causee, must be accommodated in the structure as well. By hypothesis there is no voice phrase below the cause head to accommodate the external causee in this case. Pylkkänen (2008), drawing our attention to Alsina (1992), proposes that when a root is selected, the external argument of the caused event, the causee, is actually the second argument of the causative morpheme, as this seems to be the only way of providing a position for the external argument of the root to be expressed. If the causee (X) occupies the specifier of (help-)cause position, then clearly the causer (Y) cannot also occupy that position. A specifier position for the external causer argument is naturally provided by the high agentive

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do not use **-ị-** to introduce their external argument. A reviewer reminds us that the verb meaning 'send' has a special status in many Bantu languages as a causative verb. It has this function in Kinande, as well. Investigation of its syntax is outside the scope of this current work.

morpheme -*į*-, which we analyze then as being an instance of v (voice). We adapt from Pylkkänen (2008:p 120, her sentence (94))—the modified tree given in Figure 2, which illustrates this point.

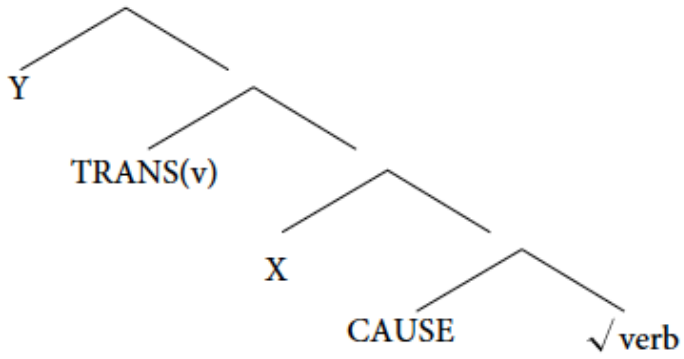


**Figure 2. Structure illustrating tree geometric separation of cause and voice**

As for the precise nature of the help-cause head, we observe that it is closely related to the family of applied morphemes. We note that it is in complementary distribution with the applied morpheme in Kinande. We have already observed that an applied morpheme cannot intervene between the help-cause extension and the root (see the discussion related to (33)). However, in sociative causative constructions, an applied morpheme can also not occur as an extension further away from the root (√) than the help-cause morpheme:

(39) * …√-ik-ir-……..-į- …

√ - SOC-APP-…-TRANS

That is, we found no example where the applicative and help-cause could co-occur in any order, even when the applicative would introduce a locative argument. We conjecture that the impossibility of the applied and help-cause co-occurring is due to the fact that they both belong to a family of benefactive applied heads. Provided that there can only be a single applied head per verb, as seems to be true generally across Bantu and is clearly true for Kinande, analyzing help-cause as a type of applied morpheme would account for the complementarity between applied and help-cause.[10] Moreover, this proposal is interesting from the semantic point of view. The "benefactive" meaning that both the applied and sociative causative heads share suggests further close bonds between the two morphemes. But perhaps more intriguing is the fact that the canonical applied morpheme **–ir-**, which in Kinande introduces benefactives and locatives, has an additional semantic property that is closely related to the help-cause morpheme. Namely, **–ir-** can have a surrogation reading, where 'to

[10] We refine our statement by noting that the applied morpheme **-ir-** can also introduce locative phrases in Kinande. Nonetheless, a second applied morpheme still cannot co-occur with **–ik-** or the applied **–ir-** in the verbal complex, even if it is associated with a locative rather than benefactive expression. Marcel den Dikken (p.c.) suggests that the morphological connection between the sociative causative and the impositive might point to a connection between help-cause and the locative applied rather than the benefactive applied.

dance for Kambale:' **ɛrisatira Kámbalɛ** can mean 'to dance in Kambale's place.' This is similar to help-cause's co-agentivity meaning in that **–ir-** can introduce an alternative agent for the action described by the root. We see then the existence of a continuum between applicatives and causatives when sociative causation is considered.

Harley (2013: 47) presents additional arguments that the same head that introduces a caused event cannot also introduce the external causer argument. Instead, she claims there must be two distinct heads to accomplish this. Her arguments build on the fact that, in some languages, heads such as the applied morpheme introduce arguments whose syntax indicates that they are c-commanded by the external argument causer. However, the cause head is lower in the tree than the argument that must be c-commanded by the external argument. If the cause head introduced the external argument causer, the external argument causer would be too low to c-command the argument in question. For example, Harley (2013) points out for Hiaki that the benefactive argument and the external causer behave as if the hierarchical relations were: √-APPL-CAUS, but, problematically if morphological structure mirrors syntactic operations, the actual morphological order of the applied and causative heads is: √-CAUS-APPL. Therefore, the causative morpheme is itself c-commanded by the applied head in this scenario. Harley (2013: 54) argues that this paradox can be solved if we divorce voice from CAUS and instead hypothesize a voice head that is

higher than heads such as the applied one in the example we have been considering and certainly higher than the causative head itself. Our identification of **-ị-** as a transitivizing voice head high in the tree fits well with Harley's proposal if we are correct in understanding the lower part of the discontinuous causative as the actual causative morpheme and the higher part as a head the introduces the EA.

We explore that issue more extensively by considering the interaction between reciprocal extensions and causative extensions. Here is an example where a reciprocal and sociative causative extension co-occur. We see that the order is √-SOC-REC:

(40) **Abálumɛ́ mó-ba-ká-lak-ịk-an-a-y-a ɔkɔ́ bána**

2men AFF-2-IMPF-beat-SOC-REC-aC-TRANS-FV 17LOC 2child

'The men helped each other beat the children.'

The **–ik-** sociative causative extension is closest to the root and the reciprocal extension is higher than the sociative causative morpheme. However, the EA introducing head **-ị-** is higher still. Following Bruening (2006), the reciprocal can be treated as a type of voice head. There is then, according to Bruening, a "reciprocal voice." In the simplest case, the reciprocal head would select a VP of some type, as illustrated in Figure 3.

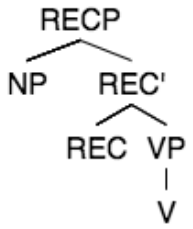


**Figure 3. Proposed representation of reciprocal voice in Kinande**

Consider next the more complex situation of reciprocal voice in sociative causation constructions. If the ordering of extensions follows from the mirror principle, then reciprocal-voice selects the phrase headed by **–ik-**, where REC supplies an argument (in its specifier position) that will saturate the unsaturated external argument in the selected **–ik-** phrase (=CAUS). We illustrate this structure in Figure 4.

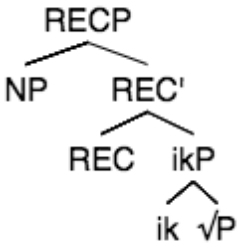


**Figure 4. Reciprocal voice and the sociative causative head**

Following the line of reasoning in Harley (2013), we note that the interpretation of the reciprocal, REC, requires that it be c-commanded by the external argument of the causativized verb (the causer) yet we observe that the reciprocal extension c-commands the morpheme we have identified as specifically

contributing the causative meaning to the sociative causative. Therefore, as noted by Harley (2013) for similar data in Hiaki, it must be that the causer external argument cannot be located in the specifier of the sociative causative morpheme, as then the c-command relations would be wrong. Indeed, the c-command relations require that the external argument be introduced higher in the tree than the reciprocal extension head and its specifier.

Furthermore, it cannot be that the external argument did, after all, originate in the specifier of the causative phrase and move higher so that it ultimately does c-command the reciprocal argument despite (supposedly) starting out lower than the reciprocal. Such movement would be ruled out by minimality, as the reciprocal argument would intercept an external argument causer that started out lower than the applied argument and tried to move past it into a higher argument position:

(41) *$EA_j$ ……. $RECIPROCAL_k$ ……. $EA_j$

Harley hypothesizes that there must then be a head that introduces the external argument that is higher than the applied. This head is not the causative head itself, as that head is clearly lower than the applied head she discusses. In Kinande, we already noted that an external argument introducing voice head distinct from (help-)cause is morphologically plausible in the form of the high TRANS morpheme **-ị-**. This observation is further supported by the facts

discussed here concerning the expected c-command relations between the causer and the reciprocal: the causer must c-command the reciprocal. Therefore, if the causer is introduced by a high voice head, corresponding to **-ị-**, we have exactly the c-command relations that the data indicate must exist.

In sum, we have observed that two discrete morphemes co-occur when there are causatives in Kinande: the help-cause head and the head that introduces the EA. Moreover, we have pointed out that help-cause clearly selects roots in Kinande, but the type of roots selected have external (agentive) arguments—They are unergative and transitive roots. Therefore, we see there are two external arguments sociative causatives: one of the root (related to the caused event) and one of the help-cause head. The external argument of the causativized verb, the causer, and the external argument of the root selected by help-cause, the causee, clearly cannot both occupy the specifier of the low help-cause head. We suggested instead, based on the considerations discussed above, that the external argument of the root, the causee, occupies the specifier of the help-cause head (recall Figure 2). We supported this idea by noting the semantic and syntactic similarity between help-cause and the applied morpheme and we proposed a parallel whereby both standard applied morphemes and help-cause, which we argue is a type of applied morpheme, select an argument that is external to the root. We further argued that **-ị-** heads

a vP that introduces the agent. In this, we concur with Good's (2005) proposal that **-ị-** marks transitivity.

### 4.4 Passive is distinct from voice in Kinande

We have presented both morphological and syntactic evidence in support of the claim that the head (TRANS) that introduces the external argument (the causer) and the head that introduces *cause* in Kinande occupy distinct heads. In this section, we independently observe that there is morphological evidence that there is a passive head in Kinande that is distinct from the voice head occupied by the transitivizing **-ị-**. In this, we stand with a number of recent works that have investigated agglutinating languages and have argued for the necessity of positing a passive head that is independent of the head that introduces the external argument. See Sundaresan and McFadden's (2016) work on the articulation of vP for relevant discussion.

Here we see a number of examples that demonstrate that the passive (**-u-**) and the agentive/transitive causative marker (**-ị-**) co-occur as distinct morphemes:

(42) a. **Nadíɲɛ a-a-hek-ek-ị-bá-w-a ɔkɔ mbágɔ**

Nadine 3S-PST-carry-SOC-TRANS-aC-PASS- FV 17LOC 10mbago (TRANS+PASS)

'Nadine was helped (by someone) to carry the planks.'

b. /ɛri-hɛk-a/ **ɛrihɛ́ka** /ɛri-hɛk-u-a/ **ɛrihɛkwâ**

5-carry-FV 5-carry-PASS- FV (PASS)

| ‘to carry’ | | ‘to be carried’ | |
|---|---|---|---|
| /ɛri-hɛk-ị-a/ | **erịhekyâ** | /ɛri-hɛk-ị-bu-a/ | **erịhekịbwâ** |
| 5-carry-TRANS-FV (TRANS) | | 5-carry-TRANS-PASS-FV (TRANS+PASS) | |
| ‘to make (s.o) carry’ | | ‘to be made to carry’ | |

(43) **erị-hụm-ịs-ị-bw-â** (from Jones 2009, his footnote 13, with glosses edited)

5-hit-CAUS-TRANS-PASS-FV (CAUS+TRANS+PASS)

‘to be made to hit’

| | | | |
|---|---|---|---|
| (44) /ɛri-gul-a/ | **ɛrigúla** | /ɛri-gul-u-a/ | **ɛrigulwâ** |
| 5-buy- FV | | 5-buy-PASS-FV (PASS) | |
| ‘to buy’ | | ‘to be bought’ | |
| /ɛri-gul-ị-a/ | **erịgụlyâ** | /ɛri-gul-ị-bu-a/ | **erịgụlịbwâ** |
| 5-buy-TRANS-FV (TRANS) | | 5-buy-TRANS-PASS-FV (TRANS+PASS) | |
| ‘to sell (i.e. to cause to buy)’ | | ‘to be sold’ | |
| (45) /ɛri-sɛk-a/ | **ɛrisɛ́ka** | /ɛri-sɛk-u-a/ | **ɛrisɛkwâ** |
| 5-laugh-FV | | 5-laugh-PASS-FV (PASS) | |
| ‘to laugh’ | | ‘to be laughed at’ | |
| /ɛri-sɛk-ị-a/ | **erịsekyâ** | /ɛri-sɛk-ị-bu-a/ | **erịsekịbwâ** |
| 5-laugh-TRANS-FV (TRANS) | | 5-laugh-TRANS-PASS-FV (TRANS+PASS) | |
| ‘to cause to laugh’ | | ‘to be made to laugh’ | |

Kinande clearly shows morphologically that the causative head, the EA-introducing-head v (which we have more specifically called TRANS), and the

passive voice head are distinct.

## 4.5 Sociative causatives and partitive objects

Consider the acted upon object of the caused event, that is, the internal argument of the transitive verb, which in our examples here occurs as the final noun phrase in each sentence immediately below. Sociative causatives behave in a way that is distinct from other causative constructions in Kinande with respect to how this internal argument is marked morphologically. In sociative causatives, the acted upon object in the caused event is preceded by the class 17 locative class marker (46a).[11] In contrast, with direct (46b) and indirect (46c) causatives, the acted upon object of the caused event is not preceded by a locative class marker of any kind:

(46) a. **Magulú a-ká-hek-ek-a-y-a Mábɔkɔ́ y' ɔkɔ mbágɔ**

Magulu 3S-IMPF-carry-SOC-aC-TRANS-FV 1Maboko 1LK' 17LOC 10plank

'Magulu helps Maboko carry (some of ) the planks.' (sociative)

b. **Magulú a-ká-hek-a-y-a Mábɔkɔ́ y' ɛsyɔmbágɔ**

Magulu 3S-IMPF-carry-aC-TRANS-FV 1Maboko 1LK' 10plank

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[11] In Kinande, a locative class marker precedes the noun, which is itself prefixed with its expected class marker:

i) [loc- class + [noun-class + noun]]

'Magulu makes Maboko carry (the) planks.' (direct causation)

c. **Magulú a-ká-hek-es- aC-ɟ-a Mábɔkɔ́ y' ɛsyɔmbágɔ**

Magulu 3s-IMPF-carry-CAUS-AC -TRANS-FV 1Maboko 1LK' 10plank

'Magulu causes Maboko to carry (the) planks.' (indirect causation)

A noun that occurs with a class 17 marker in the sociative causative is not interpreted as a locative. Instead it is interpreted as partitive and is marked exactly as a partitive nominal phrase would be in a sentence such as the following:

(47) **mɔ́-n-gá-lya ɔkɔ kalɔ́lɛ**

AFF-1S-ate-FV 17LOC 12banana

'I ate some of the banana.'

This can be contrasted with its non-partitive counterpart

(48) **mɔ́-n-ga-ly' akalɔ́lɛ**

AFF-1S-eat 12banana

'I ate the banana.'

We see then that in Kinande there is both an aspectually related context for partitive case, the division of the shared event into parts, and a semantic one.

Returning to the sociative causative, we note that a translation of the partitive-marked nominal as a partitive does not completely capture the partitivity of the event accurately. Sentence (46a) does not mean, for example, that Maboko carried some of the planks and Magulu helped him thereby.

Instead, it means that an amount of planks was carried and of that amount, Magulu carried some of the planks and Maboko carried some of the planks. We see then that the morphology which marks partitivity appears misplaced because in fact the entire event is partitive.

This type of partitivity marking is strongly reminiscent of partitive case in Finnish, where Kiparsky (1998) and others note a type of case assignment to a direct object that is sensitive to aspectual properties of the verb.[12] In particular there are so-called "partitive verbs" in Finnish whose meanings are aspectually "partial" in some sense. The object of a partitive verb in Finnish necessarily receives partitive case marking, in dependence on the aspectual properties of the verb. The same partitive case morphology also has a purely nominal function where it expresses a part of a whole ('some of …'), independently of any aspectual property of a verb.

As with Finnish partitive verbs, partitive marking in Kinande is obligatory with nominals that are objects of certain verbs that express a partial participation in an event. If the class 17 locative class marker were missing in the sociative causative and only the noun class prefix were to occur, the sentence would be ungrammatical:

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[12] Also of interest here is Krifka's 1992 semantic analysis of the relation between verbal aspect and partitive case where he proposes that these are predicate modifiers that mean 'part of.'

(49) *__Magulú a-ká-hek-ek-a-y-a Mábɔkɔ́ y' ɛsyɔmbágɔ__

Magulu 3S-IMPF-carry-SOC-aC-TRANS-FV 1Maboko 1LK' 10plank

That is, the object in sociative causatives cannot simply be plural. As established earlier, the sentence does not really mean 'Magulu helped Maboko carry planks,' which involves a plural as object of the caused event. Instead, the sentence means that Magulu carried planks to help Maboko carry planks. Such an activity does not seem helpful, unless Magulu is carrying planks that are relevant and helpful to Maboko's task of carrying planks. The planks are relevant and carrying them is helpful if they are part of the set of planks that Maboko is faced with carrying. In principle, a simple plural should be possible in such a situation with the relevance being established pragmatically. However, it is not grammatical. Instead, such a partitive meaning must be grammatically encoded in Kinande on internal arguments of the verb through **ɔkɔ**-marking. This is parallel to the requirement that partitive verbs in Finnish impose on their internal arguments.

In order to further explore partitive marking, we consider an event of carrying a single, shared plank expressed via sociative causation. A single plank cannot be subdivided from the perspective of sociative causation—one cannot carry just some of the plank in order to help someone else carry part of the plank. We have already established that sociative causative does not involve comitativity, where Magulu helping Kambale carry a single plank could easily be

done as a joint action. For sociative causation, the helper must participate in a subevent of the event. Therefore, it is quite marginal to express the shared carrying of a single plank using a sociative causative with the concomitant partitive construction (50a). Instead, this idea is best expressed periphrastically, using the morphologically and syntactically independent verb **erịwatịkyâ** 'to help' (50b):

(50) a.??**Magulú á-hek-ek-á-y-a Kámbalɛ́ y' ɔkɔ lupágɔ**

Magulu 3S-carry- SOC-aC- TRANS-FV 1Kambale 1LK 17LOC 11plank

Approximately: #'Magulu helped Kambale carry some of the plank.'

b. **Magulú a-wat-ịk-á-y-a Kámbaly' ɔkw' ihɛk' ɔlupágɔ**

1Magulu 3S-help-SOC-aC-TRANS-FV 1Kambale 17LOC 5-carry' 11plank

'Magulu helped Kambale in the plank carrying.'

In the periphrastic helping example, the caused event is nominalized: **ihɛk' ɔlupágɔ** and 'plank carrying' is a reasonable translation. The predicate related to the caused event is expressed in a non-finite nominal form, which in Kinande involves the prefixing of a noun class five marker to the verb base. The argument of the predicate that expresses the caused action is prefixed with its predictable class marker rather than the class 17 marker. The partitive class 17 morphology does make an appearance however and precedes the phrase **ihɛk' ɔlupágɔ** 'plank carrying.' Note that although we are exploring a periphrastic expression of helping, the verb **erịwatịkyâ** 'to help' itself involves a sociative

extension: **erịwat-ịk-y-â**, and literally means 'to help hold,' therefore, it provides a source for the partitive marking of the nominalized caused event. We found no prosodically independent word in Kinande that lacks a sociative extension that means 'to help.' A translation that plausibly captures the Kinande structure when periphrastic 'help' is involved is as we noted 'to help X in Y.' Den Dikken (p.c.) points out that here we can see the hypothesized relation of sociative causatives to the impositive **–ik-** (to place X in position Y), which we have suggested is the likely origin of the sociative causative.

In sum, we see that the caused event in sociative causatives of transitive verbs involves partitivity which is morphologically marked on the internal argument of the verb that expresses the caused event.

## 5. Conclusion

In this paper, we have examined the syntax and semantics of 'helping' in Kinande and through this lens explored the articulated verbal domain. We established that Kinande has morphologically identified sociative causation, which expresses a meaning of 'partitive helping.' Sociative causation has been reported as a phenomenon in other Bantu languages; however, in those languages, it is simply an extension of the usual causative morpheme(s)'s meaning. Kinande presents a rarity, not just among Bantu languages, but cross-linguistically, in having a morpheme which is distinct from the usual causative

morpheme to mark sociative causation. The visible morphological marking of sociative causation in Kinande has allowed us to investigate this construction in finer detail than we have found in other works on sociative causation in Bantu languages or generally.

With respect to the meaning of sociative causation, Schadeberg (2003) noted that it has a meaning of 'helping (adjutive)' in some Bantu languages. However, we had found no systematic discussions of what *adjutive* specifically means, nor did we locate a systematic discussion of sociative causation in the literature that reports the phenomenon. In order to address this issue, we have provided extensive examples here with contexts indicated in addition to presenting a systematic discussion of the sociative causative in Kinande. In this way, we have provided support for our proposal that the sociative in Kinande means roughly: *X did a subset of P to help Y do P*.

Concerning the syntax of sociative causation, we investigated how the causative head interacts with roots and also with functional projections in the verbal domain. We established that, following the typologies and diagnostics of Pylkkänen (2008), the HELP-CAUSE head selects a root rather than a larger constituent such as a vP or phase. Moreover, the functional category TRANS(v) that selects the external argument is demonstrably higher in the tree than the CAUSE head itself. That is, CAUSE and the voice head that introduces the external argument are distinct projections in Kinande. Our discussion of verbal

extensions and projections of the articulated vP caused us to note the parallels between HELP-CAUSE and applied heads—and not just in terms of the obvious semantic similarities shared by benefactives and the external argument of the caused event—the help-ee. Finally, we established that the sociative causative involves a partitive reading of the caused event which is syntactically manifested either through partitive marking of the object of the caused event or through partitive marking of the caused event itself. We offer this work as a contribution to the study of the syntax and semantics of helping in Bantu languages.

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**Abbreviations**

| | |
|---|---|
| * | utterance judged ungrammatical by native speaker |
| ? | marginal utterance, with more question marks indicating increasing marginality |
| # | pragmatically strange utterance |
| 1S,2S,3S | singular person |
| 1…19 | noun class |
| aC | discontinuous tense morpheme with phantom consonant (C) |
| AFF | affirmative |
| APP | applied |
| CAUS | causative |
| EA | external argument |
| FV | final vowel |
| IMPF | imperfective |

| | |
|---|---|
| IMPOS | impositive |
| INT | intentionally |
| LK | linker |
| LOC | locative |
| NT | neuter |
| PASS | passive |
| PST | past tense |
| REC | reciprocal |
| REFL | reflexive |
| REV | reversive |
| SM | subject marker |
| SOC | sociative causative |
| TM | tense marker |
| TRANS | transitive (short causative) |

**Appendix A.**
**The extended verb in Kinande: Extensions, in order (does not accurately capture co-occurrence restrictions between some morphemes)** based on Mutaka and Safir (2007), Kinande: A grammar sketch

| ROOT | REV | SOC | CAUS | APP | PASS<br>REC<br>NT | TRANS | FV |
|---|---|---|---|---|---|---|---|
| √ | -ul- | -ik | -is | -ir | -u- (PASS)<br>-an- (REC)<br>-ik- (NT) | -ị- | a, e |

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