SMI205_Preregistration_form

200382030

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Contents

1. My replication project

This is a preregistration of an extension project for the following study:

> Zyczynska-Ciolek, D. and Kolczynska, M. (2021) 'Does Interviewers' Age Affect Their Assessment of Respondents' Understanding of Survey Questions? Evidence From the European Social Survey', International journal of public opinion research, 33(2), pp. 460–476. doi: 10.1093/ijpor/edaa015.

In my replication project I am focusing on the following argument made in the study:

- Claim: The younger the interviewer is the stronger the negative effect on respondents' assessment of understanding survey questions when controlling for respondents' education, respondents mental and physical wellbeing, if the interview was conducted in their first language and, undesirable response styles (e.g., straight lining). Page 464.
- Display item 5: A three level regression model which uses 'frequency of understanding survey questions by the respondent, which the interviewer evaluates after the completion of the interview' as the dependent variable, respondents, and interviewers age as the independent variable and, respondents' education, respondents mental and physical wellbeing, if the interview was conducted in their first language and, undesirable response styles as control variables. (page 469).

2. Planned project extention

2.1. Rationale for a new hypothesis

- This replication project will extend the claim above by exploring role of cultural differences measured via religiosity at the regional level in affecting interviewers' assessment of respondents' understanding of survey questions. This replication project has been based on the researchers note in the end of the paper where they suggest exploring the effect of cultural differences on interviewers' assessment of respondents' understanding of survey questions. This replication project will use religiosity as a proxy for cultural differences as White, Muthukrishna, and Norenzayan (2021) found that irrespective of religious beliefs countries which are religious are more culturally similar than those who are not – hence suggesting that differences and similarities of cultures can be measured using the average religiosity of a country.

2.2. Prediction

Hypothesis:

- Hypothesis: The lesser the religiosity of a country at the regional level, the stronger the negative effect on the variable which measures the interviewers' assessment of how well a respondent understood the survey questions.
- Expected results: The lesser the religiosity of a country at the regional level, the stronger the negative effect on the interviewers' assessment of how well a respondent understood the survey questions.

3. Data

- The data used in the replication is the same which is used in the original paper: ESS Round 8: European Social Survey Round 8 Data (2016). Data file edition 2.2. Sikt - Norwegian Agency for Shared Services in Education and Research, Norway – Data Archive and distributor of ESS data for ESS ERIC. doi:10.21338/NSD-ESS8-2016.

4. Data analysis plan

4.1. Model specification

- I will test the hypothesis using a 3 level multi-level regression model. It will be an extension of model 5 in the original paper – with the only differences being using a regional level rather than a country level and adding religiousity as a variable.

4.2. Variables

Dependent variable(s): The dependent variable is "the frequency of understanding survey questions by the respondent" (Zyczynska-Ciolek, and Kolczynska, 2021). This variable is measured on a 5-point likert scale (1 being never understanding questions and 5 being understanding questions very often) (Zyczynska-Ciolek, and Kolczynska, 2021). This variable will be transformed into a dummy variable where if the respondents understanding was 5 then it was changed to 1 and all other rankings (4,3,2,1) were changed to 0. This variable will also be nested in respondents age and then nested within countries.

Independent variables (IVs): Religiosity of a country measured from 7 (very religious) to 1 (not very religious).

4.3. Interference criteria

This replication will use the p-value, $p<0.5$, criteria to assess if religiosity is significant in predicting the dependent variable ("the frequency of understanding survey questions by the respondent" (Zyczynska-Ciolek, and Kolczynska, 2021)).

4.4. Data exclusion

No checks will be performed to determine eligibility for inclusion besides verification that each respondent answered each of the survey questions. Outliers will be included in the analysis.

4.5. Missing data

If a respondent has the following answers: 'not applicable, refusal, do not know, no answer, or not available' then their answer will not be included in the analysis.

4.6. Exploratory data anlysis

Will explore the average assessment scores of respondents understanding of survey questions by region.

5. Session info

This preregistration form was completed in the following R environment:

```
## R version 4.1.1 (2021-08-10)
## Platform: x86_64-w64-mingw32/x64 (64-bit)
## Running under: Windows 10 x64 (build 22621)
##
## Matrix products: default
##
## locale:
## [1] LC_COLLATE=English_United Kingdom.1252
## [2] LC_CTYPE=English_United Kingdom.1252
## [3] LC_MONETARY=English_United Kingdom.1252
## [4] LC_NUMERIC=C
## [5] LC_TIME=English_United Kingdom.1252
##
```

```
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## loaded via a namespace (and not attached):
##  [1] digest_0.6.29   lifecycle_1.0.3 magrittr_2.0.3  evaluate_0.14
##  [5] rlang_1.1.0     stringi_1.7.6   cli_3.4.1       rstudioapi_0.14
##  [9] vctrs_0.6.1     rmarkdown_2.11  tools_4.1.1     stringr_1.5.0
## [13] glue_1.6.2      xfun_0.29       yaml_2.2.1      fastmap_1.1.0
## [17] compiler_4.1.1  htmltools_0.5.2 knitr_1.37
```

6. References

Bartlett J. (2021). OSF preregistration template.Rmd. GitHub (accessed 03/05/2023)

Bowman, S. D., DeHaven, A. C., Errington, T. M., Hardwicke, T. E., Mellor, D. T., Nosek, B. A., & Soderberg, C. K. (2020). OSF Prereg Template. https://doi.org/10.31222/osf.io/epgjd. OSF (accessed 03/05/2023)

ESS Round 8: European Social Survey Round 8 Data (2016). Data file edition 2.2. Sikt - Norwegian Agency for Shared Services in Education and Research, Norway – Data Archive and distributor of ESS data for ESS ERIC. doi:10.21338/NSD-ESS8-2016.

White, C. J. M., Muthukrishna, M. and Norenzayan, A. (2021) 'Cultural similarity among coreligionists within and between countries', Proceedings of the National Academy of Sciences - PNAS, 118(37), p. 1. doi: 10.1073/pnas.2109650118.

Zyczynska-Ciolek, D. and Kolczynska, M. (2021) 'Does Interviewers' Age Affect Their Assessment of Respondents' Understanding of Survey Questions? Evidence From the European Social Survey', International journal of public opinion research, 33(2), pp. 460–476. doi: 10.1093/ijpor/edaa015.