On the Parallelism of Extended Nominals and Clauses

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1 . Introduction*

It is well-known that structural correlations between clauses and DPs, i.e. Extended Nominal Phrases (ExNPs) have been argued in generative linguistics.[1] I have argued that both clauses and ExNPs are derived from the same abstract underlying structure to unify the derivations (Imai 1987, 1989), proposing that ExNP has INFL following Szabolcsi (1983). It is generally assumed that Tense is an inflectional category of verbal items. Thus, it was proposed that parameterization of Modal features (including Tense feature) could account for the variations of syntactic structures. Nominal Phrases lack of the Tense feature which is distinct from sentences. However, the fact is revealed that there are quite many languages in which nominals and constituents inside of NP can be inflected for Tense. In other words, they are Tensed Nominal structures.[2] Subsequently Tensed nominal structures across languages challenge linguistic theory. In addition to the nominal Tense system, the languages with Tensed nominals show more unexpected outcomes such as Tense stacking and Case stacking which are uncommon in languages without Tensed Nominals.[3]

2 . The Anatomy of Nominal Tense

In this section, we will observe some characteristics of Nominal Tense in languages illustrated in the recent work on Nominal Tense particularly by Lecarme, and Nordlinger and Sadler. According to Nordlinger and Sadler (2004b), there are in fact two types of nominal Tense, one of which is called "Independent Nominal Tense (INT) and another of which is called "Propositional Tense" on dependent nominals. Nordlinger and Sadler mention Independent Nominal TAM and Propositional TAM, where TAM stands for a set of temporal items, i.e. Tense, Aspect and Mood. But for the sake of making the story simple, I will restrict myself to Tense in nominals. The following characteristics of nominal Tense are illustrated in Nordlinger and Sadler (2004b).

(1)
i. Nouns (or other NP/DP constituents) show a distinction in one or more of the categories of tense, aspect and mood, where these categories are standardly defined as they would be for verbs. (e.g. Crystal 1997)
ii. This TAM distinction is productive across the whole word class, and not simply restricted to a small subset of forms.

iii. This TAM distinction is not restricted to nominals functioning as predicates of verbless clauses, but is selected on arguments and/or adjunct NP/DPs in clauses headed by verbs.

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

By Independent Nominal Tense, we mean Tense information being intrinsic to the nominal, and not being subject to the Tense of the clause. But more often than not the Tense of the nominal coincides with the Tense of the clause. On the other hand, Propositional Nominal Tense is another type, which provides Tense information for the whole proposition often with the Tense of the verb. We will consider those two types in some detail as we proceed. Notice that this is not an exhaustive analysis of languages in the world, hence we will find out more unexpected instances in the future.

2 . 1 . Independent Nominal Tense

Let us first consider the examples of Tariana, an Arawak language from north-west Amazonia, Brazil:

(1) Tariana
a. future tense: -pena
b. past tense: i. Masculine, Singular: -miki-ɾi
　　　　　　　 ii. Feminine, Singular: -miki-ɾu
　　　　　　　 iii. Plural　　　　　 : -miki

(2)
a. wa-tʃimaɾi-pena
　 1PL son-in-low-FUT
　 'our future son-in-low'
b. pi-ya-dapana-pena
　 2SG-POSS-house-FUT
　 'your future house'
c. correio-miki-ɾi
　 Post office-Past-NonFem
　 'old post office'
d. du-sa-do-miki-ɾu
　 3SG.NonFem-spouse-FEM-Past-FEM
　 'his late spouse'

　　　　　　　　　　　　(Nordlinger and Sadler (2003))

Tariana nouns are inflected for either past or future Tenses and unmarked nouns are unspecified for Tense.

There is a single form for nominal future Tense, -pena. Nominal past has three forms. These are the examples of independent nominal Tense inflection. It follows that the Tense of the nominals can be independent of that of the verb. In (4) a future Tense nominal co-occurs with a verb of the past Tense.

(3)

Thepi   di-maɾe=pidana   eta-miki-ɾi-nuku.

to. water 3SG. NF-throw. CAUS=REM. P. REP eagle-PST-NF-TOP. NON. A/S

'He threw the remains of the eagle (lit. the 'ex-eagle',what used to be the eagle) into water.'

(4)

Kayu-maka hi̧   waɾipeɾe unyane-pena di-kakwa=pidana.

so-AFF   DEM : ANIM Walipere flood-FUT   3sg. NF-plan=REM. P. REP

'Thus Walipere was planning the future flood.'

(Abbreviations: AFF 'affix', CL. ANIM 'animate classifier, DEM. ANIM 'demonstrative animate', NF 'non-feminine', PAUS 'pausal', PRES. VIS 'present visible', REL 'relative' , REM. P. REP 'remote past reported', TOP. ADV 'topic advancement', TOP. NON. A/S 'topic non-subject clitic'.)

(Nordlinger and Sadler (2004b): 1 and 2)

Nordlinger and Sadler argue that it is not the case of the English 'ex-' type affix, which has a restriction of usage. (Ex-president, ex-wife, but not ex-book, ex-dog, etc.) As is seen throughout data provided, there are no restrictions in the case of genuine nominal Tense.

Similarly Guaraní, a Tupí-Guaraní language, Paraguay shows the contrast.

(5) Guaraní, a Tupí-Guaraní language, Paraguay

Past tense: -kwé (sometimes -ré)

Future tense: -rã̧

Irrealis Future: -rangue

(Irrealis future: a future which is not to be realized.)

(6)

h-óga-kwé

his-house-PST

'his former house'

(7)

h-emí-apò-rã̌

his-work-FUT

'his future work'

(8)

aò-apò-hà-ré

maker of clothes-PST

'the one who made the clothes'

<div align="right">(Nordlinger and Sadler (2004b): 3-5)</div>

The independence of the nominal Tense from the Tense of the whole proposition in Guaraní is seen in (9) and (10) respectively, where the propositional and nominal Tenses are independent each other.

(9)

O-va-ta   che-róga-kue-pe.

3-move-FUT 1SG-house-PST-in

'He will move into my former house.'

(10)

A-va-va'ekue   hóga-rã-pe.

1SG-move-PST 3.house-FUT-in

'I have moved into his future house.'

<div align="right">(Nordlinger and Sadler (2004b): 6 and 7)</div>

In North American languages such as Halkomelen Salish, both nouns and verbs can be inflected for Tense with the same form in the same sentence. Note that in these instances, the Tense inflection on the verb (or verbal auxiliary) encodes Propositional Tense, and the Tense inflection on the noun encodes Independent Nominal Tense. Consider (11):

(11)

éwe-lh   kw'étslexw the-l   sí:-l-á:-lh.

NEG. be-PST see   the(f)-my grandparent-PST

'He didn't see my late grandmother.'   (Brent Galloway. p. c.)

<div align="right">(Nordlinger and Sadler (2004b):10)</div>

Next example shows that the object noun has Past Tense while the verb is encoded for Future Tense. This represents the independent usage of Nominal Tense and Verbal Tense.

(12)

El'éliyemet-tsel-cha   *the-l   sí:l-á:-lh.*

REDUP-dream. about-1SG. SUBJ-FUT the(f)-my grandparent-PST

'I'll be dreaming about my late grandmother.' (Brent Galloway. p. c.)

(Nordlinger and Sadler (2004b): 11)

One of the particularly intriguing cases of Independent Nominal Tense is found in Somali, Cushitic language. Lecarme in a series of papers (Lecarme 1996, 1999, 2003, 2004a,b) argues that Nominal Tense manifests definiteness of the noun by affixing Nominal Tense to the determiner which is in fact affixed to the nominal host. In other words, it might be the case that Tense is not directly attached to the nominal, but to the determiner directly, thus, this would be a case of Tensed Determiner in a radical view. Somali definite articles have two forms. The -k form occurs with masculine stem and -t form with feminine stem. The Nominal Tense system in Somali is illustrated as in (13).[4]

(13) Somali

determiners	Case	-past	+ past
-k (M) /-t (F)	+Nom	-u	-ii
	-Nom	-a	-íi

Thus, amalgamating of determiner and Nominal Tense shows the result of -ku/-tu in Nominaive, non-past while -ka/-ta in Non-Nominaive, non-past. And -kii/tii in Nominaive, Past, while -kii/-tii in Non-Nominative, Past. Consider the following examples:

(14)

a. dhibaatá-da   Khalíij-ku   welí way   taagán   tahay

   problem-detF Gulf-detM[+nom] still   Foc+3S permanent is

   'The Crisis of the Gulf still persists.'

b. dhibaatá-dii   Khalíij-ku   wáy   dhammaatay

   problem-detF[+past] Gulf-detM[+nom] Foc+3S   ended[+past]

   'The Crisis of the Gulf ended.'

(15)

a. ardáy-da   baan   kasin   su' áash-aa-dii

   students-detF Foc+neg understood[+past] question-detF+Poss2S[+past]

   'The students (who are present/I am telling you about) did not understand your question.'

b. ardáy-dii   wáy   joogaan

   students-detF[+past] Foc+3P are-present[-past]

   'The students (e.g. students I told you about) are present.'

(Lecarme 1996)

2 . 2 . Propositional Tense on Dependent Nominals

We find another type of Nominal Tense which attaches to dependent nominals (arguments as well as adjunct NPs verb-headed clauses) Propositional Nominal Tense involves a non-local interpretation of the Tense. It is not the case that the nominal to which Tense is attached is interpreted in the nominal itself, but the case that it is interpreted with respect to the higher clause to which the Tensed Nominal belongs.

An interesting case is Sirionó (Tupí-Guaraní, Bolovia) NPs, to which Tense can attach. It is the Tensed Nominal that determines the temporal information of the clause in which the Tensed Nominal belongs. In the language, the verb does not need to encode the Tense information.

Consider:

(16)

ési-ke   óso   ñá   ií-ra

woman-PST go   near the water-to (Loc)

'The woman went near the water.'

(17)

ẹ̃gvtụ̃ị-rv   b̦áe   b̦ukiacáẹ̃

tair-PERF   thing   steal. not

'The tapir did not steal from others.'

(Nordlinger and Sadler (2004b):58 and 59)

3 . Theoretical Consequences

The syntactic similarity between nominals and clauses (in this sense, DP and CP) has been discussed in generative grammar tradition. The existence of Tensed Noninals (DP) may contribute to the argument for the similarity between nominal structures and sentences. The difference should be minimal in nominal vs clausal structures in view of the evolution of human language and economical/ minimalist considerations (Chomsky 2001, 2004).

Lecarme (1999) proposes the idea that the parallelism between the syntax and semantics of Nominal Tense and Verbal Tense can be accounted for by extending the proposal in Guéron and Hoekstra (1988, 1994). However, I will consider a syntactic approach to account for the parallelism between CP and DP, (ex NPs).

Matushansky (forthcoming) argues whether DP is a Phase or not depending on the criteria of Chomsky (2001) and Legate (2003) and has reached the conclusion that DP is unlikely to be a candidate for a Phase, even though there are some pieces of evidence for a Phase. An immediate consequence of Tensed nominal structures is straightforward. Suppose that the parallelism between CP and DP is attested, it is not so impossible to assume that DP

is a Phase, as CP is a Phase. I have given standard X-bar trees, but in fact they should be compatible with the recent MP bare structures. Note that the Spec-Head relation is in fact the Head-Head relation. Consider the following trees:
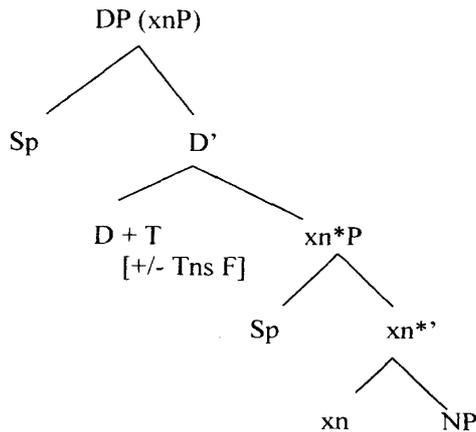
(18) Head order irrelvant

CP
Sp   C'
        C   TP
              DP (xnP)   T'
                           T   vP
                                  VP

(19) Head order irrelvant
     DP (xnP)

DP (xnP)
Sp   D'
        D   TP
              T   xn*P
                      NP
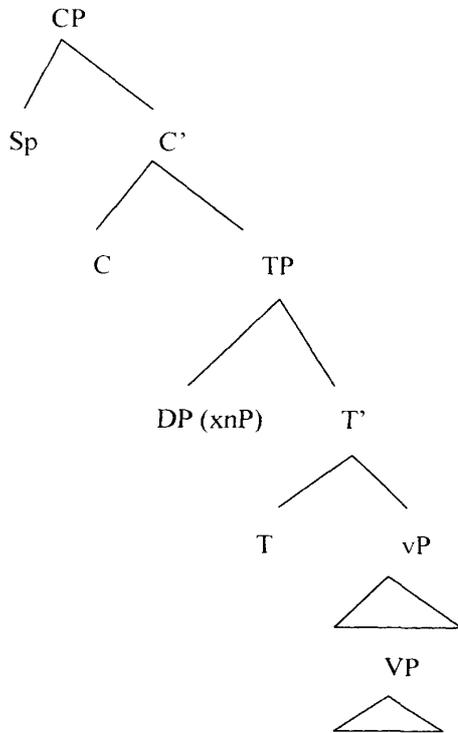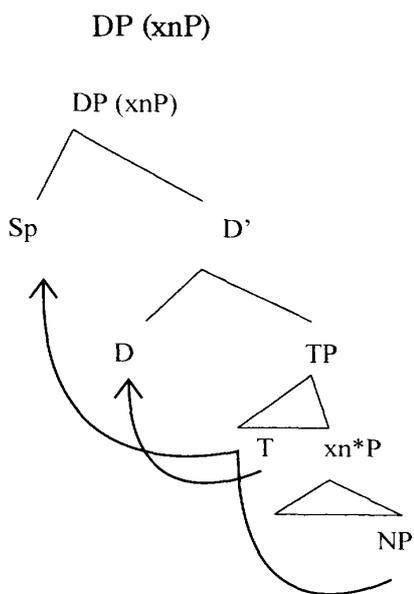
(20) Head order irrelevant DP (xnP)

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                    DP (xnP)
                   /        \
                 Sp          D'
                            /   \
                      D + T      xn*P
                     [+/- Tns F]  /  \
                               Sp     xn*'
                                     /   \
                                   xn     NP
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Where Tns F → [+/- Past]

  → [+/- Future]

(20) is an outcome derived from (19).

4 . Concluding Remarks and Further Puzzles

In concluding what we have so far observed, we have considered the parallelism between exNPs and clauses in some natural languages and found that there exist Tensed Nominal structures. This fact may reveal exNPs (DPs) as Phases, yet we will further raise questions to solve in languages with Tensed nominals.

1) How can we analyze the clausal structure of Sirionó ?

2) How can we account for the stacked (multiple) tenses attached to the nominal?

3) In addition to 2), in Australian languages (eg. Warlpiri, Lardil), stacked Cases are found. Also, the similar strategy is used for Japanese Case marking. How can we explain the fact?

At this moment I confess that there exist unsolved problems to be procrastinate in the future research.

Notes

1. For an interesting observation on the similarity of DPs and clauses in verb initial word order, see Koopman (2003).

2. For more discussion on Tensed Nominals, see Lecarme (1996, 1999, 2003, 2004a, 2004b), Nordlinger and Sadler (2003, 2004a, 2004b), Sabel (2002) among others.

3. See Sadler and Nordlinger (2004).

4. Note 5 of Lecarme (1996) quoting as saying that the initial consonant /k/ and /t/ of the definite article have various phonetic realizations, depending on the phonological nature of the last element of the noun stem. In the examples, /k/ and /t/ may be replaced by /g/, /q/, /ø/, and /d/, /sh/, respectively. The vowel of the full forms -ka/-ta [-Nom], -ku/-tu [+Nom], -kii/-tii [+Past] of the suffix may trigger regressive assimilation of the root (or stem) vowel.

References

Chomsky, N. (2001) "Derivation by Phase" in M. Kenstowicz ed. *Ken Hale - A Life in Language*, Cambeidge, MA: the MIT Press.

Chomsky, N. (2004) "Three Factors in Language Design," to appear *Linguistic Inquiry*, 36:1.

Guéron, J. and T.Hoekstra (1994) "The Temporal Interpretation of Predication," in A. Cardinaletti, and M.T. Guasti eds. *Small Clauses, Syntax and Semantics* Vol. 28, Academic Press.

Imai, T. (1987) "On Phrase Structures and X-bar Theory," *The Tsuru University Review*, No. 26, 61-67.

Imai, T. (1989) "Parameters, INFL and X-bar Theory," *The Tsuru University Review*, No. 30, 107-114.

Koopman, H. (2003) "On the Parallelism of DPs and Clauses: Evidence from Kisongo Maasai," a draft version dated 9/12/2003.

Lecarme, J. (1996) "Tense in the Nominal System: the Somali DP," in J. Lecarme, J. Lowenstamm and U. Shlonsky (eds), *Studies in Afroasiatic Grammar*, pp. 159-178. The Hague: Holland Academic Graphics.

Lecarme, J. (1999) "Nominal Tense and Tense Theory." In F. Corblin, J.-M. Marandin and C. Sorin (eds), *Empirical Issues in Formal Syntax and Semantics 2*, pp. 333-354. The Hague: Holland Academic Graphics.

Lecarme, J. (2003) "Nominal Tense and Evidentiality." In J. Guéron and L. Tasmowski (eds), *Tense and Point of View*, Presses de l'Université Paris X-Nanterre, pp. 277-299.

Lecarme, J. (2004a) "On Three Interpretations of Past Determiners in Somali." GLOW 27, Thessaloniki, Greece. Workshop I: Tense, Aspect, Modality: All we still need to know about. (handout)

Lecarme, J. (2004b) "Tense in Nominals." In J. Guéron & J. Lecarme (eds), *The Syntax of Time*, Cambridge: MIT Press, pp. 440-475.

Legate, J. 2003 "Some Interface Properties of the Phase," *Linguistic Inquiry*, 34, 506-516.

Matushansky, O. (forthcoming) "Going through a Phase," Proceedings of MIT LAP Workshop on EPP and Phases, MIT WPIL.

Nordlinger, R, and l. Sadler (2003) "Finite Noun Phrases" to apper in Plank, F. and I. Nikolaeva eds.

Nordlinger, R, and l. Sadler (2004a) "Tense Beyond the Verb: Encoding Clausal Tense/Aspect/Mood on Nomoinal Dependents," *NLLT* 22: 597-641.

Nordlinger, R, and l. Sadler (2004b) "Nominal Tense in Cross-linguistic Perspective," *Language*, 776-806.

Sabel, J. (2002) "Endemic Tense-Agreement Effect in Malagasy," the Ninth Annual meeting of the Austronesian Formal Linguistics Association, Cornell University, Ithaca, NY, April 26-28, 2002. (Abstract)

Sadler, L. and R. Nordlinger (2004) "Case Stacking in the Realizational Morphology," To appear in *Linguistics*.

Szabolcsi, A. (1983) "The Possessor that Ran Away from Home," *The Linguistic Review*, 3:1, 89-102.