The covington Package
Macros for Linguistics

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Version 2.0dev, December 9, 2018

Abstract

This package, initially a collection of Michael A. Covington's private macros, provides numerous minor LaTeX enhancements for linguistics, including multiple diacritics on the same letter, interlinear glosses (word-by-word translations), Discourse Representation Structures, and example numbering.

Contents

1 Introduction 2
2 Stacked diacritics 2
3 Numbered examples 3
3.1 Example numbers 3
3.2 The `example` environment 4
3.3 The `examples` environment 5
3.4 The `subexamples` environment 5
3.5 Customizing the numbering 6
3.6 Referring to examples 6
4 Glossing sentences word-by-word 7
4.1 Gloss macros 7
4.2 Glossing with low-level commands 8
4.3 Customization 10
4.4 Examples 11
5 Phrase structure rules 12
6 Feature structures 12
7 Discourse Representation Structures 12
8 Exercises 14
9 Reference Lists 14
10 Semantik markup 15
11 Big curly brackets (disjunctions) 16
12 Release history 16

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1 Introduction

This is the documentation for version 2.0dev of covington (December 9, 2018), which is a LaTeX package providing macros for typing some special notations common in linguistics.[1]

To use covington with LaTeX 2ε, load the package as usual by adding the command `\usepackage{covington}` to your document preamble. The package has the following options:

`force`: Force the redefinition of environments that have already been defined by other packages or the class.

This applies to the **`example`**, **`examples`**, **`subexamples`** and **`exercise`** environments, which are by default not touched if they are already defined before covington is loaded. See sec. 3.2, 3.3, 3.4 and 8 for details.

`keeplayout`: Do not tweak the layout.

Covington sets `\raggedbottom` and redefines the value of the `\textfloatsep` length. This just follows the preferences of the original package author and is not necessary for the package's functionality. Yet for backwards compatibility reasons, we cannot change this. Thus, we provide the option described here to opt out this presetting.

In what follows we presume that you know how to use LaTeX and have access to LaTeX manuals. Note that covington does not provide any special fonts or character sets. However, it can be used in combination with other style sheets that do.

If you are using covington and `uga.sty` (UGa thesis style) together, you should load `uga` before covington.

2 Stacked diacritics

LaTeX provides a generous range of diacritics that can be placed on or below any letter, such as:

x̀ x́ x̂ ẍ x̃ x̄ x̋ x̂x x̧ x̣ x̲

which are typed, respectively, as:

```
\‘{x} \’{x} \^{x} \"{x} \~{x} \={x} \H{x} \t{xx} \c{x} \d{x} \b{x}
```

Out of the box, however, LaTeX doesn't give you a convenient way to put *two* diacritical marks on the same letter. To fill this gap, covington provides the following macros:

[1] The package has a long history. It started off as a collection of private macros back in the LaTeX 2.09 days and was initially released as `covingtn.sty` (following the old 8.3 FAT file name limit). In emTeX under MS-DOS, the file was distributed as `covingto.sty`. Eventually, it has been renamed to covington and adapted to LaTeX 2ε.

\twodias{<upper diac.>}{<lower diac.>}{<char>}
to combine any two diacritics, e. g., `\twodias{\~}{\=}{a}` = ã̄

\acm{...} for acute over macron, e. g., `\acm{a}` = ā́
\grm{...} for grave over macron, e. g., `\grm{a}` = ā̀
\cim{...} for circumflex over macron, e. g., `\cim{a}` = ā̂

The first of these is the general case[2] and the latter three are special cases that are often used in Greek transcription. Now you can type *Koiné* with both accents in place.

The vertical distance between the two diacritics can be adjusted via the macro **\SetDiaOffset{<length>}** which lets you increase or decrease the vertical space that is currently in effect. If you'd use `\SetDiaOffset{-0.25ex}`, the above examples would come out as

\twodias{<upper diac.>}{<lower diac.>}{<char>}
to combine any two diacritics, e. g., `\twodias{\~}{\=}{a}` = ã̄

\acm{...} for acute over macron, e. g., `\acm{a}` = ā́
\grm{...} for grave over macron, e. g., `\grm{a}` = ā̀
\cim{...} for circumflex over macron, e. g., `\cim{a}` = ā̂

with a slightly better matching distance for the font used here.

Note that not all accent macros work in the `tabbing` environment. Use the `Tabbing` package or refer to [2] for alternative solutions.

3 Numbered examples

Linguistic papers often include numbered examples. With covington, generating those is straightforward. In this section, we describe how you can typeset a self-stepping example number (see section 3.1), a single numbered example (sec. 3.2), a consecutive range of numbered examples (sec. 3.3), and alpha-numerically labeled sub-examples (sec. 3.4). All numbered examples can be referred to in the text via `\label` and `\ref` as usual (see sec. 3.6 for details).

3.1 Example numbers

The macro **\exampleno** generates a new example number, stepped by 1. It can be used anywhere you want the number to appear. For example, to display a sentence with a number at the extreme right, do this:

```
\begin{flushleft}
This is a sentence. \hfill (\exampleno)
\end{flushleft}
```

Here's what you get:

[2] Alternatively, there's also the old syntax **\twoacc[<upper diac.>|<char with lower diacr.>],** e. g. `\twoacc[\~|\=]{a}` to the same effect, which is however discouraged due to its rather odd form.

This is a sentence. (1)

The example counter is actually the same as LaTeX's equation counter, so that if you use equations and numbered examples in the same paper, you get a single continuous series of numbers. If you want to output the number without stepping it, use `\theequation`.

Normally, however, you do not need to manually place **`\exampleno`** yourselves, as in the example above. For the common case where example numbers in parentheses are placed left to the example, covington provides more convenient solutions. These are described in turn.

3.2 The `example` environment

The **`example`** environment (alias **`covexample`**) displays a single example with a generated example number to the left of it. If you type

```
\begin{example}
This is a sentence.
\end{example}
```

or

```
\begin{covexample}
This is a sentence.
\end{covexample}
```

you get:

(2) This is a sentence.

The example can be of any length; it can consist of many lines (separated by `\\`), or even whole paragraphs.

If you need more space between the example number and the text, you can increase it by means of the length **`\examplenumbersep`** (which is preset to `0pt`). Doing `\setlength\examplenumbersep{1em}`, for instance, will increase the space by 1 em (negative values will decrease the space accordingly).

Note that, as of version 1.1, covington checks if there is already an **`example`** environment defined (e. g., by the class). If so, covington does not define its own one. However, there is always the alias environment **`covexample`** which can be used in order to produce `covington's` example. If you use the package option **`force`**, covington will override existing **`example`** environments. In any case, the package will issue a warning if **`example`** is already defined (this is the case, for instance, if you use covington with the `beamer` class).

One way to number sub-examples is to use `itemize` or `enumerate` within an example, like this:

```
\begin{example}
\begin{itemize}
\item[(a)] This is the first sentence.
\item[(b)] This is the second sentence.
\end{itemize}
\end{example}
```

This prints as:

(3) (a) This is the first sentence.
(b) This is the second sentence.

However, the **examples** and **subexamples** environments, described in turn, are usually more convenient for this task.

3.3 The examples environment

To display a series of examples together, each with its own example number, use **examples** (or **covexamples**) instead of **example** or **covexample**. The only difference is that there can be more than one example, and each of them has to be introduced by `\item`, like this:

```
\begin{examples}
\item This is the first sentence.
\item This is the second sentence.
\end{examples}
```

or, respectively:

```
\begin{covexamples}
\item This is the first sentence.
\item This is the second sentence.
\end{covexamples}
```

This prints as:

(4) This is the first sentence.

(5) This is the second sentence.

As for **example**, covington checks if there is already an **examples** environment defined, and if this is the case, covington does not define its own one. The alias environment **covexamples** is always available as a fallback. If you use the package option **force**, covington will override existing **examples** environments. The package will issue a warning if **examples** is already defined (this is the case, for instance, if you use covington with the `beamer` class), telling you how it has dealt with the situation.

3.4 The subexamples environment

Sometimes a set of (paradigmatic) sub-examples gets only one main example number with alphabetic sub-numbering, as in (6 a). To achieve this most conveniently, covington provides the **subexamples** (or **covsubexamples**) environment. The difference to **examples**/**covexamples** is the numbering:

```
\begin{subexamples}
\item This is the first sentence.
\item This is the second sentence.
\end{subexamples}
```

or, respectively:

```
\begin{covsubexamples}
\item This is the first sentence.
\item This is the second sentence.
\end{covsubexamples}
```

prints as:

(6) (a) This is the first sentence.
    (b) This is the second sentence.

Again, covington checks if there is already an **subexamples** environment defined, and if this is the case, covington does not define its own one. The alias environment **covsubexamples** is always available as a fallback. If you use the package option **force**, covington will override existing **subexamples** environments. The package will issue a warning if **subexamples** is already defined.

3.5 Customizing the numbering

You can change the display of the example number by redefining (via `\renewcommand*`) the macro **\covexnumber** which has the following default definition:

```
\newcommand*\covexnumber[1]{(#1)}
```

In the same vein, you can customize the display of the subexample letter by redefining (also via `\renewcommand*`) the macro **\covsubexnumber** which has the following default definition:

```
\newcommand*\covsubexnumber[1]{(#1)}
```

The distance between example number and subnumber (letter) can be changed via the length **\examplenumbersep** (which is preset to `0pt`). The distance between example subnumber and text can be changed via the length **\subexamplenumbersep** (preset to `0pt` as well). In both cases, a positive value will increase, a negative value will decrease the respective distance. Doing

```
\setlength{\examplenumbersep}{-0.5em}
\setlength{\subexamplenumbersep}{0.5em}
```

for instance, will come out like this:

(7) (a) This is the first sentence.
    (b) This is the second sentence.

3.6 Referring to examples

References to examples and sub-examples can be made the usual way via the **\ref** command (which refers to a **\label** that is placed in the respective example paragraph). The references do not have parentheses by default, i. e., a reference to the example in

section 3.2 would be printed as 2, a reference to the sub-example in section 3.4 as 6 a. For convenience, though, covington provides a command **\pxref** that also prints the parentheses, as in (2) and (6 a). It is defined as follows and can be redefined if needed:

```
\providecommand*\pxref[1]{(\ref{#1})}
```

4 Glossing sentences word-by-word

To gloss a sentence is to annotate it word-by-word. Most commonly, a sentence in a foreign language is followed by a word-for-word translation (with the words lined up vertically) and then a smooth translation (not lined up), like this:

Dit *is* *een* *Nederlands* *voorbeeld*
This is a Dutch example

'This is an example in Dutch.'

Covington provides different ways to typeset such glosses. The most convenient way is via gloss macros (see sec. 4.1), an alternative (and the traditional) way is via a set of commands (see sec. 4.2). Both are described in turn.

4.1 Gloss macros

Covington provides two gloss macros:

- **\gloss[**⟨**options**⟩**]{**⟨**gloss line 1**⟩**}{**⟨**gloss line 2**⟩**}{**⟨**free translation**⟩**}** typesets two-line glosses with a translation line
- **\glosss[**⟨**options**⟩**]{**⟨**gloss l. 1**⟩**}{**⟨**gloss l. 2**⟩**}{**⟨**gloss l. 3**⟩**}{**⟨**free tr.**⟩**}** typesets three-line[3] glosses with a translation line

The example given above would thus be typed as:

```
\gloss{Dit is een Nederlands voorbeeld}
      {This is a Dutch example}
      {This is an example in Dutch.}
```

Note that:

- The ⟨free translation⟩ argument can be left empty. In this case, no translation line is added (and no extra space taken).
- The macros automatically markup the lines. By default, the first gloss line is in italics, subsequent lines are set upright, and the free translation in single quotation marks (using the language-sensitive csquotes [1] macros if this package is loaded). This can be customized, though, via the macro options or globally (for the latter, see sec. 4.3).

[3]The additional line can be useful for instance to gloss cited forms, morphology, or an additional translation. See sec. 4.4 for examples.

The following ⟨**options**⟩ (key-value pairs) are provided for either macro:

ex=⟨**true|false**⟩ Default: *false*. Wraps the gloss in an example environment (i. e., it is numberered).

tlr=⟨**true|false**⟩ Default: *false*. If set to true, the translation line (content of the ⟨free translation⟩ argument) is set right to the gloss lines, rather than into a new line below. Since the gloss itself is set in a box, this means the ⟨free translation⟩ will appear lined up with the first line of the gloss. This can be useful when no translation, but an aligned number or something similar, is to be inserted right to the gloss (please refer to sec. 4.4 for an example).

fi={⟨**font settings**⟩**}** Adjusts the font settings of the first gloss line. Valid values are LaTeX font switches such as `\textit`, `\bfseries` etc.

fii={⟨**font settings**⟩**}** Adjusts the font settings of the second gloss line. Valid values are LaTeX font switches such as `\textit`, `\bfseries` etc.

fiii={⟨**font settings**⟩**}** Adjusts the font settings of the third gloss line. Valid values are LaTeX font switches such as `\textit`, `\bfseries` etc.

If given as the argument to a **`\gloss`** or **`\glosss`** macro, the options will only apply to this very gloss. If you want to make a permanent change, you can use the macro

- **`\setglossoptions{`**⟨**options**⟩**`}`**

and pass either of the above options to it. This will apply to all subsequent glosses (until further global change and unless the setting is altered locally via macro option).

Notice, finally, that the words do not have to be typed lining up; instead, TeX counts them. If the words in the two languages do not correspond one-to-one, you can use curly brackets to group words. For example, to print

Dit	*is*	*een*	*voorbeeldje*	*in*	*het*	*Nederlands*
This	is	a	little example	in		Dutch

'This is a little example in Dutch.'

you would type:

```
\gloss{Dit  is een voorbeeldje      in het Nederlands}
     {This is a   {little example} in {}  Dutch}
     {This is a little example in Dutch.}
```

Please consult sec. 4.4 below for more examples.

4.2 Glossing with low-level commands

The gloss macros described above build on low-level commands[4] which can also be used directly (this was actually the only way up to covington 2.0 which introduced

[4]The commands are adapted with permission from `gloss.tex`, by Marcel R. van der Goot.

the macros). Low-level commands can be useful if you want to do fancy things in a gloss. Note, though, that using them also has limitations: Some commands cannot be used inside macros (such as footnotes), and the markup is not done automatically in all cases (as documented in what follows); furthermore, you cannot make use of the options the macros have. Thus, we strongly suggest to use the macros, unless you have very good reasons not to do that.

The following is a complete list of all low-level glossing commands:

\gll introduces two lines of words vertically aligned, and activates an environment very similar to `flushleft`. The two lines are separated by a normal line break (carriage return). This is possible since the command makes the line-ending character active. As a consequence, however, this command does not work inside macros (such as `\footnote`).

\glll is like **\gll** except that it introduces *three* lines of lined-up words.

\xgll is similar to **\gll** except that it does not make the line ending active. It thus works inside macros such as footnotes but requires explicit gloss line termination via **\xgle**.

\xglll is similar to **\glll** except that it does not make the line ending active. It thus works inside macros such as footnotes but requires explicit gloss line termination via **\xgle**.

\xgle is a gloss line ending marker to be used with **\xgll** and **\xglll**.

\glt ends the set of lined-up lines and introduces a line (or more) of translation. Note that this command does not markup the translation line (no automatic enquoting). Also, it outputs an empty line if no text follows.

\gln is like **\glt** but does not start a new line (useful when no translation follows but you want to put a number on the right).

\glot{⟨**free translation**⟩**}** is an alternative to **\glt** and a smarter way to insert a translation line. Other than **\glt**, it marks up (by default: enquotes) the translation line. Also, it does not add an empty line if the translation is empty. This command has been introduced in covington 2.0.

\glend ends the special `flushleft`-like environment.

Using the low-level commands, the examples given above would be coded as follows:

```
\gll Dit is een Nederlands voorbeeld.
     This is a Dutch example.
\glt ‘This is an example in Dutch.’
\glend
```

```
\gll Dit is een voorbeeldje     in het Nederlands
     This is a {little example} in {}  Dutch
\glt ‘This is a little example in Dutch.’
\glend
```

Observe that you need to markup (i. e., enquote) the translation line yourself if you use **\glt**. This is not so if you use **\glot**:

```
\gll Dit is een Nederlands voorbeeld
     This is a Dutch example
\glot{This is an example in Dutch.}
\glend
```

The advantage of **\glot** is that you can easily customize the translation markup globally. Also, **\glot** uses the language-sensitive csquotes [1] macros if this package is loaded (see sec. 4.3).

Since **\gll** and **\glll** locally activate the end of line in glosses in order to identify the different lines of the gloss (via category code change), they do not work inside macros (e. g., if the gloss is in a footnote). To work around this, special versions of the **\gll** and **\glll** commands are provided that do without the character activation: **\xgll** and **\xglll**, respectively. These can also be used in macro arguments; however, the end of each gloss line needs to be explicitly specified by the **\xgle** command in this case. If you want to put the above gloss in a footnote, thus, you would type:

```
\xgll Dit is een voorbeeldje     in het Nederlands.\xgle
      This is a {little example} in {}  Dutch.\xgle
\glt 'This is a little example in Dutch.'
\glend
```

Note, again, that the macros described in sec. 4.1 do not have this problem.

To sum up: With low-level commands, every glossed sentence begins with either **\gll**, **\xgll**, **\glll** or **\xglll**, then contains either **\glt** or **\gln**, and ends with **\glend**. Layout is critical in the part preceding **\glt** or **\gln**, and fairly free afterward.

4.3 Customization

The font settings of each gloss line can be customized globally by way of the global options macro **\setglossoptions** and the **fi**, **fii** or **fiii** key, respectively (see sec. 4.1). Alternatively, you can also redefine these macros:

```
\newcommand*\glosslineone{\normalfont\itshape}% font settings 1st gloss line
\newcommand*\glosslinetwo{\normalfont\upshape}% font settings 2nd gloss line
\newcommand*\glosslinethree{\normalfont\upshape}% font settings 3rd gloss line
```

The markup of the translation line (if the **\gloss** or **\glosss** macro or the **\glot** low-level command is used) can be customized by redefining the following macro.

```
\newcommand*\glosslinetrans[1]{\covenquote{#1}}
```

Note that for **\covenquote**, as used in the default definition, covington checks at document begin whether the csquotes [1] package is loaded. If so, it uses its language-sensitive **\enquote*** macro for enquoting the translation. If not, a fallback quotation (using English single quotation marks) is used. The usage of csquotes is highly recommended!

4.4 Examples

This section gives some further examples. First, a sentence with three lines aligned, instead of just two:

Hoc	*est*	*aliud*	*exemplum*
N.SG.NOM	3SG	N.SG.NOM	N.SG.NOM
This	is	another	example

'This is another example.'

In order to produce this, we use the **\glosss** macro for a three-line gloss and pass the **fii** option with the respective font switches in order to get small capitals in the second line:

```
\glosss[fii={\normalfont\scshape}]
       {Hoc est aliud exemplum}
       {n.sg.nom 3sg n.sg.nom n.sg.nom}
       {This is another example}
       {This is another example.}
```

Next, an example with a gloss but no translation, with an example number at the right:

Hoc	*habet*	*numerum*	(8)
This	has	number	

That one was typed using the option **tlr**:

```
\gloss[tlr]{Hoc habet numerum}
           {This has number}
           {\hfill (\exampleno)}
```

Finally we'll put a glossed sentence inside the `example` environment, which is a very common way of using it:

(9)	*Hoc*	*habet*	*numerum*	*praepositum*
This	has	number	preposed

'This one has a number in front of it.'

This last example was, of course, typed as:

```
\gloss[ex]{Hoc habet numerum praepositum}
          {This has number preposed}
          {This one has a number in front of it.}
```

although you could also construct it manually as:

```
\begin{example}
\gloss{Hoc habet numerum praepositum}
      {This has number preposed}
      {This one has a number in front of it.}
\end{example}
```

5 Phrase structure rules

To print phrase structure rules such as $S \rightarrow NP\ VP$ you can use `covington's` macro **`\psr{`**⟨**constituent**⟩**`}{`**⟨**sub-constituents**⟩**`}`** (for the given example, `\psr{S}{NP~VP}`).

6 Feature structures

To print a feature structure such as

$$\begin{bmatrix} case : nom \\ person : P \end{bmatrix}$$

you can type:

```
\fs{case:nom \\ person:P}
```

The feature structure can appear anywhere — in continuous text, in a displayed environment such as `flushleft`, or inside a phrase-structure rule, or even inside another feature structure.

To put a category label at the top of the feature structure, like this,

$$\begin{array}{c} N \\ \begin{bmatrix} case : nom \\ person : P \end{bmatrix} \end{array}$$

here's what you type:

```
\lfs{N}{case:nom \\ person:P}
```

And here is an example of a PS-rule made of labeled feature structures:

$$\begin{array}{ccccc} S & \rightarrow & NP & & VP \\ \left[\ tense : T\ \right] & & \begin{bmatrix} case : nom \\ number : N \end{bmatrix} & & \begin{bmatrix} tense : T \\ number : N \end{bmatrix} \end{array}$$

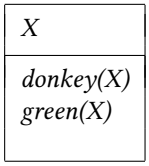
which was obviously coded as:

```
\psr{\lfs{S}{tense:T}}
    {\lfs{NP}{case:nom \\  number:N}
     \lfs{VP}{tense:T \\ number:N} }
```

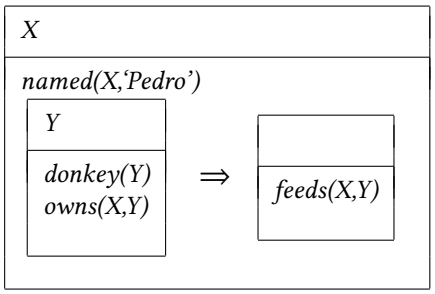
7 Discourse Representation Structures

Several macros in covington facilitate display of discourse Representation Structures (DRSes) in the box notation introduced by Hans Kamp. The simplest one is **`\drs`**, which takes two arguments: a list of discourse variables joined by ~, and a list of DRS conditions separated by `\\`. Nesting is permitted. Note that the **`\drs`** macro itself does not give you a displayed environment; you must use `flushleft` or the like to display the DRS. Here are some examples:

```
\begin{flushleft}
  \drs{X}{donkey(X)\\green(X)}
\end{flushleft}
```




```
\begin{flushleft}
  \drs{X}
  {named(X,'Pedro') \\
    \drs{Y}{donkey(Y)\\owns(X,Y)}~~
    {\large $\Rightarrow$}~
    \drs{~}{feeds(X,Y)}
  }
\end{flushleft}
```

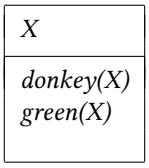


To display a sentence above the DRS, use **\sdrs**, as in:

```
\begin{flushleft}
  \sdrs{A donkey is green.}{X}{donkey(X)\\green(X)}
\end{flushleft}
```

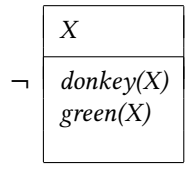
which prints as:

A donkey is green.



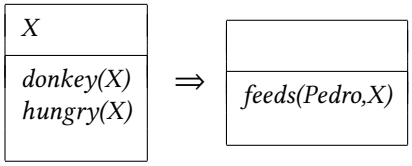
Some DRS connectives are also provided (normally for forming DRSes that are to be nested within other DRSes). The macro **\negdrs** forms a DRS preceded by a negation symbol:

```
\negdrs{X}{donkey(X)\\green(X)}
```



Finally, **\ifdrs** forms a pair of DRSes joined by a big arrow, like this:

```
\ifdrs{X}{donkey(X)\\hungry(X)}
      {~}{feeds(Pedro,X)}
```



If you have an "if"-structure appearing among ordinary predicates inside a DRS, you may prefer to use **\alifdrs**, which is just like **\ifdrs** but shifted slightly to the left for better alignment.

8 Exercises

The **exercise** environment (alias **covexercise**) generates an exercise numbered according to chapter, section, and subsection (suitable for use in a large book; in this example, the subsection number is going to come out as 0). Here is an example:

Exercise 8.0.1 (Project) *Prove that the above assertion is true.*

This was coded as

```
\begin{exercise}[Project]
Prove that the above assertion is true.
\end{exercise}
```

The argument (`[Project]` in the example) is optional.

Note that, as of version 1.1, covington checks if there is already an **exercise** environment defined (e. g., by the class). If so, covington does not define its own one. However, there is always the alias environment **covexercise** which can be used in order to produce `covington's` exercise. If you use the package option **force**, covington will override existing **exercise** environments. In any case, the package will issue a warning if **exercise** is already defined.

9 Reference Lists

To type a simple LSA-style hanging-indented reference list, you can use the **reflist** environment. (*Note:* **reflist** is not integrated with BibTEX in any way.[5]) For example,

```
\begin{reflist}
Barton, G. Edward; Berwick, Robert C.; and Ristad, Eric Sven.  1987.
Computational complexity and natural language.  Cambridge,
Massachusetts: MIT Press.
```

[5]For BibTEX, there are several options: the LSA style, as used in the journal *Language*, can be obtained by means of the style files `lsalike.bst` (`http://www.icsi.berkeley.edu/ftp/pub/speech/jurafsky/lsalike.bst`) or `language.bst` (`http://ron.artstein.org/resources/language.bst`); the latter uses `natbib`. The so-called *Unified Style Sheet for Linguistics*, as proposed by the CELXJ (*Committee of Editors of Linguistics Journals*), which slightly differs from the LSA style, is followed by the style file `unified.bst` (available at `http://celxj.org/downloads/unified.bst`). A `biblatex` style file for the unified style is available at `https://github.com/semprag/biblatex-sp-unified` or on CTAN as part of the univie-ling bundle.

```
Chomsky, Noam.  1965.  Aspects of the theory of syntax.  Cambridge,
Massachusetts: MIT Press.

Covington, Michael.  1993.  Natural language processing for Prolog
programmers.  Englewood Cliffs, New Jersey: Prentice-Hall.
\end{reflist}
```

prints as:

Barton, G. Edward; Berwick, Robert C.; and Ristad, Eric Sven. 1987. Computational complexity and natural language. Cambridge, Massachusetts: MIT Press.

Chomsky, Noam. 1965. Aspects of the theory of syntax. Cambridge, Massachusetts: MIT Press.

Covington, Michael A. 1993. Natural language processing for Prolog programmers. Englewood Cliffs, New Jersey: Prentice-Hall.

By default, the references have a hanging indentation of 3 em. This can be globally changed by altering the length **\reflistindent**. Doing `\setlength\reflistindent{1.5em}`, for instance, will shorten the indentation by half. Likewise, the length **\reflistitemsep** (6 pt by default) and **\reflistparsep** (ca. 4 pt by default) can be adjusted to alter the vertical separation (`\itemsep` and `\parsep`, for that matter) of reference entries.

Notice that within the reference list, "French spacing" is in effect — that is, spaces after periods are no wider than normal spaces. Thus you do not have to do anything special to avoid excessive space after people's initials.

10 Semantik markup

The macro **\sentence** displays an italicized sentence (it is a combination of `flushleft` and `itshape`). If you type

```
\sentence{This is a sentence.}
```

you get:

This is a sentence.

The font shape can be modified by redefining the following macro:

```
\newcommand*\sentencefs{\itshape}
```

The following macros provide further markup options common in linguistics:

- **\lexp**{word} is used to mark word forms (italic by default, as in *word*)
- **\lcon**{concept} is used to mark concepts (small caps by default, as in CONCEPT)
- **\lmean**{meaning} is used to mark meaning (single quotes by default, as in 'meaning')

Note that for **\lmean**, covington checks at document begin whether the csquotes [1] package is loaded. If so, it uses its language-sensitive **\enquote*** macro for quoting. If not, a fallback quotation (using English single quotation marks) is used. The usage of csquotes is highly recommended!

Here are the definitions of the macros. They can be redefined via **\renewcommand**:

```
\providecommand*\lexp[1]{\textit{#1}}
\providecommand*\lcon[1]{\textsc{#1}}
\providecommand*\lmean[1]{\covenquote{#1}}
```

11 Big curly brackets (disjunctions)

Last of all, the two-argument macro **\either** expresses alternatives within a sentence or PS-rule:

`the \either{big}{large} dog` = the $\left\{\begin{array}{c}\text{big}\\\text{large}\end{array}\right\}$ dog

`\psr{A}{B~\either{C}{D}~E}` $= A \rightarrow B \left\{\begin{array}{c}C\\D\end{array}\right\} E$

That's all there is for now. Suggestions for improving covington are welcome, and bug reports are actively solicited (via `https://github.com/jspitz/covington`). Please note, however, that this is free software, and the authors make no commitment to do any further work on it.

12 Release history

2.0 (forthcoming)

- Add new gloss macros (**\gloss** and **\glosss**) for a more convenient, flexible and robust gloss insertion. See sec. 4.1.
- Add **\glot** command for customizable gloss translation line, together with customization possibilities. See sec. 4.2.
- Add possibility to customize **\sentence** font setting. See sec. 10.
- Add **\lexp**, **\lcon** and **\lmean** markup macros. See sec. 10.

1.8 (2018 December 7)

- Fix font markup of second gloss line (do not force rm).
- Add possibility to customize gloss line font setting. See sec. 3.5.
- Add possibility to customize example number display. See sec. 3.5.

1.7 (2018 September 8)

- Fix alignment in **subexamples**.
- Improve manual.

1.6 (2018 September 7)

- Introduce new environment **subexamples** (see sec. 3.4).
- Introduce new command **\pxref** (see sec. 3.6).

1.5 (2018 August 24)

- Introduce new option **keeplayout** which allows to opt-out the layout presettings covington does (`\raggedbottom`, `\textfloatsep`).

1.4 (2017 May 23)

- Introduce a new macro **\twodias** that supersedes the rather odd **\twoacc** (which is kept for backwards compatibility). See sec. 2 for details.
- Introduce macro **\SetDiaOffset** for more convenient setting of vertical distance in stacked diacritics. See sec. 2 for details.
- LaTeX 2.09 is no longer officially supported (it might continue to work, but is not tested).

1.3 (2017 April 5)

- Gloss variants **\xgll** and **\xglll** that work inside macros (such as footnotes) but require explicit gloss line end markers (**\xgle**). See sec. 4 for details.
- New lengths **\reflistindent**, **\reflistparsep** and **\reflistitemsep** to globally adjust the indentation or vertical space, respectively, of reflist items. See sec. 9 for details.

1.2 (2016 August 26)

- New length **\examplenumbersep** to adjust (increase) the horizontal space between example number and example text. See sec. 3.2 for details.
- Add some more info about bibliography generation.

1.1a (2016 July 7)

- Fix encoding problem in documentation and some typos. No change in functionality.

1.1 (2016 July 6)

- The package now uses NFSS font commands if available (fallback for LaTeX 2.09 is still provided).
- Work around clash with classes/packages that define their own **`example`** and **`examples`** environments (most notably the `beamer` class) as well as **`execise`** environments. The covington package no longer blindly attempts to define these environments. By default, it does not define them if they are already defined (`covington's` own environments, however, are still available via aliases). By means of a new package option, a redefinition can also be forced. See sec. 3.2 and 3.3 for details.
- New length **`\twoaccsep`** allows for the adjustment of the distance between stacked accents (see sec. 2).
- Update manual.
- New maintainer: J. Spitzmüller.
- License has been changed to LPPL (in agreement with M. Covington)
- Introduce version numbers. Arbitrarily, we start with 1.1.

2014 May 16

- Patches by Robin Fairbairns:
  - Setting of `\textfloatsep` uses `\setlength` rather than `\renewcommand`
  - Style file converted to un*x line endings

2001 March 27

- It is no longer necessary to type `\it` to get proper italic type in feature structures.
- Instructions have been rewritten with LaTeX 2_ε users in mind.

Older versions

- Multiple accents on a single letter (e. g., $\acute{\tilde{a}}$) are supported.
- This package is now called covington (with the o) and is compatible with LaTeX 2_ε and NFSS as well as LaTeX 2.09.
- The vertical placement of labeled feature structures has been changed so that the category labels line up regardless of the size of the structures.

References

[1] Lehman, Philipp and Joseph Wright: *csquotes – Context sensitive quotation facilities*. April 4, 2018. http://www.ctan.org/pkg/csquotes.

[2] Pakin, Scott: The Comprehensive LaTeX Symbol List. November 30, 2015. http://www.ctan.org/pkg/comprehensive.