Package ‘splithalf’

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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 tidyr, 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
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NeedsCompilation yes
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**splithalf**

*Internal consistency of task measures via a permutation split-half reliability approach*

**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**

```r
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", "halves", 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?
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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
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