Package 'neuropsychology'

September 21, 2016

Type Package

Title An R Toolbox for Psychologists, Neuropsychologists and Neuroscientists

Version 0.1

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URL https://github.com/neuropsychology/neuropsychology.R

Date 2016-09-21

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Description An R package containing datasets and some statistical functions useful for psychology, neuropsychology and neuroscience.

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Depends R (>= 3.3.0), Hmisc (>= 3.15), ggplot2 (>= 2.0.0), ggcorrplot (>= 0.1.0), lme4 (>= 1.1.0), MuMIn (>= 1.15.6)

Imports

LazyData TRUE

LazyLoad yes

R topics documented:

APAze *APA6-ready output*

Description

Get an APA6-ready output for mixed effects and non-mixed effects linear models

Usage

```
APAze(fit, method="boot", nsim=1000)
```

Arguments

fit	A lm() or lme4::lmer() fit
method	"boot" for bootstrapped CI, "Wald" for estimated. See ?confint.merMod
nsim	how many times should it bootstrap the confint (only if method = "boot")

Author(s)

Dominique Makowski

Examples

```
require(neuropsychology)

df <- personality

fit <- lmer(Age ~ BMI + (1|Salary), data=df)
APAze(fit, method="Wald")
```

cortable *Correlation matrix with significance stars*

Description

Quickly get a correlation table with significance stars

Usage

```
cortable(df,
        correction="holm",
        type="pearson",
        print.result=TRUE,
        plot.result=TRUE)
```

Arguments

df	Dataframe
correction	"none", "holm" for holm-bonferroni (default), "fdr" for False Discovery Rate
type	"spearman" for Spearman's and "pearson" for Pearson's
print.result	TRUE or FALSE. Should it print the table in the console.
plot.result	TRUE or FALSE. Should it plot the result in the plotting tab.

Value

table	The table in the format of a dataframe
plot	The plot in the format of a ggplot plot

Author(s)

Bertolt and Dominique Makowski

Examples

```
require(neuropsychology)

df <- personality

result <- cortable(df)

# Extract the table and the plot
table <- result$table
plot <- result$plot

# Save table
write.csv(table, "correlation_table.csv")

# Save plot
ggplot2::ggsave("mycorrplot.png", plot)
```

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describe_beta *Describe a variable*

Description

Describe a variable

Author(s)

Dominique Makowski

Examples

```
require(neuropsychology)
```

get_factors *Select numeric variables*

Description

Subset a dataframe by keeping the factors

Usage

```
get_factors(x)
```

Arguments

x	Data frame

Author(s)

Dominique Makowski

Examples

```
require(neuropsychology)

df <- personality

df_only_factors <- get_factors(df)
```

get_numeric *Select numeric variables*

Description

Subset a dataframe by keeping the numeric variables

Usage

```
get_numeric(x)
```

Arguments

x	Data frame

Author(s)

Dominique Makowski

Examples

```
require(neuropsychology)

df <- personality

df_only_factors <- get_factors(df)
```

personality *A dataframe with personality data*

Description

A dataset containing normal and pathological personality traits data from an online questionnaire.

If you use this dataset for a publication, please refer to it as: "personality-1.0".

Demographic variables:

– Study_Level

The level of education. Should be treated as a factor. 0: Absence of Degree, 1: Secondary Eduction Degree, 2: Youth Training, 3: High-school Degree, 4: Higher National Diploma (2 years of higher education), 5: Bachelor Degree (3 years of higher education), 6: Master Degree (5 years of higher education), 7: Doctorate Degree (8 years of higher education)

Format

1327 observations (rows)

Author(s)

Dominique Makowski

Examples

```
library(neuropsychology)

df <- personality
```

theme_neuropsychology *A minimal theme for ggplot2*

Description

A minimal theme for ggplot2. For an even better result, don't forget to change the colour palette and to add a space between the axis title and the axix (see the example below).

Usage

```
theme_neuropsychology(legend.position="right",
                      legend.text.size=20,
                      axis.title.size=20,
                      axis.text.size=15)
```

Arguments

`legend.position`	one of the following: "right", "left", "top" or "bottom"
`legend.text.size`	size of legend text (usually the numbers)
`axis.title.size`	size of legend title
`axis.text.size`	size of axis titles

Author(s)

Dominique Makowski

Examples

```
require(ggplot2)
require(neuropsychology)

df <- personality

ggplot(df, aes(x=Age, y=Negative_Affect, colour=Sex, fill=Sex)) +
  geom_point() +
  geom_smooth(method="lm", fullrange=TRUE) +

  theme_neuropsychology() +

  xlab("\nAge") +
  ylab("Negative Affect\n") +
  scale_fill_brewer(palette="Set1",direction=-1) +
  scale_colour_brewer(palette="Set1",direction=-1)
```

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