

Package ‘cofad’

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Type Package

Title Contrast Analyses for Factorial Designs

Version 0.1.1

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Description Contrast analysis for factorial designs is an alternative to the classical ANOVA approach with the advantage of testing focused hypothesis. The method is mainly based on Rosenthal, Rosnow and Rubin (2000, ISBN:978-0521659802) and Sedlmeier and Renkewitz (2018, ISBN:978-3868943214).

Depends R (>= 3.1.0)

License GPL-2

Encoding UTF-8

LazyData true

RoxygenNote 7.0.2

Suggests testthat, knitr, rmarkdown

VignetteBuilder knitr

URL <https://gitlab.hrz.tu-chemnitz.de/burma--tu-chemnitz.de/cofad.git>

NeedsCompilation no

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calc_contrast	<i>Calculate contrast analysis for factorial designs</i>
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Description

Calculate contrast analysis for factorial designs

Usage

```
calc_contrast(
  dv,
  between = NULL,
  lambda_between = NULL,
  within = NULL,
  lambda_within = NULL,
  ID = NULL,
  data = NULL
)
```

Arguments

dv	dependent variable. Values must be numeric.
between	independent variable that divides the data into independent groups. Vector must be a factor.
lambda_between	contrast weights must be a named numeric. Names must match the levels of between. If lambda_between does not sum up to zero, this will be done automatically.
within	independent variable which divides the data into dependent groups. This must be a factor.
lambda_within	contrast must be a named numeric. Names must match the levels of between. If lambda_within does not sum up to zero, this will be done automatically.
ID	identifier for cases or subjects is needed for within- and mixed contrast analysis.
data	optional argument for the data.frame containing dv and groups.

Details

For multi-factorial designs, the lambda weights of the factors must be connected.

Value

Calculates the significance of the contrast analysis. given.

References

Rosenthal, R., Rosnow, R.L., & Rubin, D.B. (2000). *Contrasts and effect sizes in behavioral research: A correlational approach*. New York: Cambridge University Press.


```

        within = wi,
        lambda_within = lambda_within,
        ID = ID, data = tab53
    )
contr_mx
summary(contr_mx)

```

print.cofad_bw *Output of between-subject design contrast analysis*

Description

Output of between-subject design contrast analysis

Usage

```
## S3 method for class 'cofad_bw'
print(x, ...)
```

Arguments

x output of calc_contrast
 ... further arguments

Value

Displays the significance of the contrast analysis. The contrastweights, the corresponding group and an effectsize are given.

print.cofad_mx *Output of a mixed design contrast analysis*

Description

Output of a mixed design contrast analysis

Usage

```
## S3 method for class 'cofad_mx'
print(x, ...)
```

Arguments

x output of calc_contrast
 ... further arguments

Value

Displays the significance of the contrast analysis. The contrastweights, the corresponding group and an effectsizes are given.

print.cofad_wi	<i>Output of a within subject design contrast analysis</i>
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Description

Output of a within subject design contrast analysis

Usage

```
## S3 method for class 'cofad_wi'
print(x, ...)
```

Arguments

x	output of calc_contrast
...	further arguments

Value

Displays the significance of the contrast analysis. The contrastweights, the corresponding group and an effectsizes are given.

summary.cofad_bw	<i>Summary of between subject design contrast analysis</i>
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Description

Summary of between subject design contrast analysis

Usage

```
## S3 method for class 'cofad_bw'
summary(object, ...)
```

Arguments

object	output of calc_contrast
...	further arguments

Value

Displays ANOVA table of the contrastanalysis and the typical effectsizes.

summary.cofad_mx *Summary of a mixed design contrast analysis*

Description

Summary of a mixed design contrast analysis

Usage

```
## S3 method for class 'cofad_mx'  
summary(object, ...)
```

Arguments

object output of calc_contrast
... further arguments

Value

Displays ANOVA table of the contrastanalysis and the typical effectsizes.

summary.cofad_wi *Summary of within subject design contrast analysis*

Description

Summary of within subject design contrast analysis

Usage

```
## S3 method for class 'cofad_wi'  
summary(object, ci = 0.95, ...)
```

Arguments

object output of calc_contrast
ci confidence intervall for composite Score (L-Values)
... further arguments

Value

Displays ANOVA table of the contrastanalysis and the typical effectsizes.

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