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TAM marking on nominals in Chorote (Mataguayo, Argentine, and Paraguayan Chaco)

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Abstract: This paper analyzes TAM marking in the nominal domain in Chorote (Mataguayo or Matacoan; Argentina and Paraguay). In this language, some of the verbal TAM markers also occur in the nominal domain, and at least three of them can have scope over only the nominal but not over the predicate of the clause: the distant past *pe(j)*, the irrealis *-a* and the conjectural (epistemic or evidential) *-t'ey*. The phenomenon is analogous to nominal TAM as described for many languages by Nordlinger and Sadler (2004a) but the difference is that Chorote markers are clitics or independent words and not nominal inflectional morphemes. Regarding the distant past marker, we argue that it codifies tense and not aspect or any other category; however, it is syntactically a modifier of the verb or the noun and not a functional category Tense like the one found in the verbal domain of European languages.

Keywords: nominal TAM, nominal tense, independent TAM, irrealis, Chorote, Matacoan, Mataguayo, Guaraní.

1 Introduction

The indication of tense/aspect/mood (TAM) in the nominal domain has attracted the attention of linguists in the past decade and a half, most notably since the work of Nordlinger and Sadler (2004a, 2004b), who describe this phenomenon in a number of languages. Nordlinger and Sadler proved that nominal TAM was more common crosslinguistically than previously thought. Besides the work of these authors and the references they cite, other recent theoretically-oriented work on the subject includes Tonhauser (2006, 2007, 2008, 2011) on Paraguayan Guaraní (Tupí-Guaraní), Lecarme (2004, 2008) on Somali (Cushitic), Alexiadou (2009) on Halkomelem (Salishan) and Somali, and Nikolaeva (2009, 2012) on

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Tundra Nenets (Uralic), among others. This phenomenon is clearly very important for linguistic theory, since it challenges some widespread assumptions, e.g., that TAM is a set of inherently verbal categories, that TAM inflection is a defining feature of verbs, and that nouns are time-stable (Givón 1979). Below is an example of TAM on nominals from Paraguayan Guaraní; the TAM markers in boldface *-kue* (*-ngue* in nasal context) and *-rã* correspond to what most grammars and specific work on Guaraní have called the past and future tense (Guasch 1996 [1956]; Melià et al. 1958; Gregores and Suárez 1967; Liuzzi 1987; Liuzzi and Kirtchuk 1989; Thomas 2012; and also Nordlinger and Sadler 2004a), also analyzed as aspect in Tonhauser (2006, 2011) and Dietrich (2010), and as a category of its own in Tonhauser (2007, 2008). Some irrelevant morphological segmentation is omitted:¹

- (1) *Pe kuatiá-pe o-ĩ che ñemoñe'ẽ-**ngue** ha che*
 that paper-LOC 3A-be 1sg.POSS speech-*KUE* and 1sg.POSS
*ñemoñe'ẽ-**rã**.*
 speech-*RĀ*
 'In that notebook are my past and future speeches.'
 (Guasch 1996 [1956]: 53)

Most cases of TAM marking on nominals fall within what is often termed “nominal TAM” (or the specific TAM category, especially tense). Following

1 The abbreviations used in the glosses throughout the paper are: 1, 2, 3: first, second and third person; 1incl: first person inclusive; 1excl: first person exclusive; A: subject of transitive verb; AL: alienable possession; ANTIP: antipassive; CAUS: causative; COMP: complementizer; CONJ: conjunctural; D₁-D₆: demonstrative determiner (1: ostensible/ touched, 2: close, 3: distant, 4: moving away/disappeared, 5: not visible, 6: unknown); DPST: distant past; DRV: derivational suffix; DUB: dubitative; F: feminine; FOBJ: future object (Lardil); FR: frustrative; FUT: future; h: human; GNF: general nonfuture (Lardil); IMPRS: impersonal subject; IND.POSS: indefinite possessor; INTERJ: interjection; INTS: intensifier; IRR: irrealis; ITER: iterative/habitual/continuative; JEN: enclitic *-jen* (verbal plural, ‘down’ and other meanings); *KUE*: terminative nominal marker (Guaraní); LOC: locative; MIR: mirative; MOM: momentaneous; NEFUT: near future; NEG: negation; NF: nonfeminine (Tariana); NFOBJ: nonfuture object (Lardil); NFUT: nonfuture (Lardil); nh: non-human; NMZ: nominalizer; NOM: nominative; NOM.PST: nominal past (Tariana); O: object of transitive verb; OBJ: object (Lardil); OBL: oblique; P: (pseudo-) applicative/adposition; PERF: perfect; PL/pl plural; POSS: possessor; PRO: pronominal root; PROH: prohibitive; PRSP: prospective; QU: question marker; *RĀ*: prospective nominal marker (Guaraní); REL: relativizer; REP: reportative; S: subject of intransitive verb; S_A, S_O: S marked as A, O; sg: singular; *SYU*: proclitic *syu*; SUF: suffix; v: light verb; WH: question word; the semi-colon (;) separates two morphemes whose exponents cannot be segmented because of metathesis processes; [] indicates context or material added to the original transcription; () indicates material of the original text which should be omitted in a proper transcription (according to the conventions used here) or in a nonliteral translation.

Nordlinger and Sadler (2004a), a distinction can be made between “core” and “non-core” instances of nominal TAM. In core instances, dependent NPs/DPs (i.e., arguments or adjuncts, but not nominal predicates of verbless clauses) are TAM-inflected; in other words, TAM markers are nominal inflectional morphemes. Among these instances, Nordlinger and Sadler make a further distinction between “independent” and “propositional” nominal TAM. Independent nominal TAM refers to cases where TAM markers only have scope over the nominal expression and not on the proposition, as in the Guaraní example (1) above, where *-kue* and *-rã* determine the temporal interpretation of *ñemoñe’ẽ* ‘speech’ but not that of the proposition, which is interpreted in present tense. Propositional TAM (or “clausal TAM” in Nordlinger and Sadler 2004b), on the other hand, refers to cases where TAM markers provide information for the whole proposition, often (but not necessarily) in conjunction with verbal TAM markers; below is an example of the latter case from Lardil (Klokeid 1976, cited in Nordlinger and Sadler 2004a: 791).

- (2) a. *Ngada niween maarn-in wu-tha.*
 1.sg.NOM 3.sg.OBJ spear-OBJ give-GNF
 ‘I gave him a spear.’
 (Klokeid 1976: 476, ex. 56a)
- b. *Ngada niwentharr maarn-arr wu-tharr.*
 1.sg.NOM 3.sg.NFOBJ spear-NFOBJ give-NFUT
 ‘I gave him a spear.’
 (Klokeid 1976: 476, ex. 56b)
- c. *Ngada bilaa wu-thur ngimbentharr diin-kur wangalk-ur.*
 1.sg.NOM tomorrow give-FUT 2.sg.NFOBJ this-FOBJ boomerang-FOBJ
 ‘I’ll give you this boomerang tomorrow.’
 (Klokeid 1976: 493, ex. 91b)

In (2) object markers agree in tense with the verb, which can be in the “general nonfuture”, the “nonfuture” or the “future” tense; this tense agreement is especially found in languages of Australia, see also Evans (2003). In terms of “non-core” instances of nominal TAM, these include such cases as English *’ll* in *John’ll be home tomorrow* (Nordlinger and Sadler 2004a: 777), i.e., morphologically and syntactically independent elements which are attached only phonologically to a nominal host but express propositional TAM.

This paper deals with TAM markers which appear in the nominal domain in Chorote (Mataguayo or Matacoan), an indigenous language of Argentina and Paraguay, especially *-a* ‘irrealis’, *pe(j)* or *-pe(j)* ‘distant past’ and *t’ey* or

-*t'ey* ‘conjunctural.’² These are clitics or independent phonological words and are thus excluded from the core cases of nominal TAM or even from nominal TAM entirely. However, they only have scope over the nominal expression they attach (or are adjacent) to i.e., semantically they behave like instances of independent nominal TAM, though not morphosyntactically. For the sake of convenience, the expressions “independent” and “propositional nominal TAM” will be used throughout the paper regardless of their morphosyntactic properties.

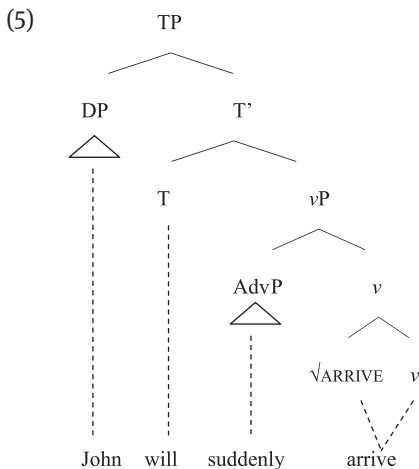
- (3) *Ka pə-ye ja-pa ji-ka -makinaj-a', y-am-taj-'ni.*
 COMP [3S]exist-IRR F-D₆ 3POSS-AL-CAR-IRR 3S-irse-FR-ITER
 ‘If they had a car, they would leave.’

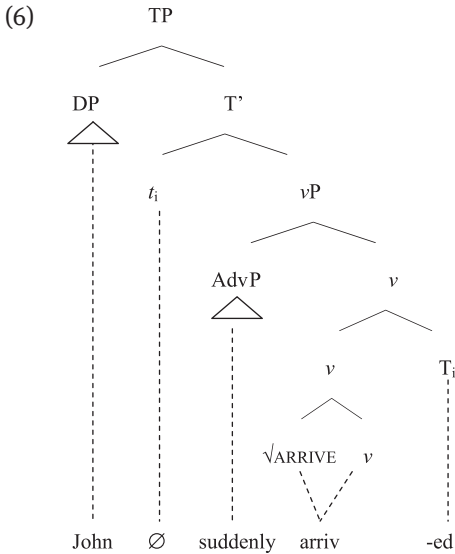
- (4) *A-taj en-ay-i 'até syo-jo-pa Lot ji-k'yemjla t'i-pijl].*
 2POSS-sight put-2pl-P like.this SYU-F-D₆ Lot 3POSS-spouse CONJ-DPST
 ‘Think about (lit. ‘put your sight on’) Lot’s wife.’
 (Lc 17: 32)

In this regard, Chorote nominal TAM markers could be compared to e.g., English *former*, *ex-*, *future*, etc. when they modify nominals but, unlike these, Chorote nominal TAM markers are the same ones that attach to verbs to encode “regular” TAM with propositional scope. In summary, TAM marking on nominals in Chorote constitutes a typologically interesting and relatively unusual case, as it shares some properties with “regular” nominal TAM and, at the same time, shows differences in its morphosyntax. One goal of this paper is to provide a description of these facts as a contribution to linguistic typology.

² Chorote (ISO codes: crt, crq) is spoken by no more than 3,000 people in Argentina (province of Salta) and Paraguay (department of Boquerón). It belongs to the Mataguayo or Matacoan family, along with Wichí (Argentina, Bolivia), Nivaclé (Paraguay, Argentina) and Maká (Paraguay). The language has two (or three) dialects: (a) Iyojwa'(a)ja', spoken in Argentina (ISO: crt), and (b) Iyo'(a)wujwa', spoken in Argentina, plus Manjui (or Lumnana, or Wikina Wo) spoken in Paraguay (ISO crq); (b) could also be considered to be two different dialects (Campbell and Grondona 2010). The paper focuses on the (a) Iyojwa'(a)ja' dialect. The data for this study were taken from fieldwork conducted by the author between 2005 and 2011 in the province of Salta, Argentina, and from second-hand sources. Unless there is an indication to the contrary, data correspond to the Iyojwa'(a)ja' variation and the author's field notes. Second-hand sources are: a translation of the New Testament into Chorote Iyojwa'(a)ja' (New Testament Translation into Chorote 1997, cited by the corresponding verses), narratives transcribed and compiled in Drayson et al. (2000), two audio narratives recorded by Gerzenstein (Gerzenstein and Aldana 1971; Gerzenstein and González 2004) and also Díaz and Gea (2008).

Regarding the morphosyntactic idiosyncrasies of the Chorote TAM marking on nominals, I propose that these are better understood if we view the difference between affixes, clitics, and words as epiphenomenal. This is a standard assumption within the generative framework of Distributed Morphology (DM) (Halle and Marantz [1993] and subsequent work); many general claims of DM are also found in formal “syntactic” approaches to morphology (see Baker 1985, 1988). According to the theory of DM, the same generative system which is responsible for phrase structure is also responsible, at least by default, for word structure, “Thus ‘word’ is not a privileged derivational object as far as the architecture of the grammar is concerned,” (Embick and Noyer 2009: 290). No derivation of complex objects in the Lexicon is allowed. In fact, this view does not imply a true syntax-morphology interface, or at least not a “transparent” one (Embick and Noyer 2009). Mismatches between syntax and morphology are explained as minor readjustments needed to meet language-specific phonological requirements; these are carried out by special “post-syntactic” operations that map the output of the syntactic component onto the phonetic form (PF). The trees below illustrate how such a syntactic approach to morphology explains the English expression of the future tense by an independent word and the past tense by a suffix. (Note that verbs in DM, like any other “lexical category”, are not syntactic primitives but consist of a category-neutral root ν and a category-defining functional head v , thus [$_{\nu}$ ν ARRIVE- ν] corresponds to V in other representations. Similarly, n and a head nouns and adjectives.)





The past tense marker in (6), unlike the future tense marker, cannot stand alone as an independent word. Thus the corresponding functional head lowers to the verbal head through a post-syntactic operation and is realized as a suffix. Note that this framework allows for post-syntactic affixation, and not only cliticization, as in e.g., Zwicky and Pullum (1983). The structure in (6) is then derived from one similar to that in (5), but both share a similar subjacent syntactic structure. Inflectional TAM markers in the verbal domain are typically heads of functional categories whereas adverbs are considered to be adjuncts or specifiers, like in (5)–(6); as long as nominal TAM is regarded as an inflectional category, their (subjacent) structural position should typically be equivalent to that of T in (5)–(6). In view of the assumptions explained above, I assume there is no substantial difference among TAM affixes, clitics, and words besides their morphosyntactic shape when they occur in the nominal domain. This allows for a unified treatment of the “core cases” of nominal TAM found crosslinguistically and at least some Chorote TAM markers that attach to nouns.³ However, as will be shown in Section 7, at least one marker (distant past *pe/jj*) is not a likely exponent of a functional head and is better analyzed as a modifier (and thus an adverb when in the verbal domain), but for independent reasons and not only because of its morphosyntax.

³ Tonhauser also seems to agree that, within the phenomenon of nominal TAM, the morphosyntactic shape of the markers has little relevance: when describing the properties the true nominal tense should have, she proposes that “[t]he morphosyntactic form (e.g., suffix, clitic) is not restricted,” (2008: 338, footnote 10).

Furthermore, the claim that core cases of nominal TAM are actually inflectional affixes deserves consideration in some instances, namely the Guaraní *-kue* and *-rã* markers seen in (1). Against an inflectional analysis, see Tonhauser (2006: 161–165), who analyzes *-kue* and *-rã* as derivational suffixes, as do Gregores and Suárez (1967: 127–128). I suggest that even their affixal nature is debatable under lexicalist approaches to morphology (Zwicky 1977; Zwicky and Pullum 1983; Haspelmath and Sims 2010 [2002]). The point is that they do not attach to nouns only, but also to diverse and complex material, including morphemes which head embedded clauses; this is even more so if one takes *-gue/-re* and *-guã*, which have the same meanings as *-kue* and *-rã* (respectively), to be allomorphs of *-kue* and *-rã* (respectively) (see Guasch 1996 [1956]: 53):

- (7) a. *¿Kó-va-pa [re-joguá-va]?
D-REL-QU 2A-buy-REL
Is this what you are buying?*
b. *¿Kó-va-pa [re-jogua-va'e]-**kue**?
D-REL-QU 2A-buy-REL-KUE
Is this what you bought?*
c. *¿Kó-va-pa [re-jogua-va'e]-**rã**?
D-REL-QU 2A-buy-REL-RÃ
Is this what you are going to buy?
(Guasch 1996 [1956]: 303)⁴*
- (8) a. *He'i [o-u-ha].
3A.say 3S_A-come-COMP
'(S)he says (s)he is coming.'*
b. *He'i [o-u-ha]-**gue**.
3A.say 3S_A-come-COMP-KUE
'(S)he says (s)he was coming.'*
c. *He'i [o-u-ha]-**guã**.
3A.say 3S_A-come-COMP-RÃ
'(S)he says (s)he is going to come.'
(cf. Guasch 1996 [1956]: 310)*
- (9) a. *A-ha [che ryke'y o-ĩ-há]-pe.
1S_A-go 1sg.POSS elder.brother 3S_A-be-COMP-LOC
'I am going where my elder brother is.'*

⁴ Modern colloquial Paraguayan Guaraní inserts the definite article *la* (borrowed from Spanish) at the beginning of the clause: *la rejoguáva*, etc.

- b. *A-ha* [*che ryke'y o-ĩ-ha*]-*gué-pe*.
 1S_A-go 1sg.POSS elder.brother 3S_A-be-COMP-KUE-LOC
 'I am going where my elder brother was.'
- c. *A-ha* [*che ryke'y o-ĩ-ha*]-*guã-me*.
 1S_A-go 1sg.POSS elder.brother 3S_A-be-COMP-RĀ-LOC
 'I am going where my elder brother is going to be.'
 (Guasch 1996 [1956]: 307)

- (10) a. *Ha* [*o-hasá-ramo*] *ñande yké-rupi*,
 and 3S_A-pass-when 1incl.POSS side-by
n-a-ñandu-kuaá-i hese mba'eve.
 NEG-1sg.S_A-feel-can-NEG 3.OBL nothing
 'And when (s)he passes by our side, I can feel nothing (in him/her).'
- b. *Che mandu'a* [*re-ju-ramo-gua*]-*re Encarnación-pe*.
 1sg.S_O remember 2sg.SA-come-when-of-KUE Encarnación-LOC
 'I remember when you came to Encarnación.'
- c. [*Re-ju-jevy-ramo-gua*]-*rã, a-japo-ta peteĩ karu guasu*.
 2sg.S_A-come-again-when 1sg.A-make-FUT one food big
 'When you come back I will make a banquet.'
 (Melià et al. 1958: 129)
- (11) a. [*pira ysyry-pe-gua*]
 fish stream-LOC-OF
 'river fish'
 (Guasch and Ortiz 1996: 707)
- b. [*guaiguĩ ku López tiempo-pe-gua*]-*re*
 old.woman EMPHATIC López time-LOC-OF-KUE
 'old woman of the times of [former president] López'
 (cf. Melià et al. 1958: 93, ex. (10))
- c. [*María-pe-gua*]-*rã*
 María-LOC-OF-RĀ
 'for María'
 (cf. Guasch and Ortiz 1996: 707)⁵

In (7) *-kue* and *-rã* attach to the relative marker *-va(ʔe)*, which introduces a relative clause; in (8)–(9) *-gue* and *-guã* (presumable allomorphs of *-kue* and *-rã*) attach to the complementizer *-ha*, which heads the locative relative and

⁵ The locative postposition *-pe* also functions as animate direct object marker; this helps to explain the otherwise surprising benefactive meaning of *-pe-gua-rã*.

complement clauses (which often have causal and final meanings with *-gue* and *-guã* respectively), and in (10)–(11) *-re* (presumable allomorph of *-kue*) and *-rã* attach to *-gua*, which in turn attaches to a PP or to an adverbial clause. Examples in (11) are particularly relevant, since the precedence of *-kue/-rã* over the locative postposition *-pe* has been taken as support for the affixal analysis in Tonhauser (2006: 161–162). However, *-pe* is an enclitic, see e.g., (12), where complex material can intervene between the noun and *-pe*, and (13), where it undergoes coordination ellipsis, a property of words and clitics but not of affixes (cf. Zwicky 1977; Haspelmath and Sims 2010 [2002]: 205):⁶

- (12) *Ro-ime ñu [o-je-pysó-va]-pe.*
 1excl-be field 3S_A-REFL-spread-REL-LOC
 ‘We were in a big field.’
 (Guasch 1996 [1956]: 221)

- (13) *[ára ha pyharé]-pe*
 day and night-LOC
 ‘during the day and at night’
 (Guasch 1996 [1956]: 312)

Thus, if *-re* is an allomorph of *-kue*, as suggested here, (11) proves that *-kue* and *-rã* can also follow the enclitic *-pe* and are therefore clitics as well (cf. Zwicky and Pullum 1983, criterion F).⁷

Furthermore, in order to analyze Guaraní nominal temporal markers as affixes it is necessary to assume that *-va(’e)*, *gua* and *-ha* are some sort of nominalizer/adjectivizer derivational affixes, even of an entire clause, so that

⁶ This is not a necessary property of clitics, however: clitic personal pronouns in Spanish fail to undergo ellipsis (cf. *tóme-lo o déje-lo* ‘take it or leave it’ vs. **tóme-Ø o déjelo*) but they are still considered clitics for many other reasons. Thus, the fact that *-kue* and *-rã* do not undergo ellipsis does not suffice to consider them affixes.

⁷ In fact, Tonhauser takes the *-gua* ‘of’ that appears before *-rã* in (10c), (11c) to be the morpheme *-guã* (glossed ‘PURPOSIVE’ in 2006 and ‘for’ in 2007) that appears in (8c), (9c), which I take here to be an allomorph of *-rã*. It is true that its phonetic realization in this environment is identical to that of *-guã* (i.e., [ɲwã]), but this is due to regressive nasality assimilation triggered by *-rã*. That it is *-gua* ‘of’ and not *-guã* is proven by the fact that *-ramo-gua-rã* (‘when-of-*RĀ*’) forms a paradigm with *-ramo-gua-re* (‘when-of-*KUE*’), and *-ramo*, and *-pe-gua-rã* (‘LOC-OF-*RĀ*’) forms another one with *-pe-gua-re* (‘LOC-OF-*KUE*’) and *-pe-gua* (see also Guasch 1996 [1956]: 51), where *gua* is realized [gwa] and is correctly glossed ‘of’ by Tonhauser. If it were *-guã*, not only there would be inexplicable gaps in the distribution of these morphemes, but it would also be difficult to explain the co-occurrence of *-guã* and *-rã*, which have the same meaning, cf. the meaning of the “true” *-guã* in (8c), (9c).

-kue and *-rã* would have a “preference” for certain categories (namely nominal ones) like affixes do and clitics do not (Zwicky and Pullum 1983, criterion A). Yet this has problems too: first, *-va(e)*, *gua* and *-ha* also undergo coordination ellipsis (cf. Guasch 1996: 313), a property we find in clitics but not in affixes (see above), and second, this assumes that the constructions in brackets with an embedded finite verb above are actually “lexical” (or “morphological”) and not “syntactic”, and/or that the alleged derivational affixes can attach to material which encloses finite verbs (i. e. derivational suffixes following inflectional ones), two problematic assumptions. Within the framework adopted here, whether these markers should be considered affixes or clitics is merely a descriptive and superficial matter.

This paper also briefly addresses two current theoretical debates on nominal TAM in the light of Chorote data. The first regards whether nominal TAM markers necessarily involve a functional head like the one illustrated in (5) and (6) in the nominal domain (cf. e.g., Alexiadou [2009] on Somali and Halkomelem). While this is probably true for the irrealis marker and maybe for others, we have found that, as mentioned above, there is no solid evidence to consider that the distant past marker *pe(j)* (and maybe others) implies a functional head Tense in either the nominal or the verbal domain. The second debate is related to whether nominal temporality markers can actually be considered Tense or something else (cf. Nordlinger and Sadler 2004a, who argue in favor of the former and Tonhauser 2006, 2007 2008 in favor of the latter). Tonhauser analyzes such markers in a number of languages, focusing especially on the Guaraní *-kue* and *-rã*, which are taken in most work on Guaraní to mean ‘past’ and ‘future’ (respectively). In her analysis, Tonhauser shows that these markers do not encode a deictic Tense, i.e., tense anchored in the utterance time, and that their temporal value is pragmatically inferred. With regard to this, we show that the temporal (deictic) value of the Chorote distant past *pe(j)* cannot be analyzed as derived and must be considered encoded by the marker; however, not being a functional head, it can hardly be equated to the standard Tense makers found in the verbal domain in better-known languages. Finally, one could mention a third debate, namely whether those categories found in the nominal domain are actually Tense, Aspect or Mood, i.e., the same TAM categories usually found in the verbal domain, or are categories on their own. Thus, although Tonhauser (2006) originally labeled Guaraní *-kue* and *-rã* as nominal grammatical aspect markers, she revised this claim in Tonhauser (2007, 2008) by providing evidence that they differ from standard aspect/mood markers. In other words, these markers do not behave as they would in the verbal domain, and Tonhauser suggested this could hold true for other purported TAM markers in other languages. However, this is not really an issue in Chorote, since the

markers that appear in the nominal domain are the same ones that appear in the verbal domain. Therefore, whichever label one adopts for those markers must be the same for both domains.

The rest of the paper is organized as follows. Section 2 presents general facts about the language that will be addressed in the later sections. Sections 3–6 offer analyses of nominal TAM markers, with Section 3 presenting distant past *pe(j)*; Section 4, irrealis; Section 5, conjectural (epistemic or evidential) *t'ey*; and Section 6, others. In Section 7, some aspects of the syntax of TAM markers in Chorote are discussed. Finally, I present the conclusions.

2 General facts about the language

2.1 Argument encoding on the verb

Chorote's verbal person marking exhibits split intransitivity (or active-inactive case marking). The language has a set of person prefixes for transitive subjects (A) and another for transitive objects (O), while intransitives are split into two classes: those marking the subject (S) like A (thus S_A) and those marking it like O (thus S_O).⁸ Moreover, person marking on transitive verbs is subject to a hierarchy $1 > 2 > \text{impersonal} > 3$; only the highest argument in the hierarchy is marked in the prefixal position, irrespective of its function (A or O). Example (14) shows A and O prefixes and exemplifies person hierarchy; (15) includes S_A and S_O prefixes and exemplifies split intransitivity. The latter could also be analyzed in terms of 'active case' ($A + S_A$) vs. 'inactive case' ($O + S_O$) marking; we will not take sides on the issue, but will adopt the A, O, S terminology for the sake of convenience.⁹

⁸ In Carol (2013) it is argued that there is a partial correlation between this split and agentivity in a broad sense or, more precisely, internal causation of the eventuality.

⁹ Some linguists reject the concept of split intransitivity as well as the conventions A, O, S, S_A , S_O , since these conventions imply that the transitive is the "primitive" construction from which the intransitive one is derived. In fact, in keeping with this argument, some languages would provide evidence for exactly the opposite view, i.e., transitives would derive from intransitives. Hence, these linguists propose "active" for A and S_A and "inactive" (or stative) for O and S_O . As already noted in this paper, no sides will be taken here. However, there are some practical reasons for using the A, O and S notations. One is that two sets of third person marking (\emptyset - and *i-/y-*) neutralize the opposition active vs. inactive, since they occur in both verb classes, e.g., *a-tal*, 'I (active) come from', *\emptyset-tal* '(s)he/it comes from' vs. *si-nitya'n* 'I (inactive) got lost', *\emptyset-ne\eta ya'n*, '(s) he/it got lost'. Considering that some of these verbs occur in the third person only, there is no way of determining which class they would correspond to e.g., *\emptyset-neki'n* 'it rains', *i-syuntijni* 'it thunders', etc. Therefore, we gloss the third person prefixes simply as S.

- (14) a. *a-’we’en*¹⁰ b. *si-’we’en*
 1A-see 1O-see
 ‘I see you/her/him/it’ ‘You/she/him/it see(s) me’
- (15) a. *a-laki’n* b. *si-nil’lya’*
 1S_A-play 1S_O-be.hungry
 ‘I am playing/dancing’ ‘I am hungry’

When the third person A acts on the third person O the prefix is *i-* (before vowels and glottal stop), *y-* (before the rest of the consonants, including glottalized ones and semivowels), e.g., *i-’wi’in* ‘(s)he sees her/him/it’. When an intransitive is causativized, it takes these prefixes, e.g., *∅-netya’n* ‘it is lost’ vs. *i-nityajnat* ‘(s)he loses it’. On the other hand, there is a class of enclitic morphemes glossed ‘P’ that normally introduce a new participant and can attach to verbs (and the morphemes are thus referred to as “[pseudo-] applicatives”) or to nouns (“postpositions”) depending on complex syntactic and prosodic conditions (see Carol 2011b; Carol and Salanova 2012). They do not transitivity the verb, however: in (16) the basic verb is intransitive and the derived one (with instrumental pseudo-applicative *-e*) does not take the *i-/y-* transitive prefixes mentioned above, demonstrating that the new participant is an oblique and not a direct object.

- (16) a. *∅-na’am*
 3S-come
 ‘(S)he/it comes’
- b. *∅-nam-e*
 3S-come-P
 ‘(S)he/it brings [her/him/it]’, lit. ‘(S)he/it comes with [her/him/it]’¹¹
- c. **i-nyam-e*

2.2 TAM markers

Table 1 shows Chorote TAM markers. The list of B-enclitics/independent words is not exhaustive.

¹⁰ The spelling of the Chorote examples follows standard orthographies, where <*j*> is [h, x], <’> is a glottal stop and <C’> a glottalized consonant; additionally, I use *ɛ*, *ɔ* for very open high vowels or closed mid ones, and *y* for a semivowel instead of *i*.

¹¹ Motion verbs plus the applicative *-ej* (instrumental, sociative) mean ‘bring’, ‘take’ etc. depending on the verb.

Table 1: TAM markers.

Form	Gloss	Meaning	Most typical position	
<i>ja</i>	PRSP	prospective	preverbal particle	
irrealis prefixes, <i>-a</i>	}	IRR Irrealis	verbal person prefixes	
			A-enclitic	
<i>-jli</i>		perdurative	A-enclitic	
<i>-a</i>	MOM	momentaneous	A-enclitic	
<i>jen, -jin</i>	REP	reportative	A-enclitic, (ind. word)	
<i>t'ey, -t'i, -t'e</i>	CONJ	conjunctural (epistemic, evidential)	A-enclitic, ind. word	
<i>-mi, ma (me)</i>	DUB	dubitative, interrogative	A-enclitic, particle	
<i>p'an</i>	MIR	mirative	A-enclitic, ind. word	
<i>-taj</i>	FR	frustrative, imperfective and others	A-enclitic	
<i>-'ni(j)</i>	ITER	iterative, habitual, continuative	}	
<i>-na'a</i>	NEFUT	near future		B-enclitic
<i>-(V- ...)-je(j)</i>	PERF	perfect ('already', recent past; reiterative)		
<i>pe(j)</i>	DPST	distant past; 'each (time)', always	}	
<i>'ne</i>	then	'then'; 'now'		B-enclitic, ind. word

These markers attach to the verb, but also to very diverse material; this low selectivity (Zwicky and Pullum 1983, Criterion A) plus the fact that many of them have stressed variants are the main reasons for labeling them as clitics. Moreover, no arbitrary gaps in their distribution or morphophonological/semantic idiosyncrasies have been documented (Criteria B-D). A- and B-enclitics refer to two verbal enclitic positions. A-enclitics are closer to the stem: they come immediately after the first and second person plural suffixes¹² and before the applicative enclitics, and thus occupy the first verbal enclitic position, while B-enclitics occupy a more peripheral position, immediately after the applicatives. Most markers which appear as A-enclitics can also attach to various preverbal material (wh- words, negation and others), depending on each morpheme, and especially in second position (see e.g., (63), (64), (65), (72) below); the dubitative *mi/ma* can also head questions. Markers which appear as B-enclitics also appear in other positions and some of them also have stressed variants; an important difference is that the stressed variants *pe(j)* 'DISTANT PAST', *'ne* 'now/then' and others can appear

¹² Notice that they do not just indicate plurality, but plurality and person, since each person has a different plural marker, cf. *-aj* (1pl.S_A OR IMP(e)RS(onal subject)), *-ay* (2pl), *-is* (3plA/S of polyvalent predicates). In some varieties *-is* can also precede at least some A-clitics.

in the same position as B-enclitics, so that B-enclitics can be regarded as reduced versions of the latter, while stressed variants of markers which appear as A-clitics must appear in a different position. Roughly speaking, thus, some A-enclitics show similarities to “complex clitics” while B-enclitics are similar to “simple clitics” (Zwicky 1977). In (17), *-a* ‘MOMENTANEOUS’ and *-t’i* ‘CONJECTURAL’ are A-enclitics, and *-pi* ‘DISTANT.PAST’ is a B-enclitic.

- (17) *a-won-aj-a-t’iy-i-pi*
 1A-do/say-1pl.S_A-MOM-CONJ-P-DPST
 ‘We did/said it to him/her (as it seems).’

The basic opposition in terms of temporality is future vs. non-future. However, future is not indicated through a specific tense marker but through the interaction between the prospective particle *ja*, the irrealis mood (obligatory when *ja* is present) and the context. Unless there is a contextual indication to the contrary, *ja* plus irrealis forces an interpretation of the eventuality as subsequent to the speech time, as seen in (18b). Importantly, the prospective *ja* does not encode a future tense but only prospective aspect, as it can be used to refer to eventualities which took place before the utterance time. Thus, no deictic future tense is involved here; instead, temporal interpretation is pragmatically derived from prospective + irrealis, though for the sake of convenience and simplicity I will continue using the terms “future” and “non-future”. The unmarked form, as in (18a), can never be interpreted as future, but as past or present, depending on aspect and contextual indications; by default, unmarked bounded eventualities are interpreted as past and unbounded as present.

- | | |
|---|---|
| (18) a. <i>ti-lyaki’n</i>
3S-play
‘(s)he plays/is playing/played’ | b. <i>ja-n-laki’n</i>
PRSP-3S.IRR-play
‘(s)he is going to play’ |
|---|---|

2.3 Other categories

Chorote has a series of six demonstrative determiners which encode not only distance but also ostensibility, movement, visibility, previous knowledge, and others, see Table 2 (only the unmarked masculine singular).

These determiners do not *semantically* encode TAM features, except for some sort of evidentiality (cf. especially D_5 and D_6). However, they may contribute pragmatically to the temporal location of the entity the nominal describes, and also of the whole proposition. For instance, D_4 *kya* may indicate that the entity is

Table 2: Demonstrative determiners (masculine singular).

form	gloss	meaning
<i>'na</i>	D ₁	ostensible; touched or at hand
<i>na</i>	D ₂	(close)
<i>se</i>	D ₃	distant but visible
<i>kya</i>	D ₄	moving or gone far from speaker; dead, consumed
<i>ja</i>	D ₅	not visible but seen before
<i>pa</i>	D ₆	unknown (inaccessible to memory?)

gone, has changed or no longer exists, thus locating its (relevant) existence in the (near) past; at the same time, this may serve as an indication that the entire eventuality took place in the (near) past, in view of the absence of explicit temporal markers. In addition, demonstratives show complex interactions with proper TAM in some cases; for example, indefinites can only select D₆ *pa* and, since nominal irrealis implies indefiniteness, nouns bearing the nominal irrealis marker can only select *pa*, if they take a demonstrative at all. These demonstratives have been analyzed elsewhere for Chorote and other neighboring languages and will not be discussed here (see Carol [2011a, 2014: 390–398] for Chorote; Vidal and Gutiérrez [2010] for Nivaclé; Vidal and Klein [1998], and Messineo [2004] for Toba/Qom; and Messineo et al. [forthcoming] for a general overview).

Finally, the existence of an adjectival class is debatable. Words that could be considered adjectives (as suggested by e.g., Drayson 2009) show the same inactive or S₀ verbal prefixes for the first and second persons as verbs in the first and second persons, e.g., *wuj* ‘(it is) big/important’, *si-wuj* ‘I am big/important’ and, when used in a modifying function (e.g., *si'yús wuj* ‘big fish’), they show no visible differences with respect to “regular”, non adjective-like verbs heading a relative (e.g., *si'yús yokye* ‘fish that bites’), among other properties they share with verbs. Thus, they have been considered a special class of verbs in Carol (2013, 2014).

2.4 Nominals as predicates, finite verbs as arguments, and free relatives

In Chorote, nominals can head clausal predicates (there is no copula) and, conversely, finite verbs can be used as arguments, see (19) and (20) respectively; these two features are characteristic of what Launey (1994, 1998, and especially 2004) has called an “omnipredicative language”.

- (19) *Si'yús 'ni i-tyujw*
 fish D₁ 3A-eat
 '(It is) fish what (s)he is eating.'
- (20) *Ya-ka ta-kelisyen pə'*
 1sg.POSS-AL 3S-sing(=radio) [3S]exist
 'I have a radio.'

A preceding demonstrative is not necessary for a finite verb to be argumental, as (20) shows; in (20), moreover, the argumental finite verb expression is lexicalized, which is not unusual in the language. On the other hand, argumental expressions with a finite verb, like those in (19) and (20), can be regarded as the strategy the language has to build up relative clauses, including free relatives, like in the examples. It is important to keep this in mind since, in principle, it is not obvious that a nominal construction with a TAM marker is any different than a free relative whose predicate is nominal and takes TAM markers. In what follows we will see that these are actually two different constructions (see especially Section 3.3 *in fine*).

The next section starts with the description of the TAM markers which appear in the nominal domain.

3 Distant past *pe(j)*

3.1 On verbs and other word classes and as a free-standing morpheme

The morpheme *pej* (usually *pe* when unstressed, *pi(j)* after a palatal which may not surface) indicates distant past when attached to non-future clausal predicates. It is an optional morpheme, and is usually found at the beginning of a story or after a switch in the reference time.

- (21) *Ja-y-amti-yi kyu^(s) jwamjla'a*
 PRSP-1S_A.IRR-speak-P still? a.little
 'I am going to talk a little about
ki i-yo-pi kya-pə i-sijli-jyi^(s)n mas-ēs.
 D₄ 3S-V[P]-DPST D₄-PL.h 3S-grow.up-JEN deceased-PL
 what the elders (lit. 'the grown up ones') did [in ancient times]'.
 (Drayson et al. 2000: 20)

In imperative, optative, and declarative sentences interpreted as future, however, *pe(j)* usually means ‘always; every time’ and also ‘again’.

- (22) *Joskiy-e pej na jwat.*
 be.careful-2pl always D₂ fire
 ‘Always be careful with fire.’
- (23) *Ja-’nis pej, jo-met pej.*
 PRSP-[1S_A.IRR]arrive every.time go-hither every.time
 ‘Every time I come here, come see me.’
- (24) *Si-’yas-’ni pej.*
 1O-ask-ITER ?again/DPST
 ‘Repeat the question for me.’ (Lit. ‘Ask me [the question] again’)
 Also: ‘You were asking me a question (some time ago).’¹³

In the latter cases *pe(j)* usually keeps its own word stress. The question as to whether this is a case of polysemy or homonymy remains to be seen.

This morpheme can also follow postpositional phrases, as in (25), and even occur – though not very often – as a freestanding morpheme, as in (26). With the meaning ‘always, every time’ *pe(j)* can follow a negation in optative nonverbal-predicate constructions, as (27) shows. It is worth noting that *’naka-yi* (built up by the demonstrative *’naka* ‘this [ostensible, touched]’ and a postposition) usually means ‘now’, i.e., ‘this moment’, but when followed by *pe(j)* it means ‘then’, as in (25). This might be better analyzed as an instance of local scope on the PP *’nakayi* ‘in this/that moment’, which specifies its meaning and this, in turn, locates the whole proposition in the distant past.

- (25) *A-’wen-a-ta ta’a ki in-antik ti paj-’yi,*
 1A-see-MOM-FR already D₄ IND.POSS -word COMP [3S]time.pass-P(= before)
 ‘I had already heard the word [i.e., the Bible] before,
’na-ka-yi pe jl-a’am ti je si-jwey-e.
 D₁-SUF-P DPST 3POSS-PRO(= but) COMP NEG 1S_O-have.the.courage-P
 but I was afraid of it by then.’
 (Drayson et al. 2000: 102)

¹³ The ambiguity of this sentence is explained as follows: (a) according to person hierarchy in Chorote (Section 2.1), the first person always prevails over the others, and thus in ‘you were asking me [a question]’ only the object ‘me’ surfaces, and not the subject ‘you’; (b) imperative sentences also show person hierarchy, and there is no special marking for objects in the imperative, thus the declarative and the imperative sentences are isomorphic. In the former case, as expected in a non-future declarative sentence, *pej* is interpreted as distant past, but of course not in the latter case.

- (26) *Pe[j]* *ti laj-k'i pa 'nayij-a 'ne syu-'nye a-wa-k-ï'.*
 DPST COMP [3S]there.not.be-P D₆ road-IRR then *syu*-D₁ 1S_A-be-1pl.S_A-P
 'Some time ago there was no road [to the river] like there is now.'
 (Drayson et al. 2000: 92)
- (27) *Ka je-ye-pe wat ka-tojw.*
 COMP NEG-IRR-every.time so.much COMP-[2A.IRR]eat
 'Do not eat too much.' (Lit. 'May what you eat never be too much.')

These facts, in connection with the peripheral position of the marker when it attaches to the verb (following applicatives, see Section 2.2) and its optionality, strongly suggest that it should be considered an adverb rather than a functional head. This will be picked up in Section 7.

3.2 Independent nominal *pe(j)*

This marker can also follow nominal expressions conveying the meaning of distant past (the meaning of 'every (time)' is not well documented in my material with nominals and will not be considered in this section).¹⁴ It can phonologically encliticize to the preceding noun or keep its stress accent (at least a secondary one) under circumstances which are not fully clear to me.¹⁵

- (28) *Je 'eš jl-am ti a-wa-ky-e taj-a*
 NEG [3S]be.good 3POSS-PRO(= but) COMP 1S_A-be-1pl.S_A FR-P
 'But when we arrived to
jlajá-k i'nyát-pe[,] i[m]am! i^[j]Yi'me'!
 F;D₅-SUF pool-DPST INTERJ 3S;be.dried.up;P
 that old pool, it was dried up!
 (Drayson et al. 2000: 114)

¹⁴ See the following example, where the nominal itself is a temporal expression:

... *jloma-pe ka wen-ts'em ni ja-tyuw-a.*
 day-DPST COMP [2A.IRR]give-1pl;P D₂ PRSP-eat-1pl.A
 '... give us [something] to eat every day.'
 (Lc 11: 3)

Notice that *jloma-pe* 'every day' is overtly fronted, as is regularly the case in Chorote with quantificational expressions. Since the distant past meaning of *pe(j)* with a nominal scope can also occur in sentences where the event takes place in the future, as is the case here, this fronting seems to prevent that interpretation.

¹⁵ Second-hand sources sometimes show *pe(j)* attached to the preceding word and other times as an independent word; however, this does not necessarily reflect its prosodic behavior.

Since the nominal expression and the eventuality denoted by the clausal predicate usually have (or admit) the same temporal interpretation (recall that temporal marking on the verb is optional in Chorote), the nominal scope of *pe(j)* is not always obvious. Thus, for example in (28), both the arrival and the pool are interpreted in the distant past. However, (29)–(31) clearly demonstrate the existence of an independent *pe(j)*: propositional scope for *pe(j)* is impossible in (29), given that the eventuality cannot be interpreted as taking place in the past. The same applies to (41) and (42) below, where the event denoted by the verb is interpreted as a future one; note that, if it had propositional scope, the ‘always’ meaning would be expected for *pej*. In (30), *pej* occurs on both the noun and the verb and hence cannot be considered a propositional TAM clitic that attaches to nouns or verbs for only syntactic reasons.¹⁶ In (31) there is not even a main predicate: this expression has been recorded by the anthropologist Alejandra Siffredi (1973: 81) as an isolated nominal expression referring to the mythical people of past times (the co-occurring morph *-tʰi* will be addressed in Section 5).

- (29) *A-taj en-ay-i ʼaté syo-jo-pa Lot ji-kʼyemjla tʰi-pijl].*
 2POSS-sight put-2pl-P like.this SYU-F-D₆ Lot 3POSS-spouse CONJ-DPST
 ‘Think about (lit. ‘put your sight on’) Lot’s wife.’
 (Lc 17: 32)

- (30) *Syu-pa yos tʰi-pij y-am-a -tʰi-pij.*
 SYU-D₆ fox CONJ-DPST 3S-go.away-MOM-CONJ-DPST
 ‘The (primordial?) fox left.
Y-am-a -tʰi-pij ti i-jyut-ij-kʼi-jin pa ajwéna
 3S-go.away-MOM-CONJ-DPST COMP 3A?-push-P-P-JEN D₆ bird
 He went away in search of that bird
*jl-e i-yo ʼaté istôʼn.*¹⁷
 3POSS-name 3S-v like.this condor
 whose name is “*istôʼn*” [= condor].’
 (Gerzenstein and González 2004)

- (31) *iʼnyó-l tʰe-pij*
 person-PL CONJ-DPST
 ‘people of past times’
 (Iyoʼawujwaʼ dialect)¹⁸

16 This duplication of markers is also found in the sister Wichí language, see Terraza (2009: 79–80).

17 The word *istôʼn* belongs to the Iyoʼ(a)wujwaʼ dialect.

18 This expression also occurs in the Iyojwaʼ(a)jaʼ dialect as *iʼnyóʼ tʰipi(j)*.

In view of this, it is clear that, at least in the default case, *pe(j)* has nominal scope when it attaches (or is adjacent) to nouns, though admittedly propositional scope cannot be discarded in all cases (see (71) below, where *pe(j)* forms a clitic cluster with the reportative *jen*, which appears to have propositional scope). On the other hand, a nominal *pe(j)* might contribute indirectly to the temporal location of the eventuality, namely by allowing pragmatic inferences when there is no overt marking on the predicate. This is even more evident when the nominal carrying *pe(j)* is itself a temporal expression, as in (32).

- (32) *Syu-pa jloṃa t'e-pí(j)*¹⁹ *yos i-'win ja-pa lesini*.
 SYU-D₆ day CONJ-PREM FOX 3A-ver F-D₆ chañar
 'That day the fox was looking at a *chañar* fruit.'
 (Gerzenstein and Aldana 1971)

3.3 Nominal tense?

A question relevant for linguistic theory is whether *pe(j)* actually encodes a past tense or some other category. Markers showing similarities to *pe(j)* have usually been considered nominal tense markers in other languages (see Nordlinger and Sadler 2004a and references cited there), though Tonhauser (2006, 2007, 2008), focusing on Paraguayan Guaraní, rejects such an analysis and proposes instead that they encode aspect (2006) or some other category (2007, 2008).

- (33) *pa'i-kue* (Paraguayan Guaraní)
 priest-KUE
 'former priest'
- (34) *bisikleta-kue* (Paraguayan Guaraní)
 bicycle-KUE
 'old/broken bicycle'
- (35) *du-sa-do-miki-ru* (Tariana)
 3sg.NF-spouse-F-NOM.PAST-F
 'his late spouse'
 (Aikhenvald 2003: 185)

¹⁹ Note that, despite its non-final unstressed position, the evidential marker is spelled out [t'e] and not [t'i], which is doubtlessly a dialectal matter.

- (36) *che mena-kue* (Paraguayan Guaraní)
 1sg.POSS husband-KUE
 ‘my ex-husband’

Example (33) is a typical case of what Tonhauser calls the *terminative (aspect)*: the property that defines the individual as a priest has terminated. (34) can have a similar reading, though a slightly different reading is also possible: the entity is still a bicycle, but it does not function as such anymore. In (35), *-kue* entails the termination of the existence of the entity. In (36), the noun is involved in a possessive relation, and *-kue* indicates the end of that relationship – not of an individual’s property or of his existence, i.e., *-kue* takes scope over the SN/SD and not only over the N. In order to explain the semantics of *-kue* (and that of *-rã*, cf. Section 1), Tonhauser (2007: 837) establishes a three-way distinction:

- (37) a. The *noun-phrase time* (t_{np}) is the time at which the whole noun phrase is interpreted.
 b. The *nominal time* (t_{nom}) is the time at which the property denoted by an (intransitive) nominal predicate is true of the individual(s) denoted by the noun phrase.
 c. The *possessive time* (t_{poss}) is the time at which the possessive relation denoted by a possessive or transitive nominal predicate is true of the possessor and the possessed.

She argues that *-kue* appears when t_{np} does not coincide with t_{nom} , as in (33)–(34), or with t_{poss} , as in (36). Formal definitions of tense involve the utterance time and/or the reference time (or equivalent notions), which are found as far back as Reichenbach (1947) and in much subsequent work (for specific references, see Tonhauser 2007: 857 and Section 3 in general). Considering these notions are not necessary to explain *-kue*, along with many other reasons, Tonhauser concludes that it is not a tense marker.

In what follows, I adopt the distinction of (37) with a slight modification, namely I will refer to the *time of the entity*, rather than to the noun-phrase time (t_{np}). The time of the entity is the time at which the existence of the entity referred to by the DP/NP is interpreted. This will prove helpful in order to explain Chorote TAM markers and its difference regarding Guaraní and other languages. Similarly and for reasons of terminological consistency, I will refer to the *time of the property*, rather than to the nominal time.²⁰ Importantly, t_{np} is not

²⁰ Referring to *entity* and *property* appears more consistent, since both expressions, like *possession*, are basically semantic notions, while the NP/nominal expressions are morphosyntactic.

the same as the time of the entity. Tonhauser gives (38) as a case where t_{np} is interpreted as prior to the utterance time:

- (38) *Every fugitive is in jail now.*
(Enç 1981: 38)

However, one could argue that it is only the property of being a fugitive that is interpreted as prior to the utterance time (and, at most, the noun *fugitive*), and not the existence of the entities of which this property is predicated, which may actually be interpreted as present, i.e., *every [currently existing individual who was formerly a] fugitive is now in jail*. (In view of this, one could even consider extending this to the whole DP/NP and say that the DP/NP time in tense in Enç's example of (38) is present, rather than past. In fact, it is not clear how t_{np} as defined by Tonhauser should be determined for a noun bearing *pe[j]* in Chorote).²¹ If (bare) noun phrases are predicates (Williams 1981; Higginbotham 1985; Heim and Kratzer 1998) and referentiality is provided by a determiner (Abney 1987), overtly or covertly, the referent (i.e., what the whole DP refers to) is then located by default at the utterance time, and only the property denoted by the noun *fugitive* is interpreted in the past.

Contrast (38) with the following example:

- (39) [The speaker enters a room where a sick man was supposed to be, but that man is now fully recovered. Then (s)he says]
The sick man is fully recovered now.

It is easy to agree that what should be interpreted as prior to the utterance time is the stage-level property of being sick, expressed here by an adjective, and not the

²¹ Since Tonhauser predicts that *-kue* is absent when t_{np} and t_{nom} (or t_{poss}) coincide, and t_{nom} is evidently past in Enç's example, the absence of *-kue* in its Guaraní equivalent would prove that t_{np} is past there too, i.e., it coincides with t_{nom} . This is confirmed by Guaraní data: the Guaraní translation of (38) does not include *-kue* (Tonhauser 2007, Ex. (38c); the speakers I consulted offered translations without *-kue* too, though they considered versions with *-kue* are also acceptable).

In any case, as Alexiadou (2009: footnote 7, citing Boris Hasselbach, p.c.) points out, it is worth noting that these interpretational effects are crucially dependent on the lexical content of the predicate, and they disappear if one replaces *jail* with e.g., *restaurant*, in which case the property of being fugitive is true at the utterance time. She suggests then that what happens in Enç's example is a pragmatic phenomenon. Note that this also holds for the examples provided in (39–40), where similar effects can be seen if *recovered/recuperado* is replaced by, say, *asleep/dormido*. I further suggest that the information structure may have something to do with the (optional) absence of *-kue* in the Guaraní equivalent of Enç's example: the new information is that certain people are in jail; until that is said, they must still be fugitives for the hearer. Therefore, saying in advance they are not fugitives anymore by attaching *-kue* sounds odd regarding the information structure (though not unacceptable), as the "new information" would actually not be new.

existence of the entity which is sick or the individual-level property (which is necessarily linked to the existence of the entity) of being a man as expressed by a noun. Moreover, one could also say *the formerly sick man*, where the adverb modifies only the adjective. The Spanish equivalent of (39) has a syntactic structure similar to that of Enç's example, i.e., the subject involves just a noun and not a noun plus an adjective:

- (40) *El enfermo está totalmente recuperado.*
 The sick.man is fully recovered
 'The sick man is fully recovered.'

Analogously to (39), I argue that only the property of being sick (*enfermo*) is interpreted in the past, and not the (existence of the) entity of which this property is predicated (or the individual-level property of being a man).

Returning to the Chorote examples, the terminative reading is sometimes acceptable for *pe(j)*. It can be obtained in *i'nyát-pe*, cf. (28), which could be analyzed as 'something that used to be a pool';²² this resembles the "change of function reading" of (34) (the pool is still a pool but it does not 'function' as such anymore), even though one can hardly speak of "function" here. In (41) the "termination of existence" reading is possible, though this is not the only possible interpretation, and in (42) *pe(j)* indicates the end of the possessive relation.

- (41) *Ja-jyo-yi pa Carlos pej.*
 PRSP-go-P D₆ Carlos DPST
 'I will go to Carlos's grave.'
 Also: 'I will go see Carlos (whom I do not know personally).'

(Elicited)

- (42) *Ja-jyo-yi pa ji-'wet pej pa-pø kijil-as.*
 PRSP-go-P D₆ 3POSS-place DPST D₆-PL.h elder-PL
 'I will go to the former house of the elders [they have since moved, it is no longer their house].'

However, there are readings of *pe(j)* that cannot be explained as terminative. In Example (43) the individuals were alive at the reference time, and thus *pe(j)*

²² This might appear unexpected, since a pool is a natural kind and, according to Tonhauser, natural-kind nouns are excluded from terminative readings (2006, 2007: 842); she relates this to the fact that these nouns express permanent or final-stage properties, and thus cannot change their property without ceasing to be what they are. However, *i'nyát* (feminine) 'pool' might be a special case, and not denote a permanent property, but a temporary stage of water. Notice that *i'nyát* (masculine) means 'water, river'.

does not indicate termination of existence.²³ In addition, since the noun is a proper name, the termination of property/change of function readings are also impossible; notice that, unlike the Guaraní *-kue* but like the Tariana *-miki*, the Chorote *pe(j)* can modify nouns which denote individual level properties.

- (43) *Se-k-y-i-i ti t-'ajl-aj-a-yi 'ni Enrique,*
 D₃-SUF-3S-be-P COMP IMPRS-ask.for-IMPRS-MOM-P D₁ Enrique
 'Then they called Enrique
jl-a'yi-ki jlaja Iris pejl] misionéera,
 3POSS-companion-f(= and) F;D₅ Iris DPST missionary.woman
 and the missionary woman Iris,
syu-'neje jlaja Elizabeth pejl].
 SYU-also F;D₅ Elizabeth DPST
 and Elizabeth [as leaders].'
 (Drayson et al. 2000: 80)

Therefore, the only plausible analysis here is that *pe(j)* refers to the time of the entity and places it in the distant past or in an inaccessible spatiotemporal location,²⁴ just as it situates any eventuality when attached to main predicates. Thus, unlike the case of the Guaraní *-kue*, temporal information is grammatically encoded in the marker.²⁵

This conclusion seems to be supported by contrasting *pe(j)* with the six criteria proposed in Tonhauser (2008: 337–338) to diagnose if a temporality marker is a “true” tense marker. *Pe(j)* exhibits at least three: it affects the noun phrase it occurs with (property *a*), it attaches to nouns without regard to its semantics (property *c*) and it does not encode a state change (property *e*).²⁶ Property *d* states that the marker should encode a relation between t_{np} and the

²³ The language has the word *masá(j)* ‘dead, deceased’ (plural *masés*); this word usually comes after the noun to indicate that human beings or domestic animals are dead, see Example (21).

²⁴ According to one consultant, *Iris pej* means that the woman is not there anymore (unlike Enrique, who still was living there at the utterance time). However, absence could hardly be the whole story for *pe(j)*, since that same meaning is conveyed by the demonstrative *jlaja*, see Table 2.

²⁵ Admittedly, if the *pej* that means ‘always’ is the same marker as the one meaning distant past and not just a homonymous form, it is important to question whether temporal information is in fact encoded in it: the marker would mean ‘always/every time’ whenever the predicate is to be interpreted in the non-future (i.e., in imperatives, optatives and the relevant declaratives) and distant past elsewhere. However, it is difficult to imagine the meaning of such a vague marker (‘a long time [ago]?’). The ‘always’ meaning has been documented for a cognate in the sister Wichí language, but to my knowledge, the ‘DISTANT PAST’ has not.

²⁶ Recall the diagnostic refers to *encoding*, not *expressing* state change. The fact that there are readings where *pe(j)* does not express change indicate it is not encoded.

utterance time or another contextually given perspective time; although I have not analyzed *pe(j)* in terms of t_{np} , it encodes a relation between the time of the entity and the utterance time. As for property *e*, which also depends on the notion of t_{np} (“the noun-phrase time may be anaphorically resolved in discourse, parallel to the reference time of verbal tenses”) more research is needed, while the diagnostics of property *b* (The set of nominal tense markers of the language form a grammatical paradigm) is difficult to apply, since *pe(j)* seems to form a paradigm (i.e., cannot co-occur) with *-jej*, ‘PERFECT’ or *'ne(j)* ‘now; then’ but the latter do not express independent TAM. However, there are reasons not to consider it a Tense head, as will be discussed in Section 7.

If this reasoning holds true, the terminative readings mentioned above may be pragmatic inferences. However, there is still another possibility, which is that they may have a distinct syntactic structure. Namely, cases of terminative reading may be true free relatives whose predicate is the nominal expression. In this case, *pe(j)* would have scope only over the predicate, and not (necessarily) over its argument, just like in “regular” cases of verbal predicates. In this way, the nominal expression of (42) could be literally translated into ‘what used to be the house of the elders’. In contrast, cases where *pe(j)* refers to the time of the entity are simple nominal expressions that do not constitute a relative clause. Notice that examples like (43) clearly show that not all instances of independent *pe(j)* can be explained as relatives: if so, one would expect *pe(j)* to modify the “property” of being Iris, so that *Iris pe(j)* would be something like ‘what/who used to be Iris long ago’ (i.e., a terminative reading), which is not the case.

Finally, it is important to note that *pe(j)* is less frequent on nominals than the better-known Guaraní *-kue*. It appears quite regularly in stories when co-occurring with the conjectural *t'ey* (yielding thus the string *t'e-pi(j)* or *t'i-pi(j)*), where it is perhaps more common than the English *former*, *ex-*, *old* etc., but is otherwise somewhat unusual.

4 Irrealis

When it has propositional scope, the mood I call ‘irrealis’ in Chorote is very similar in its semantics and distribution to the Romance subjunctive. One of the most widely known proposals to explain the semantics of the Romance subjunctive is that it marks the proposition as a *non-assertion* (Bybee and Terrell 1974; Terrell and Hooper 1974; Hooper 1975). Refinements of this proposal as well as several alternatives have been put forward to explain cases where non-assertion does not seem to work; however, since it works for (at least) most cases

of Chorote irrealis, I will in principle assume that some version of this explanation is accurate for Chorote irrealis.²⁷ However, as has often been pointed out for the Romance subjunctive, the Chorote propositional irrealis must also be licensed by the relevant syntactic environment, as will be shown below.

4.1 On verbs, nominal predicates and negation

The irrealis mood is indicated on most verbs by a special set of person prefixes. In fact, the difference with respect to realis only surfaces in the “active” or $A + S_A$ prefixes, since in “inactive” or $O + S_O$, realis and irrealis are isomorphic. On nominal predicates and in the third person of the special class of adjective-like verbs, however, irrealis is indicated by a clitic *-a* (*-e* after a palatal).²⁸ The irrealis with propositional scope occurs only and obligatorily in three syntactic environments, following (i) the complementizer *ka*, (ii) the prohibitive particle *ke* and (iii) the prospective particle *ja*. The complementizer *ka* introduces some adverbial and complement clauses, as well as non-specific relative clauses; the former include future-oriented temporal clauses, counterfactuals or future-oriented conditionals, purpose clauses, etc.; the complement clauses introduced with *ka* are selected by intensionally opaque predicates like e.g., ‘want to’ etc. Non-specific relative clauses are those that refer to a nonspecific individual, akin to subjunctive relatives in Romance languages, cf. Spanish *Busco a una secretaria que habla inglés* / *Busco una secretaria que hablé inglés* ‘I am looking for a secretary who speaks (indicative/subjunctive) English’, where the former refers to a specific person, typically known by the speaker, and the second to a non-specific person, i.e., whoever is a secretary and speaks English. In environments (i) and (ii) Chorote irrealis is strikingly similar to the Romance subjunctive, though its distribution is somewhat broader than in, e.g., Spanish.

²⁷ For instance, a more recent version of the *non-assertion* hypothesis can be seen in Ahern and Leonetti (2004) who, based on Mejías-Bikandi (1994), relate (non-) assertion to an individual’s point of view, though not necessarily the speaker’s. It has been often argued that irrealis and subjunctive are not the same, since many clauses containing subjunctives do not express “irreality” (see de Haan 2012 for a recent discussion). In any case, “irrealis” is intended here as a morphosyntactic label rather than as a semantic notion. “Subjunctive” might have been an alternative but, since the nominal domain is involved here and the subjunctive is more associated to clausal syntax than irrealis, at least in terms of its etymology, I preferred to avoid it.

²⁸ Iyojwa’(a)ja’ Chorote avoids hiatus by inserting *y* between vowels; in addition, palatals (including *y*) trigger a process such as $a \rightarrow e$, among others. Thus, $V + a$ surfaces as $V\text{-ye}$. Moreover, a glottal stop is added before a pause when the word ends in a vowel, hence $-a \rightarrow -a' / _ \#\#$.

The following are examples of the three environments for regular verbs, for those belonging to the special class, and for nominal predicates. Notice that ‘want’ is usually expressed in Chorote through a light verb with multiple meanings (‘say’, ‘do’, ‘be’ etc.), hence it is glossed as *v*.

(44) Environment (i)

- a. *A-wo ka n-kijme'n* regular verb
 1S_{A-V}[P] COMP 3S.IRR-grab;*JEN*(= work)
 ‘I want him/her to work’
- b. *A-wo ka jwəsyej-a'* “special” verb
 1S_{A-V}[P] COMP [3S]be.bad/angry-IRR
 ‘I want him/her/it to be angry.’
- c. *A-wo ka i-sijmat-is-a'* nominal predicate
 1S_{A-V}[P] COMP 1sg.POSS-property-PL-IRR
 ‘I want [those things] to be mine.’

(45) Environment (ii)²⁹

- a. *Ká (a)-kijme'n* regular verb
 PROH (2S_A).IRR-grab;*JEN*(= work)
 ‘Do not work.’
- b. *Ké in-jwəsyə* “special” verb
 PROH 2S_A.IRR-be.bad/angry
 ‘Do not be angry.’

(46) Environment (iii)

- a. *Ja-n-kijme'n* regular verb
 PRSP-3S.IRR-grab;*JEN*
 ‘(S)he will work.’
- b. *Ja jwəsyej-a'* “special” verb
 PRSP [3S]be.bad/angry-IRR
 ‘(S)he/it will be angry.’
- c. *(Syu-pu-wa) ja i-sijmat-is-a'* nominal predicate
 SYU-D₆-PL.h PRSP 1sg.POSS-property-PL-IRR
 ‘(Those things) will be mine.’

²⁹ The verb *-jwəsyə* ‘be bad, be angry’ selects S_O prefixes, which are the same for realis and irrealis, as stated above; verbs of this class are semantically inactive and thus not always compatible with the prohibitive. As for nominal predicates, I found no examples of them with the prohibitive in my data.

The distribution of the irrealis prefixes and *-a* shows that they are two different surface forms for the same irrealis feature; recall that “special” verbs show *-a* only in the third person, whereas in the others irrealis is marked like any normal inactive verb, i. e., through person prefixes where realis and irrealis are isomorphic, cf. (46b) with *Ja si-jwəsyə* ‘I am going to be angry’.³⁰ Nominal predicates include not only nouns (with or without possessive prefixes) but also personal pronouns³¹ and nominal constructions, which also take *-a*, cf. (47)–(48). Notice that (48) provides evidence for labeling *-a* a clitic rather than a suffix; further evidence is provided below in this section.

(47) *Ja y-am-a’*.
 PRSP 1sg.POSS-PRO-IRR
 ‘It will be me.’

(48) *Ja kya’li-s ink’yéjyis-a’*.
 PRSP boy-PL new;PL-IRR
 ‘They will be *new* boys [i.e., of the new generation].’

In cases of VP ellipsis with negation, as in (49), the irrealis mood is indicated by attaching *-a* to the negation morpheme:

30 Inactive “non special” verbs also distinguish realis and irrealis in the third person but through different prefixes, just like active verbs: cf. realis *i-jwijlya’n* ‘(s)he dreams’ and irrealis *in-jwejlya’n*.

The opposition realis-irrealis exists in other Mataguayo languages, as do cognates of the irrealis enclitic *-a*. However, in Maká it is not clear that the latter is in complementary distribution with the irrealis prefixes, since *-a* can co-occur with a “regular” verb in realis mood, contrasting with irrealis (“subjuntivo”) prefixes:

(i) *Ham i-ma-ye*
 not.exist 3S-sleep-SUF
 ‘Nobody sleeps’.

(Gerzenstein 1994: 213)

Contrast (i) with *na-ma’* (3S.IRR-sleep) ‘(s)he sleeps [IRR]’ (Gerzenstein 1994: 88). In the example above, one could assume that the verb heads a free relative, i.e., ‘there is nobody that sleeps [IRR]’, like in equivalent sentences in Chorote. Thus, *-a* would modify the entire clause and, considering the nominal properties of relatives, *-a* would still be some kind of nominal irrealis. However, Gerzenstein (1994: 216) provides further examples where the relative analysis does not seem to work. The Chorote equivalent of (i) would use the regular irrealis personal prefixes, not *-a*; cf. (55) and (56).

31 Personal pronouns are built up by a possessive prefix plus a pronominal root *-am*.

- (49) ... *ma yu'-we ni ayínye ti ji-'wole i-tyo-jyi-ts'i?*
 DUB 3S;fit?-P D₂ male COMP 3POSS-hair 3S-long-P-P
 '... is it acceptable for a man to have long hair?
¡A-jwel-ta ka je-ye!
 1A-say-FR COMP NEG-IRR
 I do not think so! (Lit. 'I would say it is not.')

(1 Cor 11: 14)

In the last sentence of (49), the verb *yu'we*³² 'it looks good; it fits; it is OK' is deleted; the long answer would be *ajwelta ka je i'no'-we* (3S.IRR;enter-P), where irrealis is marked through the personal prefix *in-* (3S.IRR), just like in any normal verb. Notice that only the verb is deleted, but not the irrealis feature, which rises to negation and is spelled out *-ye* (the regular postvocalic allomorph of *-a*). This is additional proof that *-a* is a clitic and not verbal inflectional morphology when it indicates propositional mood. In view of this, I propose that when it has nominal scope, it is also a clitic (and not a nominal inflectional suffix), and that its nominal scope is owed to its structural position. Additionally, (49) confirms again that *-a* and the set of irrealis prefixes are exponents of the same feature.

4.2 Independent nominal irrealis

The enclitic *-a* also appears on nominals when they are argumental (i.e., not nominal predicates). When this happens, *-a* only has scope over the nominal and usually indicates that the existence in the actual world of the entity denoted by the noun is not asserted at the reference time. Notice that when the nominal is preceded by a demonstrative, it is always *pa* 'unknown'.³³

- (50) *Ka pø-ye ja-pa ji-ka -makinaj-a', y-am-taj-'ni.*
 COMP [3S]exist-IRR F-D₆ 3POSS-AL-car-IRR 3S-leave-FR-ITER
 'If they had a car, they would leave.'

³² This verb is constructed by the root 'u 'fit?' and the punctual locative applicative/ postposition *-e*, which in this case takes an arbitrary null complement.

³³ It seems that Chorote demonstratives are not necessarily definite, or at least D₆ *pa* 'unknown', in view of its distribution in e.g., (50); otherwise its co-occurrence with a marker linked with non-referentiality such as *-a* could not be explained. In this connection, D₆ *pa* may be regarded in these environments (but not in others! see e.g., [4] = [29]) more as an indefinite article than as a determiner, though it clearly forms a paradigm with the other determiners.

- (51) *Laj-k'i pa-pq kiláyi-ye'*.
 [3S]there.not.be-P D₆-PL.h white.man-IRR
 'There were no white men [in the area by then].'
 (Drayson et al. 2000: 96)
- (52) *Ja-y-imin pa y-as-a'*.
 PRSP-1A.IRR-love D₆ 1POSS-son-IRR
 [The speaker will have a son] 'I will love my future son.'
- (53) *'Yen-na'a, ja-n-e-'yi ja-pa jloma-ye*
 look-NEFUT PRSP-3S.IRR-be-P F-D₆ day-IRR
 'Look, the day will come
ka 'win-aj-a-na'a na-ka.
 COMP [1A.IRR]see-1pl.A-MOM?-NEFUT D₂-SUF
 when we will see those things.'
 (Drayson et al. 2000: 112)

In (50)–(51) the entities denoted by the nouns simply do not exist at the reference time, while in (52)–(53) they do not *yet* exist, although they are expected to exist at a later point in time, which is partly coincident with the reference time indicated by prospective *ja*. Note that the non-assertion of existence is true for the reference time and not for the utterance time or the event time: example (51) was taken from a story about Santa Victoria Este, a town where many white people now live; in spite of this, *kiláyi* 'white people' takes *-a*, indicating the non-assertion of existence at a reference time contextually located in the distant past. In this way, the semantics of verbal and nominal irrealis are unified, as both indicate the non-assertion of an eventuality. The difference is that in the latter case the eventuality is an existential predicate about the entity denoted by a noun.

Notice that, unlike with *pe(j)*, I have not been able to document cases where the non-assertion refers to the property denoted by the noun and not to the existence of the entity. This also contrasts with nominal predicates; see e.g., (48), where non-assertion does refer to the property of being new boys and not to their existence. However, one cannot exclude readings where non-assertion refers to possessive relation *prima facie*, as may be the case in (50) and (52). Nevertheless, these cases cannot be explained assuming the NP is the predicate of a free relative, as suggested for *pe(j)* when modifying a possessive relation, since that predicate would not have any of the irrealis selectors described above; recall that irrealis on the clausal predicate cannot be "freely" selected.

It is worth contrasting *-a* with apparently similar markers in other languages. Thus in (52)–(53), *-a* denotes future existence and resembles the ‘nominal future/prospective’ morphemes found in Tupi-Guarani and Cariban languages; however, (50)–(51) clearly show that *-a* cannot be reduced to the future. On the other hand, in Tundra Nenets morphemes that indicate future possession have been reported; when a noun in a possessive construction is marked with certain morpheme (“predestinative”), this indicates that the entity denoted by the noun will be possessed by the possessor, but not necessarily that it exists at the utterance time (Nikolaeva 2009). In this regard, (52) fits this description; however, in Chorote future is not necessarily involved and neither is possession, as (51) and (53) show.

The fact that the scope of *-a* is only nominal and not propositional can be clearly seen in (51), where the main predicate is in realis mood (see also (26) above). Conversely, nominals without *-a* can co-occur with main predicates in irrealis mood, as e.g., would be the case in (52) if the speaker’s son had already been born; see also (55) below. This also shows that the phenomenon considered here is not a “mood agreement”, analogous to the tense agreement exemplified in (2).

Moreover, the contrast between (50)–(51) and (54)–(55) shows that nominal irrealis is not determined only by the predicate of which the nominal is an argument (typically the main verb). Instead, its selection depends on a broader context that includes higher predicates and operators taking scope on that “immediate” predicate. The selection of the nominal *-a* has to do with the (non-)existence of the entity at the reference time, which is only partially dependent on the “immediate” predicate. Thus, in (54)–(55), even though these predicates denote non-existence, the nominals lack *-a*.

- (54) *Je a-jwe’el ka laj-a-t’i-k’i-pe pa ’nayi.*
 NEG 1A-say COMP [3S]there.not.be-IRR-CONJ-P-DPST D₆ road
 ‘I do not mean there was no road.
Pq-ye-ta, ’yina ti je isaj-k’i.
 [3S]exist-MOM-FR but COMP NEG [3S]wide-P
 There was one, but it was not wide enough.’
 (Drayson et al. 2000: 96)

- (55) *Ka laj[-a]-k’i ni-wa in-amt-is,*
 COMP [3S]there.not.be-IRR-P D₂-PL.nh IND.POSS-WORD-PL
 ‘If it weren’t for the word [i.e., the Gospel]
laj-ta-k’i pa ka tyuw-a.
 [3S]there.not.be-FR-P D₆ COMP [1A.IRR]eat-1pl
 we would have nothing to eat.’
 (Drayson et al. 2000: 76)

In (54) the subordinate predicate denotes non-existence, like in (51), but the proposition is in turn within the scope of a negative predicate ('I do not mean ...'). The speaker thus implies that the referent (the road) existed in the actual world at the reference time and, as a result, the noun does not take *-a*. Something similar holds for (55), where the predicate of non-existence is included in a counterfactual conditional.

Two remarks are in order regarding the argument of *laj* 'there is no(t)'. First, when it is a free relative, its predicate can select irrealis, even if embedded in a counterfactual, as seen in (56). In such cases, the irrealis is probably due to the fact that the relative ('what they find') is nonspecific.³⁴

- (56) *Ka laj-a-k'i pa ka n-'wen-is ka*
 COMP [3S]there.not.be-IRR-P D₆ COMP 3S.IRR-see-3pl COMP
'esy-e-yis-i ka-n-tajl-a⁽³⁾m ni tewuk.
 [3s]be.good-IRR-3pl-P COMP-3S.IRR-come-P D₂ river
 'They live off what they find that comes from the river' (lit. '[They could not live] were it not for what they find to live off of (that which comes) from the river.'
 (Drayson et al. 2000: 8)

Second, when the argument of *laj* is a nominal lacking a demonstrative determiner,³⁵ *-a* occurs obligatorily, cf. (54) with (57).

- (57) *Na-k je a-jwel ka laj-a ji-wet'ya-ye.*
 D₂-SUF NEG 1A-say COMP [3S]there.not.be-IRR 3POSS-danger-IRR
 'I do not mean that there is no danger in here.'
 (Drayson et al. 2000: 16)

In the latter construction, the nominal shares some of the properties of incorporated nouns (though see footnote 35). Thus *-a* depends solely on the subordinate predicate *laj*; in other words, the noun (here *ji'wet'ya* 'danger') cannot "see"

³⁴ The expression *ka lajak'i X* ('if there was not X', 'were it not for X') is relatively lexicalized. In these cases, it may be translated by 'thanks to X'. One might assume that it is not a real conditional here, since no apodosis is implied, see (56). The presence of irrealis on the complement relative clause might also be related to this.

³⁵ Notice that this is not equivalent to a bare noun, since the phenomenon described here also occurs when the noun takes a possessive prefix and even with complex nominal expressions, see (59f).

- e. *I-yo jl-ɔp-a'* 'a bird] builds up its nest'
 3S-V 3POSS-nest-IRR
- f. *I-yo jl-ɔsik ink'yéy-e'* '(s)he converted [to the new religion]', lit.
 3S-V 3POSS-soul NEW-IRR '(s)he made/has a new soul'

In all these cases, the existence of the entity denoted by the nominal is not asserted. In (59a)–(59b) the verb's meaning provides an opaque context in which irrealis may be expected. Examples (59c)–(59d) may seem somewhat surprising, since the verbs do not provide an opaque context *per se*. Irrealis here conveys a final meaning, a well-known phenomenon in the Romance subjunctive.³⁸ An alternative (or rather complementary) view is to assume that the irrealis enclitic on the nominal changes the main predicate's meaning, turning it into an opaque context ('go for', 'come for'). Unlike other verbs in (59), those in (59c)–(59d) can stand alone as the predicate of a sentence (*ya'm* '[s]he left', *na'm* '[s]he came'). In (59e)–(59f) it is difficult to determine the basic meaning of the light verb (see below) but there is no question as to the non-assertion of existence: the nest and the new soul do not exist at the beginning of the event.

In other cases involving the light verb of (59e)–(59f), however, the connection with irrealis is not as clear. This verb can be translated as 'be, become, use, make', etc. depending on the nominal expression.

- | | | | | |
|---------|--------------------|--------------------|-------------------------------|--|
| (60) a. | <i>kya'le</i> | 'boy' | <i>i-yo kya'lej-a'</i> | 'he is a boy; he is young' |
| b. | <i>talɔk</i> | 'blind' | <i>i-yo talɔky-e'</i> | '(s)he went blind' |
| c. | <i>tɔkis</i> | 'soldier' | <i>i-yo tɔkisy-e'</i> | 'he becomes a soldier' |
| d. | <i>sintí'i</i> | 'liar' | <i>i-yo sintí-ye'</i> | '(s)he lies' |
| e. | <i>ji-jwəsyut</i> | 'his/her string' | <i>i-yo ji-jwəsyuty-e'</i> | '(s)he puts his/her string on' ³⁹ |
| f. | <i>ji-k'yemjla</i> | 'spouse' | <i>i-yo (ji-)k'yemjla-ye'</i> | '(s)he has a wife/husband' |
| g. | <i>jl-e'</i> | 'his/her/its name' | <i>i-yo jl-ey-e'</i> | '(s)he names' |

³⁸ Subjunctive relative clauses can have a final meaning; notice the following example (from Pérez Saldanya 1999: 3283), where the verb *per se* provides no opaque context. *Le compramos algo que lo entretuviera*. 'We bought him something that amused [SUBJUNCTIVE] him', i.e., 'we bought him something to amuse him'.

³⁹ When the people go fishing, they thread their daily catch onto a string that they wear wrapped around their bodies.

Nevertheless, in all cases in (60), the nominals work not as arguments but rather as predicates. In fact, they constitute the true main predicate, since the light verb is semantically empty. Thus, for instance, *ji-k'yemjla* 'his/her spouse' in (60f) is non-referential: it does not refer to the actual husband or wife of the participant, and no assertion of existence is made. In this way, (59)–(60) receive a unified explanation, and the “non-referential” meaning of *-a* when attached to nominals without a demonstrative can be maintained.

In summary, the special cases considered in this section are still instances of nominal irrealis, even though nominals in these constructions – especially those in (60) – are even “less referential” than those preceded by a demonstrative.

5 Conjectural (evidential or epistemic modal) *-t'ey*

5.1 On verbs and other word classes

The marker *-t'ey* (*-t'i*, *t'e*)⁴⁰ on a clausal predicate often indicates that the speaker is not completely certain of the truth of the proposition the eventuality describes, though (s)he feels it is highly probable.

- (61) *I-ya-t'i-'ni* *mati-ji'*
 3S-drink-CONJ-ITER *mate*-P
 '(S)he is drinking *mate*.' [The speaker cannot see it, but conjectures it by e.g., hearing the noise of the liquid moving through the *mate* straw]

In (61), *-t'i* may look indistinguishable from an indirect (inferential) evidential as defined in Willett (1988). Nevertheless, according to some of my consultants, *-t'i* may be omitted in cases like (61) if the speaker is certain that the participant is drinking *mate*, even if (s)he does not see the event taking place. Hence, it seems that it should be analyzed as an epistemic modal instead of a true indirect evidential; in other words, it says something about the speaker's commitment to the truth of the proposition, not about the information source. However, in other cases it looks more like a true evidential.

- (62) *Syu-pu-wa* *i-yo-t'iy-i-pi* *na-pø* *in-jlø-jwajnas*
 SYU-D6-PL.nh 3S-V-CONJ-P-DPST D₂-PL.h IND.POSS-send-NMZ;PL(= apostles)
 'What the apostles did.'

⁴⁰ *-t'ey* is the underlying form. Semivowels are deleted in coda and *e* → *i* in medial unstressed syllables, so *-t'i* is the most common surfacing form.

Example (62) translates the title of *Acta Apostolica*, and it is difficult to imagine a believer expressing doubts about the facts (s)he is describing; rather, *-t'iy* here seems to indicate that the speaker has not witnessed the events (s)he is describing. A similar analysis may be posited for mythical and historical narrations where *-t'ey* occurs, cf. (30); as can be expected, *t'ey* is usually not translated by bilingual speakers in these cases. Undoubtedly, the semantics of *-t'ey* deserve more research and a thorough discussion of the subject exceeds the scope of this paper. I tentatively suggest that the analysis proposed in Faller (2002, 2007) for the Quechua conjectural *-cha* is plausible for Chorote *-t'ey*. According to Faller, this morpheme is both an evidential and an epistemic modal, considering that, as she argues (following van der Auwera and Plungian 1998), both concepts, though different, overlap in the concept of *inference*: “On the one hand, inference is a way of ‘acquiring’ information through reasoning. On the other hand, inference expresses the speaker’s judgment that the proposition expressed is necessarily true. It is not possible to separate one from the other, and I therefore conclude that inference is a subtype of both evidentiality and epistemic modality.” (Faller 2002: 10).

It is not clear whether *-t'ey* is an “optional” or an “obligatory” marker. In this connection, it is worth noting that it does not occur on *every* predicate describing the acts of participants in stories of past events that were not witnessed by the speaker. However, it does appear much more frequently than the distant past *pe(j)*; roughly, it appears in more than 50% of such predicates (or much more, depending on the speaker) and, less frequently, in predicates describing the background of the story.

Besides verbal and nominal predicates, *-t'ey* with propositional scope occurs in a wide range of morphosyntactic environments. It can attach to the negation particle (63), to *wh-* constituents (65) and, when co-occurring with the frustrative *-taj*, to the proclitic (probably related to the information structure) *syu-* (64). Finally, it can also occur as a freestanding stressed morpheme, especially in questions (66a).⁴¹ In all these cases it takes propositional scope; in the latter, it can also focalize the VP (cf. (66a)–(66b)). Moreover, the expression *t'eyi* (presumably *t'ey* plus the intensifier enclitic) is used as an answer to yes/no questions, meaning ‘who knows?/I do not know’, (67). All of this proves that *-t'ey*, when not an independent word, is a clitic and not inflectional morphology.

- (63) *Je-t'i i-li-tyej-e-pe ti t-amti-'ni ja Pedro. ..*
 NEG-CONJ 3S-leave-FR-P-DPST COMP 3S-speak-ITER D₅ Pedro
 ‘Pedro was still speaking.’ (Lit. ‘had not stopped speaking’.)
 (Mt 17: 5)

⁴¹ Especially in questions, *t'ey* is usually translated by the conjectural future in Spanish, e.g., ‘¿Quién *habrá* llegado?’/‘¿Quién *será* que llegó?’ for (65).

- (64) *Syu-t'i-tye ka 'yas-a-jiyin pet,*
 SYU-CONJ-FR COMP [1A.IRR]question-2pl-JEN in.turn
 'If I asked you questions,
kya-k ja-n-wo ja ká a-kyujly-e-k'i'm.
 D₄-SUF PRSP-3S.IRR-V[P] PRSP NEG 2_{S_A}-answer-2pl-1sg;P
 you would not give me an answer [to them].'
 (Lc 22: 68)
- (65) *¿Ten-t'e (= -t'i) pa 'nes?*
 WH-CONJ D₆ [3S]arrive
 'Who might have arrived?'
- (66) a. *¿Juan nam-e t'e na jl-as?* (free-standing, VP-focus)
 Juan [3S]come-P CONJ D₂ 3POSS-son
 'Has Juan perhaps brought his son?'
 b. *Juan nam-t'iy-i na jl-as.* ("regular" verbal position)
 Juan [3S]come-CONJ-P D₂ 3POSS-son
 'Juan must have brought his son'
- (67) A: *¿Ten-t'e pa?*
 WH-CONJ D₆
 'Who could it be?'
 B: *T'ey-i, me Gustavo.*
 CONJ-INTS? DUB Gustavo
 'I do not know, maybe Gustavo.'

5.2 Independent nominal *-tey*

This morpheme also attaches to nominals. Regarding its scope in such cases, the remarks made for the distant past *pe(j)* also apply here: a propositional scope cannot be totally discarded, though a nominal scope is the most plausible analysis in the default case. Examples demonstrating the latter are (29)–(31) above. In (29), the imperative is incompatible with a propositional scope interpretation for *-t'i* and in (30), the morpheme is repeated on both the nominal and the verb. Finally, (31) shows a nominal phrase in isolation.

The precise meaning of the nominal *t'ey* also deserves more research, since it may not be exactly the same as its propositional counterpart. Namely, in the examples analyzed here, it may indicate that the speaker has only

indirect evidence of (the existence of) the entity described by the nominal (i. e., evidential meaning), rather than expressing doubts about its existence. In (29), for example, it indicates that the speaker has known of Lot's wife through some indirect source, rather than expressing doubts about her identity or her existence.

6 Other markers as instances of nominal TAM

There are other cases of nominal TAM, but they are not as well documented in my material and/or it is not clear whether they can have a nominal scope. The morphemes considered here are the mirative *p'an*, the reportative *jen*, and the frustrative *-taj*. When attached to verbs, they are all A-clitics.

The morpheme *p'an* indicates *deferred realization* (de Reuse 2003) and/or surprise, hence the gloss 'MIR(ative)' (DeLancey 1997). It is relatively unusual in narrative texts but frequent in conversation.⁴²

- (68) *¡In-kaj-a-p'an-taj-a-pi!*
 3S-be.tasty-MOM-MIR-FR-P-DPST
 'It turned out to be tasty!'
 (Drayson et al. 2000: 42)

It can also function as a focus marker of different types of constituents and, as such, it can mark nominals.:

- (69) a. Neutral
Juan nam-p'an-e na jl-as
 Juan [3S]come-MIR-P D₂ 3POSS-son'
 '(It turned out that) Juan brought his son.'
- b. Focus on VP
Juan nam-e p'an na jl-as
 Juan [3S]come-P MIR D₂ 3POSS-son
 'Juan did bring his son.' [The speaker was not sure about it previously]

⁴² Speakers translate it into local Spanish as *había sido que V* ('it had been that V'), like the quite similar morpheme *ra'e* of Paraguayan and Correntino Guaraní (Avellana 2012; Melià et al. 1958: 70). The use of the Spanish pluperfect (equivalent to the English past perfect) to express unexpected information in vast areas of South America is a relatively well-known phenomenon, noted years ago by Kany (1945).

c. Focus on nominal

Juan **p'an** nam-e na jl-as

Juan MIR [3S]come-P D₂ 3POSS-son

'It was Juan who brought his son.' [Local Spanish: 'Había sido Juan el que ...']

The reportative *-jen*⁴³ attached to a verb can be seen in (70). Occasionally, it also attaches to nouns, as in (71). However, I have no clear evidence of it being able to have nominal scope – consultants' assessments of (71) and similar cases are not clear. Some consultants even consider these cases a bit odd, and usually propose rephrasing with *-jen* attached to the main predicate. This morpheme is undoubtedly a clitic, as can be seen in (72), where it follows the first word of the sentence despite having propositional scope. In the Iyo'awujwa dialect, it can also be a fully freestanding morpheme, see (73).

- (70) ... *Istón* [...] *tal* *pəli-yi*; *i-yo-jom-pe* *i'nyó-ye*
 ... Condor [3S]come.out heaven-P 3S-V-REP-DPST person-IRR
 '... Condor ... comes from heaven; he was human [hearsay],
ti *paj-'yi* *ti* *nelánjye'e* *t'i-pij*.
 COMP [3S]time.pass-P COMP beginning CONJ-PREM
 a long time ago, at the beginning.'
 (Gerzenstein and González 2004)

- (71) *Syu-pa-pə* *i'nyó'* *i-'win-a-ja* *ja* *Jesús* *syu-pi* *i-yon-e*
 SYU-D₆-PL.h person 3A-see-MOM-PERF D₅ Jesus SYU-D₆ 3A-do/say-P
 'Those people had seen what Jesus had done
pa-k *i'nyó-jim-pe* *ti* *ji-tye(j)* *je* 'es
 D₆-SUF person-REP-DPST COMP 3POSS-sight NEG [3S]be.good
 to the insane man.'
 (Mc 5: 16)

- (72) ... *se-k(j)in* *y-i-'i-pe* *syu-pi* *i'nyó'*^(s)
 D₃-SUF(=there)-REP 3S-be-P-DPST SYU-D₆ person
ji-kyo *t-'isyén* *y-i'lya-je'*.
 3POSS-hand 3POSS-meat 3S-be.dry-P
 'The man with the crippled (lit. 'dried up') hand was there.'
 (Mc 3: 1)

⁴³ When attached to a base ending in a vowel, in some varieties *e* assimilates to the preceding vowel, e. g. *pə-jen* → *pə-jən* 'there is [hearsay]'.

(73) Iyo'awujwa' dialect

Jem-pé[j] ti pə kyw-wa pəm-is ji-sawo.
 REP-DPST COMP [3S]exist D₄-PL.nh drum-PL 3POSS-house
 'It is said that there was a house of drums.'
 (Díaz and Gea 2008: 1)

Finally, the marker *-taj* conveys several diverse meanings. It usually focuses on the internal stages of the eventuality and excludes the endpoints, like an imperfective (Smith 1997 [1991]). As in normal imperfectives, this usually involves an interruption of the eventuality; unlike normal imperfectives, where the interruption is a pragmatic inference that can be cancelled (e.g., *we were playing and it started to rain, but we continued playing anyway*), however, with *-taj* it could be an entailment (Carol 2011c: 213).

(74) *Pə-ʃəm-pe pa i'nyó' i-jyo-ta Jericój-e, ti tal*
 [3S]exist-REP-DPST D₆ person 3S-go-FR Jericho-P COMP [3S]come.out
Jerusalén-ne. Y-i-t'i-pe 'nayij-i ti i-syuty-e-yi
 Jerusalem-P 3S-be-CONJ-DPST road-P COMP 3S-meet-MOM-P
pa-pə i'nyó' ka-lan-ki-jyeta-s.
 D₆-PL.h person ANTIP-take.from-ANTIP-NMZ-PL(= burglars)
 'There was [hearsay] a man who was going to Jericho from Jerusalem. On the way (lit. 'he arrived to a point along the way where') he met some burglars.'
 (Lc 10: 30)

(75) *K'yejli a-laki-tye ja-kya pelóta, ton-a-met.*
 Just 1A-play-FR f-D₄ ball [3S]drip?-MOM-hither(= rain)
 'I was just playing/starting to play football, and it started to rain.'

On the other hand, *-taj* may also indicate that the eventuality was completed but without results, i.e., a *frustrative* meaning. A clear example of this is (76); see also (64) above. Notice that some "imperfective" readings can also be considered instances of the frustrative: in (74) the trip started (i.e., the initial endpoint was reached) but it was not successful, etc. There are still other meanings of *-taj* that will not be discussed here (conditional, future, and antiperfect; for more information, see Carol 2011c, 2014: 327–337).

- (76) *A-jlo-ye-ta wata'a ka ijno-'wa-s-e kyu wat pet*
 1A-send-MOM-FR working.hard? COMP 3S.IRR;go-2-PL-P a.while so in.turn
ka jl-a'yi-s-a na-pø
 COMP 3POSS-companion-PL-IRR D₂-PL.h
si-'li-jwa-s, 'yina je ya-kajli.
 1pl.POSS-language-DRV-PL(= fellow men, brothers) but NEG 3A-can
 'I insistently told him (in vain) to go to see you together with our brothers,
 but he could not.'
 (1 Cor 16: 12)

The fact that *-taj* is a clitic can be seen in (64), (77)–(78). It occurs attached to the aforementioned proclitic *syu-* (64), the prospective particle (77a), the negative particle (78), and *wh-* constituents (79).

- (77) *Jo-ta y-ik ka tim-e ni i-sijmaye.*
 PRSP-FR 1S_A.IRR-go.away COMP [1S_A.IRR]finish-P D₂ 1sg.POSS-grab;NMZ(= job)
 'I would leave if I finished my job.'

- (78) *Jl-am-'ne je-ye-ta ka in-wo-yis-i-jyin*
 3POSS-PRO-then(= although) NEG-MOM-FR COMP 3S-V-3pl-P-JEN(= look.for)
 '[They found him] although they were not looking for
ka Si-nya i[n]-lesajne'n.
 COMP 1pl.POSS-father 3A-cuidar;JEN
 God to save them.'
 (Rom 9: 30)

- (79) *¿Ten-t'i-tye pa ka tyujw ... ?*
 WH-CONJ-FR D₆ COMP [1A.IRR]eat
 'What would you eat/have eaten [if you had been able to choose]?'
 Though rarely, *-taj* can also occur attached to nominals:

- (80) *Jl-am-pet ti 'ya'al syu-pa ji-k'yemjla-ta ...*
 3POSS-PRO-in.turn(= but) COMP 3S;die SYU-D₆ 3POSS-spouse-FR
 'But if (the one who was) her husband dies ...'
 (1Cor 7: 39)

The meaning *-taj* conveys in (80) is similar to the one it conveys as verbal TAM, but there are, in principle, at least three possible scopes of *-taj*: it may express the interruption of (a) the existence of the entity, (b) the possessive relation it enters in

or (c) the property of being a husband. For (b, c) readings, it is probable that the phrase should be analyzed as a free relative where *ji-k'yemjla-* is the nominal predicate. Nevertheless, in elicitation I have only documented *ji-k'yemjla-ta* with the meaning 'the one that was going to be his/her spouse', i.e., a reading where the initial endpoint of the relationship or the property is excluded, which is usual with punctual telic eventualities such as *-'nes* 'arrive', *-'al* 'die', etc. For the interruption of the relationship or property, I have documented *ji-k'yemjla pej* 'his/her ex-spouse' instead.

7 Discussion: on the syntax of TAM marking on nominals in Chorote

In the previous sections, TAM markers were shown to be clitics that attach to diverse material and not inflectional properties of verbs or nouns, and to be able to take scope over the clausal predicate or over argumental nominal constructions; thus, their scope must depend on their structural position. This is not as surprising as it may seem: if bare nouns are predicates, DPs/NPs enclose subordinate predicates. In this sense, saying that the nominal or propositional scope of a TAM marker depends on its structural position is not essentially different than saying that the difference in scope of [+Past] in *I said [he is happy]* and *I say [he was happy]* also depends on its structural position, i.e., whether it is in the main clause or in the subordinate clause. What that position in the nominal domain could be, however, remains to be seen.

A crucial question regarding the syntax of independent nominal TAM is whether their markers are simple modifiers with temporal, aspectual or modal meaning like English *future*, *ex-*, *probable*, *wanna-be*, etc., or true functional heads analogous to those found in the verbal domain in better-known languages (see (5–6)). This has significant consequences, since if functional TAM categories can also act in the nominal domain, one of the most widely held differences between the nominal and the verbal domain would disappear. Let us consider some concrete consequences from a formal perspective as discussed in Alexiadou (2009). Firstly, a functional head T (including here aspect/mood) is correlated with the possibility of having expletives (*There arrived a man*) and raising (*Mary appears to have left*), while the lack of T in the nominal domain is correlated with the absence of such phenomena (**There's arrival*, **Mary's appearance to have left*); this is attributed to the fact that the specifier of T is an athematic position, unlike the specifier of D. Secondly, CompP has been correlated with the presence of T, while DP is correlated with its absence: in the

terms of Siloni (1997), Comp is selected if the clause includes a tense operator (which can be identified with T) and D is selected otherwise. If in some languages DPs include a functional head T, and this possibility must be available for any language, then there must be a different explanation for the aforementioned differences between the verbal/clausal and the nominal domain. These consequences do not appear, however, if TAM markers are modifiers and no functional head T is involved.

Furthermore, distinguishing nominal and verbal projections is especially critical in languages that show the “omnipredicative” features described in Section 2.4, i.e., where finite verbs can be (part of) arguments and nouns can be clausal predicates without overt morphology, as is the case in Chorote. For Nahuatl, a prototypical omnipredicative language according to Launey, TAM markers are a decisive way of distinguishing verbs from nouns (Launey 2004). But in Halkomelem, which shows the features described above⁴⁴ and where temporal marking is identical in both the nominal and the verbal domain (Alexiadou 2009; aspectual and modal marking presumably make no difference), there would be no way of distinguishing nominal and verbal projections. This is indeed what Alexiadou (2009) proposes: observing that a category-defining *v* is not enough to define a verb (as e.g., further nominalization of a verb shows), she posits that becoming verbal for a primitive predicate involves combining with Tense (probably including Aspect and Mood);⁴⁵ she argues further that the language lacks a functional head Tense, either in the verbal or the nominal domain, and that temporal markers are modifiers in both domains. Thus there would be no basis for a categorial distinction between nouns and verbs. In summary, one could say that if the same TAM functional heads are present – or absent – in both domains, problems will arise to distinguish these domains. We will return to this discussion below. (For implications of nominal tense regarding case theory, which will not be addressed here, see Wiltschko 2003, and Alexiadou 2009.) In what follows, irrealis *-a* and distant past *pe(j)* are discussed first, as at a glance they represent two opposite extremes in terms of their morphosyntax; we will then turn to the other TAM markers.

⁴⁴ According to Davis and Matthewson (1999: 38), in Salish “any open-class category can be a predicate (canonically in clause-initial position), and conversely, any open-class category can serve as an argument, if and only if preceded by a determiner”.

⁴⁵ Here Alexiadou (2009), as well as Wiltschko (2003), evidently include mood and presumably aspect in the Tense Phrase (as is often the case in the generative literature), as can be seen in the fact that they take the absence of modal auxiliaries in Halkomelem as an evidence for the lack of Tense, assuming thus that modal auxiliaries are on Tense.

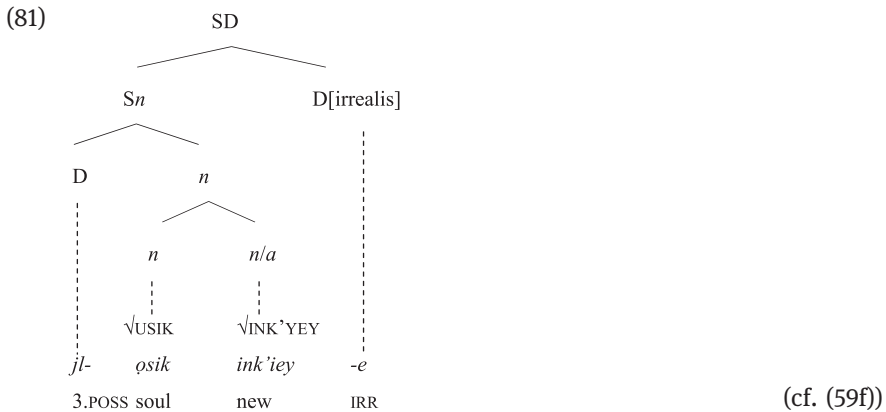
The morphosyntactic and semantic properties of nominal irrealis *-a* strongly suggest it must be a functional head, and not an adjunct or specifier (cf. (5), (6) and *passim*):

- (a) When propositional, it is obligatorily selected in the environments in which it appears, and is also selected when independent, at least with some predicates (e.g., negative existential predicates in non-intensional environments, the special cases of Section 4.2.1, etc.). Therefore, assuming that the selectors must “see” the properties of the head of the selected phrase, the irrealis feature must be on the head of the nominal construction.
- (b) Moreover, when it is not selected (e.g., (52)), it conveys a distinct nominal irrealis value that cannot be obtained through discourse, unlike e.g., the distant past meaning. In other words, one cannot omit the irrealis marker and obtain the corresponding meaning through some indication of the discourse context. This makes *-a* an “obligatory” morpheme, which is usually a property of TAM heads as opposed to modifiers (Cinque 1999).
- (c) Though not an “inflectional affix”, it attaches immediately after inflectional morphology (plural), when either propositional or independent. This is to be contrasted again with the distant past *pe(j)*, which is more peripheral.
- (d) Semantically, it is decisive in the non-referential interpretation of the DP and thus can hardly be considered an adjunct.

Since referentiality and specificity are features of Ds, and the semantics of *-a* is related to them, it appears reasonable to identify the nominal irrealis of Chorote with a feature of a functional head D which still should be specified (or with one of the heads the DP could be split following cartographic proposals along the lines of the split-CP of Rizzi [1997] and the split-TP hypothesis of Cinque [1999]). This does not necessarily exclude the analysis of *-a* as mood too. Thus, for instance, one could pursue an analysis of irrealis in terms of referentiality (or some other “D feature”) but related to the event argument of the main predicate, and thus the only peculiarity of Chorote would be that this language realizes that D feature in both the propositional and the nominal domain with the same exponent. To put it another way, what we generally refer to as “irrealis” or “subjunctive” in the verbal domain would be the same as that D feature. In any case, we can only sketch hypotheses at this stage, as better knowledge of Chorote irrealis is needed to substantiate them. The idea of identifying mood and modality with DP features is of course not new, and such proposals can ultimately be traced back to Kratzer’s (1977, 1981, 1991) analysis of modality in terms of existential/universal quantification over possible worlds, which implies borrowing categories usually linked to the nominal domain. Thus, for a concrete

proposal regarding nominal TAM markers, see Nikolaeva (2012), who suggests relating Tundra Nenets predestinative to subjunctive; even (seeming) temporal markers have been related to typical DP features, see Alexiadou (2009) on “nominal past” in Somali as expressing specificity on D.

The tree of (81) shows a tentative surface structure for nominal irrealis, capturing the fact that it does not only attach to nouns but to more complex structures too. Notice *-a* occupies a D head position which otherwise would be zero. I leave the question open as to whether demonstratives are heads or specifiers; recall that *-a* can co-occur only with the demonstrative D_6 ‘unknown’.⁴⁶



As for the nominal distant past *pe(j)*, it fails to meet the criteria proposed above: it is not selected, its meaning can be recovered through discourse, it is more peripheral, and it does not determine the interpretation of any semantic feature typically related to DP heads. These facts support the view that it is not a functional head but some category equivalent to adverbs in the verbal domain, i.e., a modifier, realized as an adjunct or a specifier; this is, in essence, very similar to the analysis Alexiadou (2009) proposes for the past tense marker *-lh* in Halkomelem, even though its morphosyntactic properties are different. Moreover, although *pe(j)* is often a clitic, it can be regarded as “simple” clitic (see Section 2.2), i.e., a grammatical word that loses its stress accent leaning on an adjacent word, and otherwise has the properties of an independent grammatical and phonological word – distributional freedom and stress accent. Stressed independent words are often adverbs crosslinguistically but less frequently

⁴⁶ Taking into account the special distributional and semantic properties of D_6 *pa* ‘unknown’ (see Note 33), one may consider to assign it a syntactic position different from that of the other demonstratives, at least when it is not definite.

functional TAM heads (besides auxiliaries) and, when they are, they typically surface as preverbal particles (Cinque 1999). Thus, the syntactic behavior of the independent distant past is analogous to that of its propositional counterpart, where it is an adverb.

According to this proposal, nominal *pe(j)* could be compared to the “adverbial adjectives” [*adjetivos adverbiales*] proposed by Demonte within the Hispanic tradition for Spanish adjectives equivalent to the English *former*, *remote*, *alleged*, *possible*, *frequent*, etc. when they have a temporal, modal or aspectual value (Demonte 1999: 139–141, 208–211). An important difference is that, while the adverbial adjectives are an open class and often correspond to a special use of qualifying adjectives, *pe(j)* and eventually others belong to a closed class. Another challenge for this hypothesis is that the adjectival class itself is debatable in Chorote (see Section 2.3), but this is not so problematic, since adverbial adjectives have distinctive distributional properties; thus it is not unreasonable to conceive of a language which only has this kind of adjectives. In any case, this analysis has the advantage of capturing the parallel behavior of *pe(j)* and similar markers in both verbal and nominal environments, just as the adverbial adjective hypothesis does, cf. *the possible travel* and *X possibly traveled*, etc. Accordingly, verbal and independent *pe(j)* are the same item which takes propositional or independent scope (i.e., is an adverb or an “adverbial adjective”) depending on its structural position and without further morphology, cf. English *former* ~ *former-ly*, Spanish *anterior* ~ *anterior-mente*.

This analysis for *pe(j)* also solves an apparent paradox: on the one hand, *pe(j)* encodes a specifically temporal meaning, as shown in Section 3 and, on the other hand, Chorote appears to be a tenseless language. Although for reasons of space this cannot be argued in detail, important evidence is shown in Section 2.2 (I use “tense” in a restricted sense here, cf. footnote 45). The basic temporal distinction of future vs. non-future is realized through modal and aspectual markers; moreover, all other markers that affect the temporal interpretation are successfully explained as aspectual, modal, or spatial deictics, rather than as specifically temporal. Apparent exceptions besides *pe(j)* are *-jej* ‘RECENT PAST, already’ and *-na’a* ‘NEAR FUTURE’ (see Table 1), but both can easily be explained as aspectual: for markers like the first one, an aspectual analysis as a perfect dates back at least to Comrie (1976: 60–63, see also footnote 1 there); the same holds for the second one, which can be explained as a prospective of imminent futurity (1976: 64). Tenseless languages are most often argued to lack tense as a syntactic category at all (Shaer 2003; Wiltschko 2003; Ritter and Wiltschko 2005, 2014; Bittner 2005; Tonhauser 2011, among many others, though see Matthewson 2006 for a different view), and thus a functional head T. Assuming this is the correct analysis, if *pe(j)* is actually a functional head, the

undesirable need arises to postulate a functional head for tense whose only possible exponent is a marker with such a specific meaning (and not a broader meaning as, say, simply ‘past’); in addition, this marker would be optional. But, on the other hand, if *pe(j)* is a modifier, there is no need to assume a functional category for it, and its specifically temporal meaning can be explained as part of its lexical content.

To conclude with *pe(j)*, it is worth noting that the sister Wichí language shows a similar phenomenon but with up to six markers: Terraza mentions a future marker and five past tense markers which can be both verbal (thus propositional) and nominal (thus independent): *-p’ante* ‘long ago’, *-te* ‘some time ago’, *-naxi* ‘yesterday, last night’, *-mati* ‘a while ago’ and *-ne* ‘just’:

(82) *Sinox-naxi* \emptyset *-yil-mati*.

Dog-yesterday 3-die-a.moment.ago

‘The dog {we saw/ talked about} last night died a moment ago.’

(Terraza 2009: 277)

On the one hand, there are even more arguments in this language for the modifier analysis proposed above, since such detailed systems are easily explained if the markers are modifiers, but not if they are functional heads, at least in the formal tradition of approaches to tense building on Reichenbach (1947), a tradition which considers tense as a relation between two time points among points of reference, speech and event. On the other hand, this suggests a slight variation on the analysis: these markers, as well as *pe(j)*, could also be viewed as something similar to relational adjectives relating the noun with a (fossilized) nominal temporal expression; thus, *pe(j)* could be viewed as meaning something like ‘relative to ancient times’.

The status of the other nominal TAM markers in between *-a* and *pe(j)* still must be explained and a deeper knowledge of them is essential to this explanation. Consider *-t’ey*, for example: it belongs to the same string of TAM markers as irrealis *-a* (i.e., before applicatives) and looks “more obligatory” than *pe(j)*; on the other hand, it looks “less obligatory” than *-a*, does not occur so systematically, is not selected and can be a full phonological and grammatical word.

As for TAM markers which can function as focus markers (at least *t’e[y]* ‘CONJECTURAL’ and *p’an* ‘MIRATIVE’, see Section 6) it appears reasonable to assume two different positions, depending on whether they function as “regular” TAM markers, i.e., bringing TAM information about the eventuality denoted by the predicate, or as focus markers of a constituent, as suggested in Cinque (1999: 30–32) for Italian TAM adverbs such as *già* ‘already’, *ancora* ‘again’, *spesso* ‘often’, etc. In the latter case the adverbs may be analyzed as heads of a Focus

projection that take the focused constituent as their complements. The dual behavior of these markers might also be taken as evidence for their adverbial analysis, as such behavior is documented in adverbs rather than in other types of TAM markers.

Let us return to the consequences for linguistic theory implied by the data discussed above. It has been shown that the Chorote data provide no arguments to postulate a T head (in a restricted sense) in the nominal domain. The only TAM functional head that is undoubtedly found in that domain is irrealis, which is arguably related to a D feature. Thus, there is very little evidence to postulate a T head (now in a broad sense) in the nominal domain analogous to that in the verbal domain, or to claim that Chorote poses serious problems for the traditional view that DPs lack a TP projection. On the other hand, Chorote is an overtly tenseless language and, assuming that such languages are indeed tenseless, T must be absent in the propositional domain too.

Is this enough to claim that verbal and nominal projections in Chorote are undistinguishable from one another, as claimed in Alexiadou (2009) for Halkomelem? A brief examination of Chorote morphology clearly suggests that the answer is no. Firstly, there are a number of TAM markers that do not attach to nominals or at least cannot take scope over an argumental nominal. Secondly, there is highly distinct morphology for verbs and nouns in Chorote, e.g., verbal personal prefixes cannot appear on nouns and are different from possessives, even S_O ones; verbal and nominal derivational morphology are clearly different, and almost no bare roots can be both verbal and nominal without further derivational morphology, etc., cf. (83)

- (83) a. *a-laki'n* *i-lyakijnyeye* (/i-ləkin-hayah/)
 $1S_A$ -dance/play $1sg.POSS$ -dance/play;NMZ
 'I dance/play' 'my dance/play'
- b. *si-ki'im* *na'la*
 $1S_O$ -be.thirsty thirst
 'I am thirsty' 'thirst'

This shows that “becoming verbal” in Chorote cannot be related to the presence of Tense, since – if superficial tenseless languages are really tenseless – tense is missing and verbs are still verbs. Future research should specify the difference between verbs and nouns in this language beyond category-defining functional heads *v* and *n*. To put it another way, if verbs are clearly different from nouns even though tense is missing, which categories, if any, make them be verbs beyond *v*?

8 Conclusions

In this paper I have documented the existence of Chorote TAM markers which can attach to nominals and take nominal scope. In this respect, these markers are semantically equivalent to the TAM morphemes that express independent nominal TAM as described in Nordlinger and Sadler (2004a). However, they are not inflectional morphemes but clitics, i.e., independent grammatical words that can attach to both nouns, verbs, and diverse material, and even be independent phonological words. In this connection, Chorote data seem to favor “syntactic” approaches to morphology that consider these differences superficial and allow for a unified treatment of both Chorote TAM markers on nominals and “core cases” of nominal TAM.

These TAM markers are the same ones that express propositional TAM; it has been argued that their scope – whether nominal or propositional – is accounted for by their structural position. As they are the same ones that occur in the verbal domain, there is little question as to whether they are “true” TAM markers or something else: besides some uses as focus markers (which do not necessarily exclude the expression of TAM), there seems to be no reason to deny their status as “true” TAM markers.

As for the temporal marker *pe(j)*, the analysis shows it codifies tense. However, this does not mean that nominals in Chorote include a functional head Tense like verbs do in European languages; in fact, not even verbs seem to be headed by Tense in Chorote, which is a superficially tenseless language. On the contrary, *pe(j)* is accurately analyzed as a modifier in both the verbal and the nominal domain, and perhaps this also holds for the other TAM markers attached to nominals except for irrealis *-a*.

Nominal irrealis *-a* is perhaps the most intriguing of the TAM markers of the nominal domain, and undoubtedly the most unusual. Although verbal irrealis is indicated through a different set of markers, the fact that *-a* occurs with the same function in nominal predicates and in certain nominal-like verbs indicates they express the same feature. As a first approximation, non-assertion of existence of the entity denoted by the noun has been proposed to account for the semantics of argumental nominal *-a*.

Finally, even though verbs and nouns in Chorote are similar in many respects, their distinct morphology indicates that there is in fact a robust difference between them.

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