Package ‘pomcheckr’

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Title Graphical Check for Proportional Odds Assumption
Version 0.1.1
Description Implements the method described at the UCLA Statistical Consulting site <https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/> for checking if the proportional odds assumption holds for a cumulative logit model.
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Description

Usage
nhanes

Format
A data frame with 9756 rows and 16 variables:

- seqn  Respondent sequence number
- ridageyr  Age in years at screening
- riagendr  Gender
- dmdmartl  Marital status
- dmdeduc2  Education level - Adults 20+
- sdmvpsu  Masked variance pseudo-PSU
- sdmvstra  Masked variance pseudo-stratum
- wtint2yr  Full sample 2 year interview weight
- female  Gender
- hsq496  How many days feel anxious
- hsq571  SP donated blood in the past 12 months
- hsd010  General health condition
- pad630  Minutes moderate-intensity work
- pad675  Minutes moderate recreational activities
- paq665  Moderate recreational activities
- pad680  Minutes sedentary activity

Source
**ologit**

*Simulated data for ordinal logistic regression example.*

**Description**

A dataset used in the UCLA Statistical Consulting Ordinal Logistic Regression Example [https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/](https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/)

**Usage**

ologit

**Format**

A data frame with 400 rows and 4 variables:

- **apply**  Likelihood of applying to graduate school
- **pared**  Indicator for whether at least 1 parent has a graduate degree
- **public**  Indicator for whether undergraduate institution is public or private
- **gpa**    Student’s grade point average

**Source**

[https://stats.idre.ucla.edu/stat/data/ologit.dta](https://stats.idre.ucla.edu/stat/data/ologit.dta)

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**plot.pomcheck**

*Graphical check for proportional odds assumption*

**Description**

Generates the plots described in [https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/](https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/) for checking if the proportional odds assumption holds for a cumulative logit model.

**Usage**

```r
## S3 method for class 'pomcheck'
plot(x, legend.position = "none", ...)
```

**Arguments**

- `x`  a pomcheck object
- `legend.position`  the position of legends ("none", "left", "right", "bottom", "top", or two-element numeric vector)
- `...`  currently unused
Value

None

See Also

pomcheck

Examples

plot(pomcheck(Species ~ Sepal.Width, iris))

pomcheck

Graphical check for proportional odds assumption

Description

Implements the method described in https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/ for checking if the proportional odds assumption holds for a cumulative logit model.

Usage

pomcheck(object, ...)

## Default S3 method:
pomcheck(object, x, data, ...)

## S3 method for class 'formula'
pomcheck(formula, data, ...)

Arguments

object character string for response
...
currently unused
x vector of character string(s) for explanatory variable(s)
data data frame containing the variables
formula formula of the form y ~ x1 + x2 + ...

Value

an object of class 'pomcheck'

Methods (by class)

• default: default
• formula: supports formula specification
pomcheck

See Also

plot.pomcheck

Examples

pomcheck(Species ~ Sepal.Length, iris)
pomcheck(Species ~ Sepal.Length + Sepal.Width, iris)
pomcheck(object="Species", x="Sepal.Length", iris)
pomcheck(object="Species", x=c("Sepal.Length", "Sepal.Width"), iris)
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