

# Package: plotrr (via r-universe)

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**Type** Package

**Title** Making Visual Exploratory Data Analysis with Nested Data Easier

**Version** 1.0.2

**Description** Provides tools for visual exploratory data analysis with nested data. Includes functions for creating bivariate plots, dot plots, histograms, and violin plots for each group or unit in nested data. Methods are described in Crabtree and Nelson (2017) "Plotrr: Functions for making visual exploratory data analysis with nested data easier" <[doi:10.21105/joss.00190](https://doi.org/10.21105/joss.00190)>.

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**Encoding** UTF-8

**Imports** ggplot2

**RoxygenNote** 7.3.3

**Suggests** knitr, rmarkdown

**VignetteBuilder** knitr

**URL** <https://github.com/lobsterbush/plotrr>

**BugReports** <https://github.com/lobsterbush/plotrr/issues>

**NeedsCompilation** no

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**Repository** <https://cran.r-universe.dev>

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bivarplots	<i>Plots the bivariate relationship between two measures for each group/unit</i>
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### Description

Returns a plot of the bivariate relationship between two measures for each group/unit.

### Usage

```
bivarplots(x, y, group, data)
```

### Arguments

x	A vector.
y	A vector.
group	A vector.
data	A data frame.

### Value

A series of figures that plot the bivariate relationship between two measures for each group/unit.

### Author(s)

Charles Crabtree <charles.crabtree@monash.edu>

### Examples

```
a <- runif(1000, min = 0, max = 1)
b <- a + rnorm(1000, mean = 0, sd = 1)
c <- rep(c(1:10), times = 100)
data <- data.frame(a, b, c)
bivarplots("a", "b", "c", data)
```

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bivarrugplot	<i>Plots the bivariate relationship between two measures and a rugplot for each measure</i>
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**Description**

Returns a plot of the bivariate relationship between two measures with a rugplot for each measure.

**Usage**

```
bivarrugplot(x, y, data)
```

**Arguments**

x	A vector.
y	A vector.
data	A data frame.

**Value**

A plot of the bivariate relationship between two measures with a rugplot for each measure.

**Author(s)**

Charles Crabtree <charles.crabtree@monash.edu>

**Examples**

```
a <- runif(1000, min = 0, max = 1)
b <- a + rnorm(1000, mean = 0, sd = 1)
data <- data.frame(a, b)
bivarrugplot("a", "b", data)
```

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clear	<i>(Effectively) clears R terminal</i>
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**Description**

Effectively clears the R terminal by filling it with whitespace.

**Usage**

```
clear(...)
```

**Arguments**

...	An unused argument.
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**Value**

No return value (called for side effect of printing a form feed character to the console, which visually clears the R terminal). Returns NULL invisibly.

**Author(s)**

Charles Crabtree <charles.crabtree@monash.edu>

**Examples**

```
clear()
```

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dotplots

*Creates histograms for a measure for each group/unit*

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**Description**

Returns histograms for a measure for each group/unit.

**Usage**

```
dotplots(x, y, group, data, n)
```

**Arguments**

x	A vector.
y	A vector.
group	A vector that contains unit/group identifiers.
data	A data frame.
n	The number of bins. Some experimentation with this number might be necessary.

**Value**

Histograms for a measure for each group/unit.

**Author(s)**

Charles Crabtree <charles.crabtree@monash.edu>

**Examples**

```
a <- runif(1000, min = 0, max = 1)
b <- a + rnorm(1000, mean = 0, sd = 1)
c <- rep(c(1:10), times = 100)
data <- data.frame(a, b, c)
dotplots("a", "b", "c", data, 20)
```

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histplots	<i>Creates histograms for a measure for each group/unit</i>
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**Description**

Returns histograms for a measure for each group/unit.

**Usage**

```
histplots(x, y, group, data, n)
```

**Arguments**

x	A vector.
y	A vector.
group	A vector that contains unit/group identifiers.
data	A data frame.
n	The number of bins.

**Value**

Histograms for a measure for each group/unit.

**Author(s)**

Charles Crabtree <charles.crabtree@monash.edu>

**Examples**

```
a <- runif(1000, min = 0, max = 1)
b <- a + rnorm(1000, mean = 0, sd = 1)
c <- rep(c(1:10), times = 100)
data <- data.frame(a, b, c)
histplots("a", "b", "c", data, 5)
```

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lengthunique	<i>Calculates the number of unique values in a vector</i>
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**Description**

Calculates the number of unique values in a vector.

**Usage**

```
lengthunique(x)
```

**Arguments**

x                    A vector.

**Value**

The number of unique values in a vector.

**Author(s)**

Charles Crabtree <charles.crabtree@monash.edu>

**Examples**

```
x <- rep(c(1:10), 10)
lengthunique(x)
```

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makefacnum

*Converts factor vectors to numeric vectors*

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**Description**

Converts factor vectors to numeric vectors.

**Usage**

```
makefacnum(x)
```

**Arguments**

x                    A vector.

**Value**

A numeric vector.

**Author(s)**

Charles Crabtree <charles.crabtree@monash.edu>

**Examples**

```
x <- c("1", "2", "3")
x <- as.factor(x)
x
x <- makefacnum(x)
x
is.numeric(x)
```

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violinplots	<i>Creates violin plots for the relationship between two measures for each group/unit</i>
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**Description**

Returns violin plots for the relationship between two measures for each group/unit.

**Usage**

```
violinplots(x, y, group, data)
```

**Arguments**

x	A vector.
y	A vector.
group	A vector that contains unit/group identifiers.
data	A data frame.

**Value**

Violin plots for the relationship between two measures for each group/unit.

**Author(s)**

Charles Crabtree <charles.crabtree@monash.edu>

**Examples**

```
a <- runif(1000, min = 0, max = 1)
b <- a + rnorm(1000, mean = 0, sd = 1)
c <- rep(c(1:10), times = 100)
data <- data.frame(a, b, c)
violinplots("a", "b", "c", data)
```

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