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On nominal tense

Abstract: Nordlinger & Sadler's (2004. Nominal tense in crosslinguistic perspective. *Language* 80. 776–806) seminal work fostered an intense debate on the semantics of nominal tense systems, with the side effect of widening the typological coverage of this grammatical feature. This paper aims at contributing to the ongoing debate. In contrast with work by Tonhauser, who excluded 'tense' as a semantic component of the Paraguayan Guaraní nominal tense system, the paper claims that all TAM dimensions are involved – temporality, aspect, modality – with different proportions in the individual markers. Most importantly, it claims that nominal tense does not presuppose a semantics of its own, other than the one needed for verbal tenses. Moreover, the paper presents evidence that the semantic component of aspect, besides being necessarily activated in any nominal tense marker, is also directly conveyed by some of them, which can legitimately be called 'nominal aspect' markers. This integrates Nordlinger & Sadler's (2004) survey, in which aspect was notably absent. In addition, the paper points out possible cases of nominal actionality (a.k.a. Aktionsart). Finally, the paper suggests that the pervasive presence of aspect (and also, but rarely, actionality) among nominal tense markers finds interesting parallels in some types of deverbal nominalizations, although these belong in another grammatical drawer.

Keywords: nominal tense, nominal aspect, tense, TAM-semantics, agent/instrument nominalizations, inflection/derivation

1 Introduction

1.1 Theoretical foundations

Nominal Tense (henceforth NT) is no new concept, but its growing relevance is a welcome result of Nordlinger & Sadler's seminal work (2004), the first large-

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scale typological survey of this domain. This paper aims at integrating the ongoing discussion with a thorough scrutiny of NT semantics.

The debate between Nordlinger & Sadler (2008) and Tonhauser (2008) focused on whether 'tense' actually belongs to the defining categories of NT. However, this English term is ambiguous. It stands for both the semantic component of temporality and for the various morphosyntactic manifestations that compose a given paradigm (i.e. Present, Past-Progressive, Future-Perfect etc.). The same applies to other grammatical traditions, like the French or Spanish ones, although one can designate the second meaning (morphosyntactic manifestations) by means of locutions like 'temps verbal'/'tiempo verbal'. German, by contrast, distinguishes 'Zeit' or 'Temporalität' *vs* 'Tempus'.

Using a single term for both meanings is misleading, for it might surreptitiously instill a correlation between the actual forms of a verb paradigm and a single semantic dimension (temporality). However, any verbal 'tense' conveys values in all three TAM-components. Consider, for instance, the English Simple-Past: (i) temporality-wise, it usually indicates past-reference, but marginally also future-reference (*We shall only accept abstracts that arrived by June 1st*, as uttered before the mentioned deadline); (ii) modality-wise, it usually indicates realis values, but sometimes also irrealis ones (*I would love it if you came*); (iii) aspect-wise, it is often used perfectively, but receives an imperfective interpretation in habitual contexts. This is no exception: any natural language 'tense' necessarily expresses values in these three semantic components. Many 'tenses' are polysemous in at least one component, like the English Simple-Past, but neutralizations are equally frequent. The German Simple- and Compound-Pasts are an example, for they may receive any aspectual reading depending on context. The opposite (but rare) case is provided by 'tenses' like the Italian Simple-Past, altogether unambiguous despite morphological similarity with its English and German counterparts, for it is purely past-referring, realis and perfective.

To avoid misunderstandings, this paper adopts a terminological distinction: **tense**$_\sigma$ for the semantic domain of temporality, and **tense**$_\mu$ for the individual 'tenses' of any verbal/nominal system, with subscripts σ and μ standing for 'semantic' and 'morphosyntactic'.[1] The notion tense$_\sigma$ does not require an elaborate definition: it corresponds to the linearly ordered set of time-atoms on which Reichenbachian-like 'times' can be localized (Utterance-, Event-, Reference-Time; Reichenbach 1947). Tense$_\sigma$ should therefore be regarded as

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1 The disambiguation of 'tense' is no new proposal. Reference can be made to Bybee & Dahl (1989), whose term 'gram' (=grammatical morpheme) corresponds to some extent to tense$_\mu$. Bertinetto (1994) distinguishes 'temporal reference' (=tense$_\sigma$) *vs* 'tense' (=tense$_\mu$).

sufficiently theory-neutral, since any TAM-model must account for the temporal localization of the events. In addition, one must distinguish between deictically- and relatively-oriented systems. The former are anchored on the Utterance-Time, while the latter exploit contextual time-anchors as orientation-points. Hence, the terminological distinction past/present/future *vs* retrospective/simultaneous/ prospective.

When reporting the views of other scholars, the word 'tense' will appear between quotes, unless its meaning can be disambiguated with no difficulty. With reference to specific NT manifestation, however, the μ subscript will be used, except for the locution 'NT-marker(s)', which unambiguously refers to specific exponents. Equally, the abbreviation 'NT' will remain untagged when referring to a whole NT-system.

With this terminological clarification in place, it becomes evident that asking oneself whether "the NT-system of language *x* is based on 'tense', rather than aspect or modality" – as some recent literature has done – is best understood in the sense of whether "the NTs_μ of language *x* are based on $tense_\sigma$ (= temporality), rather than aspect or modality". Such reformulation, however, turns out to be redundant in the present view, because any $tense_\mu$ (verbal or nominal) conveys, by definition, a range of values in each TAM-component, necessarily including $tense_\sigma$. Admittedly, though, the answer is less straightforward under a more constrained notion of 'tense', like the one adopted by Tonhauser (2006, 2007, 2008). Sections 2.5–6 will address this point.

It is important to underline that the theoretical framework adopted here allows one to consistently analyze both verbal and nominal $tenses_\mu$. The semantic tools are exactly the same. In both cases, one should check the degree to which the individual verbal/nominal $tenses_\mu$ activate each TAM-component. Some languages even present TAM-markers used for both verbs and nouns. In Ashéninka Perené [*prq*, Kampan (a.k.a. Campan)], *-ranki* indicates 'temporal precedence/change-of-state' on nouns and 'anteriority' (perfect aspect) on verbs (Mihas 2013a). In Tonhauser's view, by contrast, NT does not implement the category 'tense' (assumed to be purely verbal) and requires the definition of a category of its own, whose elaboration is left to future research (Tonhauser 2008: 341). This view will be criticized in Section 2.

1.2 Further preliminaries

Languages exploit various devices to express TAM-values on noun phrases, over and above NT-markers. In the $tense_\sigma$-domain, besides dedicated adverbs and connectives, one finds prefixoids like *ex-* (e. g. *ex-student*) or adjectives like

former, *late*, *future*, *next* (Larson & Cho 2003). In the aspect-domain, besides adverbs like *already*, *still*, there are habitual qualifications like *usual*, *frequent* (e. g. *frequent flyer*) and corresponding adverbs. As for modality, one finds adjectives like *probable*, *possible*, *alleged* (Ilkhanipour 2016) and the corresponding adverbs. But with the partial exception of *ex-* (which might be viewed as a compound member), these are lexical tools rather than grammatical morphemes, thus remote from NT-markers. Within morphology, one can cite – beyond NT proper – derivational affixes like English *-er*, giving rise to agent/ instrument nominalizations (see Section 4.1) or the adjectival suffix *-able/ible* (e. g. *wash-able*, *respect-able*, *access-ible*). They both convey an idea of permanent/potential quality, hence express gnomic imperfectivity, as defined in Section 3.1.

As for NT proper, one has to observe that the number of values expressed in a language does not necessarily coincide with that of the overt specifications. In languages with two affixes respectively conveying retrospective/prospective values, the complete paradigm actually consists of three values, since a Ø-marked noun may convey simultaneity (by default interpreted as overlapping Utterance-Time), unless used neutrally regardless of any spatio-temporal localization. Bolivian-Guaraní [*gui*, Tupí-Guaraní] is a case in point, as shown, for instance, by *me-kue* 'ex-husband', *me-rã* 'husband-to-be', *me-Ø* 'current-husband' (or generally 'husband').

Relative to Amazonian languages, Aikhenvald (2012: 159) cites examples of tripartite systems in Puinave [pui, unclassified] and in languages belonging to various families (Tupí-Guaraní, Nambiquara (a.k.a. Nambikwara), Arawá, and Arawak), while Mamaindê [wmd, Nambiquara] has a fairly rich system, where the future-referring NT_μ alternates with three past-referring counterparts: simple, remote, and mythological (plus the Ø-marked simultaneous/neuter NT_μ). Conversely, Somali [som, Cushitic], Movima [mzp, Bolivian unclassified] and Ashéninka-Perené [prq, Kampan] exhibit the purely binary contrast past/non-past (Lecarme 1999; Haude 2006; Mihas 2013a), while Tundra Nenets [yrk, Samoyedic, Uralic] is an example of monovalent NT-system, with a single prospective marker (Nikolaeva 2015).

Aikhenvald (2008) pointed out the somehow inverse situation of "versatile cases", i. e. case-markers used on verbs to "express (i) temporal, causal and other relationships between clauses, and (ii) aspectual and modal meanings within a clause." (p. 565). Interestingly, Aikhenvald explicitly establishes a correspondence with NT (p. 567): just like TAM-markers can be attached to nouns, although typically found on verbs, case-markers can be attached to verbs, although typically found on nouns.

1.3 Outline

Section 2 criticizes Tonhauser's (2007, 2008) criteria on the definition of Paraguayan Guaraní NT-markers, showing that all TAM-components are synergistically involved, crucially including tense$_\sigma$. Besides, the analysis will indicate that the semantic constitution of NT-markers is essentially the same as that of verbal-tenses$_\mu$.

Section 3 provides evidence that NT-markers can convey aspectual values. This is indeed frequently the case, as some contributions have shown, thus integrating Nordlinger & Sadler (2004) survey. In particular, Section 3.3 suggests that, in accordance with the notion of 'propositional-NT' proposed by these scholars, there may be instances of propositional nominal-aspect, i.e. NT-markers with predominant involvement of aspect and scope on the whole sentence, rather than on the Noun Phrase. Section 3.4, in turn, suggests that analogous instances of propositional nominal-actionality might exist.

Finally, Section 4 proposes a hitherto unnoticed semantic analogy between some nominal-aspect markers and the widespread derivational process that generates agent/instrument nominalizations. A corresponding analogy can be found in the contribution of actionality (a.k.a. Aktionsart) to the semantic constitution of deverbal nouns in some Slavic languages. Although both types of nominalization fall outside the actual NT perimeter, they nevertheless highlight the pervasive relevance of TAM-features in nominal semantics.

The Appendix offers a brief discussion on the morphological status of NT-markers, suggesting that some of them are intermediate between inflection and derivation.

2 Revisiting Tonhauser's interpretation of the Guaraní NT

Tonhauser (2007, 2008) proposed various criteria which, if satisfied, would define the NT of Paraguayan Guaraní [*grn*, Tupí-Guaraní; henceforth, simply Guaraní) as a *bona fide* manifestation of 'tense'. According to her, however, most criteria are not fulfilled. Tonhauser (2006) had previously suggested that the Guaraní NT-markers are "aspect/modality markers", but in her later works she concluded that they feature "a category of their own" (Tonhauser 2008: 341), for whose definition more comparative work is needed (Tonhauser 2007: 864).

Note that, for Tonhauser, NT can be defined in different ways depending on one's view of 'tense'; whether a particular NT-system does or does not

implement this category, ultimately follows from the definition adopted. In the same vein, the reader should consider that this discussion is inspired by the theoretical view presented in Section 1, with the distinction tense$_\sigma$/tense$_\mu$. According to this, any tense$_\mu$ involves the synergistic participation of all TAM-components, whose respective activation is defined on a case-by-case basis, also relative to the given context. The following sections will in any case show that the present view overcomes a number of difficulties met by Tonhauser. In particular, Section 2.6 directly criticizes her conception of 'tense'.

Tonhauser's criteria have been widely discussed, most notably by Nordlinger & Sadler (2008), but also by Thomas (2014), Nikolaeva (2015), and Muysken (2008). They are reported below with the same wording of Tonhauser (2008: 337–338). Except for criterion (*a*), their formulation should be read in the sense that, if the Guaraní NT-markers really expressed verbal 'tense', they should have the indicated properties. Tonhauser's answer is in most cases negative. This critical evaluation will however contend that, once NT-markers are understood as manifestations of tense$_\mu$, the conclusion to be drawn is different. Namely: NT-markers and verbal-tenses$_\mu$ rest upon the same semantic apparatus.

Each of Tonhauser's criteria will be treated in a dedicated section. For expository reasons they will not be presented in alphabetical order.

2.1 *Criterion (a)*

> The marker occurs on nominal expressions, and its meaning affects the noun phrase it occurs with. (Tonhauser 2008: 337)

This criterion differs from the others, because it does not establish a negative comparison against the verb domain. Its content might appear straightforward, and it also covers situations where NT is expressed by determiners or possessives.[2] However, the second conjunct neglects Nordlinger & Sadler (2004) important distinction 'independent/propositional' NT, with scope on the Noun-Phrase or the whole clause, respectively. Actually, since Tonhauser's analysis is restricted to Guaraní, the notion propositional-NT does not apply. Criterion (*a*) is consistent with her goal, although inadequate for an all-embracing definition.

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2 See Nordlinger & Sadler (2004) and, here, example (2) and the Somali examples in Sections 2.4 and 3.2. Aikhenvald (2012: 162) cites various North Cariban languages with TAM values expressed on the possessive.

It is nevertheless useful to illustrate the contrast 'independent/propositional' NT, in order to familiarize with the notions 'Noun-Phrase-Time' and 'Nominal/Possessive-Time', two fundamental tools of NT semantics exploited by Tonhauser. The 'Noun-Phrase-Time' (henceforth **NP-Time**) is the time interval at which the Noun-Phrase is evaluated, as indicated by the clause's tense$_\mu$. This is a generally valid notion, concerning any Noun-Phrase regardless of NT, as argued by Musan (1995). The 'Nominal/Possessive-Time' (henceforth **Nom/Poss-Time**) is instead the time at which the noun property (Nom-Time) or the possessive relation (Poss-Time) holds.

Example (1) illustrates independent-NT. In (1a), the verbal-tense$_\mu$ localizes the event of seeing in the present/past,[3] thus indicating the NP-Time, while the prospective NT-marker refers either to a building under construction (Nom-Time) which already belongs/belonged to the speaker, or to an existing house that will/would later on belong to the speaker (Poss-Time). Conversely, (1b) localizes the event of seeing in the future (NP-Time), while the retrospective NT-marker refers either to a building that belongs to the speaker but has been/will by then be destroyed (Nom-Time), or else to a building that used to belong/will by then no longer belong to the speaker (Poss-Time). In both sentences the temporal indications of Nom/Poss-Time and verbal-tense$_\mu$ are independent of each other.

(1)   Bolivian-Guaraní [*gui*, Tupí-Guaraní] (author's fieldwork)
   a. *A-echa   che ro-rã*
      1SG-see 1SG house-PROSP
      'I see/saw my future house'
   b. *A-echa-ta   che ro-kue*
      1SG-see-FUT 1SG house-RETR
      'I will see my former house'

One can thus define independent-NT in terms of temporal mismatch between Nom/Poss-Time and verbal-tense$_\mu$, with the latter designating the NP-Time. By contrast, propositional-NT markers indicate the temporal information of the whole sentence, either alone or combined with the verbal-tense$_\mu$. The following sentences illustrate the former situation: the temporal localization of the event is indicated by the contrasting values of the definite article, while the verbal-tense$_\mu$

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3 The Guaraní system has a prospective/non-prospective structure: the Ø-marked verb (i. e. without TAM-markers) can be read as either simultaneous or preceding the contextual time-anchor.

is the same. Note that, although the article cliticizes to the verb, it is unquestionably related to the Noun-Phrase.[4]

(2)   Chamicuro [*ccc*, Arawak] (Parker 1999, ex. 7-8; from; Nordlinger & Sadler 2004: 796)
    a. *p-aškalaʔt-ís=na*   *čamálo*
       2-kill-2.PL=the.NONPAST bat
       'You (PL) are killing the bat'
    b. *p-aškalaʔt-ís=ka*   *čamálo*
       2-kill-2.PL=the.PAST bat
       'You (PL) killed the bat'

In its purest implementation, propositional-NT is therefore defined – as far as tense$_\sigma$ is concerned – by the fact that the Nom/Poss-Time is solely responsible for the temporal information of the sentence, on which the NP-Time depends. Alternatively, propositional-NT may reveal itself through the joint effect of Nom/Poss-Time and verbal-tense$_\mu$, with synergistic indication of the NP-Time. Example (18) will illustrate, *mutatis mutandis*, the collaboration of NT$_\mu$ and verbal-tense$_\mu$ relative to a possible implementation of propositional nominal-aspect. This is consistent with the present theoretical view, whereby any TAM-component may contribute. The distinction 'independent/propositional' is a matter of syntactic scope, regardless of the specific TAM-components involved.

Before proceeding, it is fair to reiterate that criterion (*a*) is adequate to Tonhauser's purpose, although inadequate to offer a general definition of NT. Let us now address the remaining criteria, allegedly qualifying verbal-'tense' properties alien to NT.

2.2 *Criterion (c)*

> In those environments where nominal tense markers are required, the markers are realized with nominal expressions without regard to the semantics of the head noun. (Tonhauser 2008: 338)

Tonhauser (2007) reports a number of restrictions, especially concerning the retrospective NT-marker, which prove the violation of criterion (*c*). However,

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4 Translations and metalinguistic glosses of the quoted sources may occasionally contain minor adaptations.

although this criterion correctly describes the situation of verbal-tenses$_\mu$ relative to tense$_\sigma$, it misses the point with regard to aspect. Indeed, individual-level predicates impose aspectual restrictions on tense$_\mu$ selection (Thomas 2014: 406). In modern Romance languages, for instance, it is stylistically marked to use a perfective-Past with such verbs.

(3)   Italian [Romance]
    a. ?? *Mio nonno <u>ebbe</u>*[#] / *<u>ha avuto</u>*[#] *occhi chiari.*
    b. *Mio nonno <u>aveva</u>*° *occhi chiari.*
       'My grand-father had [PFV.PAST[#] / IPFV.PAST°] light-colored eyes'

One can also cite the restriction that stative verbs impose on progressive morphology, or the different aspectual reading (progressive *vs* perfect) that activities and accomplishments, on the one hand, and achievements, on the other hand, assume with the Japanese *-te ... -iru* construction. Apparently, the inherent semantic properties of the verb (its actional, i. e. Aktionsart, properties) generate aspect-related restrictions on tense$_\mu$ selection.

Although the formulation of criterion (*c*) does not properly define verb semantics, one might defend Tonhauser's position by observing that such restrictions depend on actionality and aspect, rather than 'tense'. However, once the notion NT$_\mu$ is in place, this is no longer relevant. The present discussion does not aim at claiming that Guaraní NT-markers have a purely temporal (tense$_\sigma$) value, but rather that they involve all TAM-components in case-by-case definable proportions.

This said, one should note that the constraints pointed out by Tonhauser (2007) for the Guaraní NT-markers do not converge towards a specifiable semantic characterization – as with the tense$_\mu$ selection governed by the verb's actional values – but are pragmatically-inspired. She observes, for instance, that the retrospective NT-marker "does not productively occur with predicates like *kuña* 'woman' or with natural kinds like *ama* 'rain'" (p. 842). This finds straightforward explanation in the temporally permanent properties of such referents (within their existence time): indeed, it makes little sense to speak of an *ex-rain* (although, in particular contexts, one might speak of an *ex-woman*). Such restrictions follow therefore, at least partly, from universal pragmatic properties. For instance, as contrasted with *former husband/teacher*, it makes little sense (peculiar motivations aside) to mention a ??*former sky*. These restrictions are especially pervasive with retrospective NT-markers: while a *former bread loaf* is hardly conceivable, one might speak of a *future bread loaf* relative to the stuff that a baker is handling.

2.3 Criterion (b)

"The set of nominal tense markers of the language form a grammatical paradigm. This means that the grammar of the language requires that in certain grammatically specified environments the noun be marked by one and only one member of the nominal tense paradigm, parallel to verbal-tense paradigms." (Tonhauser 2008: 338)

Tonhauser argues that Guaraní NT cannot instantiate the category 'tense', because two NT-markers may sometimes be found on a single noun. The combination 'retrospective + prospective' generates the modal meaning of counterfactuality, also detectable in other NT-systems, as (4) shows (see also Nordlinger & Sadler 2004: 787–789).[5]

(4) a. Wayana [way, Cariban] (Camargo 2008: 94, ex. 18)
        kanawa-tpë-me
        canoe-RETR-PROSP
        'what might have been a canoe'
     b. Bolivian-Guaraní [*gui*, Tupí-Guaraní] (author's fieldwork)
        me-gue-rã
        husband-RETR-PROSP
        'one who might have become husband'
     c. Kamaiurá [*kay*, Tupí-Guaraní] (Seki 2000: 306)
        je=r-emi'u-her-am
        1SG=REL-food-RETR-PROSP
        'what might have been my food (lit. 'what was going to be my former food')

However, the same phenomenon can occur on verbs, as in (5). It is found, for example, in various North-West African languages (as areally, rather than genetically intended) and in virtually all Atlantic creoles (based on such languages).

(5) Mòoré [*mos*, Gur, Niger-Congo] (Bertinetto & Pacmogda 2013, ex. 78)
     sẽoog-ã   rá   ná   n   yì-ι   sõamá
     winter-DEF RETR PROSP CONNECTOR be.PFV-ASSERTION well

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5 The reverse order yields no modal meaning: see *pa'i-rã-ngue* (priest-PROSP-RETR) 'ex-seminarist' (i. e. ex-future-priest).

là	*sáag-ã*	*wá*	*n*	*sãam-a-mé*

CONNECTOR rain-DEF REMOTEPAST CONNECTOR spoil-ASSERTIVE-EXPLETIVE

'The winter might have been good, but the rain has spoiled everything.'

Thus, criterion (*b*) fails to show any noun/verb discrepancy. One might again defend Tonhauser's position by contending that this stacking of TAM-markers concerns modality, rather than 'tense'. However, once the distinction tense$_\sigma$/tense$_\mu$ is in place for both verbs and nouns, this becomes irrelevant. Indeed, forms such as those in (4–5) essentially correspond to Eng. *should have been*, which combines different grammatical devices to yield a tense$_\mu$ expressing a specific modal meaning. Hence, far from suggesting discrepancy, criterion (*b*) enhances the noun/verb convergence.

Note, further, that purely aspectual markers can be stacked as well. This happens in Eng. *s/he has/had been working (until now/then)*, which formally combines perfective (specifically, perfect) and imperfective morphology to yield a peculiar imperfective value, called 'inclusivity' by Bertinetto (1986) and Squartini & Bertinetto (2000). Namely: the idea that the event has been going on until the given vantage-point and might possibly continue, although this remains unspecified just as with the progressive aspect (typically imperfective). In this case, the effect is confined within a single component (aspect), rather than across temporality and modality, as in (4–5). But what matters is that instances of TAM-markers stacking can be found with verbs and nouns alike.

2.4 *Criterion (e)*

"A pure nominal tense does not encode a state change. If the marker under consideration encodes a state change, it cannot be a pure nominal tense." (Tonhauser 2008: 338)

The examples in (1), featuring a closely related language, show that the Guaraní NT-markers involve change-of-state. The designated referent (a house) either ceased to exist, or has not yet begun to exist at the contextually given time-anchor (and similarly, *mutatis mutandis*, relative to Poss-Time). Hence, criterion (*e*) is indeed violated.

Consider now verbal-tenses$_\mu$. As shown by Plungjan & van der Auwera (2006) in their survey of 'discontinuous past' markers, they too can convey an idea of temporal intermission, thus violating criterion (*e*). These authors have shown that the Perfective-Pasts of some languages with relatively-oriented verbal systems – rather than deictically-oriented ones – express 'discontinuity'

between the Event-Time and the salient time-anchor (the Utterance-Time or a contextually given time). Significantly, Plungjan & van der Auwera remark on the similarity between the verbal 'discontinuous Past' and the retrospective NT_μ of Guaraní-like languages. Once again, verbs and nouns are on a par.

Moreover, independently of the language considered, change-of-state is a regular feature of telic verbs in perfective contexts. Tonhauser (2008: 338) is aware of this, since she observes, relative to criterion (*e*), that with verbal-tenses$_\mu$ there may be a "tense/aspect combination". However, she does not extend this conclusion to the Guaraní NT-system. In the perspective adopted here, which assumes the synergistic involvement of all TAM-components, this is instead a natural consequence for both verbal and nominal tenses$_\mu$ (see Section 2.5 for the aspectual import of the Guaraní NT-markers).

Finally, although this goes beyond Tonhauser's goal, one should consider that not all NT-systems behave as in Guaraní. In the Somali sentence in (6b), there is no presupposition that the condition valid at Nom-Time for the given individuals, as indicated by the retrospectively-oriented definite article (i. e. their being students at some past interval), must be over at Utterance-Time.

(6) Somali [*som*, Cushitic, Afro-Asiatic] (Lecarme 1999, ex. 5a-b)
  a. *Arday-da*   *baan kasin*   *suˈáash-aa-díi*
   student.PL-DEF.F NEG.F understand.PAST question-POSS.2SG-DET.F.PAST
   'The students (who are present / I am telling you about) did not under-
   stand your question'
  b. *Arday-díi*   *w´ay joogaan*
   student.PL-DEF.F.PAST 3PL.F are_present
   'The students (e.g. students I told you about) are present'

Thus, the Somali NT-markers do not refer to an interval during which the studenthood condition is/was/will be satisfied, but rather to a contextually salient interval. In other words, (6a-b) refer to specific students presently/pre-viously relevant for whatever situational reason, rather than to people who, respectively, are/used to be students. The Somali NT-markers should therefore be viewed as discourse-related designations, rather than extralinguistically-motivated ones, like NT-markers *à la* Guaraní.

Note, finally, that in (6) there is no temporal agreement between the NT-marked noun and the event expressed by the verbal tense$_\mu$. Thus, despite the difference *vis-à-vis* Guaraní in terms of change-of-state implications, the Somali markers instantiate independent-NT, similarly to the sentences in (1).

Section 3.2 will further discuss the special nature of the Somali NT-system.

2.5 *Criterion (f)*

> "The Noun-Phrase-Time may be anaphorically resolved in discourse (parallel to the Reference Time of verbal-tenses)." (Tonhauser 2008: 338)

The notion of NP-Time is already familiar to the reader. As for the Reference-Time (***R***), before addressing its role in criterion (*f*), one has to disentangle its ambiguity. In Reichenbach (1947), this term is interchangeably used for:
– the Event (***E***) 'localization' relative to Utterance-Time (***U***):
  John left at 2 o' clock (E,**R** – U);
– the 'vantage-point' at which the previous completion of the event, i. e. its resultant state, is evaluated:
  By now, John has left (E – **R**,U).

In Bertinetto (1982, 1986), compelling reasons were provided to theoretically separate these two interpretations of *R*. Here they will be respectively named TEMPORAL-LOCALIZATION (= ***L***) and VANTAGE-POINT (= ***V***). The latter is confined to tenses$_\mu$ expressing perfect aspect, while the former is aspectually neutral and may or may not be spelled out, depending on constraints imposed by the individual tenses$_\mu$. This contrast will be illustrated with the examples in (8). For the time being, one can observe that, even when the given tense$_\mu$ allows a (more or less precise) localization of the event, speakers do not necessarily add this detail. In most situations, the localization is only inferred indirectly, based on the sequence of events. Hence, the role of *L*, in the semantic projection of the tenses$_\mu$, is less crucial than that of *E*, which is always projected.

Criterion (*f*) claims that, if the Guaraní NT-markers instantiated 'tense' the same way as verbal-tenses$_\mu$ do, they should allow the anaphoric localization of the Nom/Poss-Time. However, this is not the case, because temporal adverbs can only indicate the NP-Time, whose localization is indicated by the clause predicate. This is shown in (7a) with an example from Musan (1995), where the temporal adverb refers to people who had ceased to be professors (NP-Time), while the actual moment when this change-of-state occurred (Nom-Time) is unspecified. Similarly, in (7b) one cannot tell when the given individual ceased to be Mary's husband, except that it must have occurred before Utterance-Time. This is equivalent to example (1), where one cannot determine the moment when the house mentioned starts existing or belonging to the speaker (1a), nor the moment when it ceases to exist or belong to her/him (1b).

(7)   a. *In the Eighties* (L of E), *the former* (Nom-T) *professors* (NP-T) *were happy* (E).
      b. *In the Eighties* (L of E), *Mary's ex-* (Nom-T) *-husband* (NP-T) *was happy* (E).

Tonhauser fails, however, to perceive the parallel situation of the perfect aspect in the verb domain. In its most typical implementation, as with the English Present-Perfect, *E* cannot be anaphorically localized by a temporal adverb (8a), in contrast with the Simple-Past as aoristically used (8b).[6] This is also true of the Pluperfect whenever the Vantage-Point (*V*) is explicitly mentioned within the same clause (8c). In (8d), by contrast, the localization of *E* can be anaphorically specified precisely because *V* is not mentioned.[7] Alternatively, the localization of *E* can be provided by another sentence (8e), and the same happens with the Nom/Poss-Time in examples (9a-b), to be respectively compared with (7a) and (1a). This shows that, in Guaraní-like NT-systems, the NP-Time plays the same role as *V* does with tenses$_\mu$ expressing the perfect aspect. Conversely, the Nom/Poss-Time plays the role of the non-localizable *E* projected by the same tenses$_\mu$.

(8)   a. *John has left* [E; V temporally coinciding with U] (**at 10 o' clock* [*L]).
      b. *John left* [E] *at 10 o' clock* [L; no V required].
      c. *At 5 o' clock* [V], *John had left* [E] (**at 3 o' clock* [*L]).
      d. *John had left* [E] *at 3 o' clock* [L; V presupposed but not specified].
      e. *It was 5 o' clock* [V]. *John had left* [E] *at 3 o' clock* [L].

(9)   a. *In the Eighties* [L of E and NP-T], *the former* [Nom-T] *professors* [NP-T] *were happy* [E].
          They had all retired in the Seventies [L of Nom-T, with V provided by NP-T].
      b. *Yesterday* [L of E and NP-T] *you saw* [E] *my future* [Nom-T] *house* [NP-T].
          I will buy it four months from now [L of Nom-T, with V provided by NP-T].

One can thus conclude, contrary to Tonhauser, that the Guaraní retrospective NT$_\mu$, with its rejection of the temporal localization of the Nom/Poss-Time within the same clause (similarly to what one finds in (7)), mirrors the Present-Perfect's rejection of the temporal localization of *E* (as shown in (8a)). Example (8c) proves that this equivalence extends to the Pluperfect in its most salient reading.

The situation of the Future-in-the-past (see (10)) is admittedly different. First, the event localization can be set independently of Utterance-Time (i. e.

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6 'Aoristic' stands here for 'purely perfective', i. e. excluding the perfect aspect, which has properties of its own within the perfectivity domain. Note that (8b) would be imperfective habitual in contexts such as: (*Last winter,*) *John left at 10 o'clock* (*every day*).
7 The Pluperfect's double-sided nature was pointed out by Reichenbach (1947).

before/overlapping/after U), showing that this tense$_\mu$ is not deictic even in deictically-oriented systems such as that of English. Second, the actual occurrence of the event cannot be taken for granted, as is generally typical of prospective tenses$_\mu$. Third and crucially, the event can be anaphorically localized, in contrast with the Guaraní prospective NT$_\mu$.

(10)   *John said that he would come yesterday at 3 p.m. / now / tomorrow at 3 p.m.*

The asymmetry between the retrospective (Past/Present/Future) Perfects and the prospective Future-in-the-past is ostensibly alien to the Guaraní NT-system, where both the retrospective and the prospective NT$_\mu$ imply a temporally unspecifiable Nom/Poss-Time, unless localized by another sentence (as in (9)). This discrepancy apart, it is nevertheless apparent that such restriction is of the same nature as the constraint against the anaphoric localization of E typical of perfect tenses$_\mu$. This highlights a noun/verb parallel, contrary to criterion (*f*). Note also that, although the described analogy emerges relative to aspect (specifically, perfect aspect), criterion (*f*) involves the notion of Temporal-Localization, which pertains to tense$_\sigma$.

   Furthermore, not all NT-markers behave as in Guaraní, where the Nom/Poss-Time corresponds to the non-localizable E projected by perfect tenses$_\mu$. In Tundra Nenets [Samoyedic], the Poss-Time[8] of the 'predestinative' NT-marker (PREDS in the glosses) can be anaphorically localized. Consider (11): while *t'en'ana* 'yesterday' localizes the verbal predicate, and thus the NP-Time, *ŋan'i po-xi°* 'next year' localizes the Poss-Time, namely the moment at which the benefactivity relation between doctor and local community will be satisfied.

(11)   Tundra Nenets [yrk, Samoyedic, Uralic] (Nikolaeva 2015, ex. 47)
       t'en'ana   ŋan'i po-xi°   l'ekarə-d°-waq   to°
       yesterday other year-ATTRIBUTIVE doctor-PREDS-1PL come.3SG
       'Our next year's doctor arrived yesterday.'

The different structural position of the Nom/Poss-Time in these two languages can be symbolized as in (12), which illustrates two analogies: (a) between the Guaraní NT-markers and the English (Past/Present/Future) Perfect; (b) between the Tundra Nenets predestinative and the English Simple-Future.[9]

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8 As explained in § 3.1, the Tundra Nenets predestinative establishes a special kind of possessive relation; hence, the Nom-Time does not apply.

9 For the abbreviations, consult the list at the end of this paper. The symbol < indicates temporal precedence; *L means that the localization of the structural constituent in bold characters is barred, while (L) means that the localization is allowed, although not always

(12) a. ENGLISH PERFECT   ≡   GUARANÍ RETROSPECTIVE
          E,*L < V   **Nom/Pos-T,*L < NP-T**
                                                        GUARANÍ PROSPECTIVE NT_μ
                                                        NP-T < **Nom/Pos-T,*L**
       b. ENGLISH SIMPLE FUTURE ≡   TUNDRA NENETS PREDESTINATIVE
                                                        U < **E**,(L)   U < **Pos-T**,(L)

Although in both languages the (Nom/)Poss-Time can be interpreted as the equivalent of *E*, the above analogies highlight the contrast between the purely perfective aspect – as prospectively-oriented – in (12b), where no *V* is required, and the perfect aspect in (12a), allowance made for the fact that the Guaraní prospective NT_μ reverts the constituents order with respect to the perfect aspect. Significantly, Dietrich (2010: 76) uses the word 'aspecto' in relation to the Guaraní NT markers.

Summarizing, while the Tundra Nenets predestinative allows the localization of the (Nom/)Poss-Time within the clause boundaries, this is excluded with the Guaraní NT-markers. These structural divergences prove that there is not just one kind of NT-system, precisely as there are different types of verbal TAM-organization.

2.6 Criterion (d)

> "The marker encodes a temporal relation between the NP-Time and the Utterance-Time (deictic tense), or between the NP-Time and another contextually given perspective time (relative nominal tense)." (Tonhauser 2008: 338)

This is the core of the problem. The formulation is not easy to grasp: Thomas (2014: 406) remarked that he could not "understand the rationale behind this condition". In any case, Tonhauser correctly observes that TAM-systems can be organized according to an either deictic or relative logic. In both cases, the specific conception of 'tense' that she assumes is characterized by the exclusive relation between the Reichenbachian Reference-Time and the Utterance-Time, or a contextually given time-anchor (called 'perspective time' by Tonhauser). This is not universally accepted, and indeed Tonhauser (2007) discusses (and rejects) two alternatives, both involving the third Reichenbachian notion (Event).

As argued in Section 2.5, however, the term 'Reference-Time' is ambiguous. Hence, it cannot play the role Tonhauser assigns it in her definition of 'tense'. In

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indicated. The Utterance-Time is not shown in (12a), to suggest a free temporal interpretation, as with the variable temporal reading of the English Perfect (Past/Present/Future Perfect).

one meaning (= Vantage-Point), it belongs to the semantic projection of a specific set of tenses$_\mu$ (those expressing perfect aspect); in the alternative meaning (= Temporal-Localization), it is no essential component, for it does not always surface and in particular cases (as in (8a)) it is even radically unavailable. Consequently, Tonhauser's conception of 'tense' is based on fragile foundations. By contrast, tense$_\sigma$ (as here conceived) allows for a straightforward definition of the temporal texture of the tenses$_\mu$, in terms of the relation between the Event (which, unlike Temporal-Localization, is always projected) and either the Utterance-Time or a contextually given time-anchor. In the former case (deictically-based systems), the event is evaluated as past/present/future; in the latter case, it is evaluated as retrospective/simultaneous/prospective with respect to a contextual anchor.

2.7 Characterizing the Guaraní NT-system

Tonhauser (2007) checked her criteria – more exactly, (*b-f*), since (*a*) was added in Tonhauser (2008) – against three contrasting interpretations of 'tense', depending on the relationship between the Reichenbachian Times. She opted for the most constraining model, the one outlined in the discussion of criterion (*d*) in Section 2.6, whereby 'tense' is defined by the relation between Reference-Time and Utterance-Time, or a contextually given time-anchor.

According to Tonhauser (2007: 861), the Guaraní NT-system does not fulfill the properties defined for 'tense' in her interpretation, for in most cases it violates the criteria which spell out the assumed verbal-tenses$_\mu$ behavior. The only partial exception concerns criterion (*c*) as limited to the prospective NT$_\mu$, claimed to be mostly unaffected by semantic restrictions. As for (*b*), Tonhauser notes that, in the stacking of retrospective and prospective markers, only one of them (irrespective of which) implements the category 'tense', while this does not apply to their sum.

However, Section 2.3 proved that the combination 'retrospective + prospective', meant to obtain the widely-attested modality value of counterfactuality, occurs with verbs and nouns alike. Similarly, Section 2.2, addressing (*c*), showed that semantic restrictions may also affect the selection of verbal-tenses$_\mu$ as a function of aspect. Thus, in both cases, empirical evidence disconfirms the assumed discrepancy between nominal and verbal 'tense'. Equally, Sections 2.4–5 demonstrated that criteria (*e-f*) are violated not only by the Guaraní NT-markers, but also by the relevant subsets of verbal-tenses$_\mu$. We are thus left with (*a*) and (*d*). The former criterion is indeed violated by independent NT-markers, but this does not concern propositional NT-markers. Hence, although consistent with the scope of Tonhauser's analysis, criterion (*a*) is of no avail in view of a general definition of

NT. Finally, Section 2.6 argued that criterion (*d*) is based on shaky foundations, since the Reichenbachian Reference-Time, depending on its function, is either restricted to a subset of tenses$_\mu$ (Vantage-Point), or is a non-necessary component of TAM-semantics (Temporal-Localization).

Summarizing, this re-analysis of Tonhauser's criteria highlights a radically different interpretation:

I.   The semantics of the Guaraní NT-markers does not essentially differ from that of verbal-tenses$_\mu$. This is welcome, for it allows a consistent, typologically-grounded description of the TAM-features associated with nominal/verbal-tenses$_\mu$ alike. No need for a dedicated NT semantics.

II. The Guaraní NT-markers convey specific combinations of all three TAM-components, just like verbal-tenses$_\mu$ do. This is no new idea. Aikhenvald (2012: 160–161) mentions different mixtures in Amazonian languages: in Jarawara [jaa, Arawá], temporality combines with modality/evidentiality; in Iatê [fun, Macro-Jê], there is a tripartite realis system (past/present/future) contrasting with a bipartite irrealis system combining temporal/modal values (present-potential, past-counterfactual); in South Nambiquara [nab, Nambiquara], the determiner system expresses, besides (in)definiteness, various mixtures of temporality, evidentiality and given/new information.

With specific regard to (II), one can propose the following picture relative to the Guaraní NT-system:[10]

TENSE$_\sigma$ is expressed by the retrospective/prospective orientation of the two overt NT-markers, as well as by the (possible) simultaneity value of Ø-marked nouns.

ASPECT is expressed by: (i) the temporal discontinuity conveyed by the NT-markers, which parallel the tenses$_\mu$ conveying perfective aspect in some

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10 Thomas (2014) proposes a joint analysis of two Mbya Guaraní [gun] grammatical markers: the retrospective NT$_\mu$ *-kue* and the nominalizing construction *-va'e-kue*. An equivalent example of the former can be found in the Bolivian-Guaraní sentence in (4b); as for the latter, consider:
(i)   *A-mba'eapo va'e-kue* (1SG-work REL-PAST) 'I worked' (Thomas 2014: 365).

According to Dietrich (2010, 2011), *va'e* is a relativizer/nominalizer which typically creates nominal predicative structures; in conjunction with *-kue*, it takes a past-referring meaning. Sentence (i) could in fact be written as a single word, meaning 'I-(am)-the-past-working-one', namely the one who used to work at some retrospective time-window. This is not surprising in a language which has, like many American Indigenous Languages, a sharp tendency to reduce the noun/verb gap, with several nouns conventionalized as predicates, and the potentiality for virtually all nouns to be used predicatively (Bertinetto 2006). Note that, once the structure in (i) is interpreted as a nominalization, the two constructions discussed by Thomas turn out to be one and the same, *a fortiori* confirming his analysis.

relatively oriented systems (Section 2.4); (ii) the vague localization (within the clause boundaries) of the Nom/Poss-Time, which corresponds to the equally vague Event-Time localization of the tenses$_\mu$ conveying perfect aspect (Section 2.5).

Finally, MODALITY emerges in the stacking of competing temporal affixes (retrospective + prospective), yielding counterfactual meaning (Section 2.3). However, if properly inspected, modality is always involved: the retrospective NT$_\mu$ and the Ø-marked nouns express realis value, while the prospective NT$_\mu$ may convey both types of reading (realis/irrealis) depending on context, as is typical of prospective/future events.

Before concluding Section 2, it is fair to say that, although the preceding discussion criticizes Tonhauser's criteria, the result is very much in the spirit of her contributions, as well as in the spirit of Nordlinger & Sadler (2008). Despite the apparently incompatible positions of these scholars, both sides underlined the need to deepen our understanding of NT. The view defended here incorporates Tonhauser's urging to compare the characteristics of different NT-systems, but also supports Nordlinger and Sadler's arguing for the prominent role of temporality.

3 Nominal-aspect

Nordlinger & Sadler (2004) did not find any instances of nominal-aspect markers in their typological survey, although they did not exclude that such markers could exist. By contrast, they reported instances of nominal-modality (or mood/ evidentiality, in their wording (2004: 783–785)), in addition to nominal markers conveying temporal values.

Later contributions, however, proved that NT-markers can express aspectual values.[11] In this vein, Sections 3.1–2 show that some markers express the value of gnomic-imperfectivity (as defined below), which appears to be a relatively pervasive feature. Next, Sections 3.3–4 tentatively suggest that some morphosyntactic mechanisms, based on case selection, might be regarded as instances of, respectively, propositional nominal-aspect and propositional nominal-actionality. Section 3.5, by contrast, casts doubt on the alleged purely aspectual inclination of some NT-systems.

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11 The notion of 'nominal-aspect' has been used by Rijkhoff (1991, 2004) in a rather idiosyncratic sense, alien to the present topic.

3.1 NT and gnomic-imperfectivity

Nikolaeva (2015) characterizes the predestinative marker of Tundra Nenets as both temporally- and modally-oriented. The temporal orientation is apparent in the straightforward future-orientation of (11). As for modality, consider the examples in (13a-b), which refer to a yurt/book that, by assumption, 'might be' appropriate for the addressee. As a matter of fact, Nikolaeva proposes an explicit parallel with the "future free-relative clauses" of Modern Greek, which involve a subjunctive-like reading, as in her example (37) (2015: 114): *eho aghorasi ti tha foreso sto parti* 'I've bought (*aghorasi*) what I will wear (*tha foreso*) at the party'. Namely: 'the ideal kind of dress I'd like to wear', over and above that specific referent.

(13)   Tundra Nenets [yrk, Samoyedic, Uralic]
   a. *Wera   m'a-tə-mtº   taºita*
      Wera   yurt-PREDS-ACC.2SG   give.3SG
      'Wera brought you your future yurt.' [i.e. a yurt ideally meant for you]
                                                (Nikolaeva 2015, ex. 27)
   b. *Masˇa-nºh   kniga-də-mtº   m'iqŋa-dºm*
      Masha-DAT   book-PREDS-ACC.2SG   give-1SG
      'I gave Masha a book for you.' [i.e. a book ideally meant for you]
                                                (Nikolaeva 2015, ex. 8)
   c. * [(*mən'º*)   *kniga-də-mtº*]   *m'iqŋa-dºm*
        1SG   book-PREDS-ACC.2SG   give-1SG
      Intended meaning: 'I gave you my book [ideally meant for you].'
                                                (Nikolaeva 2015, ex. 9)

However, like any NT-marker, the predestinative marker also involves aspect, on top of tense$_\sigma$ and modality. Indeed, aspect has already been pointed out by the analogy shown in (12b). Consider now the following remark by Nikolaeva (p.116–117): "predestinatives are used intensionally [...]. They are the only inflectional forms of Tundra Nenets nouns in which the expression of grammatical number is banned, presumably because they denote a property of indeterminate number". In fact, the 'yurt/book-meant-for-you' of (13a-b) should not be intended as a spatio-temporally identifiable object, but as an idealized referent belonging to the intensional class of yurts/books especially suitable for the given beneficiary. Example (13c) is unacceptable precisely because it refers to an extensionally-defined object. Accordingly, Nikolaeva underlines that the predestinative is incompatible with any referential specification, such as that triggered by pre-suppositional quantifiers (*all*, *one of the x*). What feeds the benefactivity relation

cannot be a concrete referent, but rather the prefiguration of the intensionally ideal type.

This suggests a striking analogy between the semantic nature of the Nenets predestative and the aspectual notion of gnomic-imperfectivity (from Ancient Greek *gnōme* 'opinion'), as defined by Bertinetto & Lenci (2012) with reference to intensional imperfective situations. Lenci & Bertinetto (2000) provided a formal assessment of this aspectual value, although they did not yet use the term 'gnomic'. Intensionality is typically activated by various imperfectively-oriented situation-types, ranging from individual-level (14a) to habitual events (14e), at least including generic (14b), attitudinal (14c), and potential (14d) events. These sentences differ in terms of pluractionality, totally absent in (14a), indirectly suggested in (14b,c), irrelevant in (14d) – which might refer to an object that nobody will ever use – and only satisfied in habitual sentences (14e). What these sentences have in common, however, is the assignment of characterizing properties to the given referent/situation. This might be taken for granted with the events in (14a-d), typically illustrating characterizing sentences, but also applies to habitual sentences. Consider (14e): the iterated events in the real/extensional world, out of which the habit of soccer-playing is inferred, are not the actual focus; what matters is the propensity to play soccer with a possibly specifiable frequency of occurrence, i. e. Bill's quality as soccer-player in the mentioned interval. Contrary to appearance, habitual sentences are not 'eventive', but rather 'qualifying' sentences. This is a fundamental communicative function, and gnomicity is a widely detectable aspectual feature, often expressed by the same morphological markers that express all imperfective values, although some languages may add alternative solutions (like dedicated habituality markers/periphrases). For instance, to the extent that the events in (14) can be re-shaped into past-referring sentences (excluding (14b) owing to omnitemporal validity), any Romance language would use the Imperfect, i. e. the tense$_\mu$ typically used in imperfective-past contexts.

(14) a. *Elina is Finnish.*   [INDIVIDUAL-LEVEL]
      b. *Beavers build dams.*   [GENERIC]
      c. *Joe smokes.*   [ATTITUDINAL]
      d. *This machine squeezes oranges.*   [POTENTIAL]
      e. *When he was young, Bill played soccer with his friends.* [HABITUAL]

The analogy between the situation-types in (14) and the Tundra Nenets predestinative lies in the intensional perspective. Although (13a-b) mention a yurt/book, what matters is not the extensionally-defined constitution of such objects, but rather the fact that they belong to the relevant subsets of the sets **'yurt'**/

'**book**', namely those that ideally suit the given beneficiary. Instead of a specific physical object, (13a-b) designate the abstract type to which it belongs. In a similar vein, (14c) defines Joe as belonging to the intensional set '**smoker**', i. e. as a person who typically smokes (with specifiable frequency), rather than indicating a set of contingent smoking occurrences.

Note also that the Tundra Nenets predestinative does not presuppose the existence of the referent at NP-Time. In this respect, it resembles the Guaraní NTs$_\mu$, with the difference, though, that the latter explicitly presuppose a change-of-state (Section 2.4), whereas for the Tundra Nenets predestinative this is a mere implicature. Indeed, as Nikolaeva (2015: 111) writes with respect to (13a): "the most likely interpretation [...] is that Wera brought the objects necessary for making a traditional yurt, namely, reindeer skins and wooden poles", while the yurt itself did not yet exist at the mentioned moment.

The following section will show that gnomic-imperfectivity, far from being an idiosyncratic feature of Tundra Nenets predestinative, is an identifiable value in other NT-markers.

3.2 Examples of gnomic nominal-aspect

Ayoreo [ayo, Zamucoan] has the morpheme *-bej* (or *-mej* under nasal harmony; feminine *-be/me*). As pointed out by Higham et al. (2000), this morpheme conveys a meaning of habituality: e. g. *ojde-be* 'what is customarily carried'; *uru-bej* 'usual word'; *akiniŋa-mej* 'customary meeting place'. The informants consulted (Bertinetto 2014) confirmed that this suffix is highly productive: *igide-be* 'customary dress', *acadisõri-mej* 'usual teacher', *motɕapi-bej* 'usual/preferred bed', *daje-bej* 'habitual path', *pibose-bej* 'usual/favorite food', *ji-tɕaride-bej* 'my usual sitting-place', *urõso-bej* 'habitual pain'. Obviously, some words can hardly be thus qualified, e. g. *tie-be 'habitual river'. However, some initially rejected examples were accepted on after-thought, such as *ˀtamoco-be(j)* 'frequently encountered dog'.

Dixon (2004) reports Jarawara sentences featuring the 'habitual' (or rather, gnomic) morpheme *-tee-*, which may yield generic/habitual sentences when attached to verbs (15a), or assign a noun a persistent qualification (15b).[12] In the latter example, the woman referred to is characterized, at the given moment, as a future wife.

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12 Thanks to Bob Dixon for exchanging views on this example.

(15)   Jarawara [jaa, Arawá]
    a. *kate$_A$*   *wami$_O$*   *kaba-tee ama-ka*
       macaw(M) tree.sp(F) eat-HAB   EXTENT-DECLARATIVE_MOOD
       'Macaw (birds) eat the fruit of the wami tree' (Dixon 2004: 191, ex. 5.350)
    b. *fat-tee-ba-ni-hi*
       wife(F)-HAB-FUT-F.IMMEDIATE_PAST_NON_EYEWITNESSED-
       DEPENDENT_CLAUSE
       'She was to become (his) wife'   (Dixon 2004: 307, ex. 10.62)

The Kamaiurá [kay, Tupí-Guaraní] prospective NT$_\mu$ is reported to also mark the 'attributive' case, expressing the idea of being 'in the function/state of something or someone', similar to the 'essive' case of Finno-Ugric languages (Seki 2000: 110–112; Aikhenvald 2012: 159–160; De Groot 2017). This value is ostensibly related to gnomicity, for being in a certain function/state is equivalent to possessing the corresponding quality. For instance: 'X is (in the function/state of) a teacher' means 'X belongs to the set of teachers'. The fact that Kamaiurá uses a prospective marker to this effect is reminiscent of the Tundra Nenets predestinative, characterized as prospectively-oriented on top of being intensionally/gnomically-based.

    Lecarme (2008) proposes that the Somali NT-markers, i. e. the past/non-past determiners shown in (6), express temporal and/or modal nuances. Since, however, the Somali past-determiner can also convey generic (16a) and habitual meanings (16b) – both belonging to the gnomic sphere (compare with (14b,e)) – one might describe such nuances as aspectual, rather than modal. But the past-determiner has further possibilities. Although the ignorative meaning of (16c-d)[13] supports Lecarme's contention about modality, the ultimate source of this whole array of readings is the invisibility meaning to be detected in (16e), diachronically connected with the proximal/distal contrast which inspires the Somali demonstrative system (Lecarme 2008, 2012). This is confirmed by the immediate-future reading of (16f), definitely oxymoronic *vis-à-vis* the usual past-orientation of this determiner. Similarly, the Ashéninka-Perené [Kampan] retrospective morpheme *-ranki*, can convey, alongside 'temporal precedence/change-of-state', the meaning of "absent in the speaker's environment at the present moment" (Mihas 2013a: 51), involving the non-TAM value [–visible].

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13 The term 'ignorative' is used by some scholars to refer to a class of grammatical devices which radically exclude referentiality.

(16)   Somali [som, Cushitic, Afro-Asiatic]
    a. *Wíil-kíi*   *wanaagsani waa*   *ínuu*   *wax*
       boy-DEF.M.PAST good.NOM   COMP/FOCUS COMP.3M thing
       bartó
       learn.PRES.DEP
       'A (lit. the) good boy must learn something'

                               (GENERIC; Lecarme 2008, ex. 13a)
    b. *Aróor-tíi*   *wáxaan*   *toosaa*   *líx-da*
       morning-DEF.F.PAST EXPL.F/COMP.1SG wake-up.PRES.GENER six-DEF.F
       'In the morning, I wake up at six'   (HABITUAL; Lecarme 2008, ex. 14a)
    c. *Jawaáb-tíi*   *garán maayo*
       answer-DEF.F.PAST know NEG.have.PRES
       'I do not know the answer '   (IGNORATIVE; Lecarme 2008, ex. 16a)
    d. *Kíi / búug-gíi*   *aad rabtíd*   *qaadó!*
       DEF.M.PAST / book-DEF.M.PAST 2SG want.2SG take.IMPERATIVE.2SG
       'Take whatever /whatever book you want!'

                      (free relative IGNORATIVE; Lecarme 2008, ex. 17d)
    e. *Qálinkáy-gii /*-gu*   *méeyey?*
       pen.M.POSS.1SG-DEF.M.PAST /*-DEF.M.[+NOM] INT.is.M.SG
       'Where is my pen ?'   (INVISIBLE; Lecarme 2008, ex. 20a)
    f. *Xáj-kíi*   *baan*   *áadayaa*
       pilgrimage-DEF.M.PAST COMP/FOCUS.1SG go-to.PRES.PROGRESSIVE
       'I am going on the Pilgrimage '

                      (IMMINENTIAL FUTURE; Lecarme 2008, ex. 22b)

Supposedly, the Somali past-determiner, which covers such a wide range of readings, exhibits an incomplete degree of grammaticalization as NT-marker.[14]

    Tsou might offer a somewhat similar sort of example (Chang 2015). This language has two NT-markers (retrospective/prospective), normally used in purely episodic sentences. In the copula-less examples in (17), however, one finds the retrospective NT-marker *nia* in conjunction with the 'habitual' morpheme *la*, with no idea of pluractionality (as habituality should imply). These sentences appear to assign an intensional characterization to a referent/situation. However, this effect does not depend on the retrospective NT-marker *per se*,

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14 Following Tatevosov (2005), and with the sole aim of inspiring future investigations, the following semantic cline might be proposed as a working hypothesis, based on languages such as Kamaiurá and Somali:

  distal > invisible > ignorative > gnomic (> predestinative) > prospective/retrospective
  Supposedly, different languages might start their journey at different steps.

but is obtained by juxtaposing two morphemes (*nia* and *la*). It is therefore a case of stacking (see Section 2.3), formally similar to the ones in (4), although with aspectual rather than modal value.

(17)   Tsou [tsu, Formosan, Austronesian]
   a. *'a   nia   la   ngocoo   (na)   taini.*
      EVID   RETR   HAB   township.chief   ABS   3SG.ABS
      'He is indeed an ex-township chief.'   (Chang 2015; ex. 6b)
   b. *'o   tena   la   kingatu zou   mo'o.*
      DEICTIC   PROSP   HAB   chief   EMPHASIS   PROPER_NAME
      'Mo'o is the chief-to-be.'   (Chang 2015; ex. 31b)
   c. *pan   to   nia   la   huyu no   fuzu   tan'e*
      there   OBLIQUE   RETR   HAB   trail   GEN   wild_pig   here
      'There used to be trails of wild pigs here.'   (Chang 2015; ex. 45)

Note, further, that in (17c) *nia* and *la* have scope on the whole sentence, rather than on a Noun-Phrase. Hence, this qualifies as an instance of propositional-NT. The next section will address this topic.

3.3 Propositional nominal-aspect?

Excepting the Chamicuro and Tsou examples in (2) and (17c) – and ignoring the Somali examples (16c-f) which do not contain *bona fide* NT-markers – all data discussed so far instantiate the independent-NT type, whereby the Nom/Poss-Time of the NT-modified noun has a TAM-interpretation unrelated to that of the verbal-tense$_\mu$. This section will instead offer instances of propositional-NT, more specifically of what might be considered propositional nominal-aspect. To the extent that this interpretation is viable, it pays tribute to Nordlinger & Sadler's (2004) insightful distinction, by expanding the domain of propositional-NT to yet another component of the TAM-triad (aspect).

    The examples in (18) illustrate a well-known morphosyntactic property of Hindi, shared by other languages within the Indo-Iranian family: a particular kind of split-ergativity, with contrasting case marking of the subject in perfective (ergative) *vs* imperfective contexts (nominative). This shows that case selection can cooperate with verb morphology to express the intended aspectual choice. But since this noun inflection mechanism has scope over the whole clause, one can view it as an instance of propositional nominal-aspect. Note, further, that the examples in (18) differ from the Chamicuro instance of propositional-NT illustrated in (2) not only for the TAM-component involved,

but also because the Hindi case-marked subject does not work alone, but in conjunction with the verbal-tense$_\mu$. Analogous instances of case-marked nouns cooperating with the verb – with illustrations from Lardil [lbz], Kayardild [gyd, both Tangkic], and Pitta Pitta [pit, Pama-Nyungan] – were pointed out by Nordlinger & Sadler (2004: 790–794) as instances of propositional-NT. Another major difference *vis-à-vis* (2) stems from the fact that the aspect-sensitive case marking in (18) does not project the Nom-Time component, because the TAM information is confined to aspect (i. e. it is modality- and tense$_\sigma$-wise neuter). The NP-Time, by contrast, is provided by the verbal-tense$_\mu$, but this component is necessarily projected by any noun (Musan 1995), regardless of NT.

(18)   Hindi [hin, Indo-Iranian, Indoeuropean] (Keine 2007; ex. 2)
      a. *raam-ne ravii-ko   piiṭaa*
         Ram-ERG Ravi-ACC beat.PFV
         'Ram beat Ravi.'   [PERFECTIVE]
      b. *raam-Ø   ravii-ko   piiṭaa   hai*
         Ram.NOM Ravi-ACC beat.IPFV be.PRS.IPFV
         'Ram beats Ravi.'   [IMPERFECTIVE]

The phenomenon of case selection conveying aspectual values has so far been considered external to the NT perimeter, with the exception of Aikhenvald (2008: 582–584), who mentions it with data from Finnish (as for this language, see below). An anonymous reviewer has expressed reservations concerning this extension of the notion of propositional-NT. Equally, Nordlinger & Sadler (2004: 794), mentioning Gujarati, Punjabi, and Hindi, contend that "in these aspectually-based ergative systems it is not the case that the entire clausal case marking system is affected". However, it is undeniable that in (18) the case-marked nouns "work in conjunction with the verb to fully specify the TAM-value for the clause" (Nordlinger & Sadler 2004: 790). It thus seems justified to offer the present interpretation as a working hypothesis.

    Needless to say, this issue should be viewed in connection with a (highly needed) refined assessment of the syntax of aspect. Presumably, something like the Aspectual Head, as conceived of within the generative framework (supposing we all agree on where it sits in the syntactic tree and what its effects are), might be responsible for case selection in Hindi, ostensibly governed by the aspectual value of the verb. However, since the morphosyntactic mechanism in (18) exploits dedicated exponents to modify a noun, it does not seem illicit to tentatively assign it to the NT category, under the label 'propositional nominal-aspect'.

3.4 Propositional nominal-actionality?

At first sight, Finnish presents a very similar phenomenon with its accusative/partitive alternation in the direct-object, implementing the contrast 'total/partial' event (i. e. telic/atelic), as in (19a-b).[15] Indeed, this alternation can convey the aspectual opposition between aoristic-perfective and imperfective-progressive situations, although (as shown below) this does not exhaust the possible readings. In comparison with Hindi, Finnish is a more extreme example of propositional-NT, because the whole burden of the TAM interpretation lies on case selection, with no contribution from verb inflection. However, since this case alternation concerns the direct object, it only occurs with transitive verbs, and even not all of them (e. g. perception- and psych-verbs).

The following examples feature two versions of each sentence. With the accusative (a', b'), the predicate is telic, necessarily entailing a perfective view. With the partitive (a", b"), the predicate is instead atelic and compatible with two aspectual readings: imperfective-progressive (φ) or perfective (Ψ). The contrast between (φ) and (Ψ) is shown by the fact that the durative temporal adverb (*tunnin*) is only compatible with (Ψ), whereas it is incompatible with (φ), as well as with the accusative-marked perfective reading (a', b').

(19)   Finnish [fin, Ugro-Finnic] (Huumo 2010; ex. 6-7)
   a'. *Lu-i-n*   *kirja-n*   (*tunni-n).
        read-PAST-1SG book-ACC   hour-ACC
        ' I read a/the [whole] book.'   [accusative=TELIC; PERFECTIVE]
   a". *Lu-i-n*   *kirja-a*   ~ ((*φ) *tunni-n*).
        read-PAST-1SG book-PART   hour-ACC
        (φ) 'I was reading a/the book   [partitive=ATELIC; IMPERFECTIVE]
        (Ψ) 'I read part of a/the book (for an hour).'   [partitive=ATELIC; PERFECTIVE]
   b'. *Sö-i-n*   *puuro-n*   (*tunni-n).
        eat-PAST-1SG porridge-ACC   hour-ACC
        'I ate up the porridge. '   [accusative=TELIC; PERFECTIVE]
   b". *Sö-i-n*   *puuro-a*   ((*φ) *tunni-n*).
        eat-PAST-1SG porridge-PART   hour-ACC
        (φ) 'I was eating porridge'   [partitive=ATELIC; IMPERFECTIVE]
        (Ψ) 'I ate (some of the) porridge (for an hour).' [partitive=ATELIC; PERFECTIVE]

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15 See at least Kiparsky (1998), Kratzer (2004), and Huumo (2010). In imperative sentences, the object takes the nominative instead of the accusative, with the same semantic consequences.

If properly considered, the Finnish case selection mechanism turns out to instantiate propositional nominal-actionality, rather than aspect. Indeed, the perfectivity value of the accusative sentences (a', b') is the necessary entailment of realized telicity, hence a derived feature. Moreover, the double reading of the partitive sentences (a", b") shows that the atelic version is compatible with both imperfective (φ) and perfective view (Ψ). Thus, rather than being the driving element, aspect depends on actionality.

Here again, an anonymous reviewer has cast doubt on the interpretation of this morphosyntactic phenomenon as an instance of propositional-NT, observing that in Finnish, like in most languages, telicity emerges from the interaction of verb meaning and NP semantics. Consider, for instance, *to read a/the book* or *three/several books* (telic), with specific/specifiable referents, as compared with *to read books* (atelic), with non-specifiable referents. However, in these English examples there is no contribution from noun morphology, as opposed to the Finnish examples. To the extent that a noun's morphological marking yields a TAM interpretation (or at least cooperates with the verb to obtain it), a propositional-NT interpretation appears viable.

Interestingly, Aikhenvald (2008: 587ff) reports data from a lesser-known language that confirm this view. In Manambu, case markers can yield actional/aspectual/modal values. As she writes (p. 592): "some languages employ case morphemes as clause linkers; others use them to express aspectual and modal meanings. Manambu appears to be unique in that it offers both options. Three case markers link clauses – these are dative-purposive, allative-instrumental and substitutive. Two case markers express main clause categories of aspect and modality – these are objective-locative and dative-purposive". To illustrate, in (20) the same verb assumes two different meanings: telic 'find' in (20a), owing to the objective-locative case on *takwa:m* 'woman', and atelic 'look for' in (20b), with *amæy* 'mother' unmarked for case. Interestingly, in (20c) the objective-locative morpheme occurs on a verb root to indicate resulting state.

(20)   Manambu [mle, Ndu family, East Sepik, Papua New Guinea]
        (Aikhenvald 2008; ex.s 19, 20, 23)
     a. *a*   *takwa:m*   *kwakə-ku*
        DEM.DIST.F.SG woman.LK.OBJ/LOC look.for/find-COMP.SS
        wiya:r   *wula:l*
        house.LK.ALL/INSTR go.inside.3F.SG.BAS.PAST
        'After having found that woman, she went inside the house'.
                                                    [TELIC-PERFECTIVE]

b. *ñanugw   amæy   kwakə-ya-bana*
  children mother-Ø look.for-come-1PL.SUBJ.NONPAST.3F.SG.BAS.NONPAST
  'We keep looking for children's mother'.   [ATELIC-IMPERFECTIVE]

c. *wun də-kə-m   wukəmar-ə-m*
  I   he-LK-OBJ/LOC forget-LK-OBJ/LOC
  'I completely forgot him'.   [TELIC-PERFECTIVE]

Furthermore, the dative-purposive case – which marks intentionality on verbs (21a) – gives an atelic action the frustrative overtone of doing something in vain when appearing on the direct object (21b).[16]

(21)   Manambu [mle, Ndu family, East Sepik, Papua New Guinea] (Aikhenvald 2008; ex.s 25, 26)

a. *ñən   wun-a-wa agwa-japək   warya-k*
  you.F I-LK-COM   what-thing.LK.DAT fight-DAT/PURP
  Why (lit. what for) are you going to fight with me?'.

                                    [INTENTIONAL]

b. *amæyik   kwakə-dana*
  mother.LK.DAT/PURP look.for-3PL.SUBJ.NONPAST.3F.SG.BAS.NONPAST
  'They are looking for their mother in vain (and not finding her)'.

                                    [FRUSTRATIVE]

As the examples prove, the Manambu case selection mechanism shows dominance of actionality on aspect, as in Finnish. Thus, both languages seem to implement a variant of propositional-NT, with dominant actionality synergistically combined with aspect.

   Most importantly, all examples in (18–21) abide by the defining properties proposed by Nordlinger & Sadler (2004: 778) for the category of NT, with special regard to the first one (provided one adds actionality to the list of semantic dimensions involved):[17] "Nouns (or other NP/DP constituents) show a distinction

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16 In addition, the dative-purposive case has other functions (i. e. dative), irrelevant to the present topic.

17 The remaining three properties itemized by Nordlinger and Sadler are:

– This TAM distinction is productive across the whole word class and not simply restricted to a small subset of forms.

– The TAM distinction is not restricted to nominals functioning as predicates of verbless clauses but is encoded on arguments and/or adjunct NP/DPs in clauses headed by verbs.

– The TAM marker is a morphological category of the nominal word class and cannot be treated as a syntactic clitic that merely attaches phonologically to the NP/DP.

in one or more of the categories of tense, aspect, and mood, where these categories are standardly defined as they would be for verbs". As a matter of fact, several examples analyzed as propositional-NT by Nordlinger and Sadler behave in essentially the same way as those discussed in this section and the previous one, inasmuch as they are based on case-marking cooperating with verb inflection.

3.5 On two proposed cases of nominal-aspect

A purely aspectual interpretation has been proposed for the NT-systems of Marori and Tsou. The arguments deserve scrutiny.

Arka (2013) defines the Marori [mok, Kolopom, Trans-New Guinea] suffix -*on/en* (-*won/wen* after a vowel-ending root) as 'completive'. It can also be used with verbs, including 'adjectival' statives expressing resultant state (e. g. *kara-won* 'sick'). Since this marker can influence the choice of the auxiliary (almost always required), Arka writes that Marori exhibits a 'local-clausal' kind of NT, that he considers intermediate between independent- and propositional-NT. Of special relevance here is the fact that -*on/en* allegedly conveys the meaning of a Present-Perfect, which justifies assigning it to nominal-aspect. However, in order to interpret a retrospective NT-marker as the equivalent of a Present-Perfect, one should prove that it has all and only the structural properties of this tense$_\mu$, which is characterized by: (i) overlapping of Utterance-Time and Vantage-Point (see Section 2.5), and (ii) unspecifiable localization of the event within the clause boundaries (see (8a)).

Now consider (22). If Arka's interpretation is correct, the temporally unspecified Nom-Time of the retrospectively-modified NP *namon nuron* 'my ex-wife' should have its Vantage-Point coinciding with Utterance-Time, but independent of *fis* 'yesterday', which localizes the verbal-tense$_\mu$ (and the NP-Time). Hence, the woman who yesterday was sick might have been the speaker's wife then, to only later become his ex-wife. Is this at all possible? If so, the Marori retrospective NT$_\mu$ would constitute an absolute rarity. Until this is proved, -*on/en* should be cautiously understood as retrospectively (i. e. non-deictically) anchored on the NP-Time like the Guaraní NT-markers (see Section 2), rather than the NT equivalent of the Present-Perfect.[18]

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18 Arka (2013) glosses the Marori *mbe* particle as 'habitual'; from his description, though, it is hard to gather whether it is a NT-marker or a mere adverb.

(22) Marori [mok, South New Guinea]   (Arka 2013: ex.22b)
      nam-on   nuron fis   kara nggo-ra-m
      1POSS-RETR wife   yesterday sick DYNAMIC.AUX-3.DUR.PRES-3.NEARPAST
      'My ex-wife was sick yesterday.'

Tsou [tsu, Formosan, Austronesian] is another case in point. Chang (2012) described it as tense$_\sigma$-oriented, but Chang (2015) proposed a purely aspectual interpretation of its verbal and NT systems. In (17) above it was indeed shown that the retrospective particle *nia* can express gnomic-imperfectivity when stacked with 'habitual' *la*. It is thus worth examining Chang's arguments.

(i)   Chang analyzes the Tsou verbal system as tenseless and claims that it would be impossible for a language to have tense$_\sigma$ only expressed on nouns. However, although Tsou is no doubt a mood-prominent language in terms of Bhat (1999), as confirmed by the different complementizers used in realis/irrealis dependent clauses (Chang 2015, ex. 50), tense$_\sigma$ is a recognizable component of its verbal system. This emerges in the three tenses$_\mu$ listed within the realis mood (Present, Recent-Past, Remote-Past), and even in what Chang calls 'irrealis' mood. Indeed, besides typically modal values (hypothetical, counterfactual), it also includes aspectual (habitual) and, crucially, temporal values (future). Hence, tenselessness does not properly describe the facts.

(ii) Since *nia*, associated with a noun, conveys temporal discontinuity, Chang – inspired by Tonhauser's criterion (*e*) – considers it alien to the category 'tense'. See, however, the rebuttal of this argument in Section 2.4.

(iii) The optionality of *nia* in some contexts is regarded as incompatible with tense$_\sigma$. However, in many languages verbal-tenses$_\mu$ are (exclusively or mostly) manifested by means of particles that can be omitted in sufficiently explicit contexts, and this can also occur with temporal$_\sigma$ markers. Mòoré [mos, Gur, Niger-Congo] is one example out of many in Sub-Saharan West Africa (Bertinetto & Pacmogda 2013). Hence, optionality cannot define a purported noun/verb discrimination in the TAM-domain.

(iv) Chang states that tense$_\sigma$ markers are typically manifested by bound morphemes. The preceding point shows, however, that this is false: any TAM-value, including temporal ones, can be expressed by independent particles.

(v)   *Eva closed the door* (his example 32) is claimed to express 'completive' aspect, whereas *Eva has/had closed the door* is considered "its tense counterpart". This interpretation conflicts, however, with the widespread agreement on the aspectual values conveyed by the English Present/Past-Perfect. Besides, it conflicts with the present view, whereby all tenses$_\mu$ are considered to jointly express values in each TAM-component.

One can thus conclude that the evidence provided by Chang (2015) does not prove that the Tsou NT-markers implement pure nominal-aspect, although they must have some aspect import like any such marker.

4 Beyond NT

This section mentions some derivational mechanisms that, although not to be confused with NT proper, nevertheless suggest interesting analogies.

Section 4.1 addresses agent/instrument nominalizations, claiming that, similar to some NT-markers (Sections 3.1–2), they have a gnomic inclination. Section 4.2 shows that some derivational processes are sensitive to actionality, and thus remotely similar to the Finnish and Manambu instances of ('propositional') nominal-actionality (Section 3.4).

4.1 Gnomically-oriented nominalizations

As argued in Sections 3.1–2, gnomicity (i. e. the intensional characterization of a referent/situation) is among the most salient aspectual values in the NT domain, competing with the perfect-like value of Guaraní-like NT-markers (Section 2.5). What makes gnomicity especially interesting is that it can be rationalized as a kind of focusing on the essential properties of noun semantics. For instance, the Tundra Nenets predestinatively-marked nouns in (13a-b) are understood as members of the subsets (of the sets **'yurt'**/**'book'**) exhaustively including the ideal type especially suitable for the given beneficiary.

Considering now the widespread derivational process of agent/instrument nominalizations, a striking analogy with gnomically-oriented NT-markers emerges, since these deverbals typically indicate a characterizing activity/function. This is for instance the case of Eng. *-er* and its latinate precursor *-or*, as in *teacher*, *player*, *recorder*, *predecessor*, *governor* etc. This suffix creates a kind of attitudinal meaning: a *singer* intensionally belongs to the set of those who devote themselves to singing, a *printer* has a permanent printing capacity. Needless to say, one can refer to a specific singer or printer, but only to the extent that the referent possesses such a property. There are apparent exceptions, like *killer*, since a person may be so designated after a single crime, which can hardly be called a permanent habit (which would qualify a *serial killer*). However, as mentioned in Section 3.1, pluractionality is no prerequisite of

gnomicity. A single killing act suffices to assign the performer a permanent quality: once a killer, always a killer. Consider also *discoverer/inventor/creator*: although the persons (or supernatural entities) who deserve such a title may have produced a single discovery/invention/creation, they obtain a permanent qualification as members of the corresponding set. A parallel situation, among verbs, is 'potential' sentences like *This machine peels potatoes*, which can apply to an object that has been used just once, or maybe not yet, merely hinting at its potential virtue (see (14d)).

In their analysis of English *-er* derivatives, Lieber & Andreou (2018) demonstrate that they may cover a wide array of meanings, depending on context. According to these authors, such meanings range from purely episodic to habitual, or from bounded to unbounded events. Furthermore, with respect to modality, they may express epistemic, deontic (necessity/possibility), or dynamic modality (dispositions, abilities, capacities, propensities). Lieber & Andreou's treatment improves over previous analyses, which proposed a single overarching meaning for *-er* derivatives. However, as far as aspect is concerned, all these readings can be unified under the category of gnomic-imperfectivity, which indeed ranges over various situation-types expressing, as illustrated in (14), a characterizing property of the given referent/situation. Agent/instrument nominalizations, with their wide array of meanings, are the nominal equivalent of gnomic sentences. In this respect, they resemble the NT-markers discussed in Sections 3.1–2.

Admittedly, agent/instrument derivatives belong in a separate grammatical drawer with respect to NT-markers. However, Tenetehára suggests a possible connecting line. In (23), the nominalizer *-har* indicates the gnomic characterization of the referents. It does not only attach to verbs, but also to postpositions (23c) or adverbs (23d), thus exhibiting great flexibility. In (23a), the son is called 'dog-killer', having acquired this reputation after committing a single crime. Of special interest is the fact that in *izukaarer* of (23a) and *pira ipyhykarer* of (23b) the nominalizer *-har* is followed by the retrospective marker *-kwer*. This is reminiscent of the stacking mechanism discussed in Section 2.3, except that here we do not find two NT-markers, but rather a derivational marker expressing gnomicity and a retrospective NT-marker.

(23)   Tenetehára [gub, Tupí-Guaraní]
    a. *u-petek awa w-a'yr*   *[zawar i-zuka-(h)ar-(kw)er] a'e*
       3-beat man COREFERENTIAL-son dog   3-kill-NOML-PAST   he
       'The man beat up his son (who) killed a/the dog'

                                                (Castro & Camargos 2015, ex.34)

b. *w-exak [pira i-pyhyk-(h)ar-(kw)er] [zàwàruhu i-zuka-har] ka'a*
   3-see   fish 3-hit-NOML-PAST   jaguar   3-kill-NOML bush

   ø-pe   a'e
   RELATIONAL-LOC he

   'The fisher saw the hunter of jaguars in the bush'

   (lit. 'The one who hits the fish saw the one who hunts jaguars')

   (Castro & Camargos 2015, ex.32)

c. *w-exak awa [ka'a ø-pe-har]   a'e*
   3-see   man bush RELATIONAL-LOC-NOML he

   'The man saw the one who is from the bush'

   (Castro & Camargos 2015, ex.27b)

d. *u-wewe [ywate-har] a'e*
   3-fky   high-NOML   he

   'The one who is from above flew (away)'

   (Castro & Camargos 2015, ex.30)

The combination of nominalizer *-har* with retrospective *-kwer* is interesting, because it shows how a NT language can make the meaning of agent/instrument derivatives thoroughly explicit. Although a brand-new *printer* may be so called even though it has never been used, agent/instrument deverbals mostly imply previous occurrence of the designated event. This is certainly the case for *fisher* or *killer*, for one can hardly be so designated out of mere potentiality (metaphorical meanings aside). The Tenetehára words *izukaarer* (23a) and *pira ipyhykarer* (23b) make the connection between factual occurrence and agent's characterization fully explicit.

Agent/instrument derivatives are exceedingly widespread. Dixon & Aikhenvald (2011: 248–249, 270) cite nominalizations from Movima [mzp, Bolivian unclassified], Quechua [qwe, Quechuan], Dyirbal [dbl, Pama-Nyungan], Apalaí [apy, Cariban] and Trio (or Tiriyó) [tri, Cariban], observing that they designate habitual behaviors/situations (hence, gnomicity). Similarly, Chafe (1990: 61–64) discusses various usages of 'defocusing' pronominal affixes of Caddo [cad, Caddoan], which can cooperate with other morphemes to build nouns with transparent gnomic meaning as agent/instrument nominalizations: e. g. *nak-i-ka = dis* (INSTR-DEFOC-AGENT = wash) 'that with which one washes'.

Considering the ostensibly aspectual import of agent/instrument deverbals, one can conclude that aspect, and more precisely gnomicity, is the most widely attested TAM-component in the nominal domain at large, over and above NT as properly considered.

4.2 Actionality-driven nominalizations

Section 3.4 suggested, with respect to Finnish and Manambu, that some NT-markers involve actionality. This is not surprising, because, independently of the NT issue, there is a large literature on the actional values conveyed by nouns, especially deverbals (see a.o. Gaeta 2002; Melloni 2006; Heyd & Knittel 2009; MacDonald 2010).

Many deverbals, such as *explanation*, *destruction*, *invasion* etc., are double-sided. They have a dynamic meaning, suggesting a telically unsatisfied event, but may also indicate the static consequence of an accomplished telic event. For instance, the word *restoration* can designate either an ongoing event or its result (*The building is under restoration/You will like the restoration*). It is unusual for a language to develop morphological devices to systematically distinguish the dynamic meaning from its resultative counterpart, but there are exceptions. The deverbal nouns of Polish, Slovak and Czech (especially the last language) normally preserve the actional-aspectual properties of the '(im)perfective' verbs they derive from (Dickey 2000). For instance: Pol. *czytanie ~ przeczytanie* 'reading', Slk. *porovnávanie ~ porovnánie* 'comparison', Cz. *zvyšování ~ zvýšení* 'increase', with the first noun expressing the eventive-dynamic meaning and the second one the resulting static situation. The other Slavic languages are (much) less systematic in this respect (Dickey 2000: 242).

The involvement of actionality with these deverbals is a function of the verbs they derive from, with the telic value of so-called 'perfective' verbs contrasting with the basically atelic (and to some extent unmarked) orientation of 'imperfective' verbs. Indeed, as Bertinetto & Lentovskaya (2012) suggest, the 'perfective/imperfective' contrast of the Slavic languages was by and large inspired by the telic/atelic divide. However, in the course of time – following reorganization of the original tense$_\mu$-architecture of most Slavic languages – this contrast gave rise to a mixed actional-aspectual system (hence, this paper's usage of quotes relative to Slavic '(im)perfective'). The original organization only survives, to a large extent, in Bulgarian and Macedonian; other southern Slavic languages, although formally preserving most of the original morphological possibilities, have functionally constrained them, essentially converging with the northern languages.

The special relevance of Polish, Slovak and Czech deverbals for the present concern is that they offer a formally-expressed contrast, vaguely reminiscent of a NT-system. However, there is a crucial difference: as observed by Nordlinger & Sadler (2004: 778), the actional value of such nouns percolates from the [± 'perfective'] feature of the base verb. This notwithstanding, the existence

of both actionality-oriented nominalizations and actionality-oriented NT-markers (see Section 3.4) confirms that this semantic feature is so prominent, as to activate grammaticalization processes outside the verb system.

5 Conclusion

The growing popularity of the NT issue owes much to the seminal work by Nordlinger & Sadler (2004), who offered the first large-scale typological survey. The goal of this paper has been to pursue this enterprise, addressing basic questions concerning NT semantics.

Section 1 defended a theoretical position based on disambiguation of the term 'tense', respectively viewed as the domain of 'temporality' (= tense$_\sigma$) or as the set of morphosyntactic entities making up verbal/nominal systems (= tense$_\mu$). Any verbal/nominal tense$_\mu$ conveys values in the three TAM-components (temporality, aspect, modality), although one or more of them may be neutralized in the individual marker. A fourth semantic dimension (actionality) may also be involved (Section 3.4). By assuming a unified semantic apparatus for verbal/ nominal systems alike, one can assign NT a recognizable position in the grammatical architecture, instead of considering it a vaguely defined phenomenon with idiosyncratic properties.

Section 2 argued that Tonhauser's definition (2006–2008) of the Guaraní NT-markers cannot offer an all-embracing assessment of the NT issue. Such markers were shown to exhibit a mixture of all TAM-components (crucially including tense$_\sigma$) and, most importantly, to share many features with verbal-tenses$_\sigma$.

Section 3 illustrated the predominantly aspectual orientation of some NT-markers, with special regard to gnomic-imperfectivity. In addition, it proposed a propositional-NT interpretation of some morphosyntactic mechanisms based on case selection, with either aspectual or actional import.

Gnomic values were also pointed out in agent/instrument nominalizations, characterizing referents typically engaged in specific activities or possessing peculiar capacities (Section 4.1). Similarly, the deverbals of some Slavic languages were interpreted as actionality-sensitive (Section 4.2). Although external to the NT perimeter, these phenomena show that, quite independently of NT proper, semantic features normally associated with verbs are also pervasively present in noun semantics. NT can thus be viewed as the emergence of this latent urge.

Abbreviations: ABS = absolute; ACC = accusative; ALL/INSTR = allative-instrumental; AUX = auxiliary; BAS = basic person marking; COM = comitative; COMP =

complementizer; DAT = dative; DEF = definite; DEFOC = defocusing; DEM = demonstrative; DEP = dependent; DIST = distal; DUR = durative; E = Event-Time; ERG = ergative; EVID = evidential; EXPL = expletive; F = feminine; FUT = future; HAB = habitual; GEN = genitive; GENER = generic; INSTR = instrumental; INT = interrogative; IPFV = imperfective; L = Temporal Localization; LK = linker; LOC = locative; M = masculine; NEG = negative; Nom/Pos-Time = Nominal/Possessive-Time; NOM = nominative; NOML = nominalizer; Nom-T = Nominal Time; NP-Time = Noun Phrase Time; NT = nominal tense; OBJ/LOC = objective-locative; PART = partitive; PFV = perfective; PL = plural; POSS = possessive; POS-T = Possessive Time; PREDS = predestinative; PRES = present; PROSP = prospective; PRS = present; PURP = dative-purposive; R = Reference Time; REL = relativizer; RETR = retrospective; SG = singular; SS = same subject; SUBJ = subjunctive; TAM = tense-aspect-modality; U = Utterance-Time; V = Vantage-Point.

Appendix: On the morphological status of NT-markers

Since the NT-markers of inflecting languages consist of affixes, the question of their status arises: inflection or derivation? Needless to say, the analysis would require detailed language-by-language inspection, but one can venture to formulate the following hypothesis: although the inflectional origin of NT-markers is unquestionable – for they do to nouns what TAM-inflection does to verbs – the instances of idiosyncratic lexicalization, typically found in conventionalized derivatives, might be viewed as intermediate cases.

Instances of non-prototypical inflection/derivation have been described, a.o. by Stephany (1982), Payne (1985), Dressler (1989), Rainer (1993), Plank (1994), Booij (2000), Bauer (2004), Spencer (2013), Dressler et al. (2014). Diminutive suffixes are an example. In some languages, they are potentially applicable to every concrete noun, as is typical of inflectional affixes, but they may also develop non-compositional meanings:

(a) REGULAR MEANING
It. *treno/tren-ino* 'train/little train'; *casa/cas-ina* 'house/little house'
(b) IDIOSYNCRATIC MEANING
It. *pane/pan-ino* 'bread/sandwich'; *spaghi/spagh-etti* 'twines/spaghetti'.

Agent/instrument nominalizations are another case in point, for in some languages, like in Romance, they exhibit intermediate properties. Although produced via derivation, they inflect for gender (e. g. Fr. *direc-teur/direc-trice* 'director-M/F') and undergo gender agreement when converted into adjectives,

thus exhibiting an inflectional behavior (Dressler & Doleschal 1990/91): e. g. It. *martin pesca-tore* (lit. 'fisher Martin') 'kingfisher', a bird ('alcedo atthis'), *rana pesca-trice* (lit. 'fisher frog') 'angler', a fish ('lophius piscatorius').

Turning to NT, one finds a mild lexicalization example in Bolivian-Guaraní *me-rã* (husband-PROSP) 'fiancé', or *pa'i-rã* (priest-PROSP) 'seminarist'. As idiosyncratic lexicalization, one might consider Wayana [way, Cariban] *pikuku-tpë* (lit. child-RETR) 'orphan' (Camargo 2008, ex. 26).[19] In Trio (or Tiriyó) [tri, Cariban] the retrospective possessive, besides loss of possession, can indicate deceased possessor (Aikhenvald 2012: 162), while "ceased existence", rather than mere retrospectivity, is conveyed by Ashéninka Perené [prq, Kampan] *-ni* (Mihas 2013b).[20]

Such instances of idiosyncratic lexicalization point to a situation intermediate between inflection and derivation. However, a fundamental (mirror-like) difference *vis-à-vis* the Romance-like agent/instrument nominalizations remains: while the derivational affixes that generate such deverbals possibly develop inflectional features, the originally inflectional NT-markers possibly develop idiosyncratic derivational properties.

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19 Camargo (2008) discusses two Wayana morphemes, *-tpë* and *-me*, respectively defined 'estado resultante' (retrospective) and 'estado evolutivo' (prospective). A third morpheme, *-npë*, glossed as EST.REV ('estado revoluto'?) indicates a larger gap, to the extent of becoming a decessive marker (*imjata-lï-tpë* 'he is not so young any more' *vs imjata-lï-npë* 'the young man is dead', with *imjata* 'young man'). In the genetically close Trio there are two retrospective morphemes, *-hpö/-npö*, sharing the same meaning but with complementary distribution (Meira 1999). The former used to occur with nouns containing the *-rï-* infix (corresponding to *-lï-* in the above examples), which probably was the possessive classifier characterizing a class of nouns. However, the lexical distribution has become opaque: with some Trio nouns, both suffixes are allowed or, alternatively, *-hpö* appears without the infix. Apparently the Wayana situation has undergone further opacization, leading to a high degree of idiosyncracy.

Bliss & Gruber (2015) report Blackfoot [bla, Algonquian] examples of lexical idiosyncrasy, but their analysis does not prove that the morphological marker at stake has completed the purported grammaticalization process, turning a former alienability marker into a true NT-marker.

20 Luciano Giannelli (p.c.) pointed out a decessive example from Central-Tuscan (a dialect of Italian), the adjective [pɔro/pɔra] (MS/FM) in formulas like *el mi p*[ɔ]*ro marito* 'my deceased husband'. It derives from *povero* 'poor' but, unlike the latter, cannot alternate with [pɔero].

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