

Utilizing P&P Categories in a Typed Feature Structure Grammar

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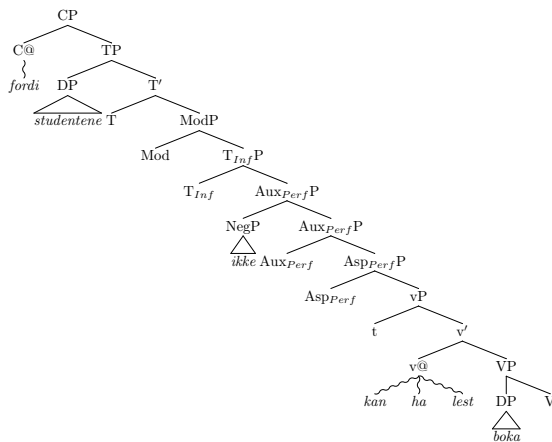
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Olomouc, July 3, 2024

Verb clusters in Norwegian (Svenonius, 2022)

- (1) fordi studentene ikke **kan ha lest** boka
because students-DEF not can have read book-DEF
because the students could not have read the book

Principles and Parameters analysis (Svenonius, 2022)



“Flattened” field analysis

Norwegian

Spec C	C	Spec T	T	Mod	Adv	T _{Inf}	Neg	Aux _{Perf}	Asp _{Perf}	Adv	v			Spec V	V
	fordi <i>because</i>	studentene <i>the students</i>					ikke <i>not</i>				kan <i>can</i>	ha <i>have</i>	lest <i>read</i>	boka <i>the book</i>	
Boka <i>the book</i>	kan <i>can</i>	studentene <i>the students</i>					ikke <i>not</i>					ha <i>have</i>	lest <i>read</i>		

English

Spec C	C	Spec T	T	Mod	Adv	T _{Inf}	Neg	Aux _{Perf}	Asp _{Perf}	Adv	v	Spec V	V
		They		must	fortunately			have		quickly	read	the book	

Eight categories for verbs

Norwegian

Spec C	C	Spec T	T	Mod	Adv	T _{Inf}	Neg	Aux _{Perf}	Asp _{Perf}	Adv	v			Spec V	V
	fordi <i>because</i>	studentene <i>the students</i>					ikke <i>not</i>				kan <i>can</i>	ha <i>have</i>	lest <i>read</i>	boka <i>the book</i>	
Boka <i>the book</i>	kan <i>can</i>	studentene <i>the students</i>					ikke <i>not</i>					ha <i>have</i>	lest <i>read</i>		

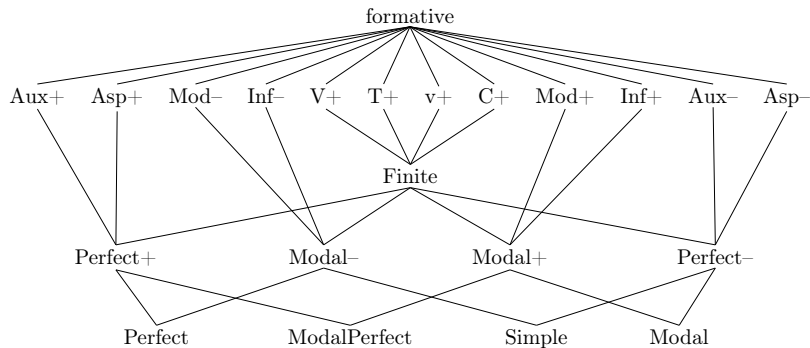
English

Spec C	C	Spec T	T	Mod	Adv	T _{Inf}	Neg	Aux _{Perf}	Asp _{Perf}	Adv	v			Spec V	V
		They		must	fortunately			have		quickly		read		the book	

Eight categories

FM	V	<i>category</i>
	Aux	<i>category</i>
	Mod	<i>category</i>
	T	<i>category</i>
	Inf	<i>category</i>
	Asp	<i>category</i>
	v	<i>category</i>
	C	<i>category</i>

Types of P&P categories



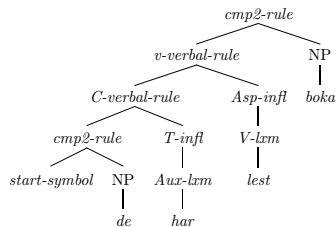
Start symbol

$\left[\begin{array}{c} \text{start} \\ \\ \\ \\ \\ \\ \\ \end{array} \right]$		
FM	BIG-V	$V-$
	AUX	$Aux-$
	MOD	$Mod-$
	T	$T-$
	INF	$Inf-$
	ASP	$Asp-$
	v	$v-$
	C	$C-$

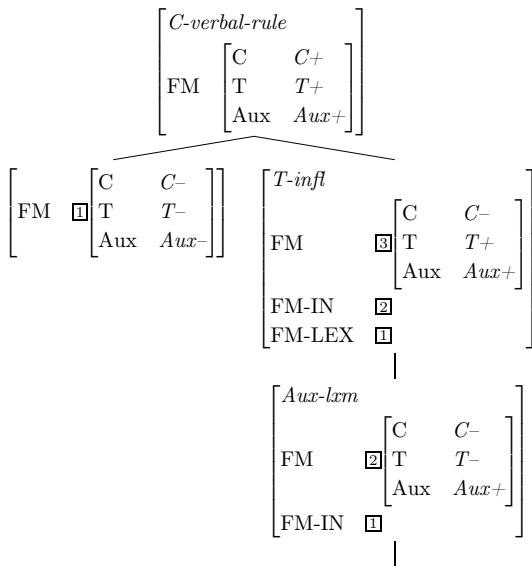
Force rule

FM	BIG-V	$\boxed{1}$
	AUX	$\boxed{1}$
	MOD	$\boxed{1}$
	T	$\boxed{1}$
	INF	$\boxed{1}$
	ASP	$\boxed{1}$
	v	$\boxed{1}$
	C	$\boxed{1}$

Incremental parse tree



Attaching the auxiliary *har* 'has' in C



Three types of realizations of categories

Verbal inflectional rule

```
[verbal-irule
  FM-IN   [1]
  FM-LEX  [2]
  ARGS    <[FM [1]]>
            <[FM-LEX [2]]>]
```

Verbal lexeme

```
[verbal-lxm
  FM-IN   [1]
  FM-LEX  [1]]
```

Verbal rule

```
[verbal-rule
  FM-IN   [1]
  ARGS    <[FM [2]], [FM [1]]
            <[FM-LEX [2]]>]
```

Eight types of categories

C-, T-, Mod-, and Inf-category

<i>C-category</i>		
FM	[C	C+]
FM-IN	[C	C-]

<i>T-category</i>		
FM	[T	T+]
FM-IN	[T	T-]

<i>Mod-category</i>		
FM	[Mod	Mod+]
FM-IN	[Mod	Mod-]

<i>Inf-category</i>		
FM	[Inf	Inf+]
FM-IN	[Inf	Inf-]

Aux-, Asp-, v-, and V-category

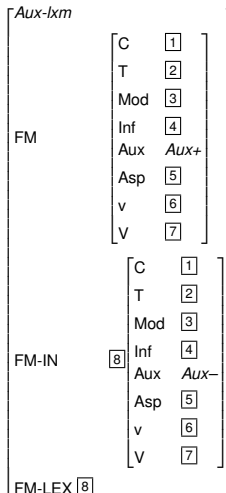
<i>Aux-category</i>		
FM	[Aux	Aux+]
FM-IN	[Aux	Aux-]

<i>Asp-category</i>		
FM	[Asp	Asp+]
FM-IN	[Asp	Asp-]

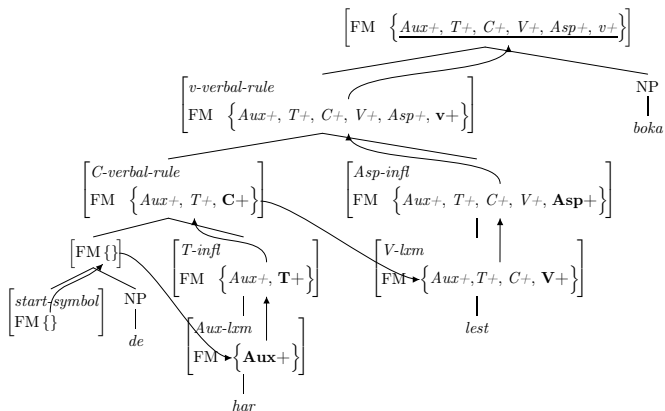
<i>v-category</i>		
FM	[v	v+]
FM-IN	[v	v-]

<i>V-category</i>		
FM	[V	V+]
FM-IN	[V	V-]

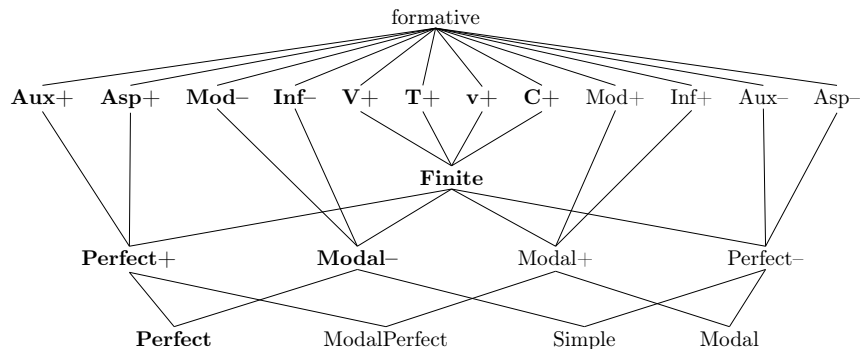
Auxiliary lexeme – subtype of *verbal-lexeme* and *aux-category*



Accumulation of category types in a clause with perfect tense



Type hierarchy of P&P categories and possible main clause constellations



References

Svenonius, P. (2022). Verbklynger i norsk. Handout presented at MONS 19, University of Tromsø.