Verb-y and noun-y complementation in Kipsigis

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1 Introduction

- Traditionally, embedded clauses have been analyzed with clausal syntax and semantics. Recently, this view has been challenged, instead proposing that embedded clauses are underlyingly nominal or verbal (e.g. Kratzer 2006, Moulton 2019, Özyıldız et al. 2018).

- In this talk, we present novel data from Kipsigis (Nilotic, Kenya) showing that:

    - clausal complements with nominal and verbal properties can co-occur in the same language (Halpert 2019)
    - complementizers are not always elements of category C: they may be of category V (e.g. Koopman and Sportiche 1989) or N (e.g. Roussou 2010)

Roadmap:

§2 Background

§3 C-Agree in Kipsigis: a verbal property

§4 The 'say'-based complementizer is a verb

§5 But Kipsigis also has noun-y clausal complements

§6 Conclusion

2 Background

Noun-y CPs

- CPs co-occurring with content nouns like *theory/belief/rumour* etc. do not acts as clausal arguments, but rather as nominal modifiers (Stowell 1981, Grimshaw 1990, Sportiche 2016). They identify the content of the nouns they adjoin to.

(1) a. The [NP theory [CP that pigs fly]] actually has a lot of support.
    b. The [NP theory] is [CP that pigs fly].

- Kayne (2010) reanalyzes sentential complements in English as relative clauses and takes the complementizer *that* to be a demonstrative pronoun. Extensions are made to other Germanic languages.

- Similar approaches have been developed for Romance (Manzini and Savoia 2015) and Modern Greek (Roussou 2010).

- Kratzer (2006) initiated a program which takes CPs to be predicates of things that have propositional content.

  - *that*-clauses constitute predicates with propositional content, which undergo predicate modification with content nouns (Kratzer 2016, 2013, Moulton 2009).

  - In order to get from individuals to their content, Kratzer introduces a content function CONT which if applied to an individual returns a set of possible worlds.

    (2) a. The [$_{NP}$ theory [$_{CP}$ that pigs fly]] actually has a lot of support.
        b. $[\![\text{theory THAT pigs fly}]\!] = \lambda x_e[theory(x) \land \text{CONT}(x) = \{w : \text{pigs fly at } w\}]$
        $\rightsquigarrow$ set of individuals such that they are a theory the content of which is that pigs fly at w

  - Treating CPs as semantic objects of type $\langle e, t \rangle$ creates a potential type clash for cases where CPs are selected by an attitute verb

    $\rightarrow$ Kratzer (2006): verb $\langle e, \langle v, t \rangle \rangle$ and CP $\langle e, t \rangle$ undergo RESTRICT (Chung and Ladusaw 2004).

    $\rightarrow$ Moulton (2015): CPs undergo type-driven movement (creates opacity for extraction), leaving a trace of type $\langle e \rangle$.

    $\rightarrow$ Elliott (2016, 2017), Bondarenko (2020): A functional θ-head mediates between verb and CP.

Verb-y CPs

- The assumption that complementizers have verbal properties is rooted in the observation that many complementizers are diachronically or synchronically related to the verb *say* (Lord 1976, Bayer 1999, Güldemann 2008, Kratzer 2016, Moulton 2019, Bondarenko 2020).

- The verbal nature of say-based complementizers has been taken as a licensing condition for logophoric pronouns in West African languages (Clements 1975, Koopman 1984, Koopman and Sportiche 1989).

- More recent work links say-based complementation to serial verb constructions in Avatime (Major and Torrence 2020) and differential case marking in Sakha and Uyghur (Major 2021).

- Although usually not discussed from this perspective, complementizers that display agreement with a matrix argument can be considered another genuine verbal

property, shown here for Lubukusu in (3).[1]

(3) Diercks (2013: 369-370)   *Lubukusu*

    a.   **Ewe** w-a-bol-el-a   Nelsoni **o-**li   ba-keni ba-rekukha.
       you   2SGS-PST-say-AP-FV 1.Nelson 2SG-that 2-guests 2S-left
       'You told Nelson that the guests left.'

    b.   **Ba-**sasi   ba-many-isya Sammy **ba-**li ba-keni b-a-cha.
       2-parents 2S-know-CAUS 1.Sammy 2-that 2-guests 2S-PST-leave
       'The parents informed (made-know) Sammy that the guests left.'

- Semantically, CPs have been argued to denote sets of contentful eventualities (Kratzer 2013, Elliott 2016, 2017, Moulton 2019, Özyıldız et al. 2018, Demirok et al. 2020, Bondarenko 2020).

  - These CPs are of type $\langle v, t \rangle$ and are able to combine with attitude predicates via predicate modification (assumption: external argument introduced via Voice making the attitude predicate of type $\langle v, t \rangle$).

  (4)   a.   Emma believes Jane to be clever.
       b.   ⟦believes Jane to be clever⟧
          $= \lambda e_v[believe(e) \wedge \text{CONT}(e) = \{w : \text{Jane is clever at } w\}]$
          ⤳ set of eventualities such that they are a belief the content of which is that Jane is clever at w

Noun-y and verb-y complementation can co-exist in the same language

- Even though complementizers built on the root of the verb 'say' are often verb-y, they do not always display verbal properties: it is important to pay attention to the morphological make-up and distribution of the complementizer (Halpert 2019).

- Halpert (2019) demonstrates that many Bantu languages have a rich complementizer inventory, with different forms of 'say'-based complementizers co-occurring in the same language.

- Some have verbal properties, while others have nominal properties.

- For example, two of the most prevalent complementizers in Zulu (Guthrie code S42) are *uku**thi*** and *senga**thi***, which both include the root *thi* 'say'.

- *Ukuthi* is a neutral complementizer (see Halpert 2019:34 for a list of uses), while the distribution of *sengathi* is more restricted: it is mostly used to introduce comparative clauses.

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[1]A number of African languages have been reported to display upwards-oriented complementizer agreement, where C agrees with the matrix subject, e.g. Baker (2008) on *Kinande*, Idiatov (2010) on *Mande languages*, Diercks (2013) on *Lubukusu*, Duncan and Torrence (2017) on *Ibibio*, Nformi (2017) on *Limbum*, Diercks and Rao (2019) on *Kipsigis*, Letsholo and Safir (2019) on *Ikalanga*. Outside of Africa, a similar phenomenon has been reported for the Trans-New Guinean language *Teiwa* (Sauerland et al. 2020).

(5) Halpert (2019: 34,38)   *Zulu*

     a. Ngi-tshel-e   uManqoba *ukuthi* uZuma ngeke a-khokh-e   lutho
         1SG.S-tell-PFV AUG.1M   C   AUG.1Z never 1SBJV-pay-PFV 14thing
         'I told Manqoba that Zuma won't pay anything.'

     b. u-hleka *sengathi* u-ya-qala   uku-hleka
         1S-laugh C   1S-YA-begin INF-laugh
         'He's laughing as if it's his first laugh ever.' (i.e., a lot)

- Halpert (2019) shows that clauses introduced by *ukuthi* have nominal properties, despite *ukuthi* being a 'say'-based complementizer:[2]

  - the *uku-* prefix in *ukuthi* is noun class 15/17 morphology (also used with infinitives)

  - *ukuthi* can control 15/17 object agreement on the verb in the same contexts where nominals control agreement (i.e. in *v*P-external positions)

  - when modifying content nouns, *ukuthi*-CPs are preceded by the associative marker, which is also present with nominal modifiers (e.g. possessors)

- Clauses introduced by *sengathi*, on the other hand, have verbal properties:

  - *sengathi* contains two affixes besides *thi* 'say': *se-* spells out aspect and *nga-* spells out modality, which are categories usually associated with verbs

  - *sengathi*-CPs never control agreement on the verb

  - *sengathi*-CPs display properties of low adverbs: they must be *v*P-internal and verb-adjacent

- There are more Bantu languages with 'say'-based complementizers with nominal properties, e.g., Chichewa (Bresnan 1995), Lubukusu (Diercks 2013, Halpert 2019), and Northern Ndembele (Halpert 2019, Pietraszko 2019). The latter two languages also have verb-y 'say'-based complementizers (Diercks 2013, Halpert 2019).

- Outside of Bantu, multiple forms of 'say'-based complementizers (which might differ in their nominal/verbal properties) have been documented for Turkic and Mongolic:

  - In Kalmyk, there are three different forms of the 'say'-based complementizer, corresponding to two different converbial forms and one participial form (Knyazev 2016).

  - In Poshkart Chuvash, there are two forms of the 'say'-based complementizer: *tenine* (action nominalization of SAY) and *teze* (same-subject converb of SAY). The two complementizers behave differently when it comes to indexical shift in the language (Knyazev 2020).

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[2]There are also some differences between *ukuthi*-CPs and nominals in Zulu: nominals, but not *ukuthi*-CPs, can appear in subject position (satisfying the EPP feature on T), and CPs extrapose more easily than nouns, without a requirement for object agreement on the verb. In the related language Northern Ndebele (Guthrie code S44), *ukuthi*-CPs do not exhibit these differences from nominals, with their distribution being identical (Halpert 2019, Pietraszko 2019).

3 C-Agree in Kipsigis: a verbal property

3.1 Background on Kipsigis

- Kipsigis is the major variety of Kalenjin, a cluster of dialects of the Southern Nilotic branch of Nilo-Saharan. It is spoken by approximately 2 million speakers in Kenya (Eberhard et al. 2020).

- The language is pro-drop, and it has VSO word order (Bossi and Diercks 2019) and a marked nominative case system (Toweett 1979, Kouneli 2019).[3]

- Unless otherwise indicated, data in this handout come from original fieldwork.[4]

3.2 The agreement pattern

- The Kipsigis complementizer consists of the root of the lexical verb *le* 'say' and a person/number agreement prefix (Diercks and Rao 2019, Diercks et al. 2020).[5,6]

(6) a. âː-ŋgén **àː-lé** ∅-rú-è   Kíbêːt.
       1SG-know 1SG-C 3-sleep-IPFV Kibeet.NOM
       'I know that Kibeet is sleeping.'

   b. îː-ŋgén **ìː-lé** ∅-rú-è   Kíbêːt.
       2SG-know 2SG-C 3-sleep-IPFV Kibeet.NOM
       'You know that Kibeet is sleeping.'

   c. í-ŋgèn Kíplàŋgàt   **kò-lé** ∅-rú-è   Kíbêːt.
       3-know Kiplangat.NOM 3-C 3-sleep-IPFV Kibeet.NOM
       'Kiplangat knows that Kibeet is sleeping.'

(7) **Agreement prefixes on *le***
    (=subjunctive subject prefixes for verbs of conjugation Class I)

	SG	PL
1	àː-	kèː-
2	ìː-	òː-
3	kò-	
imp	kèː-	

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[5]Diercks and Rao (2019) also report a non-agreeing form of the complementizer, but our speakers find this form ungrammatical. It is possible that there is dialectal (or speaker) variation, and we focus here on the uses of the agreeing form.

[6]Glossing abbreviations follow the Leipzig Glossing Rules with the addition of C = complementizer, IT = itive, and VENT = ventive. Tone is transcribed whenever possible, but some transcriptions are incomplete because of sound difficulties in Skype elicitations. Additionally, the tone on *le* is always transcribed as H, but it should be noted that it sometimes becomes low when it is followed by a word that starts with a H tone. The details of this sandhi phenomenon are currently not well-understood.

- Diercks and Rao (2019) argue that the Kipsigis complementizer can only agree with the matrix subject.

- We do indeed find upwards-oriented agreement with the matrix subject with verbs from a variety of lexical classes (e.g. *jaːn* 'to believe', *mwa* 'to say', *ruaːtit* 'to dream', *taːm* 'to falsely accuse', *nereːtʃ* 'to be angry (about)') .

  (8) **ɑː-bwɑːt-i**   **àː-lé**   kà-∅-tʃɔ́ːr Kíbêːt   rabɪːnɪk.
      1SG-think-IPFV 1SG-LE PST-3-steal Kibeet.NOM money
      'I think that Kibeet stole the money.'

- It is clear from our data, however, that the complementizer may agree with non-subject DPs in the matrix clause, a possibility that is not fully explored in Diercks and Rao (2019).

  - Agreement with the source of information reported in the embedded clause:

    (9) Kà-∅-kás-ɛːn-**ın**   **Kíplàŋgàt**   **kò-lé/ìː-lé**   kà-∅-tʃɔ́ːr
        PST-3-hear-INST-2SG Kiplangat.NOM 3-LE/2SG-LE PST-3-steal
        Kíbêːt   rabɪːnɪk.
        Kibeet.NOM money
        'Kiplangat heard from you that Kibeet stole the money.'

  - Agreement with applied arguments that can act as a logophoric center:

    (10) Koː-**ɑ**-mwɑi-teː-tʃi   **Tʃèbêːt**   ɛn tʊːjɛːt **àː-lé/kò-lé** kɔ̀ː-∅-tʃɔ́ːr
         PST-1SG-say-IT-APPL Cheebeet at meeting 1SG-LE/3-LE PST-3-steal
         Kíbêːt   rabɪːnɪk.
         Kibeet.NOM money
         'At the meeting, I said on Cheebeet's behalf that Kibeet stole the money.'

  - These data point towards a logophoric requirement (see Driemel and Kouneli 2020 for further evidence).

- The complementizer may also display impersonal agreement, with the form being morphologically identical to the impersonal form of lexical verbs in the subjunctive.[7]

  (11) Kíː-ŋgèn   **kèː-lé** ∅-rú-è   Kíbêːt.
       1PL-know.IMP IMP-LE 3-sleep-IPFV Kibeet.NOM
       'It is known that Kibeet is sleeping.'

- For all of our speakers, impersonal agreement on the complementizer is also available for a wide range of fully inflected lexical verbs in the matrix clause.

- If the impersonal form of the complementizer is used, a hearsay or rumour interpretation arises.

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[7]The impersonal construction in Kipsigis is syntactically active. Morphologically, it is expressed by combining a first-person plural subject agreement prefix with 3rd person tonal melody. In the subjunctive of CV verbs (such as *le*) there is no tonal difference between 1/2nd and 3rd person forms.

(12)   Kà-∅-kás Kíplàŋgàt   **kè:-lé** kà-∅-tʃɔ́:r Kíbê:t   rabɪːnɪk.
       PST-3-hear Kiplangat.NOM IMP-LE PST-3-steal Kibeet.NOM money
       'Kiplangat heard (the rumour) that Kibeet stole the money.'

- Diercks and Rao (2019) also report a pattern of what they call *object agreement*, where the complementizer (optionally) agrees with the indirect object of the matrix verb (the examples are all from speech verbs).

(13)   ko-ɑ-mwaa-un   ɑ-lɛ-**ndʒin**   ko-Ø-ɪt   tuɣa amut
       PST-1SG-tell-2SG.OBJ 1SG-C-2SG.OBJ PST-3-arrive cows yesterday
       'I DID tell you (sg) that the cows arrived yesterday.' (Diercks and Rao 2019: ex.3, p.371)

- In this case, the prefix on the complementizer tracks subject agreement, while the suffix tracks object agreement.

- We prefer the term *suffixal agreement* for this pattern because there are two types of object agreement: prefixal object agreement (for objects that act as the logophoric center) and suffixal object agreement (for indirect objects of speech verbs mostly).

Interim conclusion:
The Kipsigis complementizer consists of the root *le* 'say' and an agreement prefix that tracks the logophoric center. With speech verbs, we may additionally find suffixal agreement that tracks the indirect object.

4   The say-based complementizer is a verb

Main claim:

The Kipsigis agreeing complementizer is not a complementizer, but a lexical verb (*le* 'say').

Even though say-based complementizers have been linked to verbal properties before (e.g. Grimshaw 2015, Bondarenko 2020), analyses of these complementizers as elements of category V, and not C, have been sporadic in the literature (e.g. Koopman 1984, Koopman and Sportiche 1989, Kinyalolo 1993, Özyıldız et al. 2018, Demirok et al. 2020, Major and Torrence 2020).

4.1   *le* can be a matrix verb

- The verb *le* 'say' can act as a matrix verb. Crucially, the "complementizer" is ungrammatical in this case.

(14)   **kà-∅-lé** Kíbê:t   (***kò-lé**) ∅-rú-è   là:kwɛ̀:t.
       PST-3-LE Kibeet.NOM (*3-LE) 3-sleep-IPFV child.NOM
       'Kibeet said that the child is sleeping.'

- The word order of the language is VSO, which makes it clear that *le* is in the position of the verb here.

4.2 *le* is inflected in the subjunctive mood

- Diercks and Rao (2019) and Diercks et al. (2020) argue that when *le* 'say' is used as a matrix verb, it is not base-generated in the matrix clause.

    - the complementizer raises to the matrix clause, where the main verb is a silent speech verb.

- Their analysis, however, cannot account for the following observation:

    - **The verb *le* 'say' is inflected in the indicative mood when used as a matrix verb, but in the subjunctive when used as a "complementizer".**

- Kipsigis distinguishes between indicative and subjunctive mood for all lexical verbs (Toweett 1979, Creider and Creider 1989).

    - while various tense and aspect distinctions are made in the indicative, only two forms are distinguished in the subjunctive: the perfective and imperfective.

    - the language lacks infinitives and the subjunctive is used in all subordinate clauses (reflected in the descriptive terminology: *subjunctive* for Creider and Creider 1989 and *governed verb form* for Toweett 1979).

    (15)   a.   Kì:-ɑ́-rú.
                 PST-1SG-sleep.IND
                 'I slept.'

           b.   ɑ́-mɑ́tʃ-é   à:-rú.
                 1SG-want-IPFV 1SG-sleep.SBJV
                 'I want to sleep.'

    (16)   a.   Kì:-ɑ́-lé   kì:-∅-tʃɔ́:r Kíbê:t   rabɪ:nɪk.
                 PST-1SG-LE PST-3-steal Kibeet.NOM money
                 'I said that Kibeet stole the money.'

           b.   Kì:-á-mwá   à:-lé kì:-∅-tʃɔ́:r Kíbê:t   rabɪ:nɪk.
                 PST-1SG-say 1SG-LE PST-3-steal Kibeet.NOM money
                 'I said that Kibeet stole the money.'

    - for 3rd person subjects, the prefix is ∅ in most cells of the paradigm, while it is always *ko-* in the subjunctive.

- The mood inflection follows naturally if *le* is a verb:

    - indicative when used in the root clause

    - subjunctive when it is embedded under a matrix verb (in verbal complementation)

4.3 *Le* can inflect for Aspect

- *le* can inflect for Aspect even when used in complementation contexts (as a reminder, verbs in the subjunctive only make a perfective vs. imperfective distinction).

  (17) Kɑ-ɑ-mwɑ-e   ɑː-le/**ɑː-leːlen**   ka-∅-tʃɔːr Kíbêːt   rabɪːnɪk.
        PST-1SG-say-IPFV 1SG-LE/1SG-LE.IPFV PST-3-steal Kibeet.NOM money
        'I was saying that Kibeet stole the money.'

4.4 Applicative and reflexive morphology on *le*

- Remember the suffixal agreement pattern reported by Diercks and Rao (2019):

  (18) ko-ɑ-mwaa-un   ɑ-lɛ-**ndʒin**   ko-∅-ɪt   tuɣa amut
        PST-1SG-tell-2SG.OBJ 1SG-C-2SG.OBJ PST-3-arrive cows yesterday
        'I DID tell you (sg) that the cows arrived yesterday.' (Diercks and Rao 2019: ex.3,
        p.371)

  (19) Suffixal agreement (Diercks and Rao 2019: 381)

	SG	PL
1	-lɛ-ndʒ-ɑn	-lɛ-ndʒ-ɛtʃ
2	-lɛ-ndʒ-in	-lɛ-ndʒ-ɔːɣ
3	-lɛ-ndʒ-i	

- We observe that all forms share not only *le*, but also a [ndʒ] consonant sequence. This indicates the possibility that there is a hidden morpheme present between *le* and the person/number suffixal agreement.

- We argue here that this is indeed the case, with the forms reported in (19) being decomposable into an allomorph of *le – leːn –*, followed by the applicative suffix *-tʃi*, followed by the regular object clitics in the language. We give an analysis in the Appendix.

- Regular phonological processes (e.g. voicing of obstruents after nasals and vowel coalescence rules; Kouneli 2019: Chapter 2) give the surface forms that we see in (19). [8]

  (20) Suffixal agreement decomposed into APPL and object clitics

	SG	PL
1	-leːn-tʃi-ɑn (leːndʒɑːn)	-leːn-tʃi-eːtʃ (leːndʒeːtʃ)
2	-leːn-tʃi-in (leːndʒiːn)	-leːn-tʃi-ɑːk (leːndʒɑːk)
3	-leːn-tʃi (leːndʒi)	

- The morphemes making up the forms in (20) are independently attested in the language:

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[8]Our [ATR] and vowel length transcriptions are slightly different from those in Diercks and Rao (2019). Their [ATR] transcriptions possibly contain typos, since they display mismatches in the [ATR] values of vowels within a single word, which is prohibited in Kipsigis: the language has a well-studied system of dominant [ATR] vowel harmony (Hall et al. 1974, Halle and Vergnaud 1981, Baković 2000, Nevins 2010).

– The suffix *-tʃi* is the most common applicative morpheme (Toweett 1979, Rottland 1982, Creider and Creider 1989), used to introduce applied arguments with a variety of thematic roles (e.g. recipient, beneficiary).[9, 10]

– The object clitics that we have postulated are the regular object clitics in the language (Toweett 1979: p.209).

– We make the claim that *le* has an allomorph *leːn* (see Zwarts 2004 for similar allomorphs for the cognate word in the Kalenjin dialect Endo).

• Reflexive morphology can also appear on *le*:[11]

(21) ki-keːr-e-**kɛː**.
      1PL-look-IPFV-REFL
      'We are looking at ourselves/at each other.'

(22) Koː-∅-tʃɑːm-**tʃi-kɛː**   Kíbêːt   **ko-leːn-tʃi-kɛː**   ŋâːm.
      PST-3-whisper-APPL-REFL   Kibeet.NOM   3-LE-APPL-REFL   clever
      'Kibeet whispered to himself that he's intelligent.

• **The presence of applicative and reflexive/reciprocal morphology on *le* (even when it is used as a complementizer) strongly supports its analysis as a verb.**

4.5   Analysis

• Common syntactic assumption: a CP headed by a C is merged as a sister to the matrix verb.

– In Kipsigis, however, the element mediating the relationship between the matrix verb and the embedded proposition is the verb *le*, and not C.

– We model this as in (24): the embedded TP is a sister to the verb *le* 'say', which itself is part of a subjunctive TP embedded under the matrix predicate.[12]

• *le* being a verb, it is natural that it appears with an external argument. We argue that what has been described as C-agree in the language is instead agreement between *le* and its local subject (see Appendix and Driemel and Kouneli 2020 for more evidence and a complete analysis).

– The strongest evidence for the presence of a local subject comes from cases where the subject is overt. This indicates the subject is *pro*, which comes with its own ϕ-features:

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[9]There is another applicative suffix *-eːn*, which is mostly used for sources and instruments (Toweett 1979, Rottland 1982).

[10]The applicative *-tʃi* has an allomorph *-ʲi* when attached to verbs ending in an alveolar obstruent. It also has the allomorph *-u* for 1/2 person applied arguments for most (but not all) lexical verbs. This has been analyzed as a specialized use of the ventive suffix *-u* in Kalenjin/Southern Nilotic languages (Rottland 1982, Creider and Creider 1989, Zwarts 2004, Mietzner 2009).

[11]The suffix *-kɛː* is unique in being outside of the [ATR] harmony domain of the verb.

[12]See Alexiadou et al. (2012), Pietraszko (2017, 2020) for arguments against a C layer for at least some subjunctives.

(23) Ka-a-mwa   [ɑː-le   **anɛː** kà-∅-tʃɔ́ːr Kíbêːt   rabiːnik].
      PST-1SG-say 1SG-LE 1SG PST-3-steal Kibeet.NOM money
      'I said that Kibeet stole the money.'

Further syntactic assumptions

- Voice introduces the external argument (Kratzer 1996).

- V moves via Voice to T (or a higher projection, see Bossi and Diercks (2019)); T agrees downward with the logophoric subject.

- Subjunctive is introduced in T and serves as a causal linker between the saying event and the event introduced by the matrix predicate, see Özyıldız et al. (2018).

(24) Ka-i-kas-ɛːn   Kìplàŋgàt kèː-lé/ ìː-lé/   kò-lé kà-∅-tʃɔ́ːr Kíbêːt
      PST-2SG-hear-APPL Kiplangat IMP-LE/ 2SG-LE/ 3-LE PST-3-steal Kibeet.NOM
      rabɪːnɪk.
      money
      'You heard from Kiplangat that Kibeet stole the money.'
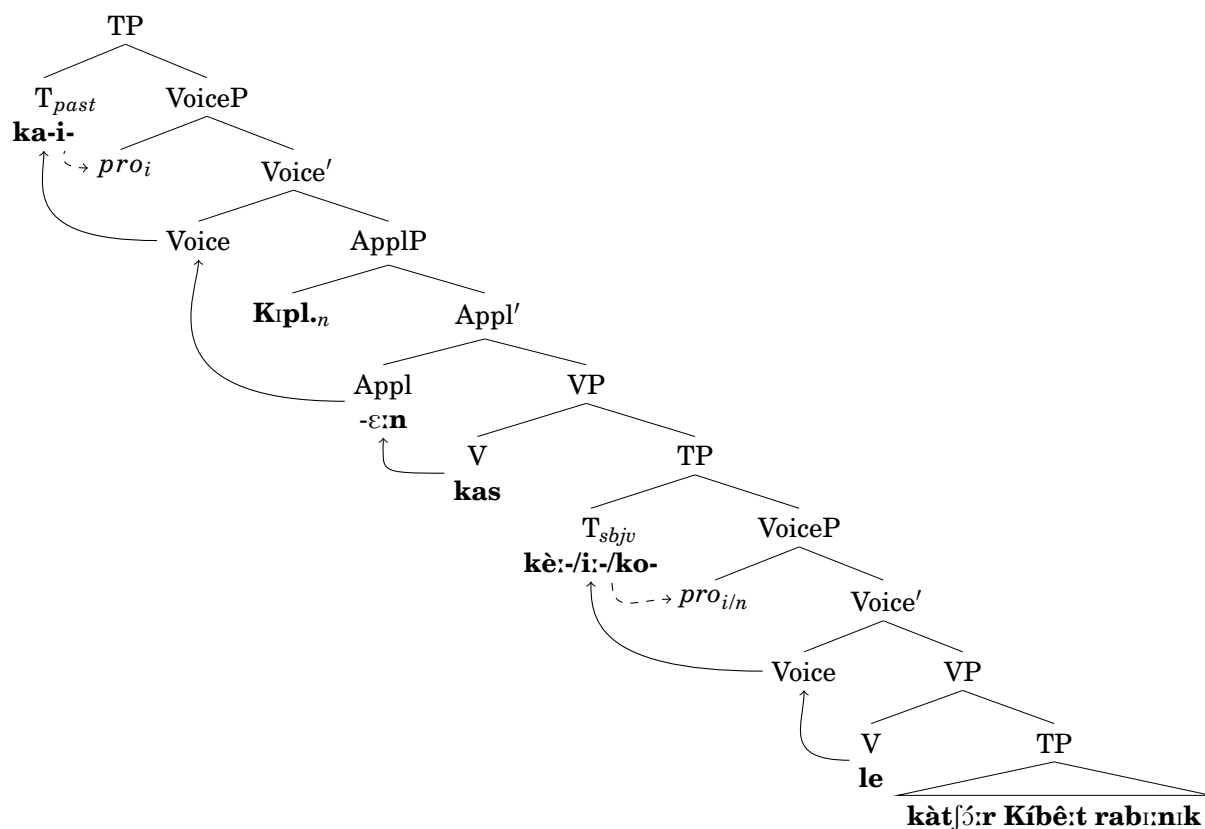
5   But Kipsigis also has noun-y clausal complements

- A form of *le* (morphologically) identical to the impersonal is used with content nominals:

(25) [lɔgɔjwɛːk **keː-le/*ko-le** koː-∅-kiːtun Tʃéːbêːt]   ko   kɔː-∅-jaj Kìbêːt
        news   KEE-LE/*3-LE PST-3-marry Cheebeet.NOM TOP PST-3-do Kibeet
        ko-ma-bajbaj.
        ADV-NEG-happy
        'The news that Chebet got married made Kibet unhappy.'

- Compatibility of clausal complements with content nominals is taken to be a property of $< e, t >$ (noun-y) complements (Moulton 2019).

- We argue that *keːle* here is a nominalized form of the verb, with *keːle* being a default/unmarked form of the verb (see Appendix for a tentative analysis). This is consistent with the observation that this morphological form corresponds to the citation form of lexical verbs in the language.

- Additional evidence for the noun-y nature of clauses introduced by *keːle* comes from the distribution of topicalized clausal complements.

- Even though the default word order is VSO, the language has a pre-verbal position marked by the particle *ko* where contrastive topics are licensed (Büring 2003).

(26) **Context**: *We were at an event with Kibeet, Cheebeet, and many other people attending, and multiple dishes were available. We want to ask who ate what? What did Kibeet eat? What did Cheebeet eat?*
    a. **Kìbêːt kó** kà-∅-ám ŋéːndéːk.
        Kibeet TOP PST-3-eat beans
        'Kibeet ate beans.'
    b. **Tʃèːbêːt kó** kà-∅-ám pèːndɑ́.
        Cheebeet TOP PST-3-eat meat
        'Cheebeet ate meat.'

(27) **Context**: *We were at an event with many other people attending, and multiple dishes such as beans were available. Who ate what? Who ate beans? Who ate meat?*
    a. **ŋéːndéːk kó** kà-∅-ám Kìbêːt.
        beans   TOP PST-3-eat Kibeet.NOM
        'Beans, Kibeet ate.'
    b. **Pèːndɑ́ kó** kà-∅-ám Tʃéːbêːt.
        meat   TOP PST-3-eat Cheebeet.NOM
        'Meat, Cheebeet ate.'

- The *ko*-position is restricted to nominals (Creider 1987: 108), a property of the immediately pre-verbal position in other Nilotic languages as well; see, for example, van Urk (2015) on Dinka.

– Adverbs cannot occupy the *ko*-position:

(28) **Context**: *I want to hire one of your drivers but I keep forgetting which one drives slowly and which one drives fast. We want to ask who is driving at which pace? Who is driving slowly? Who is driving fast?*

    A: ***mùːtjʊ̀ kó** ∅-kèːt-é   Kíbêːt.
       slowly TOP 3-drive-IPFV Kibeet.NOM
       'Slowly, Kibeet drives.'

– PPs cannot occupy the *ko*-position:[13]

(29) **Context**: *We had a dinner party, and we cooked different dishes. We split up in pairs to cook. We want to ask who was cooking with whom? Who was cooking with Kibeet? Who was cooking with Chebeet?*

    A: ***Ak** **Kìplàŋgàt kó** kɑ-∅-tʃɑp-e   Kíbêːt   ɑmitwaːgik.
       with Kiplangat TOP PST-3-make-IPFV Kibeet.NOM food
       'With Kiplangat, Kibeet made food.'

• When *le*-clauses are topicalized, agreeing forms of *le* are ungrammatical in the *ko*-position. Clauses introduced by the *keːle* form, however, are possible in this position, which shows that the latter are nominal in nature (while the former are not).

(30) **Context**: *Kibeet and Chebeet have just had exams. Both have passed as you were told. We want to ask who told you what? Who told you that Chebeet passed the exam? Who told you that Kibeet passed the exam?*

    a. [**Keː-le/*iː-le**   kòː-∅-síːr Tʃéːbêːt]   **kó** kɑ-i-mwɑ-u-ɑn.
       KEE-LE/2SG-LE PST-3-pass Cheebeet.NOM TOP PST-2SG-say-VENT-1SG
       'That Cheebeet passed (the exam), you told me.'

    b. [**Keː-le/*ko-le** kòː-∅-síːr Kíbêːt]   **kó** kɑ-∅-mwɑ-u-ɑn
       KEE-LE/3-LE PST-3-pass Kibeet.NOM TOP PST-3-say-VENT-1SG
       Kíplàŋgàt.
       Kiplangat.NOM
       That Kibeet passed (the exam), Kiplangat told me.'

6 Conclusion

• Kipsigis has a 'say'-based complementizer, but clausal complements display both noun-y and verb-y properties, depending on the exact form of the "complementizer":

– The language is added to a number of Bantu and Turkic languages where the 'say'-based complementizer may display different morphological forms, which differ in their distribution.

– The existence of noun-y complements headed by a 'say'-based complementizer supports the view that a 'say'-based complementizer is not predictive of verb-y properties for the CP (Halpert 2019).

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[13]The language has few genuine prepositions. For PPs headed by the generic preposition *έːn* 'at/to/for', we got mixed results from our consultants: two speakers judged those PPs ungrammatical, but another two simply noted they were degraded.

- We have argued that the Kipsigis "complementizer" is in fact a verb, which means that 'say'-based complementizers could be lexical verbs in more languages than previously thought; see also work on *Abe* (Koopman and Sportiche 1989), *Turkish* (Özyıldız et al. 2018), *Laz* (Demirok et al. 2020), and *Avatime* (Major and Torrence 2020).

- Reanalyzing (at least some) complementizers as lexical verbs or nouns straightforwardly explains noun-y and verb-y properties of CPs, and raises questions about the nature of the C category. It also has important consequences for the analysis of various syntactic phenomena:

  - Upwards-oriented complementizer agreement could instantiate standard verbal agreement instead, with consequences for our theory of agreement (Driemel and Kouneli 2020).
  - Major (2021) shows that certain arguments in favor of Dependent Case theory go away once the Sahka and Uyghur 'say'-based complementizer is analyzed as a verb.

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Appendix

Prefixal agreement

(31) Ka-i-kas-ɛːn   Kìplàŋgàt keː-le/ iː-le/   ko-le kà-∅-tʃɔ́ːr Kíbêːt
      PST-2SG-hear-APPL Kiplangat IMP-LE/ 2SG-LE/ 3-LE PST-3-steal Kibeet.NOM
      rabɪːnɪk.
      money
      'You heard from Kiplangat that Kibeet stole the money.'

(32)
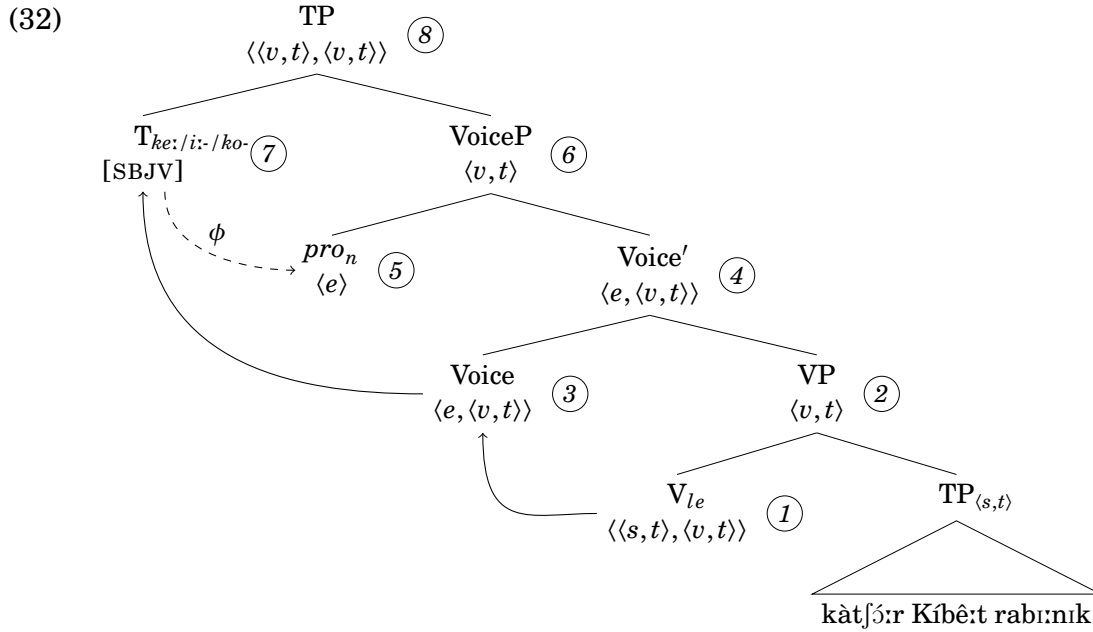
(33) $[\![\ ①\ ]\!]^{w,g} = \lambda p_{\langle s,t\rangle}\lambda e_v[say(e) \wedge \text{CONT}(e) = p]$,
            defined iff AG(e) qualifies as the logophoric SOURCE of p

$[\![\ ②\ ]\!]^{w,g} = \lambda e_v[say(e) \wedge \text{CONT}(e) = \{w : \text{Kibeet stole the money at } w\}]$

$[\![\ ③\ ]\!]^{w,g} = \lambda x_e\lambda e_v[\text{AG}(e) = x]$

$[\![\ ④\ ]\!]^{w,g} = \lambda x_e\lambda e_v[say(e) \wedge \text{CONT}(e) = \{w : \text{Kibeet stole the money at } w\} \wedge \text{AG}(e) = x]$

$[\![\ ⑤\ ]\!]^{w,g} = g(n)$

$[\![\ ⑥\ ]\!]^{w,g} = \lambda e_v[say(e) \wedge \text{CONT}(e) = \{w : \text{Kibeet stole the money at } w\} \wedge \text{AG}(e) = g(n)]$

$[\![\ ⑦\ ]\!]^{w,g} = \lambda P\lambda Q\lambda e''.\exists e'[e' \sim e'' \wedge P(e') \wedge Q(e'')]$

$[\![\ ⑧\ ]\!]^{w,g} = \lambda Q\lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kibeet stole the money at } w\}$
            $\wedge \text{AG}(e') = g(n) \wedge Q(e'')]$, defined iff AG($e'$)
            qualifies as the logophoric SOURCE of $\{w : \text{Kibeet stole the money at } w\}$

(34)
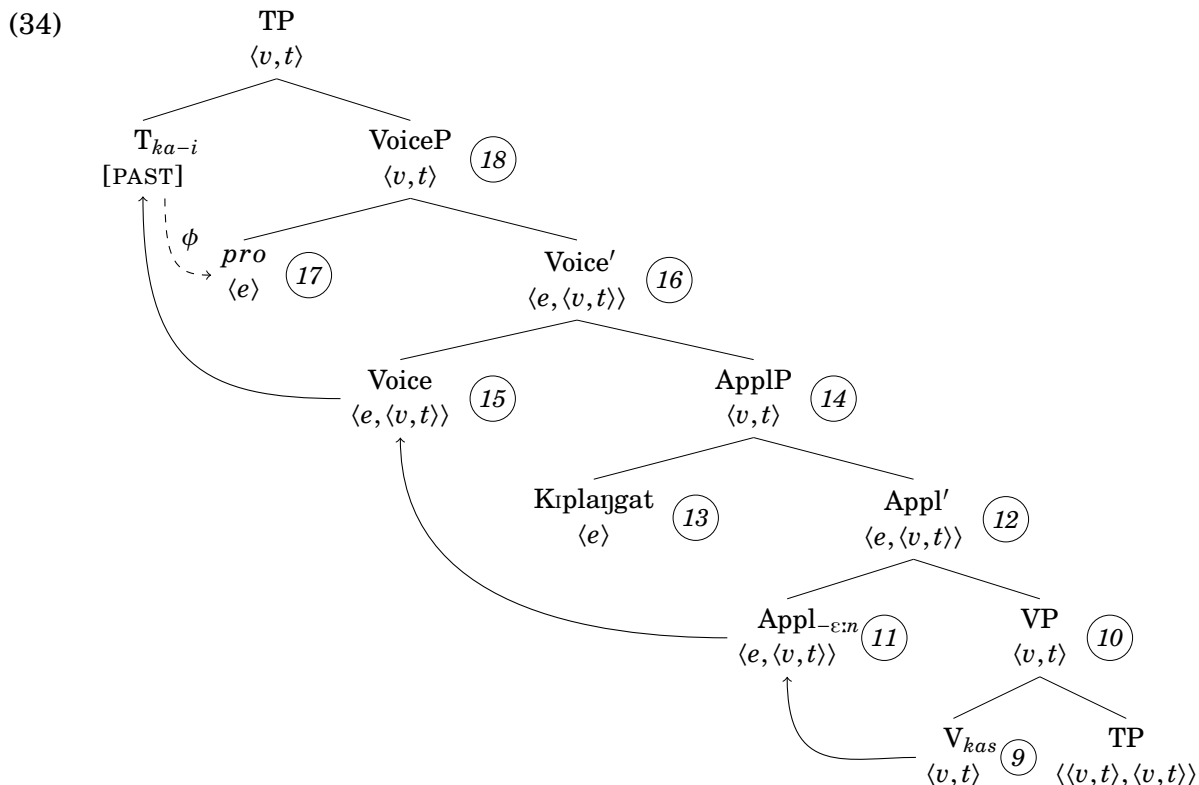
(35) $[\![\, \textcircled{9} \,]\!]^{w,g} = \lambda e_v[hear(e)]$

$[\![\, \textcircled{10} \,]\!]^{w,g} = \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kibeet stole the money at } w\}$
$\wedge \text{AG}(e') = g(n) \wedge hear(e'')]$

$[\![\, \textcircled{11} \,]\!]^{w,g} = \lambda x_e \lambda e_v[\text{SOURCE}(e) = x]$

$[\![\, \textcircled{12} \,]\!]^{w,g} = \lambda x \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kibeet stole the money at } w\}$
$\wedge \text{AG}(e') = g(n) \wedge hear(e'') \wedge \text{SOURCE}(e'') = x]$

$[\![\, \textcircled{13} \,]\!]^{w,g} = \text{Kiplangat}$

$[\![\, \textcircled{14} \,]\!]^{w,g} = \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kibeet stole the money at } w\}$
$\wedge \text{AG}(e') = g(n) \wedge hear(e'') \wedge \text{SOURCE}(e'') = kiplangat]$

$[\![\, \textcircled{15} \,]\!]^{w,g} = \lambda x_e \lambda e_v[\text{EXP}(e) = x]$

$[\![\, \textcircled{16} \,]\!]^{w,g} = \lambda x \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kibeet stole the money at } w\}$
$\wedge \text{AG}(e') = g(n) \wedge hear(e'') \wedge \text{SOURCE}(e'') = kiplangat \wedge \text{EXP}(e'') = x]$

$[\![\, \textcircled{17} \,]\!]^{w,g} = g(i)$, defined iff $g(i)$ is addressee[14]

$[\![\, \textcircled{18} \,]\!]^{w,g} = \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kibeet stole the money at } w\}$
$\wedge \text{AG}(e') = g(n) \wedge hear(e'') \wedge \text{SOURCE}(e'') = kiplangat \wedge \text{EXP}(e'') = g(i)]$,
defined iff $g(i)$ is addressee and $\text{AG}(e')$ qualifies as the logophoric SOURCE
of $\{w : \text{Kibeet stole the money at } w\}$

The **forms of *-le*** result from ϕ-agreement with the local subject:

(36) Ka-i-kas-ɛːn   *pro₁* Kɪplaŋgat₂ **ìː-lé**   *pro₁* kà-∅-tʃɔːr   K. rabɪːnɪk.
      PST-2SG-hear-APPL ↓   ↓   2SG-LE ↓   PST-3-steal K. money
                        Addr Kiplangat   **Addr**

---

[14]ϕ-features on pronouns denote partial identity functions of type $\langle e,e \rangle$ (Sauerland 2003, 2008, Heim 2008); for free pronouns the relevant assignment is given by the utterance context.

(37) Ka-i-kas-ɛːn   *pro*₁ Kɪplaŋgat₂ **kò-lé** *pro*₂ kà-∅-tʃɔ́ːr   K. rabɪːnɪk.
     PST-2SG-hear-APPL ↓   ↓   3-LE   ↓   PST-3-steal K. money
                        Addr **Kiplangat** **Kiplangat**

(38) Ka-i-kas-ɛːn   *pro*₁ Kɪplaŋgat₂ **kèː-lé** *pro*₃ kà-∅-tʃɔ́ːr   K. rabɪːnɪk.
     PST-2SG-hear-APPL ↓   ↓   IMP-LE ↓   PST-3-steal K. money
                        Addr **Kiplangat**   **discourse antecedent**

Suffixal agreement

The occurrence of suffixal agreement is predicted under an account that treats *le* as a verb. In such cases *le* introduces an applied argument in addition to a subject.
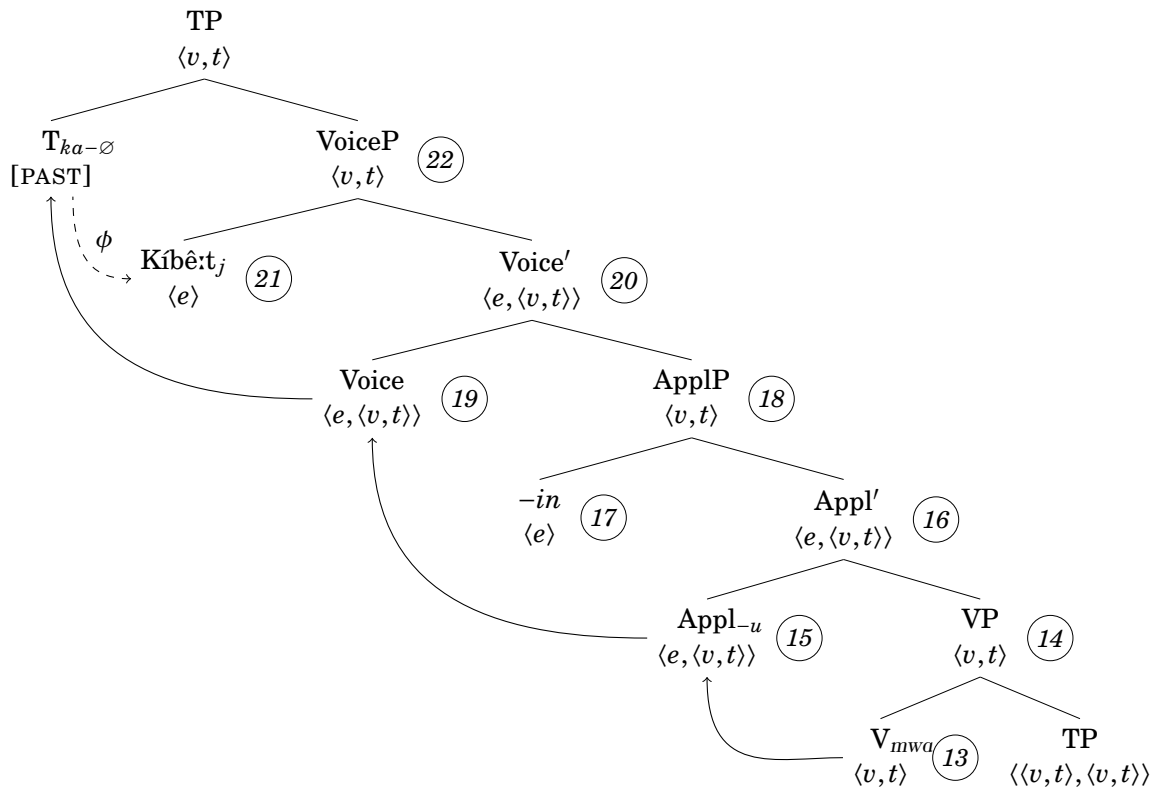
(39) Kɑ-mwɑ-**u-in**   Kíbêːt   ko-leːn-**tʃi-in**   ka-tʃɔr   Kíplàŋgàt
     PST-say-VENT-2SG Kibeet.NOM 3-LE-APPL-2SG PST-steal Kiplangat.NOM
     rabɪːnɪk.
     money
     'Kibeet told you that Kiplangat stole the money.'

(40)
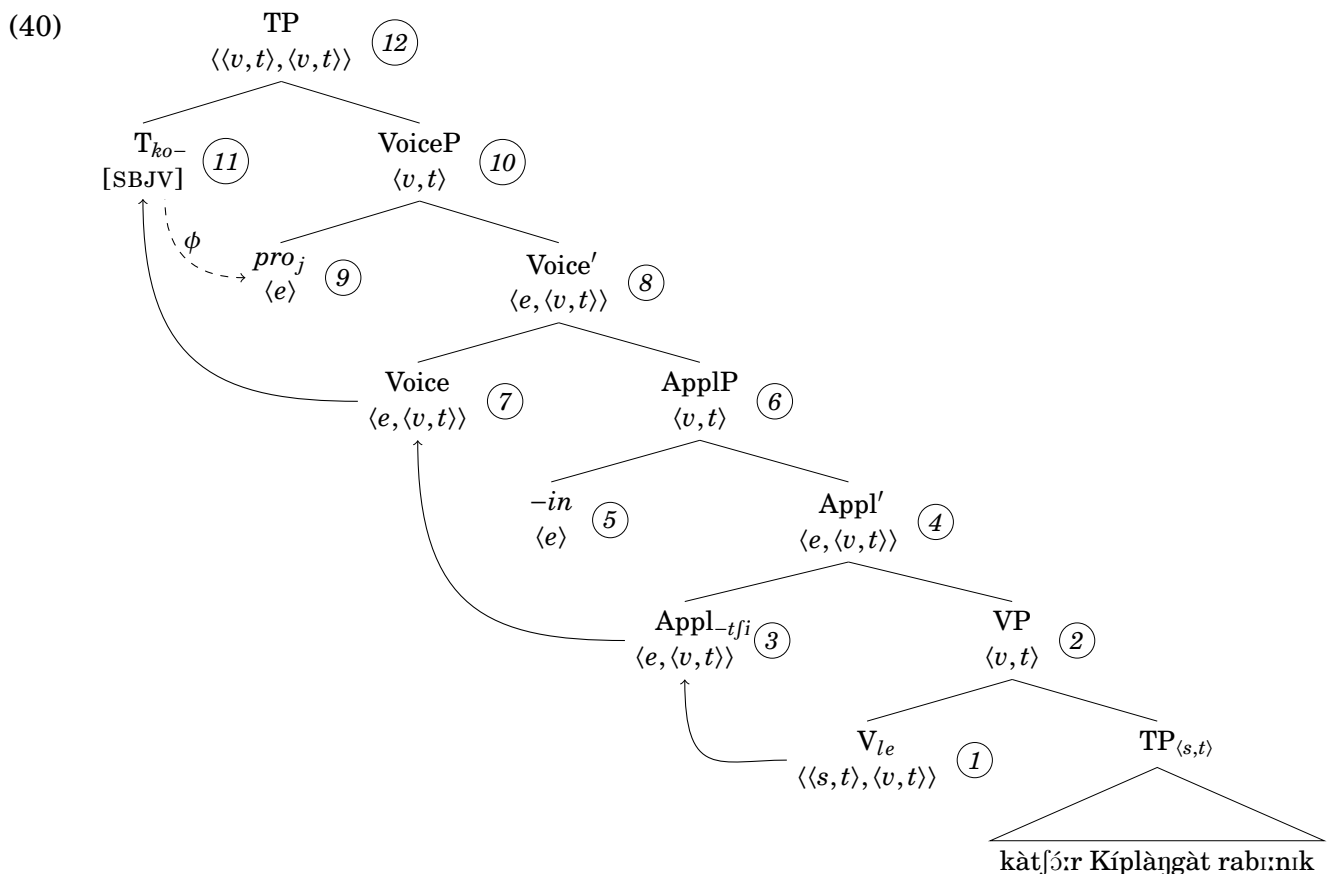
(41) $[\![①]\!]^{w,g} = \lambda p_{\langle s,t\rangle}\lambda e_v[say(e) \wedge \text{CONT}(e) = p]$,
         defined iff AG(e) qualifies as the logophoric SOURCE of p
      $[\![②]\!]^{w,g} = \lambda e_v[say(e) \wedge \text{CONT}(e) = \{w : \text{Kiplangat stole the money at } w\}]$
      $[\![③]\!]^{w,g} = \lambda x_e \lambda e_v[\text{GOAL}(e) = x]$
      $[\![④]\!]^{w,g} = \lambda x \lambda e[say(e) \wedge \text{CONT}(e) = \{w : \text{Kiplangat stole the money at } w\}$
         $\wedge \text{GOAL}(e) = x]$

$[\![\,⑤\,]\!]^{w,g} = g(i)$, defined iff $g(i)$ is addressee

$[\![\,⑥\,]\!]^{w,g} = \lambda e[say(e) \wedge \text{CONT}(e) = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad \wedge \text{GOAL}(e) = g(i)]$

$[\![\,⑦\,]\!]^{w,g} = \lambda x_e \lambda e_v[\text{AG}(e) = x]$

$[\![\,⑧\,]\!]^{w,g} = \lambda x \lambda e[say(e) \wedge \text{CONT}(e) = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad \wedge \text{GOAL}(e) = g(i) \wedge \text{AG}(e) = x]$

$[\![\,⑨\,]\!]^{w,g} = g(j)$

$[\![\,⑩\,]\!]^{w,g} = \lambda e[say(e) \wedge \text{CONT}(e) = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad \wedge \text{GOAL}(e) = g(i) \wedge \text{AG}(e) = g(j)]$

$[\![\,⑪\,]\!]^{w,g} = \lambda P \lambda Q \lambda e''.\exists e'[e' \sim e'' \wedge P(e') \wedge Q(e'')]$

$[\![\,⑫\,]\!]^{w,g} = \lambda Q \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad \wedge \text{GOAL}(e') = g(i) \wedge \text{AG}(e') = g(j) \wedge Q(e'')]$,
$\qquad$ defined iff $g(i)$ is addressee and $\text{AG}(e')$ qualifies as the logophoric SOURCE
$\qquad$ of $\{w : \text{Kiplangat stole the money at } w\}$

(42)

(43) $\quad [\![\,⑬\,]\!]^{w,g} = \lambda e_v[tell(e)]$

$\qquad [\![\,⑭\,]\!]^{w,g} = \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad\qquad \wedge \text{GOAL}(e') = g(i) \wedge \text{AG}(e') = g(j) \wedge tell(e'')]$

$\qquad [\![\,⑮\,]\!]^{w,g} = \lambda x_e \lambda e_v[\text{GOAL}(e) = x]$

$\qquad [\![\,⑯\,]\!]^{w,g} = \lambda x \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad\qquad \wedge \text{GOAL}(e') = g(i) \wedge \text{AG}(e') = g(j) \wedge tell(e'') \wedge \text{GOAL}(e'') = x]$

$\qquad [\![\,⑰\,]\!]^{w,g} = g(i)$, defined iff $g(i)$ is addressee

$\qquad [\![\,⑱\,]\!]^{w,g} = \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad\qquad \wedge \text{GOAL}(e') = g(i) \wedge \text{AG}(e') = g(j) \wedge tell(e'') \wedge \text{GOAL}(e'') = g(i)]$

$\qquad [\![\,⑲\,]\!]^{w,g} = \lambda x_e \lambda e_v[\text{GOAL}(e) = x]$

$[\![(20)]\!]^{w,g} = \lambda x \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad \wedge \text{GOAL}(e') = g(i) \wedge \text{AG}(e') = g(j) \wedge tell(e'') \wedge \text{GOAL}(e'') = g(i) \wedge \text{AG}(e'') = x]$

$[\![(21)]\!]^{w,g} = \text{Kibet}_j$

$[\![(22)]\!]^{w,g} = \lambda e''.\exists e'[e' \sim e'' \wedge say(e') \wedge \text{CONT}(e') = \{w : \text{Kiplangat stole the money at } w\}$
$\qquad \wedge \text{GOAL}(e') = g(i) \wedge \text{AG}(e') = g(j) \wedge tell(e'') \wedge \text{GOAL}(e'') = g(i) \wedge \text{AG}(e'') = Kibet],$
$\qquad$ defined iff $g(i)$ is addressee and $\text{AG}(e')$ qualifies as the logophoric SOURCE
$\qquad$ of $\{w : \text{Kiplangat stole the money at } w\}$

Supportive evidence comes from the fact that for some matrix verbs some speakers allow applied arguments to be interpreted by *le* exclusively, without being present on the matrix verb. Such a verb is ɲoːɲ 'complain' (but also *siːr* 'write').

(44) Koː-ɑ-ɲoːɲ   ɑː-leːn-**tʃi**   Kibeːt koː-jɑːtʃ-eːn àmìtwáːgík.
      PST-1SG-complain 1SG-LE-APPL Kibeet PST-bad-PL food.NOM
      'I complained to Kibeet that the food was bad.'

Nominalized *le*

(45) [lɔgɔjwɛːk **keː-le**/***ko-le**   koː-∅-kiːtun Tʃéːbêːt]   ko   kɔː-∅-jaj Kìbêːt
       news   KEE-LE/*3-LE PST-3-marry Cheebeet.NOM TOP PST-3-do Kibeet
      ko-ma-bajbaj.
      ADV-NEG-happy
      'The news that Chebet got married made Kibet unhappy.'

Here is a tentative analysis of *lɔgɔjwɛːk keːle koːkiːtun Tʃéːbêːt* 'news that Chebet got married'. The denotation of the nominalizer in ③ is inspired by Wood (2020: 95).

(46)
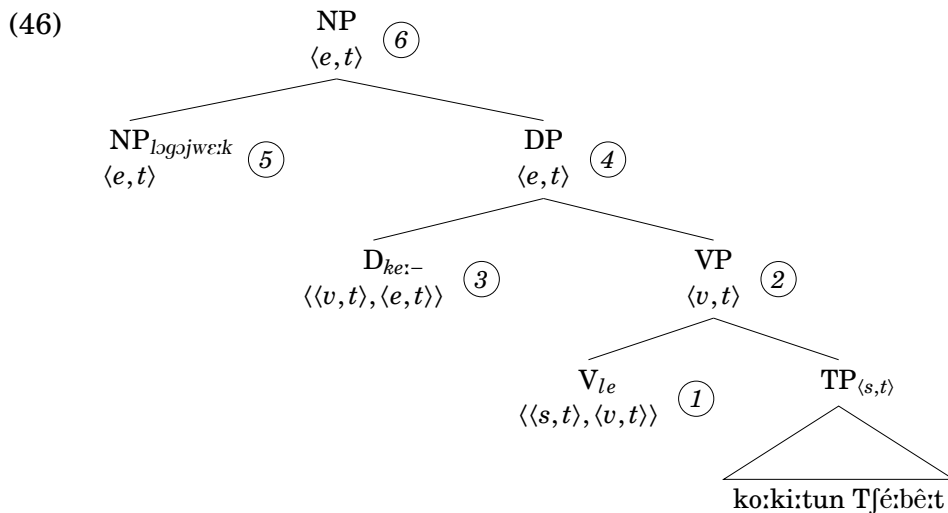
(47) $[\![\text{①}]\!]^{w,g} = \lambda p_{\langle s,t \rangle} \lambda e_v[say(e) \wedge \text{CONT}(e) = p]$
$\qquad [\![\text{②}]\!]^{w,g} = \lambda e_v[say(e) \wedge \text{CONT}(e) = \{w : \text{Chebet got married at } w\}]$
$\qquad [\![\text{③}]\!]^{w,g} = \lambda P_{\langle v,t \rangle} \lambda x \exists e[P(e) \wedge \text{RESULT}(x,e)]$
$\qquad [\![\text{④}]\!]^{w,g} = \lambda x \exists e[say(e) \wedge \text{CONT}(e) = \{w : \text{Chebet got married at } w\} \wedge \text{RESULT}(x,e)]$
$\qquad [\![\text{⑤}]\!]^{w,g} = \lambda y[news(y)]$
$\qquad [\![\text{⑥}]\!]^{w,g} = \lambda x \exists e[news(x) \wedge say(e) \wedge \text{CONT}(e) = \{w : \text{Chebet got married at } w\}$
$\qquad\qquad \wedge \text{RESULT}(x,e)]$