

# Package ‘coefixr’

January 14, 2025

**Title** Adjusted Estimates For Interactions In Models

**Version** 0.0.7

**Description** This package adjusts the coefficients and confidence intervals associated with interaction terms in models, including interactions that involve the reference levels of Factors.

**License** MIT + file LICENSE

**Encoding** UTF-8

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.3.2

**Depends** R (>= 3.6.0)

**Imports** stats (>= 3.6.0),  
car (>= 3.1-2)

**Suggests** coxme (>= 2.2)

**LazyData** true

## Contents

adjust_interaction_model . . . . .	1
cancer_modified . . . . .	3
<b>Index</b>	<b>4</b>

---

adjust_interaction_model	<i>Calculate adjusted coefficients and CIs for models with interactions</i>
--------------------------	---

---

## Description

Adjusts the coefficients and CIs of any interaction terms in the model.

## Usage

```
adjust_interaction_model(
  modelobj,
  data,
  exponentiate = FALSE,
  add.global.p = FALSE,
  intercept = TRUE,
  digits.n = Inf,
  digits.p = Inf,
  global_args = NULL
)
```

## Arguments

<code>modelobj</code>	(Object) A model object.
<code>data</code>	(Dataframe) The data used to fit the model.
<code>exponentiate</code>	(Logical) If TRUE, exponentiates the coefficient and confidence interval.
<code>add.global.p</code>	(Logical) If TRUE, calculates a global p-value for each covariate.
<code>intercept</code>	(Logical) If TRUE (default), keep the (Intercept) term in the output table.
<code>digits.n</code>	(Numeric) Number of digits to round coefficients and confidence intervals to.
<code>digits.p</code>	(Numeric) Number of digits to round p-values to. Also handles very small (" $<0.001$ ") and large (" $>0.999$ ") p-values.
<code>global_args</code>	(Named list) Arguments to pass to <code>car::Anova()</code> , overriding its defaults. Ignored if <code>add.global.p = FALSE</code> .

## Value

A data frame with these columns:

**covar** The covariate.

**is.top** TRUE marks top-level covariates (i.e. names used in the model formula).

**is.intx** TRUE marks all interactions.

**ref** TRUE marks the reference levels of covariates.

**ref.intx** TRUE marks interactions that involve the reference level of a covariate.

**global.p** The global p-value of the covariate. Column is omitted if `add.global.p = FALSE`.

**p.value** The p-value of the covariate.

**ci.95lwr** or **exp\_ci.95lwr** Lower 95% confidence interval of the coefficient. If `exponentiate = TRUE`, the column's name is changed and the contents are exponentiated.

**coef** or **exp\_coef** The coefficient. If `exponentiate = TRUE`, the column's name is changed and the contents are exponentiated.

**ci.95upr** or **exp\_ci.95upr** Upper 95% confidence interval of the coefficient. If `exponentiate = TRUE`, the column's name is changed and the contents are exponentiated.

## Examples

```
# cancer_modified is a dataset provided with the `coefixr` package.
my_model <- lm(status ~ inst + age + sex * ph.ecog + sex * wt.loss, data = cancer_modified)

# Unexponentiated coefficients.
adjust_interaction_model(my_model, cancer_modified)

# To get unrounded numbers, set digits.n and digits.p to Inf.
adjust_interaction_model(my_model, cancer_modified, digits.n = Inf, digits.p = Inf)

# Note that column names change when `exponentiate = TRUE`.
adjust_interaction_model(my_model, cancer_modified, exponentiate = TRUE)

# Global p-values are provided by `car::Anova()`, just like `gtsummary::add_global_p()`.
adjust_interaction_model(my_model, cancer_modified, add.global.p = TRUE)
```

---

cancer_modified	<i>NCCTG Lung Cancer Data (modified)</i>
-----------------	--

---

## Description

This dataset originally comes from the survival package.

## Usage

```
cancer_modified
```

## Format

A data frame with 228 rows and 10 variables:

- inst: Institution code
- time: Survival time in days
- status: censoring status 1=censored, 2=dead
- age: Age in years
- sex: Male=1 Female=2
- ph.ecog: ECOG performance score as rated by the physician. 0=asymptomatic, 1= symptomatic but completely ambulatory, 2= in bed <50% of the day, 3= in bed > 50% of the day but not bedbound, 4 = bedbound
- ph.karno: Karnofsky performance score (bad=0-good=100) rated by physician
- pat.karno: Karnofsky performance score as rated by patient
- meal.cal: Calories consumed at meals
- wt.loss: Weight loss in last six months (pounds)

## Source

Terry Therneau

**References**

Loprinzi CL, Laurie JA, Wieand HS, Krook JE, Novotny PJ, Kugler JW, Bartel J, Law M, Bateman M, Klatt NE, et al. Prospective evaluation of prognostic variables from patient-completed questionnaires. North Central Cancer Treatment Group. *Journal of Clinical Oncology*. 12(3):601-7, 1994.

# Index

## \* **datasets**

cancer\_modified, [3](#)

adjust\_interaction\_model, [1](#)

cancer\_modified, [3](#)

car::Anova(), [2](#)