

The `phonrule` package (v1.2.0)

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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) $a \rightarrow ə / [-stressed]$

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) $t \rightarrow ts / \left\{ \begin{array}{l} _i \\ _u \end{array} \right.$

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

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

(11) $t \rightarrow ts / _ \left[\begin{array}{l} \text{-consonantal} \\ \text{+high} \\ \text{+front} \end{array} \right]$

`\phold` typesets a place holder line. You can nest `oneof` and `phonfeat` commands for complex rules.

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

(13) $x \rightarrow y / \left\{ \left[\begin{array}{l} \text{+feature } _z \\ \text{-feature } y \end{array} \right] _ \right.$

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.

(14) `\phon{x}{\oneof{`
`\envr{w}{z} \\
\envl{v}{\phonfeat{
+feature x \\
-feature y
}}}`

(15) $x \rightarrow \left\{ \begin{array}{l} w / _z \\ v / \left[\begin{array}{l} \text{+feature } x \\ \text{-feature } y \end{array} \right] _ \end{array} \right.$

3 Changelog

3.1 v1.2.0

- Added: `ragged2e` package for `\Centering` command

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

3.2 v1.1.0

- Changed: definition of `\phonfeat` and `\oneof` with `\pbox` (requires package `pbox`)
- Fixed: documentation typos

3.3 v1.0.0

- Added: new commands `\env` for personalised outputs
- Changed: definition of commands with `\ensuremath`
- Changed: environments to commands
- Changed: place holder to 1.5ex length, -1.5pt vertical position
- Changed: curly brackets to only left in `\oneof` command