

Package ‘ds4psy’

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Type Package

Title Data Science for Psychologists

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Description All data sets required for the examples and exercises in the book “Data Science for Psychologists” (by Hansjoerg Neth, Konstanz University, 2019), freely available at <<https://bookdown.org/hneth/ds4psy/>>. The book and course introduce principles and methods of data science to students of psychology and other biological or social sciences. The ‘ds4psy’ package primarily provides datasets, but also functions for graphics and text-manipulation that are used in the book and its exercises.

Depends R (>= 3.4.0)

Imports ggplot2, cowplot, here, readr, stringr, tibble, tidyr, tidyverse, unkn

Suggests knitr, rmarkdown, spelling

Collate 'data.R' 'color_fun.R' 'text_fun.R' 'data_fun.R' 'theme_fun.R' 'plot_fun.R' 'util_fun.R' 'start.R'

Encoding UTF-8

LazyData true

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URL <https://bookdown.org/hneth/ds4psy/>,
<https://github.com/hneth/ds4psy/>

BugReports <https://github.com/hneth/ds4psy/issues>

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data_1	<i>Data import data_1.</i>
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Description

data_1 is a fictitious dataset to practice data import (from a DELIMITED file).

Usage

data_1

Format

A tibble with 100 cases (rows) and 4 variables (columns).

Source

See DELIMITED data at http://rpository.com/ds4psy/data/data_1.dat.

See Also

Other datasets: [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

data_2

Data import data_2.

Description

data_2 is a fictitious dataset to practice data import (from a FWF file).

Usage

data_2

Format

A tibble with 100 cases (rows) and 4 variables (columns).

Source

See FWF data at http://rpository.com/ds4psy/data/data_2.dat.

See Also

Other datasets: [data_1](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

data_t1	<i>Data table data_t1.</i>
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Description

data_t1 is a fictitious dataset to practice importing and joining data (from a CSV file).

Usage

data_t1

Format

A tibble with 20 cases (rows) and 4 variables (columns).

Source

See CSV data at http://rpository.com/ds4psy/data/data_t1.csv.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

data_t1_de	<i>Data import data_t1_de.</i>
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Description

data_t1_de is a fictitious dataset to practice data import (from a CSV file, de/European style).

Usage

data_t1_de

Format

A tibble with 20 cases (rows) and 4 variables (columns).

Source

See CSV data at http://rpository.com/ds4psy/data/data_t1_de.csv.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

data_t1_tab	<i>Data import data_t1_tab.</i>
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Description

data_t1_tab is a fictitious dataset to practice data import (from a TAB file).

Usage

```
data_t1_tab
```

Format

A tibble with 20 cases (rows) and 4 variables (columns).

Source

See TAB-delimited data at http://rpository.com/ds4psy/data/data_t1_tab.csv.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

data_t2	<i>Data table data_t2.</i>
---------	----------------------------

Description

data_t2 is a fictitious dataset to practice importing and joining data (from a CSV file).

Usage

```
data_t2
```

Format

A tibble with 20 cases (rows) and 4 variables (columns).

Source

See CSV data at http://rpository.com/ds4psy/data/data_t2.csv.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

data_t3

Data table data_t3.

Description

data_t3 is a fictitious dataset to practice importing and joining data (from a CSV file).

Usage

```
data_t3
```

Format

A tibble with 20 cases (rows) and 4 variables (columns).

Source

See CSV data at http://rpository.com/ds4psy/data/data_t3.csv.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

data_t4

Data table data_t4.

Description

data_t4 is a fictitious dataset to practice importing and joining data (from a CSV file).

Usage

```
data_t4
```

Format

A tibble with 20 cases (rows) and 4 variables (columns).

Source

See CSV data at http://rpository.com/ds4psy/data/data_t4.csv.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

ds4psy.guide

Opens user guide of the ds4psy package.

Description

Opens user guide of the ds4psy package.

Usage

ds4psy.guide()

exp_wide

Data exp_wide.

Description

exp_wide is a fictitious dataset to practice tidying data (here: converting from wide to long format).

Usage

exp_wide

Format

A tibble with 10 cases (rows) and 7 variables (columns).

Source

See CSV data at http://rpository.com/ds4psy/data/exp_wide.csv.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

falsePosPsy_all *False Positive Psychology data.*

Description

falsePosPsy_all is a dataset containing the data from 2 studies designed to highlight problematic research practices within psychology.

Usage

```
falsePosPsy_all
```

Format

A tibble with 78 cases (rows) and 19 variables (columns):

Details

Simmons, Nelson and Simonsohn (2011) published a controversial article with a necessarily false finding. By conducting simulations and 2 simple behavioral experiments, the authors show that flexibility in data collection, analysis, and reporting dramatically increases the rate of false-positive findings.

study Study ID.

id Participant ID.

aged Days since participant was born (based on their self-reported birthday).

aged365 Age in years.

female Is participant a woman? 1: yes, 2: no.

dad Father's age (in years).

mom Mother's age (in years).

potato Did the participant hear the song 'Hot Potato' by The Wiggles? 1: yes, 2: no.

when64 Did the participant hear the song 'When I am 64' by The Beatles? 1: yes, 2: no.

kalimba Did the participant hear the song 'Kalimba' by Mr. Scrub? 1: yes, 2: no.

cond In which condition was the participant? control: Subject heard the song 'Kalimba' by Mr. Scrub; potato: Subject heard the song 'Hot Potato' by The Wiggles; 64: Subject heard the song 'When I am 64' by The Beatles.

root Could participant report the square root of 100? 1: yes, 2: no.

bird Imagine a restaurant you really like offered a 30 percent discount for dining between 4pm and 6pm. How likely would you be to take advantage of that offer? Scale from 1: very unlikely, 7: very likely.

political In the political spectrum, where would you place yourself? Scale: 1: very liberal, 2: liberal, 3: centrist, 4: conservative, 5: very conservative.

quarterback If you had to guess who was chosen the quarterback of the year in Canada last year, which of the following four options would you choose? 1: Dalton Bell, 2: Daryll Clark, 3: Jarious Jackson, 4: Frank Wilczynski.

olddays How often have you referred to some past part of your life as “the good old days”? Scale: 11: never, 12: almost never, 13: sometimes, 14: often, 15: very often.

feelold How old do you feel? Scale: 1: very young, 2: young, 3: neither young nor old, 4: old, 5: very old.

computer Computers are complicated machines. Scale from 1: strongly disagree, to 5: strongly agree.

diner Imagine you were going to a diner for dinner tonight, how much do you think you would like the food? Scale from 1: dislike extremely, to 9: like extremely.

See <https://bookdown.org/hneth/ds4psy/B-2-datasets-false.html> for codebook and more information.

Source

Simmons, J.P., Nelson, L.D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, 22(11), 1359-1366. doi: <https://doi.org/10.1177/0956797611417632>

Simmons, J.P., Nelson, L.D., & Simonsohn, U. (2014). Data from paper "False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything as Significant". *Journal of Open Psychology Data*, 2(1), e1. doi: <http://doi.org/10.5334/jopd.aa>

See files at <https://openpsychologydata.metajnl.com/articles/10.5334/jopd.aa/> and the archive at <https://zenodo.org/record/7664> for original dataset.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

l33t_ru135

l33t_ru135 provides rules for translating into leet/l33t slang.

Description

l33t_ru135 specifies rules for translating characters into leet/l33t slang (as a character vector).

Usage

```
l33t_ru135
```

Format

An object of class character of length 13.

See Also

Other text functions: [transl33t](#)

outliers

Outlier data.

Description

outliers is a fictitious dataset containing the sex and height of 1000 people.

Usage

outliers

Format

A tibble with 100 cases (rows) and 3 variables (columns).

Source

See CSV data at <http://rpository.com/ds4psy/data/out.csv>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

pal_ds4psy

ds4psy default color palette.

Description

pal_ds4psy provides a dedicated color palette.

Usage

pal_ds4psy

Format

An object of class `data.frame` with 1 rows and 11 columns.

Details

By default, pal_ds4psy is based on pal_unikn of the **unikn** package.

See Also

Other color objects and functions: [pal_n_sq](#)

pal_n_sq

Get n-by-n dedicated colors of a color palette.

Description

pal_n_sq returns n^2 dedicated colors of a color palette pal (up to a maximum of $n = \text{"all"}$ colors).

Usage

```
pal_n_sq(n = "all", pal = pal_ds4psy)
```

Arguments

n The desired number colors of pal (as a number) or the character string "all" (to get all colors of pal). Default: $n = \text{"all"}$.

pal A color palette (as a data frame). Default: pal = [pal_ds4psy](#).

Details

Use the more specialized function `unikn::usecol` for choosing n dedicated colors of a known color palette.

See Also

[plot_tiles](#) to plot tile plots.

Other color objects and functions: [pal_ds4psy](#)

Examples

```
pal_n_sq(1) # 1 color: seeblau3
pal_n_sq(2) # 4 colors
pal_n_sq(3) # 9 colors (5: white)
pal_n_sq(4) # 11 colors (6: white)
```

pi_100k

Data: 100k digits of pi.

Description

pi_100k is a dataset containing the first 100k digits of pi.

Usage

```
pi_100k
```

Format

A character of `nchar(pi_100k) = 100001`.

Source

See TXT data at http://rpository.com/ds4psy/data/pi_100k.txt.

Original data at <http://www.geom.uiuc.edu/~huberty/math5337/groupe/digits.html>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

plot_fn

A function to plot a plot.

Description

plot_fn is a function that uses parameters for plotting a plot.

Usage

```
plot_fn(x = NA, y = 1, A = TRUE, B = FALSE, C = TRUE,  
        D = FALSE, E = FALSE, F = FALSE, f = c(rev(pal_seeblau), "white",  
        pal_pinky), g = "white")
```

Arguments

x	A (natural) number. Default: x = NA.
y	A (decimal) number. Default: y = 0.
A	A Boolean value. Default: A = TRUE.
B	A Boolean value. Default: B = FALSE.
C	A Boolean value. Default: C = TRUE.
D	A Boolean value. Default: D = FALSE.
E	A Boolean value. Default: E = FALSE.
F	A Boolean value. Default: F = FALSE.
f	A color palette (e.g., as a vector). Default: f = c(rev(pal_seeblau), "white", pal_pinky). Note: Using colors of the unkn package by default.
g	A color (e.g., as a character). Default: g = "white".

Details

plot_fun is deliberately kept cryptic and obscure to illustrate how function parameters can be explored (and why transparent variable names are essential for understanding and using a function).

See Also

[plot_fun](#) for a related function; [pal_ds4psy](#) for color palette.

Other plot functions: [plot_fun](#), [plot_n](#), [plot_tiles](#), [theme_ds4psy](#)

Examples

```
# Basics:
plot_fun()

# Exploring options:
plot_fun(x = 2, A = TRUE)
plot_fun(x = 3, A = FALSE, E = TRUE)
plot_fun(x = 4, A = TRUE, B = TRUE, D = TRUE)
plot_fun(x = 5, A = FALSE, B = TRUE, E = TRUE, f = c("black", "white", "gold"))
plot_fun(x = 7, A = TRUE, B = TRUE, F = TRUE, f = c("steelblue", "white", "forestgreen"))
```

plot_fun

A function to plot some plot.

Description

plot_fun is a function that uses parameters to plot a plot.

Usage

```
plot_fun(a = NA, b = TRUE, c = TRUE, d = 1, e = FALSE,  
         f = FALSE, g = FALSE, c1 = c(rev(pal_seeblau), "white", pal_grau,  
         "black", Bordeaux), c2 = "black")
```

Arguments

a	A (natural) number. Default: a = NA.
b	A Boolean value. Default: b = TRUE.
c	A Boolean value. Default: c = TRUE.
d	A (decimal) number. Default: d = 1.0.
e	A Boolean value. Default: e = FALSE.
f	A Boolean value. Default: f = FALSE.
g	A Boolean value. Default: g = FALSE.
c1	A color palette (e.g., as a vector). Default: c1 = c(rev(pal_seeblau), "white", pal_grau, "black", Bordeaux). Note: Using colors of the <code>unifn</code> package by default.
c2	A color (e.g., as a character). Default: c2 = "black".

Details

`plot_fun` is deliberately kept cryptic and obscure to illustrate how function parameters can be explored (and why transparent variable names are essential for understanding and using a function).

See Also

[plot_fn](#) for a related function; [pal_ds4psy](#) for color palette.

Other plot functions: [plot_fn](#), [plot_n](#), [plot_tiles](#), [theme_ds4psy](#)

Examples

```
# Basics:  
plot_fun()  
  
# Exploring options:  
plot_fun(a = 3, b = FALSE, e = TRUE)  
plot_fun(a = 4, f = TRUE, g = TRUE, c1 = c("steelblue", "white", "firebrick"))
```

plot_n	<i>Plot n tiles.</i>
--------	----------------------

Description

plot_n plots a row or column of n tiles on fixed or polar coordinates.

Usage

```
plot_n(n = NA, row = TRUE, polar = FALSE, pal = pal_ds4psy,
      sort = TRUE, borders = TRUE, border_col = grey(0, 1),
      border_size = 0, lbl_tiles = FALSE, lbl_title = FALSE,
      rseed = NA, save = FALSE, save_path = "images/tiles",
      prefix = "", suffix = "")
```

Arguments

n	Basic number of tiles (on either side).
row	Plot as a row? Default: row = TRUE (else plotted as a column).
polar	Plot on polar coordinates? Default: polar = FALSE (i.e., using fixed coordinates).
pal	A color palette (automatically extended to n colors). Default: pal = pal_ds4psy .
sort	Sort tiles? Default: sort = TRUE (i.e., sorted tiles).
borders	Add borders to tiles? Default: borders = TRUE (i.e., use borders).
border_col	Color of borders (if borders = TRUE). Default: border_col = grey(0, 1) (i.e., black).
border_size	Size of borders (if borders = TRUE). Default: border_size = 0 (i.e., invisible).
lbl_tiles	Add numeric labels to tiles? Default: lbl_tiles = FALSE (i.e., no labels).
lbl_title	Add numeric label (of n) to plot? Default: lbl_title = FALSE (i.e., no title).
rseed	Random seed (number). Default: rseed = NA (using random seed).
save	Save plot as png file? Default: save = FALSE.
save_path	Path to save plot (if save = TRUE). Default: save_path = "images/tiles".
prefix	Prefix to plot name (if save = TRUE). Default: prefix = "".
suffix	Suffix to plot name (if save = TRUE). Default: suffix = "".

Details

Note that a polar row makes a tasty pie, whereas a polar column makes a target plot.

See Also

[pal_ds4psy](#) for default color palette.

Other plot functions: [plot_fn](#), [plot_fun](#), [plot_tiles](#), [theme_ds4psy](#)

Examples

```

# (1) Basics (as ROW or COL):
plot_n() # default plot (random n, row = TRUE, with borders, no labels)
plot_n(row = FALSE) # default plot (random n, with borders, no labels)

plot_n(n = 6, sort = FALSE) # random order
plot_n(n = 8, borders = FALSE) # no borders
plot_n(n = 10, lbl_tiles = TRUE) # with tile labels
plot_n(n = 10, lbl_title = TRUE) # with title label

# Set colors:
plot_n(n = 3, pal = c("forestgreen", "white", "black"),
      lbl_tiles = TRUE, sort = TRUE)
plot_n(n = 5, row = FALSE,
      pal = c("orange", "white", "firebrick"),
      lbl_tiles = TRUE, lbl_title = TRUE, sort = TRUE)
plot_n(n = 10, sort = FALSE, border_col = "white", border_size = 2)

# Fixed rseed:
plot_n(n = 4, sort = FALSE, borders = FALSE,
      lbl_tiles = TRUE, lbl_title = TRUE, rseed = 101)

# (2) polar plot (as PIE or TARGET):
plot_n(polar = TRUE) # PIE plot (with borders, no labels)
plot_n(polar = TRUE, row = FALSE) # TARGET plot (with borders, no labels)

plot_n(n = 4, polar = TRUE, sort = FALSE) # PIE in random order
plot_n(n = 5, polar = TRUE, row = FALSE, borders = FALSE) # TARGET no borders
plot_n(n = 7, polar = TRUE, lbl_tiles = TRUE) # PIE with tile labels
plot_n(n = 7, polar = TRUE, row = FALSE, lbl_title = TRUE) # TARGET with title label

plot_n(n = 4, row = TRUE, sort = FALSE, borders = TRUE,
      border_col = "white", border_size = 2,
      polar = TRUE, rseed = 132)
plot_n(n = 4, row = FALSE, sort = FALSE, borders = TRUE,
      border_col = "white", border_size = 2,
      polar = TRUE, rseed = 134)

```

plot_tiles

Plot n-by-n tiles.

Description

plot_tiles plots an area of n-by-n tiles on fixed or polar coordinates.

Usage

```
plot_tiles(n = NA, pal = pal_ds4psy, sort = TRUE, borders = TRUE,
```



```
border_col = grey(0, 1), border_size = 0.2, lbl_tiles = FALSE,
lbl_title = FALSE, polar = FALSE, rseed = NA, save = FALSE,
save_path = "images/tiles", prefix = "", suffix = "")
```

Arguments

n	Basic number of tiles (on either side).
pal	A color palette (automatically extended to n x n colors). Default: pal = pal_ds4psy .
sort	Sort tiles? Default: sort = TRUE (i.e., sorted tiles).
borders	Add borders to tiles? Default: borders = TRUE (i.e., use borders).
border_col	Color of borders (if borders = TRUE). Default: border_col = grey(0,1) (i.e., black).
border_size	Size of borders (if borders = TRUE). Default: border_size = 0.2 (i.e., thin).
lbl_tiles	Add numeric labels to tiles? Default: lbl_tiles = FALSE (i.e., no labels).
lbl_title	Add numeric label (of n) to plot? Default: lbl_title = FALSE (i.e., no title).
polar	Plot on polar coordinates? Default: polar = FALSE (i.e., using fixed coordinates).
rseed	Random seed (number). Default: rseed = NA (using random seed).
save	Save plot as png file? Default: save = FALSE.
save_path	Path to save plot (if save = TRUE). Default: save_path = "images/tiles".
prefix	Prefix to plot name (if save = TRUE). Default: prefix = "".
suffix	Suffix to plot name (if save = TRUE). Default: suffix = "".

See Also

[pal_ds4psy](#) for default color palette.

Other plot functions: [plot_fn](#), [plot_fun](#), [plot_n](#), [theme_ds4psy](#)

Examples

```
# (1) Tile plot:
plot_tiles() # default plot (random n, with borders, no labels)

plot_tiles(n = 6, sort = FALSE) # random order
plot_tiles(n = 8, borders = FALSE) # no borders
plot_tiles(n = 10, lbl_tiles = TRUE) # with tile labels
plot_tiles(n = 10, lbl_title = TRUE) # with title label

# Set colors:
plot_tiles(n = 3, pal = c("steelblue", "white", "black"),
           lbl_tiles = TRUE, sort = TRUE)
plot_tiles(n = 5, pal = c("orange", "white", "firebrick"),
           lbl_tiles = TRUE, lbl_title = TRUE,
           sort = TRUE)
plot_tiles(n = 10, sort = FALSE, border_col = "white", border_size = 2)
```

```

# Fixed rseed:
plot_tiles(n = 4, sort = FALSE, borders = FALSE,
           lbl_tiles = TRUE, lbl_title = TRUE,
           rseed = 101)

# (2) polar plot:
plot_tiles(polar = TRUE) # default polar plot (with borders, no labels)

plot_tiles(n = 6, polar = TRUE, sort = FALSE) # random order
plot_tiles(n = 8, polar = TRUE, borders = FALSE) # no borders
plot_tiles(n = 10, polar = TRUE, lbl_tiles = TRUE) # with tile labels
plot_tiles(n = 10, polar = TRUE, lbl_title = TRUE) # with title label

plot_tiles(n = 4, sort = FALSE, borders = TRUE,
           border_col = "white", border_size = 2,
           polar = TRUE, rseed = 132)

```

posPsy_AHI_CESD

Positive Psychology: AHI CESD data.

Description

posPsy_AHI_CESD is a dataset containing answers to the 24 items of the Authentic Happiness Inventory (AHI) and answers to the 20 items of the Center for Epidemiological Studies Depression (CES-D) scale (Radloff, 1977) for multiple (1 to 6) measurement occasions.

Usage

```
posPsy_AHI_CESD
```

Format

A tibble with 992 cases (rows) and 50 variables (columns).

Details

Codebook

- 1. **id**: Participant ID.
- 2. **occasion**: Measurement occasion: 0: Pretest (i.e., at enrolment), 1: Posttest (i.e., 7 days after pretest), 2: 1-week follow-up, (i.e., 14 days after pretest, 7 days after posttest), 3: 1-month follow-up, (i.e., 38 days after pretest, 31 days after posttest), 4: 3-month follow-up, (i.e., 98 days after pretest, 91 days after posttest), 5: 6-month follow-up, (i.e., 189 days after pretest, 182 days after posttest).
- 3. **elapsed.days**: Time since enrolment measured in fractional days.
- 4. **intervention**: Type of intervention: 3 positive psychology interventions (PPIs), plus 1 control condition: 1: "Using signature strengths", 2: "Three good things", 3: "Gratitude visit", 4: "Recording early memories" (control condition).

- 5.-28. (from **ahi01** to **ahi24**): Responses on 24 AHI items.
- 29.-48. (from **cesd01** to **cesd20**): Responses on 20 CES-D items.
- 49. **ahiTotal**: Total AHI score.
- 50. **cesdTotal**: Total CES-D score.

See codebook and references at <https://bookdown.org/hneth/ds4psy/B-1-datasets-pos.html>.

Source

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R., & Schüz, B. (2017). Web-based positive psychology interventions: A reexamination of effectiveness. *Journal of Clinical Psychology*, 73(3), 218-232. doi: 10.1002/jclp.22328

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R. and Schüz, B. (2018). Data from, 'Web-based positive psychology interventions: A reexamination of effectiveness'. *Journal of Open Psychology Data*, 6(1). doi: 10.5334/jopd.35

Additional references at <https://bookdown.org/hneth/ds4psy/B-1-datasets-pos.html>.

See <https://openpsychologydata.metajnl.com/articles/10.5334/jopd.35/> for details and <https://doi.org/10.6084/m9.figshare.1577563.v1> for original dataset.

See Also

[posPsy_long](#) for a corrected version of this file (in long format).

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

posPsy_long

Positive Psychology: AHI CESD corrected data (in long format).

Description

posPsy_long is a dataset containing answers to the 24 items of the Authentic Happiness Inventory (AHI) and answers to the 20 items of the Center for Epidemiological Studies Depression (CES-D) scale (see Radloff, 1977) for multiple (1 to 6) measurement occasions.

Usage

posPsy_long

Format

A tibble with 990 cases (rows) and 50 variables (columns).

Details

This dataset is a corrected version of [posPsy_AHI_CESD](#) and in long-format.

Source

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R., & Schüz, B. (2017). Web-based positive psychology interventions: A reexamination of effectiveness. *Journal of Clinical Psychology*, 73(3), 218-232. doi: 10.1002/jclp.22328

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R. and Schüz, B. (2018). Data from, 'Web-based positive psychology interventions: A reexamination of effectiveness'. *Journal of Open Psychology Data*, 6(1). doi: 10.5334/jopd.35

Additional references at <https://bookdown.org/hneth/ds4psy/B-1-datasets-pos.html>.

See <https://openpsychologydata.metajnl.com/articles/10.5334/jopd.35/> for details and <https://doi.org/10.6084/m9.figshare.1577563.v1> for original dataset.

See Also

[posPsy_AHI_CESD](#) for source of this file and codebook information; [posPsy_wide](#) for a version of this file (in wide format).

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

posPsy_p_info

Positive Psychology: Participant data.

Description

posPsy_p_info is a dataset containing details of 295 participants.

Usage

posPsy_p_info

Format

A tibble with 295 cases (rows) and 6 variables (columns).

Details

id Participant ID.

intervention Type of intervention: 3 positive psychology interventions (PPIs), plus 1 control condition: 1: "Using signature strengths", 2: "Three good things", 3: "Gratitude visit", 4: "Recording early memories" (control condition).

sex Sex: 1 = female, 2 = male.

age Age (in years).

educ Education level: Scale from 1: less than 12 years, to 5: postgraduate degree.

income Income: Scale from 1: below average, to 3: above average.

See codebook and references at <https://bookdown.org/hneth/ds4psy/B-1-datasets-pos.html>.

Source

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R., & Schüz, B. (2017). Web-based positive psychology interventions: A reexamination of effectiveness. *Journal of Clinical Psychology, 73*(3), 218-232. doi: 10.1002/jclp.22328

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R. and Schüz, B. (2018). Data from, 'Web-based positive psychology interventions: A reexamination of effectiveness'. *Journal of Open Psychology Data, 6*(1). doi: 10.5334/jopd.35

Additional references at <https://bookdown.org/hneth/ds4psy/B-1-datasets-pos.html>.

See <https://openpsychologydata.metajnl.com/articles/10.5334/jopd.35/> for details and <https://doi.org/10.6084/m9.figshare.1577563.v1> for original dataset.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

posPsy_wide

Positive Psychology: All corrected data (in wide format).

Description

posPsy_wide is a dataset containing answers to the 24 items of the Authentic Happiness Inventory (AHI) and answers to the 20 items of the Center for Epidemiological Studies Depression (CES-D) scale (see Radloff, 1977) for multiple (1 to 6) measurement occasions.

Usage

```
posPsy_wide
```

Format

An object of class `spec_tbl_df` (inherits from `tbl_df`, `tbl`, `data.frame`) with 295 rows and 294 columns.

Details

This dataset is based on [posPsy_AHI_CESD](#) and [posPsy_long](#), but is in wide format.

Source

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R., & Schüz, B. (2017). Web-based positive psychology interventions: A reexamination of effectiveness. *Journal of Clinical Psychology, 73*(3), 218-232. doi: 10.1002/jclp.22328

Woodworth, R. J., O'Brien-Malone, A., Diamond, M. R. and Schüz, B. (2018). Data from, 'Web-based positive psychology interventions: A reexamination of effectiveness'. *Journal of Open Psychology Data*, 6(1). doi: 10.5334/jopd.35

Additional references at <https://bookdown.org/hneth/ds4psy/B-1-datasets-pos.html>.

See <https://openpsychologydata.metajnl.com/articles/10.5334/jopd.35/> for details and <https://doi.org/10.6084/m9.figshare.1577563.v1> for original dataset.

See Also

[posPsy_AHI_CESD](#) for the source of this file, [posPsy_long](#) for a version of this file (in long format).

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

t3

Data table t3.

Description

t3 is a fictitious dataset to practice importing and joining data (from a CSV file).

Usage

t3

Format

A tibble with 10 cases (rows) and 4 variables (columns).

Source

See CSV data at <http://rpository.com/ds4psy/data/t3.csv>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t4](#), [table6](#), [table7](#), [table8](#), [tb](#)

t4	<i>Data table t4.</i>
----	-----------------------

Description

t4 is a fictitious dataset to practice importing and joining data (from a CSV file).

Usage

t4

Format

A tibble with 10 cases (rows) and 4 variables (columns).

Source

See CSV data at <http://rpository.com/ds4psy/data/t4.csv>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [table6](#), [table7](#), [table8](#), [tb](#)

table6	<i>Data table6.</i>
--------	---------------------

Description

table6 is a fictitious dataset to practice tidying data.

Usage

table6

Format

A tibble with 6 cases (rows) and 2 variables (columns).

Details

This dataset is a variant of the `tidyr::table1` to `tidyr::table5` dataset.

Source

See CSV data at <http://rpository.com/ds4psy/data/table6.csv>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table7](#), [table8](#), [tb](#)

table7

Data table7.

Description

table7 is a fictitious dataset to practice tidying data.

Usage

```
table7
```

Format

A tibble with 6 cases (rows) and 1 (horrendous) variable (column).

Details

This dataset is a variant of the `tidyr::table1` to `tidyr::table5` dataset.

Source

See CSV data at <http://rpository.com/ds4psy/data/table7.csv>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table8](#), [tb](#)

table8

Data table8.

Description

table8 is a fictitious dataset to practice tidying data.

Usage

```
table8
```


Format

A tibble with 3 cases (rows) and 5 variables (columns).

Details

This dataset is a variant of the `tidyr::table1` to `tidyr::table5` dataset.

Source

See CSV data at <http://rpository.com/ds4psy/data/table8.csv>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [tb](#)

tb

Data table tb.

Description

tb is a fictitious dataset to practice loops and iteration (from a CSV file).

Usage

tb

Format

A tibble with 100 cases (rows) and 5 variables (columns).

Source

See CSV data at <http://rpository.com/ds4psy/data/tb.csv>.

See Also

Other datasets: [data_1](#), [data_2](#), [data_t1_de](#), [data_t1_tab](#), [data_t1](#), [data_t2](#), [data_t3](#), [data_t4](#), [exp_wide](#), [falsePosPsy_all](#), [outliers](#), [pi_100k](#), [posPsy_AHI_CESD](#), [posPsy_long](#), [posPsy_p_info](#), [posPsy_wide](#), [t3](#), [t4](#), [table6](#), [table7](#), [table8](#)

theme_ds4psy	<i>ds4psy default plot theme (using ggplot2 and unikn).</i>
--------------	---

Description

theme_ds4psy provides a basic **ds4psy** theme to use in **ggplot2** commands.

Usage

```
theme_ds4psy(col_title = "black", base_size = 11, base_family = "",
             base_line_size = base_size/20, base_rect_size = base_size/20)
```

Arguments

col_title	Color of title (text) elements (optional, numeric). Default: col_title = "black". Consider using col_title = unikn::pal_seeblau[[4]] in combination with black or grey data points.
base_size	Base font size (optional, numeric). Default: base_size = 11.
base_family	Base font family (optional, character). Default: base_family = "".
base_line_size	Base line size (optional, numeric). Default: base_line_size = base_size/20.
base_rect_size	Base rectangle size (optional, numeric). Default: base_rect_size = base_size/20.

Details

The theme is lightweight and no-nonsense, but somewhat opinionated (e.g., in using mostly grey scales to allow emphasizing data points with color accents).

See Also

unikn::theme_unikn for the source of the current theme.

Other plot functions: [plot_fn](#), [plot_fun](#), [plot_n](#), [plot_tiles](#)

Examples

```
# Plotting iris dataset (using ggplot2 and theme_ds4psy):

library("ggplot2") # theme_ds4psy requires loading ggplot2

ggplot(datasets::iris) +
  geom_jitter(aes(x = Petal.Length, y = Petal.Width, color = Species), size = 3, alpha = 2/3) +
  labs(title = "Iris species",
       caption = "Data from datasets::iris") +
  theme_ds4psy(col_title = "black", base_size = 11)
```

transl33t	<i>transl33t text into leet slang (using stringr).</i>
-----------	--

Description

transl33t translates text into leet (or l33t) slang given a set of rules and the **stringr** package.

Usage

```
transl33t(txt, rules = l33t_ru135, in_case = "no", out_case = "no")
```

Arguments

txt	The text (character string) to translate.
rules	Rules which existing character in txt is to be replaced by which new character (as named character vector). Default: rules = l33t_ru135 .
in_case	Change case of input string txt. Default: in_case = "no". Set to "lo" or "up" for lower or uppercase, respectively.
out_case	Change case of output string. Default: out_case = "no". Set to "lo" or "up" for lower or uppercase, respectively.

See Also

[l33t_ru135](#) for default rules.

Other text functions: [l33t_ru135](#)

Examples

```
# Use defaults:
transl33t(txt = "hello world")
transl33t(txt = c(letters))
transl33t(txt = c(LETTERS))

# Specify rules:
transl33t(txt = "hello world",
          rules = c("e" = "3", "l" = "1", "o" = "0"))

# Set input and output case:
transl33t(txt = "hello world", in_case = "up",
          rules = c("e" = "3", "l" = "1", "o" = "0"))
transl33t(txt = "hello world", out_case = "up",
          rules = c("e" = "3", "l" = "1", "o" = "0"))
```

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