Nominalizing with or without n

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Nominalization strategies

- Nominalization patterns may involve (French, English) or not involve (Greek, Turkish) a nominalizing affix: word vs. (gerund) clause formation
- a. the demolition of ancient cities by the authorities for centur
 la démolition des églises par les autorités durant des siècles

) Jan oznajmil [to ze Maria zmienia prace] Jan announced that det Maria is-changing job] 'Jan has announced that Maria is changing her job' (2) Jan oznajmil

Polish nominalized clauses (Kornfilt & Whitman 2011)

- (1a-b) are so-called Argument-Structure Nominals > phrasal in syntactic models of word formation (Marantz 1997, Borer 2005) (2-3) are nominalized by the contribution of a D

The big picture

- Nominalizations (construction, building) a nice way to do a history of modern linguistics: (since Lees 1960, Chomsky 1970): the 'syntactic' vs. 'lexical' debate
- Event denotation in nominals
 - Ns = "giving a name" to an event (Koptjevskaja-Tamm 1993)
 - vs. Vs = temporally anchoring it... What does it mean?
- Event structure in nominals: semantic or syntactic? Grimshaw (1990) > aspectually structured argument structure
 - The Functional Nominalization Thesis (Kornfilt & Whitman 2011). Internal syntactic structure in nominals: Marantz 1997, Borer (1999, 2005), Alexiadou 2001 etc.
 - Bresnan's (1997) head-sharing approach, Malouf (2000), Panagiotidis & Grohman (2009)

Nominalization strategies

- The extent to which nominalizations are 'clausal' is subject to finetuned variation (a whole clause vs. only inflectional layers may be embedded) – Comrie 1976, Koptjevskaja-Tamm 1993, Alexiadou 2001 among many others.
- How can we capture it?
 - The 'nouniness squish' (Ross 1973)
- Nominal/Verbal Scale (Alexiadou, Iordachioaia & Schäfer 2011)
 When does the grammar decide that something is nominal?
 - cut-of points (Ackema & Neeleman 2004)
 - "switches" in Prolific Domains (Grohman 2003, Panagiotidis & Grohman to appear) $\,$
 - First phase categorizerPs & N/V features (Panagiotidis to appear)
- Investigation of mixed categories is relevant: the interaction between nominal/verbal inflectional layers and n/D -> the precise combination of nominal/verbal properties.

The big picture

- The agenda: tell apart what is relevant to grammar.
- In which way? Do we treat simple nominals like *movie* and complex nominals like destruction in the same way? Always?
- Roy & Soare 2013: in nominals, the event may be either grammatically encoded OR conceptual
- This talk
 - Investigates the relevance of aspectual distinctions in nominals

 - Uses the "grammatical" vs. "conceptual" distinction to finer linguistic/conceptual categories like (im)perfectivity in event nominals
 Case studies: Romanian, Polish event nominals, French –age Nominals
- Framework: syntactic approach to word formation

Inflectional layers in nominalizations

- Number and outer Aspect seem to be in complementary distribution in the grammatical system, including nominalizations with complex structure (AlSoare 2010).
- Nominal vs. verbal patterns in nominalization, cf. Romanian Infinitive and the Supine nominal, which is habitual and has
- (6) demolă-r-i-le/* demola-t-uri-le frecvente ale demolish-Inf-Pl-the/demolish-Sup-Pl-the frequent-Pl of cartierelor vechi de către comuniști quarters-Gen old by communists 'the frequent demolitions of old quarters by the communists'

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Inflectional layers in nominalizations

- How general this correlation can be?
 - Slavic languages may combine plural marking and aspectual marking in deverbal nominals
 - French -age nominals have been argued to carry imperfective aspect (FVSoare 2010, Knittel 2011) but still they may pluralize (Roodenburg 2006):

(7) Les désamorç-age-s de bombes lourdes par les recrues

Asp/n in -ings

- The status of an affix may be ambiguous: either a **nominalizer** or a marker of **grammatical** (imperfective) aspect in a clausal structure.
- Abney 1987
- (4) a. John's watching television (ACC-ing)
 - b. John's watching of movies (Poss-ing)
 - c. The watching of this movie (of-ing)
- (5) a. My having said this
 - b. *The having said this

Inflectional layers and categorizing layers: assumptions

- Actually, the correlation IS general: if a domain is explicitly categorized by n, the inflectional layers will be fully nominal
- Categorization constrains the inflectional domain Integrity of functional domain; inflectional categories cannot be of a 'mixed' nature
- Nominalization strategies may either involve n, or D
- 'verbal' patterns (i.e., clausal nominalizations involving typically verbal inflectional layers) show up when there is no nominalizing affix 'n' – outer Aspect (Asp) is NOT expected to, and actually DOES NOT co-occur with n.

Asp/n in -ings

- Borer (2005): 239 contra Pustejovksy (1995) and Siegel (1997): nominalizer -ing is an anti-telic element and not the same as
- (6) a. Kim's formulating of government policy [for several weeks /*in two weeks/??twice]
- b. Kim's formulation of government policy [twice/*in two minutes] c. Kim formulating government policy for several weeks/in two weeks/ twice
- What does this mean? Here, it is captured in terms of
- n/Class with Gender and [±bounded] features vs. no n/Class & [±bounded] inner Asp
- Number vs. outer Asp in the inflectional system

Structure of the talk

- · Asp and Number in nominalizations: English, Romanian, and the D vs. n-pattern
- Polish nominals: the ordering of n and Asp in nominalizations
- French nominalizations and (im)perfective aspect: when n-nominalizations entail aspectual
- Grammatical vs. conceptual eventivity (Roy & Soare 2013); Harley & Copley forthcoming
- Directions for further research

Asp/n in –ings

• The ambiguity of English -ing: n vs. no n

(7) a. The systematic $\slash systematically destroying of ancient cities by the authorities for <math display="inline">\slash decades$

- b. The authorities' *systematic/systematically destroying ancient cities for decades
- c. Systematically destroying ancient cities erased this country's history.
- n -ing activates nominal projections = Number and adjectival modification
- Alternatively, Asp –ing correlates with adverbial modification and other verbal properties (case assignment)

n, Gender and Number in -ings

- nominal -ing (N-ing) and Number
- (8) a. I heard of repeated killings of unarmed civilians b. *the repeated fallings of the stock prices
- Inner-aspectual properties of the N-ing are relevant to the possible combination with morphological plural
 The inherited aspectual value (i.e., telicity) determines the specification in terms of count
- Poss –ing and Acc –ing are also DPs but nominalized by D (the posessive determiner or a silent D), and expectedly never allow plural
- (9) a. *The authorities' destroyings ancient cities for decades b. *Destroyings ancient cities erased this country's history.

Is the Romanian Infinitive Nominal an Infinitive?

- · NO, only a nominal
 - only shows up in nominal positions
 - is inflected for Number
 - Diachronically, Latin infinitival inflection -re is completely recycled into an n with feminine Gender
- · What is for a verbal inflection to be recycled as Gender? Again, an open question, could only be investigated diachronically.

n, Gender and Number in Romanian **Nominals**

Romanian **productive** nominalizations: Infinitive vs. Supine nominals Cornilescu 2001, (lordāchioaia & Soare 2008)

(10) Infinitive

a cînta: cînta-r -e/cîntă-r-i to sing: sing-inf-f-sg/sing-inf-pl a conduce: conduce-r-e/conduce-r-i to drive: drive-inf-f-sg/drive-inf-pl

a cînta: cînta-t/#cînta-t-uri to sing: sing-sup/sing-sup-pl a conduce: condu-s/#condu-s-uri to drive: drive-sup/drive-sup-pl Only the IN accepts plural (cf also (6)).

Nominal properties in the Romanian IN

- · Gender and declension
- (12) a. cîntar -e / cîntăr b. floar -e / flor sing-Inf -F.Sg / sing-Inf -Pl flower -F.Sg / flower -Pl c. din cauza tăierii copacilor, pădurile sunt în pericol from cause cut-inf-Gen trees-Gen, forests-the are in danger
- Adjectival modification only
- (13) a. studierea constantă/ constanta studiere investigate-Inf-the careful-Adj/careful-Adj investigate-Inf-the (a detaliilor) Gen details
 - b. o buna spalare a rufelor e recomandata per a good wash-Inf of chothes is recommended for

What is the Romanian Supine?

- Soare (2002, to appear): A participial (stem) wich can
 - undergo nominalization with D (either overt or null)
 - enter complex predicate formation (e.g. aspectual and modal periphrases) with a particle (de)
 - is active when nominal = allows a (Genitive) external arg
 - is passive when verbal = a bare VP in *Tough* constructions and reduced relatives (Giurgea & Soare 2010, Soare to appear)
- The Romanian Supine is roughly one of the two Romanian Gerunds, based on an active participial –at stem
- Open question: maybe reminiscent of an inflected stem (in the sense Benjaballah & Reintges 2009). Here, AspP but possibly more internal structure.

Inner-aspectual properties in the IN

- Inner aspect and Argument Structure (Cornilescu 2001), IS (2008), AIS (2010)

 derived on telic verbal bases, states: A5 is activated with the relevant modifier (in- for- P6- by-Pp/faces)

 Telicity with definite internal arguments
- (14) a. gäsirea solutillor de catre cel mai inteligent student (in cinci minute) (ACH) the finding of solutions by b. iubirea de patrie (ST) the love for one's country (15) a. construirea de biserid (atelic) the building of churches' b. construirea bisericilor (telic) the building of the churches' (ACC)
- The classifier system « feeds » Number (Picallo 2006) Boundedness as [+count] feature in the classifier system constraints the choice of Determiners and quantifiers
- (16) prea multe spălări/ o spălare a(le) rufelor too many wash-Inf-Pl/ one wash-Inf of clothes-Gen

No nominal properties in the Romanian SN

- No gender: D° is the nominalizer, no classifier system, no Number
- Determiner selection is highly constrained
- (17) prea mult/ *un spălat al rufelor (distruge tesătura) too much/ one wash-Sup of clothes-Gen (destroys fabric-the)

(18) a. studiatul o. sconeton constant/ *constant/ studiat investigate-Sup-the careful-Adj.Adv/ careful-Adj investigate-Inf-the al detaliilor constant/ *constantul studiat Gen details b. *spălatul

*spălatul rufelor bun /bine wash-Sup-the clothes-Gen good / well

Asp: Outer Pluractionality

- Dependent 'câte' indefinites licensed by a plural variable in the context (23) a. Studenții/mulţi/doi studenți au citit câte o carte
 - student-PI-the/many/two students have read CT a book b. **Fiecare**/ *un student / *studentul a citit **câte** o carte
 - each/ a student student-the has read CT a book
- NS licenses câte-indefinites just like bare habituals and frequentative adverbs (24)
 a. Sositul câte unui student cu întârziere a enervat-o pe profesoară
- b. Ucisul câte unui jurnalist de catre mafia politică (25) Ion (tot) scrie câte o poezie
- - Ion all writes CT a poem
 - 'John writes a poem from time to time'
- lordăchioaia & Soare (2013, to appear): two combined sources for this semantic plural in the NS: a PO affecting Asp & the denotation of D (Down vs. lota) a simpler syntax and a complete syntax-semantic interface

Asp in the NS: Outer Pluractionality

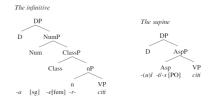
- Soare, 2002: the supine nominal is habitual
- lordächioala & Soare 2013, 2014: pluractional diagnostics Unboundedness in the supine is outer Asp in syntax accomodating a Pluractional Operator in semantics > aspect shift

habitual interpretation with stative bases only bounded by until-PPs; lack of distributive effects with sg

9) a. *statul lui lon la Maria/ *dormitul lui lon stay-Sup-the Gen lon at Mary's) sleep-Sup-the Gen lon b. statul lui lon la Maria/ dormitul lui lon stay-Sup Gen lon at Mary's/sleep-Sup-the Gen lon <u>pînă</u> după-amiaza tîrziu until afternoon late

"John's (habit of) staying at Mary's/ sleeping until late in the afternoon"
(20) ucisul jurnaliştilor/*jurnalistului de către mafia politica
kill-Sup-the journalists-Gen/*journalist-Gen by mafia politica de către mafia politică

Two syntactic patterns for nominalization



Asp in the NS: Outer Pluractionality

- Aspect shift two layers of aspect (inner AND outer) (21) a. Ion a plantat copaci ore în șir timp de trei ani Ion has planted trees hours in row time of three years 'Ion has planted trees for hours in a row over a period of three years' b. Ion a traversat râul în cinci minute timp de trei luni Ion has crossed river the in five minutes time of three months 'lon has crossed the river in five minutes over a period of three months'
- (22) a. Traversatul râului de către Ion în cinci minute timp de două luni cross.Sup.the river.Gen by lon in five minutes time of two months b. Plantatul copacilor ore în șir timp de trei ani plant.Sup.the trees.Gen hours in row time of three years

Contribution of n/Class

- n/Class/Gender (the grammatical classifying system)
 - contributes gender and count specifications
 - conveys nominal features
 - activates syntactic nominal projections Number
 - introduces an individual variable in the semantics

n in participant nominals

- Participant nominals vs the supine: same form but with/without n; with/without Gender, no AspP (no adverbs) individual variable /event variable in the semantics
- (*frecvent/*timp de trei ani) (26) a. deținutul detain.PRT.the (frequent/time of three years) "the (*frequent) detainee (*for three years)"
 - b. plantatul frecvent de copaci timp de trei ani plant.Sup.the frequently of trees time of three years "frequently planting trees for three years"

A prediction and two problems

- This analysis predicts that in languages where outer Aspect is morphologically marked in nominalizations, Number and n would be mutually excluded.
- Two potential problems
- Slavic languages: rich morphology that carries aspectual information.
- Polish -nie/-cie ASNs and Bulgarian -ne nominals preserve unambiguous aspectual morphemes from the verbal domain.
- aspectual pairs of ASNs with perfective vs. imperfective value are
- French event nominals: -age/-ée pairs and (im)perfective aspect? Ferret et al (2009); Knittel (2011)

n in French participant nominals

- Roy & Soare 2012, 2013 on French participant nominals
 - French invité, attaquant are nominalized participles
 - When animate, they realize argument structure in the presence of relevant modification but clearly no outer Asp (no adverbial modification available)
- Participial morphology is recycled into a n/Class/Gender layer
 - It introduces an individual variable and embeds AS
 - It still has an aspectual [-bounded] value but no Asp.
- n-nominals: DP>NumP>n/ClassP>VP [Argument Structurel

AlSoare 2010: Polish -nie/cie nominalizations

Aspect in clauses (27) and nominalizations (28) borrows the same morphology

(27)a. Jan przeczytał/*czytał przeczytał/*czytał gazetę w dwie godziny.

John read-pf/ read-impf newspaper in two hours 'John read the newspaper in two hours.'

Jan czytał/*przeczytał gazetę przez dwie godziny.
John read-impf/read-pf newspaper for two hours
'John read newspapers for two hours.'

(28) a. czyta-nie/*przeczyta-nie gazety <u>przez</u> 2godziny read-impf-N /read-Pf-N newspaper-Gen for 2 h b. przeczytanie/*czytanie gazety <u>w</u> 2 godziny read-Pf-N /read-Impf-N news er-Gen in 2 h

Contribution of D

- · D nominalizes a clause
 - contributes external nominal syntax
 - depending on its denotation (= Down / Iota) it can contribute a referential meaning or select a kind predicate
 - When embedding a n-structure, it can only be referential
- · Nominalized Infinitives, Supines and Gerunds (no CP layer and NO N LAYER)

D>TP>AspP> ... >VP

And yet, morphological Number

(29) Czeste opoznione *przybycia/odejscia* pociagu zmusily mnie do pojechania avtobusem frequent delayed arrive-Pf-N-Pl/depart-Pf-N-Pl train-Gen made me take the bus

nowych terapii raka przyniosly Czeste **odkrycia** nowych terapii raka przyniosly frequent discover-pf-cie-pl new treatments cancer brought frequent discover-pr-ue-pr-us-us-naukowom miedzynarodowa slawe. researchers international fame requent discoveries of cancer treatments brought the researchers international fame.'
'nna orzez tylne drzwi w celu unikni

neeting with boss

'John's getting out through the back door in order to avoid meeting with the boss'

Plural, but only for unbounded nominals

(31) a. *czeste opoznione *przybywania/odjezdzania* pociagu frequent delayed arrive-Impf-N-Pl/depart-Impf-N-Pl train-Gen

*Czeste odkrywania nowych terapii raka przyniosly frequent discover-impf-nie-pl new treatments cancer brought $naukow com\ miedzynarodowa\ slawe.$ researchers international

D-pattern with an empty D

- An alternative: Slavic nominalizations with aspect are D-nominalizations with an empty D
- -nie like affixes may instantiate n or Asp, like mere Gerunds
- · Actually, Polish nominalization do allow both adverbs and adjectives.
- When relying on AspP (but no n), the nominalization is the effect of an empty D in the structure no classifier system (but potentially a verbal classifier system)
- Otherwise a nominal classifier system

Co-occuring Asp and Num?

- Asp and Num may co-occur if they appear at different levels in the structure: above or below n
- What does it mean to have AspP below n?
- To answer this we have to look further into morphology and diachrony of Slavic languages.
- Bulgarian –ne nominals and Russian nominalizations: arguably no Asp
- Are Slavic imperfective forms « inflected stems » (Benjaballah & Reintges 2009), or something else?
- Open question: a verbal classifier system (Janda & collaborators) vs. superlexical prefixes (Svenonius & colaborators)?

French -age vs. -ée nominals and grammatical aspect?

- Ferret, Villoing & Soare 2009 based on a corpus study: (im)perfective grammatical aspect in pairs -gge/-ee. -gge/ee form pairs with potential (im)perfective meaning, below identified by aspectual PPS. Tests also exploited by Knittel (2011) as indicating imperfective viewpoint Asp in nominalizations

(32) a. le perçage du tunnel pendant une semaine b. la percée du tunnel en une semaine

(33) a. ??après l'arrivage / l'arrivée de la marchandise'

b. après être arrivée, la marchandise a été vendue (36) a. l'arrivage des ouvriers a été interrompu par la police b.*l'arrivée des ouvriers a été interrompue par la po

Caution: this is not a **grammatical** test (cf. Roy & Soare 2013a) but merely indicates **conceptual** eventivity

Asp and Class?

- In Romanian Supine and English Verbal Gerund the -t/s vs. ing suffixes are not nominalizers, but aspect markers.
- Polish ASNs both have aspect markers (prze-,-wa) and n (cie /-nie). Schoorlemmer 1995, Rozwadowska 1997, AlSoare 2010: nie/cie ASNs in Polish are AspP-nominalizations, i.e. the nominalizer nie/cie attaches to AspP and not to VP.
- But how do they fit into the (nominal vs verbal) scale? No
- This would yeld a structure like n/Class>AspP>...>VP
- The relation between imperfective markers (-wa-, -va-) and nominalizers (-nje, -ne) is pending further investigation for

French –age vs. –ée nominals and grammatical aspect?

- Pluractionality diagnostics compare the Romanian
- (37) a. *l'arrivage d'un légume / OK des légumes, de la marchandise
 - b. *le tuage d'une mouche / OK de mouches
 - c. #l'écrasage d'un piéton
- (38) ucisul *jurnalistului / jurnalistilor de către mafia 'the killing of a journalist/ of journalists by the mafia'
- Caution: in (37) we are not sure of having an AS-N more corpus study OR experiments to be done to find

Gender and Number in -age/-ée nominals

- $\mbox{-}\mbox{-}\mbox{age}$ and $\mbox{-}\mbox{\'e}\mbox{-}\mbox{e}$ are nominalizers (Gender and +/- count specifications in the classifier system)
- They both allow plural (cf. Roodenburg's example for *-age*), and can be + and count
- -age nominals are –bounded when they have AS but may be +bounded: faire des ménages in the absence of AS
- -ée nominals are + bounded (not perfective!): faire une virée (no AS) vs. la conduite de la voiture par Max durant deux heures (AS)
- -ge and -ée nominals may well denote a conceptual event and still have an (im)perfective flavor they are NOT inflected for Asp they never allow adverbs
- We have to distinguish what is **grammar-related** and what is simply present at a **conceptual level**

Questions for future research

- Study of Romance nominalizations: the diachronic path
 - hypothesis: no inflected stems in French (probably unlike Latin), but inflected stems survive in the Romanian Supine
 - -age might have diachronically 'stored' a part of a Latin inflected stem but no longer is inflected
 - evolution of the Latinate stems (e.g. Old French –atge)
- Experiments, Two directions:
 - New spontaneous nominal formations in French
 - 'Faux amis' in Romance L1/L2 contexts (e.g. Romanian)

Caution with Aspect and AS tests

- -age/-ée nominals, like -tion nominals, are ambiguous between RNs/SENs purely nominal; root-derived, or (eventive) AS-N.
 As AS-Ns, they do have internal structure but no outer AspP only
- argument structure
 - tests for argument structure: obligatory arguments, agentive / manner modifiers, agentive by-phrases
- As SENs, they denote conceptual events (no AS)

 according to Knittel (2014), both AS-Ns and SENs have aspectual structure (caution: only in the sense of Grimshaw 1990)
- her tests: in/for PPs also available for SENs
 not grammatical AspP = insufficient evidence
- Reliable tests for grammatical AspP
 - Presence of both in and for PPs AND
 - PO in Asp; only if we find effects similar with clauses

Questions for future research

- · Romanian Synchrony:
 - In synchrony: compare the non-finite system of: Romanian and (preferably Balkan) Slavic > Participles as aspectually inflected stems vs. verbal classification system
 - In diachrony: « supine » in Old Church Slavonic vs Latin
- Model architecture (DM/MP): the nature of categorial features
- Semantics: Imperfectivity as an entailment of the classifying system
 - conceptual vs. grammatical event denotation does not always match (Roy & Soare, 2013, Copley & Harley forthcoming)

Conclusions

- D-nominalizations (verbal -ing, Romanian supine Nominal) are nominalized clauses and have no Number in the inflectional domain; they involve specific combinations of verbal layers identified by different kinds of adverbs
- n-nominalizations have a nominal classifiyng system with count specifications triggering or not the presence of Number
- Count specification in the classifying system together with inner-aspectual boundedness may entail imperfective meaning.

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