

# Package ‘brant’

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**Type** Package

**Title** Test for Parallel Regression Assumption

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**Description** Tests the parallel regression assumption with the brant test by Brant (1990) <doi:10.2307/2532457> for ordinal logit models generated with the function polr() from the package 'MASS'.

**License** GPL (>= 2)

**Depends** R (>= 3.1.0)

**Imports** MASS, Matrix

**URL** <https://benjaminschlegel.ch/r/brant/>

**NeedsCompilation** no

**Repository** CRAN

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## Description

The function calculates the brant test by Brant (1990) <doi: 10.2307/2532457> for ordinal logit models to test the parallel regression assumption.

**Usage**

```
brant(model, by.var=F)
```

**Arguments**

model	the polr-Object generated with polr()
by.var	OPTIONAL if set to true, the tests are made for each variable instead of each coefficient. Default: FALSE.

**Details**

The function calculates the brant test for parallel regression assumption. The brant test was published by Brant (1990). The function works with models generated with the function polr() from the package 'MASS'.

**Value**

The output is the brant test, which shows if the parallel assumption holds or not.

**Author(s)**

Benjamin Schlegel, <kontakt@benjaminschlegel.ch>

**References**

Brant, R. (1990) Assessing proportionality in the proportional odds model for ordinal logistic regression. *Biometrics*, **46**, 1171–1178.

**Examples**

```
data = MASS::survey
data$Smoke = ordered(MASS::survey$Smoke, levels=c("Never", "Occas", "Regul", "Heavy"))
model1 = MASS::polr(Smoke ~ Sex + Height, data=data, Hess=TRUE)
summary(model1)
brant(model1)
```

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