

## Do nominalizations reduce syntactic complexity by avoiding recursive clausal embedding?

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Variation in the PF of sentential subordination exemplifies linguistic diversity (e.g. presence of a complementizer (e.g. Romance (1), English) or of a verbal suffix derived from a possessive markers (e.g. Yup'ik (Eskimo Aleut - (2)), Chinese), use of intonational contour (e.g. Mohawk (Iroquoian (3)), Kaingang (Macro-jê). Dependent clauses might also be nominalized in many languages ((4)-(6)).

It has been argued that sentential nominalization is a productive grammatical strategy employed by languages to avoid recursive structures, reducing, thus, syntactic complexity. It has been claimed that Hixkaryana (Cariban) and Pirahã (Mura) block sentential embedding, forcing, thus, nominalization (Derbyshire, 1979; Everett, 2005). Pullum and Scholz (2010) take this as evidence against infinity as a universal property of language. Few studies, however, have focused on the internal structure of nominalized sentences. Obviously, nothing should be concluded about the function of nominalization without a detailed treatment for nominalized clauses.

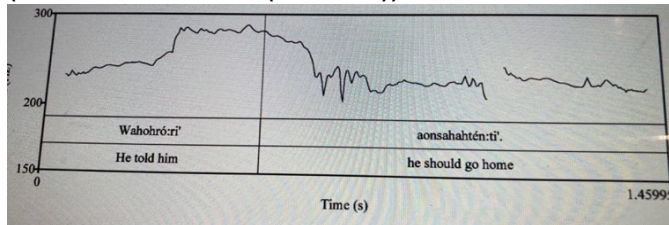
Chomsky (1957) and Lees (1960) take English gerunds to be transformations of kernel sentences into nominals. However, the internal structure of *Poss-ing* (4) doesn't match the structure of NPs (they license PRO-subject, accusative-marked objects, verbal aspect and adverbial modifiers (Chomsky, 1970)), although their external distribution resembles that of NPs (impossibility of extraposition, failure, as questions, to host fronted wh-phrases and subject-verb inversion). Abney (1987), thus, analyzes them as DPs, with D selecting a VP.

Nevertheless, *Poss-ing* doesn't behave quite like DPs externally, at least with respect to interpretation of wh-amount quantifiers, negative polarity items and parasitic gaps, see Frank & Kroch (1994), where *poss-ing* is analyzed as IPs. All these analyses are compatible with the claim that sentential nominalization reduces syntactic complexity: sentential complements are reduced structures without a CP layer.

None of these analyses (including Alexiadou (2001), Grimshaw (1990)), offers an elegant explanation for English *poss-ing* and for nominalized sentences cross-linguistically. For example, Greek nominalized clauses can contain both a complementizer and a determiner (7).

We explore an innovative possibility, suggesting that grammars can assemble new functional categories by selecting and remerging intersection features from distinct categories already listed in the functional lexicon. This operation doesn't result in enriched, complete functional categories, but in impoverished, defective ones, because just a subset of the features of each preexisting category is selected and remerged. (Georgi & Müller (2010) on reprojection, for a similar yet different idea.) Sentential nominalizations may involve a hybrid  $C \cap D$ , a category that contains formal features present in the intersection between C & D. Neither C nor D in  $C \cap D$  are complete sets of features. Thus,  $C \cap D$  fails to value nominative case in connection with T and cannot host A-bar movement. Not being a full D either,  $C \cap D$  are not opaque domains for parasitic-gaps, negative polarity items and wh-amount quantifiers. This analysis might provide us with a systematic way of approaching the diversity of structure observed above: grammars may differ in the way they intersect functional categories. If this is right, clausal nominalization preserves structural self-embedding, rather than being a strategy to reduce syntactic complexity.

- (1) O João disse **que** vem amanhã (Brazilian Portuguese – Romance)  
*the João said.3PSg that come.3PSg tomorrow*  
 'João said that he will come tomorrow'
- (2) qaner-ute -lar-gar-nka assir-**lu**-then+gguq (Yup'ik – Mithun (2010:18))  
*talk- benefactive-Hab-Trans.Ind.1Sg/3Pl be.good.Poss.2sg=Quotative*  
 'I would tell them that you are well'
- (3) (Mohawk - Mithun (2010:25)):



- (4) John's building a spaceship would upset Peter (English)
- (5) Fiuka-ka [Juan kay-pi ka -**rka**] - ta ya -ni (Quechua – Cole (1982: 33))  
*I-TOP Juan this-in be-Nominalizer-ACC think I*  
 'I think that Juan was here'
- (6) Ba [kute tep **kren**] pumu] (Mebengokre – Salanova (2007: 16))  
*INom he-ERG. Fish eat.Nominalized saw*  
 'I saw him eating fish'
- (7) **To oti** irthe (Greek – Alexiadou (2001: 128))  
 the that come.3PSing

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