Tutorial 04, Michaelmas Term

Research Methods for Political Science (PO3600)

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http://muellerstefan.net/research-methods

Hypothesis Testing

- Dependent variable: the characteristic you wish to explain (outcome variable)
- Independent variable: the explanation or one of the explanations (explanatory variable)

Covariation vs Causality

- Covariation: two or more variables tend to change together (direction is unknown)
- Causality: change in one or more variables leads to or 'forces' changes in one or more other concepts or variables.

Hypotheses

- What is an hypothesis?

Hypotheses

- What is an hypothesis?
- Testable statements derived from a theory
- Assuming (direction of) relationship between two variables

Validity and reliability

Validity

- Measures and/or cases correspond to the concepts they are intended to reflect?
- Are we really measuring the concept?
- Internal and/vs external validity

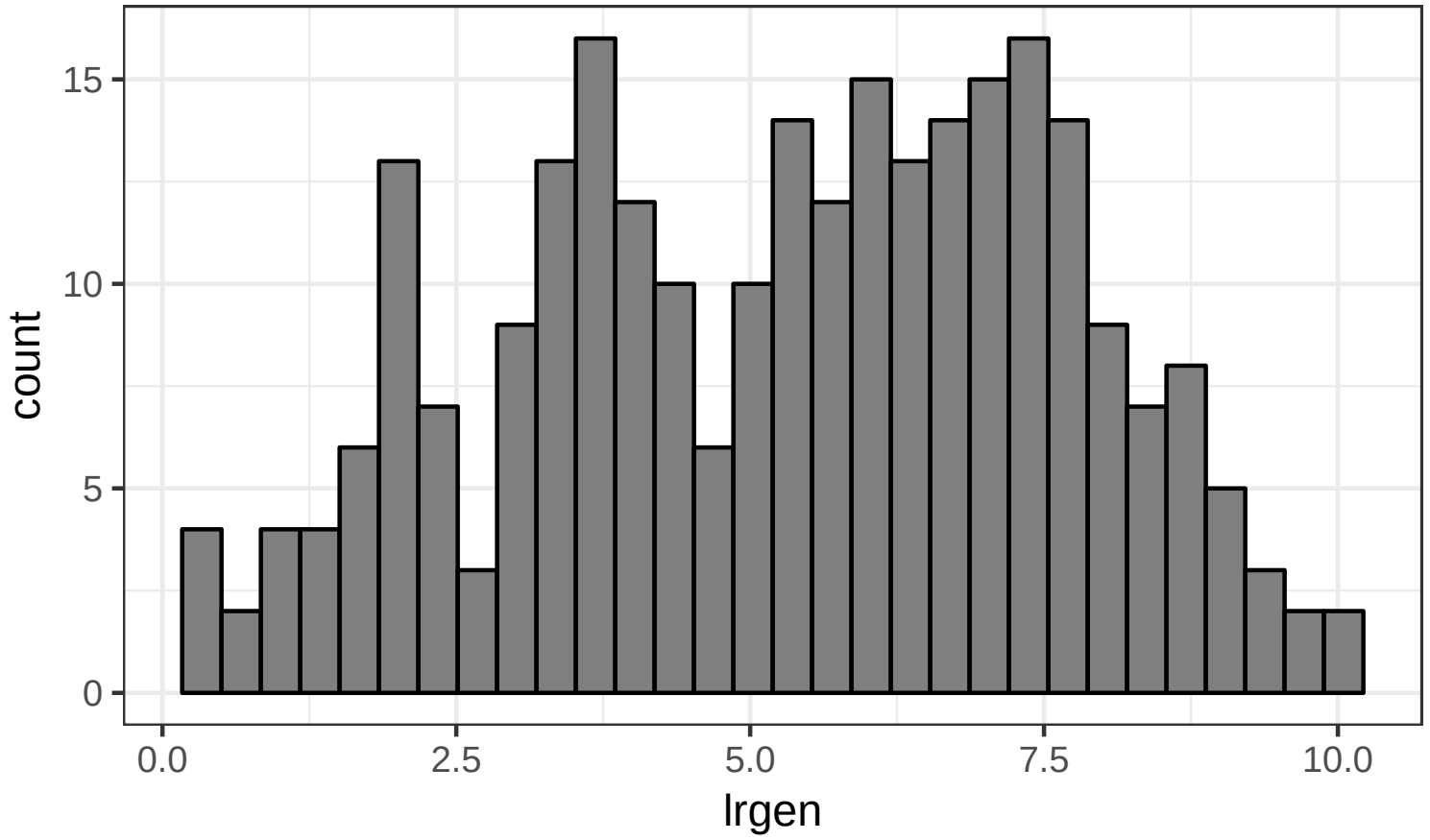
Reliability

- Consistency with which a measuring instrument allows assignment of values to cases
- Inter-rater reliability; test-retest reliability; parallel forms reliability

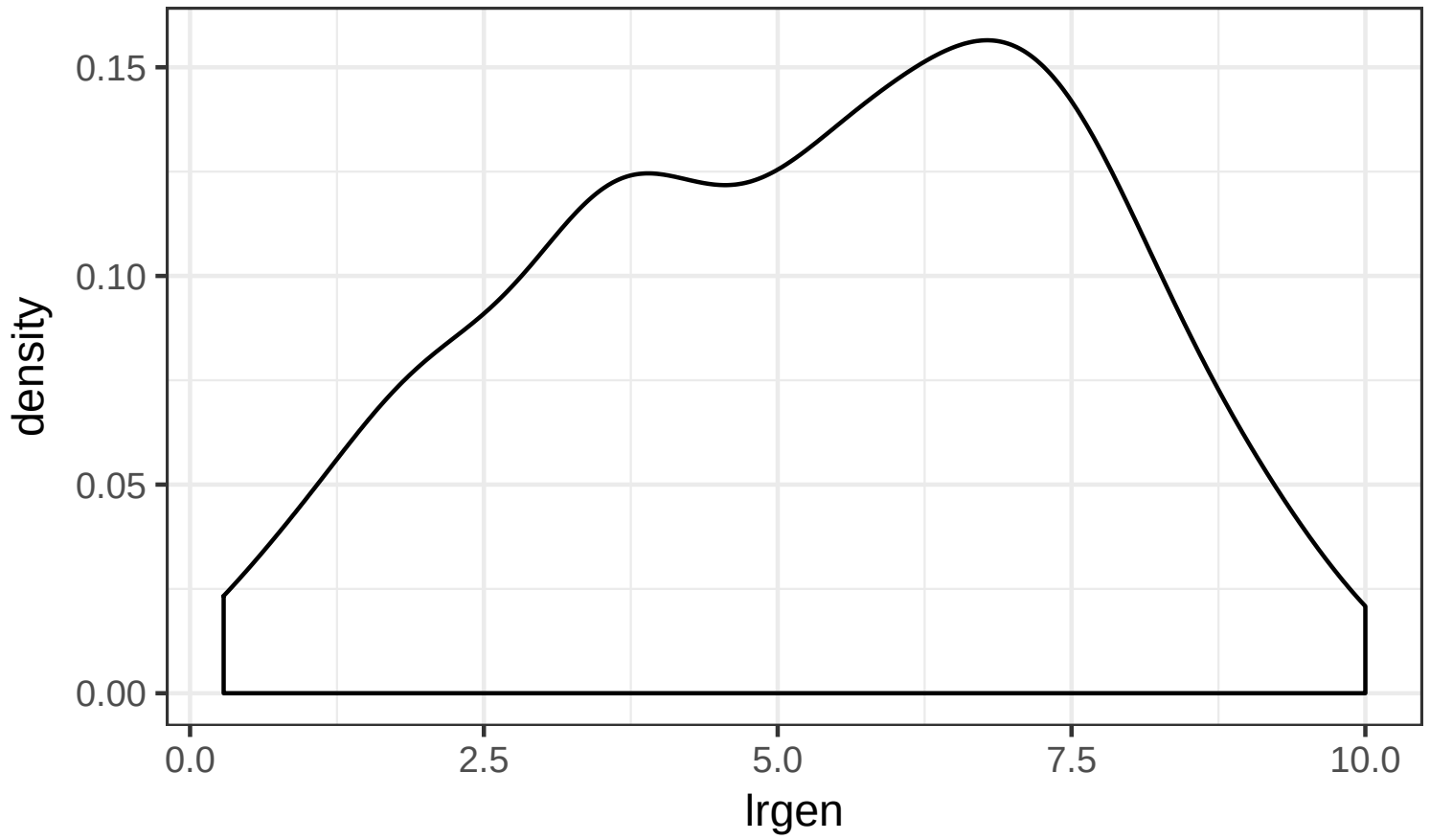
Instructions

- Download and load the following dataset: http://tinyurl.com/chesdata2014
- Download the codebook: http://tinyurl.com/chescodebook
- What does the variables `eu_position` and `lrgen` mean?
- Visualise the distribution of `lrgen`!
- Is there a relationship between `lrgen` and `eu_position`? Create a plot!
- Visualise the relationship between `lrgen` and `eu_position` or Irish parties and add a label for the party (`party_name`)

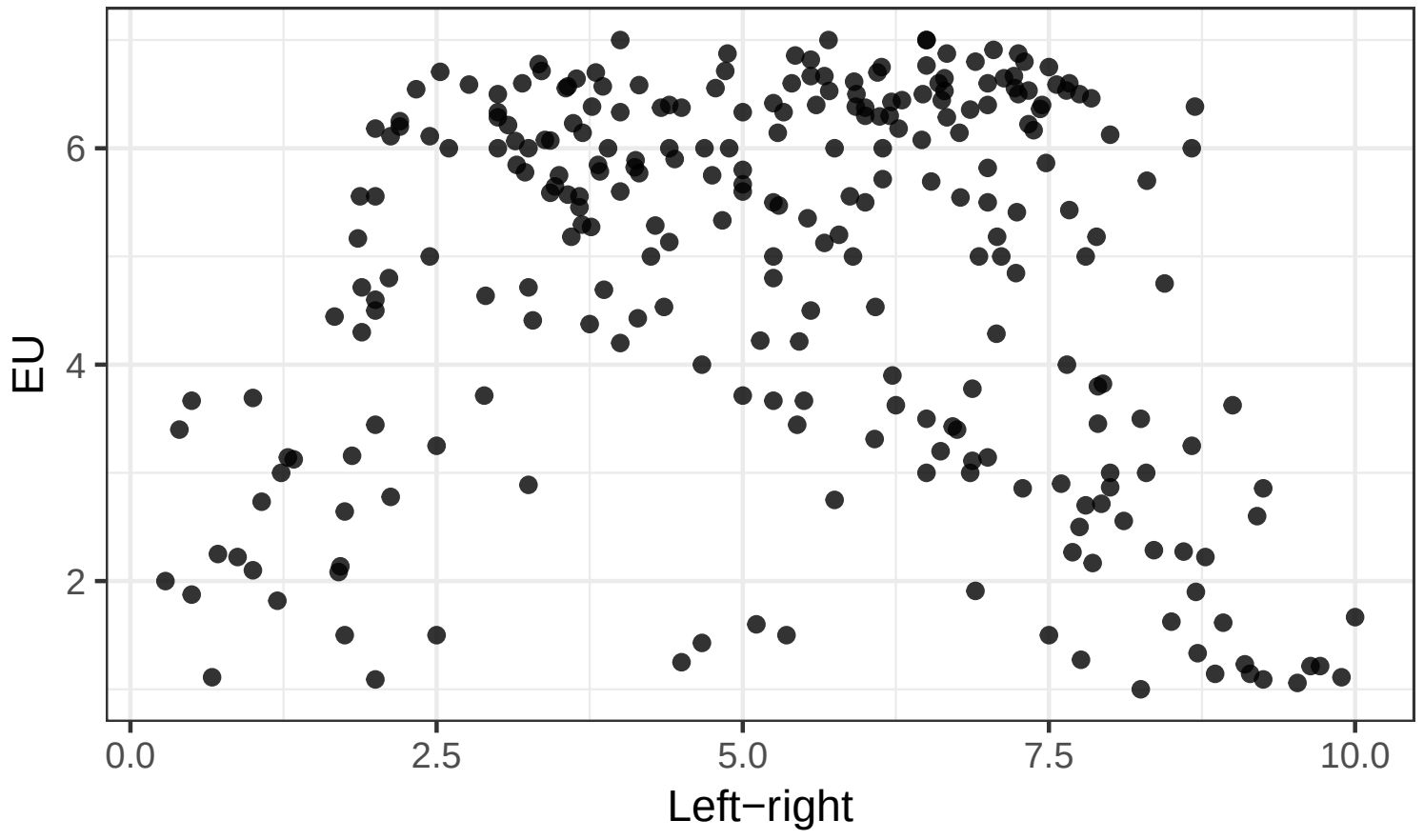
Plots



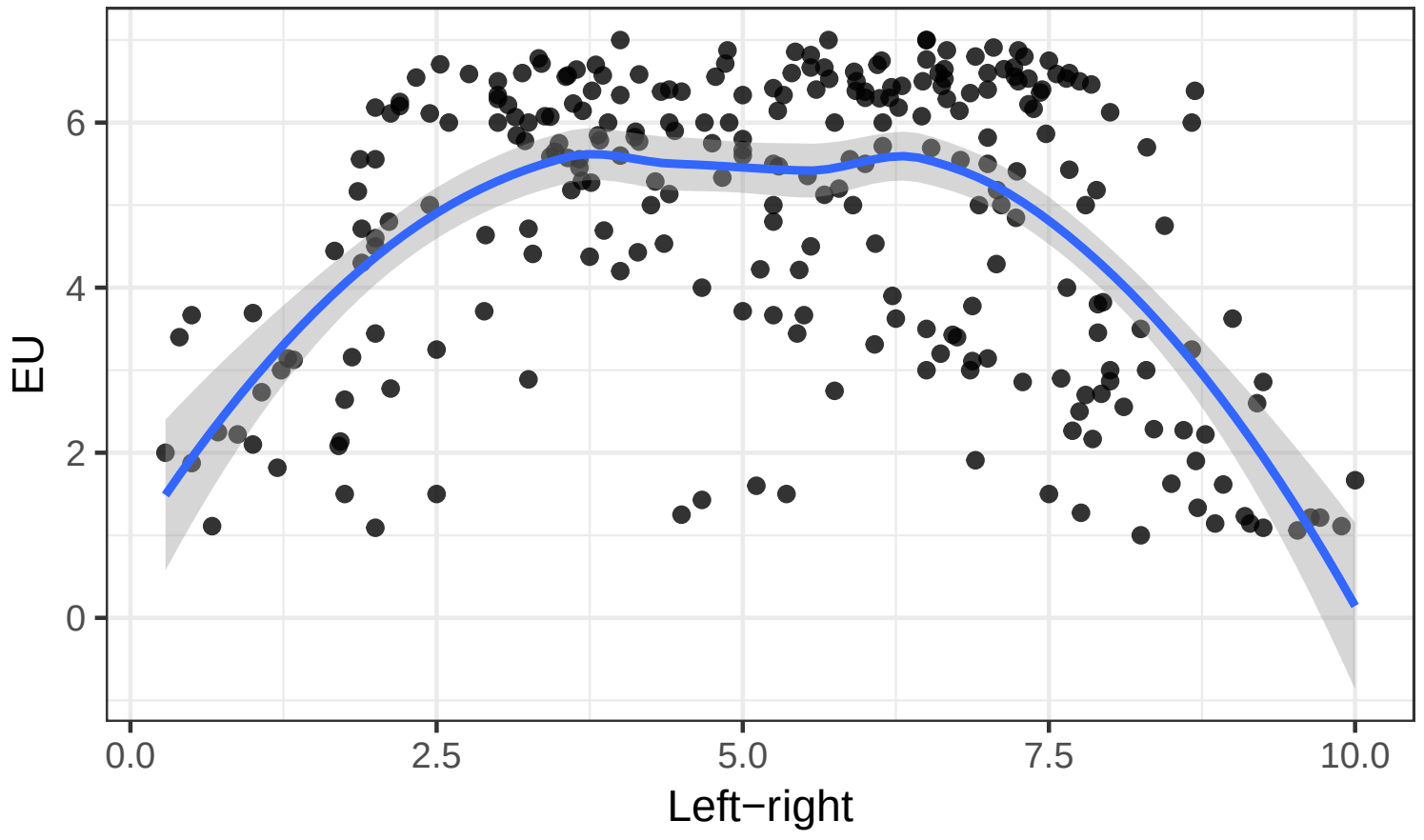
Plots



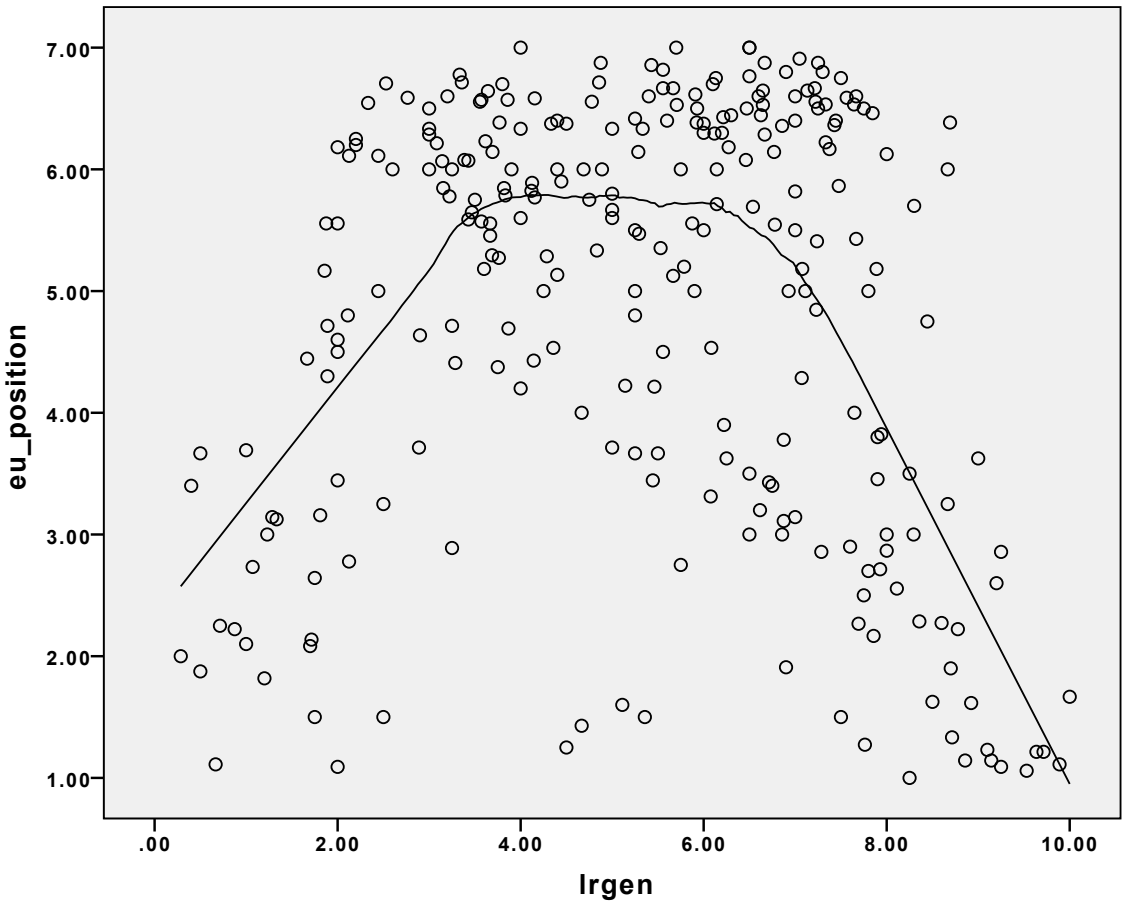
Plots



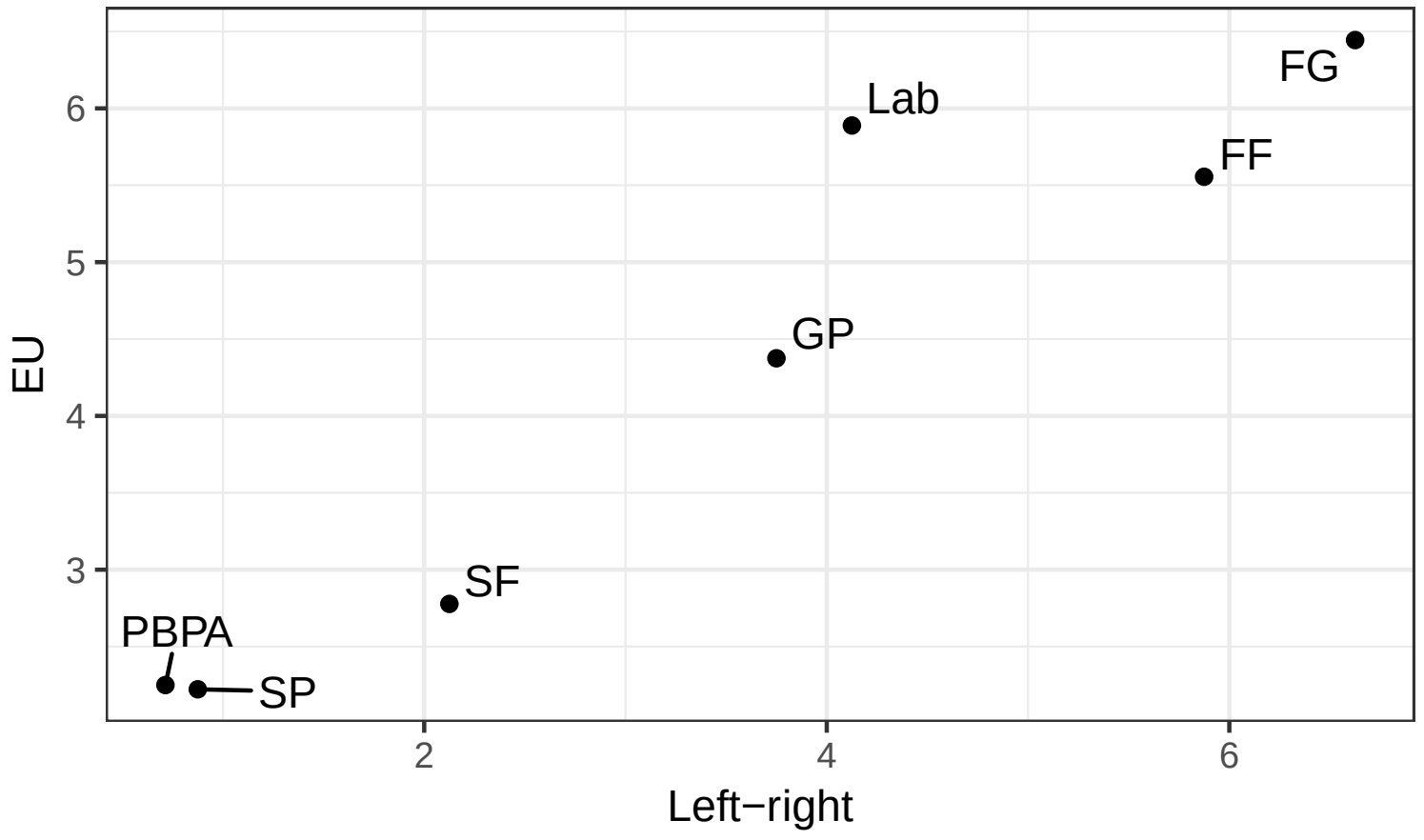
Plots



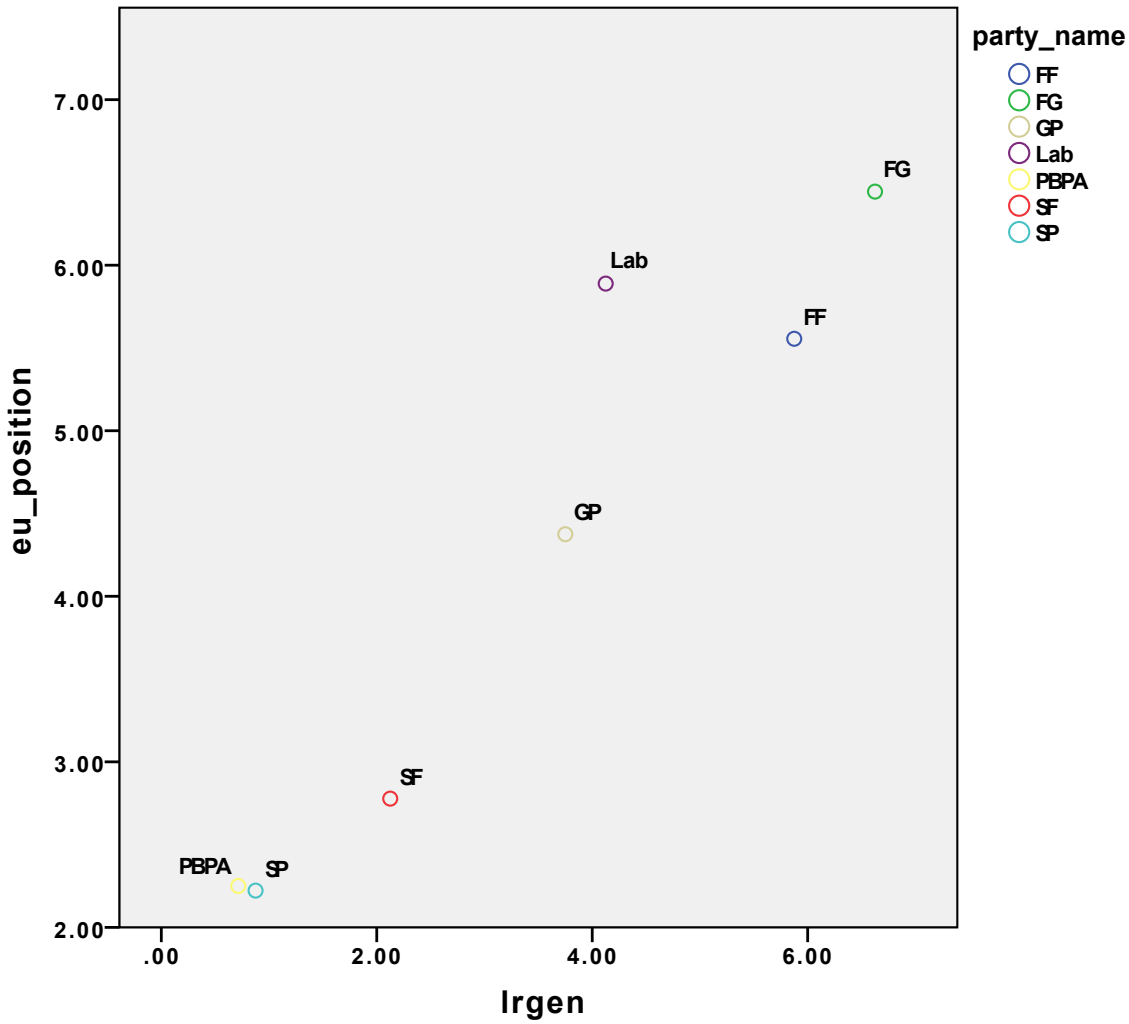
Plots


7.00
6.00
5.00
4.00
3.00
2.00
1.00
eu_position
.00
2.00
4.00
6.00
8.00
10.00
lrgen

Plots



Plots


party_name
FF
FG
GP
Lab
PBPA
SF
SP
eu_position
7.00
6.00
5.00
4.00
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2.00
.00
2.00
4.00
6.00
lrgen
FG
Lab
FF
GP
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PBPA
SP