Low (in)transitivity: Evidence from Kipsigis *

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1. Introduction

Recent syntactic approaches to the causative alternation (e.g., *The cup broke* vs. *Mary broke the cup* in English), treat it as a Voice alternation (e.g., Marantz 2013, Alexiadou et al. 2015, Wood 2015, Wood and Marantz 2017, Kastner 2020, Nie 2020, Tyler 2020). These theories adopt an architecture in which little *v* and Voice are two separate heads; little *v* verbalizes the root and introduces event semantics, while Voice introduces the external argument (e.g., Pylkkänen 2008, Harley 2013, Legate 2014). What they argue, then, is that the causative and anticausative variant have the same *v*P (event) layer, but differ in the type of Voice head (e.g., transitive or intransitive) that they merge with.

In this paper, I present a detailed investigation of the causative alternation in Kipsigis (Nilotic; Kenya), based on data from original fieldwork. I show that the causative alternation in the language cannot be just a Voice alternation: (in)transitivity in the language is calculated at the little *v* level for most verbs. I therefore conclude that while Voice theories of the alternation have many advantages (and are most likely correct) for some languages (e.g., Greek), they are not able to account for all cross-linguistic variation in the phenomenon, at least not without further modifications.

The remainder of the paper is structured as follows: in Section 2, I give a brief overview of previous theories of the causative alternation; in Section 3, I provide a description of the alternation in Kipsigis; in Section 4, I outline the challenges that the Kipsigis data pose to Voice theories of the alternation; in Section 5, I conclude by briefly discussing the implications of the Kipsigis data for theories of the causative alternation.

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Abbreviations follow the Leipzig glossing rules, with the addition of CL2 = class II, N = nominalizer, NACT = non-active, MID = middle, RED = reduplication, V = verbalizer. Tone is transcribed whenever possible, but some transcriptions are incomplete due to sound difficulties over certain Skype elicitations.

2. Background on the causative alternation (with a focus on morphology)

I cannot do justice here to the vast literature on the causative alternation (see Schäfer 2009), but a major question in research in this area is of course the relationship between the causative and anticausative construction. There are three broad types of analysis: i) *the causativization approach*: the causative variant is derived from the anticausative (e.g., Dowty 1979, Pesetsky 1995), ii) *the anticausativization approach*: the anticausative variant is derived from the causative (e.g., Chierchia 1989/2004, Levin and Rappaport-Hovav 1995, Koontz-Garboden 2009), and iii) *the common base approach*: both variants are derived from a common base (e.g., Marantz 2013, Alexiadou et al. 2015, Wood and Marantz 2017).

Analyses of the causative alternation within Distributed Morphology (DM; Halle and Marantz 1993), the framework that I will be adopting here, generally belong to the third type: the assumption is that both the causative and the anticausative variant are derived from a common base, which minimally includes the root. Furthermore, most recent DM analyses assume an architecture in which there are (at least) two heads above the root, little *v* and Voice, as was already mentioned in the introduction.[1] There is a debate within DM, however, about the inventory of little *v* and Voice heads and the role they play in determining cross-linguistic variation in the morphosyntax (and semantics) of the causative alternation.

On the one side, we find 'flavors of little *v*' theories (e.g., Folli and Harley 2005, Pylkkänen 2008), which propose that there are different types of little *v* heads which introduce (anti)causative semantics (e.g., v_{cause} and v_{become}; in some, but not all, of these theories, v_{cause} merges above v_{become}). In variants of this approach, there is also a dedicated functional Caus head in some languages (Key 2013, Harley 2017).

On the other side, we find 'Voice' theories, which argue that there are no flavors of little *v*'s; rather, the causative and anticausative variants are the same at the *v*P level, and only differ in the type of Voice head they merge with (Alexiadou et al. 2015 a.o.).[2] (Anti)causative semantics are read off the structural configuration (e.g., Wood and Marantz 2017).

I illustrate the basic mechanics of Voice theories by showing how the analysis developed in Alexiadou et al. 2015 works for a pair like (1) in Greek, where the anticausative in (1a) is marked with non-active morphology. Alexiadou et al. (2015) provide the structures in (2) and (3) for the syntax of the unmarked causative and marked anticausative variant, respectively.[3] Alexiadou et al. (2015) argue that a Voice head without a specifier (as in 3) is spelled out as non-active morphology in Greek.[4]

(1) a. I bluza skis-tik-e. *Anticausative*
the.NOM shirt.NOM tear-NACT-3SG
'The shirt tore.'

[1] These two heads may, however, be bundled in some languages (see Harley 2017 for an overview).

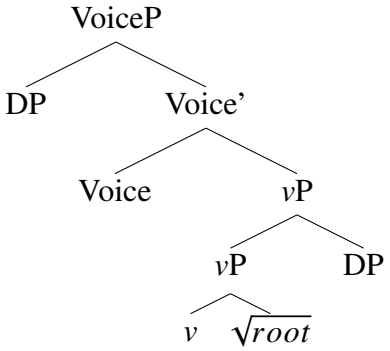
[2] The exact inventory of Voice heads varies, depending on the analysis. Kastner (2020) proposes three types for Hebrew: $\text{Voice}_{[+D]}$, which obligatorily introduces an external argument, $\text{Voice}_{[-D]}$, which never introduces an external argument, and an underspecified Voice head, which can - but doesn't have to - introduce an external argument. His analysis has been recently extended to other languages by Nie (2020) and Tyler (2020).

[3] The trees are slightly simplified; they also discuss a ResP, which is not important for our purposes.

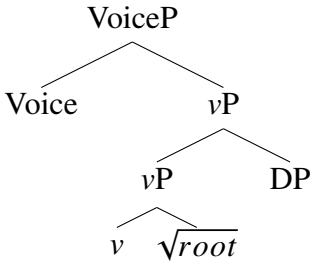
[4] In anticausatives, this head is semantically expletive (but it has semantic content in reflexives etc.).

b. I Maria eskis-e tin bluza. *Causative*
the.NOM Maria.NOM tore-3SG the.ACC shirt.ACC
'Maria tore the shirt.'

(2) Causative variant:



(3) Anticausative variant:



Voice theories and flavors of little *v* theories make different predictions regarding (anti)causative morphology. In flavors of little *v* theories, causative morphology could be the spellout of v_{cause} or a transitive Voice head (contextual allomorphs of these heads are also a possibility). In Voice theories, on the other hand, causative morphology could only be spelling out a transitive Voice head or the allomorph of little *v* in the context of a transitive Voice head (Marantz 2013, Wood and Marantz 2017, Hopperdietzel 2020). In the remainder of the paper, I show that (at least one type of) causative morphology in Kipsigis spells out little *v* and not Voice, but crucially it is not the contextual allomorph of *v* in the context of a transitive Voice head, contrary to the prediction made by Voice theories.[5]

3. The causative alternation in Kipsigis

In this section, I lay out the properties of verbs participating in the causative alternation in Kipsigis, a Nilotic language of Kenya (see Kouneli 2019: Chapter 2 for general information on the language). Kipsigis is pro-drop, has VSO word order (Bossi and Diercks 2019) and a marked nominative system: nominative is marked tonally, and all other cases are unmarked (Toweett 1979, Rottland 1982, Kouneli and Nie 2021). Data come from Toweett 1979 and original fieldwork with five native speakers in Kenya and on Skype.

3.1 The Class I vs. Class II distinction

At the heart of the causative alternation in Kipsigis lies the distinction between two conjugation classes, called Class I and Class II in the Nilotic literature (Dimmendaal 1983). All Kipsigis verbs belong to one of the two classes, and class membership determines the morphophonological properties of verbal conjugation. The difference between the two

[5]The assumption throughout will be that Kipsigis is a non-bundling language in Harley's (2017) typology. Some arguments against bundling: i) predicates without an external argument clearly have verbal properties, ii) the language has a number of argument structure-related morphemes that appear above verbal derivational morphology (e.g., high applicative, antipassive).

classes lies in the vowel length of the subject agreement prefix, the imperfective allomorph chosen by the verb, and the tonal melody of the stem. The conjugation paradigms in (4) illustrate the differences for non-past imperfective: the Class I verb has a short subject prefix and an *-e* imperfective suffix, while the Class II verb has a long subject prefix and an *-i* imperfective suffix. Furthermore, the two verbs differ in their tonal melody. Finally, the subject agreement prefix is zero for Class I, but *i-* for Class II. There are reasons to believe, however, that *i-* in third person forms of Class II verbs is a conjugation class marker, and not an agreement marker; it will be glossed as such from now on (see Toweett 1979, Rottland 1982 for details on the morphophonology of the two classes across all paradigms).

(4) *Non-past imperfective conjugation paradigm* (morphological template: subject agreement prefix - root - imperfective sufix):

a. Class I verb *tʃam* 'like'

1SG: á-tʃám-é
2SG: í-tʃám-é
3: ∅-tʃám-è
1PL: kí-tʃám-é
2PL: ó-tʃám-é

b. Class II verb *kat* 'greet'

1SG: âː-kàt-í
2SG: îː-kàt-í
3: í-kàt-ì
1PL: kîː-kàt-í
2PL: ôː-kàt-í

About half of all verbs in the language are arbitrarily assigned to one of the two classes, which both contain a mix of transitive and intransitive verbs. However, the other half of Kipsigis verbs, which are (some of) the verbs that participate in the causative alternation, productively alternate between Class I and Class II, with the anticausative variant in Class I and the causative in Class II, as illustrated in (5).[6]

(5) a. Kà-∅-ŋéːt Kíplàŋgàt. *Anticausative*
PST-3-awaken Kiplangat.NOM
'Kiplangat woke up.'

b. Kà-∅-í-ŋɛ̂ːt Kíbêːt Kìplàŋgàt. *Causative*
PST-3-CL2-awaken Kibeet.NOM Kiplangat
'Kibeet woke Kiplangat up.'

The alternation is fully productive (e.g., derived verbs and loanwords also participate). For alternating verbs, there is an additional phonological difference in Class II: if the vowel of the last syllable of the verb is short in Class I, it is lengthened in Class II, as shown in (6).

(6) a. Kà-∅-bét ŋôːktà.
PST-3-get.lost dog.NOM
'The dog got lost.'

[6]Dimmendaal (1983) argues that Class II across Nilotic evolved from a Proto-Nilotic causative prefix *i, with causative semantics still visible only in Kalenjin languages (of which Kipsigis is part) synchronically. The class distinction is purely morphological in other Nilotic languages.

b. Kà-∅-í-bêːt Kíbêːt ŋóːktá.
PST-3-CL2-get.lost Kibeet.NOM dog
'Kibeet lost the dog.'

If the verb already has a long vowel in Class I, however, no change occurs, as can be seen in (5) above. This is one of the reasons why Toweett (1979) argues that Class II is more marked than Class I, and why only Class II is glossed in the examples here.

In addition to the previous examples, other verbs that participate in the Class I - Class II alternation include the following: *sap* 'to heal', *tɔt* 'to rot', *tʃɔːt* 'to melt', *tʃʊs* 'to deflate', *nuːr* 'to soak', *pɪːt* 'to grow', and all de-adjectival verbs. Finally, the alternation is sometimes associated with slightly irregular meanings. The verb *kɔnɔr*, for example, is transitive in both classes, but it means 'to keep' in Class I, and 'to dedicate' in Class II.[7]

3.2 The causative suffix *-si*

Some verbs participating in the causative alternation not only change from Class I to Class II, but they also take a causative suffix *-si* (which always requires Class II), shown in (7).

(7) a. Kà-∅-jáːm-já pàːndɛ̀ːk.
PST-3-dry-PL maize.NOM
'The maize dried.'
b. Kà-∅-í-jàːm-sì Tʃéːbêːt/ àsíːstà pàːndɛ́ːk.
PST-3-CL2-dry-CAUS Cheebet.NOM/ sun.NOM maize
'Cheebeet/ the sun dried the maize.'

Further examples of potential unaccusatives that are Class I and form their causative by Class II + *si* are the following: *ilis* 'to sink', *jɛ* 'to break', *nʊn* 'to rot', *jɛːt* 'to grow', *sa* 'to dry', *nɛrɛːtʃ* 'to get angry', *me* 'to die'.[8] There are also at least two verbs that are Class II in their unaccusative use, and take *-si* to form the causative, as shown in (8) for *pʊt* 'to fall'.

(8) a. Kà-∅-í-bʊ́t kìtábʊ̀ːt.
PST-3-CL2-fall book.NOM
'The book fell.'

b. Kà-∅-í-bʊ̂ːt-sì kìtàbʊ́ːt.
PST-3-CL2-fall-CAUS book
'He/she dropped the book.'

The causative suffix *-si* (accompanied by a switch to Class II) can also be used to causativize potential unergative verbs, as shown in (9).[9] Unergatives usually belong to Class I in their intransitive use, but Class II intransitives are also attested (e.g., *twaːl* 'to jump').

[7] We also find an interesting distinction for the verb *go(n)* 'to give'; it follows the Class I conjugation if the indirect object is a local person, but Class II conjugation if the indirect object is a third person.

[8] I use the term 'potential', because no unaccusativity diagnostics have been detected yet (we will see in Section 5 that the language may lack the distinction altogether); these are simply predicates that tend to be unaccusative in other languages, but further research is needed to determine their status in Kipsigis.

[9] Even though unergatives can be causativized, transitive verbs cannot, with the exception of *laːŋ* 'to climb' and *siːr* 'to pass'. This split between unergatives and transitives is surprising for theories which treat unergatives as concealed transitives (Hale and Keyser 1993). See Tollan 2018 for a similar split in Samoan.

(9) Kà-∅-í-rì:r-sì Kíbê:t là:kwɛ́:t.
PST-3-CL2-cry-CAUS Kibeet.NOM child
'Kibeet made the child cry.'

3.3 Kipsigis also has marked anticausatives

So far, we have seen verbs alternating between Class I and Class II, with some verbs additionally requiring the suffix *-si*. As was discussed in Section 3.1, Class II is more marked, and so this pattern is one in which the anticausative is morphologically unmarked, and the causative is morphologically marked. The opposite pattern, however, is also attested: for some verbs, the causative variant belongs to unmarked Class I, while the anticausative takes an overt affix *-ak*; this is illustrated in (10). Other examples that follow this pattern are the following: *ja:t* 'to open', *kɛr* 'to close', *arʊ:ɲ* 'to fold', *ŋɛm* 'to destroy', *tɪl* 'to cut', *ptʃɛj* 'to split', *tɛs* 'to increase', *mis* 'to put out (fire)'.[10]

(10) a. Kà-∅-síríɲ Tʃé:bê:t íŋgɔ́râì:k. *Causative*
PST-3-wrinkle Cheebeet.NOM clothes
'Cheebeet made the clothes wrinkle.'
b. Kà-∅-sìrìɲ-ák ìŋgɔ́râì:k. *Anticausative*
PST-3-wrinkle-MID clothes.NOM
'The clothes wrinkled.'

Apart from its use to form marked anticausatives, the suffix *-ak* is used productively to form (at least generic) middles, as shown in (11). I will thus assume that the morpheme spells out an intransitive Voice head, i.e., a Voice head without a specifier, but of course further research is needed to determine whether this is the correct analysis.

(11) a. ∅-é-è Kíbê:t pé:k.
3-drink-IPFV Kib.NOM water
'Kibeet drinks water.'

b. ∅-e-**ɑk**-sej pè:k.
3-drink-MID-IPFV water.NOM
'The water is potable.'

The following table summarizes the most common morphological patterns for the causative alternation (Tr = transitive, Intr = intransitive):[11]

(12)

Class I + *ak*	**Class** I	**Class II**	**Class II + *si***	**Example**
Intr	Tr			(10)
	Intr	Tr		(5)
	Intr		Tr	(7)
		Intr	Tr	(8)

[10] While most verbs that follow this pattern are Class I in their transitive use, there is at least one verb (*mis* 'to put out (fire)') that is Class II in its transitive use.

[11] There are additional patterns that are only attested by one or two verbs: i) *mis* 'to put out (fire)' is Class II in its transitive use and Class II + *ak* in the intransitive (cf. fn 10), ii) the verb *ŋwal* 'to bend' forms its anticausative in Class I + *ak*, and its causative in either Class II or Class II + *si* (depending on the speaker), iii) the verbs *welel* 'to change' and *kɛrɛ:r* 'to tear' have (anti)causative variants that only differ in tone.

4. The challenge for Voice theories

In this section, I argue that verbs alternating between Class I and Class II pose a challenge for Voice theories of the causative alternation. The argument proceeds in two steps: first, I show in 4.1 that Class II morphology spells out little *v*, and not Voice; then, I show in 4.2 that crucially this is not the allomorph of little *v* in the context of Voice.

4.1 Class II morphology is little *v* morphology

The first reason for analyzing Class II morphology as the spellout of little *v* lies in the simple observation that 'Class II morphology' is an umbrella term for all morphophonological effects associated with a given conjugation class (as a reminder, verbs that do not participate in the alternation - and even some that do - are arbitrarily assigned to Class I and II). In other words, Class II is not straightforwardly linked to a specific morpheme, but is rather a conjugation class feature; conjugation class features are associated with little *v* in DM (see Oltra-Massuet 2020 for an overview).

Second, Class II is determined by individual roots and it causes vowel lengthening of the root for alternating verbs (cf. example 6). Furthermore, a class switch sometimes gives rise to idiomatic interpretations (e.g., the verb *kɔnɔr* means 'to keep' in Class I, but 'to dedicate' in Class II). Given standard assumptions about locality in DM (e.g., Marantz 1997), these facts receive a straightforward explanation if Class II is on little *v*.

The third argument comes from the behavior of nouns derived from Class II verbs. While there is a debate in the literature about how much structure is embedded in complex event nominals, it is uncontroversial that result nominals do *not* embed Voice (e.g., Wood 2019). In Kipsigis, all nouns derived from Class II verbs (whether they alternate or not; more on this in Section 4.2) contain a prefix *kaː*-, the nominal allomorph of Class II morphology (Toweett 1979, Dimmendaal 1983). Below you see the result nominalization of the non-alternating verb *kaːt* 'to greet': in addition to the suffix *-ɛːt* responsible for nominalization, we see the prefix *kaː*- signalling the conjugation class of the underlying verb.[12]

(13) *(kaː)-kat-ɛːt 'hello'.
CL2-greet-N hello
'Hello is a greeting.'

The facts from result nominals like (13) indicate that Class II morphology is on little *v*, since no Voice projection is present in the structure. They also indicate that the prefix *kaː*- is the allomorph of a Class II *v* in the context of little *n*, which will become relevant when we look at complex event nominals in the next section.

The fourth piece of evidence in favor of a little *v* analysis comes from the behavior of alternating verbs under verbal reduplication, a productive process used in Kipsigis to indicate the notion of multiple events, illustrated in (14).

[12] What is glossed here as a nominalizing suffix is decomposable into further morphemes - see Kouneli 2020 for details.

(14) Í-twàl-twâːl-é làːkwɛ̀ːt
CL2-jump-RED-IPFV child.NOM
'The child is jumping repeatedly.'

The shape of reduplicated verbs depends on the vowel length of the stem: for short-vowelled stems, a linking vowel [aː] appears between the reduplicants, which is absent in reduplicated forms of long-vowelled stems.[13] As was discussed in Section 3.1, the short vowel of alternating Class I verbs regularly undergoes lengthening in the Class II form (see ex. 6). Thus, for those verbs, the presence or absence of a linking vowel between the reduplicants can shed light on the time in the derivation when Class II morphology was calculated. The example in (15) shows the reduplicated forms of the Class I - Class II pair *sáp* 'to heal (anticaus.)' vs. *sâːp* 'to heal (caus.)': in the causative variant, no linking vowel appears, indicating that Class II vowel lengthening occurs before the application of reduplication. Assuming that reduplication indicating event plurality targets the event layer (i.e., *v*P and not VoiceP), this provides support for a little *v* analysis of Class II morphology.

(15) a. Kà-∅-sáp-âː-sáp-ì Kíbêːt. *Anticausative*
PST-3-heal-RED-IPFV Kibeet.NOM
'Kibeet healed (himself) over and over.'

b. Kà-∅-i-sâːp-sàːp-ì Kíbêːt Kìplàŋgàt. *Causative*
PST-3-CL2-heal-RED-IPFV Kibeet.NOM Kiplangat
'Kibeet was healing Kiplangat over and over.'

Finally, Class II morphology is sometimes in complementary distribution with verbalizing morphology, supporting the claim that it spells out little *v*. More specifically, Class I anticausative verbs can be derived from adjectives with the addition of the verbalizing suffix *-iːt* (Toweett 1979), as shown in (16a). For some de-adjectival verbs, however, the verbalizing suffix is absent in the Class II causative variant, as in (16b).[14]

(16) a. Kà-∅-pùrgé-íːt kìmɲèːt.
PST-3-warm-V ugali.NOM
'The ugali got warm.'

b. Kà-∅-í-pùrgéːj kímɲéːt Tʃébêːt.
PST-3-CL2-warm ugali Cheebeet.NOM
'Cheebeet warmed the ugali.'

[13] The vast majority of Kipsigis verbs are monosyllabic. Di- and tri-syllabic verbs do not generally allow reduplication (Toweett 1979). For long-vowelled stems, there is often shortening of the vowel of the (linearly) first copy (as in 14), but there are exceptions to this rule, which are currently not understood.

[14] It should be noted, however, that the verbalizing suffix is optionally present in some causative de-adjectival verbs. In light of this optionality of the verbalizing suffix, there is a possibility that in the case of de-adjectival verbs, the structure is different in the causative and anticausative variant (this has been argued for some derived verbs in Hebrew, for example; see Kastner 2019). What is interesting, however, is that even for those verbs that can maintain *-iːt* in the causative, there is lengthening of the final vowel of the adjectival root (of the type seen in 16b), which is typical of Class II and indicates that Class II might still be the verbalizing head closest to the root in those cases.

4.2 Class II is not Voice-conditioned allomorphy

Having established that Class II morphology spells out little *v*, and not Voice, I proceed to show that Class II is not the allomorph of little *v* in the context of (transitive) Voice, contrary to the predictions made by the Voice theories (see Section 2).

The evidence comes primarily from the behavior of nominalizations. To offer some background, languages like Greek can morphologically distinguish between causatives and anticausatives in the verbal domain, but this distinction never carries over to the nominal domain. Thus, the Greek complex event nominal in (17), which can never bear Voice morphology, is ambiguous between a causative and an anticausative reading, even though the two are morphologically distinct in the verbal domain (see ex. 1 in Section 2).

(17) to skis-imo tis bluzas
the tear-N the.GEN shirt.GEN
'the tearing of the shirt'

Wood (2019) discusses similar facts from Icelandic, and argues that Voice is never present in derived nominals. In other work, a weaker claim is made, according to which only intransitive Voice heads may be present (e.g., Alexiadou 2001). Most analyses, however, agree that transitive Voice can never be embedded under *n* (Alexiadou 2017). Kipsigis nouns that are derived from verbs that form anticausatives with *-ak* (see Section 3.3) conform to this generalization. In (18), we see the nominalization of such a verb: the middle suffix *-ak* is ungrammatical, and the noun is compatible with either a causative or anticausative reading. Furthermore, the external argument cannot be expressed in any way in the nominalization in (18), as there is a strict rule of only one genitive in the DP. These data are analogous to Wood's (2019) arguments against the presence of Voice in Icelandic nominalizations.

(18) sɪrŋ-(*ák)-ɛːt-àːp íŋgɔ̀ráîːk
wrinkle-MID-N-POSS clothes
'the wrinkling of the clothes (on their own/by someone)'

However, nouns that involve a switch from Class I to Class II (with or without *-si*) do maintain the distinction in derived nominals, as shown in (19)-(20). The noun derived from the Class II causative variant in (20) contains the prefix *kaː-*, which we have already seen in Section 4.1 is the allomorph of a Class II little *v* in the context of little *n*. Similar to the previous example, the external argument cannot be expressed via a DP in (20).

(19) sɑp-eːt-àːp Kìbêːt.
heal-N-POSS Kibet
'Kibeet's healing (on his own)'

(20) kɑː-sɑːp-eːt-àːp Kìbêːt.
CL2-heal-N-POSS Kibet
'Kibet's healing (by someone)'

Nominalizations like (18) show that Kipsigis generally disallows transitive Voice in nominalizations; coupled with robust cross-linguistic generalizations about the unavailabil-

ity of transitive Voice in complex event nominals, (19)-(20) show that Class II morphology must be available even in the absence of Voice. This is further supported by the fact that the prefix *ka*ː- is generally independent of Voice in the language, since it is not restricted to complex event nominals (see discussion around ex. 13 in the previous section).[15, 16]

Finally, assuming that allomorphy can only be conditioned by adjacent (overt) nodes (e.g., Embick 2010), for little *v* to show an allomorph conditioned by Voice, as predicted by the Voice theories, these two nodes should be adjacent without intervening overt material. Thus, a prediction is made that a high applicative morpheme should bleed this allomorphy rule, assuming that Appl is merged between *v* and Voice (Pylkkänen 2008). This is, however, not borne out: (21) shows that Class II morphology, including the lengthening of the root vowel, persists even in the presence of the high applicative *-tʃi*.

(21) kà-∅-í-sâːp-tʃi Kìplàŋgàt Tʃéːbêːt Kìbêːt.
PST-3-CL2-heal-APPL Kiplangat Chebet.NOM Kibeet
'Cheebeet healed Kibeet for Kiplangat/on behalf of Kiplangat.'

5. Discussion

I have shown in the preceding sections that Class II causative morphology in Kipsigis spells out little *v*, but not in the context of Voice, contrary to the predictions of the Voice theories of the causative atlernation. I have also tentatively suggested that the middle affix *-ak*, used for marked anticausatives, spells out an intransitive Voice head (similar to the non-active Voice head present in Greek marked anticausatives), while I have remained agnostic about the status of the causative suffix *-si* (possible analyses include the spellout of a transitive Voice head or a causative little *v*). While the complete analysis of all patterns is beyond the scope of a proceedings paper, I discuss in this section the implications of the Kipsigis data for theories of the causative alternation and transitivity more generally.

First, it is clear that while Class II morphology poses a challenge to Voice theories of the causative alternation, the data can be easily accounted for in flavors of little *v* theories: Class II morphology would simply spell out v_{cause} (technically, v_{cause} would come with Class II conjugation class features; these features could also be present on non-causative verbalizers, since there are also non-alternating verbs that bear Class II morphology). The data are also not problematic for theories along the lines of Ramchand 2008. The question that arises

[15] It should also be mentioned that *ka*ː- is ungrammatical in examples like (18); it is only present if the noun is derived from a Class II verb.

[16] There is a possibility that these nominalizations are D nominalizations in Alexiadou's (2017) terms, which are not subject to the ban against transitive Voice. However, the morphology of the nouns in (19)-(20) is morphology associated with little *n* in Kipsigis (Kouneli 2020), which points against such an analysis (thanks to Yining Nie for discussion of this point). Itamar Kastner (p.c.) also points out that the ban against transitive Voice in nominalizations has been challenged (e.g., Ahdout 2020). However, even if the ban does not hold in all languages, there is an asymmetry within Kipsigis between nominalizations like (18) and (19)-(20). Since the former behave exactly like nominalizations in languages that do not allow transitive Voice (e.g., Greek), one would need to stipulate that certain roots arbitrarily retain Voice in their nominalizations, while others do not. Since the prefix *ka*ː- that we see in (20) is associated with little *v*, and external argument DPs cannot be expressed in the DP, there is no independent evidence for postulating a Voice head in cases like (20).

then is whether the data provide a fatal argument against Voice theories, or whether there is something special about the Kipsigis grammar that gives rise to this pattern. In light of the many advantages that Voice theories have over the alternatives (see Nie 2020 for a recent summary), I argue in favor of the latter possibility, and I suggest two possible solutions to the Kipsigis puzzle. The two solutions can both account for the morphological patterns discussed in this paper, but they make different predictions about the syntax and semantics of the relevant constructions. Future work can, thus, decide on the correct approach.

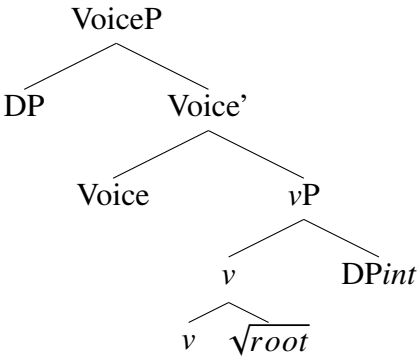
The first possible solution builds on an important asymmetry in the Kipsigis data: while verbs with marked causatives are problematic for Voice theories, verbs with marked anticausatives actually behave exactly in the same way as their, say, Greek counterparts. The morpheme employed is also used for middles (same as with Greek non-active) and the behavior in nominalizations is also identical (see Section 4.2). I think it is not a coincidence that Alexiadou et al. 2015, one of the most complete analyses of the causative alternation in the Voice framework, is based on data from languages without marked causatives. Their most convincing argument in favor of a Voice analysis is that there is no difference between the little *v* head involved in causatives and anticausatives in the languages that they study. They furthermore argue that this little *v* is not a v_{cause} (or v_{become}), but rather an eventive *v*, which gives rise to change of state semantics when merged with a ResP.

But what if there is cross-linguistic variation in whether a language has a v_{cause} in its inventory? Let's assume that languages like Greek lack a v_{cause}, only possessing a 'plain' eventive verbalizer, while languages like Kipsigis have a v_{cause} in addition. For languages like Greek then, all verbs participating in the causative alternation will involve the same little *v* (which can only give causative semantics in the presence of the right result complement), hence reducing the alternation to a Voice alternation, as argued for by Alexiadou et al. (2015). For languages like Kipsigis, on the other hand, some change-of-state verbs may have the same syntax as their Greek counterparts (those would be the verbs forming marked anticausatives), while others may merge with v_{cause} instead, giving rise to the Class II morphological pattern. Under this analysis, we would expect verbs following the latter pattern to have a different event decomposition from verbs that form marked anticausatives. Testing these predictions belongs to future work, but it's worth pointing out that the productive causativization of unergatives (which do not involve change-of-state semantics in any clear way) may provide support for this type of analysis: it is the presence of a v_{cause} that makes this possible in Kipsigis, but impossible in Greek. This type of analysis is inspired by Nie's (2020) theory of causatives, where a distinction is drawn between adding extra event participants (mono- vs. bi-agentive causatives in her terminology) and adding extra events (mono- vs. bi-causal causatives). Nie (2020) uses this typology for productive causatives (e.g., of transitives), but assumes that the causative alternation (in other words, causativization of unaccusatives) generally follows the Voice theories discussed in this paper. Her theory, however, could in principle be extended to the causative alternation (perhaps with small modifications), which is in essence what I am proposing here.

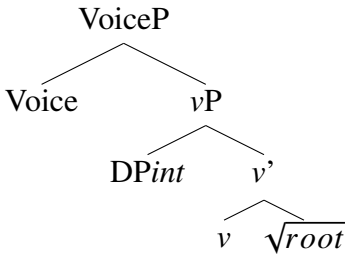
The second possible solution to the puzzle is 'less standard', and builds on data discussed in Kouneli 2021 which point towards a 'low' locus of (in)transitivity in the language. While there is unfortunately not enough space to discuss the relevant data, what we observe in a nutshell is the following: there is evidence that a number of grammatical processes in

Kipsigis are sensitive to a type of (in)transitivity that is i) independent of the presence of an internal argument, and ii) below Voice. Furthermore, the language makes a strong distinction between transitive and intransitive structures independent of the unaccusative-unergative split, and no unaccusativity diagnostics have been detected. Building on Tollan 2018, among others, I argue in Kouneli 2021 that subjects of unergatives are merged in the specifier of little *v* in Kipsigis, unlike subjects of transitive verbs which are merged in SpecVoiceP. Thus, in Kipsigis (unlike languages like Greek), verbal arguments can be merged in three different positions: sister of *v*, specifier of *v*, or SpecVoiceP. One possibility that emerges from such a picture is the following: perhaps the causative alternation for verbs that alternate between Class I and Class II is in reality an unaccusative-unergative alternation, i.e., an alternation in how the *internal argument* is introduced. This is illustrated in (22)-(23): in the causative variant the internal argument would be a sister to the verb, while in the anticausative variant the internal argument would a specifier of the verb.

(22) Causative variant:



(23) Anticausative variant:



A little *v* with a complement would be spelled out as Class II morphology, while a little *v* with a specifier would be spelled out as Class I (individual roots could idiosyncratically override this morphology; that's why there are verbs that are Class II even in their intransitive use). The way in which the internal argument alternates is reminiscent of Legate's (2014) analysis of causatives of unergatives in Acehnese, where she argues that the unergative external argument behaves as a theme in causativization.[17] Thus, my proposal is an extension of her analysis to causatives of unaccusatives. Note, however, that such a move would imply that Kipsigis lacks unaccusatives altogether, with all unmarked anticausatives having a (low) unergative structure. While I believe there is preliminary evidence for such a claim, it is nonetheless a bold statement, whose predictions can only be fully investigated and evaluated in future work.

To conclude, I reiterate that the two sketchy solutions proposed in this section make a number of divergent predictions about the syntax and semantics of the constructions under investigation. They therefore open up a clear avenue for further research.

[17]Interestingly, Legate (2014) also argues that Acehnese causative morphology is the spellout of little *v* independent of Voice, similar to the argument made in this paper.

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