Tutorial 07, Hilary Term

Research Methods for Political Science (PO3600)

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Outline

1. Questions?
2. Regression Diagnostics
3. Discussion of Homework # 3

Regression Diagnostics

Multicollinearity: If (at least) two independent variables share a linear (or almost linear) relationship, we will very likely observe multicollinearity among them.

Autocorrelation: Usually refers to values taken from different points in time (temporal autocorrelation) or from places close to each other (spatial autocorrelation). Although we might have two different measurements, the data might not be independent of each other.

Recap: Homework #3

Question 2 Run a linear regression with `fttrump` as the DV and four IVs (e.g. `compromise`, `ftsci`, `equalpay`, `gender`).

General question: How do we proceed before running the regression?

Recap: Homework #3

Question 2 Run a linear regression with `fttrump` as the DV and four IVs (e.g. `compromise`, `ftsci`, `equalpay`, `gender`).

General question: How do we proceed before running the regression?

1. Check codebook
2. Create descriptive statistics
3. Recode missing values (into new variables)

Recap: Homework #3

Question 2 Run and interpret the regression model (especially the unstandardised beta coefficients)

Create an interaction term (e.g. between `gender` and `equalpay`)

Useful Resources

- Code to replicate analysis in SPSS: https://github.com/stefan-mueller/research-methods/blob/master/code/ht06/code_ht_07.sps
- A. F. Zuur et al. (2010). "A Protocol for Data Exploration to Avoid Common Statistical Problems". In: *Methods in Ecology and Evolution* 1.1, pp. 3–14