The clausal organization of Tuparí, an indigenous Brazilian language

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ABSTRACT

This paper provides a detailed description and analysis of the clausal organization of Tuparí, a Tupían language that is spoken by approximately 350 people in the Brazilian state of Rondônia. The paper focuses on several interrelated issues that have broader comparative and typological importance, including (a) the distribution of head-initial and head-final phrase structure, (b) the diverse surface realizations of the Tense Phrase, and (c) the distinction between true pronouns and pronoun-like agreement enclitics. Data are drawn from an in-progress corpus of native language texts, everyday conversations and elicited utterances. Differences between Tuparí and the other languages belonging to the Tupían family's Tuparían branch are highlighted at various points for comparative purposes.

KEYWORDS

Brazilian languages, syntax, headedness, agreement, tense

1. INTRODUCTION

This paper describes and analyzes the clausal organization of Tuparí, an indigenous Amazonian language spoken by approximately 350 people in the Brazilian state of Rondônia. We focus on several interrelated issues in Tuparí syntax that have broader comparative and typological importance, including (a) the distribution of head-initial and head-final phrase structure; (b) the

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diverse surface realizations of the Tense Phrase; and (c) the distinction between true pronouns and pronoun-like agreement enclitics.

We make four major claims in this paper concerning the organization of the Tuparí clause. First, the language's functional categories obey the organizational scheme shown in Fig. 1. Immediately above the lexical verb we find the category of resultativity, realized via portman-teaux that also mark the subject's number and physical position. Habitual aspect is the next highest category, followed in turn by evidentiality, tense, and clause-typing – in that order. All functional categories below the Tense Phrase exhibit consistent head-final order. Yet there exists at the top of the clause a layer of unambiguous head-initiality, instantiated by enclitic particles located in second position.

Fig. 1. The distribution of headedness in the Tuparí clause

The second claim advanced here is that the Tuparí Tense Phrase exhibits a combination of head-initial and head-final properties; in particular, T may be realized as an enclitic particle in second position or as a suffix that attaches at the right edge of the predicate. Both the second position tense particles and the predicate-final tense suffixes exhibit evidence of having been dislocated to their surface position via postsyntactic operations. As a result, the underlying headedness of the TP is best characterized as indeterminate.

Our third claim concerns the nature of those morphemes described as ‘subject pronouns’ or ‘free pronouns’ in prior literature on Tuparí and its closest relatives (Caspar and Rodrigues 1957; Alves 2004; Galucio and Nogueira 2011). We demonstrate that that literature conflated what are in fact two distinct sets of morphemes, easily confused with one other because of homophony in several person-and-number combinations. There exists a set of true pronouns, which may bear the same case morphology as other nominals. These true pronouns often serve discourse-related information structural roles; in particular, they may function as contrastive topics and as foci. The members of the other set of morphemes are restricted to finite clauses and are positionally parasitic on particular pieces of tense morphology. This set of properties makes sense only if the latter set of morphemes – here referred to as WEAK NOMINATIVE ENCLITICS – are not themselves true arguments of the verb but are instead a reflection of agreement between T and the subject.

Having shown that the weak nominative enclitics are parasitic on tense morphology, we arrive at our fourth claim: there exist at least two distinct null tense morphemes in Tuparí. One of these combines with verbal predicates that bear no overt tense or aspectual marking, while the other combines only with nominal predicates. Though both of these tense morphemes are null, they have sharply different effects on the placement of the weak nominative enclitics. We draw on data concerning the behavior of negated predicates – shown in Singerman (2018a) to behave

like nouns rather than verbs – to further buttress the claim that Tuparí possesses two phonologically empty but syntactically active T heads.

The paper proceeds as follows. Section 2 reviews prior research into the morphosyntax of Tuparí. Section 3 establishes that the lower levels of the Tuparí clause are characterized by head-final phrase structure, as is much of the nominal domain. Section 4 turns to the highest layer of the clause, instantiated by second position clause-typing particles, and argues that this layer is head-initial. Section 5 then addresses the mixed nature of the TP, which is shown to be of indeterminate underlying headedness. With this overall picture in place, Section 6 assesses the status and distribution of the weak nominative enclitics: T-parasitic morphemes that were misidentified as subject pronouns in prior literature. Using the close relationship between the weak nominative enclitics and T as a diagnostic tool, Section 7 examines those clauses which appear on the surface to be tenseless and argues that the language contains two null T heads. Section 8 concludes.

2. BACKGROUND ON THE TUPARÍ LANGUAGE

Descriptive material on the Tuparí language first became available in the 1950s thanks to the pioneering research of Franz Caspar (1956, 1957, 1975), a Swiss ethnographer who spent several months living among the Tuparí. A sketch of the language's phonology and morphology, based upon Caspar's fieldnotes, was subsequently elaborated by Aryon Dall'Igna Rodrigues (Caspar and Rodrigues 1957; for a recent Portuguese translation, see Caspar and Rodrigues 2017). Further descriptive work was carried out by Lucy Seki (2001), best known for extensive research into the Tupi-Guaraní language Kamaiurá (Seki 1990, 2000a, 2000b), and by Rodrigues's student Poliana Alves (1991, 2004).

The majority of the data presented in this paper were gathered between 2013 and 2018 over the course of approximately eleven months of on-site fieldwork on the Rio Branco Indigenous Reserve, located in the south of Rondônia. The remaining data have been gathered over WhatsApp, which has grown in popularity among Tuparí speakers now that internet access is available in many villages on the Rio Branco. In keeping with our broader commitment to use as much naturally occurring data as possible (Singerman 2018b, 9–12), we prioritize examples from texts and everyday casual conversations throughout this paper. Metadata indicate the provenance of the individual examples: utterances drawn from everyday conversation or elicitation are dated; textual excerpts are accompanied by the name of the author or narrator.

3. HEAD-FINAL PHRASE STRUCTURE AT THE LOWER LEVELS OF THE CLAUSE AND IN THE NOMINAL DOMAIN

This section establishes that the lower levels of the Tuparí clause, together with noun phrases, are characterized by head-final rather than head-initial phrase structure.

Tuparí exhibits a host of head-final properties, just as many other Tupían languages of Rondônia do (see Moore 1984 on Gavião, Gabas Jr. 1999 on Karo, Galucio 2001, 2011, 2014 on Sakurabiát and Storto 1999, 2014, 2020 on Karitiana, among others). Within the nominal

domain, adpositions follow the nouns they select for; case marking is suffixal; and the possessor must always precede the possessum. (1) through (3) highlight these properties.¹

(1) Adpositions follow their complements

- a. yam tere
yam **tere**
bench **on.top.of**
 ‘on the bench’
- b. yã eanã
yã **eanã**
mother **together.with**
 ‘together with mother’

(2) Case marking is suffixal

- a. Tupari ema’erẽ
Tupari ema’ẽ-**re**
Tuparí language-OBL
 ‘concerning the Tuparí language’
- b. wema’em
w-ema’ẽ-**m**
1SG-language-INS
 ‘with/in my language’

(3) Possessor precedes the possessum

- a. esi
e-si
2SG-mother
 ‘your mother’
- b. esi memsit
e-si memsit
2SG-mother child.of.woman
 ‘your mother’s child’

¹Abbreviations: 3C = the coreferential third person prefix *te-*, ADV.FOC = adverb focus, AUX = auxiliary, CNDL = counterfactual conditional, EVID = evid, EXCL = exclusive, HZTL = horizontal, INCL = inclusive, INS = instrumental-lative case, INTRANS = intransitivizing prefix, LOC = locative case, NEG = negation, NMZ = nominalizer, NUC = nuclear case, OBJ.NMZ = object nominalizer prefix, OBL = oblique case, PAUC = paucal, PL = plural, PRIV = privation, PROG = progressive, RSLT = resultative, SG = singular, TH = theme vowel, UT = Utterance Time, VBZ = verbalizer.

All examples are given in a four-line format. The first line gives the standard orthography used by the Tuparí school-teachers on the Rio Branco Indigenous Territory; the second line gives a morphemic breakdown prior to the application of vowel deletion and consonant lenition processes. See Singerman (2016) and Singerman (2018b, appendix) for more information on these processes, which have the effect of obscuring certain morpheme boundaries on the surface.

Whether Tuparí can be said to have true adjectives is controversial; Singerman (2018b, 87–92) argues that apparent adjectives are just a subclass of nouns. In terms of word order, however, adjective-like nouns must follow rather than precede the nouns which they modify. So ‘adjectival’ modification bucks the broader preference within the nominal domain for complement-head order.

(4) Adjectival modifiers follow the head NP

- a. tarupa tòn
 tarupa **tàn**
 non.indigene **tall**
 ‘the tall white person’
- b. esi memsit pēan
 e-si memsit **pēan**
 2SG-mother child.of.woman **first**
 ‘your mother’s first child’

This deviation from complement-head order is crosslinguistically unsurprising, as adjective-noun order does not exhibit clear correlations with other word order properties (see Dryer 1992; Hawkins 2004, 2014). Note that there is no relative clause modification within NPs, since all relative clauses in Tuparí are internally headed and are in fact clause-sized nominalizations (Singerman 2020).

Complement-head order obtains just as rigidly in the verbal domain as in the nominal one. Direct objects must precede the transitive verbs which select for them. OV order obtains with both pronominal objects (5a) and full NPs (5b).

(5) Direct objects occur immediately prior to the transitive verb

- a. etoa
 e-top-a
 2SG-see-TH
 ‘see you’
- b. Arua ’ēkaet toa
 Arua ’ēk-ap-et top-a
 Aruá dance-NMZ-NUC see-TH
 ‘see the dance of the Aruá’

Observe the layered head-finality in (5b): the lexical verb *top* ‘see’ takes as its direct object *Arua* ’ēkaet ‘dance of the Aruá’, where *Arua* – another Tupían ethnic group of southern Rondônia – is the possessor of ’ēkaet (a nominalization of the lexical verb ’ēk ‘dance’).

The lexical VP must precede any and all positional, aspectual, or temporal auxiliaries; these are in turn rigidly ordered. In linear terms, the order which is invariant across all our data is (1)

lexical VP, (2) positional auxiliary/AUX_{GO}, and finally (3) habitual auxiliary.² Note that if the non-witnessed evidential suffix *-pnē/psira* is present, it will attach to the rightmost auxiliary. This is shown by (6a) and (6b), two fully finite utterances that contain both tense and evidential morphology. In both examples the lexical VP precedes the lower auxiliary, *tero'e* 'AUX_{GO}.SG' / *oro'e* 'AUX_{GO}.PAUC'; and this lower auxiliary in turn precedes the habitual auxiliary, *'eka* / *aka*. It is the linearly rightmost – and structurally highest – auxiliary to which the evidential suffix *-pnē/psira* attaches.³

(6) Evidential suffix attaches to the rightmost / structurally highest auxiliary

- a. Pamēkgen òpot mōket malocare ototonā
 Pamēk-en =òpot mōket maloca-re o-toto-nē-a
 Pamēk-NUC =DISTANT.PAST long.ago maloca-OBL 1SG-grandfather-VBZ-TH
 tero'a te'ekapnā.
 tero'e-a te-'**eka-pnē**-a
 AUX_{GO}.SG-TH 3C-AUX_{HABIT}.SG-EVID.SG-TH
 'Pamēk was my grandfather long ago in the maloca (NON-WITNESSED).'
 conversation: 2017-08-04
- b. Wa'ubatot òpot wao hi'anā teoro'a
 w-a'ubato-t =òpot wao hi'anē-a te-oro'e-a
 1SG-father.in.law-NUC =DISTANT.PAST caiman like-TH 3C-AUX_{GO}.PAUC-TH
 teakapsira.
 te-**aka-psira**-a
 3C-AUX_{HABIT}.PL-EVID.PL-TH
 'My father-in-law liked caiman (NON-WITNESSED).'
 elicitation: 2018-08-16

Data such as (6a) and (6b) point toward the tree in Fig. 2, which was first proposed in Singerman (2018b, ch. 5).

²The label AUX_{GO} is used for a specific series of auxiliaries that bear a semi-transparent etymological relationship to the lexical verb 'go' (Singerman 2018b, 187–196). Distributionally, the members of the auxgo series are somewhat comparable to positional auxiliaries like *yē* 'AUX_{HZTL}.SG'. However, positional auxiliaries do not serve to create intermediate temporal gradations – one of the main purposes of the AUX_{GO} series within the language's tense system. See Section 5.

³There is no pronominal proclitic on the auxiliary *tero'a* in (6a) because of a morphological haplology constraint that bars third person *te-* immediately prior to *te'e/tero'e* 'AUX_{GO}.SG' (Singerman 2018b, 187–196). The same haplology constraint is at work in example (19e) (Section 5).

In traditional Tuparí speech in-laws are treated as paucals/plurals rather than as singulars. This is why *wa'ubatot* 'my father-in-law' triggers non-singular agreement in (6b): the auxiliary roots *oro'e* 'AUX_{GO}.PAUC' and *aka* 'AUX_{HABIT}.PL' and the plural evidential suffix *-psira*.

Fig. 2. The lower region of the Tuparí clause is head-final

This tree includes – in a position immediately above the VP – the Resultative Phrase, realized by the suffix *-psẽ/pnẽ/psira*. More details about this suffix may be found in [Singerman \(2019\)](#); for now, we note that the head of this projection may duplicate the positional information provided by the lower of the two auxiliary heads. (7) provides an example of a headless relative clause where the Resultative head and both auxiliary heads are realized overtly. Examples like (7) demonstrate that while the resultative suffix and the lower auxiliary may expone the same number and positional information, they do head separate syntactic projections.

- (7) Example where both the Resultative and $AUX_{POSITIONAL}$ heads are realized
totot	tepsiksã	teyã	te'eka	hè
[toto-t	te-epsik-sẽ-a	te-yẽ-a	te-'eka-a	] hè
[grandpa-NUC	3C-sit.down-RSLT _{HZTL.SG-TH}	3C-AUX _{HZTL.SG-TH}	3C-AUX _{HABIT.SG-TH}	] NMZ
- 'the place where grandpa regularly sits down'
- conversation: 2018-08-24

More examples of clausal nominalizations headed by *hè* are provided in the next section, which details the CP layer of the Tuparí clause.

4. HEAD-INITIAL PHRASE STRUCTURE IN THE CP LAYER

4.1. The clause-typing particles

Tuparí distinguishes different clause types using a set of 7 second position particles, listed in (8). Of these, *=nẽ*, *=nãpe* and *=aet* were classified as members of a broader set of particles

by Caspar and Rodrigues (1957, §3.5), though their syntactic distribution was not explored in detail there.

(8) The clause-typing particles

- a. =*ně* ‘YES/NO’
- b. =*nākop* ‘MAYBE’
- c. =*pa’a/ta’a* ‘ASSERTIVE’⁴
- d. =*nāpe* ‘EMPHATIC’
- e. =*mākērō* ‘DONT.KNOW’
- f. =*mākērō* ‘CONFIRMATIVE’
- g. =*aet* ‘UNFORTUNATELY.NOT’ (i.e., ‘it is a shame that $\neg p$ ’)

We must distinguish between two homophonous clause-typing particles: *mākērō* ‘DONT.KNOW’ and *mākērō* ‘CONFIRMATIVE’. They have distinct prosody (*mākērō* ‘CONFIRMATIVE’ is accompanied by a sharply rising intonation) and trigger different effects on the deictic orientation of the evidential suffix *-pně/psira* (Singerman 2019, 411–428).

(9) shows the semantic effects that these clause-typing particles can have.

(9) Examples of clause-typing particles in existentials

- a. Kafet *ně* *te’a?*
 kafe-t =***ně*** *te-’e-a*
 coffee-NUC =YES/NO 3C-AUX.SG-TH
 ‘Is there coffee?’
 common in everyday speech
- b. Kafet *nākop* *te’a.*
 kafe-t =***nākop*** *te-’e-a*
 coffee-NUC =MAYBE 3C-AUX.SG-TH
 ‘There might be coffee.’ / ‘I can’t say for sure whether there’s coffee.’
 conversation: 2015-12-22
- c. Kafet *pa’a* *te’a.*
 kafe-t =***pa’a*** *te-’e-a*
 coffee-NUC =ASSERTIVE.♂ 3C-AUX.SG-TH
 ‘There is indeed coffee.’ / ‘I assert that there is coffee.’
 common in everyday speech

⁴The choice between the two allomorphs of the assertive particle is determined by the speaker’s gender: =*pa’a* is used only by men and =*ta’a*, only by women. See Rose (2015) on gender indexicality in South American languages.

An important fact about the clause-typing particles is that they only ever combine with fully-formed utterances. A clause that lacks an overt clause-typing particle is not ill-formed; it just instantiates a superficially unmarked sentence type. Hence the counterpart to (9a) through (9c) without an overt clause-typing particle is just a run-of-the-mill declarative, without any special emotive or emphatic content: *Kafet te'a* ‘There is coffee’. That the clause-typing particles are added to otherwise fully-formed utterances supports an analysis on which these particles sit in a high position in the clausal spine, one above TP, EvidP, and the two auxiliary projections shown in Fig. 2. If this projection may host one and only one constituent in its specifier, as shown in Fig. 3, then we also explain why the clause-typing particles consistently surface in second position.

Fig. 3. The highest level of the Tuparí clause contains a head-initial CP

4.2. What kind of constituents can precede the second position clause-typing particles?

It is a well-established fact that morphemes may end up in second position by a variety of mechanisms. Second position effects – including Verb Second – bear the hallmarks of HEAD MOVEMENT in many languages, including German (den Besten 1983), Kashmiri (Bhatt 1999; Manetta 2011, 2020) and, within the Tupían family, Karitiana (Storto 1999, 2003, 2020). In other cases, however, phonological and/or prosodic mechanisms are needed to account for second position effects. This is the motivation behind Halpern’s (1995) operation of Prosodic Inversion and behind Anderson’s (2005) constraint-driven model of clitic placement. This subsection presents evidence that the placement of the clause-typing particles in second position is a syntactic phenomenon: the constituents that occur prior to the second position particle cluster in this language are not amenable to phonological or prosodic characterizations but must instead be defined in terms of syntactic integrity. To keep things easier on the reader we prioritize examples that contain *=nẽ* ‘YES/NO’, one of the most common clause-typing particles. However, all of the clause-typing particles (listed in 8) exhibit identical behavior with regard to syntactic constituency.

The clause-initial constituent can be an NP subject, shown in (10) by the simplex *uokat* ‘water’ and by the slightly more complex *Kopere ema’en* ‘language of the Djeoromitxí people’. Observe that all non-pronominal subjects are required to bear the nuclear case *-et/en/t/n*.

(10) NP subjects serving as clause-initial constituents

- a. Uokat nẽ poat pare poat'om nẽ?
 [_{NP} **uoka-t**] =nẽ poat pare poat-'om =nẽ =Ø
 [_{NP} **water-NUC**] =YES/NO good or good-NEG =YES/NO =3
 'Is the water good, or is it not good?'
 conversation: 2017-08-15

- b. Kopere ema'en nẽ nam erop'a?
 [_{NP} **Kopere** **ema'ẽ-n**] =nẽ nam erop'a
 [_{NP} **Djeoromitxí** **language-NUC**] =YES/NO difficult
 'Is the language of the Djeoromitxí people difficult?'
 conversation: 2017-08-15

Fully finite embedded clauses nominalized by *hè* can also serve as NP subjects (see [Singerman 2020](#) for more on these clausal nominalizations, which are a diachronic innovation unique to Tuparí). In (11), the clausal nominalization immediately precedes the matrix clause-typing particle =*nẽ* 'YES/NO'.

(11) A finite embedded clause serving as the clause-initial subject

- Tarupat teotsirat hèt
 [_{NP} [_S **tarupa-t** **te-ot-sira-a-t**] **hè-t**]
 [_{NP} [_S **non.indigene-NUC** **3C-go.PAUC-EVID.PL-TH-NEAR.PAST**] NMZ-NUC]
 nẽ
 = nẽ e-amigo?
 = YES/NO 2SG-friend

'Are the white people who went (NON-WITNESSED) your friends?'

conversation: 2016-01-25

The embedded clause in (11) is fully finite: *tarupat teotsirat hèt* 'the white people who went (NON-WITNESSED)' contains the plural evidential suffix *-psira* and the near past suffix *-t*. Note that this nominalization is interpreted as an INTERNALLY HEADED RELATIVE, one of the major functions of this language's finite embedded clauses (For more on IHRs, see [Cole 1987](#); [Williamson 1987](#); [Basilico 1996](#); [Hiraiwa 2017](#); [Ohara 2018](#); [Hanink 2020](#)).

The clause-initial constituent can also be a VP. Intransitive lexical verbs bear a pro-nominal proclitic that agrees with the subject in number and person (*e*- '2SG' in 12a). Transitive lexical verbs are immediately preceded by the direct object.⁵ This is true for

⁵ A syntactic property shared by Tuparí and its sister languages (see [Galucio 2001, 2002](#) on Sakurabiát; [Nogueira 2011, 2019](#) on Wayoro; [Aragon 2014](#) on Akuntsú) is that direct objects must be linearly adjacent to the transitive lexical verb. Due to this adjacency requirement – which we discuss in greater detail in separate work – transitive VPs front as a unit to the clause-initial syntactic position.

A reviewer asks about the fronting of indirect objects. Tuparí is a language with no ditransitive verbs: recipients, beneficiaries, and other prototypical indirect or secondary objects are encoded VP-externally as postpositional phrases. While a transitive verb and its direct object will front to clause-initial position as a single unit, those PPs must front separately from the VP itself.

pronominal objects (third person *y-* in 12b) and non-pronominal objects (*ositot* ‘my foot’ in 12c) alike.

(12) Verb phrases serving as clause-initial constituents

- a. Èpapoka nē 'en?
 [VP **e-epapok-a**] =nē ='en
 [VP **2SG-return-TH**] =YES/NO =2SG
 ‘Did you return?’
 conversation: 2015-11-03
- b. Yõ'era nē ko 'on?
 [VP **y-õ'et-a**] =nē =ko ='on
 [VP **3-put.out-TH**] =YES/NO =POLITE.FUTURE =1SG
 ‘Ought I to put it [a candle] out?’
 conversation: 2018-08-08
- c. Ositot hawa nē ke 'en?
 [VP **o-sito-t** **hawa-a**] =nē =ke ='en
 [VP **1SG-foot-NUC** **chop.up-TH**] =YES/NO =POLITE.FUTURE =2SG
 ‘Do you want to chop up my foot?’ / ‘Careful, lest you should chop up my foot!’
 conversation: 2016-11-22

The direct object in a clause-initial verb phrase can also be a clausal nominalization headed by *hè*.

(13) Clause-initial VPs where the direct object is a finite embedded clause

- a. Elizanin nemnan hèt peka
 [VP [NP [S **Elizani-n** Ø-**nē-mnē-a-n**] **hè-t**] **pek-a**]
 [VP [NP [S **Elizani-NUC** **3-make-EVID.SG-TH-NEAR.PAST**] NMZ-NUC] **buy-TH**]
 nē 'en?
 =nē ='en
 =YES/NO =2SG
 ‘Did you buy the thing that Elizane made (NON-WITNESSED)?’
 conversation: 2016-12-13
- b. 'Àpere i'anam kiret hèt toa
 [VP [NP [S **'ape-re** **i-'anē-am** **kire-t**] **hè-t**] **top-a**]
 [VP [NP [S **road-OBL** **3-AUX_{GO}.PL-ADV.FOC** **person-NUC**] NMZ-NUC] **know-TH**]
 nē 'en?
 =nē ='en?
 =YES/NO =2SG
 ‘Do you know the people who live alongside [=in villages alongside] the road?’
 conversation: 2015-10-28

Like *tarupat teotsirat hèt* ‘the white people who went (NON-WITNESSED)’ in (11), the bolded constituents in (13) are interpreted as internally headed relatives: *Elizanine nemnan hèt* ‘the thing that Elizane made (NON-WITNESSED)’, where the internal head is a null pronominal object; *àpère i’anam kiret hèt* ‘the people who live alongside the road’, where the internal head is the subject NP *kiret* ‘the people’. In both of these examples, the transitive matrix verb together with the object serve as the clause-initial constituent. In this sense these data are fully parallel to (12b) and (12c), despite the intuitive difference in weight: whereas the object in (12b) is a mere pronominal proclitic and that in (12c), a possessed noun, in (13a) and (13b) the direct objects are fully finite clausal nominalizations.

Other kinds of constituents, such as adverbials, can also serve as the clause-initial constituent. Here, too, we observe the same range of possibilities already seen in (10) through (13): the clause-initial adverbial may be very small (just monomorphemic) or very large (say, an entire finite embedded clause).

(14) Examples of adverbials serving as clause-initial constituents

- a. Eret nẽ ke ’en etet cidadzim?
 [AdvP **eret**] =nẽ =ke =’en e-tet cidadzi-m
 [AdvP **tomorrow**] =YES/NO =POLITE.FUTURE =2SG 2SG-go.SG city-INS
 ‘Are you going to go to the city tomorrow?’
 conversation: 2016-11-22

- b. Eapsitkòmka e’a nẽ ke ’en
 [AdvP **e-apsitkòmka** e-’a] =nẽ =ke =’en
 [AdvP **2SG-grow.sad-TH** 2SG-if.SG] =YES/NO =POLITE.FUTURE =2SG
 èrote’apsitwaronã?
 e-erote-apsitwat-ronã
 2SG-all-forget-again

‘If you grow sad will you again forget all [that you have learned]?’ / ‘Be careful, lest you should grow sad and again forget all [that you have learned]!’
 conversation: 2018-08-07

- c. Yã, apait teynã ke y’e Adãõ-n
 yã [AdvP [s [s **apay-t** **te-y-nẽ-a**] **ke y-’e** **Adãõ-n**]
 mom [AdvP [s [s **aunt-NUC** **3C-come.SG-EVID.SG-TH**] **say 3-AUX.SG** **Adam-NUC**]
 here nẽ ’en eapsi’ap?
he-re] =nẽ =’en e-apsi’e-ap
 NMZ-OBL] =YES/NO =2SG 2SG-hear-ADV.FOC
 ‘Mom, did you hear that Adam said that auntie came (NON-WITNESSED)?’
 conversation: 2017-08-03

In (14a) the clause-initial adverbial – *eret* ‘tomorrow’ – is monomorphemic. In (14b) the clause-initial adverbial is structurally more complex, containing a lexical verb – *apsitkòmka* ‘grow sad’ – as well as the subordinating morpheme (’)a ‘if, when’. (Both the lexical verb and the subordinator are preceded by the second person singular prefix *e-*.) And in (14c) the clause-initial

constituent is a clausal nominalization, headed by *hè*, that itself contains a direct quotation: *apait teynã ke y'e Adãõn* 'Adam said that auntie came (NON-WITNESSED)'.⁶

We must emphasize that the second position facts shown above are consistent across speakers, independent of gender, knowledge of Portuguese, or other sociolinguistic factors. Speakers never interrupt clause-initial constituents with second position particles; they always respect those constituents' internal integrity. In short, what matters for the placement of the clause-typing particles is syntactic constituency. We therefore maintain that the tree given in Fig. 3 – where a single constituent may occupy Spec,CP, thus yielding the placement of the clause-typing particles in second position – is the right representation for the highest layer of the Tuparí clause.

4.3. The clause-typing particles as C heads

The projection headed by the clause-typing particles is given as C in Fig. 3. Motivation for this label comes from the fact that the clause-typing particles are sensitive to whether or not the clause-initial constituent is [+wh], just like complementizers in better studied languages (such as English *if*, *whether* and *that*). Only =*nãpe* 'EMPHATIC' and =*mākẽrõ* 'DONT.KNOW' may occur with [+wh] clause-initial constituents.

(15) Sensitivity of clause-typing particles to [$\pm wh$] status of the clause-initial constituent

- a. Katkaere *nãpe* omemsĩremsĩren tèsapwa y'e?
 katkaere =**nãpe** o-memsĩremsin-en te-s-a-pwa y-'e
 when =EMPHATIC 1SG-grandchild-NUC 3C-come.SG-TH-NEAR.FUTURE 3-AUX.SG
 'When on earth is my grandchild going to come here?'
 conversation: 2016-11-11

- b. Katkaere *mākẽrõ* omemsĩremsĩren tèsapwa
 katkaere =**mākẽrõ** o-memsĩremsin-en te-s-a-pwa
 When =DONT.KNOW 1SG-grandchild-NUC 3C-come.SG-TH-NEAR.FUTURE
 y'e.
 y-'e
 3-AUX.SG
 'I don't know when my grandchild is going to come here.'
 elicitation: 2017-08-06

⁶The nominalizer *hè* bears the oblique case ending *-ere* in (14c) because the matrix verb *apsi'e* 'hear, listen, understand' selects for oblique-marked arguments. This is illustrated by (i), where the oblique argument is a normal NP – not a finite embedded clause:

- (i) Ema'ẽ poarere wapsi'a o'e.
ema'ẽ poat-ere w-apsi'e-a o-'e
speech good-OBL 1SG-hear-TH 1SG-AUX.SG
 'I have heard good news.'
 conversation: 2017-08-05

See Singerman (2020) for many more examples of clausal nominalizations that carry case morphology on *hè*.

- c. *Katkaere* **ta'a* / **nẽ* / **aet* / **nākop* *omemsĩremsĩren tèsapwa y'e*
 elicitation: 2017-08-06

Analyzing the clause-typing particles as heading C, as we have done here, is further supported by the fact that all *wh*-words in Tuparí must occur clause-initially; *wh*-in-situ is categorically unattested. (See [Brandon and Seki 1981, 1984](#) for early discussion of *wh*-movement in Tupían languages.) The *wh*-word will immediately precede an overt clause-typing particle in the linear string.⁷

- (16) A *wh*-word must always occur clause-initially in Tuparí

- a. Apo nãpe Adãõ yam weret ma'aren?
apo =**nãpe** =Ø Adãõ yam w-et-et ma'ẽ-a-n-en
who =EMPHATIC =3 Adam to 1SG-name-NUC tell-TH-NEAR.PAST-NUC
 'Who on earth told my name to Adam?!'
 conversation: 2016-11-16
- b. Katkaere mākẽrõ ko 'on aodeyam oterap.
katkaere =**mākẽrõ** =ko ='on aodeya-m o-tet-ap
when =DONT.KNOW =POLITE.FUTURE =1SG village-INS 1SG-go.SG-ADV.FOC
 'I don't know when I will go to the village.'
 conversation: 2016-11-11
- c. Pare mākẽrõ õpot 'en ewaet ãpeap.
pare =**mākẽrõ** =õpot ='en e-wap-et ãpe-ap
where =DONT.KNOW =DISTANT.PAST =2SG 2SG-hammock-NUC hang-ADV.FOC
 'I don't know where you hung your hammock, years back.'
 conversation: 2017-08-09

When a *wh*-word is the complement of a postposition or the possessor of another noun, the entire phrase will pied-pipe.

- (17) Apo nẽkat kire mākẽrõ nerõ tero'at.
 [**apo nẽkat kire**] =**mākẽrõ** =Ø nerõ tero'e-a-t
 [NP **who kind person**] =DONT.KNOW =3 PROG AUX_{GO}.SG-TH-NUC
 'I don't know what kind of person that is.'
 conversation: 2016-11-29

⁷A reviewer asks whether Tuparí permits multiple *wh*-questions and, if so, whether all of the *wh*-constituents must front. I cannot answer this question at present, but hope to gather data on the behavior of multiple *wh*-questions during the next round of field research.

The sensitivity of the various clause-typing particles to the $[\pm wh]$ status of the clause-initial constituent can be interpreted as a reflex of the *wh*-criterion (Rizzi 1996). On this analysis the particles are simply complementizers, each specified as compatible or incompatible with a $[+wh]$ XP in their specifier. More specifically, *=mākēřō* ‘DONT.KNOW’ requires a $[+wh]$ constituent to sit in Spec,CP; *=nāpe* ‘EMPHATIC’ accepts a constituent that is $[+wh]$, though it will also accept a $[-wh]$ constituent; and the remaining particles are all incompatible with $[+wh]$ clause-initial constituents.

4.4. Summary

The data discussed in this section have demonstrated that it is syntactic constituency that determines the placement of the clause-typing particles in second position. Analytically we have implemented this finding by positing a head-initial CP at the top of the Tuparí clause, as in Fig. 3; this projection will host a single XP in its specifier, giving rise to the clause-typing particles’ placement in second position. So while the lower levels of the Tuparí clause show clear head-finality, at the top we find unambiguously head-initial phrase structure. In the next section we turn to the Tense Phrase, which is located between these two zones of headedness and which shares properties with both of them.

5. MIXED HEADEDNESS IN THE TENSE PHRASE

This section asks about the headedness of the Tuparí TP, which is sandwiched between the CP and the EvidP. Does the TP pattern like the projections located beneath it – the EvidP, the two AuxPs, and the VP – all of which are head-final? Or does the Tuparí TP pattern like the projection located above it – the CP – which is head-initial? The former possibility is illustrated in Fig. 4; the latter, in Fig. 5.

Fig. 4. If the TP is head-initial, like the CP above it

Fig. 5. If the TP is head-final, like the EvidP below it

There are two main purposes to this section. First, we demonstrate that, at least on the surface, both kinds of headedness are attested within the Tuparí TP: some realizations of T behave head-initially, whereas others behave head-finally. Second, we argue that the UNDERLYING headedness of the TP is obscured by dislocation operations: head-initial T morphemes (realized as second position enclitic particles) and head-final T morphemes (realized as predicate-final suffixes) both undergo some form of movement to reach their surface position, such that neither set provides an unfiltered view of the TP’s headedness.

5.1. An overview of tense marking in Tuparí

The full set of tense marking in Tuparí is heterogenous and consists of three mutually exclusive sets of morphemes: (a) predicate-final suffixes, (b) enclitic particles located in second position, and (c) auxiliaries that follow the lexical VP. Despite this heterogeneity, all three sets of morphemes behave comparably in discourse and serve the same general semantic function – namely, to anchor the event time with respect to the Utterance Time (UT). For reasons of space this paper focuses on the predicate-final suffixes and the second position particles. For more information on the post-VP auxiliaries that mark tense and aspect, the reader is referred to Singerman (2018b, ch. four).

The paradigm in (18) gives an illustration of the predicate-final suffixes and second position particles, which paradigmatically oppose one another. In each of the four utterances, the relevant tense morphology is highlighted, as is the second position clause-typing particle =mākẽrõ ‘DONT.KNOW’.

- (18) Past tense paradigm
a. Pare	mākẽrõ	ewaet	ãpeat	’en.
pare	=mākẽrõ	e-wap-et	ãpe-a-t	=’en
where	=DONT.KNOW	2SG-hammock-NUC	hang-TH-NEAR.PAST	=2SG
‘I don’t know where you hung your hammock [BETWEEN TWO DAYS BEFORE UT AND A FEW MONTHS BEFORE UT].’				
elicitation: 2018-08-16				

- b. Pare mākẽrõ ewaet ãpea etero'at 'en.
 pare =**mākẽrõ** e-wap-et ãpe-a **e-tero'e-a-t** = 'en
 where =DONT.KNOW 2SG-hammock-NUC hang-TH 2SG-AUX_{Go}-SG-TH-NEAR.PAST =2SG
 'I don't know where you hung your hammock [THREE + MONTHS BEFORE UT].'
 elicitation: 2018-08-16
- c. Pare mākẽrõ õpot 'en ewaet ãpeap.
 pare =**mākẽrõ** =**õpot** = 'en e-wap-et ãpe-ap
 where =DONT.KNOW =DISTANT.PAST =2SG 2SG-hammock-NUC hang-ADV.FOC
 'I don't know where you hung your hammock [A FEW YEARS BEFORE UT].'
 conversation: 2017-08-09
- d. Pare mākẽrõ õpot 'en ewaet ãpea
 pare =**mākẽrõ** =**õpot** = 'en e-wap-et ãpe-a
 where =DONT.KNOW =DISTANT.PAST =2SG 2SG-hammock-NUC hang-TH
 etet'e.
 e-tet'e
 2SG-AUX_{Go}.SG
 'I don't know where you hung your hammock [MANY YEARS BEFORE UT].'
 elicitation: 2018-08-16

We have highlighted the clause-typing particles in these five examples to emphasize that whereas the tense particles will occur in the second position particle cluster – immediately following the clause-typing particle – the predicate-final tense suffixes may be realized far from second position. As shown in (18b), the predicate-final suffix will attach to the auxiliary when one is present; in the absence of an auxiliary, as in (18a), the suffix attaches to the lexical verb itself.

The second position tense particles and predicate-final tense suffixes must be analyzed as constituting a single grammatical class. They all carry out the same semantic function: they anchor the event time with respect to the utterance time. As indicated by the translations in (18), the near past suffix *-t/n*, the distant past particle =*õpot* and the ancient past particle =*kut* divide the before-now timeline into carefully delineated intervals: *-t/n* is used for events that took place at least two days before UT through several months into the past; =*õpot*, for events from approximately two years before UT to the speaker's early childhood; and =*kut*, for events that took place prior to or at the speaker's birth. The predicate-final durative suffix *-pbi'a/mbi'a*, meanwhile, conflates tense, aspect and evidentiality: it is used for non-future habitual actions that the speaker has witnessed firsthand. Speakers are very strict about the meaning of each of these morphemes. Misusing them gives rise to inaccurate temporal interpretations (and aspectual/evidential ones, in the case of durative *-pbi'a/mbi'a*); these erroneous uses are in turn subject to correction by native speakers. And as demonstrated by the textual data in Singerman (2018b, 298–303), all of this tense morphology behaves comparably in running discourse.

A further reason to analyze the second position tense particles and the predicate-final tense suffixes as instantiating the same overarching grammatical category is that members of both sets of morphemes can combine with the AUX_{Go} auxiliary series to introduce intermediate temporal

gradations. The near past suffix *-t* in (18a) marks the hammock-hanging event as having taken place between two days and several months before UT; but the combination of *-t/n* ‘NEAR.PAST’ with the *AUX_{GO}* in (18b) yields a more removed temporal interpretation. In a comparable fashion, the second position tense particle =*ōpot* in (18c) marks the hammock-hanging event as having taken some two years prior to UT; and the addition of the *AUX_{GO}* in (18d) pushes the temporal interpretation back even farther.

The difference between the pair in (18a) and (18b), or between the pair in (18c) and (18d), is not akin to that between English *went* and *had gone*. English-style pairs of past and past perfect indicate the relationship that two different past tense events have to one another (see Klein 1992). In Tuparí, however, the combination of a predicate-final suffix or second position particle with a member of the *AUX_{GO}* series is part of the language’s nuanced tense system: these combinations are used to introduce intermediate temporal gradations, all of which are anchored to the UT. Consider (19). These five lines are excerpted from a text that relates a series of events which took place more than just a few months ago (and therefore too far back for the narrator to use the near past suffix *-t/n*) but less than two years ago (and therefore too recent for him to use the distant past second position particle =*ōpot*). Each finite clause in this excerpt contains both near past *-t* and a member of the *AUX_{GO}* series: paucal *oro’e* in (19a), singular *tero’e* in (19b) through (19e).

(19) Textual example of *-t/n* ‘NEAR.PAST’ combining with auxiliaries from the *AUX_{GO}* series

- a. Here otewārã otero’at ’ote.
 here ote-wan-a ote-oro’e-a-t =’ote
 then 1PL.EXCL-go.nearby-TH 1PL.EXCL-AUX_{GO}.PAUC-TH-NEAR.PAST =1PL.EXCL
 ‘Then we-EXCL went a short distance.’
- b. Here okoa otero’at ’on,
 here o-kop-a o-tero’e-a-t =’on
 then 1SG-descend-TH 1SG-AUX_{GO}.SG-TH-NEAR.PAST =1SG
 ‘Then I got down [from the tree],’
- c. here owārã otero’at ’on ìyam.
 here o-wan-a o-tero’e-a-t =’on ìyam
 then 1SG-go.nearby-TH 1SG-AUX_{GO}.SG-TH-NEAR.PAST =1SG to.him
 ‘and I went a short distance to him.’
- d. Here sesua otero’at ’on,
 here s-esu-a o-tero’e-a-t =’on
 then 3-call-TH 1SG-AUX_{GO}.SG-TH-NEAR.PAST =1SG
 ‘Then I called out to him,’
- e. here òyãora tero’are.
 here o-ōyaot-a tero’e-a-t =e
 then 1SG-answer-TH AUX_{GO}.SG-TH-NEAR.PAST =3
 ‘and he answered me.’
 text: Nilson Tupari, narrator

Just like the predicate-final suffix *-t/n* ‘NEAR.PAST’, the second position particle *=ōpot* ‘DISTANT.PAST’ will combine with the *AUX_{GO}* series to produce more nuanced temporal gradations. Example (20a) is how an elderly woman described being breastfed by her grandmother, her mother having passed away soon after her birth. The speaker of this example is around eighty years old, and consultants confirm that both the distant past particle *=ōpot* and the auxiliary *tet’e* are obligatory here. Using *=ōpot* without *tet’e*, as in (20b), would work only if someone much younger – say, a young child – were to relate an event that had taken place just a few years before UT.⁸

- (20) *AUX_{GO}* introduces intermediate temporal gradations with *=ōpot* ‘DISTANT.PAST’
- a. Opapa kērē ōpot ’on okemkà
 o-papa ke(m)-re =**ōpot** =’on o-kemko-a
 1SG-grandmother breast-OBL =DISTANT.PAST =1SG 1SG-nurse-TH
 otet’epnē.
 o-**tet’e**-pnē
 1SG-AUX_{GO}.SG-EVID.SG
 ‘I nursed at my grandmother’s breast (NON-WITNESSED) [MANY YEARS BEFORE UT].’
 text: Marilza Kabatoá Tupari, narrator
- b. Opapa kērē ōpot ’on okemkopnam.
 o-papa ke(m)-re =**ōpot** =’on o-kemko-pnē-am
 1SG-grandmother breast-OBL =DISTANT.PAST =1SG 1SG-nurse-EVID.SG-ADV.FOC
 ‘I nursed at my grandmother’s breast (NON-WITNESSED) [JUST A FEW YEARS BEFORE UT].’
 elicitation: 2016-01-23

In sum, there are multiple reasons to analyze the predicate-final tense suffixes and second position tense particles as belonging to a single grammatical class. First, with the exception of the particle *=ko/ke* ‘POLITE.FUTURE’, all of these morphemes divide up the prior-to-UT timeline in comparable fashion. Second, they all may combine with the same auxiliary series to produce intermediate temporal gradations. Third, these morphemes behave identically in actual discourse; running texts see the right tense morpheme repeated in every clause. This was shown for the near past suffix *-t/n* in (19): each finite clause in that textual excerpt contains both the near pst suffix and a member of the *AUX_{GO}* series. Singerman (2018b, 298–303) provides comparable textual evidence for distant past *=ōpot*, ancient past *=kut*, and durative *-pbi’a/mbi’a*. As these morphemes all share comparable semantics, enjoy similar distribution in discourse, and are mutually exclusive, they must be analyzed as realizing the same overarching grammatical category.

⁸As shown in Section 3, the non-witnessed evidential suffix *-pnē/psira* must attach to the highest verbal head in the clause. This is why in (20a) *-pnē* ‘EVID.SG’ attaches to the auxiliary *tet’e* ‘AUX_{GO}.SG’, which follows the lexical verb *kemko* ‘nurse, breastfeed’, but why in (20b) – which has no auxiliary – *-pnē* ‘EVID.SG’ instead attaches to the lexical verb itself. This suffix must be used here since an infant cannot volitionally witness her own breastfeeding. Example (29b), in Section 6, provides another case of evidential *-pnē/psira* combining with a first person subject. See Singerman (2019, appendix) for discussion of the different pragmatic inferences that arise in such cases.

5.2. What is the underlying headedness of the Tuparí Tense Phrase?

Having argued that the predicate-final suffixes *-t/n* ‘NEAR.PAST’ and *-pbi’a/mbi’a* ‘DURATIVE’ and the second position particles *=ko/ke* ‘POLITE.FUTURE’, *=ōpot* ‘DISTANT.PAST’ and *=kut* ‘ANCIENT.PAST’ all instantiate T, we must ask about the headedness of the Tense Phrase. To consider the different analytical possibilities, consider the four-member past tense paradigm given in (18). In (18b), the near past suffix *-t* attaches to the auxiliary root *tero’e* ‘AUX_{GO.SG}’, which itself follows the VP *ewaet āpea*. This VP is head-final, too, with the direct object *ewaet* ‘your hammock’ preceding rather than following the transitive verb *āpea* ‘hang up’. In this sense T in (18b) is head-final, just like the other projections below it: the VP and the AuxP. In (18c) and (18d), on the other hand, the distant past particle *=ōpot* sits in second position, immediately after the clause-typing particle *=mākērō* ‘DONT.KNOW’. There is no evidence in (18c) or (18d) of T behaving comparably to the head-final VP or head-final AuxP; rather, it behaves like the C projection, which we argued in Section 4 to be head-initial.

One could imagine three possible lines of analysis. T, like C, could be underlyingly head-initial, such that the surface position of the predicate-final tense suffixes is the result of some dislocation operation. On this analysis, it is the second position particles that reflect the underlying headedness of the TP. Alternatively, T could be head-final, like the EvidP and other lower projections, such that the appearance of the tense particles in second position results from dislocation. On this analysis, the predicate-final suffixes, not the second position particles, are what reflect the TP’s underlying headedness. Finally, it is possible that neither the second position tense enclitics nor the predicate-final tense suffixes reflect the underlying headedness of the Tense Phrase. We will argue for this third analysis: *both* sets of morphemes undergo some form of dislocation to reach their surface position, such that neither the predicate-final suffixes nor the second position particles provide an unfiltered view of the underlying headedness of the TP.

5.2.1. The second position particles undergo dislocation to their surface position. Recall that the second position tense particles always occur immediately after a clause-typing particle (if one is present). Inverting the linear order of the two particles is completely unattested. Several examples containing both an overt clause-typing particle and an overt tense particle were already given in Sections 4.2 and 5.1 (21) provides three more.

- (21) The clause-typing particle immediately precedes the tense particle in second position
- a. Erero ta ke ’en ipekap.
 erero =**ta’a** =**ke** =’en i-pek-ap
 early.tomorrow =ASSERTIVE.♀ =POLITE.FUTURE =2SG 3-buy-ADV.FOC
 ‘Please buy it early tomorrow morning.’
 conversation: 2018-08-31
- b. En nākop ōpot ’en Marli wākiret kat.
 en =**nākop** =**ōpot** =’en Marli wākit-et ko-a-t
 2SG =MAYBE =DISTANT.PAST =2SG Marli pet-NUC eat-TH-NUC
 ‘Perhaps it was you who long ago ate Marli’s pet.’
 conversation: 2018-08-07

- c. Pare mākẽrõ kut yan osinã tet'e.
 pare =mākẽrõ =kut yã-n o-sinẽ-a tet'e
 where =DONT.KNOW =ANCIENT.PAST mother-NUC 1SG-give.birth-TH AUX_{GO-SG}
 'I do not know where my ormmother gave birth to me.'
 conversation: 2017-08-30

That the tense particle immediately follows the clause-typing particle in the second position cluster can be accounted for by T-to-C Head Movement (for discussion of Head Movement see [Travis 1984](#); [Matushansky 2006](#); [Harley 2013](#); [Zeller 2013](#); [McCloskey 2017](#), among many others). T and C will thus form a single complex head which follows the clause-initial constituent. Positioning T-to-C Head Movement in this circumstance successfully captures the fact that in utterances that contain both a clause-typing particle and a second position tense enclitic, they are always adjacent; to our knowledge, no other material is ever capable of surfacing between them.

However, if the tense particles arrive in second position via T-to-C Head Movement, then an underlyingly head-final TP and an underlyingly head-initial TP will both serve equally well: the original headedness of the TP will be hidden by the application of Head Movement. Put slightly differently: if T-to-C Head Movement always applies to ensure that the tense particles surface in second position, then these particles will tell us nothing about the TP's underlying headedness. This is illustrated by [Figs 6 and 7](#).⁹

Fig. 6. Tense undergoes Head Movement to C from head-initial TP

⁹[Singerman \(2018b, ch. five\)](#) proposed an alternative analysis that does not invoke T-to-C Head Movement. Rather, the TP was analyzed as underlyingly head-initial and lacking a specifier; the second position tense particles underwent no dislocation but instead surfaced naturally following the higher C head, thanks to the lack of an intervening specifier. That analysis assumed the existence of a null C head in declaratives. (Editor Éva Dékány points out that this assumption is unproblematic: declarative force must be encoded in declarative clauses.) However, the analysis further assumed that the specifier-less TP would never occur without a higher C layer, since that would yield (contrary to fact) clause-initial attestations of the second position tense particles. For these reasons we prefer the analysis proposed here, according to which the TP does have a specifier and T-to-C Head Raising applies.

Fig. 7. Tense undergoes Head Movement to C from head-final TP

A comparable situation obtains in the Germanic languages, which are standardly analyzed as displaying Head Movement from T to C; it is this operation that accounts for the Verb Second (V2) pattern. But the headedness of the T and V projections varies among the Germanic languages: for example, these projections are standardly analyzed as head-final in German but as head-initial in English (See den Besten 1983; Haider and Prinzhorn 1986; Vikner 1995 as well as various contributions to Wolfe and Woods 2020.). Thanks to the fact that the C projection is consistently head-initial across Germanic, T-to-C Head Movement will yield V2 surface order (or, in the absence of an initial constituent, verb-initial order) regardless of the underlyingly headedness of the TP or VP. In much the same way, the obligatory Head Movement of the second position particles =*ko/ke* 'POLITE.FUTURE', =*òpot* 'DISTANT.PAST' and =*kut* 'ANCIENT.PAST' from T to C means that these particles are uninformative as to the underlying headedness of the Tuparí TP.

A reviewer points out that recent scholarship has problematized the traditional conception of Head Movement: what was previously viewed as a unitary process may in fact consist of several distinct operations, each with its own set of properties. In particular, Harizanov and Gribanova (2019) propose to bifurcate classic Head Movement into (a) Internal Merge, which applies to full words and belongs to the core syntactic component, and (b) Head Raising, which is a post-syntactic operation involved in word-building (=morphological) processes. This bifurcation allows Harizanov and Gribanova to explain those cases of Head Movement that have been argued to have interpretive consequences (see for instance Keine and Bhatt 2016 on the German construction known as the LONG PASSIVE). On Harizanov and Gribanova's typology, such cases are the product of Internal Merge; that is, they must apply within the narrow syntactic component. Cases which do not affect interpretation, on the other hand, may result either from Internal Merge or from the postsyntactic operation of Head Raising.

The reviewer asks where the Tuparí facts fit into the refined typology of Harizanov and Gribanova. Do Figs 6 and 7 illustrate an application of Internal Merge, which by definition must take place within the narrow syntax, or an application of postsyntactic Head Raising? As a preliminary answer to this question, observe that the semantic contribution of the different tense morphemes is unconnected to whether they are realized as a predicate-final suffix (near past *-t/n*, in examples 18a and 18b) or as a second position particle (distant past =*òpot*, in 18c and 18d).

There is zero correlation in Tuparí between where tense morphology is ultimately realized in the clause and what kind of semantic contribution that morphology provides. This lack of semantic consequence is compatible in principle with either the Internal Merge or Head Raising operations, since on Harizanov and Gribanova's theory Internal Merge may yield semantic effects but need not do so. More decisive evidence comes from the fact that the second position particles =*ko/ke* 'POLITE.FUTURE', =*ōpot* 'DISTANT.PAST' and =*kut* 'ANCIENT.PAST' do not constitute fully-formed words in their own right; rather, they are bound, destressed morphemes that must encliticize onto preceding material. (That material will be a clause-typing particle, if one is present, though the clause-typing particle in turn must encliticize onto the clause-initial XP. If there is no overt clause-typing particle, then the tense particle will lean onto the clause-initial XP directly.) For Harizanov and Gribanova, Internal Merge applies to fully-formed words while Head Raising may be driven by purely morphological considerations. The operation that best accounts for the realization of certain tense morphology as second position enclitic particles in Tuparí would thus be Head Raising (with right adjunction to ensure that the tense particle follows rather than precedes the clause-typing particle).

The next subsection discusses what the suffixes *-t/n* 'NEAR.PAST' and *-pbi'a/mbi'a* 'DURATIVE' can reveal about the underlying headedness of the Tense Phrase. These suffixes arrive in their surface position, at the right edge of the predicate, via a Lowering operation. As a result, they are also uninformative with regards to whether the Tuparí TP should be analyzed as underlyingly head-initial or underlyingly head-final.

5.2.2. The predicate-final suffixes also undergo dislocation to their surface position. The surface position of the predicate-final suffixes does not tell us anything more about the underlying headedness of the TP than the second position particles do. This is because of the nature of predicate fronting in Tuparí. When a lexical verb cooccurs with one or more auxiliaries, only the VP headed by the lexical verb may occur to the left of a second position clause-typing particle. The auxiliary or auxiliaries will surface to the right of the clause-typing particle. As a result of the fact that the tense suffix *-t/n* 'NEAR.PAST' always attaches to the highest verbal head, in examples like (22a) the clause-typing particle will linearly separate the lexical VP from the auxiliary that bears the tense suffix.

(22) Placement of clause-typing particles in clauses with auxiliaries

- a. Itoa nē etero'at en?
 i-top-a =nē e-tero'e-a-t ='en
 3-see-TH =YES/NO 2SG-AUX_{GO}.SG-TH-NEAR.PAST =2SG
 'Did you see it?'
 elicitation: 2020-02-02
- b. *Itoa etero'at nē 'en?
 i-top-a e-tero'e-a-t =nē ='en
 3-see-TH 2SG-AUX_{GO}.SG-TH-NEAR.PAST =YES/NO =2SG
 (intended to mean the same as 22a)
 elicitation: 2020-02-02

The crucial observation is that in (22a) only the lexical VP *itoa* occurs prior to the clause-typing particle =*nē* ‘YES/NO’. The auxiliary, meanwhile, surfaces to the right of the clause-typing particle; and it is to the auxiliary that the near past suffix attaches. As (22b) demonstrates, placing both the lexical VP and the tense-marked auxiliary prior to =*nē* ‘YES/NO’ results in ungrammaticality. The contrast between (22a) and (22b) shows that a full TP cannot front to the clause-initial position, which we identified in Section 4 as Spec,CP. But now consider the examples in (23), where – due to the lack of an auxiliary – the tense suffix surfaces on the lexical verb itself. Here, the lexical VP occurs to the left of the second position clause-typing particle =*nē* ‘YES/NO’.

- (23) Fronted VPs that themselves carry tense morphology
- a. E’ēkapbi’a nē ’en mōket?
e-’ēk-a-**pbi’a** =**nē** =’en mōket
2SG-dance-TH-DURATIVE =YES/NO =2SG long.ago
‘Did you used to dance?’
elicitation: 2018-08-23
- b. Epuop’orat nē ’en haytokia?
e-puop’ot-a-**t** =**nē** =’en haytokia
2 SG-learn-TH-NEAR.PAST =YES/NO =2SG a.lot
Did you learn a lot?
elicitation: 2018-09-01

Example (22a) would appear to contradict the two utterances given in (23): according to the former the fronted constituent is smaller than TP, since *-t/n* ‘NEAR.PAST’ surfaces on the auxiliary, which remains to the right of the clause-typing particle in the linear string; but in the latter, the fronted VP itself bears the tense suffix, thereby suggesting that a constituent larger than just the VP itself has fronted to Spec,CP.

To resolve this contradiction we propose that utterances such as (28a) and (23b) feature Lowering (Harley and Noyer 1999; Embick and Noyer 2001; Harizanov and Gribanova 2019) from T to the next highest syntactic head in the clausal spine. This head may be an evidential suffix, the structurally highest auxiliary, or the the lexical verb itself. In this last case a lexical verb that bears tense morphology can front to the clause-initial position (=Spec,CP), as in (28a) and (23b).

Fig. 8. Tense suffix undergoes postsyntactic Lowering to V from head-final T

Fig. 9. Tense suffix undergoes postsyntactic Lowering to V from head-initial T

But just as [Figs 6 and 7](#) demonstrated for T-to-C Head Raising, the underlying headedness of the TP is irrelevant once Lowering applies. A head-final TP (as in [Fig. 8](#)) or a head-initial one ([Fig. 9](#)) will serve equally well, since both satisfy the head-to-head locality condition that is hypothesized to characterize postsyntactic head-displacement operations. In sum, the predicate-final tense suffixes do not help to disambiguate the basic headedness of the TP any more than the second position tense particles do. Rather, both sets of tense morphemes are dislocated to their surface position.

Here we find an interesting parallel to the facts surrounding the second position particles =*ko/ke* ‘POLITE.FUTURE’, =*ōpot* ‘DISTANT.PAST’ and =*kut* ‘ANCIENT.PAST’, which were discussed in the prior subsection. That subsection argued that if we assume the bifurcation of Head Movement proposed by [Harizanov and Gribanova \(2019\)](#), then the second position particles must reach their surface position via an application of the postsyntactic operation of Head Raising rather than the narrowly syntactic operation of Internal Merge. As evidence in favor of a postsyntactic rather than narrowly syntactic account for the second position particles’ behavior, we observed that the particles themselves do not qualify as independent words but are instead phonologically dependent enclitics. The same logic applies to the predicate-final suffixes, too: these morphemes are not independent words but rather bound affixes that must attach to a verbal stem.¹⁰ We thus arrive at a picture of Tuparí tense morphology where one of two different postsyntactic operations will apply, depending on the specific piece of morphology that is present. In the case of the second position particles, that operation will be Head Raising from T to C. In the case of the predicate-final suffixes, the operation will be Head Lowering from T to

¹⁰As evidence of these suffixes’ dependent status, they are subject to the process of progressive nasal spreading discussed in [Singerman \(2016\)](#). It is this process which turns the near past suffix into *-n*, and the durative suffix into *-mbi’a*, following nasal vowels.

5.2.3. A note on the headedness of the Evidential Phrase. Taking the reasoning given in Sections 5.2.1 and 5.2.2 to its logical end, one could argue that the Evidential Phrase is of indeterminate underlying headedness, just as the Tense Phrase is. This is because the evidential suffix *-pnẽ/psira*, just like the predicate-final tense suffixes *-t/n* ‘NEAR.PAST’ and *-pbi’a/mbi’a* ‘DURATIVE’, will surface on a fronted VP in the absence of an auxiliary. The pair of utterances in (24) illustrates. In (24a), where there is no auxiliary, the singular evidential suffix *-pnẽ* surfaces on the lexical verb itself; here the VP serves as the clause-initial constituent. In (24b), however, it is the auxiliary *te’e* ‘AUX_{GO,SG}’ that bears *-pnẽ*; the lexical VP in clause-initial position does not bear evidential morphology.

final tense suffixes do, then the EvidP could be underlyingly head-final or head-initial, too. On this analysis the region of unambiguous head-finality in the Tuparí clause (see Fig. 2) would include $AUX_{HABITUAL}P$, the projection immediately beneath EvidP, but would exclude the EvidP itself.

Note, however, that the evidential suffix *-pně/psira* differs from the heterogenous category of tense in that it lacks any head-initial realizations comparable to the second position particles *=ko/ke* ‘POLITE.FUTURE’, *=ōpot* ‘DISTANT.PAST’ and *=kut* ‘ANCIENT.PAST’. Rather, it always surfaces as a suffix; and this suffix must attach to the highest verbal head in the predicate, whether this is the lexical verb itself (example 24a) or an auxiliary (24b; see also 6b and 20a). For these reasons this paper takes the EvidP to be underlyingly head-final, as was first argued for in Singerman (2018b) and further assumed in Singerman (2019), though this assumption is not crucial.

5.3. Summary

This section has examined the headedness of the Tuparí Tense Phrase, which sits above a zone of head-finality and beneath a zone of head-initiality. Recent research into disharmonic syntax has argued that head-initiality works ‘top down’ and head-finality ‘bottom up’ within Extended Projections (in the sense of Grimshaw 2000, 2005). If only one head-initial phrase occurs within an Extended Projection, it will be the highest one; if only one head-final phrase occurs within an Extended Projection, it will be the lowest. This observation has grown out of a range of scholarship on Final-over-Final Condition/Constraint, first proposed in Holmberg (2000) and later relativized to Extended Projections by Biberauer et al. (2014) (see also Sheehan et al. 2017). Main clauses in Tuparí conform to FOFC in that clearly head-final phrase structure is found at the bottom of the clause whereas unambiguous head-initiality occurs only at the top.¹² In between these two domains we encounter the murky, indeterminate TP, indicated in Fig 10 with dotted lines.

Fig. 10. The Tuparí Tense Phrase is of indeterminate underlying headedness

¹²Whether embedded clauses in Tuparí also comply with FOFC is a different, and more difficult, question. See Singerman (2020) for discussion.

This kind of clausal organization is likely widespread within the Tupían family, as various Tupían languages have head-final VPs but exhibit V2/second position effects alongside obligatory *wh*-movement to the left periphery. See, among others, [Brandon and Seki \(1981, 1984\)](#) on Kamaiurá, [Moore \(1984\)](#) on Gavião, [Gabas Jr. \(1999\)](#) on Karo, and [Storto \(1999, 2014\)](#) on Karitiana.

6. USING THE TENSE PHRASE TO DISENTANGLE TWO DIFFERENT SETS OF MORPHEMES: THE STRONG PRONOUNS AND THE WEAK NOMINATIVE ENCLITICS

Having arrived at an understanding of the distribution of head-initial and head-final phrase structure in the Tuparí clause, we are now in the position to make sense of the morphemes called ‘subject pronouns’ in previous descriptions of Tuparí ([Alves 2004](#), §4.3.1.6) and as ‘free pronouns’ in recent comparative work on the Tuparían branch of Tupían ([Galucio and Nogueira 2011](#)). This section demonstrates that there are in fact two different sets of morphemes at work here. One set consists of true pronominal roots; these roots pattern morphosyntactically like normal nominals. The other set consists of phonologically weak elements that are parasitic on tense marking in a manner suggestive of agreement morphology.

The label adopted here for this latter set of morphemes – WEAK NOMINATIVE ENCLITICS – is intended to capture three important generalizations. First, the weak nominative enclitics function only in the nominative grammatical role (S and A to the exclusion of O/P, in terms of [Dixon 1979](#) and [Comrie 1981](#)). Second, the weak nominative enclitics must always occur with a host on their left; they are barred from occurring in clause-initial position. Third, the weak nominative enclitics are parasitic on the position of tense morphology within the clause and are licensed only when a specific kind of tense marking is present. Once these generalizations are established, it becomes possible to distinguish between two sets of morphemes that were conflated in prior scholarship.

6.1. The distribution of the weak nominative enclitics

[Table 1](#) shows the seven weak nominative enclitics (see [Singerman 2018b](#), 29–42 for discussion of their morphophonology). These enclitics are subject to the following requirement: they must occur immediately after the tense morpheme, whether this is a second position particle or predicate-final suffix. The crucial factor that determines the availability and placement of the weak nominative enclitics is the kind of tense marking present. (It is for this reason that we can only describe these enclitics *now*, following Section 5’s discussion of the headedness of the TP.)

Table 1. The set of weak nominative enclitics

	SINGULAR	DUAL	PLURAL
1INCL	= 'on	= 'okit	= 'okitwat
1EXCL		= 'ote	
2	= 'en	= wat	
3	= e (but ∅ in certain contexts)

In utterances where T is realized as a second position particle, the weak nominative enclitic must immediately follow it. The minimal pair in (25), offered back-to-back in conversation by an elderly speaker, illustrates.

(25) Weak nominative enclitics will follow tense particles in the second position cluster

- a. Wepsika ko 'on omemširemsin yare.
 w-epsik-a =**ko** ='**on** o-memširemsin yare
 1 SG-sit.down-TH =POLITE.FUTURE =1SG 1SG-grandchild next.to
 Let me sit down next to my grandchild.
 conversation: 2016-12-12

- b. Omemširemsin yare ko 'on wepsikap.
 o-memširemsin yare =**ko** ='**on** w-epsik-ap
 1SG-grandchild next.to =POLITE.FUTURE =1SG 1SG-sit.down-ADV.FOC
 Let me sit down next to my grandchild.
 conversation: 2016-12-12

In (25a) the clause-initial constituent is the verb *wepsika*; the postpositional phrase *omemširemsin yare* occurs to the right of the second position cluster. In (25b) that postpositional phrase now serves as the clause-initial constituent, while the VP *wepsikap* (bearing special adverbial focus morphology) follows the second position cluster. Yet in both examples ='*on* '1SG' occurs to the immediate right of =*ko* 'POLITE.FUTURE'. The syntactic category of the clause-initial constituent and the linear location of the lexical verb are irrelevant for the placement of the weak nominative enclitic; the only important factor is the presence of the particle =*ko* 'POLITE.FUTURE'. As this particle occurs in second position, first person singular ='*on* must also do so.

Separating the weak nominative enclitic from the tense particle leads to ungrammaticality.

(26) Weak nominative enclitics cannot be separated from second position tense particles

- a. *Wepsika ko omemširemsin yare 'on.
 w-epsik-a =**ko** o-memširemsin yare ='**on**
 1SG-sit.down-TH =POLITE.FUTURE 1SG-grandchild next.to =1SG
 (intended to mean the same as 25a and 25b)
 elicitation: 2018-08-19
- b. *Omemširemsin yare ko wepsikap 'on.
 o-memširemsin yare =**ko** w-epsik-ap ='**on**
 1SG-grandchild next.to =POLITE.FUTURE 1SG-sit.down-ADV.FOC =1SG
 (intended to mean the same as 25a and 25b)
 elicitation: 2018-08-19

This pair of ungrammatical utterances demonstrates that no material may intervene between a second position tense particle like =*ko* 'POLITE.FUTURE' and a weak nominative enclitic.

In the case of the predicate-final tense suffixes *-t/n* ‘NEAR.PAST’ and *-pbi’a/mbi’a* ‘DURATIVE’, the weak nominative enclitic will surface immediately after the suffix. The clause-typing particles and weak nominative enclitics are highlighted in (27) so as to emphasize that while the clause-typing particles invariably occur in second position (just like the particles *=ko/ke* ‘POLITE.FUTURE’, *=ôpot* ‘DISTANT.PAST’ and *=kut* ‘ANCIENT.PAST’), the weak nominative enclitics do not.

(27) Weak nominative enclitics will follow the predicate-final tense suffixes

- a. Pare mākērō yōrōkare Nilsō.
 pare =**mākērō** y-ōrōk-a-**t** =**e** Nilsō
 where =DONT.KNOW 3-place-TH-NEAR.PAST =**3** Nilson.NUC
 ‘I don’t know where Nilson placed it.’
 conversation: 2017-08-14
- b. Guarani’eat yam nē eterapbi’a ’en?
 Guarani-’eat yam =**nē** e-tet-a-**pbi’a** =’**en**
 Guarani-many to =YES/NO 2SG-go.SG-TH-DURATIVE =**2sg**
 ‘Do you ever go to the Guarani? / Did you used to go to the Guarani?’
 conversation: 2016-12-13

In both of these examples an overt clause-typing particle sits in second position, thereby demarcating the right boundary of the clause-initial constituent (*pare* ‘where’, *Guarani’eat yam* ‘to the Guarani’). But the weak nominative enclitics do not appear in second position; they instead follow the tense suffix (*-t/n* ‘NEAR.PAST’, *-pbi’a/mbi’a* ‘DURATIVE’). So there exists no direct connection between the weak nominative enclitics and second position. Rather, the position of the weak nominative enclitics depends on that of tense – a grammatical category that is itself split in realization between predicate-final suffixes and second position particles. Whenever a weak nominative enclitic occurs in second position, it is because tense morphology is there, too. (In Section 7 we will use this generalization to argue that the position of weak nominative enclitics in superficially tenseless clauses provides evidence for the presence of a null T head.)

Example (26), above, showed that the weak nominative enclitic cannot be linearly separated from a second position tense particle. The pair in (28) shows that the weak nominative enclitic cannot be linearly separated from a predicate-final tense suffix, either.

(28) Weak nominative enclitics will follow the predicate-final tense suffixes

- a. Mōket nē e’ēkapbi’a ’en?
 mōket =**nē** e-’ēk-a-**pbi’a** =’**en**
 long.ago =YES/NO 2SG-dance-TH-DURATIVE =**2sg**
 ‘Did you used to dance, long ago?’
 conversation: 2018-08-22
- b. *Mōket nē ’en e’ēkapbi’a?
 mōket =**nē** =’**en** e-’ēk-a-**pbi’a**
 long.ago =YES/NO =**2sg** 2SG-dance-TH-DURATIVE
 (intended to mean the the same as 28a)
 elicitation: 2018-08-23

There is only one morphosyntactic configuration where the weak nominative enclitic can be linearly separated from tense morphology: when both (a) a tense-marked VP occurs in clause-initial position and (b) a clause-typing particle is present.

(29) A clause-typing particle will separate the tense suffix from the weak nominative enclitic

- a. E'ëkapbi'a nê 'en mōket?
 e-'ëk-a-**pbi'a** =**nê** ='**en** mōket
 2 SG-dance-TH-DURATIVE =YES/NO =2SG long.ago
 'Did you used to dance?'
 elicitation: 2018-08-23
- b. Korakora 'epsi māknan 'aet 'on
 korakora 'epsi māk-nê-a-**n** ='**aet** ='**on**
 chicken money send-EVID.SG-TH-NEAR.PAST =UNFORTUNATELY.NOT =1SG
 Adão yope.
 Adão yope
 Adam with
 'I didn't even send money for the chicken along with Adam (NON-WITNESSED).'
 conversation: 2018-08-23

These facts are discussed at greater length in the next subsection.

The close relationship between the weak nominative enclitics and tense morphology is illustrated by a small set of portmanteaux. The shape of the polite future particle varies according to the person and number of the subject: =*ko* is used with the first person singular and first person plural exclusive and =*ke* is used with the second and third persons, regardless of number. Yet special portmanteaux appear when the subject is first person dual inclusive or first person plural inclusive.

(30) Portmanteaux with polite future and first person inclusive subjects

- a. Patōampe kit ikap.
 patōā-mpe =**kit** i-ko-ap
 roast-after_{SAME.SUBJECT} =**POLITE.FUTURE+1DUAL.INCL** 3-eat-ADV.FOC
 'Let us-INCL.DUAL eat it after roasting it.' / 'We-INCL.DUAL ought to eat it after roasting it.'
 text: Paulina Tomika Tupari, narrator
- b. Kiema'erē kitwat
 ki-ema'ē-re =**kitwat**
 1PL.INCL-language-OBL =**POLITE.FUTURE + 1PL.INCL**
 kiapsitwàromkap.
 ki-apsitwat-ro-'om-ka-ap
 1PL.INCL-forget-NMZ-NEG-VBZ-ADV.FOC
 'Let us-INCL not forget our language.' / 'We-INCL ought not to forget our language.'
 text: Nilson Tupari, narrator

Given that the first person inclusive enclitics are otherwise *'okit* and *'okitwat*, we would expect **ko 'okit* in (30a) and **ko 'okitwat* in (30b); but the only possible forms are *kit* and *kitwat*, respectively. This conflation of tense together with person and number features of the subject suggests analyzing the weak nominative enclitics as a kind of agreement on T rather than as true pronominal arguments, contra [Alves \(2004\)](#).

The weak nominative enclitics highlighted in (25) through (30) are not optional: they cannot be removed without rendering the utterances ungrammatical. But whereas these enclitics are obligatory with the predicate-final tense suffixes and with the second position tense particles, they are prohibited from cooccurring with the auxiliaries that provide present, future, and same-day past interpretations (see [Singerman 2018b](#), ch. four for paradigms and examples). Hence utterances like the following four never include weak nominative enclitics.

(31) Auxiliary constructions that never combine with weak nominative enclitics

- a. Herem tarapeĩrẽ opop'a o'apteka.
herem tarapeĩ-re o-pop'e-a **o-'apteka**
since.then stingray-OBL 1SG-fear-TH 1SG-AUX_{PRESENT.HABITUAL}•SG
'Since then I have been afraid of stingrays.'
(never occurs with the weak nominative enclitic =*'on* '1SG')
text: Rita Sisi Tupari, narrator
- b. Sebola tãn kit kot'oa nã otea.
sebola tãn kit kot'oy-a **nã ote-a**
onion tall seed want-TH PROG 1PL.EXCL-AUX.PL
'We-EXCL are wanting onion seeds.'
(never occurs with the weak nominative enclitic =*'ote* '1PL.EXCL')
conversation: 2016-02-09
- c. Suk'am kiarapkap'a kia.
suk'am ki-arop-ko-a-**p'a ki-a**
later 1PL.INCL-food-eat-TH-NEAR.FUTURE 1PL.INCL-AUX.PL
'We are going to eat our food later.'
(never occurs with enclitic =*'okit* '1PAUC.INCL' or =*'okitwat* '1PL.INCL')
conversation: 2014-06-30
- d. Yonyonke nã watwakaro pewarap.
yonyonke nã wat-waka-ro **pewarap**
whistling FOCUS 2PL-cry-NMZ DISTANT.FUTURE+2PL
'You-PL will cry by whistling.'
(never occurs with the weak nominative enclitic =*wat* '2PL')
text: Miraci AguiSSI Tupari, narrator

The absence of the weak nominative enclitics in these utterances is due to the fact that the right sort of tense morphology is missing. That is, these utterances lack a predicate-final tense suffix or second position tense particle, on which the weak nominative enclitics are parasitic.

To summarize, the weak nominative enclitics (*a*) may only occur with a specific subset of tense morphology (the predicate-final suffixes and second position particles, but not the post-VP

auxiliaries); (b) must follow the tense morphology in the linear string; and (c) in at least one case are realized via portmanteaux with tense. All of these factors suggest that these morphemes are not actual pronouns, as claimed in prior descriptive work on Tuparí, but instead instantiate agreement between the subject and the T head. If =*on* ‘1SG’, =*en* ‘2SG’, and the other weak nominative enclitics were true subjects it would be difficult to make sense of their restriction to a particular subset of T heads. If, however, these enclitics are some kind of agreement morphology, their circumscribed distribution is less worrisome. Recent work on the agreement/argument distinction exploits this same logic: Nevins (2011) and Kramer (2014) argue that insensitivity to T/INFL is diagnostic of argument clitics rather than agreement morphology. In that Tuparí weak nominative enclitics are parasitic on certain kinds of tense marking, we have good reason to analyze them as agreement rather than true arguments.

6.2. Concerning the surface position of the weak nominative enclitics

Section 5 argued that the second position tense particles and the predicate-final tense suffixes arrive in their surface positions via postsyntactic dislocation operations: Head Raising and Head Lowering, respectively. If the morphemes referred to here as weak nominative enclitics are the realization of agreement between the T head and the subject, we must ask what mechanism is – or mechanisms are – responsible for ensuring that the weak nominative enclitics always follow the tense morphology in the linear string.

I assume here that the weak nominative enclitics reflect the application of the standard Agree mechanism utilized in much Minimalist research (Chomsky 1995). The T head will have unvalued features for person and number; these features are valued via the application of Agree between T and the subject, which is base-generated in Spec,VP. Once the Tense head’s features for person and number are valued by Agree, they can be realized as the appropriate member from the set of enclitics in Table 1. In the case of the polite future portmanteaux (examples 30a and 30b), specific spell-out rules will fuse the tense particle and the weak nominative enclitic into a single form, one incapable of further morphological segmentation. In all other cases, the weak nominative enclitic will be spelled out as separate from, but directly attached to, the tense morpheme. If the weak nominative enclitic and T together form a single complex head, they will be capable of undergoing the dislocation operations of Head Raising (which places the particles =*ko/ke* ‘POLITE.FUTURE’, =*ôpot* ‘DISTANT.PAST’ and =*kut* ‘ANCIENT.PAST’ in second position) and Head Lowering (which attaches the suffixes -*t/n* ‘NEAR.PAST’ and -*pbi’a/mbi’a* ‘DURATIVE’ to the right edge of the predicate). Since the weak nominative enclitic will move with the tense morphology as it undergoes Head Raising / Head Lowering, it will always remain adjacent to tense.

Although I have referred to these morphemes as enclitics, they could plausibly be treated as suffixes – suffixes that are subcategorized to attach directly on top of tense morphology. (As will be discussed further in Section 6.4, below, comparative evidence indicates that the Tuparí weak nominative enclitics are partway through a grammaticalization process from independent pronoun to enclitic pronoun to agreement affix.) There is only one phenomenon that mitigates against treating the weak nominative enclitics as synchronic suffixes: they may be linearly separated from a tense suffix by an intervening clause-typing particle. This was shown in (29) for both the near past and durative suffixes. In no other circumstance may the weak nominative enclitic be separated linearly from a tense suffix; what is more, I know of no circumstance where

a weak nominative enclitic may be linearly separated from a second position tense particle. Were it not for examples such as (29), then, there would be no evidence against an analysis of the weak nominative enclitics as agreement suffixes glued directly onto the T head. I therefore propose that utterances such as (29a) and (29b) be treated as the product of a special adjustment rule, one that applies late in the derivation and takes as its input the linear order of the morphemes.¹³

- (32) Proposed linear adjustment rule
input: Tense suffix - weak nominative enclitic - clause-typing particle
output: Tense suffix - clause-typing particle - weak nominative enclitic

The input for this rule makes reference to a hypothesized intermediate step where the clause-typing particle follows rather than precedes the weak nominative enclitic. Such an intermediate step would be derived straightforwardly given the other operations already argued for. In particular, Agree will lead to the valuation of the person and number features on the T head, giving rise to the weak nominative enclitic as an enclitic or suffix that immediately follows the tense morphology. Subsequently, the operation of Head Lowering will bring the complex head consisting of T and the weak nominative enclitic down onto the lexical verb. Finally, the VP will front to Spec,CP, just as in (23), carrying the tense suffix and weak nominative enclitic along. This set of operations yields the input for the adjustment rule in (32). And since that set includes both narrowly syntactic and postsyntactic operations, the adjustment rule proposed here must apply very late in the derivation. This is in keeping with the general approach toward linearity-sensitive operations in the Distributed Morphology framework (see, for instance, [Arregi and Nevins 2012](#)): they must follow operations that refer to hierarchical syntactic structure.

6.3. Comparing the weak nominative enclitics against the strong pronouns

The weak nominative enclitics are partially homophonous with a separate set of strong pronouns; these strong pronouns are free from the rigid restrictions that circumscribe the distribution of the weak nominative enclitics. This partial homophony helps to explain why the two classes of morphemes were not differentiated in earlier descriptive work.

Table 2. The set of strong pronouns

	SINGULAR	PLURAL
1INCL	on	kit
1EXCL		ote
2	en	wat
3	hè and other demonstratives	

¹³Thank you to David Pesetsky for first suggesting this analytic route to me.

There is much morphosyntactic evidence that the strong pronouns, which are listed in Table 2, qualify as true nominals. For instance, they can bear the same range of case morphology attested on non-pronominal NPs. (33) illustrates with the instrumental case, which takes the shape *-o* after consonants and *-m* after vowels.

(33) Strong pronouns can bear case morphology

- a. Èkgo eaora etera e'a nē
 [e-ek-o e-aot-a e-tet-a e-'a] =nē
 [2 SG-house-INS 2SG-leave.SG-TH 2SG-go.SG-TH 2SG-when.SG] =YES/NO
 ke 'en ham eapsikatsam?
 =ke ='en **ha-m** e-apsikat-sē-am
 =POLITE.FUTURE =2SG **this.place-INS** 2SG-think-RSLT_{HZTL}.SG-ADV.FOC
 'When you arrive at your home, are you going to keep thinking of this place?'
 conversation: 2016-02-17
- b. Otem ke 'en eapsikara e'eka.
 ote-m =ke ='en e-apsikat-a e'eka
 1PL.EXCL-INS =POLITE.FUTURE =2SG 2SG-think-TH 2SG-AUX_{HABIT}.SG
 'Please be thinking of us- EXCL.'
 conversation: 2018-09-01
- c. Wapsikara 'on ērō, ma'ā 'en herōwap hem.
 w-apsikat-a ='on **en-o** [Ø-ma'ē-a ='en herōwap] **he-m**
 1SG-think-TH =1SG **2SG-INS** [3-speak-TH =2SG yesterday] **NMZ-INS**
 'I thought about you, about the thing that you said yesterday.'
 conversation: 2017-08-14

In (33a) the instrumental-marked nominal root is *ha* 'this place, here', yielding *ham* 'to this place, hither'. In (33b) the instrumental case attaches to the strong pronoun *ote* '1PL.EXCL'. And in (33c) the instrumental case surfaces twice, once on the strong pronoun *ērō* and once on the nominalizer *hem*. The latter morpheme subordinates the finite embedded clause *ma'ā 'en herōwap hem* 'about the thing that you said yesterday', which functions as an internally-headed relative. (See Section 4.2 for more examples of clausal nominalizations headed by *hè~he*.) That non-pronominal NPs and strong pronouns will bear the same case morphology in the same syntactic contexts strongly suggests that the strong pronouns are true nominals.

The strong pronouns can also take the plural-like collective suffix *-'eat*, widely attested on non-pronominal NPs: *Tupari* 'Tupari' → *Tupari'eat* 'the Tupari people, the many Tupari'; *onō* 'my friend(s), my relative(s)' → *onō'eat* 'my many friends / relatives'. The ability of the strong pronouns to bear collective *-'eat* is shown by (34).

- (34) Kisie nā teapsikarat kiro / kit'earo.
 ki-si =e =nā te-apsikat-a-t **kit-o** / **kit-'eat-o**
 1 PL.INCL-mother =3 =FOCUS 3C-think-TH-NUC **1PL.INCL-INS** / **1PL.INCL-many-INS**
 'It is our-INCL mother who thought of us.'
 elicitation: 2018-07-29

In contrast, speakers reject putting -'eat 'many' on the weak nominative enclitics.

Recall that the weak nominative enclitics never occur with present progressive, present habitual, or future auxiliaries (example 31, in Section 6.1). In contrast, the strong pronouns are allowed in any and all contexts.

(35) illustrates with second person forms. The strong pronouns in these three examples mark a change in topic and bear the nuclear case suffix.

(35) Strong pronouns allowed in all contexts, even ones that ban weak nominative enclitics

- a. Katke nã eyẽ ěren?
 katke nã e-yẽ **en-en**
 how PROG 2SG-AUX_{HZTL}.SG 2SG-NUC
 'As for you, how are you doing?'
 conversation: 2016-07-08
- b. Here ěren ke ewakto pe'ap...
 here **en-en** ke e-wak-to pe'ap
 and 2SG-NUC like.this 2SG-cry-NMZ DISTANT.FUTURE+2SG
 'And as for you, you will cry like this...'
 text: Miraci Aguisi Tupari, narrator
- c. Kat'aro mākẽrõ nã wat'oro'e waret.
 kat'aro =mākẽrõ nã wat-oro'e **wat-et**
 how.many =DONT.KNOW PROG 2PL-AUX_{GO}.PAUC 2PL-NUC
 'As for you-PL, I don't know how many of you-PL there are.'
 conversation: 2016-12-14

The present and future auxiliaries in (35) are not compatible with the weak nominative enclitics, which require that tense be realized either as a second position particle or as a predicate-final suffix. Yet the nuclear-marked strong pronouns can and do occur here. This fact supports analyzing the strong pronouns as true arguments but weak nominative enclitics as agreement on T. Since the strong pronouns are not dependent on the T node the way that the weak nominative enclitics are, they may combine with the full range of tense marking.

Indeed, nuclear-marked strong pronouns can cooccur with weak nominative enclitics as long as the right kind of tense morphology is present. In (36a) and (36b), that morphology is the second position particle =ke 'POLITE.FUTURE'.

(36) Strong pronouns and weak nominative enclitics can cooccur

- a. Katkaere ke 'en ěren èsap Adãõ?
 katkaere =ke ='en **en-en** e-s-ap Adãõ
 when =POLITE.FUTURE =2SG 2SG-NUC 2SG-come.SG-ADV.FOC Adam
 'And as for you, Adam, when will you come back here?'
 conversation: 2017-03-26

- b. *Ēren* *katkaere* *ke* *'en* *ea'usi* *parap* *heporet?*
en-en *katkaere* **=ke** **= 'en** *e-a'usi* *pat-ap* *heporet*
 2SG-NUC *when* =POLITE.FUTURE =2SG 2SG-wife *marry-ADV.FOC* *also*
 'And as for you, when will you take a wife, too?'
 conversation: 2016-07-26

The position of the weak nominative enclitic *= 'en* '2SG' is fixed: it must immediately follow the second position tense particle *=ke* '2SG', which itself follows the clause-initial *wh*-word *katkaere* 'when'. But the position of the strong pronoun *Ēren* '2SG + NUC' is much more flexible. It may follow the second position cluster, as in (36a), or it may occur in a high, extrasentential position, as in (36b). In the latter case a prosodic break separates the extrasentential strong pronoun and the clause-initial *wh*-word, which sits in Spec,CP.

6.4. Summary and comparative discussion

The Tuparí language possesses two distinct sets of morphemes that were conflated in prior scholarship. Although the strong pronouns are partially homophonous with the weak nominative enclitics, the latter morphemes are parasitic on the second position particles and predicate-final suffixes, which they must linearly follow. They cannot, however, cooccur with the post-verbal auxiliaries that mark the same-day past, present and future. Whereas these auxiliaries paradigmatically contrast with the second position tense particles and the predicate-final tense suffixes, the weak nominative enclitics are highly restricted in their distribution. They are 'just' agreement, not true arguments.

Before turning to superficially tenseless clauses, in Section 7, we should address a marked difference between Tuparí and its best-described sister language, Sakurabiát (referred to in some prior literature as Mekens). According to Galucio (2014) (see also Galucio 2001, 38–43), subject pronouns are required in Sakurabiát only with transitive verbs. The following paradigm from Galucio (2014, 378; my highlighting) illustrates.

- (37) Subject pronouns are optional with intransitive verbs in Sakurabiát

- a. *e-et-a-t* (**ēt**) *eni=ese*
 2 SG-sleep-TH-PAST (**you**) *hammock=LOC*
 'You slept in the hammock.'
- b. *o-et-a-t* (**ōt**)
 1 SG-sleep-TH-PAST (**I**)
 'I slept.'
- c. *o-so-a-t* *ēt*
 1SG-see-TH-PAST **you**
 'You saw me.'
- d. *e-so-a-t* *ōt*
 2 SG-see-TH-PAST **I**
 'I saw you.'

Sakurabiát does not require overt subject pronouns with intransitive verbs such as *et* ‘sleep’ but does require them with transitive verbs such as *so(p)* ‘see’. This pattern makes intuitive sense given the Tuparían languages’ pattern of absolutive marking on lexical verbs. Intransitive verbs in the Tuparían languages always bear a pronominal prefix that conveys the person and number features of the subject. Hence the bolded pronouns in (37a) and (37b) are informationally redundant: they provide the same person-and-number information transmitted by the verb’s pronominal prefix. However, as transitive verbs in the Tuparían languages take an object prefix, the bolded pronouns are required in (37c) and (37d): without those pronouns, there would be no information in these utterances about the person and number of the subject. For this reason the pronouns which are optional in (37a) and (37b) must be included in (37c) and (37d).

But Tuparí crucially differs from the Sakurabiát paradigm given in (37). In Tuparí, the presence of a weak nominative enclitic is conditioned entirely by the kind of tense marking employed, without regard to the valence of the lexical verb. Hence =’en ‘2SG’ is obligatory after the second position tense particle =*ke* ‘POLITE.FUTURE’ both in (38a), where the verb is intransitive ‘come.SG’, and in (38b), where the verb is transitive ‘give.’ Thanks to the absolutive argument marking pattern found on lexical verbs throughout the Tuparían family, the intransitive verb ‘come.SG’ in (38a) carries a pronominal prefix; and that prefix provides the same person-and-number information that the weak nominative enclitic does. Nonetheless, the weak nominative enclitic cannot be omitted.

(38) The weak nominative enclitic =’en ‘2SG’ is not optional, even with intransitive verbs

- a. Katkaere mākēřō ke ’en èsap.
 katkaere =mākēřō =**ke** =’**en** e-s-ap
 when =DONT.KNOW =POLITE.FUTURE =2SG 2SG-**come.SG**-ADV.FOC
 ‘I don’t know when you’re going to come here.’
 conversation: 2016-10-05
- b. Katkaere mākēřō ke ’en warop òam.
 katkaere =mākēřō =**ke** =’**en** w-arop **om**-ap
 when =DONT.KNOW =POLITE.FUTURE =2SG 1SG-thing **give**-ADV.FOC
 ‘I don’t know when you’re going to give me my thing / my gift.’
 conversation: 2016-11-10

As this minimal pair demonstrates, the valency of the lexical verb has no impact whatsoever on whether a weak nominative enclitic will be present. Rather, the distribution of the weak nominative enclitics is determined by the realization of T – a functional category which sits much higher than the VP in the clausal spine and which is therefore independent of the lexical verb’s argument structure.

It is interesting to note that three subject pronouns – the first person singular, second person singular, and first person plural exclusive – may optionally encliticize onto the verb phrase in Sakurabiát (Galucio 2001, 41–43). This gives rise to alternations between SOV and OVS word order: the former order arises when the subject pronouns are clause-initial and the latter, when they have encliticized onto the VP. Similar variation between SOV and OVS is reported for another member of the Tuparían branch of the Tupián family, Wayoro (Nogueira 2011, 72–74;

see also Nogueira 2019, ch. two). Tuparí appears to have undergone a more extreme version of the same encliticization process documented for Sakurabiát and Wayoro, with formerly independent pronouns now fully reanalyzed as Tense-parasitic agreement.

7. TENSE MORPHOLOGY IN SUPERFICIALLY TENSELESS CLAUSES

The previous section used the dependence of the weak nominative enclitics on a particular subset of tense marking to argue that these enclitics do not qualify as subject pronouns but instead constitute agreement between the subject and the T head. This section inverts that logic: it uses the presence of weak nominative enclitics in superficially tenseless environments to establish the existence of two different phonologically null tense morphemes. The null T head that combines with verbal predicates behaves morphosyntactically like the second position particles =*ko/ke* ‘POLITE.FUTURE’, =*ōpot* ‘DISTANT.PAST’ and =*kut* ‘ANCIENT.PAST’, while the null T head that combines with nominal predicates behaves morphosyntactically like the predicate-final suffixes -*t/n* ‘NEAR.PAST’ and -*pbi’a/mbi’a* ‘DURATIVE’.

7.1. Null tense marking with verbal predicates

Verbal predicates that do not combine with overt tense marking receive one of two temporal interpretations, depending on their lexical semantics. A eventive/telic verb such as *ko* ‘eat, drink’ receives an immediately-prior-to-UT interpretation, while a stative/non-telic verb such as *otetka* ‘exceed, be taller than’ receives a present one.¹⁴ The near-minimal pair in (39) illustrates for the former case. In (39a), the clause-initial constituent is the verb phrase *weut’eutkia* and the instrumental-marked NPs *arom* and *’iporo* occur after the weak nominative enclitic =*’on*. In (39b), it is the instrumental-marked NP which occurs clause-initially; the VP (bearing the adverbial focus suffix -*ap*) follows the weak nominative enclitic.

(39) Weak nominative enclitic shows up in second position in superficially tenseless clauses

- a. *Weut’eutkia* *’on* *arom*, *’iporo*.
 w-eut’eutki-a =*’on* aro(p)-m ’ipot-o
 1SG-fill.up-TH =1SG food-INS fish-INS
 ‘I have filled up on food, on fish [**just now**].’
 conversation: 2016-11-21
- b. *Takam’ã* *suram* *’on* *weut’eutkiap*.
 takam’ã sura(p)-m =*’on* w-eut’eutki-ap
 agouti cooked-INS =1SG 1SG-fill.up-ADV.FOC
 I have filled up on cooked agouti [**just now**].
 conversation: 2016-11-21

¹⁴The resultative suffix -*psē/pnē/psira* can transform eventive/telic verbs into stative/non-telic ones. Hence *epsik* ‘sit down’ is interpreted as immediate past when used in a finite clause that lacks overt tense marking, but *epsiksē* ‘be in the state of having sat down, remain sitting’ receives a present interpretation in the same environment (Singerman 2019). For the ease of presentation this subsection focuses on telic predicates only.

- c. E'era eyērō'are 'on
 [e-'et-a e-yē-ro'are] =Ø = 'on
 [2SG-sleep-TH 2SG-AUX_{HZTL}-SG-while] =IMMEDIATE.PAST =1sg
 waorosap.
 w-aoros-ap
 1SG-arrive.SG-ADV.FOC
 'While you were sleeping, lying down, I arrived [**just now**].'
 conversation: 2016-11-15

The appendix addresses an alternate placement pattern for weak nominative enclitics in verbal clauses with no overt tense marking.

7.2. Null tense marking with nominal predicates

Nominal predicates also cooccur with weak nominative enclitics (42) illustrates. In each of these utterances, a nominal predicate (*soka* 'cold', *kisot'asap* 'our dying', *puop* 'knowledgeable, smart') occurs with a weak nominative enclitic despite the absence of any overt tense morphology.

(42) Examples of weak nominative enclitics with nominal predicates

- a. Het'aem nē sokae?
 het'aem =nē **soka** =e
 where.you.are = YES/NO **cold** =3
 'Is it cold where you are?'
 conversation: 2016-04-02
- b. Kanā mākērō kisot'asapbe.
 kanā =mākērō **ki-sot'as-ap** =e
 why = DUNNO **1PL.INCL-die-NMZ** =3
 'I don't know why we have to die.' [lit. 'I don't know why there is our dying.']
 conversation: 2017-08-16
- c. Arikapu ema'ēre nē puop 'en?
 Arikapu ema'ē-re =nē **puop** = 'en
 Arikapu language-OBL =YES/NO **knowledgeable** =2sg
 'Do you know the language of the Arikapu?'
 conversation: 2016-07-09

Given that the weak nominative enclitics are otherwise known to be dependent on a subset of tense marking, it must be the case that clauses like these contain more functional material than meets the eye. In other words, these clauses must contain a null T head.

Yet unlike the =Ø 'IMMEDIATE.PAST' proposed in Section 7.1, the null tense morpheme in (42a) through (43) cannot sit in second position. This is because the weak nominative enclitics in clauses with nominal predicates do *not* appear in second position; rather, they always follow the nominal predicate itself. This fact is clear from (42a) through (42c): in each of these three utterances a clause-typing particle follows the clause-initial constituent whereas the weak

nominative enclitic follows the nominal predicate. Only when the nominal predicate is itself the clause-initial constituent will the weak nominative enclitic occur in second position. This is shown by (43), where *puop* ‘knowledgeable, smart’ is clause-initial. Examples such as this one are structurally parallel to (29), from Section 6, where the clause-typing particle linearly separates the predicate-final tense suffix from the weak nominative enclitic.

- (43) Puop nẽ ’en espanhol ema’em èma’aerẽ?
puop =nẽ =’en espanhol ema’ẽ-m e-e-ma’ẽ-am-ere
knowledgeable =YES/NO =2SG Spanish language-INS 2SG-INTRANS-speak-NMZ-OBL
 ‘Do you know how to speak in the Spanish language?’
 conversation: 2017-02-09

In sum, even though nominal predicates and superficially tenseless verbal predicates resemble one another in lacking overt tense morphology, they differ markedly in terms of the placement of the weak nominative enclitics.

To make sense of the placement of the weak nominative enclitics with nominal predicates we must take another look at the predicate-final suffixes *-t/n* ‘NEAR.PAST’ and *-pbi’a/mbi’a* ‘DURATIVE’. Consider the following two pairs of examples, which build upon the generalizations discussed in Sections 6.1 and 6.2. In (44a) and (45a), the clause-typing particle =nẽ ‘YES/NO’ follows the clause-initial constituent and the weak nominative enclitic =’en occurs immediately after the tense-marked VP. In (44b) and (45b), the tense-marked VP occurs as the clause-initial constituent and the weak nominative enclitic follows the clause-typing particle. That is, the enclitic =’en ‘2SG’ will cliticize directly onto the predicate as long as no clause-typing particle intervenes.

- (44) Weak nominative enclitics are sensitive to the position of the near past suffix

- a. Haytokia nẽ epuop’orat ’en?
 haytokia =nẽ e-puop’ot-a-t =’en
 a.lot =YES/NO 2SG-learn-TH-NEAR.PAST =2SG
 ‘Did you learn a lot?’
 conversation: 2018-08-31
- b. Epuop’orat nẽ ’en haytokia?
 e-puop’ot-a-t =nẽ =’en haytokia
 2SG-learn-TH-NEAR.PAST =YES/NO =2SG a.lot
 ‘Did you learn a lot?’
 elicitation: 2018-09-01

- (45) Weak nominative enclitics are sensitive to the position of the durative suffix

- a. Ekurere nẽ eapsin’õam hi’anambi’a ’en?
 e-kut-ere =nẽ e-apsin’oã-am hi’anẽ-a-mbi’a =’en
 2SG-childhood-OBL =YES/NO 2SG-play-NMZ like-TH-DURATIVE =2SG
 ‘Did you like to play in your childhood?’
 conversation: 2016-02-10

- b. Eapsin'õam hi'anambi'a nẽ 'en ekurere?
 e-apsin'õa-am hi'anẽ-a-**mbi'a** =**nẽ** ='**en** e-kut-ere
 2 SG-play-NMZ like-TH-DURATIVE =YES/NO =2SG 2SG-childhood-OBL
 'Did you like to play in your childhood?'
 elicitation: 2018-09-01

In terms of the placement of the weak nominative enclitics, clauses with nominal predicates (examples 42 and 43) behave just like clauses with verbal predicates where T is realized as a predicate-final suffix (examples 44 and 45). Given these parallels, the kind of null T head that is present in clauses with nominal predicates must be akin to the predicate-final suffixes *-t/n* 'NEAR.PAST' and *-pbi'a/mbi'a* 'DURATIVE' rather than to the second position particles =*ko/ke* 'POLITE.FUTURE', =*õpot* 'DISTANT.PAST', or =*kut* 'ANCIENT.PAST'. That is, this null T head must undergo postsyntactic Lowering to attach to the right edge of the predicate. This mechanism ensures that the weak nominative enclitic – independently known to depend parasitically on T – will follow the nominal predicate in the linear string.

(46) provides revised glosses for (42a) through (42b) and for (43), with the null tense suffix and the weak nominative enclitic now highlighted.

(46) Revised glosses, with the null PRESENT/PAST suffix attached to the nominal predicate

- a. Het'aem nẽ sokae?
 het'aem =nẽ soka-Ø =**e**
 where.you.are = YES/NO cold-PRESENT/PAST =**3**
 'Is it cold where you are?'
- b. Kanã mākẽrõ kisot'asapbe.
 kanã =mākẽrõ ki-sot'as-ap-Ø =**e**
 why = DUNNO 1PL.INCL-die-NMZ-PRESENT/PAST =**3**
 'I don't know why we have to die.' [lit. 'I don't know why there is our dying.']
- c. Arikapu ema'ẽre nẽ puop 'en?
 Arikapu ema'ẽ-re =nẽ puop-Ø ='**en**
 Arikapu language-OBL =YES/NO knowledgeable-PRESENT/PAST =2SG
 'Do you know the language of the Arikapu?'
- d. Puop nẽ 'en espanhol ema'em
 puop-Ø =nẽ ='**en** espanhol ema'ẽ-m
 knowledgeable-PRESENT/PAST = YES/NO =2SG Spanish language-INS
 `ema'aerẽ?
 e-e-ma'ẽ-am-ere
 2SG-INTRANS-speak-NMZ-OBL
 'Do you know how to speak in the Spanish language?'

7.3. Enclitic placement in negated clauses confirms the existence of a null tense suffix on nominal predicates

The suffix *-’om*, which serves as both a negator (NEG) and a privative (PRIV), maps nouns to nouns; negated constituents in Tuparí behave nominally rather than verbally according to a slew of morphosyntactic diagnostics (Singerman 2018a). If the generalizations given in the previous subsection about the placement of the weak nominative enclitics are accurate – and if negated predicates are just a kind of nominal predicate – then we predict that negated predicates should behave identically to all other nominal predicates as far as the nominative enclitics’ placement is concerned.

This prediction is correct. (47) illustrates. The weak nominative enclitics behave alike with negated predicates built from nominalized verbs (examples 47a and 47b) and with predicates where *-’om* attaches directly to a noun (47c and 47d).

(47) Negated predicates behave like nominal predicates with regards to enclitic placement

- a. Wekgere nẽ èmo’ăkto’om ’en?
 w-ek-ere =nẽ e-emo’ăk-to-’om-Ø =’en
 1SG-house-OBL =YES/NO 2SG-pass.by-NMZ-NEG-PRESENT/PAST =2SG
 ‘Did you not pass by my house?’
 conversation: 2016-02-19
- b. Adăo iypek koro’om nẽ ’en?
 Adăo iy-pek ko-ro-’om-Ø =nẽ =’en
 Adam OBJ.NMZ-buy eat-NMZ-NEG-PRESENT/PAST =YES/NO =2SG
 ‘Did you not eat what Adam bought?’
 conversation: 2015-10-20
- c. Kiema’erẽ nẽ puop’ommẽ?
 ki-ema’ẽ-re =nẽ puop-’om-Ø =e
 1PL.INCL-language-OBL =YES/NO knowledgeable-NEG-PRESENT/PAST =3
 ‘Is he not knowledgeable of our-INCL language?’
 conversation: 2017-06-21
- d. Koy’om nẽ ’en?
 koy-’om-Ø =nẽ =’en
 sister-PRIV-PRESENT/PAST = YES/NO =2SG
 ‘Do you not have a sister?’
 conversation: 2016-02-15

Observe that in (47a) and (47c) the negated predicate occurs after the second position clause-typing particle *=nẽ* ‘YES/NO’, whereas in (47b) and (47d) it occurs clause-initially – immediately prior to the clause-typing particle. As a result, the clause-typing particle linearly separates the weak nominative enclitic from the negated predicate in (47b) and (47d).

In terms of the placement of the weak nominative enclitics, these examples with *-’om* ‘NEG/PRIV’ pattern identically to the non-negated nominal predicates in (46). This fact not

only reinforces the nominal nature of negation in Tuparí (Singerman 2018a) but also provides evidence for the existence of the null tense suffix argued for in the previous subsection.

7.4. Summary

The data examined in this section have shown that a null T head is present even in superficially tenseless clauses. Yet as the position of the weak nominative enclitics differs depending on the category of the predicate (nominal or verbal), the language must possess two distinct null T heads. We thus arrive at the following lists of tense morphemes that will cooccur with the weak nominative enclitics:

- (48) Tense particles that undergo Head Raising from T to C so as to arrive in second position
- a. =*ko/ke* ‘POLITE.FUTURE’ (plus the portmanteaux forms given in example 30)
 - b. =*ōpot* ‘DISTANT.PAST’
 - c. =*kut* ‘ANCIENT.PAST’
 - d. = $\emptyset$ ‘IMMEDIATE.PAST’ (**restricted to verbal predicates**)
- (49) Tense suffixes that undergo Head Lowering from T so as to attach to the predicate
- a. -*t/n* ‘NEAR.PAST’
 - b. -*pb’ia/mbi’a* ‘DURATIVE’
 - c. - $\emptyset$ ‘PRESENT/PAST’ (**restricted to nominal predicates**)

The only tense morphology that does not combine with the weak nominative enclitics are postverbal auxiliaries of the kind shown in (31) and (35) (discussed at greater length in Singerman 2018b, ch. four). Although these auxiliaries function paradigmatically as members of the language’s set of tense morphology, they never appear alongside the weak nominative enclitics and are thus excluded from the lists in (48) and (49).

8. CONCLUSION

This article has described the relative positions of several functional categories in the Tuparí clause, with a special focus on the distribution of head-initial and head-final phrase structure. We have seen that, as in many other Tupían languages, the lower region of the Tuparí clause obeys rigid head-final structure. However, the highest layer – instantiated by the second position clause-typing particles – is head-initial. The Tense Phrase, sandwiched in between the CP and the Evidential Phrase, shows a surface split in headedness: the suffixes -*t/n* ‘NEAR.PAST’ and -*pb’ia/mbi’a* ‘DURATIVE’ are predicate-final (just like evidential -*pnē/psira*), whereas the particles =*ko/ke* ‘POLITE.FUTURE’, =*ōpot* ‘DISTANT.PAST’ and =*kut* ‘ANCIENT.PAST’ must always surface in second position (just like the clause-typing particles). We have argued that this surface split is a reflection of indeterminate underlying headedness in the TP.

With these facts in place it became possible to investigate the weak nominative enclitics and to contrast them against the strong pronouns; the two sets of morphemes were improperly conflated

in previous scholarship on the language. The distribution of the weak nominative enclitics supports an analysis on which these morphemes are agreement between the subject and T rather than true arguments of the predicate. Furthermore, the appearance of the weak nominative enclitics in clauses that superficially lack tense morphology – and their rigid positioning therein – has led to the proposal that Tuparí must have at least two kinds of null T heads. The null T head that combines with verbal predicates arrives in second position via the postsyntactic operation of Head Raising, just as the overt particles *=ko/ke*, *=õpot* and *=kut* do. And the null T head that combines with nominal predicates undergoes the postsyntactic Lowering operation to attach to the right edge of the predicate, just as the overt suffixes *-t/n* and *-pbi'a/mbi'a* do.

There are at least two broader contributions that, we hope, this article can make. First, it offers one of the more detailed descriptions and analyses of clausal organization yet provided for a Tupían language outside of the family's Tupi-Guaraní branch. This description and analysis forms part of a broader documentary initiative that is set to include a reference grammar and multilingual text collection. In that much prior scholarship on Tuparí was diachronic-comparative, focused on the language's position within the broader Tupían family, extensive synchronic description has been sorely lacking. Here we have tried to demonstrate that the language's morphosyntactic complexity is worthy of attention in its own right, apart from diachronic-comparative considerations. That being said, many of the synchronic phenomena described and analyzed in this article raise questions that ought to be addressed in future comparative work. For example, how does the graded tense system found in Tuparí compare to the tense systems described for its sister languages? Can the diachronic development of this system be mapped out? And as mentioned in Section 6.4, the grammaticalization process that transformed erstwhile freestanding pronouns into T-parasitic agreement morphology in Tuparí may also be in progress in at least two other members of the Tuparían branch of the Tupían family, Sakurabiát and Wayoro. What I have argued here for Tuparí (i.e., that nominative enclitics are synchronically wholly distinct from true pronouns) may apply more broadly in Tupían.

Second, we hope that this article can contribute to the broader typology of syntactic headedness. As briefly discussed in Section 5.3, the structure of Tuparí matrix clauses conforms to the predictions of the Final-over-Final Condition (see [Holmberg 2000](#); [Biberauer et al. 2014](#); [Sheehan et al. 2017](#); [Hein and Murphy 2020](#), among others). FOFC bans configurations of the form $*[\alpha_P [\beta_P \beta \gamma_P] \alpha]$ where α and β share the same category feature; that is, a head-final α_P cannot dominate a head-initial β_P within a single Extended Projection. The organization of Tuparí matrix clauses obeys FOFC: head-initiality is instantiated at the highest levels of the clause while the clause's lowest region is head-final. And in between these two zones of clear headedness we find the indeterminate TP. However, the finite clauses nominalized by *hè* are capable of violating the strictest form of FOFC, as discussed in greater detail in [Singerman \(2020\)](#). The Tuparí facts described and analyzed here thus have the potential to inform the typological foundation of FOFC, whose status as a hardwired property of the Language Faculty or as a statistical tendency influenced by processing considerations is still a matter of debate.

Appendix: An alternative placement pattern for the weak nominative enclitics

Section 7.1 showed weak nominative enclitics surface in second position in superficially tenseless verbal clauses; this pattern points toward the existence of a phonologically null second position

tense particle akin to the overt polite future, distant past and ancient past particles. However, for some speakers the weak nominative enclitic can follow the predicate-final affix *-ap/am* ‘ADV.FOC’. (50a) shows the placement pattern from Section 7.1, while (50b) shows the alternative:

(50) Alternative placement of weak nominative enclitics

- a. Apo yope ’en nã èsap?
 apo yope =’en =nã e-s-ap
 who by.means.of =’en =FOCUS 2SG-come.SG-ADV.FOC
 ‘Whose vehicle did you come here in?’
 elicitation: 2017-08-23
- b. Apo yope nã èsap ’en?
 apo yope =nã e-s-ap =’en
 who by.means.of =FOCUS 2SG-come.SG-ADV.FOC =2SG
 ‘Whose vehicle did you come here in?’
 conversation: 2017-08-21

One way of analyzing this alternation is to say that the null IMMEDIATE.PAST morpheme may, for at least some speakers, pattern either like a second position tense particle or like a predicate-final suffix. If (50b) contains a null tense suffix after *-ap/am* ‘ADV.FOC’, then the weak nominative enclitic placement would follow straightforwardly. (It is unlikely that *-ap/am* ‘ADV.FOC’ has been reanalyzed in these circumstances as a realization of T, since it combines freely with the full range of second position tense particles. That is, if the adverbial focus suffix did belong to the set of tense morphemes, then the paradigmatic opposition and mutual exclusivity of those morphemes would be undermined.)

Consultants approve the alternation in (50) readily, and it is attested in everyday spontaneous discourse as well. Nonetheless, it is my distinct impression that (50b) – with the weak nominative enclitic positioned after the adverbial focus-marked predicate – is less common than (50a), where it occurs in second position. The alternative in (50b) also appears to be more common in the speech of younger and middle-aged Tuparí; I have never heard it used by an elderly member of the community. More research into this alternation is needed, especially in that the pattern in (50b) does not seem to occur in the absence of the suffix *-ap* ‘ADV.FOC’ on the lexical verb. See Singerman (2018b, 163–166) for more information on the adverbial focus suffix, which is subject to considerable intergenerational and interpersonal variation.

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