Nominalized Clauses in the Grammar Matrix to be presented at HPSG 2018

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Data

Customization

Semantic
Representations

Evaluation

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- ▶ New library for nominalized clauses
- ▶ Developed in support of Clausal Complements and Clausal Modifier libraries
- ▶ Three syntactic strategies (V, VP, S) and two semantic representations
- ▶ New feature : NMZ

Nominalization in Clausal Modifiers

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amo-dhaace   =lrao
IRR-DYN.NNFIN.leave   =1S.NOM
'I am leaving' Rukai [dru] adapted from Zeitoun (2007, p. 204)

to'a-dhaac-ae   =li
REAS.NMZ-DYN.NFIN.leave-REAS.NMZ   =1S.GEN
ma-lrakas-iae
STAT.FIN-dislike-1S.OBL
'The reason why I'm leaving is because I dislike being here'
          Rukai [dru] adapted from Zeitoun (2007, p. 204)

Nominalization in Complement Clauses

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Ya	nabluda-l	napisa-ni-je	Ivan-om	dissertatsi-i
1SG.NOM	observe-PST	write-NZR-ACC	Ivan-INSTR	dissertation-GEN

'I observed Ivan's writing of the dissertation.'

Russian [rus]

Xɔtin	bu	ɔdam-niŋ	jŏ ǰa-ni	oğirla-š-i-ni	istandi
woman	this	man-GEN	chicken-OBJ	steal-NZR-3.SG-OBJ	wanted.3SG

'The woman wanted the man to steal the chicken.'

Uzbek [uzb] adapted from Noonan (2007, p. 70)

Customization Page

Nominalized Clauses [documentation]

If your language uses nominalization in the context of clausal complements and/or clausal modifiers, define the nomminalization strategies here. They will then be available on the Clausal Complements, Clausal Modifiers, and Morphology pages.

▼ nmz (ns1)

☒ **Nominalization Strategy 1**:
Nominalization Strategy Name: nmz

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]

The clausal modifier has the following features
Note: Features can be defined on the Other Features page. If this morphological feature cannot head a matrix clause, it should be defined as a FORM feature.

☒ Name: ? nominalization ▼ Value: nmz ▼

[Add a Feature]

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Low Nominalization (V)

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$$
\begin{bmatrix}
\textit{low-nominalization-lex-rule} \\[1em]
\text{SYNSEM} \mid \text{LOCAL} \quad
\begin{bmatrix}
\text{CAT} &
\begin{bmatrix}
\text{HEAD} & \begin{bmatrix} \textit{noun} \\ \text{NMZ} & + \end{bmatrix} \\
\text{VAL} \mid \text{SUBJ} \mid \text{INDEX} & \boxed{0}
\end{bmatrix}
\end{bmatrix} \\[2em]
\text{DTR} \mid \text{SYNSEM} \mid \text{LOCAL} \quad
\begin{bmatrix}
\text{CAT} & \begin{bmatrix} \text{VAL} \mid \text{SUBJ} \langle\, \text{INDEX} & \boxed{0}\,\rangle \end{bmatrix} \\
\text{CONT} & \begin{bmatrix} \text{HOOK} \mid \text{LTOP} & \boxed{1} \end{bmatrix}
\end{bmatrix} \\[2em]
\text{C-CONT} \quad
\begin{bmatrix}
\text{RELS} & \left\langle\, ! \begin{bmatrix}
\text{PRED} & \text{nominalization\_rel} \\
\text{LBL} & \boxed{2} \\
\text{ARG0} & \boxed{2} \\
\text{ARG1} & \boxed{1}
\end{bmatrix} ! \,\right\rangle
\end{bmatrix}
\end{bmatrix}
$$

High or Mid Nominalization (S or VP)

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$$
\begin{bmatrix}
\textit{nominalized-clause-phrase} \\[4pt]
\text{SYNSEM} \mid \text{LOCAL} \begin{bmatrix} \text{CAT} \mid \text{HEAD} \begin{bmatrix} \textit{noun} \\ \text{NMZ} \; + \end{bmatrix} \end{bmatrix} \\[16pt]
\text{ARGS} \quad \left\langle \begin{bmatrix} \text{SYNSEM} \mid \text{LOCAL} \begin{bmatrix} \text{CAT} \begin{bmatrix} \text{HEAD} \begin{bmatrix} \textit{verb} \\ \text{NMZ} + \end{bmatrix} \\ \text{VAL} \begin{bmatrix} \text{COMPS} \; \langle \, \rangle \\ \text{SUBJ} \quad \langle\,[\,]\,\rangle \end{bmatrix} \end{bmatrix} \\ \text{CONT} \begin{bmatrix} \text{HOOK} \mid \text{LTOP} \; \boxed{0} \end{bmatrix} \end{bmatrix} \end{bmatrix} \right\rangle \\[16pt]
\text{C-CONT} \begin{bmatrix} \text{RELS} \; \left\langle \, ! \begin{bmatrix} \text{PRED} & \text{nominalization\_rel} \\ \text{LBL} & \boxed{1} \\ \text{ARG0} & \boxed{1} \\ \text{ARG1} & \boxed{0} \end{bmatrix} ! \, \right\rangle \end{bmatrix}
\end{bmatrix}
$$

nominalization_rel

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senin	sinema-ya	gel-me-n-i	isti-yor-um
2sg.gen	cinema-dat	come-nmz-2sg-acc	want-prog-1sg

'I want you to come to the movies.'

Turkish [tur] adapted from Kornfilt (1997, p. 97)

$$
\begin{bmatrix}
mrs \\
\text{LTOP} \quad h1 \\
\text{INDEX} \quad e2 \\[2em]
\text{RELS} \quad \left\langle
\begin{bmatrix}
\_you\_n\_rel \\
\text{LBL} \quad h3 \\
\text{ARG0} \quad x4
\end{bmatrix},
\begin{bmatrix}
exist\_q\_rel \\
\text{LBL} \quad h5 \\
\text{ARG0} \quad x4 \\
\text{RSTR} \quad h6 \\
\text{BODY} \quad h7
\end{bmatrix},
\begin{bmatrix}
\_cinema\_n\_rel \\
\text{LBL} \quad h8 \\
\text{ARG0} \quad x9
\end{bmatrix},
\begin{bmatrix}
exist\_q\_rel \\
\text{LBL} \quad h10 \\
\text{ARG0} \quad x9 \\
\text{RSTR} \quad h11 \\
\text{BODY} \quad h12
\end{bmatrix},
\right. \\[3em]
\left.
\begin{bmatrix}
\_come\_v\_rel \\
\text{LBL} \quad h13 \\
\text{ARG0} \quad e14 \\
\text{ARG1} \quad x4 \\
\text{ARG2} \quad x9
\end{bmatrix},
\begin{bmatrix}
nominalization\_rel \\
\text{LBL} \quad h15 \\
\text{ARG0} \quad x17 \\
\text{ARG1} \quad h16
\end{bmatrix},
\begin{bmatrix}
exist\_q\_rel \\
\text{LBL} \quad h18 \\
\text{ARG0} \quad x17 \\
\text{RSTR} \quad h19 \\
\text{BODY} \quad h20
\end{bmatrix},
\begin{bmatrix}
\_want\_v\_rel \\
\text{LBL} \quad h21 \\
\text{ARG0} \quad e2 \\
\text{ARG1} \quad x22 \\
\text{ARG2} \quad x17
\end{bmatrix}
\right\rangle \\[3em]
\text{HCONS} \quad \left\langle
\begin{bmatrix}
qeq \\
\text{HARG} \quad h6 \\
\text{LARG} \quad h3
\end{bmatrix},
\begin{bmatrix}
qeq \\
\text{HARG} \quad h11 \\
\text{LARG} \quad h8
\end{bmatrix},
\begin{bmatrix}
qeq \\
\text{HARG} \quad h16 \\
\text{LARG} \quad h13
\end{bmatrix},
\begin{bmatrix}
qeq \\
\text{HARG} \quad h19 \\
\text{LARG} \quad h15
\end{bmatrix}
\right\rangle
\end{bmatrix}
$$

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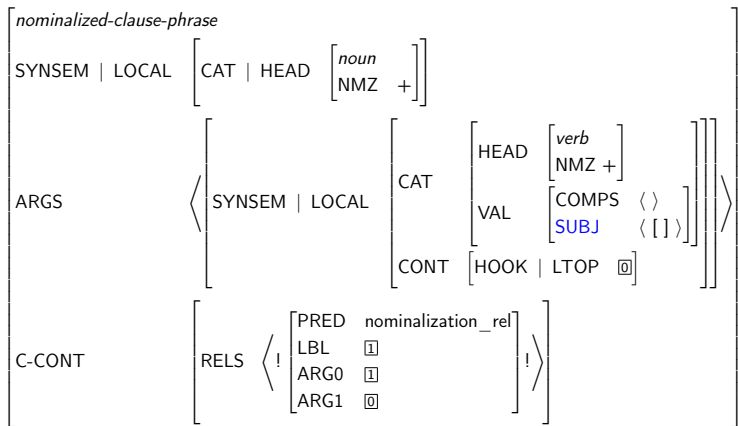at HPSG 2018

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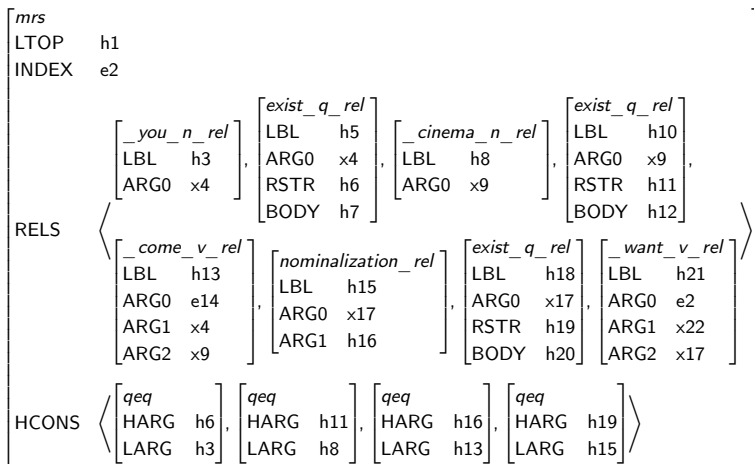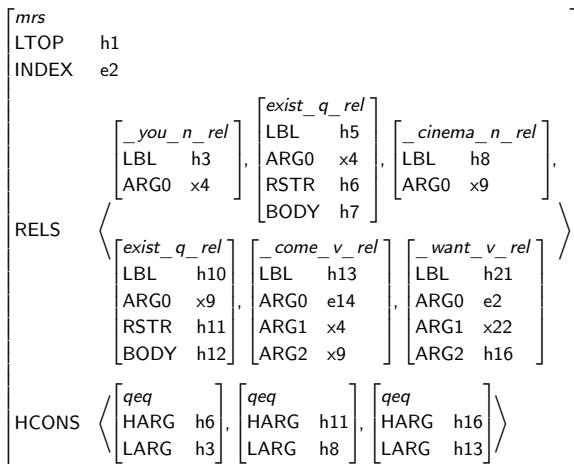
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No nominalization_rel

senin	sinema-ya	gel-me-n-i	isti-yor-um
2sg.gen	cinema-dat	come-nmz-2sg-acc	want-prog-1sg

'I want you to come to the movies.'

Turkish [tur] adapted from Kornfilt (1997, p. 97)

$$
\begin{bmatrix}
\text{mrs} \\
\text{LTOP} \quad h1 \\
\text{INDEX} \quad e2 \\
\\
\text{RELS} \quad \left\langle
\begin{bmatrix} \_you\_n\_rel \\ \text{LBL} \quad h3 \\ \text{ARG0} \quad x4 \end{bmatrix},
\begin{bmatrix} exist\_q\_rel \\ \text{LBL} \quad h5 \\ \text{ARG0} \quad x4 \\ \text{RSTR} \quad h6 \\ \text{BODY} \quad h7 \end{bmatrix},
\begin{bmatrix} \_cinema\_n\_rel \\ \text{LBL} \quad h8 \\ \text{ARG0} \quad x9 \end{bmatrix},
\begin{bmatrix} exist\_q\_rel \\ \text{LBL} \quad h10 \\ \text{ARG0} \quad x9 \\ \text{RSTR} \quad h11 \\ \text{BODY} \quad h12 \end{bmatrix},
\begin{bmatrix} \_come\_v\_rel \\ \text{LBL} \quad h13 \\ \text{ARG0} \quad e14 \\ \text{ARG1} \quad x4 \\ \text{ARG2} \quad x9 \end{bmatrix},
\begin{bmatrix} \_want\_v\_rel \\ \text{LBL} \quad h21 \\ \text{ARG0} \quad e2 \\ \text{ARG1} \quad x22 \\ \text{ARG2} \quad h16 \end{bmatrix}
\right\rangle \\
\\
\text{HCONS} \quad \left\langle
\begin{bmatrix} qeq \\ \text{HARG} \quad h6 \\ \text{LARG} \quad h3 \end{bmatrix},
\begin{bmatrix} qeq \\ \text{HARG} \quad h11 \\ \text{LARG} \quad h8 \end{bmatrix},
\begin{bmatrix} qeq \\ \text{HARG} \quad h16 \\ \text{LARG} \quad h13 \end{bmatrix}
\right\rangle
\end{bmatrix}
$$

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Development Languages

- ▶ Pseudo languages : artificial languages with a minimum lexicon : one for each analysis in each clausal complements and clausal modifiers
- ▶ Rukai
- ▶ Russian
- ▶ Turkish

Test Languages

- ▶ Paresi-Haliti
- ▶ Yakima Sahaptin
- ▶ Basque
  - ▶ One error : lack of a head-opt-subj rule for nominalized clauses