

# Package ‘splithalf’

June 18, 2019

**Type** Package

**Title** Calculate Task Split Half Reliability Estimates

**Version** 0.5.2

**Maintainer** Sam Parsons <sam.parsons@psy.ox.ac.uk>

**Description** Estimate the internal consistency of your tasks with a permutation based split-half reliability approach.  
Unofficial release name: ``Fight Milk - re-brand".

**Depends** R (>= 3.3)

**Imports** tidy, dplyr, stats, Rcpp, robustbase

**LinkingTo** Rcpp

**Suggests** knitr, rmarkdown, tools, ggplot2

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 6.1.1

**URL** <http://github.com/sdparsons/splithalf>

**BugReports** <http://github.com/sdparsons/splithalf>

**NeedsCompilation** yes

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**Repository** CRAN

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## R topics documented:

splithalf . . . . .	2
<b>Index</b>	<b>4</b>

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splithalf	<i>Internal consistency of task measures via a permutation split-half reliability approach</i>
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### Description

This function calculates split half reliability estimates via a permutation approach for a wide range of tasks. The (unofficial) version name is "This function gives me the power to fight like a crow".

### Usage

```
splithalf(data, outcome = "RT", score = "difference",
          conditionlist = FALSE, halftype = "random", permutations = 5000,
          var.RT = "latency", var.condition = FALSE,
          var.participant = "subject", var.trialnum = "trialnum",
          var.compare = "congruency", compare1 = "Congruent",
          compare2 = "Incongruent", average = "mean")
```

### Arguments

data	specifies the raw dataset to be processed
outcome	indicates the type of data to be processed, e.g. response time or accuracy rates
score	indicates how the outcome score is calculated, e.g. most commonly the difference score between two trial types
conditionlist	sets conditions/blocks to be processed
halftype	specifies the split method; "oddeven", "halfs", or "random"
permutations	specifies the number of random splits to run - 5000 is good
var.RT	specifies the RT variable name in data
var.condition	specifies the condition variable name in data - if not specified then splithalf will treat all trials as one condition
var.participant	specifies the subject variable name in data
var.trialnum	specifies the trial number variable
var.compare	specified the variable that is used to calculate difference scores (e.g. including congruent and incongruent trials)
compare1	specifies the first trial type to be compared (e.g. congruent trials)
compare2	specifies the first trial type to be compared (e.g. incongruent trials)
average	use mean or median to calculate average scores?

**Value**

Returns a data frame containing permutation based split-half reliability estimates

*splithalf* is the raw estimate of the bias index

*spearmanbrown* is the spearman-brown corrected estimate of the bias index

Warning: If there are missing data (e.g one condition data missing for one participant) output will include details of the missing data and return a dataframe containing the NA data. Warnings will be displayed in the console.

**Examples**

```
## see online documentation for examples
```

# Index

splithalf, 2