Package 'oottest'

May 9, 2026

Type Package

Title Out-of-Treatment Testing

Version 0.9.1

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Description Implements the out-of-treatment testing from Kuelpmann and Kuzmics (2020) <doi:10.2139/ssrn.3441675> based on the Vuong Test introduced in Vuong (1989) <doi:10.2307/1912557>.
Out-of treatment testing allows for a direct, pairwise likelihood comparison of theories, calibrated with pre-existing data.

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.2

Suggests knitr, rmarkdown, xtable, testthat (>= 3.0.0), covr

Config/testthat/edition 3

Depends R (>= 3.5.0)

URL https://github.com/PhilippKuelpmann/oottest

BugReports https://github.com/PhilippKuelpmann/oottest/issues

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

Date/Publication 2022-04-27 08:40:02 UTC

Contents

`data_three_action_games` *Data from the three-action games*

Description

This is the choice data from Kuelpmann and Kuzmics (2022) for the three-action games, i.e., Hawk-Middle-Dove and Rock-Paper-Scissor. For an explanation of the different treatments and the games, please refer to the paper.

Usage

```
data_three_action_games
```

Format

Need to reformat anyway ...

rows actions

columns treatments

cells number of subjects who chose each action on each treatment ...

Source

https://homepage.univie.ac.at/philipp.kuelpmann/hdg.html

data_two_action_games *Data from the two-action games*

Description

This is the choice data from Kuelpmann and Kuzmics (2022) for the two-action games, i.e., Hawk-Dove and Matching Pennies. For an explanation of the different treatments and the games, please refer to the paper.

Usage

```
data_two_action_games
```

Format

rows actions

columns treatments

cells number of subjects who chose each action on each treatment ...

Source

https://homepage.univie.ac.at/philipp.kuelpmann/hdg.html

predictions_three_action_games *Predictions for the three-action games*

Description

These are the prediction of every theory considered in Kuelpmann and Kuzmics (2022) for the three-action games. For a explanation of the different theories, treatments and the games, please refer to the paper.

Usage

```
predictions_three_action_games
```

Format

rows predicted probabilities of actions

columns treatments

tables different theories

cells probability of choosing an action on each treatment depending on the theory ...

Source

https://homepage.univie.ac.at/philipp.kuelpmann/hdg.html

predictions_two_action_games *Predictions for the two-action games*

Description

These are the prediction of every theory considered in Kuelpmann and Kuzmics (2022) for the two-action games. For a explanation of the different theories, treatments and the games, please refer to the paper.

Usage

```
predictions_two_action_games
```

Format

rows predicted probabilities of actions

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cells probability of choosing an action on each treatment depending on the theory ...

Source

https://homepage.univie.ac.at/philipp.kuelpmann/hdg.html

simple_test_data *Simple Test Data*

Description

This is just very simple test data, mostly used for testing and demonstration purposes.

Usage

```
simple_test_data
```

Format

A matrix with 3 rows and 2 columns

rows actions

columns treatments

cells number of subjects who chose each action on each treatment ...

vuong_matrix *Getting a vuong matrix*

Description

Getting a vuong matrix

Usage

```
vuong_matrix(data, theories)
```

Arguments

data	matrix rows: choices, columns: treatments
theories	list of matrices each in the same format as above

Value

Table of z-scores for all comparisons

Examples

```
vuong_matrix(data_two_action_games, predictions_two_action_games)
```

vuong_statistic *Implementation of the Vuong test for our setting*

Description

Implementation of the Vuong test for our setting

Usage

```
vuong_statistic(data, pred_i, pred_j)
```

Arguments

data	Data of the experiment (matrix of ints/data.frame): columns are treatments, rows are actions, values are number of subjects who chose each action on each treatment
pred_i	Model prediction for a theory (matrix of doubles/data.frame): rows are prediction of playing action 1,2,3..., columns are treatments
pred_j	Model prediction for a theory (matrix of doubles/data.frame): rows are prediction of playing action 1,2,3..., columns are treatments

Value

The z score of testing theory I against theory J, given the data

Examples

```
vuong_statistic(
  data_two_action_games,
  predictions_two_action_games[, , 1],
  predictions_two_action_games[, , 2]
)
```

Index