

# Action Nominals in the Grammar Matrix

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# Definition

- An **action nominal (AN)** is defined as a nominalized verb with the meaning of an action or process which can take nominal morphology and/or take adpositions exclusive to nouns (Comrie, 1976).
  - Focus on overt affixal nominalization
- An **action nominal construction (ANC)** is a phrase headed by an action nominal with the dependents of the action nominal denoting the participants of the event expressed by the action nominal (Koptjevskaja-Tamm, 2013).

# Action Nominal Constructions

## Finite Clause:

Pat destroy-ed the evidence

Pat destroy-PST the evidence

**Pat** destroyed **the evidence** (English [eng])

PST = Past

NMLZ = nominalizer

## Action Nominal Construction

[Pat destroy-ing the evidence] was shocking

[Pat destroy-NMLZ the evidence] was shocking

[**Pat** destroying **the evidence**] was shocking (English[eng])

(Koptjevskaja-Tamm, 1993)

# Nominalized Clauses library

(Howell et al., 2018)

▼ nom\_start\_1 (ns1)

X **Nominalization Strategy 1:**

Nominalization Strategy Name:

**The nominalization of the clause happens:**

☐ at V ☐ at VP ☐ at S

**Is the nominalization syntactic only or should it also be reflected in the semantics?**

(Note: for mid or low nominalization, currently you must say that it is reflected in the semantics).

☐ Nominalization is syntactic only

☐ Nominalization should be reflected in the semantics

Add a Nominalization Strategy

▼ AN (verb-pc1\_lrt1)

X **Lexical Rule Type 1:**

Name:

Supertypes:  ▼

Features:

X Name:  ▼ Value:  ▼ Specified on:  ▼

Add a Feature

# Nominalized Clauses library

(Howell et al., 2018)

- Division of labor between the lexical rules and phrase structure rules which perform the HEAD change (for high and mid nominalization)
- Nominalization lrt
  - [NMZ -] → [NMZ +]
  - Low (V): also performs the HEAD change
- Phrase structure rules
  - High(S)/Mid (VP): performs the HEAD change
- Mid/Low: low for case-marking changes on the subject/object

# Updates to the Existing Library

- Extend analysis to languages which do not have case
- Allow nominalized verbs to make use of nominal syntax

## ANC

**biryekomo** **wya** **katu** **y-tayma-ni-ri**

boy            by    cat    3-push-NMLZ-POSS

“the boy pushed the cat” (Hixkaryana[hix])

## Possessive Noun Phrase

**katu** **y-kanawa-ri**

cat    3-canoe-POSS

“The cat’s canoe” (Hixkaryana[hix])

# Nouns in the Grammar Matrix

- 1.) HEAD *noun*
- 2.) INDEX *ref-ind*
- 3.) Have specifiers not subjects
  - a.) Nominalized verbs blocked from possessive analyses because they lack specifiers
- 4.) Have nominal morphological requirements

# Approach

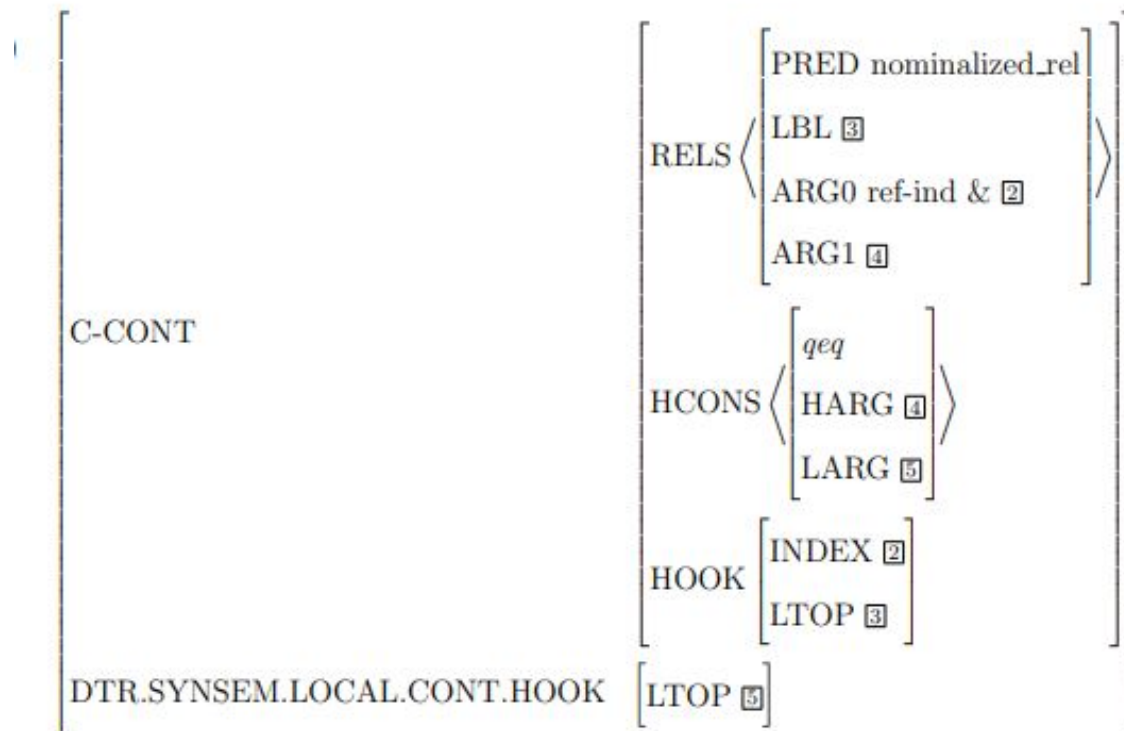
- Switch from a change-over to a more fully lexical approach
  - Malouf (1998) proposes a fully lexical account of English gerunds and points out a number of problems with change-over approaches
  - What nouns have in common is their external distribution, not their internal distribution
    - No such thing as an argument a noun cannot take (Hudson, 2003)



# Approach

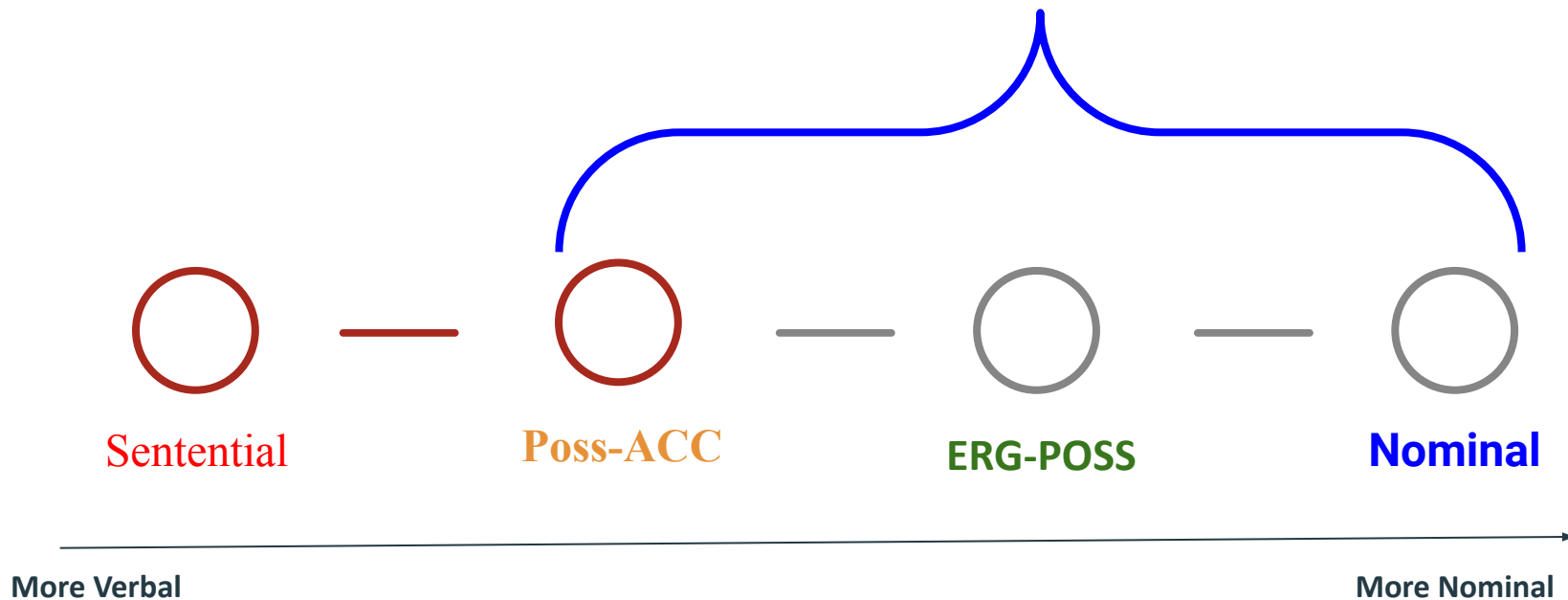
- Nominalization always occurs low (at the V level)
  - Nominalization lexical rules responsible for
    - HEAD and argument structure changes
    - Morphology changes
      - Lose verbal morphological requirements
      - Gain nominal morphological requirements
    - Nominal semantics\*

# Nominal Semantics



# Typology of Action Nominals Constructions

Mark one argument as a possessor



(Koptjevskaja-Tamm, 1993)

# Two Additional Nominalization Types

## **Alt-sent**

Him            destroy-ing        the evidence

Him[ACC]   destroy-NMLZ   the evidence

Him destroying the evidence (English[eng])

## **All-comps**

the   destroy-ing        of the evidence by Pat

The   destroy-NMLZ of the evidence by Pat

The destroying of the evidence by Pat (English[eng])

# New Nominalized Clauses Library

## ▼ nom\_strat\_1 (ns1)

### (X) Nominalization Strategy 1:

Nominalization Strategy Name:

**Based on the above definitions the nominalization type of this strategy is:**

- ☐ sentential
- ☐ alternative-sentential
- ☐ all-comps
- ☐ poss-acc
- ☐ erg-poss
- ☐ nominal

Specify whether this strategy acts on intransitive or transitive verbs.

- ☐ intransitive verbs
- ☐ transitive verbs

## ▼ AN (verb-pc1\_lrt1)

### (X) Lexical Rule Type 1:

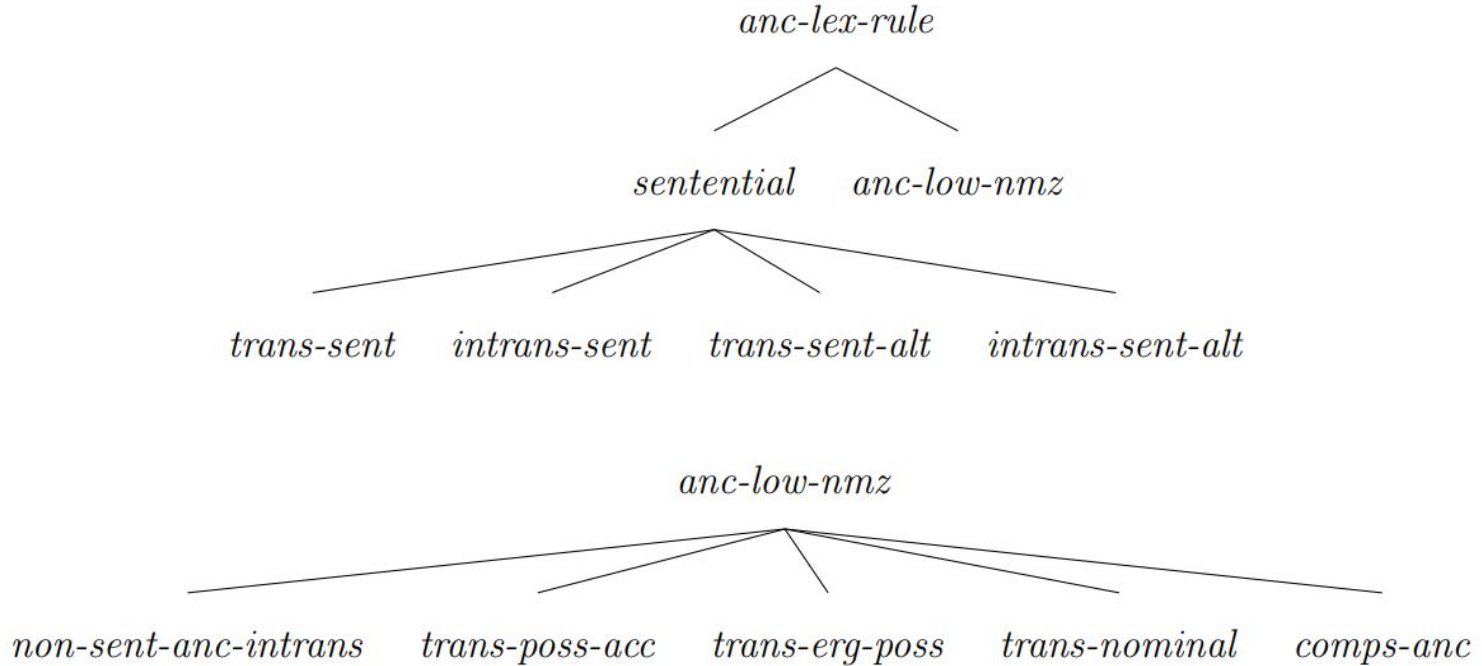
Name:

Supertypes:  ▼

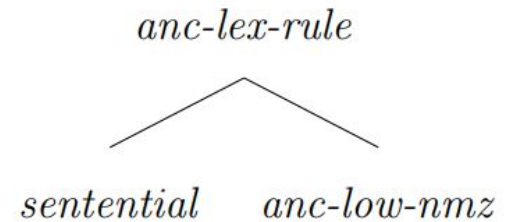
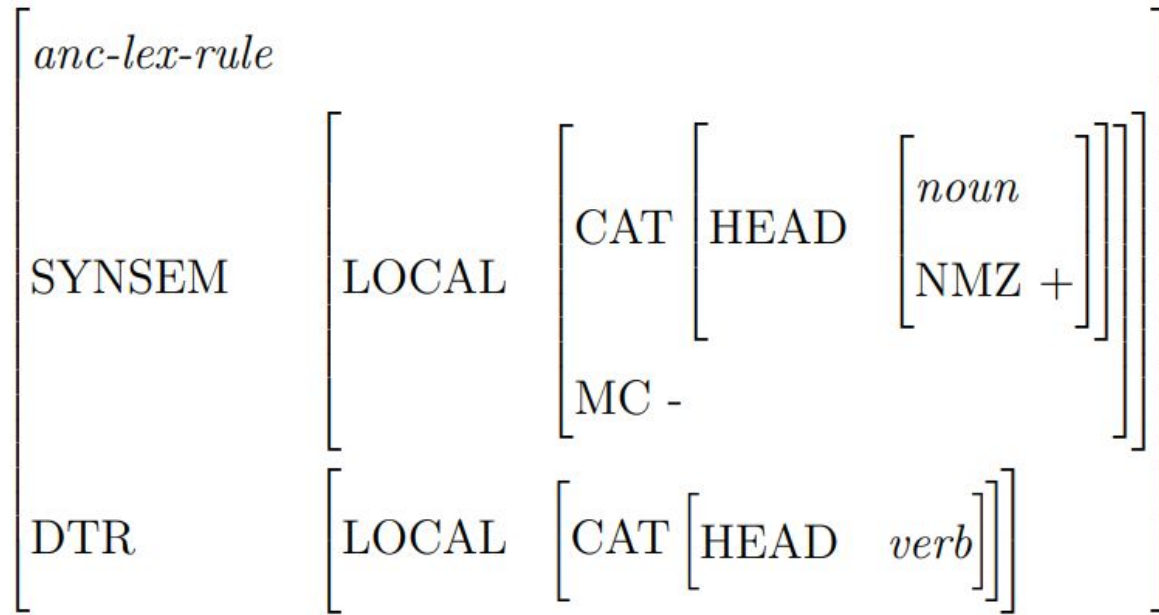
Features:

(X) Name:  ▼ Value:  ▼ Specified on:  ▼

# Nominalization Hierarchy

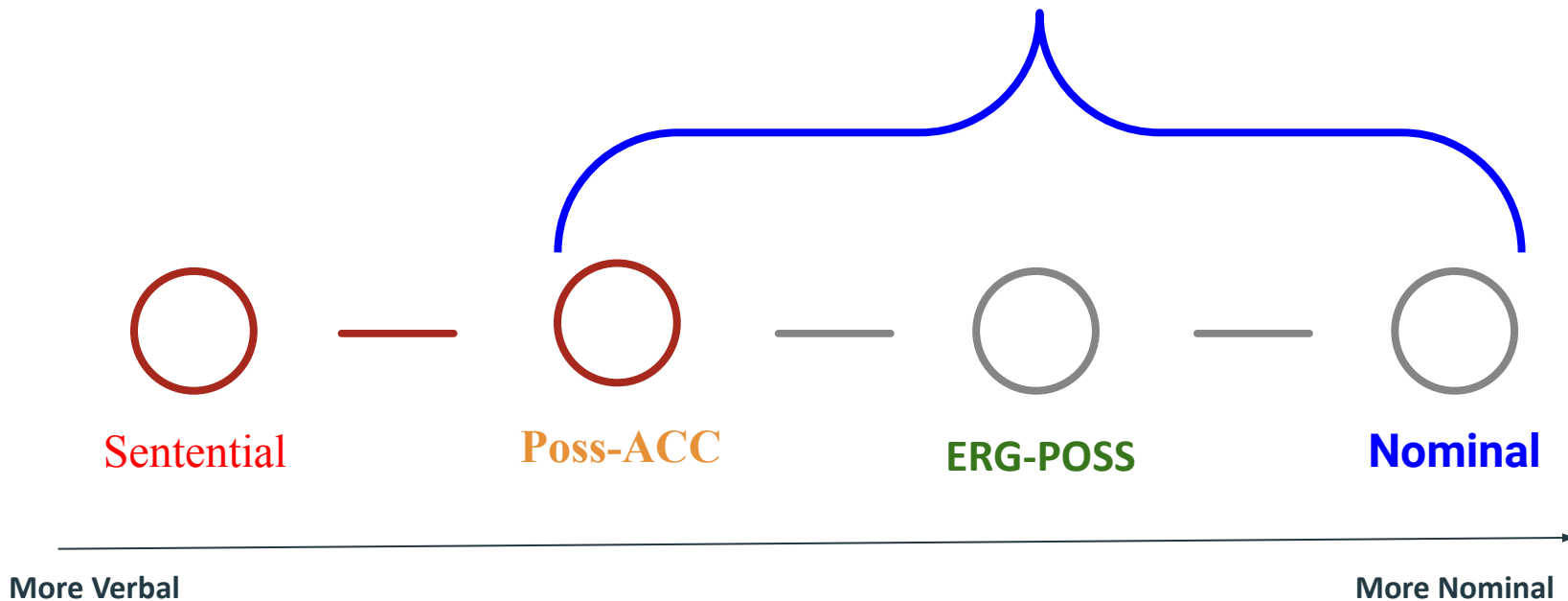


# ANC-lex-rule



# Typology of Action Nominals Constructions

Mark one argument as a possessor



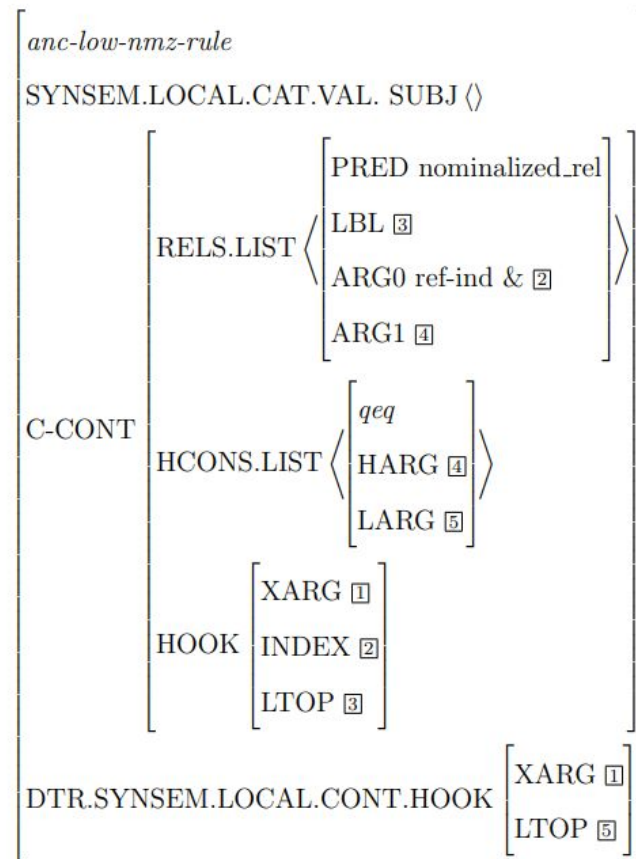
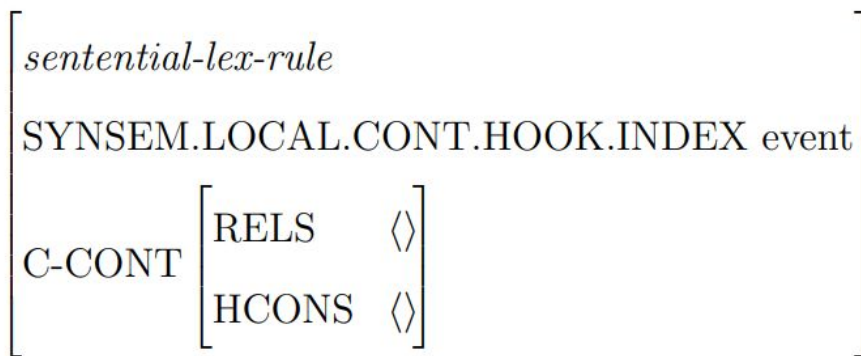
(Koptjevskaja-Tamm, 1993)



# sentential vs anc-low-nmz

(Howell et al., 2018)

- Head-subj rules require the HEAD-DTR to have an *event* INDEX value



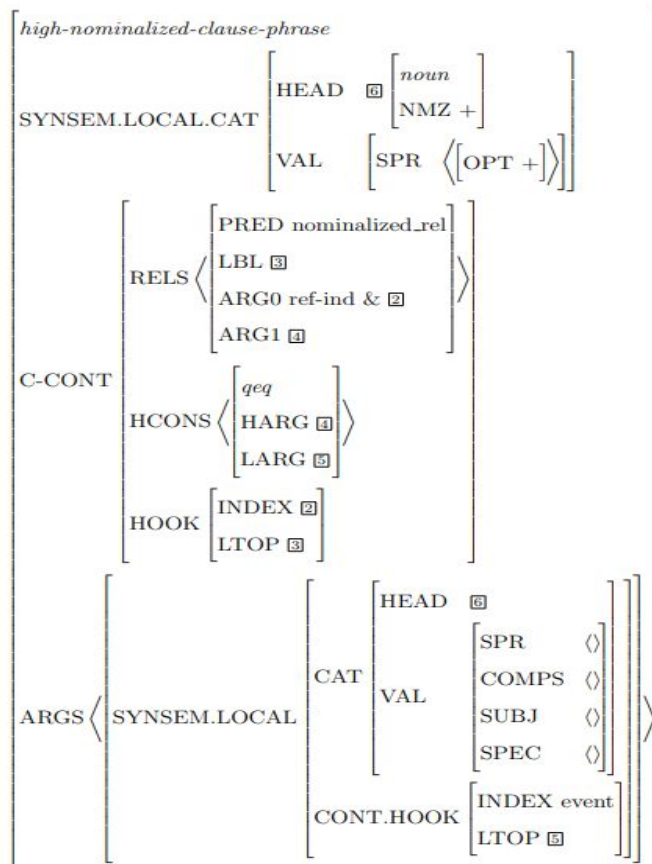
# Semantic options (sent and alt-sent)

(Howell et al., 2018)

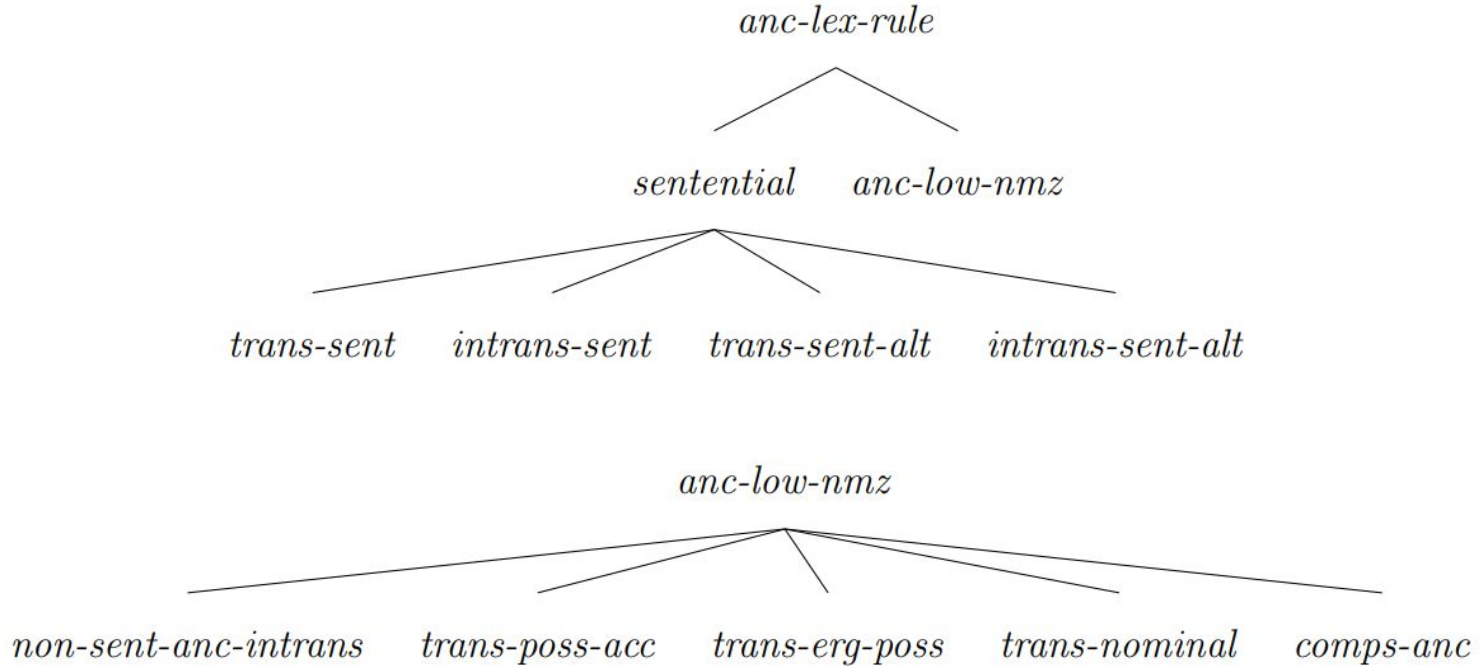
- Original library allowed two options for high nominalization
  - Including nominalized\_rel in the semantics
  - Excluding nominalized\_rel from the semantics

# Semantic options (sent and alt-sent)

(Howell et al., 2018)



# Nominalization Hierarchy



# ALT-SENT Type

- **Patient** is marked the same as the underlying verb, the **agent/subject** can take distinct marking

**Him**                      destroy-ing                      **the evidence**

**Him[ACC]**    destroy-NMLZ    **the evidence**

**Him** destroying **the evidence** (English[eng])

# Trans-sent-alt

<i>trans-sent-alt-lex-rule</i>						
SYNSEM.LOCAL.CAT	VAL	<table> <tr> <td>SUBJ</td> <td><math>\langle [ \text{LOCAL.CONT.HOOK.INDEX } \boxed{1} ] \rangle</math></td> </tr> <tr> <td>COMPS</td> <td><math>\langle \boxed{2} \rangle</math></td> </tr> </table>	SUBJ	$\langle [ \text{LOCAL.CONT.HOOK.INDEX } \boxed{1} ] \rangle$	COMPS	$\langle \boxed{2} \rangle$
SUBJ	$\langle [ \text{LOCAL.CONT.HOOK.INDEX } \boxed{1} ] \rangle$					
COMPS	$\langle \boxed{2} \rangle$					
DTR.SYNSEM.LOCAL.CAT	VAL	<table> <tr> <td>SUBJ</td> <td><math>\langle [ \text{LOCAL.CONT.HOOK.INDEX } \boxed{1} ] \rangle</math></td> </tr> <tr> <td>COMPS</td> <td><math>\langle \boxed{2} \rangle</math></td> </tr> </table>	SUBJ	$\langle [ \text{LOCAL.CONT.HOOK.INDEX } \boxed{1} ] \rangle$	COMPS	$\langle \boxed{2} \rangle$
SUBJ	$\langle [ \text{LOCAL.CONT.HOOK.INDEX } \boxed{1} ] \rangle$					
COMPS	$\langle \boxed{2} \rangle$					

# Ergative-Possessive Type

(Koptjevskaja-Tamm, 2013)

- **Patient** is marked as a possessor, **agent** marked as a peripheral NP

ispoln-enij-e                  **sonat-y**                  **pianist-om**

Perform-NMLZ-NOM **sonata-GEN** **pianist-INSTR**

'the performance **of the sonata by the pianist**' (Russian[rus])

# Trans-erg-poss

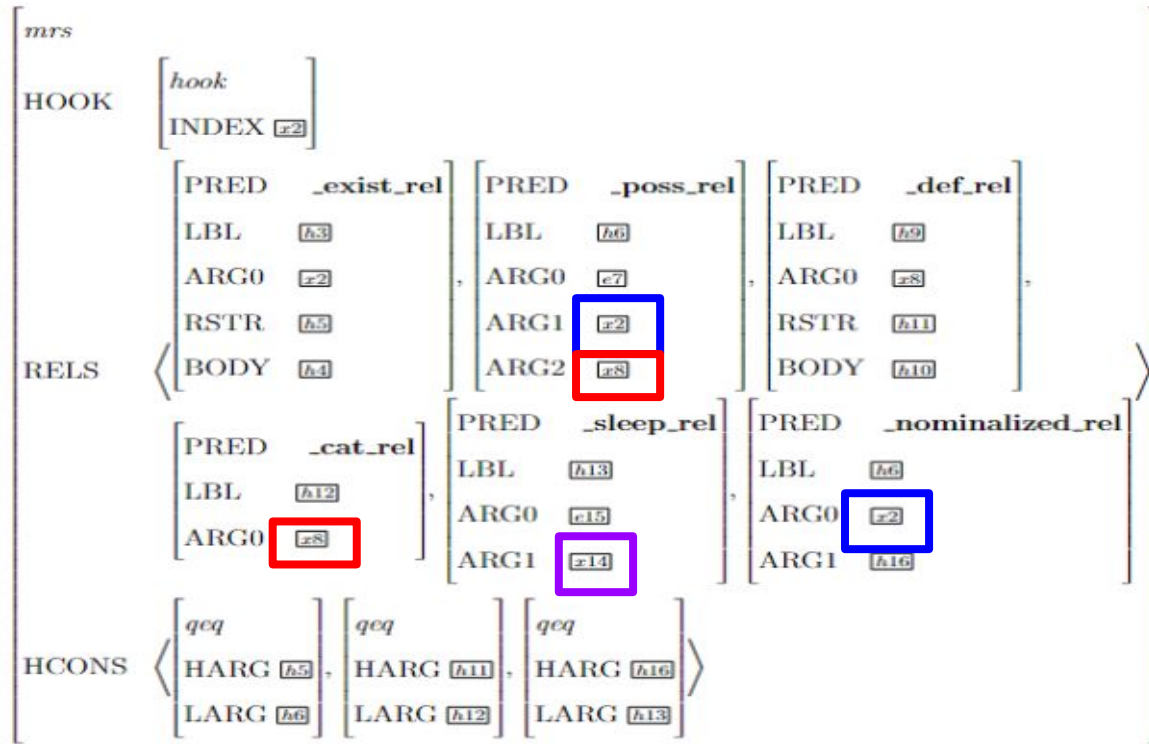
<i>trans-erg-poss-lex-rule</i>			
SYNSEM.LOCAL.CAT	VAL	SPR	$\langle [LOCAL.CONT.HOOK.INDEX \text{ 2}] \rangle$
		COMPS	$\langle [LOCAL.CONT.HOOK.INDEX \text{ 1}] \rangle$
DTR.SYNSEM.LOCAL.CAT	VAL	SUBJ	$\langle [LOCAL.CONT.HOOK.INDEX \text{ 1}] \rangle$
		COMPS	$\langle [LOCAL.CONT.HOOK.INDEX \text{ 2}] \rangle$



# Interaction with the Possessives library

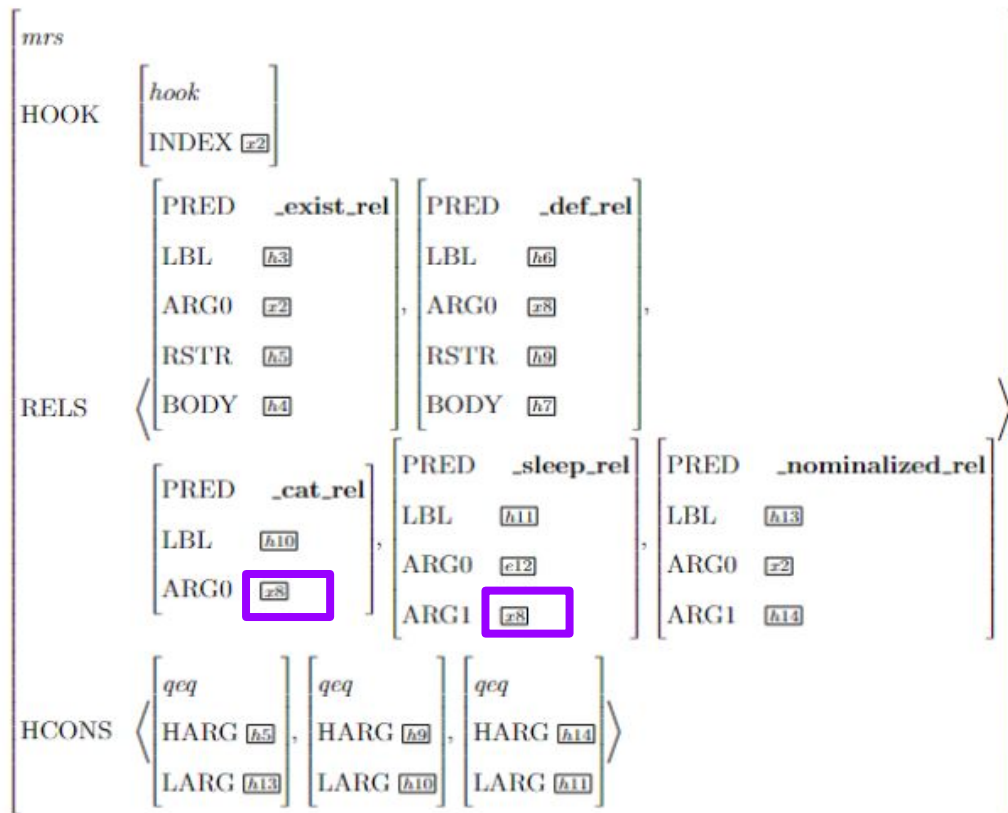
- Offers a specifier and modifier analysis of possessors
- Nominalized clauses library only uses the specifier analysis
- Can make use of all the syntactic and semantic constraints provided by the adnominal possessive library

# Possessive semantics in ANCs (noun-only)



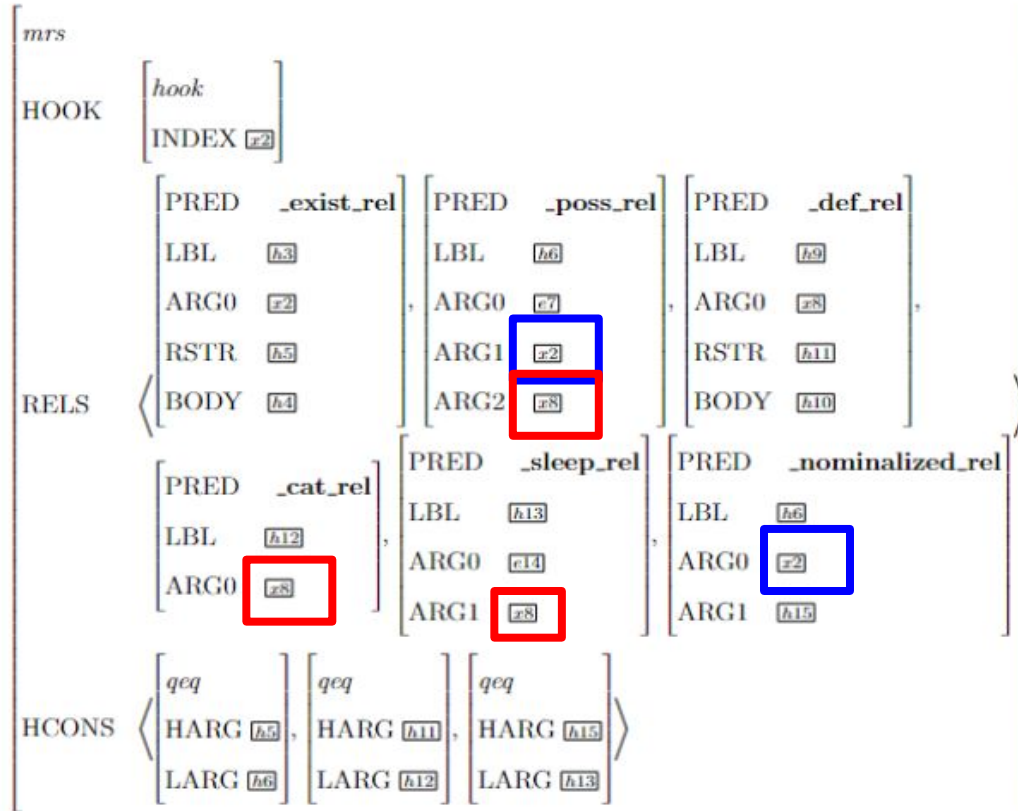
The cat's sleeping

# Possessive semantics in ANCs (verb-only)



The cat's sleeping

# Possessive semantics in ANCs (both)



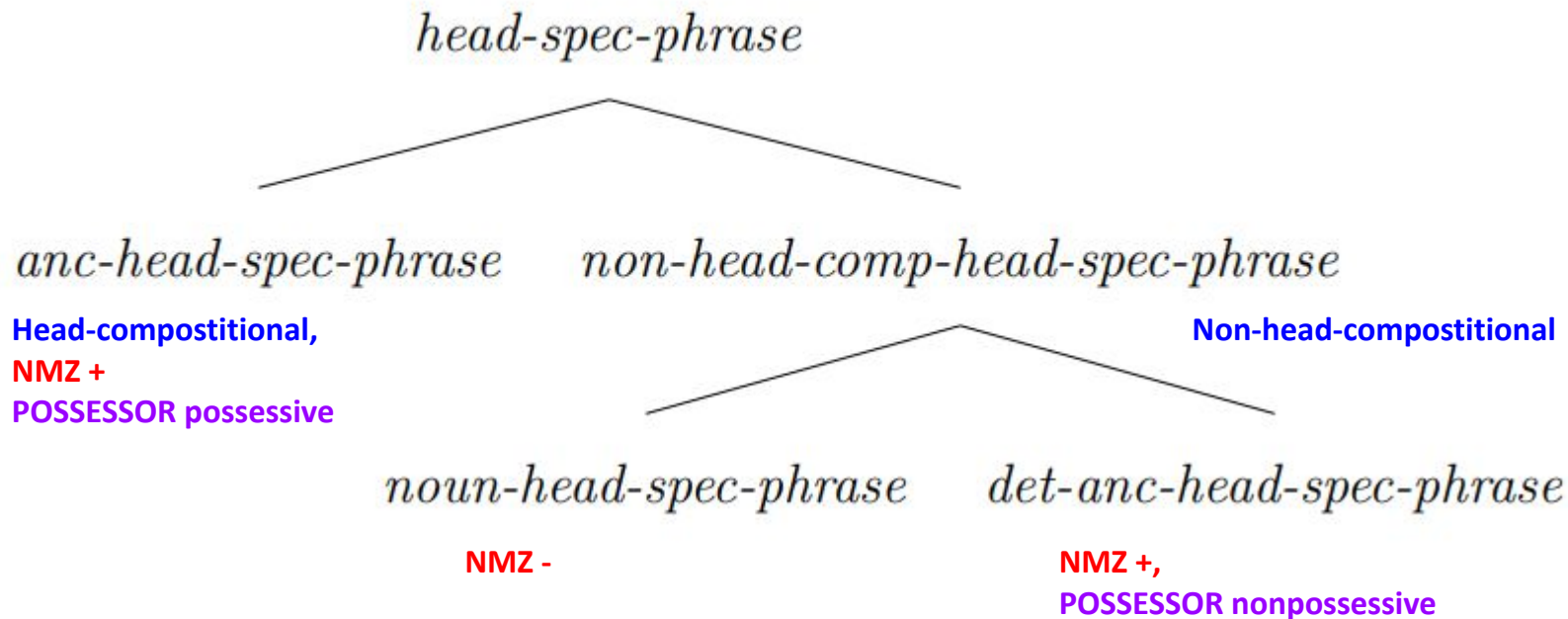
The cat's sleeping

# Possessive semantics implementation

(Nielsen, 2018)

- [NMZ +] and [NMZ -] of all rules that introduce possessive semantics
  - Poss-phrase (juxtaposition strategies)
  - Poss-unary
    - Head-spec-phrase combines the possessor and possessum
  - Pronoun lexical rules (pronominal affixes)
- Three different variants of the head-spec-phrase rule
  - Head-spec-phrase is non-head-compositional

# Head-Spec-Phrase



# Additional Characteristics

- **Argument optionality**
  - All arguments optional unless specified otherwise
- **Word order**
  - Can select a single alternative word order for  
poss-acc/erg-poss/nominal nominalization types
- **Adjective/adverb modification**
  - ADV-MOD: luk feature
- **Single argument analysis**

# References

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# Extra Slides

## Adverb/Adjective modification

- **Verbs** [ADV-MOD +]
- **Nouns** [ADV-MOD -]
- **Adverbs** modify [ADV-MOD + ] lexical items
- **Adjectives** modify [ADV-MOD -] lexical items
- **Nominalization lrts:**
  - Modified by Adjectives
    - [ADV-MOD -]
  - Modified by Adverbs
    - [ADV-MOD +]
  - Modified by both
    - ADV-MOD left underspecified
  - Modified by neither
    - [ADV-MOD na]

# Single argument

**Russian** (Comrie, 1976, p. 182)

(1) spoln-enij-e                  sonat-y          pianist-om

Perform-NMLZ-NOM sonata-GEN pianist-INSTR

‘the performance of the sonata by the pianist’ (Koptjevskaja-Tamm, 2013)

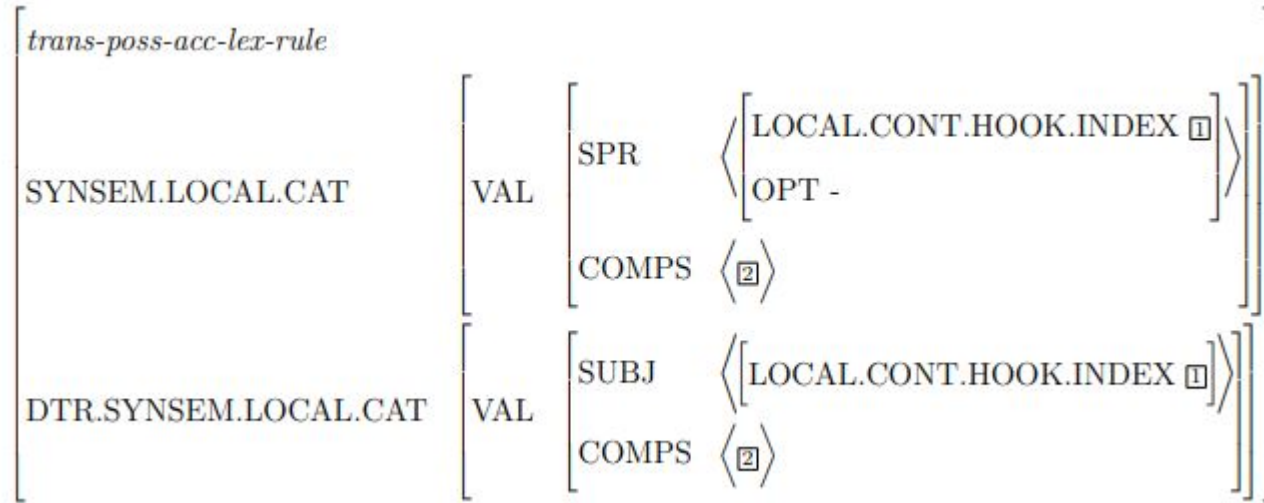
(2) čtenie      Puškina

Reading Pushkin(GEN)

‘Pushkin’s reading’ (subjective reading) or ‘the reading of Pushkin (objective reading)’ (Comrie, 1976, p. 182)

# Single Argument Possessor

- Version where both arguments appear
- Objective reading if only one argument appears



# Single Argument Possessor

- Subjective reading

<i>trans-erg-poss-subj-only-lex-rule</i>		
SYNSEM.LOCAL.CAT	VAL	$\left[ \begin{array}{ll} \text{SPR} & \langle [\text{LOCAL.CONT.HOOK.INDEX } \boxed{1}] \rangle \\ \text{COMPS} & \langle [\text{OPT } +] \rangle \end{array} \right]$
DTR.SYNSEM.LOCAL.CAT	VAL	$\left[ \begin{array}{ll} \text{SUBJ} & \langle [\text{LOCAL.CONT.HOOK.INDEX } \boxed{1}] \rangle \\ \text{COMPS} & \langle [\boxed{1}] \rangle \end{array} \right]$