# The `phonrule` package (v1.3.2)

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## 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 → r

```
\phonc⟨{⟩input⟨}⟨{⟩output⟨}⟨{⟩context}
```

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

(3) `\phonc{a}{ə}{[-stressed]}`

(4)  a → ə / [–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 → t  / i_

(6) a. `\phonr{t}{ts}{u}`
    b.  t → ts / _u

(7) a. `\phonb{s}{z}{V}{V}`
    b.  s → 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)   $\text{t} \rightarrow \text{ts} \ / \ \left\{ \begin{array}{l} \_\text{i} \\ \_\text{u} \end{array} \right.$

The `\phonfeat` command allows you to insert feature specifications. The possible values are `[c]` for centre (the default), `[l]` for left-aligned, and `[r]` for right-aligned.

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

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

`\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)   $\text{x} \rightarrow \text{y} \ / \ \left\{ \begin{array}{l} \_\text{z} \\ \begin{bmatrix} +\text{feature x} \\ -\text{feature y} \end{bmatrix} \_ \end{array} \right.$

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
}}}}}
```

$$(15) \quad \mathrm{x} \rightarrow \left\{ \begin{array}{ll} \mathrm{w} \ / & \underline{\phantom{z}}\mathrm{z} \\ \mathrm{v} \ / & \left[ \begin{array}{l} +\text{feature x} \\ -\text{feature y} \end{array} \right]\underline{\phantom{-}} \end{array} \right.$$

# 3  Change log

## v1.3.2 - 2017-04-16

### Added

- optional argument for text alignment in `\phonfeat` command

## v1.3.1 - 2017-01-02

### Added

- needs TeX format LaTeX2e

### 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