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 impact of considering the cross-country variation in average assessments of respondents' understanding of survey questions. This replication project has been based on the researchers note in the end of the paper where they note that cross-country variation in average assessments of respondents' understanding of survey questions is one area that remains to be explored in relation to their research question. It would therefore be interesting to explore how the results are impacted by adding the country level. Further to this, North and Fiskle, (2018) found in their research that Eastern cultures respect older adults more than European cultures. This suggests that culture affects the way a person (and hence an interviewer) views an older adult and hence potentially if European countries are analysed separately rather than being clustered together there may be cultural differences around stereotypes of older people which may impact the way the interviewers assess the respondents ability to understand survey questions. In addition to this, Fenadez-Ballesteres (2020), found that 26 out of 29 of the European countries they analysed held the viewpoint that older adults are more friendly rather than competent. The exception were Russia, Latvia and Romania. This potentially suggests that interviewers from the 26 European countries that believe older people are less competent may rate older respondents understanding of survey questions less favourably than interviewers from Russia, Latvia and Romania. This again suggests a cultural differences in attitudes towards older people may impact the interviewers' assessment of respondents understanding of survey questions.

2.2. Prediction

Hypothesis:

- Hypothesis: Cross-country differences in interviewers' assessment of respondents understanding of survey questions will account for some of the differences in assessment scores originally explained by age differences of interviewers 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).
- Expected results: I am expecting to find that countries such as Russia, Latvia, Romania (plus other European countries with similar cultures to these countries) will rate older respondents understanding of survey questions more favourable than other more northern European countries such as the UK. I am expecting that this will mean that my results will be slightly different to those found in the original paper due to cultural differences potentially explaining some of the differences in interviewers' assessments of respondents understanding of 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 difference being that the interviewer's assessment of respondents understanding of survey questions will not be nested within age but then also nested within countries. This will account for how those who are similar ages are more likely to be similar to those from the same country due to cultural values – so adding the country level.

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): Age of respondents – measured as age in years from 15 – 100. Age of interviewers – measured as age in years from 17 – 89. These variables will be transformed into age categories: Age of respondent: 15 – 25, 26 – 40, 41 – 55, 56 – 70, 71 - 100. Age of interviewer: 17 – 25, 26 – 40, 41 – 55, 56 – 70, 71 – 89.

- IV1
- IV2

4.3. Interference criteria

This replication will use the p-value, $p<0.5$, criteria to assess if the age of respondents/interviewers 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

The country the interviewer is from may be related to the age of the interviewer as it could be a certain country may have a higher proportion of younger/older interviewers. Therefore, this replication will explore this potential relationship.

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.

Fernández-Ballesteros, R. et al. (2020) 'Cultural aging stereotypes in European Countries: Are they a risk to Active Aging?', PloS one, 15(5), pp. e0232340–e0232340. doi: 10.1371/journal.pone.0232340.

North, M. S. and Fiske, S. T. (2015) 'Modern Attitudes Toward Older Adults in the Aging World: A Cross-Cultural Meta-Analysis', Psychological bulletin, 141(5), pp. 993–1021. doi: 10.1037/a0039469.

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.