Malmberg’s interests include child language, bilingualism, language learning and teaching, and he has been engaged in writing or speaking about these topics too. The phonetics chair at Lund was partly motivated by the demands of language teaching. He was also active in starting courses for speech therapists (logopedes). He has published many books on general phonetics and the phonetics of individual languages, and several have been translated into many languages and read by hundreds of thousands of students. The French version of his general phonetics in the series Que sais-je? has been printed in 200,000 copies and belongs to the best-sellers in the series. Many Scandinavian language students have also read his popular pocket book Språket och människan (Language and Man; 5th ed. 1970) and many remember the nice examples of the speech development of his Finnish foster daughter Sirkka.

Malmberg’s most influential survey of linguistics is Nya vågar inom språkforskningen (1959; English version New Trends in Linguistics, 1964), which opened the eyes of many Ph.D. candidates. Inspired by the mathematical theory of information, a theory which attracted several linguists at the time, he also published Structural Linguistics and Human Communication (1963), where he associated linguistics to communication in a new manner. Malmberg has been honoured for his great learning, intellectual capacity and importance in many ways. In 1994 he was bestowed the great price of the Swedish Academy of Letters (Vitterhetsakademin), ‘Ann-Kersti och Hakan Swenssons pris’, the most prestigious prize a Swedish humanities scholar can receive. He was a member of many learned societies and academies and also received the French Legion of Honour. He was visiting professor at the Sorbonne and became doctor honoris causa there. He has also taught at the universities of Aix-en-Provence, Bloomington (Indiana), Buenos Aires, Ibadan and Sao Paulo. Malmberg was offered the chair in linguistics in Geneva once held by Saussure.

Malmberg has given key note speeches at many conferences and congresses in the world. He had an impressive mastery of the whole field of linguistics. He was a linguist even in the sense of being a polyglot and mastered French, English, German, Spanish and Italian beside his mother tongue Swedish – he preferred to write in French. He was highly appreciated as a teacher, and like other great speakers, he did not want to be interrupted by questions. In his lectures, learning and rhetoric were combined in a way few modern students get a chance to experience.

Despite all his success and tokens of honour, Bertil Malmberg remained a humble person. Friends, colleagues and students all over the world miss him.
### Declension Genitive

<table>
<thead>
<tr>
<th>Singular</th>
<th>Genitive plural</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a</td>
<td>tēv-s —&gt; tēv-a, tēv-u</td>
</tr>
<tr>
<td>2</td>
<td>a</td>
<td>kāk-is —&gt; kāk-a, kāk-u</td>
</tr>
<tr>
<td>3</td>
<td>s</td>
<td>akmen-s —&gt; akmen-s, akmen-u</td>
</tr>
<tr>
<td>4</td>
<td>s</td>
<td>tīrg-us —&gt; tīrg-us, tīrg-u</td>
</tr>
<tr>
<td>5</td>
<td>es</td>
<td>mās-a —&gt; mās-as, mās-u</td>
</tr>
<tr>
<td>6</td>
<td>s</td>
<td>gov-s —&gt; gov-s, gov-u</td>
</tr>
</tbody>
</table>

For second declension nouns in singular and plural, as well as for fifth and sixth declension nouns in plural, the consonant preceding the case ending can be palatalized:

- ez-is — ez-a ‘hedgehog’
- egl-e — egl-u ‘firs’
- nakt-s — naks-u ‘nights’

Some of the endings (u, as, es, s) are used in the genitive as well as in other cases, e.g. mājas — genitive singular, nominative plural. In this case, only an understanding of the whole sentence can help to determine which case is used. An automated parsing system for Latvian always searches for the longest constituent, which gives the correct solution in most cases.

Latvian adjectives have two types of declension: definite and indefinite. The indefinite is used for expressions equivalent to English a little sister, and the definite for expressions of the type the little sister. The indefinite adjectives have endings similar to the nouns. Masculine adjectives are declined like first declension nouns, and feminine adjectives like fourth declension nouns:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Nom sg</th>
<th>Gen sg</th>
<th>Gen pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite adjective</td>
<td>masc</td>
<td>s, š</td>
<td>a</td>
</tr>
<tr>
<td>fem</td>
<td>a</td>
<td>aš</td>
<td>as</td>
</tr>
<tr>
<td>Definite adjective</td>
<td>masc</td>
<td>ais</td>
<td>ā</td>
</tr>
<tr>
<td>fem</td>
<td>ā</td>
<td>ās</td>
<td>ās</td>
</tr>
</tbody>
</table>

The following table shows the nominative and genitive of the adjective māzs 'little':

<table>
<thead>
<tr>
<th>Declension</th>
<th>Gender</th>
<th>Nom sg</th>
<th>Gen sg</th>
<th>Gen pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite</td>
<td>masc</td>
<td>maz-s</td>
<td>maz-a</td>
<td>maz-u</td>
</tr>
<tr>
<td>fem</td>
<td>maz-a</td>
<td>maz-as</td>
<td>maz-u</td>
<td></td>
</tr>
<tr>
<td>Definite</td>
<td>masc</td>
<td>maz-ais</td>
<td>maz-ā</td>
<td>maz-o</td>
</tr>
<tr>
<td>fem</td>
<td>maz-ā</td>
<td>maz-ās</td>
<td>maz-o</td>
<td></td>
</tr>
</tbody>
</table>

Most Latvian pronouns are declined as nouns of either the first declension (for masculine pronouns) or the fourth (for feminine pronouns) declension. There are some pronouns, for instance es 'I', which have special forms for each case.

### Functional roles
A genitive noun phrase may have several functions, namely:

1. an attribute in NP: māsas galds 'sister's table'.
2. a complement in a preposition phrase with the prepositions aiz 'behind', apace 'outside', augšpus 'up', bez 'without', dēl 'for', kopš 'since', no 'from', oturis 'on the other side', pēc 'after', pie 'near', pirms 'before', priekš 'for', uz 'on', virs 'up', zem 'under' in singular: aiz mājas [behind house-GEN] 'behind the house'.
3. a complement in a postposition phrase with the postpositions augša 'high up', apakša 'down below', dēl 'because of', iekša 'inside', labād 'for the sake of', lidzi 'along with', priekša 'in front of', starpā 'between', vidū 'among', virsā 'on top': mājas priekšā [house-GEN in.front.of] 'in front of the house'.
4. the object in negated possessive expressions: Man nav naudas [I haven't money-GEN] 'I have no money'.
5. the genitive noun phrase may occur without its head: Tā ir māsas 'This is sister's.'

### Thematic roles
In most cases the genitive noun phrase is possessive (tēva grāmata 'father's book') or partitive (rika maizes [slice bread-GEN] 'slice of bread'). But it may also have the role of an agent (zena dziedāsana 'boy's singing') or a patient (zena notolauspēšana [boy-GEN kidnapping] 'kidnapping of a boy').

A number of nouns can be used in the genitive to describe another noun. The relation between the genitive word and its head is as between an indeclinable adjective and a noun: ziemas mētēlis [winter-GEN coat] 'winter coat'.

### Forms of genitive noun phrases
The Latvian genitive noun phrase is characterized by three main features:

1. all the words in the genitive noun phrase are in the genitive;
2. the genitive noun phrase does not agree with the head noun in case, number or gender;
(3) the genitive noun phrase generally precedes the head noun.

An NP including a genitive NP may be more or less complex. The simplest noun phrase with a genitive consists of a noun in the genitive and a head noun (\(n_{\text{case}}=n_{\text{gen}}+n_{\text{case}}\): māzas galds 'sister's table'), but both the noun in the genitive and the head noun may be complex NPs.

What is a genitive noun phrase? It can be:

1. A noun in the genitive (\(g_{\text{np}}=n_{\text{gen}}\): māzas 'sister's').
2. A personal pronoun in the genitive (\(g_{\text{np}}=n_{\text{gen}}\): viņa 'his').
3. A noun in the genitive preceded by an adjective phrase (usually with a definite ending) in the same case, number and gender as the noun (\(g_{\text{np}}=a_{\text{gen}}+n_{\text{gen}}\): mazās māzas 'little sister's').
4. A noun in the genitive preceded by a pronoun in the same case, number and gender as the noun (\(g_{\text{np}}=n_{\text{gen}}+p_{\text{gen}}\): mana māzas 'my little sister's').
5. A noun in the genitive preceded by a pronoun and an adjective (with definite ending) in the same case, number and gender as the noun (\(g_{\text{np}}=p_{\text{gen}}+a_{\text{gen}}+n_{\text{gen}}\): mānas mazās māzas 'my little sister's').
6. The genitive noun phrase may be recursively preceded by another genitive noun phrase (\(g_{\text{np}}=g_{\text{np1}}+g_{\text{np2}}\):

   - māzas galds 'sister's table's'
   - mazās māzas galds 'little sister's table's'
   - mana māzas māzas jaunā galds 'my little sister's new table's'

The placement of the genitive noun phrase in the matrix noun phrase

Now we can note the genitive's position in the matrix noun phrase. The following constructions are allowed:

1. A genitive noun phrase precedes the head noun (\(n_{\text{case}}=n_{\text{gen}}+n_{\text{case}}\): māzas galds 'sister's table').
2. A head noun preceded by and determined by an adjective phrase in the same case, number and gender as the head noun and a genitive noun phrase (\(n_{\text{case}}=a_{\text{case}}+n_{\text{np}}+n_{\text{case}}\): mazās māzas galds 'little sister's table').
3. A head noun preceded by a pronoun in the same case, number and gender as the head noun, a genitive noun phrase (\(n_{\text{case}}=p_{\text{case}}+g_{\text{np}}+n_{\text{case}}\): manus ziemas mētelis 'my winter's coat').
4. A head noun preceded by and determined by a pronoun and an adjective phrase (with definite ending) in the same case, number and gender as the head noun and a genitive noun phrase. In this case the genitive noun phrase may be regarded as forming a compound with the head noun (\(n_{\text{case}}=n_{\text{case}}+a_{\text{case}}+g_{\text{np}}+n_{\text{case}}\): mans jaunais ziemas mētelis 'my new winter's coat').
5. A head noun preceded by a genitive noun phrase and an adjective phrase in the same case, number and gender as the head noun (\(n_{\text{case}}=g_{\text{np}}+a_{\text{case}}+n_{\text{case}}\): māsas mazais galds 'sister's little table').

The genitive with numerals

If numerals end in desmitis 'ten', simts 'hundred', tākstotis 'thousand', miljons 'million', miljards 'thousand millions', then a following noun is in the genitive: pieci simti kronu [five hundred crowns-GEN] 'five hundred crowns'.

If there is an indeclinable numeral (simt '100', desmit '10') then the following noun can be used in the genitive instead of nominative or accusative: piecdesmit kronu [fifty crowns-GEN] 'fifty crowns'.

The genitive following the head word

The genitive also follows the head word in quantifier phrases (daudz 'many', maz 'few', etc): daudz māsu [many sister-GEN] 'many sisters'.

A genitive noun which has the property of being divisible can either precede or follow the head noun: maizes rīka [bread-GEN slice] or rīka maizes [slice bread-GEN] 'slice of bread'. The genitive has a partitive meaning in these cases.

Variation and ambiguity

As mentioned above, a genitive noun phrase generally precedes the head noun. In most cases an adjective is bound with the noun it precedes: māzas māzas galds 'little sister's table'. But a genitive may come between the head noun and its modifying adjective: mazās māzas galds 'little sister's table'. Therefore you can build ambiguous noun phrases. For instance, maīsa zēna māsa [little-GEN/NOM boy-GEN sister-NOM] might be translated as 'a little boy's sister' as well as 'a boy's little sister'.

Implementation of the genitive in PROLOG

The following predicates are based on the predicates used for genitive noun phrases in the MT system SWETRA (see Sigurd 1988, Sigurd et al. 1990, Sigurd 1994). The special predicate ignp is used for the Latvian genitive
noun phrase, and the predicate *np2* is used to form a representation of the genitive noun phrase compatible with SWETRA. The Prolog predicates are presented in the order they are implemented in the computer program, beginning with the most complex cases.

The following predicate governs a recursive genitive noun phrase which begins with a noun in the genitive. The predicate *lnoun* analyses the noun, checks whether it is used in genitive and returns its meaning in the variable *X*. The predicate *Ignp* recursively analyses the remainder of the sentence to determine the rest of the genitive noun phrase and returns its meaning in the variable *Y*. The predicate *np2* forms a functional representation of the whole genitive noun phrase in the variable *Np*.

```
ignp(Np)--> /* gnp=gnp1+gnp2 */
    lnoun(X,...,Number1,g,Sem1),
    ignp(Y),
    {np2(s(X,[],Y,Np))}.
```

The following predicate governs a recursive genitive noun phrase which starts with a noun in the genitive preceded by an adjective phrase in the genitive. The predicate *lap* analyses the adjective phrase, checks whether it is used in the genitive, determines its gender and number and returns its meaning in the variable *X*. The predicate *lnoun* analyses the noun, checks whether it is used in the same case, number and gender as the adjective phrase and returns its meaning in the variable *Y*. The predicate *np2* forms a functional representation of the whole genitive noun phrase in the variable *Np*.

```
ignp(Np)--> /* gnp=gnp1+gnp2 */
    lap(Art,X,...,Number1,g,Gender),
    lnoun(Y,...,Number1,g,Sem1),
    ignp(Y),
    {np2(s(X,Y,[],Z,Np))}.
```

The following predicate governs a recursive genitive noun phrase which starts with a noun in the genitive preceded by a pronoun in the genitive. The predicate *lpnoun* analyses the pronoun, checks whether it is used in the genitive, determines its number and gender and returns its meaning in the variable *X*. The predicate *lnoun* analyses the noun, checks whether it is used in the same case, number and gender as the adjective phrase and returns its meaning in the variable *Y*.

```
ignp(Np)--> /* gnp=gnp1+gnp2 */
    lpnoun(X,...,Number1,g,Sem1),
    lnoun(Y,...,Number1,g,Sem),
    ignp( trạng Z),
    {np2(s(X,Y,[],Z,Np))}.
```

The following predicate governs a genitive noun phrase consisting of a noun in the genitive preceded by a pronoun and an adjective phrase in the genitive. The expression *s(tom(X,Y),Z,[])* is the functional representation of this genitive noun phrase.

```
ignp(s(tom(X,Y),Z,[]))--> /* gnp=pnoun+apgen+ngen */
    lpnoun(X,...,Number1,g,Sem1),
    lap(Art,Y,...,Number1,g,Gender),
    lnoun(Z,...,Number1,g,Sem),
    ignp(W),
    {np2(s(tom(X,Y),Z,[],W,Np))}.
```

The following predicate governs a genitive noun phrase consisting of a noun in the genitive preceded by a pronoun and an adjective phrase in the same case, gender and number as the noun. The expression *s(X,Y,[])* is the functional representation of this genitive noun phrase.

```
ignp(s(X,Y,[]))--> /* gnp=pnoun+ngen */
    lpnoun(X,...,Number1,g,Sem1),
    lnoun(Y,...,Number1,g,Sem),
    ignp( trạng W),
    {np2(s(X,Y,[],Z,Np))}.
```

The following predicate governs a genitive noun phrase consisting of a noun in the genitive preceded by an adjective phrase in the same case, gender and number as the noun.

```
ignp(s(X,Y,[]))--> /* gnp=apgen+ngen */
    lap(Art,X,...,Number1,g,Gender),
    lnoun(Y,...,Number1,g,Sem),
    ignp( trạng W),
    {np2(s(X,Y,[],Z,Np))}.
```

The following predicate governs a genitive noun phrase consisting only of a single noun in genitive. The expression *s(X,[])* is functional representation of this genitive noun phrase.

```
ignp(s(X,[]))--> /* gnp=nngen */
    lnoun(X,...,Number1,g,Sem1).
```
noun phrase, and the predicate np2 is used to form a representation of the
genitive noun phrase compatible with SWETRA. The Prolog predicates are
presented in the order they are implemented in the computer program,
beginning with the most complex cases.

The following predicate governs a recursive genitive noun phrase which
begins with a noun in the genitive. The predicate lnoun analyses the noun,
checks whether it is used in genitive and returns its meaning in the variable
X. The predicate lgnp recursively analyses the remainder of the sentence to
determine the rest of the genitive noun phrase and returns its meaning in the
variable Y. The predicate np2 forms a functional representation of the
whole genitive noun phrase in the variable Np.

\[\text{lgnp}(\text{Np}) \rightarrow \text{lgnp}(\text{Y}) \rightarrow \{\text{np2}(\text{s}(\text{X},[],\text{Y},\text{Np}))\}\].

The following predicate governs a recursive genitive noun phrase which
starts with a noun in the genitive preceded by an adjective phrase in the
genitive. The predicate lap analyses the adjective phrase, checks whether it
is used in the genitive, determines its gender and number and returns its
meaning in the variable X. The predicate lnoun analyses the noun, checks
whether it is used in the same case, number and gender as the adjective
phrase and returns its meaning in the variable Y.

\[\text{lgnp}(\text{Np}) \rightarrow \text{lap}(\text{Art}, \text{X}, \text{gram}(\text{Number}, \text{g}, \text{Gender})),\]
\[\text{lnoun}(\text{Y}, \text{agr}(_, \text{Gender}), _, \text{Number}, \text{g}, \text{Sem}),\]
\[\text{lgnp}(\text{Z}),\]
\[\{\text{np2}(\text{s}(\text{t}(\text{X}, \text{Y}, [], \text{Z}, \text{Np}))\}\}].\]

The following predicate governs a recursive genitive noun phrase which
starts with a noun in the genitive preceded by a pronoun in the
genitive. The predicate lpnoun analyses the pronoun, checks whether it is
used in the genitive, determines its number and gender and returns its
meaning in the variable X.

\[\text{lgnp}(\text{Np}) \rightarrow \text{lpnoun}(\text{X}, \text{agr}(_, \text{Gender}), _, \text{Number}, \text{g}, \text{Sem}),\]
\[\text{lnoun}(\text{Y}, \text{agr}(_, \text{Gender}), _, \text{Number}, \text{g}, \text{Sem}),\]
\[\text{lgnp}(\text{Z}),\]
\[\{\text{np2}(\text{s}(\text{X}, \text{Y}, [], \text{Z}, \text{Np}))\}\}].\]
The following predicate governs a genitive noun phrase consisting of a single personal pronoun in genitive. The predicate `lnoun` analyses the pronoun, checks whether it is used in genitive and returns its meaning in the variable X.

\[\text{lnp}(X) --> /* gnp=pronoun gen */ \]
\[\text{lpnoun}(X,\text{agr}(\_\_\_,\text{Gender}),\_\_\_,\text{Number},g,\text{Sem}1).\]

The predicate `np2` is used to form a representation of the genitive noun phrase compatible with SWETRA (see Sigurd 1994). The first argument of the predicate is the leftmost genitive noun phrase, the second argument is the rest of the genitive noun phrase, and the third argument is the whole noun phrase.

\[\text{np2}(X,s(Y,\[\]),s(X,Y,\[\])), \text{np2}(X,s(A,Y,\[\]),s(X,Y,\[\])), \text{np2}(X,s(A,Agr,Y,\[\]),s(X,Agr,Y,\[\])).\]

To parse a Latvian noun phrase containing numerals the following predicate `lnp` is used. The line `[N],\{\text{number}(N)\}` checks whether the noun phrase begins with a number. The predicate `lnoun` analyses the noun following the number, checks whether it is used in the plural and returns its meaning in the variable X. The next predicate `lnoun` analyses the next noun, checks whether it is used in plural genitive and returns its meaning in the variable Y. The expression \(s(N,X,Y)\) is the functional representation of this noun phrase.

\[\text{lnp}(s(N,X,Y)) --> [N],\{\text{number}(N)\}, \text{lnoun}(X,\text{agr}(\_\_\_,\text{Gender}),\_\_\_,\text{pl},\text{Case},\text{Sem}1), \text{lnoun}(Y,\text{agr}(\_\_\_,\text{Gender}1),\_\_\_,\text{pl},g,\text{Sem}1).\]

Genitive rules in the English module of SWETRA

The following predicates show the generation of English genitive noun phrases from their functional representation in the MT system SWETRA. The predicate `enp` generates the English noun phrase. The predicate `egenp` builds a genitive form with endings 's or '. The predicate `elexg` finds the translation of the noun through its meaning in the lexicon. The lexical format of SWETRA is generally a matrix called `lex` (with different prefixes according to language) and 10 slots for storing lexical information.

\[\text{enp}(\text{Agr},s(G,S,T)) --> \{\text{pers_or_prop}(G)\}, \text{egenp}(\_\_,G), \text{elexg}(n,S,\_\_\_,\_\_\_,\_\_\_,\_\_\_,\_\_\_), \text{epattr}(S,T).\]

The following predicate `enp` generates a noun phrase which consists of a head noun followed by a genitive noun phrase and followed by a post attributive phrase. The predicate `epattr` generates a post attributive phrase from its functional representation in the variable T.

\[\text{enp}(\text{Agr},s(G,S,T)) --> \{\text{pers_or_prop}(G)\}, \text{egenp}(\_\_,G), \text{epat}(\text{Agr},A), \text{elexg}(n,S,\_\_\_Agr,\_\_\_,\_\_\_,\_\_\_,\_\_\_), \text{epattr}(S,T).\]

English uses of genitive if the noun is not a proper name or a person in the singular. The following predicate `enp` generates a noun phrase which consists of a head noun followed by a genitive noun phrase with the preposition of and a post attributive phrase.

\[\text{enp}(\text{Agr},s(G,S,T)) --> \text{eart}(A,m(\text{def},\_)), \text{enp}(\text{Agr},s(S,\[\])), [\text{of}],\text{enp}(A2,G), \text{epattr}(S,T).\]

The following predicate `enp` generates a noun phrase which consists of a head noun preceded by an adjective phrase and followed by a genitive noun phrase with the preposition of and a post attributive phrase.
The following predicate \texttt{egenp} calls the predicate \texttt{elexg} which generates a genitive noun phrase from its functional representation in the variable \texttt{S}. In the predicate \texttt{elexg} the predicate \texttt{enp} generates an English noun phrase in the variable \texttt{W} from its functional representation. The predicate \texttt{finsconsynt} converts this noun phrase to a genitive noun phrase in variable \texttt{W1}.

\begin{verbatim}
egenp(_S) --> elexg(gen,S,_,_,_,_,_,_,_).
elexg(gen,S,_,_,Cl,Dl,El,Rl,Pl,Y,X) :-
enp(Ag,S,W,[]),
finsconsynt(W,W1),
append(W1,X,Y).
\end{verbatim}

The following predicate \texttt{finsconsynt} adds the genitive ending to the last word of the genitive noun phrase.

\begin{verbatim}
finsconsynt(W,Wf) :-
reverse(W,[SIT]),
(concat(S_first,S),concat(S,"',S1);
concat(S,"s',S1)),
reverse(Wf,[S1IT]).
\end{verbatim}

Demos
The following demos show functional representations of some Latvian sentences and their translation into English. The functional representation is used as an interlingua in the translation process and as the basis for the generation of the English sentences.

Māzais māzas galds ir netīrs.
[subj(s(m(def__, _6028), m(sister, pers), []), m(little, _5936), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _8141)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(def, _6028), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
The sister’s little table is dirty.

Māzais māzas galds ir netīrs.
[subj(s(s(m(def, _1810), m(sister, pers), []), m(little, _1961), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _1961)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(def, _1810), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
The sister’s little table is dirty.

Manas māzas galds ir netīrs.
[subj(s(s(m(my, sg), m(sister, pers), []), m(little, _14554), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _14554)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(my, sg), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
My little sister’s table is dirty.

Māzais galds ir netīrs.
[subj(s(s(m(def, _3813), m(sister, pers), []), m(little, _3782), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _3782)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(def, _3813), m(little, _3782), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
The little sister’s table is dirty.

Māzais galds ir netīrs.
[subj(s(s(m(def, _6028), m(sister, pers), []), m(little, _5936), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _6179)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(def, _6028), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
The sister’s table is dirty.

Māzais māzas galds ir netīrs.
[subj(s(s(m(def, _8116), m(sister, pers), []), m(little, _8141), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _8320)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(def, _8116), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
The little sister’s table is dirty.

Manas māzas galds ir netīrs.
[subj(s(s(m(my, sg), m(sister, pers), []), m(little, _12379), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _12606)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(my, sg), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
My little sister’s table is dirty.

Māzais galds ir netīrs.
[subj(s(s(m(def, _14554), m(sister, pers), []), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _14779)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(def, _14554), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
The corner of the sister’s table is dirty.

Māzais māzas galds ir netīrs.
[subj(s(s(m(def, _16984), m(sister, pers), []), m(little, _16953), m(table, sg), []), pred(m(m(be, pres), []), obj(m(dirty, _17262)), obj([]), advl([]), advl([]), advl([]), advl([]), co(s(s(m(def, _16984), m(little, _16953), m(sister, pers), []), m(table, sg), []), m(corner, sg), [])]
The corner of the little sister’s table is dirty.
Swedish applied verbs derived by the prefix be-

Claire Gronemeyer

Introduction

This paper examines be-prefixation of Swedish verbs and its consequences for the argument structure of the derived verb. The Swedish be- will be analyzed as an applicative morpheme which signals an alternation in the grammatical functions of the verb's arguments. The applied verb constructions are especially interesting because they are the result of a complex process which shows the interaction between the morphology and the syntax. To my knowledge the Swedish prefix be- has not previously been analyzed as an applicative affix, and this will be shown to be a fruitful analysis of be- as well as a theoretically interesting account of applied verb constructions in a Germanic language.

Argument inheritance will be analyzed within the DiSciullo & Williams 1987 morphological theory of word formation, Bierwisch's 1989 lexical theory of derivation, and Baker's 1988a syntactic approach. These theories will be discussed in relation to the topic of be-prefixation and the grammatical function changing that typically takes place with applicative verbs. The relationship between the occurrence of the applicative morpheme on a verb and the altered argument structure of the verb is explained by these theories with varying degrees of success. This paper will argue that DiSciullo & Williams cannot deal with complex alternations like the applicatives, and many problems remain unsolved in their framework; Bierwisch's approach clears up most of the problems DiSciullo & Williams have, and yet it still isn't sufficient in analyzing all of the applied verb constructions; while Baker's incorporation theory is suited to this type of phenomenon and does the best job of predicting the function and effect of the Swedish be- on the verb's argument structure.

The prefix be- entered the Swedish language during the Middle Ages with loan words from Low German (Söderbergh 1967). Although the