NEGATION AS AN EXCLUSIVELY NOMINAL CATEGORY

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Negation in Tuparí (Tupían; Brazil) is an exclusively nominal category: verbs must enter into a nominalized form to accept the negator -*'om* and must undergo a subsequent process of reverbalization so as to combine with tense and evidential morphology. These category-changing processes leave -*'om* in a low position in the clause, and scopal evidence confirms that negation is also interpreted low. In keeping with the low structural position of -*'om*, the same negative strategy known from finite matrix clauses appears in nonfinite embedded contexts as well.

Tuparí shows that negative phrases exhibit more crosslinguistic variation than standardly assumed: they may appear in either the nominal or verbal EXTENDED PROJECTION. This finding is not compatible with cartographic efforts to strictly circumscribe the distribution of NegP within the clause. Like nominal tense in Tupi-Guaraní and other languages, in Tuparí a grammatical category normally associated with the verbal domain instead surfaces within the nominal one. For the purpose of typological comparison, the Tuparí facts highlight the need for classifications of negation that take into account both constructional asymmetries between affirmative and negative clauses and individual negator morphemes' selectional and categorical properties.*

Keywords: negation, morphosyntax, typology, nominalization, Amazonian languages, Tupían languages, Tuparí language

1. INTRODUCTION. Can functional categories normally attested in the verbal domain surface instead in the nominal one (and vice versa)? How should we make sense of languages in which the distribution of grammatical material defies crosslinguistic trends? The present article investigates these questions by examining negation in Tuparí, an understudied Tupían language of the Brazilian Amazon. Tuparí treats negation as an ex-

clusively nominal category: verbs must be nominalized in order to accept the negator -*'om*, a suffix that can never attach to verbal bases directly. Observe that the deverbal nominalizer -*ro* intervenes between the root *ko* 'eat' and -*'om* in 1.[1]

(1) Warop   koro'om   'on.
    w-arop   ko-**ro-'om**   'on
    1SG-food eat-NMLZ-NEG 1SG
      'I haven't eaten my food.'

Negated verbs in Tuparí are, formally speaking, just nouns: they cannot combine with markers of tense and evidentiality unless they first undergo a process of reverbalization. As shown by 2, adding the denominal verbalizer -*ka* is necessary if the predicate is to bear the durative tense -*pbi'a*.

(2) Kat koro'omkapbi'a   'ote.
    kat ko-**ro-'om-ka-a-pbi'a**   'ote
    that eat-NMLZ-NEG-VBLZ-TH-DUR 1PL.EXCL
      'We (EXCL) don't eat that.'

These category-changing processes leave -*'om* within multiple layers of derivational suffixation in the verbal word and far beneath the inflectional layer of the clause. It is in this low position that -*'om* is interpreted, as well: it is not able to scope over structurally superior elements.

The system described here is not restricted to main clauses but in fact occurs in all environments. An example of a counterfactual conditional is offered in 3. Nominalization with -*ro* and subsequent reverbalization with -*ka* are required in both the antecedent and the consequent. Note that the antecedent consists of a deverbal nominalization built with -*ap*.

(3) Siro'omkaere   okit
    Ø-si-**ro-'om-ka-ap**-ere   okit
    3-spear-NMLZ-NEG-VBLZ-NMLZ-OBL 1PAUC.INCL
        koro'omkakot'oy.
        Ø-ko-**ro-'om-ka**-kot'oy
        3-eat-NMLZ-NEG-VBLZ-CNDL
      'If we didn't spear it [wild peccary], we wouldn't eat it.'

Data such as 3 show that the realization of negation in Tuparí has no connection whatsoever to high functional categories such as tense, evidentiality, or mood. Rather, the entire system boils down to a rigidly enforced distinction between nouns and verbs, with -*'om* restricted to the former.

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[1] Abbreviations: ACT: actor nominalizer, ADV.FOC: adverbial focus, AFF: affirmative, APPL: applicative, AUX: auxiliary, CNDL: conditional, DIST.PST: distant past, DUR: durative, EVID: evidential, EXCL: exclusive first person, FUT: future, GER: gerund, INCL: inclusive first person, INS: instrumental, LOC: locative, LV: light verb *nẽ*, NEG: negation, NEG.LAM: negative lamentative particle, NMLZ: nominalizer, NR.FUT: near future, NR.PST: near past, NUC: nuclear case, OBL: oblique, OPT: optative, PAUC: paucal, PL: plural, POST: postposition, PROG: progressive, PRS: present habitual auxiliary, RECIP: reciprocal, SG: singular, TH: theme vowel, VBLZ: verbalizer, Y/N: yes/no question marker. Utterances that contain an evidential are marked as 'NONWITNESSED' in the translation.

Tuparí contains a fair number of obligatory phonological processes—vowel deletion, consonant lenition, cluster simplification, and nasal spreading—so all examples show the surface form in addition to morphological segmentation and glossing. The morphological segmentation gives the underlyingly oral form of all nasal harmonizing affixes and also shows vowels deleted on the surface by the verbal suffix -*a* 'TH'. In the standard Tuparí orthography, followed here, grave accents mark long vowels. See Singerman 2016 for more discussion of the language's phonology.

The behavior of -'*om* shows that the Tuparí negative phrase (NegP) diverges from better-studied instantiations of NegP in important ways. The Tuparí NegP occupies an exceptionally low position in the clause. This position is far beneath that of the high, mood-level negation known from Dravidian (Amritavalli 2000, 2004, Amritavalli & Jayaseelan 2005) and is even lower than the lowest of the four Romance negative projections identified by Zanuttini 1997. What is more, in formal syntactic theory the NegP is widely assumed to bear a [+VERBAL] rather than [+NOMINAL] categorical feature on Grimshaw's (2005) theory of the EXTENDED PROJECTION. But Tuparí does not conform to this assumption: in this language, negation is a category of nouns, not verbs. This straightforward fact challenges the idea in syntactic CARTOGRAPHY (Cinque 1999, Cinque & Rizzi 2009) that all negative phrases are basically positional variants of one another.

For the purposes of typological comparison, Tuparí emphasizes the need for multidimensional classifications of negation systems. Recent research (Miestamo 2005) has compared negative main clauses against affirmative ones so as to arrive at a typology of construction-level asymmetries, with morpheme-level differences largely set aside. But Tuparí demonstrates that we must also take seriously the idea that negator morphemes differ from one another in nontrivial ways: their selectional and categorical features can exhibit considerable crosslinguistic variation. -'*om* shows that this variation has been underestimated.

I begin with definitions of many of the terms used in the subsequent discussion and analysis (§2). Section 3 presents the basic facts concerning negation in Tuparí and its interaction with verbal morphology and clausal finiteness, and §4 then shows that all negated predicates pattern morphosyntactically with nominal rather than verbal predicates. I discuss in §5 the lamentative particle '*aet*, the only morpheme in Tuparí other than -'*om* that comes close to serving as a propositional negator. I then examine the scopal consequences of -'*om*'s low position in the Tuparí clause (§6), and show that the same negation strategy applies in nonfinite contexts, too (§7). The ramifications of these facts for the theory of the NegP are examined in §8.1, and the place of Tuparí within contemporary typological work is interrogated in §8.2. I conclude by presenting some comparative Tupían facts and by drawing a parallel with nominal tense (§9). The appendix provides information on cases where -'*om* contributes a privative meaning.

2. SOME DEFINITIONS. Negation and related phenomena have received much attention in the literature, in no small part because every natural language has some means at its disposal to invert the truth values of a proposition (Givón 1978, Dahl 1979, 2010, Payne 1985, Horn 1989, Miestamo 2005, 2017). This article defines NEGATION as the relationship that obtains between an affirmative proposition p and the proposition that has inverse truth values, $\neg p$. A piece of morphosyntax that serves to change an affirmative proposition into its negative counterpart is called a NEGATOR. Conceptually related to negation is PRIVATION, defined here as the expression of the absence or lack of something. Just as the negator is the piece of morphosyntax that accomplishes negation, the PRIVATIVE is what accomplishes privation. (There is no connection between privatives in this sense and the 'privative features' of phonological and morphosyntactic theorizing.)

Negators take a wide variety of forms crosslinguistically: affixes, particles, auxiliaries, and so on (Dahl 1979, 2010, Payne 1985). Privatives, too, vary in their realization: under the definition used here, both the preposition *without* and the bound suffix -*less* count (at least in certain uses) as privatives in English. There are also cases (such as Igbo, as described in Green & Igwe 1963 and discussed in Miestamo 2005:119–20) in which negation is signaled by construction-level oppositions between negative and affirmative

propositions rather than a specific negator morpheme. No issues of this type arise in connection with Tuparí, in which the negative morphology is neatly segmentable.

To date, much typological inquiry has focused on the phenomenon of STANDARD NEGATION (SN), defined in Miestamo's work as follows:

> A SN construction is a construction whose function is to modify a verbal declarative main clause expressing a proposition *p* in such a way that the modified clause expresses the proposition with the opposite truth value to *p*, i.e. ¬*p*, or the proposition used as the closest equivalent to ¬*p* in case the clause expressing ¬*p* cannot be formed in the language, and that is (one of) the productive and general means the language has for performing this function. (Miestamo 2005:42)

This definition is not a formal one: one cannot determine what counts as SN in some language using structural properties alone. It is instead based on the function of a negative construction, with as few assumptions as possible about the formal ways in which negative morphology gets encoded (see Haspelmath 2010 on the utility of COMPARATIVE CONCEPTS such as SN in typological research). Our discussion of the Tuparí facts begins by looking at SN contexts—that is, negation in verbal declarative main clauses—but expands to include other grammatical environments, as well. How Miestamo's system would classify Tuparí SN is addressed in §8.2.

3. BASICS ON TUPARÍ.

3.1. BACKGROUND. Tuparí [ISO: tpr] belongs to the Tuparían branch of the Tupían family and is spoken in the Brazilian state of Rondônia by 350 people (Hein van der Voort, p.c.). Children continue to acquire it natively in multiple villages on the Rio Branco Indigenous Reserve, but intergenerational transmission is reported to have ceased on the Rio Guaporé Reserve. Much information about the basic phonology and morphology was provided in Caspar & Rodrigues 1957, an unpublished German-language manuscript. Alves's (2004) bilingual Tuparí-Portuguese dictionary, also unpublished, includes a grammatical sketch that consists mostly of a Portuguese translation of Caspar & Rodrigues 1957. A new Portuguese translation of that same work has just been published (Caspar & Rodrigues 2017). Seki 2001 provides some basic facts about the language's nominal morphology.

Since 2013 I have been conducting a documentation-and-description project with the Tuparí speakers on the Rio Branco Reserve. This project has resulted in an analysis of various aspects of Tuparí phonology (Singerman 2016) and a native language literacy workbook (Tupari et al. 2016). A full grammatical description is now in progress (Singerman 2018b).

The data in this article come from my fieldwork on the Rio Branco and were gathered through elicitation, textual analysis, and participation in/observation of everyday interactions. The facts reported here are consistent across speakers, regardless of age, gender, or knowledge of Portuguese. Examples that come from elicitation are marked as such; unmarked examples come from stretches of natural conversation. Examples from texts bear the name of the author/narrator. Wherever possible, I illustrate the relevant phenomena using nonelicited data.

3.2. TUPARÍ VERBAL MORPHOLOGY AND CLAUSAL FINITENESS. Like other Tupían languages of Rondônia (see Moore 1984 on Gavião, Gabas 1999 on Karo, Storto 1999 on Karitiana, Galucio 2001 on Mekens, Nogueira 2011 on Wayoró), Tuparí exhibits a host of head-final morphosyntactic properties: postpositions, possessor-possessum NPs, and verb-final VPs. Subject-predicate order is the norm with third-person NP subjects; this order inverts when the subject is a pronominal enclitic. Example 4 illustrates.

(4) a. Apsit   teaorosa.
       apsi-t   te-aoros-a
       father-NUC 3-arrive-TH
          'My father has [just] arrived.'
    b. Teaorosae.
       te-aoros-a   **e**
       3-arrive-TH **3**
          'He has [just] arrived.'

Tuparí verbal morphology is more complex than that found in closely related languages such as Mekens (Galucio 2001) or Wayoró (Nogueira 2011). Figure 1 lays out the basic template, slightly simplified for present purposes. Prefixal slots include positions for valency-changing morphemes, several adverbials, and incorporated direct objects, while the suffixal domain expresses various inflectional categories. The allomorphy of the causative and applicative prefixes (P1) is morphophonological; that of the evidential and stative suffixes (S1) reflects agreement with the number of the subject. The prefixes in P2 obey ordering restrictions that are not relevant here.

P4	P3	P2	P1	0	S1	S2	S3
pẽan'- 'first'	*tom'en'-* DEICTIC	*erote-* 'all'			*-pnẽ/-psira* EVIDENTIAL		*-t* NEAR PAST
tãreman'- 'not again'	*eue-* RECIPROCAL	*tom'en'-* DEICTIC	*m-/õ-* CAUSATIVE	ROOT	*-psẽ/-pnẽ/-psira* STATIVE	*-a* THEME VOWEL	*-pbi'a* DURATIVE
		eue- RECIPROCAL	*ite-/ete-* APPLICATIVE		*-kot'oy* CONDITIONAL		*-ap* ADVERB FOCUS
		tat'- 'just'					*-p'a* NEAR FUTURE

INCORPORATED OBJECTS
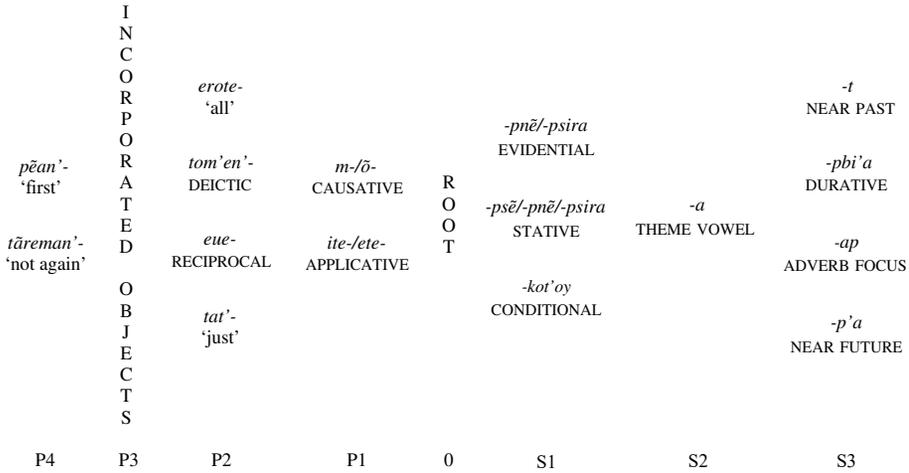
FIGURE 1. Tuparí verbal template.

Since much of the subsequent discussion turns on the absence/presence of finiteness in negative contexts, it is worth clarifying how finiteness is realized in Tuparí. Nikolaeva (2007) argues that finiteness cannot be represented as a single, unitary feature or category; even if there are strong crosslinguistic tendencies, what counts as finite needs to be defined on a language-by-language basis. In terms of obligatoriness in matrix clauses, Tuparí associates two grammatical categories with finiteness: TENSE and EVIDENTIALITY. Tense is realized through several mutually exclusive options. Three tense suffixes appear in position S3. The near past *-t* is used for events that took place between two days and several months before the present, and the durative *-pb'ia* is used for past habitual and (less commonly) present habitual uses.

(5) Hare òwet   'ipot sapbi'ae.
    hare o-op-et   'ipot si-a-**pbi'a**   e
    here 1SG-father-NUC fish spear-TH-DUR 3
       'My father used to spear fish here.'

The present and future tenses, meanwhile, are indicated not by morphology on the lexical verb, but instead through postverbal auxiliaries.

(6) Õ:puopma'ã   e'apteka, here ẽõpuopma'ã   o'apteka   'on'eporet.
    o-õpuopma'ẽ-a **e-'apteka** here e-õpuopma'ẽ-a **o-'apteka** 'on'eporet
    1SG-teach-TH **2-PRS.SG** and 2SG-teach-TH **1SG-PRS.SG** 1SG.also
      'You teach me, and I teach you too.'

The near-future construction combines these two strategies: the suffix *-p'a* appears on the lexical verb, and an auxiliary that agrees in number with the subject (singular *'e*, plural *a*) is also used.

(7) Oterap'a   nãkop o'e
    o-tet-a-**p'a**   nãkop o-**'e.**
    1SG-go-TH-**NR.FUT** MAYBE 1SG-**AUX.SG**
      'I maybe am going to go.'

There are also three overt tense morphemes that occur in second position (2P), following the initial constituent of the clause: optative *ko/ke*, distant past *õpot*, and ancient past *kut*. The allomorphy of the optative is triggered by the person features of the subject.

(8) a. Oma'ã   ke 'en esi   yam!
      o-ma'ẽ-a   **ke** 'en e-si   yam
      1SG-speak-TH **OPT** 2SG 2SG-mother to
        'Please speak of me [i.e. give my regards] to your mother!'
   b. Ham õpore   omãykuret   tepatwatnam.
      ham **õpot**   e o-mãykut-et   te-epatwat-nẽ-ap
      hither **DIST.PST** 3 1SG-cousin-NUC 3-get.lost-EVID.SG-ADV.FOC
        'Here my cousin got lost, long ago (NONWITNESSED).'

Every matrix clause with a verbal predicate must mark tense with a suffix, auxiliary, or 2P enclitic. The absence of overt tense marking provides an obligatory interpretation of just moments before the time of speaking, as in 4a above.[2]

   All past-tense utterances must specify whether the speaker personally witnessed the event being described. Witnessed events are unmarked, while nonwitnessed ones carry a verbal suffix that agrees in number with the subject.

(9) a. Kemsok'anã   õpore   i'ekapnẽ   tekemsok'are.
      kemsok'a-nẽ-a õpot   e i-'eka-**pnẽ**   te-kemsok'a-re
      beautiful-LV-TH DIST.PST 3 3-AUX.SG-**EVID.SG** 3-youth-OBL
        'She was beautiful in her youth (NONWITNESSED).' [the speaker is commenting on a photo of the addressee's mother from years before]
   b. Poatpoatkut'anã   õpot   wat warakapsira.
      poatpoatkut'a-nẽ-a õpot   wat wat-aka-**psira**
      cute-LV-TH   DIST.PST 2PL 2PL-AUX.PL-**EVID.PL**
        'You (PL) were cute (NONWITNESSED).' [the speaker is commenting on a photo of the addressee and his brother as children]

There is no evidentiality distinction in the present or future tenses. Other inflectional morphemes in S1 through S3 include the conditional *-kot'oy*, used in counterfactual constructions. This suffix may combine with tense morphology, as shown with the near-past suffix *-t* in 10.

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[2] Singerman 2018b presents morphosyntactic evidence that superficially tenseless clauses in fact contain a phonologically null tense morpheme located in 2P.

(10) Mãkinamsironaerẽ   iroakot'oat   'on
     mãkinã-psiro-nẽ-ap-ere   iroa-**kot'oy**-a-**t**   'on
     camera-HAVE-LV-NMLZ-OBL photograph-CNDL-TH-**NR.PST** 1SG
          watpotoapnã.
          wat-potop-ap-nã
          2PL-view-NMLZ-for
       'If I had had a camera, I would have taken a photograph for you (PL) to
       view.'   (text; Isaias Tarimã Tupari, author)

None of the material that expresses tense, evidentiality, or other inflectional categories may combine with nominal predicates, which are morphologically bare. (The language also lacks articles or NP-internal quantifiers.) One of the only morphemes that can attach to nominal predicates is the negator -*'om* (phonetically [ʔõmˋ]). Example 11 illustrates with the nominal predicate *Tupari*.

(11) a. Tupari   'en.
        Tupari 'en
        Tuparí 2SG
          'You are a Tuparí.'
     b. Mãy   koro'omka   e'a,   Tupari'om   'en.
        mãy   ko-ro-'om-ka-a   e-'a   **Tuparí-'om** 'en
        [manioc eat-NMLZ-NEG-VBLZ-TH 2SG-if] **Tuparí-NEG** 2SG
          'If you don't eat manioc, you're not a Tuparí.'

Every kind of nominal in Tuparí may host -*'om*: ethnic/national identifiers (*tarupa* 'white person, non-indigene', *Kopere* 'member of the Djeoromitxí ethnicity'), people and kinship terms (*kire* 'person', *koy* 'sister [of male speaker]'), body parts (*kup* 'leg', *patak* 'belly'), animals (*amẽko* 'dog, jaguar', *saypare* 'wild deer'), objects and possessions (*arop* 'thing, food', *ek* 'home, house'), property concepts and abstract nouns (*puop* 'knowledgeable', *tàn* 'tall', *kòm* 'silence', *ema'ẽ* 'language, speech'), and so forth. (There is no clear noun-adjective distinction on either morphological or syntactic grounds in Tuparí.) However, the verbal template in Fig. 1 above contains no position for negation: while -*'om* attaches to nominals without any issue, it can never directly attach to a verb. To negate a verb, one must place another suffix, -*ro* ~ -*to*, between the stem and -*'om*. For the time being, I gloss this morpheme neutrally as RO.

(12) a. Warop   kà   'on.
        w-arop   ko-a   'on
        1SG-food eat-TH 1SG
          'I have eaten my food.'
     b. Warop   koro'om   'on.
        w-arop   ko-**ro-'om** 'on
        1SG-food eat-**RO-NEG** 1SG
          'I haven't eaten my food.'

The suffix's allomorphy is phonologically conditioned: -*to* is used after nonalveolar consonants and -*ro* after alveolar consonants or vowels. A final alveolar stop will coalesce with the initial flap of -*ro*: *sut* [sɨtˋ] 'cook' → *suro* [sɨ.ro], *ẽken* [ẽ.kẽnˋ] 'vomit' → *ẽkẽrõ* [ẽ.kẽ.r̃õ].

Two questions now arise. First, what is -*ro*? Second, why is it obligatory between verbal stems and -*'om*, but absent on nominals that bear the same suffix?

3.3. -*ro* AS A DEVERBAL NOMINALIZER. As prior work on Tuparí did not draw on the analysis of spontaneous speech or native texts, the distribution and function of -*ro* was not clarified. For instance, Alves (2004:§4.3.2.2) says only that this suffix 'is added to

the [verbal] root in order for it to receive the negation suffix -ʔom' (my translation). When we examine the facts in greater detail, however, it becomes clear that -ro serves as a deverbal nominalizer.

To begin, -ro attaches directly to the verbal stem (the core plus the prefixes in positions P4 through P1 in Fig. 1). In so doing, it displaces the language's verbal inflectional suffixes: -ro may not cooccur with evidential -pnẽ/-psira, conditional -kot'oy, durative -pbi'a, and so on. The only exception is the 'do again' construction, described in §6, in which -ro and an evidential may cooccur on a single verb. However, -ro does not attach to verbs that bear inflectional morphology under any other circumstances.

The next piece of evidence comes from the Tuparí case system. The locative -pe is one of several noncore cases in the language; like the other cases, it attaches to nominals.

(13) a. wek   'my house'   →   wek**pe**   'in my house'
     b. novẽbro 'November'   →   novẽbro**pe** 'in the month of November'

Interestingly, -pe can also attach to a verbal root that carries -ro. The resulting construction behaves syntactically like any other adverbial and has the meaning of 'before doing X, so as to do X'.

(14) Watoa   ko   'on owan   kiarop   korope.
     w-ato-a   ko   'on o-wan   ki-arop   ko-**ro-pe**
     1SG-bathe-TH OPT 1SG 1SG-go.nearby 1PL.INCL-food eat-**RO-LOC**
         'Let me go a short distance to bathe before we eat our food.'

The implication of 14 and similar examples is straightforward: the suffix -ro takes a verbal root and produces something to which the locative case -pe can attach, that is, a nominal.

A final piece of evidence that bears on the status of -ro comes from focus constructions. An important fact about all Tuparí verbs and auxiliaries is that they require an argument to cliticize to their left edge: a pronominal object or full NP object in the case of transitive verbs, and a pronominal (copy of the) subject on intransitives and auxiliaries. Example 15 illustrates with the present auxiliary 'apteka and the lexical verbs ato 'bathe' (intransitive) and mãto 'bathe someone' (transitive).

(15) a. Watoa   o'apteka   saraerem.
         w-ato-a   **o-**'apteka saraerem
         1SG-bathe_{intr}-TH **1SG-PRS.SG** every.day
             'I bathe every day.'   (elicitation)
     b. Imãtoa   o'apteka   saraerem.
         i-mãto-a   **o-**'apteka saraerem
         3-bathe_{tr}-TH **1SG-PRS.SG** every.day
             'I bathe him every day.'

All of the pronominal proclitics here are obligatory. Singerman 2018b analyzes this pattern as arising from a noninitiality constraint that prohibits verbs/auxiliaries from surfacing initially within the morphosyntactic word. To satisfy this constraint, a core argument—the direct object for transitives, the (closest copy of the) subject for intransitives and auxiliaries—must attach to the verb's left edge. The pattern changes in subject- and object-focus constructions, however: main verbs embedded under auxiliaries in these constructions do not accept the theme vowel -a but instead take -ro. And once marked with -ro, these verbs satisfy the following auxiliary's noninitiality requirement.

(16) a. Warop   kà   o'e.
         w-arop   ko-**a** **o-'e**
         1SG-food eat-**TH** **1SG-AUX.SG**
             'I have eaten my food.'

    b. Apoe waret   koro   'at?
      apo e w-aret   ko-**ro** **'e**-a-t
      who 3 1SG-food eat-**RO** **AUX.SG**-TH-NUC
        'Who has eaten my food?'   (elicitation)

In 16a, a neutral declarative sentence, the lexical verb *ko* 'eat' takes the theme vowel, and the auxiliary's noninitiality requirement is met by the proclitic *o-* '1SG'. But in the subject-focus construction in 16b, the auxiliary's proclitic is nowhere to be found. Now *ko* 'eat' takes *-ro* instead of the theme vowel, and the entire VP *waret koro*—a tight morphosyntactic unit—immediately precedes the auxiliary. These examples demonstrate that a verb phrase marked with *-ro* can satisfy an auxiliary's noninitiality constraint. In that only nominals (full NPs or pronouns) are normally capable of doing so, focus constructions like 16b provide further motivation to analyze *-ro* as a deverbal nominalizer.

    To summarize, *-ro* sits in complementary distribution with verbal inflectional suffixes. It produces constituents to which locative *-pe* may attach, and it creates nominals that can cliticize to the auxiliary in argument-focus constructions, thereby satisfying the auxiliary's noninitiality constraint. These facts suggest that *-ro* serves as a nominalizer in Tuparí; I gloss it henceforth as NMLZ. If all verbs must be nominalized in order to be negated, then we reach the generalization that *-'om* may attach to nominal bases only.

    4. NEGATED PREDICATES ARE NOMINAL PREDICATES. Predicates that bear *-'om* behave like nominals: they must undergo a process of verbalization to combine with markers of finiteness. In the case of negated verbs that have been nominalized with *-ro*, this means that REverbalization becomes necessary. Section 4.1 illustrates the verbalization process for nominals in general, §4.2 shows that this process also applies with negated verbs, and §4.3 examines the expression of tense and evidentiality on (re)verbalized negated predicates.

    4.1. THE VERBALIZATION OF NOMINALS. As discussed in §3.2, Tuparí requires clausal-level expression of tense and evidentiality. The latter category is expressed only in past-tense contexts. Tense is realized through a combination of verbal suffixes (17a), second-position enclitics (17b), and post-VP auxiliaries (17c); evidentiality is realized as a verbal suffix (as in 9 above).

   (17) a. Kat'aro   èpu'uat   'en?
          kat'aro   e-epu'u-a-**t**   'en
          how.many 2SG-spend.day-TH-**NR.PST** 2SG
            'How many days did you spend?'
      b. Dois mil e oitope õpot   Toto Amsi Tàn ha'uet   ìap.
          dois mil e oito-pe **õpot**   Toto Amsi Tàn ha'up-et ip-ap
          2008-LOC   **DIST.PST** Franz Caspar   son-NUC come-ADV.FOC
            'Franz Caspar's son came here in 2008.'
      c. Hẽ̀, hare kieuetop   pekiap   èsa   e'a.
          hẽ̀ hare ki-eue-top   **pekiap**   e-s-a   e-'a
          yes here 1PL.INCL-RECIP-see **FUT.1PL.INCL** [2SG-come-TH 2SG-when]
            'Yes, we will see one another here when you come back.'

All of these distinctions are restricted to verbal predicates. Nominal predicates are functionally impoverished: they do not directly combine with any tense, aspect, or evidentiality morphology. For a nominal predicate to combine with markers of these categories, it must first become a verb. Tuparí makes available two morphemes for this purpose: the light verb *nẽ* 'do, make, be, become', glossed as LV, and the suffix *-ka*, glossed as VBLZ. *nẽ* is preferred for stative readings, whereas *-ka* is used for eventive ones.

(18) a. Poatpoatkut'anã   õpot   wat warakapsira.
       poatpoatkut'a-**nẽ**-a õpot   wat wat-aka-psira
       cute-**LV**-**TH**   **DIST.PST** 2PL 2PL-**AUX**-**PL**-**EVID.PL**
          'You (PL) were cute (NONWITNESSED).'

   b. Mãkga nõ   kà   o'a,   opatak'asikap'a
      mãkga nõ   ko-a   o-'a   o-patak'asi-**ka**-a-p'a
      [mango other eat-**TH** 1SG-if] 1SG-stomachache-**VBLZ**-**TH**-**NR.FUT**
          o'e.
          o-'e
          1SG-**AUX.SG**
      'If I eat another mango, I will get sick to my stomach.'   (elicitation)

The noun *poatpoatkut'a* must be verbalized with *nẽ* in 18a (repeated from 9b) so as to combine with the evidential *-psira* and the distant-past enclitic *õpot*. And in 18b, *patak'asi* 'stomachache' must be verbalized with *-ka* to combine with the near-future suffix *-p'a* and the auxiliary *'e*.

Just like *Tupari* or *patak'asi*, a predicate that is marked with negative *-'om* must verbalize to combine with tense and evidentiality morphology. Here, too, Tuparí uses the light verb *nẽ* and the bound suffix *-ka*. The paradigm in 19 illustrates with *puop* 'knowledgeable, smart'.[3]

(19) a. Puopbe   Tupari ema'erẽ.
       puop   e Tupari ema'ẽ-re
       knowledgeable 3 Tuparí language-**OBL**
          'He is knowledgeable about [= knows] the Tuparí language.' (elicitation)

   b. Puopnambi'ae   Tupari ema'erẽ.
      puop-**nẽ**-a-pbi'a   e Tupari ema'ẽ-re
      knowledgeable-**LV**-**TH**-**DUR** 3 Tuparí language-**OBL**
          'He was knowledgeable about [= knew] the Tuparí language.'

   c. Puop'ommẽ   Tupari ema'erẽ
      puop-**'om**   e Tupari ema'ẽ-re
      knowledgeable-**NEG** 3 Tuparí language-**OBL**
          'He isn't knowledgeable about [= doesn't know] the Tuparí language.'
                                                                      (elicitation)

   d. Puop'omnambi'ae   Tupari ema'erẽ.
      puop-**'om**-**nẽ**-a-pbi'a   e Tupari ema'ẽ-re
      knowledgeable-**NEG**-**LV**-**TH**-**DUR** 3 Tuparí language-**OBL**
          'He wasn't knowledgeable about [= didn't know] the Tuparí language.'
                                                                      (elicitation)

The nominal *puop* in 19b must verbalize with the light verb *nẽ* in order to combine with the durative suffix *-pbi'a*. Negated *puop'om*, in 19d, behaves identically, with *-'om* surfacing inside of *nẽ*. And just as with *patak'asi* 'stomachache' in 18b, for eventive readings reverbalization is accomplished with the bound suffix *-ka*. This suffix attaches directly to nouns that bear *-'om*.

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[3] Though most easily translated with English 'know', the predicate *puop* is a noun, not a verb. It cannot host any of the verbal morphemes given in Fig. 1, it can combine directly with case morphology, and it is exempt from the verbal noninitiality requirement discussed in §3.3.

(20) Uoka'omka   nã   ki'anẽ.
    uoka-**'om-ka**-a   nã   ki-'anẽ
    water-**NEG-VBLZ**-TH PROG 1PL.INCL-AUX.PL
        'We are without water right now.'

In sum, nominal predicates marked with -*'om* behave just like nonnegated nouns: they must undergo an overt process of verbalization in order to combine with finiteness morphology.

4.2. THE REVERBALIZATION OF NEGATED VERBS. The suffix -*ka*, introduced in the preceding section, is very productive in Tuparí. It derives verbs (usually transitive) from nouns and from other uninflectable words, such as reduplicated roots.

(21) a. 'ap   'oil, fat'   + -ka → 'apka   'fry'
        memsit 'child of woman' + -ka → memsitka 'impregnate'
    b. kat   'fall'   + -ka → katkatka   'fall down multiple times'

-*ka* is also used to reverbalize negated verbal predicates so that they may combine with markers of finiteness, just as normal verbs do. The step-by-step category changing of this process is shown in 22.

(22) a. 'ap   + -ka   → 'apka   'fry'   VERBAL
    b. 'apka   + -ro   → 'apkaro   'frying'   NOMINAL
    c. 'apkaro   + -'om → 'apkaro'om   'not frying' NOMINAL
    d. 'apkaro'om   + -ka   → 'apkaro'omka   'not fry'   VERBAL

The suffix -*ka* appears twice here, but it performs only one function: to take a noun (*'ap* 'oil, fat', *'apkaro'om* 'not frying') and return an inflectable verb (*'apka* 'fry', *'apkaro'omka* 'not fry'). The freshly derived *'apkaro'omka* in 22d can now combine with markers of evidentiality and tense. Compare its behavior (in 23) to that of monomorphemic *ko* 'eat, drink' (in 24).

(23) a. 'apkaro'omka 'not fry'
        + -pnẽ 'EVID.SG' + -a 'TH'
        → 'apkaro'omka**pnã** 'didn't fry (NONWITNESSED)'
    b. 'apkaro'omkapnã 'didn't fry (NONWITNESSED)'
        + -t 'NR.PST'
        → 'apkaro'omka**pnan** 'didn't fry (NONWITNESSED) [days/weeks ago]'

(24) a. ko 'eat, drink'
        + -pnẽ 'EVID.SG' + -a 'TH'
        → ko**pnã** 'ate, drank (NONWITNESSED)'
    b. kopnã 'ate, drank (NONWITNESSED)'
        + -t 'NR.PST'
        → ko**pnan** 'ate, drank (NONWITNESSED) [days/weeks ago]'

The future-tense auxiliaries highlight the obligatoriness of this reverbalization process. These auxiliaries idiosyncratically require their VP complements to end in -*ro*.[4]

(25) Mãy   'apkaro   peo'ap.
    mãy   'apka-**ro** peo'ap
    manioc fry-**NMLZ** FUT.1SG
        'I will fry manioc.'   (elicitation)

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[4] This selectional restriction likely enjoys a diachronic explanation: the future auxiliary appears to have developed out of the adverbial construction with -*ro* and locative -*pe* shown in 14. At some point the locative -*pe* was reanalyzed as part of the auxiliary itself. The VP complement continues to take -*ro* except in specific morphophonological circumstances, which are discussed in connection to 28 below.

In order to negate 25, *-'om* has to attach to the main verb *'apka*; it cannot attach to the auxiliary. But the auxiliary still requires that its complement end in *-ro*; and since *-ro* only ever attaches to a verbal base, the negated *'apkaro'om* must reverbalize with *-ka*. Example 26 illustrates.

(26) Mãy   'apkaro'omkaro   peo'ap.
     mãy   'apka-**ro-'om-ka-ro**   peo'ap
     manioc fry-**NMLZ-NEG-VBLZ-NMLZ** FUT.1SG
       'I will not fry manioc.'   (elicitation)

Here *'apka* 'fry' (itself derived from *'ap* 'oil, fat') undergoes multiple rounds of category changing, such that the negator morpheme ends up buried beneath two layers of derivational morphology on the lexical verb. Comparable verbalization is required if the future auxiliary is to combine with nouns that have not been derived from verbs.[5]

(27) a. Kuraynerõ   pe'ap.
       kuray-**nẽ**-ro   pe'ap
       handsome-**LV-NMLZ** FUT.2SG
         'You will be handsome.'
    b. Kuray'omnerõ   pe'ap.
       kuray-**'om-nẽ**-ro   pe'ap
       handsome-**NEG-LV-NMLZ** FUT.2SG
         'You will not be handsome.'

The account given so far attributes these derivational pyrotechnics to the inflexible selectional restrictions of Tuparí morphology: most affixes will attach to only one kind of base, and as a result category-changing formatives must intervene in the case of mismatches. One could, of course, imagine alternative explanations for this pattern. Perhaps the future auxiliary does not accept an *-'om*-marked complement for phonological reasons? Independent evidence argues against such an analysis. Verbal stems that end in a labial, palatal, or velar omit the nominalizer *-ro* before a future auxiliary. This is illustrated with *'em* 'fight, argue with' in 28 (and with *top* 'see' in 17c above).

(28) E'em   peo'ap.
     e-'em**(*-to)**   peo'ap
     2SG-fight**(*-NMLZ)** FUT.1SG
       'I will fight you.'   (elicitation)

The omission of *-ro* is not possible with negated predicates, which must undergo reverbalization.

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[5] One of my consultants, Sergio Tupari, volunteered the following alternative for 27b. Here *kuray* is not directly negated; rather, it is the light verb *nẽ*—which takes *kuray* as its complement—that is negated via the now familiar process of nominalization with *-ro*.

   (i) Kuraynerõ'omkaro   pe'ap.
       kuray-**nẽ-ro-'om-ka-ro**   pe'ap
       handsome-**LV-NMLZ-NEG-VBLZ-NMLZ** FUT.2SG
        'You will not be/will not become handsome.'

The truth-conditional differences between the two versions are not fully clear. But as the light verb *nẽ* sometimes does the work of a general change-of-state verb, the distinction between 27b and Sergio's alternative seems akin to that between 'You will be not-handsome [i.e. ugly]' and 'You will not become handsome', respectively.

(29) a.   E'emto'omkaro   peo'ap.
       e-'em-to-'om-**ka-ro**   peo'ap
       2SG-fight-NMLZ-NEG-**VBLZ-NMLZ** FUT.1SG
        'I will not fight you.'   (elicitation)
   b.   *E'emto'om peo'ap.

Whereas a verbal root that ends in a labial may combine directly with the future auxiliary *pe…ap*, the same is not true for a negated verb—even though negated verbs always end in /m/, thanks to the phonological shape of the suffix *-'om*. The contrast between 28 and 29 shows that what we are seeing here is a bona fide selectional requirement on the kind of complement that the future auxiliary will accept. One that ends in *-'om* is unacceptable because it is a nominal.

4.3. No TENSE OR EVIDENTIALITY CHANGES IN NEGATIVE CONTEXTS. It is crosslinguistically common for grammatical categories such as tense, aspect, or mood to undergo neutralization or changes in the context of negation. Indeed, Miestamo (2005:Ch. 4) finds that modification in the expression of these categories is a very frequent structural asymmetry between affirmative and negative main clauses. Tuparí, however, exhibits no such asymmetry. The same negation strategy—nominalize with *-ro*, affix *-'om*, reverbalize with *-ka*—applies everywhere, from the ancient past to the future, and the realization of tense and evidentiality morphology does not depend at all on polarity. So there are no PARADIGMATIC ASYMMETRIES in Miestamo's sense.

The examples in 30 show the consistency of tense marking with negation. These examples come from a native myth and make use of the future auxiliary *pe…ap*. The verb *wak* 'cry' is used affirmatively in the first clause but negatively in the immediately subsequent one.

(30) a.   Yonyonke nã   watwak   pewarap.
      yonyonke nã   **wat-wak pewarap**
      whistling FOC **2PL-cry   FUT.2PL**
       'You (PL) will cry by whistling.'
   b.   'Ero'are haytokia watwakto'omkaro   pewarap.
      'ero'are haytokia **wat-wak-to-'om-ka-ro**   **pewarap**
      but   a.lot   **2PL-cry-NMLZ-NEG-VBLZ-NMLZ** FUT.2PL
       'But you (PL) will not cry a lot.'   (text; Miraci Aguissi Tupari, narrator)

The contrast between witnessed and nonwitnessed past-tense utterances is also maintained with negation.

(31) a.   Kiema'em,   Tupari ema'em
      ki-ema'ẽ-m   Tupari ema'ẽ-m
      1PL.INCL-language-INS Tuparí language-INS
        iyma'ẽkto'omkat   'en.
        i-yma'ẽk-**to-'om-ka**-a-t   'en
        3-speak.with-**NMLZ-NEG-VBLZ**-TH-NR.PST 2SG
       'In our language, in the Tuparí language, you didn't speak with him
        (WITNESSED).'
   b.   Haytokia sitèyto'omkapnan   'en.
      haytokia s-ite-s-**to-'om-ka-pnẽ**-a-t   'en
      a.lot   3-APPL-come-**NMLZ-NEG-VBLZ-EVID.SG**-TH-NR.PST 2SG
       'You didn't bring a lot of it (NONWITNESSED).'

Only one negation-sensitive asymmetry in the expression of tense, aspect, and evidentiality has been found: there is a tendency not to reverbalize negated predicates in

the present progressive or present habitual tenses. These tenses are expressed by auxiliaries in affirmative contexts.

(32) Uape   kap   kot'oa   o'a,   kà   o'apteka.
     uape   ko-ap   kot'oy-a o-'a   Ø-ko-a   o-**'apteka**
     [manioc.beer drink-NMLZ want-TH 1SG-when] 3-drink-TH 1SG-PRS.SG
         'When I want to drink manioc beer, I drink it.'

In negative contexts, however, reverbalization does not take place, and instead of a finite auxiliary we get an appositive modifier of the subject. In 33—where the predicate is a negated verb—the word *o'ero'aptekat* immediately follows the pronoun *'on*.

(33) Erero kafe   koro'om   'on o'ero'aptekat.
     erero kafe   ko-ro-**'om**   'on o-**'e-ro-'apteka-t**
     early coffee drink-NMLZ-NEG 1SG 1SG-AUX.SG-NMLZ-PRS.SG-NUC
         'I do not drink coffee early in the morning.'

The internal morphology of *o'ero'aptekat* is identical to that seen in subject- and object-focus constructions (§3.3): it contains a lower verb (*'e*) marked with *-ro*, the auxiliary *'apteka* does not take a pronominal proclitic, and the entire string bears the nuclear case suffix *-et/-t*. (This case ending always appears on the nominalized predicates of subject-focus constructions, as shown in 16b and 64.) But the same variety of appositive modifier visible in 33 is found with nominal predicates in general, even in the absence of negative marking. Example 34, describing the eating habits of a toddler, provides a relevant example.[6]

(34) 'Ipot pè   hi'ae te'ero'aptekat.
     'ipot pè   hi'a e te-**'e-ro-'apteka-t**
     fish skin love 3 3-AUX.SG-NMLZ-PRS.SG-NUC
         'She always loves/has love for fish skin.'

The appositive modifiers of the shape *'ero'aptekat* provide present habitual readings with all nominal predicates, regardless of whether these have been constructed from negated verbs. That we see the same morphosyntax both in 33 (with the negated verb *koro'om* 'not drink') and in 34 (with the nonnegated NP *'ipot pè hi'a* 'love for fish skin') further supports the conclusion that negated predicates in Tuparí are just nominal predicates.

5. THE NEGATIVE LAMENTATIVE PARTICLE *'aet*. Given the striking restriction of *-'om* to the nominal domain, one could reasonably ask whether this morpheme truly serves as the language's propositional negator or STANDARD NEGATOR (in the sense of Miestamo 2005). There is in fact a different morpheme in Tuparí that could be analyzed as performing propositional negation: the 2P enclitic *'aet* (called *eine verneinende Partikel* 'a negative particle' by Caspar & Rodrigues 1957:§3.5.3). *'aet* does not require any category changing between verbs and nouns, and speakers sometimes translate it with Portuguese *não* 'not'. However, this morpheme's meaning is much more complex than just $\lambda p_t [\neg(p)]$; it expresses disappointment, worry, or frustration that an event has failed or will fail to take place.

The contexts in 35 highlight the speaker-oriented emotional content of *'aet*.

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[6] Like *puop* 'knowledgeable, smart' in 19, *hi'a* 'love' in 34 is formally a noun, not a verb. This is the rationale behind the awkward English translation 'has love for fish skin'.

(35) a. Kafe   nã   ʼaet   ʼokitwat kafe   eteoraptenã.
       kafe   nẽ-a   **ʼaet**   ʼokitwat kafe   ete-ot-ap-tenã
       coffee LV-TH NEG.LAM 1PL.INCL coffee APPL-go-NMLZ-in.order.to
         'We didn't even make coffee so as to take coffee along with us.' [spoken by a woman who regretted, prior to a long trip upriver, that her family wouldn't have coffee to drink en route]

    b. Eatãumʼatãumka   ʼaet   nã   etetʼe.
       e-atãumʼatãumka-a **ʼaet**   nã   e-tetʼe
       2SG-stay.put-TH   NEG.LAM PROG 2SG-AUX.SG
         'You don't ever stay put.' [spoken by a woman who was surprised that her interlocutor planned to travel back and forth between several cities in just two days]

    c. Kiwẽtõã   ʼaet   nã   iʼanemsira.
       ki-wẽtom-a   **ʼaet**   nã   i-ʼanẽ-psira
       1PL.INCL-let.know-TH NEG.LAM FOC 3-AUX.PL-EVID.PL
         'They didn't even let us know [that they were leaving].' [spoken by two young children who, according to a traditional myth, were abandoned by the rest of the community]

<div align="right">(text; Paulina Tomĩka Tupari, narrator)</div>

ʼaet appears to share properties with FRUSTRATIVES, which are widespread in Amazonian languages (Carol & Salanova 2017, Overall 2017, O'Hagan 2018) and also attested in the Tuparían branch of Tupían (see Galucio 2014 on the Mekens particle *etaop*).

    The distribution and semantics of *ʼaet* mitigate against analyzing it as a standard or propositional negator. This morpheme belongs to a class of mutually exclusive clause-typing particles that sit in the first slot of the 2P clitic cluster (Singerman 2018b). Since these particles may never cooccur, *ʼaet* cannot combine with the yes/no marker *nẽ*; with *nãkop*, which expresses doubt as to the veracity of a proposition; with the verum focus markers *paʼa/taʼa*; with *mãkẽrõ*, which turns WH-questions ('who caught the piranha?') into statements of ignorance ('I don't know who caught the piranha'); and so on. Hence *ʼaet* may not occur in a significant number of speech acts and sentence types. *-ʼom*, meanwhile, is not subject to this restriction: it combines freely with all of the clause-typing particles and is attested in the full range of utterances.

(36) a. Ikiret   etèytoʼomkat   nẽ ʼen?
       i-kit-et   ete-s-to-**ʼom**-ka-a-t   **nẽ** ʼen
       3-seed-NUC APPL-come-NMLZ-NEG-VBLZ-TH-NR.PST Y/N 2SG
         'Did you not bring its [the plant's] seeds?'

    b. Oteroʼomkapʼa   nãkop oʼe.
       o-tet-ro-**ʼom**-ka-a-pʼa   **nãkop** o-ʼe
       1SG-go-NMLZ-NEG-VBLZ-TH-NR.FUT MAYBE 1SG-AUX.SG
         'Maybe I'm not going to go.'

    c. Here taʼa õpore   yõporoʼomkap.
       here **taʼa** õpot   e y-õpo-ro-**ʼom**-ka-ap
       and AFF DIST.PST 3 3-kill-NMLZ-NEG-VBLZ-ADV.FOC
         'And they really didn't kill it.'   (text; Iracema Tadyup Tupari, narrator)

    d. Kanã mãkẽrõ yõpuopmaʼerõʼommẽ   teʼeroʼaptekat.
       kanã **mãkẽrõ** y-õpuopmaʼẽ-ro-**ʼom** e te-ʼe-ro-ʼapteka-t
       why DUNNO 3-teach-NMLZ-NEG   3 3-AUX.SG-NMLZ-PRS.SG-NUC
         'I don't know why she doesn't teach him [the Tuparí language].'

Example 36b is a minimal pair for polarity with 7, and 36d shows the use of nominal-ized auxiliaries for present progressive and present habitual readings with nominal predicates, discussed in §4.3.

In addition to the various sentence types given above, -*'om* is attested in commands. Positive-polarity imperatives consist of a bare verb or one inflected with the theme vowel, with no apparent difference in meaning. (That these two forms are in free varia-tion was noted by Alves 2004:§4.3.2.2.)

(37) a. Earop   ko!
      e-arop   ko
      2sG-food eat
        'Eat your food!'
    b. Earop   kà!
      e-arop   ko-**a**
      2sG-food eat-**TH**
        'Eat your food!'

Negative imperatives feature -*'om* but do not require reverbalization, in contrast to the other constructions described in this article. Rather, they consist of an -*'om*-marked verb plus *moem*.

(38) Èpsikto'om   **moem!**
    e-epsik-**to-'om**   **moem**
    2sG-sit.down-**NMLZ-NEG POST**
      'Don't sit down!'

moem is independently attested as a postposition meaning 'via, by, through', as in *iu moem* 'via the river'. Like the language's case endings, postpositions such as *moem* combine with nominal complements. That we here find a postposition combining with a nominalized verb that bears -*'om* reinforces the conclusion that -*'om* derives nouns.

Although statistical analysis of the frequencies of -*'om* and *'aet* remains to be per-formed, the former is much more common than the latter. In my corpus of native lan-guage texts, -*'om* occurs at least sixty times, but there are just three tokens of *'aet*. This vast difference is unsurprising, given (i) the additional semantic complexity of *'aet* when compared with -*'om* and (ii) the rigid mutual exclusivity that obtains between *'aet* and the other clause-typing particles. In sum, *'aet* does not meet Miestamo's (2005) cri-teria for marking SN. Only -*'om*, even with its peculiar restriction to nominal bases, counts as a standard negator in Tuparí.

With this fact now established, we can examine the broader semantic and syntactic properties of -*'om*. How is this suffix interpreted with regard to other scope-taking ele-ments within the Tuparí clause? How does it behave within nonmatrix environments? These questions are addressed in §6 and §7, respectively.

6. SCOPAL CONSEQUENCES OF THE LOW POSITION OF -*'om*. As shown by various ex-amples in the preceding sections, -*'om* can end up buried under multiple layers of de-rivational and inflectional morphology. In particular, a verb bearing -*'om* must be followed by the verbalizer -*ka* before it can combine with any tense or evidentiality marking. Further, when an auxiliary is present, only the lexical verb may nominalize with -*ro* in order to take -*'om* and then undergo reverbalization. These facts end up cir-cumscribing the scopal possibilities of negation in Tuparí.

To see why this is the case, let us examine the structure of the Tuparí clause in greater detail. Tuparí is rigidly head-final from the VP through the evidential phrase, but the

highest level of the clause is head-initial (Singerman 2018a,b). An example utterance in which various functional categories are overtly realized is provided in 39: evidential *-pnẽ*, distant past *õpot*, and the yes/no question marker *nẽ* (one of the 2P clause-typers discussed in the previous section). This was how one speaker jokingly responded to my comment that I have no sisters.

(39) Yan   nẽ õpot   ekoy   aro'omkapnã?
     yã-t   **nẽ õpot** e-koy   at-ro-'om-ka-**pnẽ**-a
     mother-NUC **Y/N DIST.PST** 2SG-sister catch-NMLZ-NEG-VBLZ-**EVID.SG**-TH
         'Did your mother not catch [i.e. get pregnant with] a sister for you (NON-
             WITNESSED)?'

A basic tree for 39 is provided in 40. Following Singerman 2018b, this tree treats *nẽ* 'YES/NO' as the head of CP.

(40)
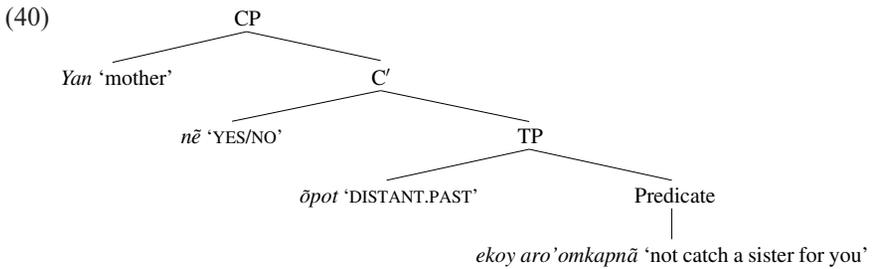
The agglutinative character of Tuparí morphology makes it possible to decompose the constituent labeled 'Predicate' in 40, as illustrated in 41. Here *-ro* is taken to project an NP; *-ka*, a VP; and *-'om*, NegP. (The ramifications of calling the projection headed by *-'om* 'NegP' are addressed in §8.1.)[7]

(41)
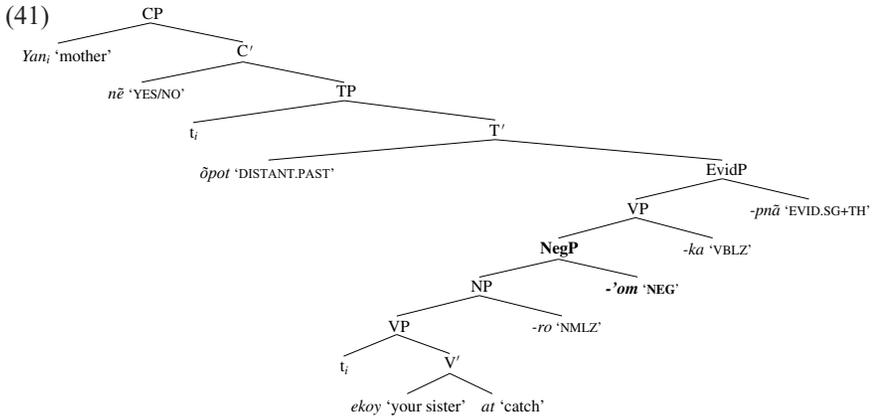
The phrase headed by *-'om* sits beneath the projections related to tense, evidentiality, and clause typing. If this analysis accurately captures the relative position and distribution of functional categories in Tuparí, then we predict that—barring some covert movement operation—*-'om* should be interpreted low.

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[7] Per the VP-INTERNAL SUBJECT HYPOTHESIS (Koopman & Sportiche 1991, McCloskey 1997), the subject *yan* 'your mother' is introduced here within the VP and moves to the clause-initial position, Spec,CP, via Spec,TP. This movement is motivated on language-internal grounds by the way that Tuparí verbs mark absolutive arguments (Singerman 2018b). One could introduce the subject in Spec,vP rather than Spec,VP, per Kratzer 1996 and subsequent work; this distinction is not important here.

This prediction is confirmed by the scopal interaction between *-'om* and the verb *nã* 'do again'.[8] Like the future auxiliaries (§4.2), *nã* selects a verbal complement that bears the nominalizer *-ro*. *nã* has a fixed position high in the clausal structure: it must sit on top of the structurally highest auxiliary. Placing it in a lower position leads to ungrammaticality, as in 42b.

(42) a.   Òsap'a   o'ero   nã.
           o-s-a-p'a   o-'e-**ro**   **nã**
           1SG-come-TH-NR.FUT 1SG-AUX.SG-NMLZ **do.again**
           'I am going to come back again.'

      b. *Ò yto   nam'a   o'e.
           o-s-**to**   **nã**-a-p'a   o-'e
           1SG-come-NMLZ **do.again**-TH-NR.FUT 1SG-AUX.SG
           intended: 'I am going to come back again.'   (elicitation)

In fact, *nã* occupies a position so high in the tree that it sits above the evidential.[9]

(43) Tekatnerõ   naẽ.
      te-kat-**nẽ-ro**   **nã**-a   e
      3-fall-**EVID.SG-NMLZ do.again**-TH 3
      'She fell down again (NONWITNESSED).'

The fixed high position of *nã* 'do again' provides an opportunity to test the scopal possibilities of *-'om*, which resides farther down in the tree. When *-'om* and *nã* cooccur in a single sentence, how are they interpreted? Example 44 provides the relevant test case. The lexical verb here is *iunẽ* 'to rain', from *iu* 'rain, body of water'; it is negated and takes the near-future suffix *-p'a* after reverbalizing with *-ka*. The auxiliary *'e* bears *-ro* so as to combine with *nã* 'do again'.

(44) Iunerõ'omkap'a   y'ero   nã.
      iu-nẽ-ro-**'om**-ka-a-p'a   i-'e-**ro**   **nã**
      rain-LV-NMLZ-**NEG**-VBLZ-TH-NR.FUT 3-AUX.SG-NMLZ **do.again**
      'It's not going to rain again.'   (*again* ¬; *¬again*)   (elicitation)

Speakers have sharp judgments about when one can use this sentence. One may utter 44 if it did not rain at some particular time in the past (say, earlier today or yesterday) and will also not rain later on; that is, the sentence is felicitous if rain will twice fail to fall. But one may not utter 44 if will not rain later on but DID rain at some contextually salient time prior to the present: there is no reading where negation scopes high, over *nã*

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[8] *nã* 'do again' is not the same morpheme as the light verb *nẽ*, which was discussed at length in §4. That these are two different, only occasionally homophonous lexical items is shown by a morphophonological alternation triggered by the theme vowel *-a*. The theme vowel often deletes previous vowels, as in *ma'ã* from *ma'ẽ* 'order, command' and *sa* from *si* 'spear, kill'. The light verb takes the shape [nã] when it is inflected with the theme vowel, and [nẽ] otherwise; but this [ẽ] ~ [ã] alternation is absent with *nã* 'do again', whose shape is invariably [nã]. So the two lexemes are distinct.

[9] A referee asks whether the evidential is interpreted beneath *nã* 'do again', as the morpheme order suggests. I do not know of evidence bearing on the semantic scopal relationship between these two morphemes, but the evidential displays some typologically unusual properties that suggest a low position in the clausal spine. For instance, it must still appear in embedded finite clauses that describe nonwitnessed events, even though the 2P clause-typers cannot do so. So this morpheme deviates from the crosslinguistic tendency for at least certain kinds of evidentials to resist embedding (see Faller 2002, Speas 2008, Matthewson 2012, Murray 2017, among others). And unlike the fused tense-aspect-evidential systems known from many other Amazonian languages (Aikhenvald 2003, Fleck 2007, Stenzel 2008, Stenzel & Gómez-Imbert 2018), in Tuparí the tense markers, aspectual/positional auxiliaries, and evidential suffix are all separable. They head independent projections, as shown in 55 below.

'do again'. This follows from the general clausal structure in 41, which locates the projection headed by -*'om* underneath that of the verbalizer -*ka*.

If *nã* always scopes over -*'om*, how do speakers achieve the opposite reading? As it so happens, Tuparí has a special verbal prefix, *(e)tãreman'*- 'not again, never again', that provides this very interpretation. Examples 44, with *nã*, and 45, with *tãreman'*-, constitute a minimal pair semantically.

(45) Tãreman'iunerõ'omkap'a   y'e.
     tãreman-iu-nẽ-ro-**'om**-ka-a-p'a   i-'e
     not.again-rain-LV-NMLZ-**NEG**-VBLZ-TH-NR.FUT 3-AUX.SG
          'It's not going to rain again.'   (¬*again*; **again* ¬)   (elicitation)

A verb that bears *tãreman'*- and -*'om* will undergo the normal process of reverbalization so as to combine with tense and evidentiality marking, shown in 46 with optative *ke*.

(46) a. Katkaere ke 'en èyto   nam   ham?
        katkaere ke 'en e-s-to   nã-ap   ham?
        when   OPT 2SG 2SG-come-NMLZ do.again-ADV.FOC hither
           'When will you come back here again?'

     b. Pare ètãreman'ipto'omka   nẽ ke 'en ham?
        pare e-**etãreman'**-ip-to-**'om-ka**-a   nẽ **ke** 'en ham
        or   2SG-**not.again**-come-NMLZ-NEG-VBLZ-TH Y/N OPT 2SG hither
           'Or will you not come back here again?'

Importantly, *tãreman'*- must cooccur with -*'om*. Speakers invariably reject using *tãreman'*- in the absence of negation.

(47) a. Esìt   nẽ tetãreman'ẽkto'om?
        e-si-t   nẽ te-**tãreman'**-'ẽk-to-**'om**
        2SG-mother-NUC Y/N 3-**not.again**-dance-NMLZ-**NEG**
           'Does your mother not dance anymore?'
     b. *Esìt nẽ tetãreman'ẽka?   (elicitation)

That *tãreman'*- must cooccur with and scope beneath -*'om* shows that this morpheme is a NEGATIVE POLARITY ITEM (NPI; Ladusaw 1979, Giannakidou 1998, Hoeksema 2000)—the only NPI discovered thus far in Tuparí. In general, the language has lexicalized very few negative words; there are no negative indefinites, for example.[10] The language compensates for this lack of negative words through the same general strategy of deverbal nominalization plus -*'om* that we have seen so far. The Tuparí equivalent to 'nobody' consists of an actor nominalization followed by -*'om*.

(48) a. Tèsat'ommẽ.
        te-s-**at-'om**   e
        3-come-**ACT-NEG**   3
           'No one came.' [a response to the question *Apoe tèsat?* 'Who came?']
     b. Txau   kat'om   nãkop wat.
        txau   ko-**at-'om**   nãkop wat
        manioc.flour eat-**ACT-NEG** MAYBE 2PL
           'Maybe you (PL) are not eaters of toasted manioc flour.'

The actor nominalizer -*at* does not show sensitivity to unaccusativity or valency: it is attested on nonvolitional intransitive verbs (*hàhàke* 'cry out', *amsi wakkat* 'snore') and

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[10] In keeping with the paucity of lexicalized negative words, Tuparí does not have a monomorphemic equivalent to English 'no'. Speakers instead use *nerõ'om* to answer questions negatively. This word is transparently derived from the light verb *nẽ*, the nominalizer -*ro*, and -*'om*.

volitional transitives (*'ipot at* 'catch fish', *wĕtom* 'let someone know', *ekoaki* 'pick you up') alike. Crucially, the restriction of -*'om* to nominal bases is maintained in 48 and similar cases, since a nominalizer always intervenes between the verbal root and -*'om*. Note, however, that it is not a requirement of LINEAR intervention, as demonstrated by the prefixal object nominalizer *y'-*. This prefix builds inalienably possessed nouns out of transitive verbal roots.

(49) a. top   'see, know'
     b. o**y**top   'the thing that I see/know' = 'my acquaintance'
     c. o**y**top**'om**   'not the thing that I see/know' = 'not my acquaintance'

The bracketing for 49c (excluding the prefix *o-* '1SG') is [$_{Neg}$ [$_N$ *y'-* [$_V$ *top*]] -*'om*]. For reasons of space I do not discuss this nominalizer further here; see Singerman 2018b and Galucio & Nogueira 2018.

 The data in this section show that -*'om* sits in a low position in the clause, underneath the projections associated with tense and evidentiality. It is in this position that the suffix is interpreted, as well: it cannot scope over the structurally superior *nã* 'do again'. To compensate for the fixed position of -*'om* below *nã*, Tuparí verbal morphology includes the prefix *tãreman'-*, which always cooccurs with (and is interpreted beneath) negation. Actor -*at* and other nominalizers may also combine with -*'om*, and by doing so they make possible additional scopal interpretations. In sum, the language compensates for the scopal inflexibility of -*'om* and its restriction to nominal bases by extensively utilizing deverbal nominalizers in conjunction with negation.

7. SYNTACTIC CONSEQUENCES OF THE LOW POSITION OF -*'om*. -*'om* always attaches to the lowest lexical verb (after this has nominalized with -*ro*), and subsequent reverbalization makes it possible for the predicate to combine with markers of finiteness. The syntactic proposal given in §6 translates these facts into the phrase structure, with NegP positioned underneath the functional projections associated with evidentiality, tense, and clause type. We will now see that that proposal makes accurate predictions about the realization of negation in subordinate environments that lack the higher functional structure found in main clauses.

 With the exception of internally headed relatives and direct quotations (Singerman 2018a,b), subordinate structures in Tuparí look quite different from main clauses: they lack tense and evidentiality marking and often feature deverbal nominalization morphology as well (see van Gijn et al. 2015 for a comparative perspective). On the gradient understanding of finiteness adopted in Miestamo 2005, these structures belong to the nonfinite end of the spectrum. Example 50 illustrates with the purposive subordinator -*tenã*, which requires its complement to end in the nominalizer -*ap*.

(50) Tepuop'oraptenã   ke   sapsi'e.
     e-puop'ot-**ap-tenã**   ke e s-apsi'e
     3-learn-NMLZ-**in.order.to** OPT 3 3-listen
         'They should listen so as to learn.'

-*ap* is a multipurpose morpheme: it produces complements of control verbs, as in *uape kap kot'oa* 'want to drink manioc beer' in 32. It also occurs in the antecedents of conditionals and in certain modal constructions, both discussed below. An important generalization about -*ap* is that it attaches at a low height in the clausal spine, beneath TP and EvidP. Hence the complement of purposive -*tenã* may never contain any markers of finiteness. Yet the same negation strategy seen in matrix clauses is used within these complements, too.

(51) Epuop'ot wema'erẽ,   tarupa   ema'em
     e-puop'ot w-ema'ẽ-re   tarupa   ema'ẽ-m
     2SG-learn 1SG-language-OBL [non-indigene language-INS
          eyma'ẽkto'omkaptenã.
          e-yma'ẽk-**to-'om-ka-ap-tenã**
          2SG-speak.with-**NMLZ-NEG-VBLZ-NMLZ-in.order.to**]
        'Learn my language, so that I don't have to speak with you in the white
          folks' language [= Portuguese].'

Here the verb *yma'ẽk* 'speak with' must nominalize with *-ro* before taking *-'om* and must then reverbalize with *-ka*. This, of course, is the negation strategy utilized in matrix clauses as well (see 31a for an example with the same lexical verb, *yma'ẽk*).

Example 52 shows the same strategy at work with another nonfinite subordinator, *'a* 'if, when'. Here the verb *ko* 'eat' reverbalizes after negating so as to combine with *'a*. (Nonnegative 'if/when' clauses can be found in 17c, 18b, and 32.)

(52) Mãy   koro'omka   e'a,   Tupari'om 'en.
     mãy   ko-**ro-'om-ka**-a   e-**'a** Tupari-'om 'en
     [manioc eat-**NMLZ-NEG-VBLZ**-TH 2SG-**if**] Tuparí-NEG 2SG
        'If you don't eat manioc, you're not a Tuparí.'

Though 'if/when' clauses in Tuparí lack overt nominalization morphology, they never contain tense or evidentiality marking and as such qualify as non- or, at most, semifinite. But as shown by 52, negated verbs still nominalize with *-ro* before being negated and then reverbalize with *-ka* in this context, too.

The same process also takes place in the antecedents of counterfactual conditionals. These antecedents consist of VPs nominalized with *-ap* and then marked as oblique.

(53) Siro'omkaere   okit
     Ø-si-**ro-'om-ka-ap-ere**   okit
     [3-spear-**NMLZ-NEG-VBLZ-NMLZ-OBL**] 1PAUC.INCL
          koro'omkakot'oy.
          Ø-ko-**ro-'om-ka-kot'oy**
          3-eat-**NMLZ-NEG-VBLZ-CNDL**
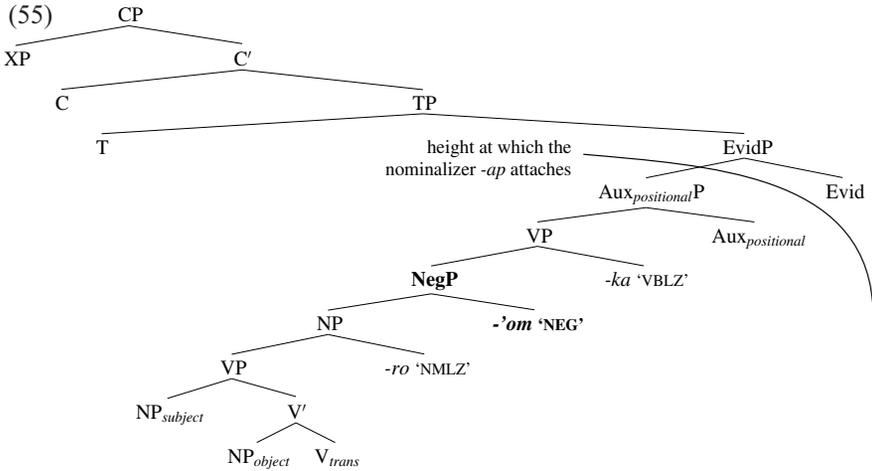   'If we didn't spear it [wild peccary], we wouldn't eat it.'

In 53, repeated from 3, we see that the same processes of nominalization by *-ro* and verbalization by *-ka* must occur in both the nonfinite antecedent *siro'omkaere*, built with the nominalizer *-ap*, and in the finite consequent *koro'omkakot'oy*, marked with the conditional suffix *-kot'oy*.[11]

One could ask whether the *-'om* seen in the nonfinite structures in 51, 52, and 53 has the same properties as the *-'om* in main clauses. At least in terms of NPI licensing, the answer is affirmative. The polarity-sensitive prefix *(e)tãreman'-* 'not again, never again' can occur inside of embedded contexts, too. Example 54 gives a modified version of 51.

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[11] The placement of clitic pronouns (Singerman 2018b) shows that there is a null tense morpheme in the consequent in 53. Conditional *-kot'oy* can also combine with overt tense morphology, as in 10.

(54) Epuop'ot wema'erẽ,   tarupa   ema'em
     e-puop'ot w-ema'ẽ-re   tarupa   ema'ẽ-m
     2SG-learn 1SG-language-OBL [non-indigene language-INS
          ètãreman'iyma'ẽkto'omkaptenã.
          e-**etãreman**-iyma'ẽk-to-**'om**-ka-ap-tenã
          2SG-**not.again**-speak.with-NMLZ-**NEG**-VBLZ-NMLZ-in.order.to]
       'Learn my language, so that I don't have to speak with you **ever again** in
        the white folks' language [= Portuguese].'   (elicitation)

So the same negation strategy appears in finite and nonfinite contexts alike. This fact
follows from the clause structure proposed in §6, in which NegP lives close to the bot-
tom of the tree—far beneath CP, TP, and EvidP. Now, nominalizers such as -*ap* also at-
tach at a relatively shallow position in the tree, underneath EvidP (though sometimes
above positional auxiliaries such as *yẽ* 'sitting, reclining'). But -*'om* occupies an even
lower spot than the nominalizer does: it must occur on the lowest verbal head, which is
to say on the lexical verb itself. Hence -*'om* will automatically fall within the nominal-
izer's scope. The tree in 55 illustrates.

(55)
```
               CP
         ┌─────┴─────┐
        XP           C′
                ┌────┴─────┐
                C          TP
                │    ┌──────┴──────┐
                T    height at which the   EvidP
                     nominalizer -ap attaches ┌──┴───┐
                          Aux_positional P    Evid
                          ┌────┴────┐
                         VP      Aux_positional
                    ┌─────┴─────┐
                  NegP        -ka 'VBLZ'
              ┌─────┴──────┐
             NP          -'om 'NEG'
         ┌────┴────┐
        VP       -ro 'NMLZ'
     ┌───┴───┐
   NP_subject  V′
          ┌────┴────┐
       NP_object  V_trans
```

Given that the Tuparí NegP sits lower than the attachment height for -*ap*, it is unsurpris-
ing that the negation strategy known from main clauses is also used within nonfinite sub-
ordinate structures built from nominalizations. This language thus presents the inverse of
the situation known from Kannada, in which matrix negation is actually the realization
of a high Mood projection. Nonfinite environments in Kannada do not contain MoodP
and must therefore realize negation through alternative means (Amritavalli 2004, Amri-
tavalli & Jayaseelan 2005). Comparable facts obtain in the Tupían language Karitiana,
where negative morphology cannot cooccur with mood morphology; in Storto's (2018)
words, 'negation may be understood as an unmarked mood itself'. Like Kannada, Kari-
tiana must use a separate negation strategy in nonfinite embedded clauses. In Tuparí, in
contrast, the NegP is structurally low enough to appear even inside of nonfinite embed-
ded contexts. Hence the same negation strategy is used everywhere.

    In short, that verbs must nominalize to undergo negation in Tuparí has nothing to do
with tense, evidentiality, or mood, which are realized in the highest layer of the clause.
A similar point applies to -*ka*. This suffix's role is just to build verbs—verbs able to
combine with tense and evidential morphology in finite clauses but also able to undergo
subsequent renominalization when called upon to do so. Example 56 (repeated from

30b) illustrates. The negated lexical verb *wak* 'cry' undergoes reverbalization with *-ka*, but this suffix is not what allows the future auxiliary *pewarap* to enter the clause. Rather, *-ka* is added solely because *pewarap* demands a complement that ends in the nominalizer *-ro*, and *-ro* will only attach to a verbal base.

(56) 'Ero'are haytokia watwakto'omkaro   pewarap.
     'ero'are haytokia wat-wak-**to-'om-ka-ro**   pewarap
     but   a.lot   2PL-cry-NMLZ-NEG-VBLZ-NMLZ FUT.2PL
        'But you (PL) will not cry a lot.'   (text; Miraci Aguissi Tupari, narrator)

What *-ka* makes possible here is the addition of a piece of nonfinite, nominalizing morphology; the future auxiliary *pewarap* comes later, after *-ro* has already been added.

   The same observation applies in cases of deontic obligation, expressed by VPs that have been nominalized with the same *-ap* suffix seen in 50, 51, 53, and 54.

(57) Kiret   tesot'asa y'a,   katke kiema'ammẽ
     kire-t   te-sot'as-a i-'a   katke ki-ema'ẽ-**ap**   e
     [person-NUC 3-die-TH 3-when] how 1PL.INCL-speak-NMLZ 3
        tarupa   ema'em?
        tarupa   ema'ẽ-m
        non-indigene language-INS
      'When a person dies, how must we speak [= what must we say] in the
        white folks' language?'

This example shows an affirmative obligation: *kiema'am*mẽ 'we must speak'. And in a negative obligation negation proceeds as expected, with nominalization by *-ro* and—after *-'om* has attached—reverbalization with *-ka*. Example 58 illustrates.

(58) Sokare   kisot'ayto'omkapbe.
     soka-re   ki-sot'as-**to-'om-ka-ap**   e
     cold-OBL 1PL.INCL-die-NMLZ-NEG-VBLZ-NMLZ 3
        'We must not die from the cold.'

Just as in 56 above, *-ka* does not serve to introduce subsequent finiteness marking here. Rather, what it does is allow for yet another round of deverbal nominalization to apply.

   Comparable comments apply for the purposive clauses headed by *-tenã*, the 'if/when' clauses headed by *'a*, and the conditional antecedents marked with oblique *-ere*: these constructions all require overt verbalization with *-ka* after *-'om*, even though none qualify as finite. The presence of *-ka* is dictated by the structural requirements of individual morphemes, such as *-ro* or *-ap*, which demand verbal rather than nominal bases. This generalization brings us back to the same conclusion reached above, namely, that the Tuparí system of negation is independent of clause-level categories of finiteness but instead turns on a strictly enforced division between nouns and verbs.

8. Broader ramifications.

8.1. Tuparí and the theory of the negative phrase. Generative analyses have determined that negator morphemes have the properties of syntactic heads in some languages but those of phrasal adverbials, introduced in specifier positions, in others. Some languages may overtly realize both the head and specifier of the negative projection. (The literature on this topic is extensive; see, among many others, Pollock 1989, Haegeman 1995, Zanuttini 1997, Wiltschko 2002.) The site of the negative projection can differ even between closely related languages, as Zanuttini demonstrates for several varieties of Romance: she proposes four distinct positions for NegP, interspersed among agreement and tense projections. Building on her work, Cinque (1999:§5.4) goes a step fur-

ther: he suggests 'the possibility of generating a NegP on top of every adverb-related functional projection, even simultaneously, up to a certain height (which is likely determined by semantic reasons)' (Cinque 1999:126).

Now, -*'om* bears no resemblance in form or distribution to adverbials in Tuparí; it is a bound affix with rigid selectional requirements. It behaves as a head and is represented as such in the trees in 41 and 55. So what phrase does this head project? Does it count as 'NegP'?

This question is not just about nomenclature. Contemporary theories of syntactic organization divide the clause into extended projections (Grimshaw 2000, 2005): these consist of a single lexical item, either verbal or nominal, and a set of related functional projections. Since the size of an extended projection is not bounded a priori, Grimshaw's theory is compatible with proposals (Rizzi 1997, Cinque 1999) that attribute considerable internal structure to the functional domain. But not every language overtly realizes every functional projection, and the surface order of functional heads may differ between languages. To accommodate such variation, Grimshaw advances the following claim:

> Cinque's proposal is that negation and agreement show surface variation because they can each appear in more than one position in the hierarchy of functional heads … Languages may then differ in which of the positions they realize. I will assume, in line with this view, that the relative position of functional heads is entirely universal, with surface differences depending on which of the universally available functional heads occur in the language. Of course other factors, such as head movement, may also affect the surface appearance of functional head combinations. (Grimshaw 2005:49)

Here is the problem raised by Tuparí. The projection headed by -*'om* resides toward the bottom of the language's clause structure, attaching to the lowest verbal head (after this has been nominalized with -*ro*). This position is lower than the four different positions for negation identified by Zanuttini 1997, all of which belong, on Grimshaw's theory, to the [+v] extended projection. But it is not just that -*'om* heads a projection lower than that of the NegPs proposed in Zanuttini's work or elsewhere in the syntactic literature. The projection headed by -*'om* lives in the nominal domain only; it does not belong to the extended projection of the verb. By the logic of Grimshaw's (2005) development of Cinque's hierarchy, the position of -*'om* must be a universally available site for NegP—even though this site resides in the [+N] rather than [+v] extended projection.

This problem cannot be solved by HEAD MOVEMENT (Travis 1984, Matushansky 2006, Harley 2013, Zeller 2013, McCloskey 2016, Harizanov & Gribanova 2018), which Grimshaw says may also interfere with morpheme order. In addition to the fact that -*'om* shows no indication of ever being displaced from its base position, the division of clausal structure into [+N] and [+v] domains is motivated in part by the observation that head movement generally does not move material between categorically distinct extended projections except in the case of noun incorporation (Grimshaw 2005:26–29; see also Sadock 1980, 1991, Baker 1988). So even if -*'om* were generated in the verbal domain, head movement could not get it to surface on nouns.

There are proposals in the literature that certain negative markers may be acategorial rather than members of the verbal extended projection. For instance, Biberauer and colleagues (2014:202) argue that negative markers in languages with Verb-Object-Neg order 'do not appear to c-select [= category-select] specific complements and therefore cannot be associated with an independent categorial specification' (see Biberauer 2009, 2012 and Merchant 2016 for discussion of Afrikaans *nie*). But this approach will not work for Tuparí, since -*'om*—unlike *nie*—does engage in category selection: it demands a complement that is [+N].

So does *-'om* project a genuine NegP? If NegP is defined as the syntactic projection whose head negates a proposition, then the answer is YES. The only other contender for this role is the lamentative clause-typer *'aet*, but this morpheme is too restricted in usage and too complex semantically to qualify (§5). Yet if the projection headed by *-'om* sits in an alternate location for the same NegPs identified by Zanuttini, then we have a clear instance of a single functional head showing up crosslinguistically in both the nominal and verbal extended projections. This conclusion goes against Grimshaw's proposal that functional heads belong either to the [+N] domain or to the [+V] one. That Tuparí *-'om* may be typologically unique does not resolve the issue: on the reasoning of CARTOGRAPHY (Cinque & Rizzi 2009), if ANY language instantiates NegP in a particular position, then that position has to be available to ALL languages.

8.2. TUPARÍ AND THE TYPOLOGY OF NEGATION. Where does Tuparí fit into typological work on negation? The most extensive and detailed survey of negation to date is Miestamo 2005, which draws on data from 297 languages belonging to over 240 genera (following the definition of GENUS in Dryer 2000). Miestamo classifies SN according to the structural asymmetries between affirmative declarative clauses and their negative counterparts. Tuparí SN on this system would belong to the class of constructions that exhibit a finiteness asymmetry. In this class, labeled A/Fin, 'the lexical verb loses its finiteness, and usually a new finite element (auxiliary) is introduced into the negative clause to bear the finite verbal categories' (Miestamo 2005:73). Finiteness is interpreted as a gradient phenomenon: nonfinite verbs may become syntactically dependent, may fail to mark certain verbal categories, may assume characteristics of nominals, or all of the above. As Tuparí verbs are nominalized before being negated and subsequently lose their ability to combine with finiteness markers, the language's SN construction counts as A/Fin. And just as many A/Fin constructions use extra material—often an auxiliary—to host finiteness morphology that cannot be borne by a negated lexical verb, in Tuparí the verbalizer *-ka* turns negated predicates into ones compatible with tense and evidentiality.

As a referee stresses, Miestamo 2005 provides a typology of SN CONSTRUCTIONS, not of whole LANGUAGES. Since the monograph focuses on negation in verbal declarative main clauses only, it does not make predictions about the relationship between main clause negation and negation in other grammatical contexts. It also does not put forth claims about the importance of finiteness—or the loss thereof—in the grammar of those languages whose SN constructions count as A/Fin. I emphasize these points so as to avoid any misunderstanding about how the Tuparí system works. The reduction in finiteness found with main clause negation in Tuparí is not unique to negative contexts but is rather a side effect of the wholesale change from verbal to nominal predication. The exact same morphological changes accompany negation in all environments, including ones where finiteness is always unavailable (that is, where tense and evidentiality may never be marked). The distinction between nouns and verbs is what drives the category switching that surrounds negation, with finiteness implicated only because the language's tense and evidential morphology must attach to verbal rather than nominal hosts.[12]

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[12] A similar point is made by Miestamo 2014 concerning alignment alternations in the Jê languages of Brazil. Many Jê varieties show a split between affirmative and negative clauses, with the latter requiring a change from nominative-accusative to ergative-absolutive alignment (Castro Alves 2004, Oliveira 2005, Salanova 2007, 2008; see Rodrigues 1999 and Ribeiro 2006 for overviews). But this does not in fact require us to say that Jê manifests some kind of alignment-sensitive asymmetry. Building upon a personal communication from Eduardo Ribeiro, Miestamo (2014:80) observes that 'the ergative pattern appears with nominalization in other contexts as well, not only negation, and *it is thus the nominalization that is responsible for the ergative pattern, and ergativity is triggered by negation only indirectly*' (my emphasis). Similar logic would

These facts in no way invalidate a classification of Tuparí SN as A/Fin, but they do point to how future typological research can work to accommodate a wider range of data and phenomena. Such research ought to investigate the possible relationships between negation in main clauses and negation in subordinate environments. To what extent can different negation strategies diverge from one another within a single language? Building on a central insight of Miestamo's, we ought to ask what sorts of asymmetries recur with negation in subordinate environments and how these relate to the ones found in SN contexts. I believe that research into this question will make sharper predictions if it is informed by explicit theories of clausal organization in addition to Miestamo's preferred framework, BASIC LINGUISTIC THEORY (as promoted by Dixon 1997, Dryer 2006, and Nikolaeva 2015b, among others). Many theories of clausal organization have arrived at the conclusion that clauses contain multiple layers of structure on top of a core or nuclear predication (see Foley & Van Valin 1984 for an early functionalist treatment and Carnie 2010:Ch. 11 for a formalist overview). Matrix clauses are often analyzed as containing functional structure absent in embedded ones, a view that builds upon Hooper and Thompson's (1973) famous observation that asserted clauses license word-order permutations unavailable in backgrounded or presupposed contexts. If we combine the idea that negators may attach at different heights in the spine with the idea that main clauses are structural embellishments of embedded ones, we predict that differences between matrix and subordinate negation strategies should relate to the amount of syntactic material that is embedded. A language whose negator morphology occupies a low position and does not interact via movement or agreement with higher functional categories (tense, mood, evidentiality) is predicted to show a Tuparí-style system, with one and the same negation strategy used throughout. But as higher syntactic material is less likely to survive embedding intact, a language that places its negator toward the top of the clause should be more prone to exhibit asymmetries between matrix and embedded environments—especially if the NegP enters into any movement or agreement relationships with other high projections.[13]

Ultimately, the Tuparí facts illustrate the necessity of pursuing both constructional and morphemic typological classifications of negation. Early surveys (Dahl 1979, Payne 1985) categorized negation strategies based on the diverse ways that negator morphology can be realized—as affixes, clitics, auxiliaries, and so on—whereas Miestamo 2005 compares whole constructions against one another. The constructional approach proves productive for putting forth broad classes of asymmetries, since irrelevant morphological differences can be ignored. But Tuparí shows that negators can and do differ in fundamental respects: -'om requires inputs that are nominal and produces outputs that are also nominal, and the result is considerable category-changing gymnastics. Tuparí thus points to the need for a multidimensional classification, one that incorporates construction-level asymmetries as well as nuanced morphosyntactic analyses focused on the selectional and categorical properties of individual negator morphemes.

9. CONCLUSION. This article has sought to describe and analyze a system of negation that is internally quite consistent but that nonetheless defies crosslinguistic tenden-

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mitigate against attributing too much explanatory potential to finiteness when seeking to make sense of the Tuparí pattern.

[13] My suggestion that future work on negation should combine typology with formal theory builds upon other calls to synthesize the methodologies of the two disciplines (Baker & McCloskey 2007, Polinsky & Kluender 2007, Polinsky 2011, Baker 2015, Holmberg 2017).

cies and analytic expectations. The core characteristics of negation in Tuparí are repeated here.

(i) The Tuparí verb must take the suffix *-ro* before it can host the negator *-'om*. Since independent evidence shows that *-ro* is best analyzed as a deverbal nominalizer, we arrive at the generalization that *-'om* attaches only to nominal bases (§3).

(ii) A verb that has been nominalized with *-ro* so as to host *-'om* patterns morphosyntactically like a nominal predicate. In particular, an overt process of verbalization must apply if a negated verb is to combine with any markers of tense or evidentiality (§4).

(iii) *-'om* cannot scope over structurally superior elements. Alternative scopal readings are achieved by combining *-'om* with the polarity-sensitive prefix *tãreman'-* 'not again' and with nominalizers such as actor *-at*. The restriction of *-'om* to nominal bases is never violated (§6).

(iv) Verbs undergo the same processes of nominalization and reverbalization with negation in all environments. That is, the realization of negation in Tuparí does not differ according to clause type or to the presence/absence of tense or evidentiality (§7).

As argued in §5, the 2P clause-typer *'aet* 'NEGATIVE LAMENT' comes close to performing propositional negation as well. But its semantic complexity (it encodes frustration or disappointment on the speaker's part) and its inability to occur with other clause-typing particles (*nẽ* 'YES/NO', *nãkop* 'MAYBE', *mãkẽrõ* 'DUNNO', etc.) shows that its role is much more circumscribed. Only *-'om* qualifies as a propositional negator in Tuparí.

Diachrony and language contact may help to explain the peculiar properties of *-'om*. The restriction of this suffix to nominal bases would appear to extend well into the prehistory of the language—all the way, in fact, to Proto-Tupían. *-'om* is almost certainly cognate with the morpheme **-eʔ ̃um*, found throughout the distantly related Tupi-Guaraní branch of the Tupían family.[14] Examples from Kamaiurá are presented in 59 (data from Seki 2000:335; my translation of the Portuguese).

(59) a. nujakapetsiŋ -a   rak   o-pot
        rabbit   -NUC EVID 3-jump
          'The rabbit jumped.'

    b. nujakapetsiŋ -a   rak   **n**   =o-por   **-ite**
        rabbit   -NUC EVID **NEG** =3-jump -**NEG**
          'The rabbit didn't jump.'

    c. nujakapetsiŋ -a   **ruẽj** rak   o-pot
        rabbit   -NUC **NEG** EVID 3-jump
          'It wasn't the rabbit that jumped.'

    d. nujakapetsiŋ -**e'ym** -a   rak   o-pot
        rabbit   -**NEG** -NUC EVID 3-jump
          'What jumped was not rabbit.'/'The nonrabbit jumped.'

Kamaiurá uses the circumfix *n…ite* for predicate negation (59b), the particle *ruẽj* for constituent negation (59c), and the suffix *-e'ym* for 'root negation' (59d). While *ruẽj* attaches outside of the nuclear case *-a* and thus takes the entire nominal within its scope, *-e'ym* attaches to the root itself. Seki notes that *ruẽj* is sensitive to focus and introduces a presupposition: 59c asserts that something other than the rabbit did indeed jump. No such presupposition appears to obtain with *-e'ym*, which is information-structurally

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[14] I thank Lev Michael and Zachary O'Hagan for bringing Tupi-Guaraní **-eʔ ̃um* to my attention.

more neutral. *-e'ym* is also used to negate dependent clauses, which frequently feature nominalizers such as gerundive *-m* (Seki 2000:335–36).

(60) a   -jot   we -pyta **-m -e'ym**
     1SG -come 1SG -stay **-GER -NEG**
      'I came so as not to stay.'

Similar data exist for many other Tupi-Guaraní varieties, including Tapirapé (Praça 2007:50–52), Classic Tupi (Rodrigues 2013 [1953]:§9), and Wayampi (Jensen 1994). With the exception of Urubu-Ka'apor—in which *ym* has developed into an all-purpose standard negator, without limitation to nominals (Kakumasu 1986:357–58)—the Tupi-Guaraní varieties that retain a reflex of *-eʔũm* restrict its usage to nominal bases and employ other strategies to negate verbs (Jensen 1998:545–49). It is probable that the common ancestor of *-'om* and *- eʔũm* was also restricted to the nominal domain and that Proto-Tuparí later exapted this morpheme to serve as its only negator. Comparable changes are known to have occurred elsewhere in South America, as well: the Proto-Arawak prefix *ma-*, which derived verbs with privative meanings ('to lack X') from nouns, has gained additional uses in many contemporary Arawak languages and in some cases now functions as a propositional negator (Michael 2014, 2015). The Arawak facts closely mirror the privative uses of *-'om*, which are discussed in the appendix.

Might contact with speakers of non-Tupían languages have contributed to the development of *-'om*? The oral tradition of the Tuparí puts their homeland near the present-day border between the states of Rondônia and Mato Grosso, approximately 280 kilometers east of the Rio Branco, and they may have encountered Arawak populations prior to or during their westward migration to the Rio Branco in the early twentieth century. Definitively determining the influence of contact on *-'om* will have to await more detailed historical reconstruction of the Tuparían branch of Tupían, an area of research now underway (see Galucio & Nogueira 2011, 2018).[15] But it is already clear that Tuparí instantiates a broader Amazonian pattern for nominal negators to assume functions associated with matrix clause negation. What makes the Tuparí case unique is that *-'om* has retained its categorical restriction to nouns even as it has grown into the language's sole negator.

The challenge presented by the restriction of *-'om* to nouns recalls that of NOMINAL TENSE (Nordlinger & Sadler 2004, Tonhauser 2007, Muysken 2008, Lecarme 2012).[16] Many languages realize tense—and related categories such as aspect, evidentiality, and/or mood—on nouns instead of or in addition to verbs; see Tonhauser 2007 on Paraguayan Guaraní, Haude 2010 on Movima, Thomas 2014 on Mbyá Guarani, Gutiérrez 2015 on Nivâcle, Nikolaeva 2015a on Tundra Nenets, and Rose 2017 on Mojeño Trinitario, among others. The proper analysis of this phenomenon remains contentious. Tonhauser (2007) claims on semantic grounds that apparent temporal marking on nouns in Paraguayan Guaraní does not qualify as tense proper, while Thomas (2014:360) argues that 'tense is a genuinely nominal category in Mbyá, in the sense that TPs are part of the extended projection of noun phrases rather than of verb phrases'. Although tense, aspect, and evidentiality are limited in Tuparí to the verbal domain, there is an intuitive parallel between how Mbyá restricts tense to nouns—in defiance of crosslinguistic trends—and how Tuparí does the same with negation. These languages demonstrate

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[15] Negation has not been studied in depth for the other members of the Tuparían branch, but judging from the available information, they do not exhibit a Tuparí-like pattern: Galucio 2001, Nogueira 2011, and Aragon 2014 all report the existence of negative morphology that can attach directly to verbs without intervening nominalization. More descriptive and analytic work is needed before we can attempt a full reconstruction.

[16] I thank John Goldsmith for first suggesting the parallel between Tuparí negation and nominal tense to me.

that certain functional categories exhibit more crosslinguistic variation than is commonly acknowledged.

<div align="center">APPENDIX: ON PRIVATIVE USES OF -'om</div>

In certain constructions -'om appears to serve as a marker of privation, akin to English -less or without or to Hungarian -talan/-telen/-tlan/-tlen (H. Varga 2006, Kiefer 2015).

Tuparí uses the morpheme -psiro, glossed here as HAVE, to build possessive predicates from nouns.[17] Like nominals marked with -'om, those that bear -psiro must verbalize to combine with additional verbal morphology or markers of finiteness.

(A1) Aoropsironambi'a 'on.
    aoro-**psiro-nẽ-a-pbi'a** 'on
    parrot-**HAVE-LV-TH-DUR** 1SG
      'I used to have a parrot.'

Derived aoropsiro in A1 behaves exactly like puop and puop'om in 19: in order to combine with durative -pbi'a, it must first undergo verbalization with the light verb nẽ. The same process is visible in example 10, where mãkinamsiro 'with a camera' verbalizes with nẽ to combine with the nominalizer -ap. Interestingly, -psiro stands in paradigmatic contrast with -'om. Amẽko'om 'on can thus serve as a felicitous answer to two very different questions, as in A2 versus A3.

(A2) a. Amẽko nẽ 'en?
      amẽko nẽ 'en
      dog   Y/N 2SG
        'Are you a dog?'
    b. Amẽko'om 'on.
      amẽko-**'om** 'on
      dog-**NEG** 1SG
        'I'm not a dog.'   (elicitation)
(A3) a. Amẽkopsiro nẽ 'en?
      amẽko-**psiro** nẽ 'en
      dog-**HAVE**   Y/N 2SG
        'Do you have a dog?'
    b. Amẽko'om 'on.
      amẽko-**'om** 'on
      dog-**NEG** 1SG
        'I don't have a dog.'   (elicitation)

When opposite a nominal predicate with no overt suffix (such as amẽko 'dog' in A2), -'om functions as a prototypical negator: it inverts the truth values of the proposition. But when opposing a predicate that bears -psiro (amẽkopsiro 'having a dog' in A3), it means something different from just ¬: it signifies the absence or lack of the nominal base to which it attaches. The latter meaning appears again in A4, which is how one speaker summed up the results of a local soccer match.[18]

(A4) Kamĩzapsiroe nã gãyãnan,   kamĩza'õen perdenã.
    kamĩza-**psiro** e nã gãyã-nẽ-a-t,   kamĩza-**'om**-et perde-nẽ-a
    shirt-**HAVE**   3 FOC win-LV-TH-NUC shirt-**NEG**-NUC lose-LV-TH
      'Those with shirts were the ones who won. Those without shirts lost.'

The same contrast can also appear inside of verbalizations with -ka.[19]

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[17] While -'om may never stand alone—that is, it is a bound morph—the same is not true of -psiro, which can be used without an overt nominal base. The initial labial of -psiro is lost following another consonant. This cluster-simplification process occurs with all suffixes that begin with a CC sequence, including the evidentials -pnẽ and -psira; see 8b and 43.

[18] The final stop of kamĩza'om 'shirtless' is lost in the second clause in A4 because it precedes the vowel-initial nuclear case -et. Labial deletion before vowel-initial suffixes is an exceptionless process in Tuparí phonology (see also 3 and 10 above, where the oblique case -ere follows the nominalizer -ap).

[19] In A5 the verbalizations with -ka modify the lexical verb 'et 'sleep', part of a broader strategy in Tuparí of expressing adverbial meanings using adjoined VPs. For example, poatkia 'well' is derived from the transitive verb poatki 'do something well', which takes a VP complement nominalized with -ap (like kot'oy 'want' in 32). This strategy is plausibly connected to the use of multiple VPs in the syntax of other Tupían languages (Moore 1984, 1994).

(A5) a. Korok'ape'omka nẽ e'era 'eka?
korok'ape-**'om-ka**-a nẽ e-'et-a 'eka
shirt-**NEG-VBLZ-TH** Y/N 2SG-sleep-TH AUX.SG
    'Do you sleep without a shirt on?'
b. Puop'om nẽ 'en korok'apepsiroka e'eraere?
puop-'om nẽ 'en korok'ape-**psiro-ka**-a e-'et-ap-ere
knowledgeable-NEG Y/N 2SG shirt-**HAVE-VBLZ-TH** 2SG-sleep-NMLZ-OBL
    'Do you not know how to sleep with a shirt on?'

The two different uses of -*'om* are at work in the area of property concepts, too (Dixon 1982; see Francez & Koontz-Garboden 2017 for discussion of crosslinguistic variation). Tuparí has a handful of property-concept antonym pairs where the two words are not related via derivational morphology.

(A6) a. poat 'good'
b. erop'a 'bad'
(A7) a. erat 'large'
b. sìn 'small'

In other pairs, a morphologically bare positive form opposes a negative one marked with -*'om*.

(A8) a. tàn 'tall'
b. tan**'om** 'not tall' = 'short'
(A9) a. posi 'heavy'
b. posi**'om** 'not heavy' = 'light'
(A10) a. puop 'smart, knowledgeable'
b. puop**'om** 'not smart, not knowledgeable' = 'dumb, ignorant'

Finally, there are pairs where the antonyms are distinguished by -*psiro* and -*'om*.

(A11) a. epa**psiro** 'having eyes' = 'seeing'
b. epa**'om** 'lacking eyes, eyeless' = 'blind'
(A12) a. a'usi**psiro** 'having a wife' = 'married'
b. a'usi**'om** 'lacking a wife, wifeless' = 'bachelor'
(A13) a. apsikum'e**msiro** 'having an inner ear' = 'hearing'
b. apsikum'ẽ**'om** 'lacking an inner ear' = 'deaf'

The Tuparí lexicon lacks underived entries for the (b) forms in A8 through A13; such meanings can only be expressed in a derived form with -*'om*. The crucial generalization is that -*'om* participates in two distinct paradigmatic relationships in these examples: it contrasts with possessive -*psiro* in A11 through A13, but with no overt suffix at all in A8 through A10. Schematically we can represent this situation as in Figure A1.
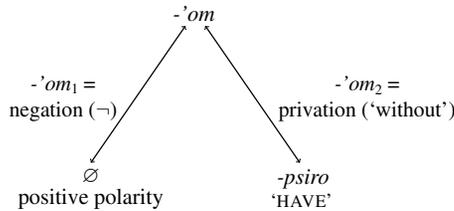

FIGURE A1. Two paradigmatic relationships for -*'om*.

Given these facts, it seems simplest to analyze -*'om* as ambiguous, such that the Tuparí lexicon contains two different suffixes with the same phonological shape ([ʔõmˈ]) and the same restriction to nominal bases, but with distinct meanings. On this analysis, the negator -*'om*$_1$ means $\lambda p_t [\neg(p)]$, with the logical operator $\neg$ applying to a proposition p, whereas the privative -*'om*$_2$ applies $\neg$ to a lexical primitive that itself takes two arguments: $\lambda y_{et} \lambda x_e [\neg \text{HAVE}(x, y)]$. In ambiguous contexts speakers can use world knowledge and considerations of discourse cohesion to determine whether to interpret -*'om* as a privative or as a negator.

It might be possible to provide a unified semantics for -*'om*$_1$ and -*'om*$_2$. There is strong language-internal evidence that -*psiro* 'HAVE' has a null allomorph, so we could analyze all apparently privative uses of -*'om* as negations of a covert -*psiro*. This would yield the desired meaning of 'not having' or 'lacking'. Such an approach, however, would require a more detailed analysis of alienability distinctions than can be confidently provided at present, so attributing ambiguity to -*'om* is unavoidable for now.

John Beavers (p.c.) points out that nothing crucial hinges on whether one chooses to collapse the two -*'om*s into one, since this article's principal claim—that negation in Tuparí is a nominal category—remains intact either way.

The privative uses of *-'om* draw attention to a question not yet addressed: should this suffix be classified as derivational or inflectional? According to the traditional intuition that derivation creates new words or lexemes whereas inflection does not, the behavior of *-'om* in pairs such as *posi* 'heavy' and *posi'om* 'not heavy, light' and *a'usipsiro* 'having a wife, married' and *a'usi'om* 'lacking a wife, bachelor' qualifies as derivational. Furthermore, the observation that derivation generally occurs closer to the root than inflection does again indicates that *-'om* belongs to the derivational category. Recall that with the future auxiliary (examples 26 and 29a), *-'om* lives inside not one but two category-changing derivational suffixes: the denominal verbalizer *-ka* and the deverbal nominalizer *-ro*. And when a noun bearing *-'om* serves as an argument, *-'om* appears inside of case morphology (example A4). These facts, too, suggest that *-'om* is derivational.

As pointed out by more than one referee, however, there are circumstances where the strict ordering between derivation and inflection does not hold; particularly famous examples come from Athabaskan (Rice 1989, 1998, 2000, Kibrik 2005). So there would be crosslinguistic precedent for analyzing *-'om* as an inflectional morpheme inside of derivational ones. If we analyze at least some uses of *-'om* in this way, then the language will count as yet another counterexample to the idea that derivation must always occur within inflection (see Anderson 1982, 1992, Stump 2005, Bickel & Nichols 2007, among others, for discussion). It might even be the case that the two different paradigmatic relationships that *-'om* enters into (Fig. A1) correlate with the inflection-derivation distinction, with *-'om*$_1$ (the true negator) inflectional and *-'om*$_2$ (the privative) derivational. I leave this topic for further research.

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