

# The `phonrule` package (v1.4.0)

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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)  $z \rightarrow r$

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

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

(3) `\phonc{a}{ə}{[-stressed]}`

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

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.  $k \rightarrow t \text{ / } i \text{ \_\_\_ }$

(6) a. `\phonr{t}{ts}{u}`  
b.  $t \rightarrow ts \text{ / } \text{ \_\_\_ } u$

(7) a. `\phonb{s}{z}{V}{V}`  
b.  $s \rightarrow z \text{ / } V \text{ \_\_\_ } V$

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

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

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  
}}}

$$(15) \quad x \rightarrow \left\{ \begin{array}{c} w / \\ v / \end{array} \left[ \begin{array}{c} \overline{\phantom{x}}^z \\ +\text{feature } x \\ -\text{feature } y \end{array} \right] \right. \text{---}$$

### 3 Change log

#### v1.4.0 - 2017-11-05

##### Changed

- increased spacing around placeholder
- increased spacing around environment parenthesis
- increased size of slash

#### v1.3.2 - 2017-04-16

##### Added

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

#### v1.3.1 - 2017-01-02

##### Added

- needs T<sub>E</sub>X format L<sup>A</sup>T<sub>E</sub>X2e

##### 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