

1 Introduction

Kísêdjê (previously known as *Suyá*, Northern Jê, Brazil) is an isolating, strictly head-final language, that marks verbal arguments of unembedded verbs as nominative-accusative and verbal arguments of embedded verbs as ergative-absolutive. It has been described by Santos (1997) and Nonato (2014). Kísêdjê doesn't have negative determiners, negative pronouns, negative adverbs or negative particles. Instead, all negation is achieved through the use of *negative verbs*.

There are two negative verbs in the language: the negative assertive verb *khêrê* 'not_be' and the negative deontic verb *hwêt-txi* 'must_not_be'. Negative verbs behave like regular intransitive verbs. The single argument of a negative verb can be a noun phrase—in which case it realizes existential negation—or an embedded clause—in which case it realizes sentential or constituent negation. Both sentential negation and constituent negation involve embedding the relevant clause under a negative verb, with constituent negation further involving marking the relevant constituent with the indefinite determiner *thô*.

Though Kísêdjê's negation system is very consistent with its logical representation, it is apparently very uncommon cross-linguistically. Some languages have *auxiliary* negative verbs, but not many seem to have negative verbs that behave like intransitive verbs. Evenki, Tongan and Wari' are some languages that seem to be like Kísêdjê in this respect (Miestamo, this conference). Among the languages described in Kahrel and Van den Berg (1994), only Nabêb (Maku, Brazil, Weir 1994) has a negation system *somewhat* similar to Kísêdjê in that it embeds negated clauses, but in this language the embedding head seems to be a noun rather than a verb. In this paper I describe the Kísêdjê negation system and discuss the significance of its cross-linguistic rarity in face of its logical transparency.

2 The data

In example (1) there are two instances of the negative verb *khêrê* realizing existential negation. The left-hand side instance takes for argument the noun *pá* 'forest' and the right-hand side instance takes for argument the noun *mê* 'people'. In the left-hand side clause, *pá* 'forest' is assigned nominative case, as the argument of an unembedded intransitive verb should. In the right-hand side clause, *mê* 'people' is assigned nominative case, as the argument of an intransitive verb embedded by the verb *hwa* 'be_finished' should.

- (1) [*Pá* =*ra* *khêt*¹] =*nhy* [*mê* =*ra* *khêt-Ø* *hwa*.]
 forest =NOM not_be =*ǃ*.DS people =NOM not_be-NMLZ be_finished
 ['The forest ended] and [the people all died.]

Negative verbs are also used to realize sentential negation. In (2a) you see a negative verb embedding a transitive clause and, in (3a), a negative verb embedding an intransitive clause. In (2b) and (3b) you see the equivalent affirmative sentences.

- (2) a. [*Ire* *hwikhá* *kujasê-k*] *khêrê*. (3) a. [*I-wipā-n*] *khêrê*.
 1ERG² car push-NMLZ not_be 1ABS-be_drunk-NMLZ not_be
 'I didn't push the car.'
 (lit. 'There was no pushing of the car by me.')
- b. *Hên* *wa* *hwikhá* *kujathe*. b. *Hên* *wa* *ipā*
 NFUT 1NOM car push NFUT 1NOM be_drunk
 'I pushed the car.' 'I'm drunk.'

As expected from verbal complements, the negated clauses in (2a) and (3a) display the two hallmark features of clausal embedding. *First*, verbs in embedded clauses appear in the nominalized form, which is derived by adding a suffix to the verbal root. There are six nominalizing suffixes, including the null morpheme, and each verb lexically selects for one of them, with a few phonological biases, as detailed in Nonato (2014, p. 140). Some

1. The alternation between *khêrê* and *khêt* is regular. Utterances in Kísêdjê never end in a consonant. Whenever a consonant-final word is in utterance-final position, an epenthetic vowel is added to it. This epenthetic vowel is most often a copy of the preceding vowel, with some exceptions that are well understood. If the underlyingly final consonant is *p* or *t*, it mutates into *w* and *r*. This extra syllable has no consequences to stress assignment, which remains on the word's underlyingly final syllable. For more details, see Nonato (2014, p. 128).

2. Glossing conventions: *ǃ* = coordinating conjunction, 1 = first person, 2 = second person, 3 = third person, ABS = absolutive, CNTFC = counterfactual, COMPL = completive, DAT = dative, DS = different subject, ERG = ergative, FUT = future, INCL = inclusive, INDF = indefinite, INFR = inferential, NFUT = non-future, NMLZ = nominalizer, NOM = nominative, PL = plural, POSS = possessive, SG = singular, SS = same subject.

irregular verbs, like *kujathe* and *ipã* in the previous examples, also displaying root alternations in the nominalized form. *Second*, while arguments of main verbs are marked according to a nominative-accusative case alignment, arguments of embedded verbs are marked according to an ergative-absolutive case alignment.

Compare the embedded negated clauses in (2a) and (3a) with the more standard example of clause embedding in (4) below. In the example below, a coordinate complex with two clausal conjuncts is embedded as the direct argument of the verb *wymba* ‘fear’. Here as well, the embedded verbs appear in their nominalized form, with their arguments marked according to an ergative-absolutive pattern.

- (4) *Imã [ire rop mu-n nhy i-wynde-n] wymba kumeni.*
 1DAT 1ERG jaguar:ABS see-NMLZ &.DS 1ABS-hurt-NMLZ fear much

‘I fear very much that I should see a jaguar and it should wound me.’

As I stated in the introduction, Kísêdjê doesn’t have negative pronouns or determiners. In order to produce constituent negation, the relevant constituent is marked by the indefinite determiner *thō* and the whole containing clause is embedded by a negative verb, as seen in (5). The use of the indefinite determiner *thō* outside the scope of a negative verb can be seen in (6).

- (5) *[ire mē thō mu-n] khêrê* (6) *hên wa mē thō mu*
 1ERG people INDF see-NMLZ not_be NFUT 1NOM people INDF see

‘I saw no-one.’

(lit. ‘There was no sight of someone by me.’)

‘I saw someone.’

In (5) the object of the embedded verb is being negated. In (7) it is the subject of the embedded verb *mba* ‘know’ that is being negated. The syntax of subject negation is the same as that of subject negation, with the indefinite determiner *thō* taking the negated constituent as its argument—here, the first person pronominal prefix *i-*.

- (7) *[ire aj i-thō [hwîkhá ro aj i-pa-Ø] mba-j] khêrê*
 1ERG PL 1-INDF vehicle in PL 1-move.PL-NMLZ know-NMLZ not_be

‘None of us knows how to drive a car.’ (lit. ‘There is no knowing by one of us of how to drive a car.’)

Though for expository reasons the bulk of my examples instantiate the more widely used negative verb *khêrê*, for completeness’ sake I show below examples instantiating the deontic negative verb *hwêt-txi*. In example (8) *hwêt-txi* has an optative reading, whereas in (9) it has a dehortative reading.

- (8) *i-khrat khá khre khâm i-nho celular ti kê [ngo-Ø] hwêt-txi*
 1-beginning cover inside in 1-POSS cellphone put.SG &.DS.FUT.3 wet-NMLZ must_not_be

‘I’m putting my cellphone in my pants’ pocket and it musn’t get wet.’

(lit. ‘I’m putting my cellphone in my pants’ pocket and it isn’t for it to get wet.’)

- (9) *[[khênsy mǎ wa-mo-rô khêt-Ø] mǎ a-tumba-j] hwêt-txi*
 sand to 1INCL-go.PL-NMLZ not_be-NMLZ to 2-think-NMLZ must_not_be

‘Don’t be thinking that we aren’t going to the beach!’

(lit. ‘It is not for you to be thinking about the inexistence of our going to the beach’)

I stated in the introduction that negative verbs are regular intransitive verbs. So far, we have seen that this is true in what regards negative verbs’ *internal syntax*. The single argument of a negative verb behaves like a regular verbal argument, with noun phrase arguments getting assigned the expected morphological case and clausal arguments displaying the hallmarks of clausal embedding.

Now let us look at evidence that negative verbs behave like regular intransitive verbs in what regards their *external syntax*. As seen in examples (9) and (1) (repeated below as 10), a clause headed by *khêrê* can be embedded by a verb or a postposition. In (9), *khêrê* is embedded by the postposition *mǎ* and in (10) it is embedded by the completive verb *hwa*.

- (10) *[Pá =ra khêt] =nhy [mē =ra khêt-Ø hwa.]*
 forest =NOM not_be &.DS people =NOM not_be-NMLZ be_finished

[‘The forest ended] and [the people all died.]

The nominalized form of the negative verb *khêrê* is derived via null morphology. Besides *khêrê*, the class of verbs whose nominalized form is derived via null morphology also includes, for instance, the verb *hrôno* ‘run’. In (11) you can see *hrôno* used as the main verb of its sentence and in (12) you can see it embedded by another verb, namely, the verb *wyráká* ‘be_like’.

- (11) *mbry khôt na wa i-hrôn ne thê=n amntêk mã atá=n no*
 animal along NFUT 1NOM 1-run 3.SS go=3.SS mud to enter=3.SS be.lying

‘I was running after an animal and got stuck in mud.’

[KS-20100810-JT-DM-rophyk_to_sujareni-KW]

- (12) *waj-i k-wã [i-hrôn-Ø] wyráká*
 INFR-actually 3-to 1-run-NMLZ be_like

‘He thinks I ran.’ (lit. ‘For him it must be like there are runs by me.’)

In common with the verb *hrôno*, the negative verb *khêrê* also belongs to the small class of verbs that obligatorily take an absolutive prefix whenever their subjects are [+participant] (first or second person). Even when such verbs are unembedded, the absolutive prefix appears, cooccurring with a correferent nominative pronoun (for *hrôno* compare 11 and 12 above and for *khêrê* compare 13 and 14 below). In this class there are also verbs that take non-null nominalizing morphology as, for instance, the verb *katho(-ro)* ‘come_out’.

- (13) *waj-i k-wã [i-khêt-Ø] wyráká*
 INFR-actually 3-to 1-not_be-NMLZ be_like

‘He thinks I died.’ (lit. ‘He thinks I don’t exist’)

- (14) *tuu... i-tê-m khêt-Ø arân kaj a-khêrê...*
 gee 1-go.SG-NMLZ not_be-NMLZ CNTFC 2NOM.PL 2-not_be

‘Gee, had I not arrived here, you would have perished’

(lit. ‘Gee, had there not been my arrival, there wouldn’t be you.’)

[KS-20060211-MC-KS-narrativa_da_chegada2-KW]

Note that, besides the negative verb *khêrê*, Kîsêdjê’s lexicon includes many other operator-like verbs whose closest correspondent in other languages belongs to a different category (adverb, particle, verbal inflection, auxiliary verb, etc.). One of those verbs is the completive verb *hwa*, which appears unembedded in (1), repeated below as (15), and embedded by the postposition *mã* in (16). Note that the completive verb, unlike *khêrê*, takes an overt nominalizing suffix.

- (15) [*Pá =ra khêt*] =nhy [*mê =ra khêt-Ø hwa.*]
 forest =NOM not_be =3.DS people =NOM not_be-NMLZ be_finished

[‘The forest ended] and [the people all died.’]

- (16) [*wa-wikro-n hwa-j*] *mã=n wa thârâ*
 1INCL-gather-NMLZ be_finished-NMLZ to=NFUT 1NOM in.vain

‘I was thinking that everybody was going to gather.’

As a regular intransitive verb with the same expected distribution as any other intransitive verb, the negative verb *khêrê* can even occur embedded by another instance of the verb *khêrê*, the latter being by its turn embedded under the verb *mã* ‘to_be_forthcoming’, as in the examples below.

- (17) *Ø hwîsô ro tho sôk ne [[Ø-mba-j khêt-Ø] khêt-Ø] mã*
 3NOM paper on 3.with paint 3.SS 3-know-NMLZ not_be-NMLZ not_be-NMLZ be_forthcoming

‘She wrote it down and won’t forget.’

(lit. ‘She painted it on paper and the inexistence of her memory’s failure is forthcoming.’)

- (18) [[*ire* *s-atwâ-râ* *khêt-Ø*] *khêt-Ø*] *mã*
 1ERG 3-lay-NMLZ not_be-NMLZ not_be-NMLZ be_forthcoming

‘I won’t forget to lay it down.’

(lit. ‘The inexistence of my deposit’s failure is forthcoming.’)

- (19) [[*ire* *s-õ-rõ* *khêt-Ø*] *khêt-Ø*] *mã*
 1ERG 3-give-NMLZ not_be-NMLZ not_be-NMLZ be_forthcoming

‘I won’t stop giving it.’

(lit. ‘The inexistence of my lack of giving is forthcoming.’)

The literal translations given above were meant to mirror the syntax of the Kĩsêdjê sentence. Though they may sound clumsy, they have the same truth conditions as the free translations. More importantly, the truth conditions themselves, as expressed by predicate logic, are a mirror image of the Kĩsêdjê syntax (and, hence, of the literal translations).

3 Transparent expression of the semantics of negation

I only know of three languages that seem to have a negation system like Kĩsêdjê’s: Evenki, Tongan and Wari’ (Miestamo, this conference). On the other hand, this is a very logical syntactic system, mirroring perfectly its neo-davidsonian semantics (e.g. Ramchand 2004). The denotations of (3a) and (3b), repeated below as (20a) and (20b), are given, respectively, in (21a) and (21b).

- (20) a. [*I-wipã-n*] *khêrê*. b. *Hên wa ipã*
 1ABS-be_drunk-NMLZ not_be NFUT 1NOM be_drunk

‘I’m not drunk.’

(lit. ‘There’s no drunkenness by me.’)

‘I’m drunk.’

- (21) a. $\neg \exists e, e$ an event [I am drunk at e]
 b. $\exists e, e$ an event [I am drunk at e]

The negative operator $\neg$ scopes over the whole denotation of the negated clause in (21a), in the same way as the negative verb *khêrê* embeds the whole negated clause in (20a). The same mirroring property can be found in constituent negation. The denotations of (5) and (6), repeated below as (22) and (23), are given in (24a) and (24b).

- (22) [*ire* *mẽ* *thõ* *mu-n*] *khêrê* (23) *hên wa mẽ thõ mu*
 1ERG people INDF see-NMLZ not_be NFUT 1NOM people INDF see

‘I saw no-one.’

(lit. ‘There was no sight of someone by me.’)

‘I saw someone.’

- (24) a. $\neg \exists e, x, e$ an event, x an individual [I see x at e]
 b. $\exists e, x, e$ an event, x an individual [I see x at e]

Like in the case of sentential negation, also in constituent negation the syntactic scope of the negation verb *khêrê* mirrors the semantic scope of the negative operator $\neg$. Finally, let us look at the denotation of existential negation, an example of which was given in (14), repeated below as (25). The denotation of (25) is given in (26).

- (25) *tuu... i-tê-m* *khêt-Ø* *arân* *kaj* *a-khêrê...*
 gee 1-go.SG-NMLZ not_be-NMLZ CNTFC 2NOM.PL 2-not_be

‘Gee, had I not arrived here, you would have perished’

(lit. ‘Gee, had there not been my arrival, there wouldn’t be you.’)

[KS-20060211-MC-KS-narrativa_da_chegada2-KW]

(26) $\neg\exists x, x$ the addressee

Once more we note a perfect symmetry between the denotation of the sentence and its syntax, that is to say, between, on the one hand, the scope of the negative operator $\neg$ in the denotation of the sentence and, on the other hand, the complementation relation found between the negative verb and the negated constituent.

In predicate logic, there is only one negative operator ($\neg$), which takes scope over the whole expression to be negated. In Kisêdjê, likewise, there is only one category expressing negation—that of the negative verbs—and a word in that category takes syntactic scope over the whole phrase to be negated.

Though for expository reasons I divided negation in Kisêdjê among sentential negation, constituent negation and existential negation, their syntax is as unique. It would be more accurate to state that the only kind of negation there is in Kisêdjê is existential negation. Such unicity also mirrors negation in predicate logic.

Why should such a transparent system be so uncommon?

This squib and future versions of it will be posted at <http://rafaeln.github.io>

References

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