

## Conjugation class and transitivity in Kipsigis

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**Summary:** While conjugation classes and thematic vowels are not a unique property of Indo-European languages, there has been limited theoretical work on their properties in other language families (see Oltra-Massuet 2020 for an overview). In this talk, I present an investigation of verbal conjugation classes in the Nilotic language Kipsigis, based on data from original fieldwork. On the descriptive side, I show that the language has two conjugation classes, and that verbs that participate in the causative alternation do so by alternating between the two, with the anticausative variant in Class I and the causative in Class II. I analyze conjugation class in Kipsigis as the spellout of the verbalizing head little *v*, and I argue that little *v* (and not Voice) determines transitivity for alternating verbs. The Kipsigis data show that cross-linguistic variation in the morphosyntax of the causative alternation cannot be explained by reference to different types of Voice heads alone (Marantz 2013, Alexiadou et al. 2015, Kastner 2020 a.o.). Kipsigis is also added to other languages for which conjugation class has been linked to change of state semantics (e.g., French; Kastner & Martin 2020).

**Inflectional classes in Kipsigis:** Nouns in Kipsigis belong to various declension classes, which are marked by a theme vowel with striking similarities to Romance (Kouneli 2020). Verbs belong to one of two conjugation classes (Class I and II), which are robust across the Nilotic family (Dimmendaal 1983). In Kipsigis, the two classes differ in: the vowel length of the subject agreement prefix, the form of the imperfective suffix, and the tonal melody, shown in (1)-(2) for the non-past imperfective (cf. Toweett 1979).

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| <p>(1) Class I verb <i>tʃam</i> ‘like’</p> <p>1SG: á-tʃám-é</p> <p>2SG: í-tʃám-é</p> <p>3: ∅-tʃám-è</p> <p>1PL: kí-tʃám-é</p> <p>2PL: ó-tʃám-é</p> | <p>(2) Class II verb <i>kat</i> ‘greet’</p> <p>1SG: â:-kât-í</p> <p>2SG: î:-kât-í</p> <p>3: í-kât-ì</p> <p>1PL: kî:-kât-í</p> <p>2PL: ô:-kât-í</p> |
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The distinction is purely morphological in most Nilotic languages, and Dimmendaal (1983) argues that Class II evolved from a Proto-Nilotic causative prefix \*i. Indeed, Class II in Kipsigis seems to be associated to a moraic prefix, since it causes lengthening of the vowel of the subject prefix, and triggers epenthetic *i*- in the 3rd person. Further research is needed, however, to determine whether an empty mora is enough to derive all phonological effects. Dimmendaal (1983) further argues that the causative nature of Class II is still productive in Kalenjin languages (Kipsigis being one of them). About 60% of Kipsigis verbs alternate between the two classes (Toweett 1979): the anticausative variant is in Class I (3) and the causative is in Class II (4). For those verbs that alternate, Class II also causes lengthening of the final vowel of the verb. This is why Toweett (1979) treats Class I as the default, and I do not gloss it here. The remaining 40% verbs are arbitrarily assigned to one of the two classes, irrespective of transitivity.

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| <p>(3) kà-∅-<span style="border: 1px solid black; padding: 0 2px;">sáp</span> Tʃé:bê:t.</p> <p>PST-3-heal Chebet.NOM</p> <p>‘Chebet healed.’</p> | <p>(4) kà-∅-<span style="border: 1px solid black; padding: 0 2px;">í-sâ:p</span> Tʃé:bê:t Kibê:t.</p> <p>PST-3-CL2-heal Chebet.NOM Kibet</p> <p>‘Chebet healed Kibet.’</p> |
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**More on the causative alternation:** Some verbs additionally take the causative suffix *-si* in Class II (data not shown here). Even though most verbs form marked causatives, some form marked anticausatives, (5)-(6): both the causative and anticausative variant have Class I morphology, but the latter also has the suffix *-ak*, otherwise used in the language to form middles (Toweett 1979, Rottland 1982).

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| <p>(5) Kà-∅-<span style="border: 1px solid black; padding: 0 2px;">sirɪp-ák</span> ɪŋgòrái:k.</p> <p>PST-3-wrinkle-MID clothes.NOM</p> <p>‘The clothes wrinkled.’</p> | <p>(6) Kà-∅-<span style="border: 1px solid black; padding: 0 2px;">sírɪp</span> Tʃé:bê:t ɪŋgòrái:k.</p> <p>PST-3-wrinkle Chebet.NOM clothes</p> <p>‘Chebet wrinkled the clothes.’</p> |
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The following table summarizes the major morphological patterns of the alternation in Kipsigis.

(7) **Morphological marking patterns** (Tr= transitive, Intr = intransitive)

Class I + <i>ak</i>	Class I	Class II	Class II + <i>si</i>	Some examples
Intr	Tr			(5)-(6), <i>arɔ:p</i> ‘to fold’, <i>ɪɛm</i> ‘to destroy’
	Intr	Tr		(3)-(4), <i>nam</i> ‘to start’, <i>tʃɔ:t</i> ‘to melt’
	Intr		Tr	<i>jɛ</i> ‘to break’, <i>nɔn</i> ‘to rot’

**Analysis:** I adopt the assumptions of Distributed Morphology (Halle & Marantz 1993), and follow Harley (2013), Legate (2014), among others, in assuming the presence of both a little *v* head (responsible for verbalizing the root and providing event semantics) and a Voice head (responsible for introducing the external argument). I argue that conjugation classes in Kipsigis are associated with little *v*, based on the behavior of Class II verbs. First, for 40% of verbs, Class I/II is purely morphological, and conjugation class is often associated with little *v* (or a dissociated node attached to it; Oltra-Massuet 2020). Second, Class II causes vowel lengthening of the root; given standard assumptions about locality, this is straightforwardly explained if Class II is on little *v*. Third, data from nominalizations show that Class II is independent of the presence of a Voice head. Complex event nominals (CENs) derived from verbs that form causatives with Class II maintain the morphological distinction between the causative and anticausative reading, shown in (8)-(9), the CENs of (3)-(4); we see a prefix and a long vowel for Class II in both the verb (4) and the noun (9).

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| (8) <span style="border: 1px solid black; padding: 2px;">sap</span> -e:t-à:p Kìbê:t.<br>heal-N-POSS Kibet<br>'Kibeet's healing (on his own) (antic.)' | (9) <span style="border: 1px solid black; padding: 2px;">ka:sa:p</span> -e:t-à:p Kìbê:t.<br>CL2-heal-N-POSS Kibet<br>'Kibet's healing (by someone) (caus.)' |
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Two observations show that Voice is absent in Kipsigis CENs: (i) the external argument cannot be expressed overtly in (9) or (10), (ii) CENs from verbs with marked anticausatives (5)-(6) do not morphologically distinguish between the causative and anticausative in CENs: both the prefix *ka:-* and the suffix *-ak* are ungrammatical in (10) and the CEN is ambiguous between the two readings. Absence of transitive Voice in CENs is also consistent with theories that argue that little *n* never embeds transitive Voice (Alexiadou 2001, 2017, Wood 2020 a.o.). Since Voice is absent from CENs in Kipsigis, Class II morphology in CENs like (9) cannot be conditioned by Voice. Further evidence for the claim that the nominal prefix *ka:-* in (9) is independent of Voice comes from the fact that it is obligatory for all nouns (even if they are not CEN) derived from Class II verbs (even if they are non-alternating), shown in the noun in (11) derived from the transitive non-alternating Class II verb *kart* 'greet'.

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| (10) <span style="border: 1px solid black; padding: 2px;">*ka:-siriŋ</span> -(*ák)-e:t-à:p íŋgòrà:t:k<br>CL2-wrinkle-MID-N-POSS clothes<br>'the wrinkling of the clothes (on their own/by someone)' | (11) <span style="border: 1px solid black; padding: 2px;">*(ka:-kat-e:t</span> hello.<br>CL2-greet-N hello<br>'Hello is a greeting.' |
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Recent syntactic theories of the causative alternation argue that the causative and anticausative variants are the same at the *vP* (event) level, but differ in the type of Voice head that they merge with (Alexiadou et al. 2015 a.o.). In such theories, causative morphology of the Kipsigis type can be analyzed as the spellout of either a transitive Voice head or the allomorph of little *v* in the context of Voice. The Kipsigis data resist such an analysis (since Class II morphology spells out little *v* independent of Voice), and show that the causative and anticausative variants may differ at the *vP* level in some languages. This claim is compatible with theories that posit flavors of little *v*, such as *v*<sub>CAUSE</sub> and *v*<sub>BECOME</sub> (e.g., Harley & Folli 2005). An alternative is suggested by Kouneli (to appear), who argues that the *internal* argument of the verb is introduced differently in the causative and anticausative variant in Kipsigis: as a sister to little *v* in the former, but as a specifier of little *v* in the latter. Class I and Class II morphology spell out these two different types of little *v*; individual (mostly non-alternating) roots can override this general rule. **Outlook:** Variation across Nilotic may offer insights into the historical evolution of conjugation classes and theme vowels. A vocalic prefix in Proto-Nilotic evolved into a moraic prefix in modern Nilotic languages, but the original transitivity alternations associated with the distinction are at different stages of productivity in the individual languages (see also Kastner & Martin 2020 and references therein on the path from Latin to French).

**Selected references:** Alexiadou, A., E. Anagnostopoulou, & F. Schäfer. 2015. *External arguments in transitivity alternations*. OUP. Dimmendaal, G. 1983. The two morphological verb classes in Nilotic. *Nilotic Studies* 2. Kastner, I. & F. Martin. 2020. Dissolving the French conjugation classes. Talk at *Going Romance* 34. Kouneli, M. 2020. Number-based noun classification. *NLLT*. Kouneli, M. to appear. Low (in)transitivity: Evidence from Kipsigis. *Proceedings of NELS* 51. Toweett, T. 1979. *A study of Kalenjin linguistics*. Kenya Literature Bureau.