

The `phonrule` package (v1.3.1)

Stefano Coretta
`stefano.coretta at postgrad.manchester.ac.uk`

January 2, 2017

1 Purpose

This package provides macros for typesetting phonological rules like those in *Sound Pattern of English* (Chomsky, Noam & Morris Halle. 1968. *The sound pattern of English*. New York, Evanston, and London: Harper & Row).

2 Usage

```
\phon<{}input<{}>output}
```

The command `\phon` has two arguments: the first one is the input of the rule and the second is its output. Here is an example with the code and the result it produces:

- (1) `\phon{z}{r}`
- (2) $z \rightarrow r$

```
\phonc<{}input<{}>output<{}>context}
```

`\phonc` adds a third argument for the context:

- (3) `\phonc{a}{ə}{[-stressed]}`
- (4) $a \rightarrow \text{ə} / [-\text{stressed}]$

The commands `\phonl`, `\phonr` and `\phonb` add a place holder line and put the context, respectively, on the left (l), on the right (r) and on both sides (b):

- (5) a. `\phonl{k}{c}{i}`
b. $k \rightarrow t / i_$
- (6) a. `\phonr{t}{ts}{u}`
b. $t \rightarrow ts / _u$
- (7) a. `\phonb{s}{z}{V}{V}`
b. $s \rightarrow z / V_V$

The `\oneof` command provides the possibility to compile several contexts, one per line, embraced by a left curly bracket.

(8) `\phonc{t}{ts}{`
`\oneof{`
`\phold i \`
`\phold u}`
`}`

(9) $t \rightarrow ts / \begin{cases} \text{--}i \\ \text{--}u \end{cases}$

The `\phonfeat` command allows you to insert feature specifications:

(10) `\phonc{t}{ts}{\phold`
`\phonfeat{`
`consonantal \`
`+high \`
`+front}`
`}`

(11) $t \rightarrow ts / \text{--} \begin{bmatrix} \text{--consonantal} \\ +high \\ +front \end{bmatrix}$

`\phold` typesets a place holder line. You can nest `oneof` and `phonfeat` commands for complex rules. The `oneof` command accepts an optional argument which tells the alignment of the context.

(12) `\phonc{x}{y}{\oneof [l]{`
`\phold z \`
`\phonfeat{`
`+feature x \`
`feature y`
`} \phold`
`}}`

(13) $x \rightarrow y / \begin{cases} \text{--}z \\ \begin{bmatrix} +feature x \\ \text{--}feature y \end{bmatrix} \text{--} \end{cases}$

You can use `\env`, `\envl`, `\envr`, `\envb` for rules with more than one output: these commands typeset only the different outputs with their respective environments. The possible values are [c] for centre (the default), [l] for left-aligned, and [r] for right aligned. The following example shows the use of the optional argument with [l]. The `\env`, `\envl`, `\envr`, `\envb` have a starred version to be used when an optional argument is set in `\oneof`.

(14) `\phon{x}{\oneof [l]{`
`\envr*{w}{z} \`
`\envl*{v}{\phonfeat{`
`+feature x \`
`feature y`
`}}}}`

$$(15) \quad x \rightarrow \begin{cases} w / \\ v / \end{cases} \begin{bmatrix} \bar{z} \\ +\text{feature } x \\ -\text{feature } y \end{bmatrix}$$

3 Change log

v1.3.1 - 2017-01-02

Added

- needs T_EX format L^AT_EX2_ε

Removed

- `\makeatletter`
- unused definition

v1.3.0 - 2016-12-26

Added

- optional argument for text alignment in `\oneof` command
- starred version of the `\env` command family for use with optional argument in `\oneof`

Changed

- definition of `\phon` command family
- header of `phonrule.sty`
- extension of README, now `.md`

Removed

- package `ragged2e`

v1.2.0

Added

- `ragged2e` package for `\Centering` command

Fixed

- Fixed: now the content of the feature matrices is centred and not left aligned

v1.1.0

Changed

- definition of `\phonfeat` and `\oneof` with `\pbox` (requires package `pbox`)

Fixed

- documentation typos

v1.0.0

Added

- new commands `\env` for personalised outputs

Changed

- definition of commands with `\ensuremath`
- environments to commands
- place holder to 1.5ex length, -1.5pt vertical position
- curly brackets to only left in `\oneof` command