

# Danish in Head-Driven Phrase Structure Grammar

Stefan Müller,  
Bjarne Ørsnes

■ Empirically Oriented Theoretical  
Morphology and Syntax, No 45



# Danish in Head-Driven Phrase Structure Grammar

This book describes a fragment of the Danish language that is formalized in the framework of Head-Driven Phrase Structure Grammar. Each chapter consists of a large empirical part that uses corpus data for the discussion of phenomena whenever this is appropriate. The description is theory-driven but the formulations of the insights are as theory-neutral as possible.

After a brief introduction into the basic assumptions that are made in HPSG, we provide a topological model of the Danish clause. This topological model is used to explain the basic clause structure of Danish (SVO) and to set up the HPSG analysis of these rather basic facts. After this rather basic part detailed descriptions and analyses of the following phenomena are provided: object and negation shift, copula constructions, including specificational structures and the relation to left dislocation and question tag formation, extraposition, passive, raising passives, in which objects of embedded verbs are raised to subject, preposed negation, extraction (V2), the insertion of positional expletives in extraction contexts, and *Do*-Support.

The grammar that is described in this book is computerprocessable and hence internally consistent. It was developed in the CoreGram project, which develops grammars of various languages and tries to find crosslinguistic generalizations. This is also reflected in the book, which contains sections that compare the analyses for Danish with those for German and English.

Stefan Müller is professor for German and General Linguistics at the Freie Universität Berlin. Bjarne Ørsnes is Associate Professor at the Copenhagen Business School.

Stefan Müller, Bjarne Ørsnes

Danish in Head-Driven Phrase Structure Grammar



TODO Series information: name, editors, previous numbers

# Danish in Head-Driven Phrase Structure Grammar

Stefan Müller,  
Bjarne Ørsnes

**Impressum**

Info Info Info

Info Info Info

Info Info Info

Cover and concept of design:

Ulrike Harbort

[www.langsci-press.org](http://www.langsci-press.org)

Storage and catalogueing done by FU Berlin

# Contents

I	Part Title: Basaá, fulbe, move- $\alpha$ , and the head Feature	5
1	Chapter Title: Basaá, fulbe, move- $\alpha$ , and the head Feature	7
1.1	Section Title: The details Basaá, fulbe, move- $\alpha$ , and the HEAD Feature	7
1.1.1	Subsection Title: more specific points on Basaá, fulbe, move- $\alpha$ , and the HEAD Feature . . . . .	7





## **Part I**

**Part Title: Basaá, fulbe, move- $\alpha$ ,  
and the head Feature**



# 1 Chapter Title: 'Basaá, fulbe, move- $\alpha$ , and the head Feature

## 1.1 Section Title: The details 'Basaá, fulbe, move- $\alpha$ , and the head Feature

### 1.1.1 Subsection Title: more specific points on 'Basaá, fulbe, move- $\alpha$ , and the head Feature

#### 1.1.1.1 Subsubsection Title: 'Basaá, fulbe, move- $\alpha$ , and the head Feature

##### 1.1.1.1.1 Subsubsubsection Title: Basaá, fulbe, move- $\alpha$ , and the HEAD Feature

Hey, this is **another** text that is written by me, not be  $\LaTeX$ . It is much nicer, although the, English may be broken and the interpuction incorrect.<sup>123</sup>

- AVMs with math operators

$$word \rightarrow \left[ \begin{array}{l} \text{MORPHS} \quad \boxed{e_1} \circ \dots \circ \boxed{e_n} \\ \text{MORSYN} \quad \boxed{0} \left( \boxed{m_1} \uplus \dots \uplus \boxed{m_n} \right) \\ \text{RULES} \quad \left\langle \left[ \begin{array}{l} \text{MORPHS} \quad \boxed{e_1} \\ \text{MUD} \quad \boxed{m_1} \\ \text{MORSYN} \quad \boxed{0} \end{array} \right] \dots \left[ \begin{array}{l} \text{MORPHS} \quad \boxed{e_n} \\ \text{MUD} \quad \boxed{m_n} \\ \text{MORSYN} \quad \boxed{0} \end{array} \right] \right\rangle \end{array} \right]$$

- Old-style figures (or not) in attribute names:

---

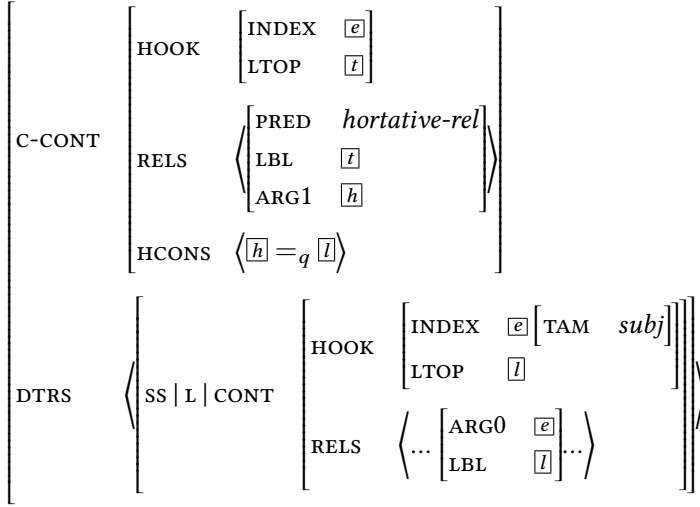
<sup>1</sup> The point of writing this text is that I can insert this footnote here so that Ulrike can see how a footnote looks like. The lipsum package does not insert footnotes.

This is a new paragraph in the footnote.

<sup>2</sup> And if they did not die, the wrote another footnote.

This is another new paragraph, but it is longer. It may stretch to the next line if I add some more words.

<sup>3</sup> The point of writing this text is that I can insert this footnote here so that Ulrike can see how a footnote looks like. The lipsum package does not insert footnotes.



- Sansserif test: Text **Text** Text **Text**

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque

tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetur adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta vehicula.

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

Suspendisse vel felis. Ut lorem lorem, interdum eu, tincidunt sit amet, laoreet vitae, arcu. Aenean faucibus pede eu ante. Praesent enim elit, rutrum at, molestie non, nonummy vel, nisl. Ut lectus eros, malesuada sit amet, fermentum eu, sodales cursus, magna. Donec eu purus. Quisque vehicula, urna sed ultricies auctor, pede lorem egestas dui, et convallis elit erat sed nulla. Donec luctus. Curabitur et nunc. Aliquam dolor odio, commodo pretium, ultricies non, pharetra in, velit. Integer arcu est, nonummy in, fermentum faucibus, egestas vel, odio.

Sed commodo posuere pede. Mauris ut est. Ut quis purus. Sed ac odio. Sed vehicula hendrerit sem. Duis non odio. Morbi ut dui. Sed accumsan risus eget odio. In hac habitasse platea dictumst. Pellentesque non elit. Fusce sed justo eu urna porta tincidunt. Mauris felis odio, sollicitudin sed, volutpat a, ornare ac, erat. Morbi quis dolor. Donec pellentesque, erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam

vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetur adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta vehicula.

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

Suspendisse vel felis. Ut lorem lorem, interdum eu, tincidunt sit amet, laoreet vitae, arcu. Aenean faucibus pede eu ante. Praesent enim elit, rutrum at, molestie non, nonummy vel, nisl. Ut lectus eros, malesuada sit amet, fermentum eu, sodales cursus, magna. Donec eu purus. Quisque vehicula, urna sed ultricies auctor, pede lorem egestas dui, et convallis elit erat sed nulla. Donec luctus. Curabitur et nunc. Aliquam dolor odio, commodo pretium, ultricies non, pharetra in, velit. Integer arcu est, nonummy in, fermentum faucibus, egestas vel, odio.

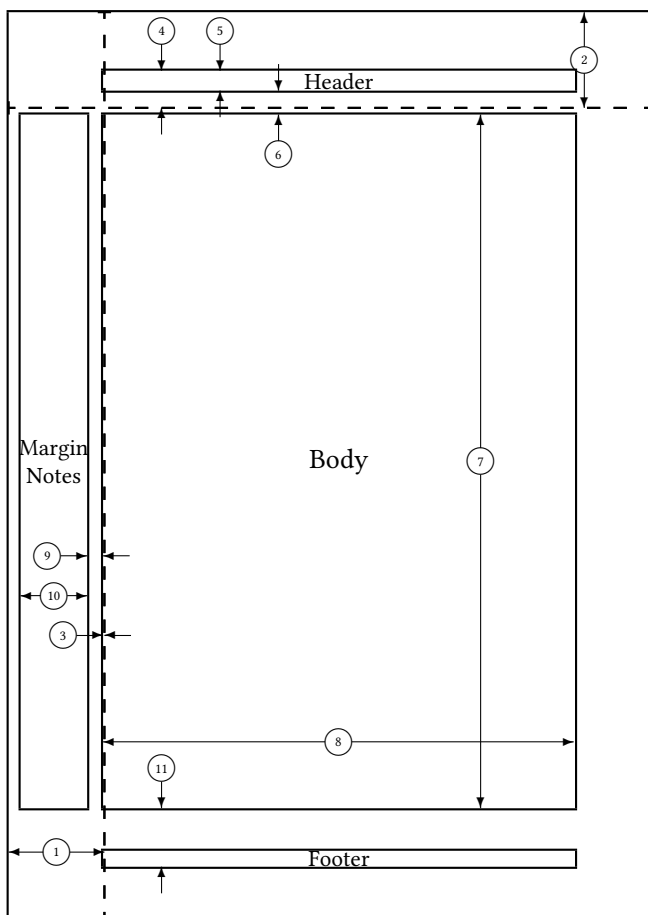
Sed commodo posuere pede. Mauris ut est. Ut quis purus. Sed ac odio. Sed vehicula hendrerit sem. Duis non odio. Morbi ut dui. Sed accumsan risus eget odio. In hac habitasse platea dictumst. Pellentesque non elit. Fusce sed justo eu urna porta tincidunt. Mauris felis odio, sollicitudin sed, volutpat a, ornare ac, erat. Morbi quis dolor. Donec pellentesque, erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus.

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Donec odio elit, dictum in, hendrerit sit amet, egestas sed, leo. Praesent feugiat sapien aliquet odio. Integer vitae justo. Aliquam vestibulum fringilla lorem. Sed neque lectus, consectetur at, consectetur sed, eleifend ac, lectus. Nulla facilisi. Pellentesque eget lectus. Proin eu metus. Sed porttitor. In hac habitasse platea dictumst. Suspendisse eu lectus. Ut mi mi, lacinia sit amet, placerat et, mollis vitae, dui. Sed ante tellus, tristique ut, iaculis eu, malesuada ac, dui. Mauris nibh leo, facilisis non, adipiscing quis, ultrices a, dui.

Morbi luctus, wisi viverra faucibus pretium, nibh est placerat odio, nec commodo wisi enim eget quam. Quisque libero justo, consectetur a, feugiat vitae, portti-

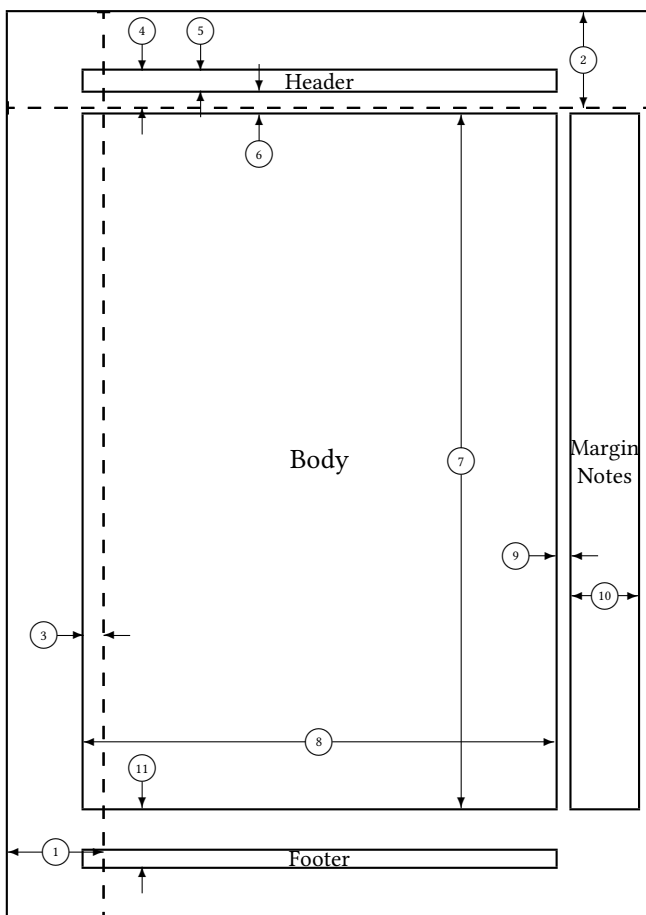
tor eu, libero. Suspendisse sed mauris vitae elit sollicitudin malesuada. Maecenas ultricies eros sit amet ante. Ut venenatis velit. Maecenas sed mi eget dui varius euismod. Phasellus aliquet volutpat odio. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Pellentesque sit amet pede ac sem eleifend consectetur. Nullam elementum, urna vel imperdiet sodales, elit ipsum pharetra ligula, ac pretium ante justo a nulla. Curabitur tristique arcu eu metus. Vestibulum lectus. Proin mauris. Proin eu nunc eu urna hendrerit faucibus. Aliquam auctor, pede consequat laoreet varius, eros tellus scelerisque quam, pellentesque hendrerit ipsum dolor sed augue. Nulla nec lacus.

Suspendisse vitae elit. Aliquam arcu neque, ornare in, ullamcorper quis, commodo eu, libero. Fusce sagittis erat at erat tristique mollis. Maecenas sapien libero, molestie et, lobortis in, sodales eget, dui. Morbi ultrices rutrum lorem. Nam elementum ullamcorper leo. Morbi dui. Aliquam sagittis. Nunc placerat. Pellentesque tristique sodales est. Maecenas imperdiet lacinia velit. Cras non urna. Morbi eros pede, suscipit ac, varius vel, egestas non, eros. Praesent malesuada, diam id pretium elementum, eros sem dictum tortor, vel consectetur odio sem sed wisi.



- |    |                        |    |                                  |
|----|------------------------|----|----------------------------------|
| 1  | one inch + \hoffset    | 2  | one inch + \voffset              |
| 3  | \evensidemargin = -1pt | 4  | \topmargin = -28pt               |
| 5  | \headheight = 15pt     | 6  | \headsep = 18pt                  |
| 7  | \textheight = 522pt    | 8  | \textwidth = 355pt               |
| 9  | \marginparsep = 12pt   | 10 | \marginparwidth = 50pt           |
| 11 | \footskip = 44pt       |    | \marginparpush = 5pt (not shown) |
|    | \hoffset = 0pt         |    | \voffset = 0pt                   |
|    | \paperwidth = 483pt    |    | \paperheight = 682pt             |





- |    |                                     |    |   |
|----|-------------------------------------|----|---|
| 1  | <code>one inch + \hoffset</code>    | 2  | <code>one inch + \voffset</code>              |
| 3  | <code>\oddsidemargin = -15pt</code> | 4  | <code>\topmargin = -28pt</code>               |
| 5  | <code>\headheight = 15pt</code>     | 6  | <code>\headsep = 18pt</code>                  |
| 7  | <code>\textheight = 522pt</code>    | 8  | <code>\textwidth = 355pt</code>               |
| 9  | <code>\marginparsep = 12pt</code>   | 10 | <code>\marginparwidth = 50pt</code>           |
| 11 | <code>\footskip = 44pt</code>       |    | <code>\marginparpush = 5pt (not shown)</code> |
|    | <code>\hoffset = 0pt</code>         |    | <code>\voffset = 0pt</code>                   |
|    | <code>\paperwidth = 483pt</code>    |    | <code>\paperheight = 682pt</code>             |