HUMBOLDT-UNIVERSITÄT ZU BERLIN

LaTeX for Linguists

LaTeX 6: Examples & glossing

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LOT 2019, Amsterdam

January 16, 2019

Contents

Package: gb4e

Different packages for examples:

- `linguex`
- `gb4e`
- `langsci-gb4e`
- ...

`gb4e` has **more options** than `linguex`, but it re-defines commands causing problems with the math mode (with `_`) and other packages (e.g. `forest`).

Load `gb4e` as one of the **last packages**:

```
\usepackage{gb4e}
\usepackage[hidelinks]{hyperref}
```

Similar to the `itemize` environment, use an `exe` **environment** for examples, putting every sentence/phrase in an `\ex` **item**.

```
This is a sample text.
\begin{exe}
  \ex This is an example.
  \ex This is an example. The only purpose of this text is to show how to work
      with \LaTeX .
\end{exe}
This is a sample text. The only purpose of this text is to show how to work
with \LaTeX .
```

This is a sample text.

(1) This is an example.

(2) This is an example. The only purpose of this text is to show how to work with LaTeX.

This is a sample text. The only purpose of this text is to show how to work with LaTeX.

For **embedded example levels**, use the `xlist` **environment**.

```
\begin{exe}
  \ex This is an example.
  \ex This is an example. The only purpose of this text is to show how to work
      with \LaTeX .
  \begin{xlist}
    \ex This is an example on a new level.
    \ex This is an example. The only purpose of this text is to show how to work
        with \LaTeX .
  \end{xlist}
  \ex This is an example on the first level.
\end{exe}
```

(3) This is an example.

(4) This is an example. The only purpose of this text is to show how to work with LaTeX.

   a. This is an example on a new level.

   b. This is an example. The only purpose of this text is to show how to work with LaTeX.

(5) This is an example on the first level.

For **embedded example levels inside embedded examples**, keep using the `xlist` **environment**.

```
This is a sample text.
\begin{exe}
  \ex This is an example.
  \ex This is an example. The only purpose of this text is to show how to work
      with \LaTeX .
  \begin{xlist}
    \ex This is an example on a new level.
    \ex This is an example. The only purpose of this text is to show how to work
        with \LaTeX .
    \begin{xlist}
      \ex This is an example on a whole new level.
      \ex This is an example. The only purpose of this text is to show how to
          work with \LaTeX .
    \end{xlist}
    \ex This is an example on the second level.
  \end{xlist}
  \ex This is an example on the first level.
\end{exe}
This is a sample text. The only purpose of this text is to show how to work
with \LaTeX .
```

This is a sample text.

(6) This is an example.

(7) This is an example. The only purpose of this text is to show how to work with LaTeX.

   a. This is an example on a new level.

   b. This is an example. The only purpose of this text is to show how to work with LaTeX.

      i. This is an example on a whole new level.

      ii. This is an example. The only purpose of this text is to show how to work with LaTeX.

   c. This is an example on the second level.

(8) This is an example on the first level.

This is a sample text. The only purpose of this text is to show how to work with LaTeX.

Embedding examples with **letter numbering** in **arabic numbering**:

```
\begin{exe}
  \ex %empty!
  \begin{xlist}
    \ex This is an example.
    \ex This is a different example.
  \end{xlist}
\end{exe}
```

(9) a. This is an example.
b. This is a different example.

Cross-references with `label` and `ref`:

```
\begin{exe}
  \ex \label{ex:Arabic}%empty!
  \begin{xlist}
    \ex This is an example.
    \label{ex:Letter1}
    \ex This is a different example.
    \label{ex:Letter2}
  \end{xlist}
\end{exe}
```

See the following cross-references: (10), (10a), and (10b).

(10) a. This is an example.
b. This is a different example.

Acceptability judgements

For acceptability/grammaticality judgements, use the **square brackets** and enclose the sentence in **curly brackets**.

```
\begin{exe}
  \ex[*]{These ungrammatical example is.}
  \ex[]{This example is grammatical.}
  \ex[\#]{colorless green idea}
  \ex This example is grammatical.
\end{exe}
```

(11) * These ungrammatical example is.

(12) This example is grammatical.

(13) # colourless green idea

(14) This example is grammatical.

Glossing

1. The `\ex` line remains empty;
2. use `\gll` and write your **example** in that line; **end** it with `\\`;
3. write the **glosses**, and **end** this line with `\\`;
4. **optionally**, give a **translation** `\glt`.

```
\begin{exe}
  \ex
  \gll Jeder Bauer, der einen Esel besitzt, schlägt ihn. \\
  every farmer that a.\textsc{acc} donkey owns beats it.\textsc{acc}\\
  \glt ‘Every farmer who owns a donkey beats it.’ \hfill \citep{Geach62}
\end{exe}
```

(15) Jeder Bauer, der einen Esel besitzt, schlägt ihn.
every farmer that a.ACC donkey owns beats it.ACC
‘Every farmer who owns a donkey beats it.’ (Geach, 1962)

Use **curly brackets** to group elements that are being **glossed as a unit**.

```
\begin{exe}
  \ex
    \gll {Multiword expression} -s can be glossed too.\\
    Mehrwortlexem -e.\textsc{pl} können sein glossiert auch\\
    \glt ‘Auch Mehrwortlexeme können glossiert werden.’
  \ex
    \gll Peter$_{1}$ $t_{1}$ schläft$_{2}$ $t_{2}$\\
    Peter {} sleeps\\
    \glt ‘Peter ist sleeping.’
\end{exe}
```

(16)
Multiword expression	-s	can	be	glossed	too.
Mehrwortlexem	-e.PL	können	sein	glossiert	auch

‘Auch Mehrwortlexeme können glossiert werden.’

(17)
Peter$_1$	t_1	schläft$_2$	t_2
Peter		sleeps	

‘Peter ist sleeping.’

Leipzig Glossing Rules (cf. Comrie et al., 2015)

Customizing identifiers

With the command `\exi{ }` instead of `ex`, you can choose own identifiers. The automatic numbering skips the `exi` examples, see (18), and (19).

```
\begin{exe}
  \ex a noun phrase \label{ex:DetNP}
  \exi{($\alpha$)} a noun phrase modified with a PP
  \ex[*]{noun phrase a}\label{ex:NPDet}
  \exi{($\beta$)}[*]{a with a PP noun phrase modified}
\end{exe}
```

(18) a noun phrase

(α) a noun phrase modified with a PP

(19) * noun phrase a

(β) * a with a PP noun phrase modified

With the command `\exr{ }` and `\exp{ }` instead of `ex`, you can **repeat the numbering** of earlier examples or repeat it with a **prime**, respectively.

```
\begin{exe}
  \ex[]{a new noun phrase}
  \exr{ex:DetNP}[]{a noun phrase}
  \exp{ex:NPDet}[*]{noun a phrase}
  \ex[]{another noun phrase}
\end{exe}
```

(20) a new noun phrase

(18) a noun phrase

(19′) * noun a phrase

(21) another noun phrase

For further features of `gb4e`, take a look at the package documentation (Kolb et al., 2010).

Package: langsci-gb4e

There is an **improved version** of `gb4e` made by the *Language Science Press* team.

```
\usepackage{langsci-gb4e}
```

You can use **all** `gb4e` **commands**, but there is also a shorter version for the `exe` and `xlist` environments (open and close every level with `\ea` and `\z`, every further item in a level is given by `\ex`), as well as further glossing lines, e.g. `\glll`.

```
\ea This is an example.
  \ea This is an example.
  \ex This is an example.
  \z
\ex This is an example.
\z
```

(22) This is an example.
   a. This is an example.
   b. This is an example.

(23) This is an example.

For further features of `gb4e`, take a look at the LSP guidelines (Nordhoff & Müller, 2018).

Package: jambox

For adding comments to your examples, you can use the `\hfill` command (alignment on the right side)

```
\ea  If no mistake have you made, yet losing you are \dots\ a different game you
     should play. \hfill [Yoda-English]
\ex Das ist ein Beispiel. \hfill [German]
\ex Este es un ejemplo. \hfill [Spanish]
\z
```

(24) If no mistake have you made, yet losing you are . . . a different game you should play. [Yoda-English]

(25) Das ist ein Beispiel. [German]

(26) Este es un ejemplo. [Spanish]

. . . or the `jambox` package.

You will need the `jambox.sty` **file** in the same folder as your `.tex` file.

```
\usepackage{jambox}
```

. . . or the `jambox` package.

You will need the `jambox.sty` **file** in the same folder as your `.tex` file.

```
\usepackage{jambox}
```

With `jambox.sty`, you can adjust the **spacing from the right margin to the beginning of the comments** (see: `\settowidth\jamwidth{ }`)

```
\settowidth\jamwidth{[Yoda-English]X}
\ea If no mistake have you made, yet losing you are \dots\ a different game you
    should play. \jambox{[Yoda-English]}
\ex Das ist ein Beispiel. \jambox{[German]}
\ex Este es un ejemplo. \jambox{[Spanish]}
\z
```

(27) If no mistake have you made, yet losing you are . . . a different game you should play. [Yoda-English]

(28) Das ist ein Beispiel. [German]

(29) Este es un ejemplo. [Spanish]

Complex examples:

```
\settowidth\jamwidth{(Chomsky, 1957: 1)XX}

\ea[?]{Patience you must have, my young padawan. \jambox{(Yoda, 2005)}
}\label{ex:Jam1}

\ex[]{Syntax is the study of the principles and processes by which sentences are
     constructed in particular languages. Syntactic investigation of a given
    language has as its goal the construction of a grammar that can be viewed as
     a device of some sort for producing the sentences of the language under
    analysis. \jambox{\citep[1]{Chomsky57a}}
}\label{ex:Jam2}

\ex[]{
\gll Jeder Bauer, der einen Esel besitzt, schlägt ihn. \\
every farmer that a.\textsc{m}.\textsc{acc} donkey owns beats it.\textsc{m}.\
    textsc{acc} \\
\glt ‘Every farmer who owns a donkey beats it.’
\jambox{\citep{Geach62}}
}\label{ex:Jam3}
\z
```

(30) ? Patience you must have, my young padawan. (Yoda, 2005)

(31) Syntax is the study of the principles and processes by which sentences are constructed in particular languages. Syntactic investigation of a given language has as its goal the construction of a grammar that can be viewed as a device of some sort for producing the sentences of the language under analysis. (Chomsky, 1957: 1)

(32) Jeder Bauer, der einen Esel besitzt, schlägt ihn.
every farmer that a.M.ACC donkey owns beats it.M.ACC
'Every farmer who owns a donkey beats it.' (Geach, 1962)

Exercise

Go to
`https://github.com/langsci/latex4linguists/blob/master/3-2.md`
and follow the instructions of **all blocks** in your `.tex` file.

Internet sources I

- Link: Language Science Press
  `www.langsci-press.org`
  [Access: 02/01/2019]
- YouTube-Tutorial: LaTeX Tutorial
  `https://www.youtube.com/channel/UCC-3dzj6dfbWwGzQzhkUS5A`
  [Access: 23/10/2017]

Literature I

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Machicao y Priemer, Antonio. 2018. Hinweise für Seminararbeiten. Manuscript. `https://www.linguistik.hu-berlin.de/de/staff/amyp/downloads/myp2018-04-06-hinweise_seminararbeit.pdf`.

Nordhoff, Sebastian & Stefan Müller. 2018. Language Science Press: Complete set of guidelines. online. `http://langsci.github.io/guidelines/latexguidelines/LangSci-guidelines.pdf`.