

# Mind the (Gender) Gap: Analysing Statistical Relationships between Gender and Political Ideology

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## **Acknowledgements**

We would like to thank Ruth Dassonneville for...

## **Abstract**

(100 - 250 words)

# 1 Introduction

(300 - 500 words)

## Motivation and Relevance

- Recently, there has been much media attention on a supposed relationship between gender & ideology
- However, past research/journalistic investigations yields partially contradictory results
- Thus, we aim to replicate one original article discussing a relationship between gender and ideology (Dassonneville 2021)
- Besides the attempted replication, our contribution is that we add an analysis of the influence of regime-type on the relationship between gender and ideology

# 2 Literature Review

literature discussion with theoretical expectations (hypotheses) (500 - 800 words)

Original article that we aim to replicate: (Dassonneville 2021)

Discuss & Justify why we are using the ‘gender’ variable, what it represents (not biological sex matters, but the social roles/context/...)

**Our potential theory/hypothesis:** Cultural/Structural explanation: increased salience of women’s issues in women’s consciousness post-feminist mobilization which are traditionally represented by left-leaning positions/parties.

**Potential confounder?:** age/generational component to the gender gap: older women tend to be more conservative/right aligned than both older men and younger women. (but this is possibly confined to pre 1990 data – cohort replacement means that even older women are more left-aligned than they used to be)

# 3 Research Design & Data

description of the empirical approach to test the proposed hypotheses, data description, incl. descriptive statistics and plots (700 - 1000 words)

## 3.1 Data

To test the effect of gender on ideology, this paper uses the replication **data** for Dassonneville (2021)’s article (Dassonneville 2020). This dataset was constructed by combining the data from the Eurobarometer surveys, the Latinobarometro, the European Social Survey, the World Values Study, the Comparative Study of Electoral Systems and national election studies. Our sample consists of 36 OECD countries rated at least partially free by Freedom House and our temporal scope extends from 2004 (first data on Latvia) to 2018. The data is organised in a country-year format, which allows us to conduct a cross-sectional, longitudinal, and comparative analysis of the impact of gender on ideology over time and across countries.

## 3.2 Variables

### Outcome Variable

As the outcome variable, this research uses the `ideology_st` variable included in the data set. All surveys included in this data set include a question on respondents' ideological self-placement on a left-right scale. However, the surveys partially measure ideology in different ways, with differing numbers of answer categories and differences in the provision of a middle option. Thus, Dassonneville (2021) harmonised all scales to a 1-10 scale with 1 representing the most left and 10 representing the most right (Dassonneville 2021). As ideology is the variable of interest, we remove all observations with missing ideology values from the data set.

### Predictor Variables

**Female** is the main predictor variable, representing XXX. It is measured on a binary scale, with 0 representing male, and 1 representing female. As gender is the main predictor variable of interests, we remove all observations with missing gender values from the data set.

We use the variable **Year** to examine whether there is a time-trend in the effect of gender on ideology. As we are interested in the years 2004 until 2018, we remove all prior data from the data set.

As the effect of gender on ideology may change with age, the variable **Age** represents respondents' age at the time of the survey and ranges from 16 to 100. It is measured by subtracting respondents' year of birth from the year in which the survey was taken. Depending on the exact date of a birthday or the survey implementation in a given year, the measured age may be one year above or below respondents' actual age. However, as this is only a marginal deviation, we do not assume this to introduce a substantive bias.

**Country** refers to the country in which the survey was implemented. The data set includes observations from 36 countries. As we are interested in analysing OECD countries, we include data on the United Kingdom but exclude data on Great Britain and Northern Ireland from our analysis. Moreover, while some surveys on Germany measured attitudes in East and West Germany separately, we do not have sufficient temporal coverage to maintain this distinction in our analysis and, hence, analyse Germany as a unitary case. On average, there are  $4.0046194 \times 10^4$  observations per country and 2669.7462963 observations per country-year. Table X lists the countries included in the data set, as well as the years for which data is available for each country.

|                 | Years  |
|-----------------|--|
| Australia       | 2004 2007 2010 2013 2016   |
| Austria         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Belgium         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Czech Republic  | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Denmark         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Estonia         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Finland         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| France          | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Germany         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| United Kingdom  | 2004 2011 2012 2013 2014 2015 2016 2017                                    |
| Greece          | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Hungary         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 |
| Iceland         | 2005 2007 2009 2010 2011 2013 2014   |
| Ireland         | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Italy           | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 |
| Latvia          | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Lithuania       | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Luxembourg      | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| The Netherlands | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Norway          | 2004 2005 2006 2008 2009 2010 2012 2013 2014 2016                          |
| Poland          | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Portugal        | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Slovakia        | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Slovenia        | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Spain           | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Sweden          | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017      |
| Switzerland     | 2004 2005 2006 2007 2008 2010 2011 2012 2014 2016                          |
| Turkey          | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2014 2015 2016 2017           |
| Israel          | 2006 2008 2010 2012 2013 2014 2015 2016                                    |
| Chile           | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2015 2017                |
| Mexico          | 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2015                     |
| New Zealand     | 2004 2005 2008 2011 2014   |
| Japan           | 2005 2007 2010 2013  |
| United States   | 2004 2006 2008 2011 2012 2016  |
| South Korea     | 2004 2008 2010 2012 2016   |
| Canada          | 2004 2008 2011 2015  |

The cultural and political setting matters for our hypothesised relationship between gender and ideology. As this setting may differ across regime types, we introduce a new **regime** variable. We code this variable using V-dem’s Regimes-of-the-World index (Coppedge et al. 2023). This index codes countries as liberal democracies (4), electoral democracies (3), electoral autocracies (2), or closed autocracies (1). The regime variable in our data is created by manually coding each country-year as one of these regime types. Our data only includes regime levels 2 to 4 (there are no closed autocracies).

### Control Variables

As gender is randomly biologically assigned, there are very few potential confounding variables that may influence both gender and ideological self-identification. One of the few potential confounders is the country-specific cultural and ideological context. In certain countries, it may be common practice to abort based on fetuses sex. Parents not following this practice may both be more likely to give birth to e.g., female children and, at the same time, have e.g., more left attitudes which they transfer to their children. However, the authors are not aware of such practices in any of the countries included in the sample of 36 OECD countries. Hence, we do not include further control variables.

Table 2: Variables - Descriptive Statistics

|          | Minimum | Maximum | Mean    | Median | SD    | NA's |
|----------|---------|---------|---------|--------|-------|------|
| Ideology | 1       | 10      | 5.43    | 5      | 2.15  | 0    |
| Female   | 0       | 1       | 0.53    | 1      | 0.50  | 0    |
| Year     | 2004    | 2018    | 2010.22 | 2010   | 3.99  | 0    |
| Age      | 16      | 100     | 48.96   | 49     | 17.83 | 0    |
| Regime   | 1       | 3       | 2.92    | 3      | NA    | 0    |

| Name        | Description  |
|-------------|--|
| ideology_st | Respondent's ideological self-placement standardised on a scale from from 1 (left) to 10 (right)                       |
| female      | Binary variable: 0 (male) or 1 (female)  |
| year        | Year in which the survey was implemented, from 2004 to 2018  |
| age         | Respondent's age at the time of the survey   |
| country     | Name of the OECD country of the respondent   |
| regime      | Regime type of the country of the respondent: 3 = liberal democracy, 2 = electoral democracy, 1 = electoral autocracy) |

**Figure X. Distribution of Ideology**

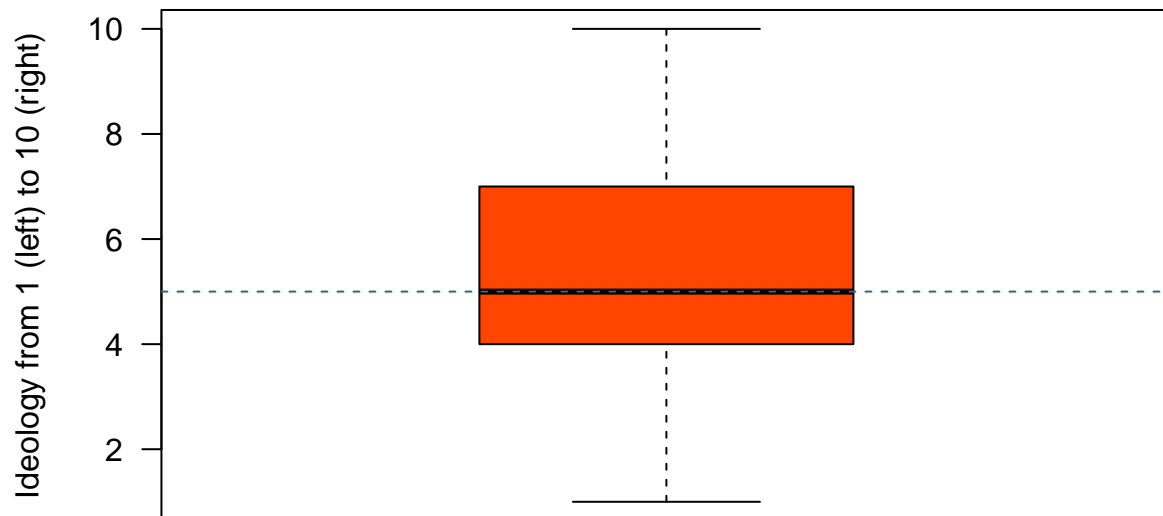
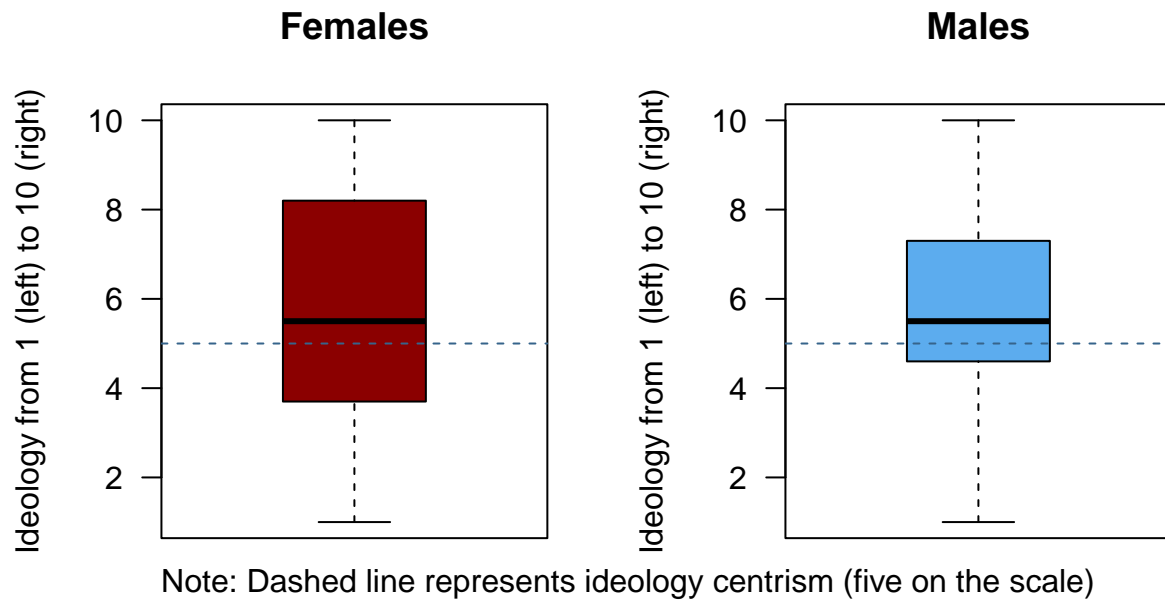
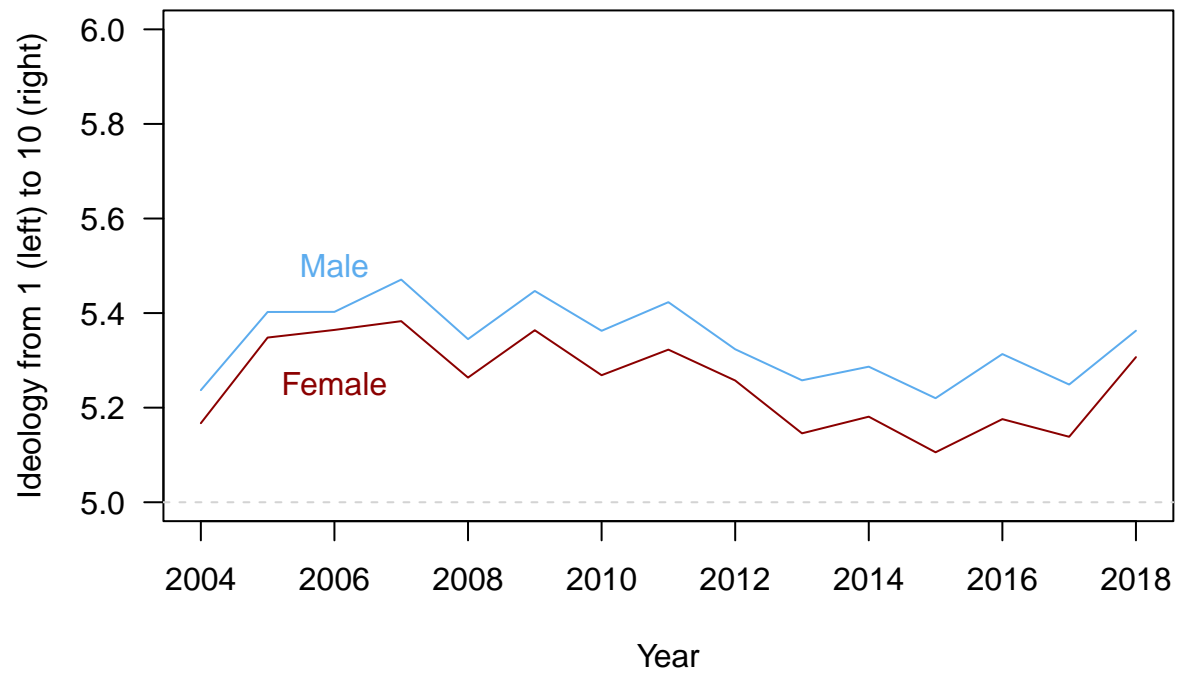


Figure X. Distribution of Ideology in 2018 by gender

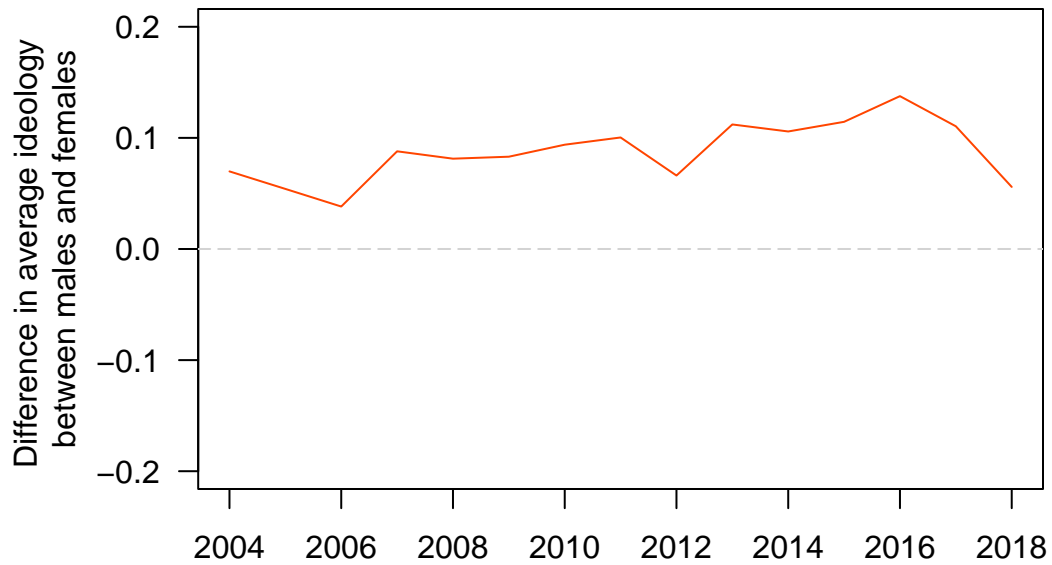


**Figure X. Development of average female and male ideological self-placement over time**





**Figure X. Development of difference in average female and male ideological self-placement over time**



Note: Values over 0.0 mean that males are more right-wing.

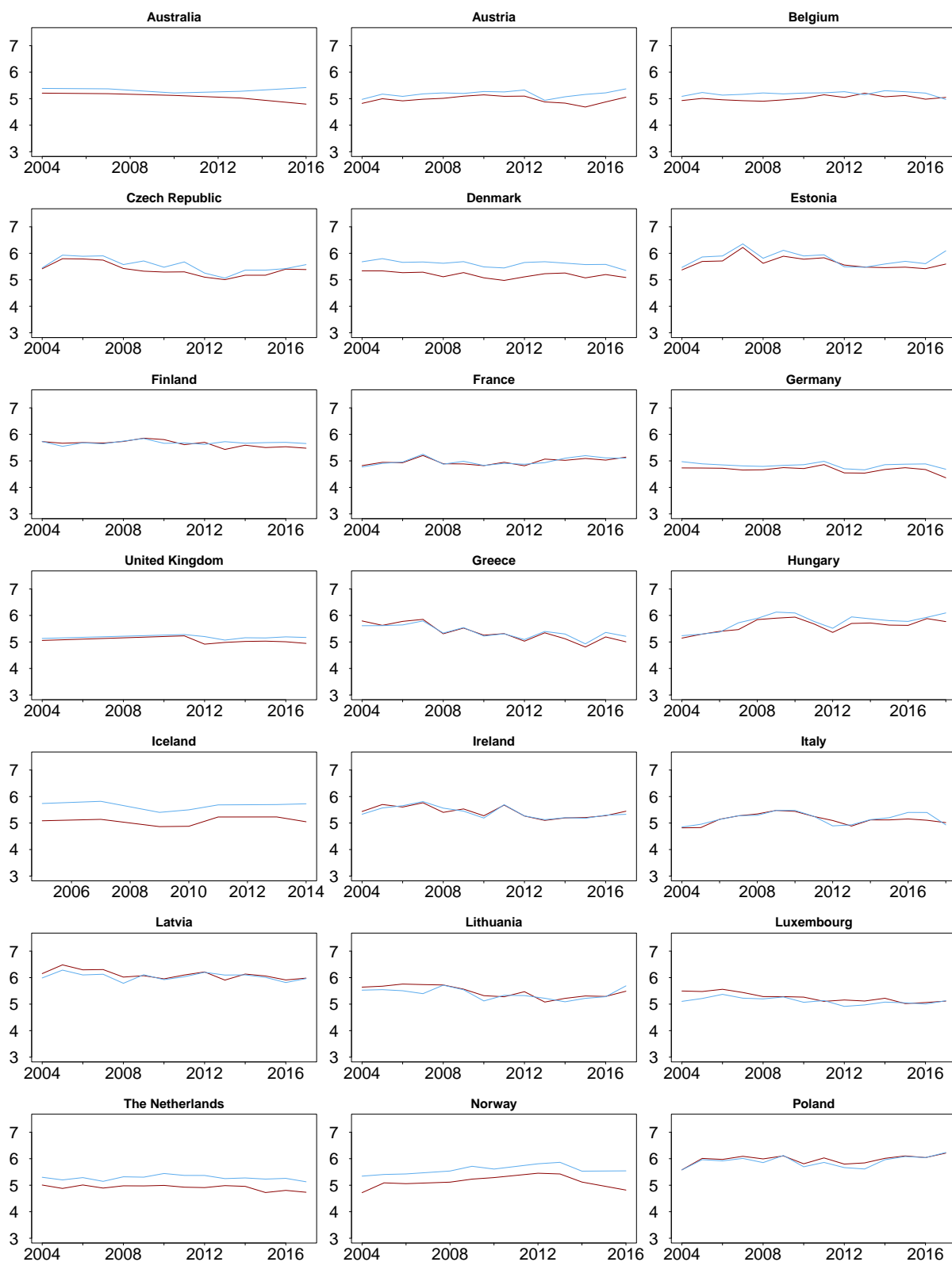
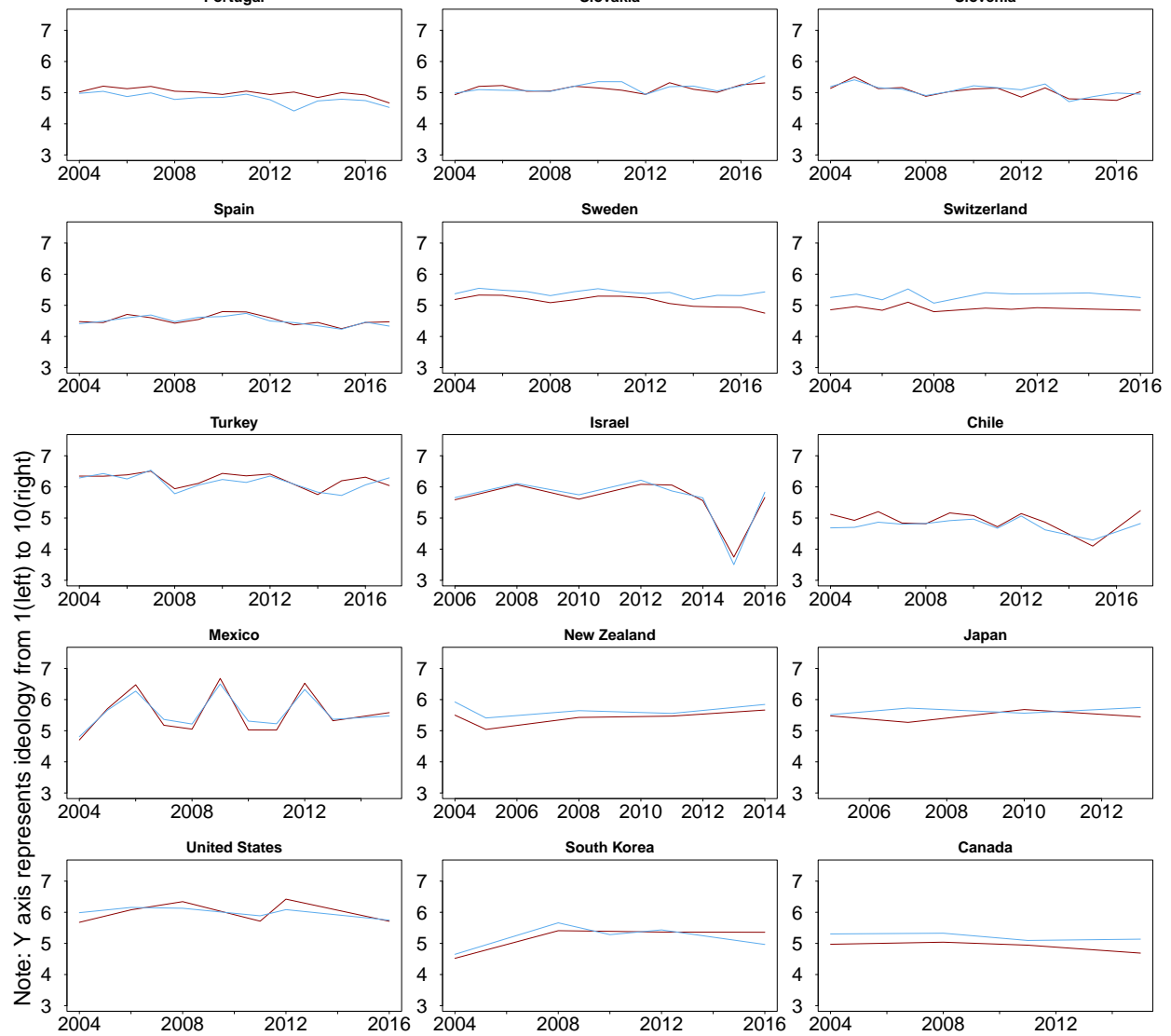


Figure X. Development of female (red) and male (blue) ideological self-placement over time, by country



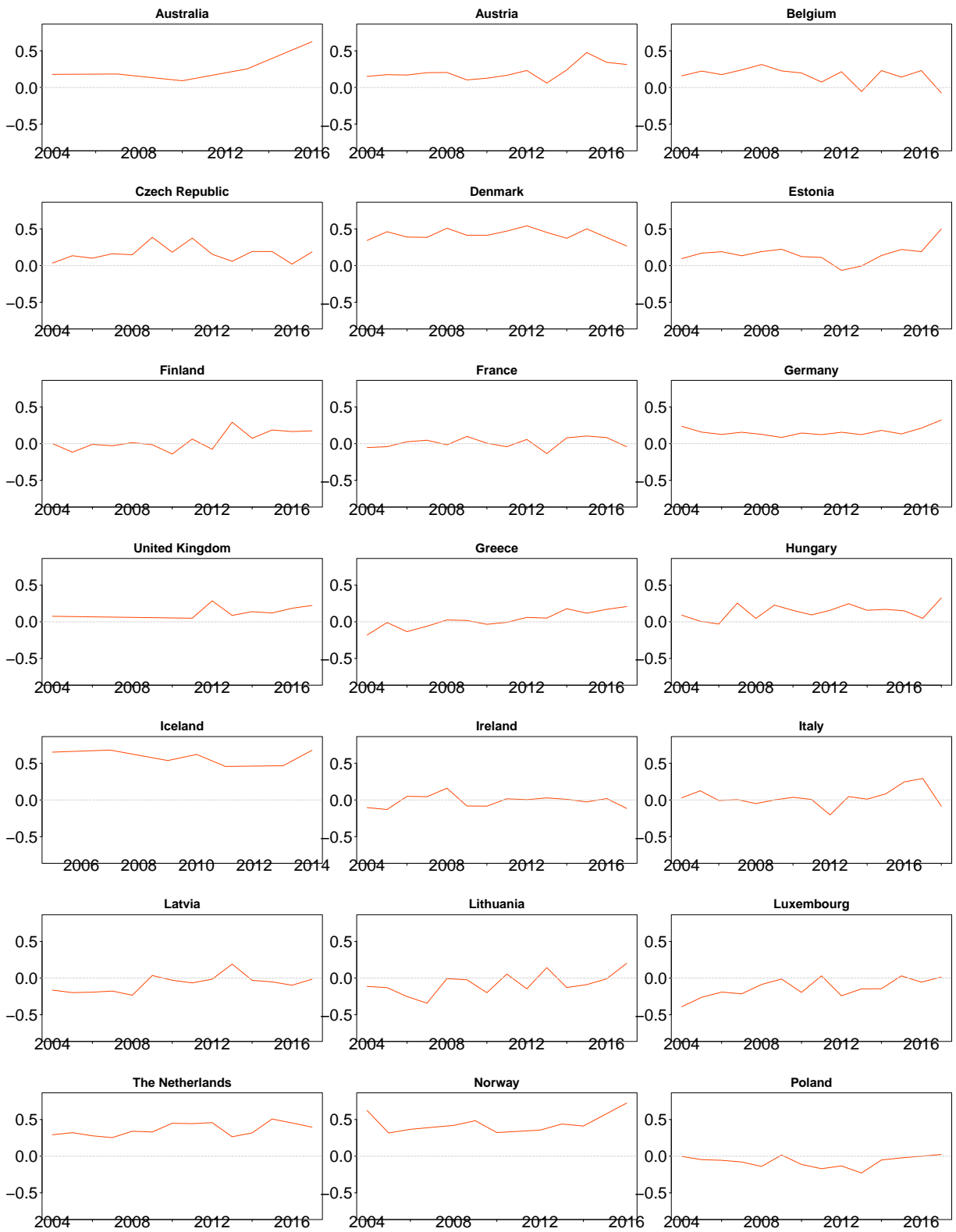
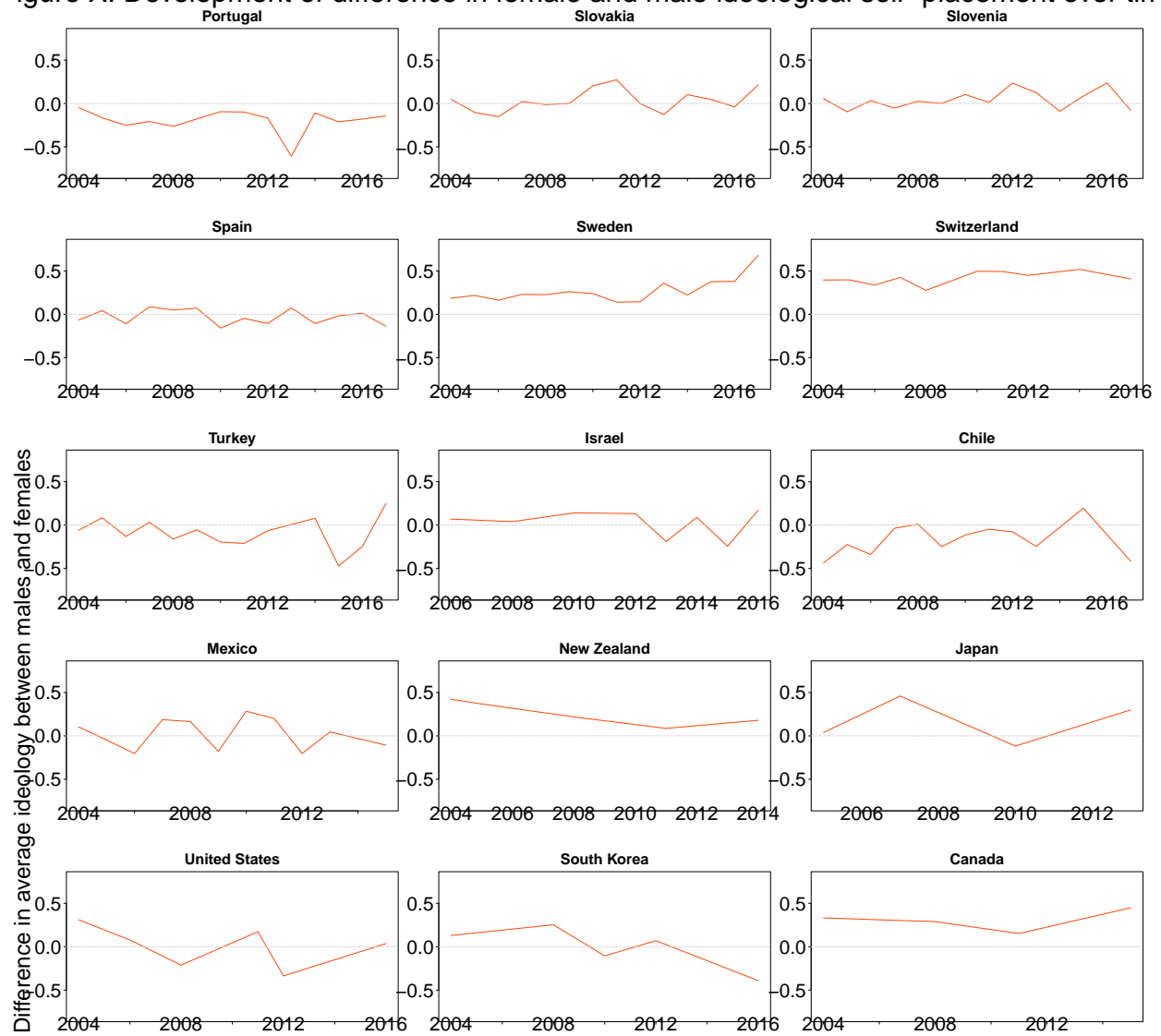


Figure X. Development of difference in female and male ideological self-placement over time



### 3.3 Data analysis method

To evaluate the relationship between gender and ideology, and the extent to which this effect is moderated by variables like year, age, country, and regime, we employ regression analysis and create several linear models.

First, we run a simple linear regression, analysing the relationship between gender and ideology.

Second, we include interaction terms to examine heterogenous treatment effect of gender based on year, age, country, and regime type.

## 4 Data analysis and Discussion

(1000 - 1500 words)

Discuss that we cannot say anything on causality (because we cannot manipulate gender, no experiment, ...)

## 5 Conclusion

(500 - 700 words) • a short summary of your paper, • discusses the limitations of your approach (either in the theory you propose or in the empirical analyses). These limitations can be presented in positive terms as they open new avenues for future research. • State how your analysis could be improved (e.g. better data that would be useful to collect). • Basically, state what your paper could not do and propose how future research could go about it. If for example you know that there are important confounding factors which you could not include, mention these and emphasize the importance of including them. • makes concrete suggestions for future research.

## 6 Proposal

Please write your final project using this template.

The below text explains in detail how to cite and get a nicely formatted reference list. You can delete this text and use the rmd file as your template.

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- I want to cite the book by (Aytac and Stokes 2016, 20).
- The references.bib file contains the references of two works in bibtex format. You can extend this reference file by adding the works you want to cite in bibtex format. Open the references file to see how it looks like. The first reference is for Powner(2015) and it starts with `@Book{powner2015, author = {Leanne C Powner}, (...)}`. `powner2015` is the keyname of this reference and you can refer to it (or cite it) using the `@` sign in front of it, in particular by writing `@powner2015`. For example,
  - you can cite works within the Rmarkdown file, by writing `[@powner2015]` in the text and you will get the following citation in brackets (Powner 2015).
  - If you want to refer to a work without using round brackets, write `@mayhew2005divided` (without the squared brackets) in your text and you will get Mayhew (2005).

Table 3: Regression table

|                         | <i>Dependent variable:</i>                             |                      |                      |                     |
|-------------------------|--|----------------------|----------------------|---------------------|
|                         | Ideological self-placement from left (1) to right (10) |                      |                      | ideology_st         |
|                         | <i>OLS</i>   |                      |                      | <i>OLS</i>          |
|                         | Model 1  | Model 2              | Model 3              | Model 4             |
|                         | (1)  | (2)                  | (3)                  | (4)                 |
| Intercept               | 5.477***<br>(0.003)                                    | 27.760***<br>(1.314) | 5.467***<br>(0.008)  | 5.826***<br>(0.070) |
| Female                  | -0.091***<br>(0.004)                                   | 11.559***<br>(1.809) | -0.306***<br>(0.010) |                     |
| Year                    |  | -0.011***<br>(0.001) |                      |                     |
| Female x Year           |  | -0.006***<br>(0.001) |                      |                     |
| Age                     |  |                      | 0.0002<br>(0.0001)   |                     |
| Female x Age            |  |                      | 0.004***<br>(0.0002) |                     |
| Year                    |  |                      |                      | -0.050<br>(0.098)   |
| Observations            | 1,441,663  | 1,441,663            | 1,441,663            | 2,748               |
| R <sup>2</sup>          | 0.0004   | 0.001                | 0.001                | 0.0001              |
| Adjusted R <sup>2</sup> | 0.0004   | 0.001                | 0.001                | -0.0003             |

*Note:*

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

- To add references of the works you want to cite, you need to insert the citation information in the references.bib file. You can find the citation information on almost anything on google scholar: - 1) go to google scholar and search for topic of your interest, - 2) choose a work on Google Scholar, then click on cite, then choose Bibtex format, copy-paste this in the references.bib file, save the .bib file. That is all.
- In this class we are going to use the APSA reference and citation style.
  - The hard way to follow this style is to read the style manual and manually correct the style in your reference list and citations. By style is meant, for example, whether one should write the full names of the authors, or abbreviate the first name, whether one should write the title of the work in italics or not, whether one should place the publication year right after the author’s name or towards the end, etc..
  - All these rules are specified in the APSA style manual, which I uploaded on Moodle.
  - The good news is, in this class you do not need to do anything manually, as Rmarkdown will do it for you! (From personal experience I can tell, this is pretty awesome, it will save you tons of time.)
  - You just need to specify the citation and language style in the YAML preamble and supply the style file in the folder where your Rmd file is. **This is already done in this template.** Check the YAML preamble in this template, line 9 says `csl: american-political-science-association.csl`, this is you telling Rmarkdown to use the style saved in this .csl file.
  - You do not need to do anything more, just cite the works in your text. Rmarkdown will create proper citations and format the reference list in the correct way as specified by the APSA style. It will include the reference list right at the bottom of your document.

Let us cite another work by Tsebelis here: Tsebelis (1999) or (Tsebelis 1999, 100).

## References

- Aytac, S Erdem, and Susan Stokes. 2016. “Rethinking Political Participation.” *Koc University and Yale University*.
- Coppedge, Michael et al. 2023. “V-Dem [Country-Year/Country-Date] Dataset V13" Varieties of Democracy (V-Dem) Project.” <https://doi.org/10.23696/vdemds23>.
- Dassonneville, Ruth. 2020. “Replication Data for: Change and Continuity in the Ideological Gender Gap A Longitudinal Analysis of Left-Right Self-Placement in OECD Countries.” <https://doi.org/10.7910/DVN/B5VGCD>.
- . 2021. “Change and Continuity in the Ideological Gender Gap a Longitudinal Analysis of Left-Right Self-Placement in OECD Countries.” *European Journal of Political Research* 60(1): 225–38. <https://onlinelibrary.wiley.com/doi/abs/10.1111/1475-6765.12384> (March 24, 2024).
- Mayhew, David R. 2005. *Divided We Govern: Party Control, Lawmaking and Investigations, 1946-2002*. Yale University Press. <https://campuspress.yale.edu/davidmayhew/datasets-divided-we-govern/>.
- Powner, Leanne C. 2015. *Empirical Research and Writing: A Political Science Student’s Practical Guide*. SAGE Publications.
- Tsebelis, George. 1999. “Veto Players and Law Production in Parliamentary Democracies: An Empirical Analysis.” *American Political Science Review* 93(3): 591–608.