Macrointerest Across Countries

Memo to Editor and Reviewers

Introduction

Framing. We appreciate the reviewers' careful reading and suggestions for better framing the piece. Following this advice, we reorganized the introduction into three paragraphs to address the relevance of Macrointerest, the challenges faced by previous research, and the specific contribution and findings. Reviewer 1 also specifically suggested that we contrast our work with that of (**Peterson2022?**), and we do that in our second paragraph. (We also, at R1's suggestion, included an appendix comparing our estimates of macrointerest for the United States with those presented in that article; see Appendix E.)

Cross-National Macrointerest: The Source Data

Source data representation. We thank R2 to point out the potential Total Survey Error risk due to sample representation. With hindsight, this is an important issue for readers and potential users of our method to know yet not sufficiently addressed in the previous version. In this revision, we point out this issue clearly in the main text (n. XXX) and lead readers to a more comprehensive discussion in Appendix XXX. In the discussion, we includes all the potential risk R2 points out and explained what DCPO does for this issue and its limitation. We also point out the readers methodological paths (and examples) that can be incorporated to further deal with the data representation issue and explain the strategy of DCPO on it.

R2 also queried if "single-country and single-wave projects should be included." In this research, we followed the example in publications of solid journals (e.g., Tai, Hu, and Solt 2022; Claassen 2020) to include survey items asked at least two time points in the history to

guarantee information to predict over-period variance of these responses. We clarified this data collection decision on p. XXXX. We also showed the full matrix of the macrointerest trajectories of every country in Appendix XXX as R2 requested. We used a note (n. XXXX) to direct interested readers to this extension.

We also followed R2's suggestion adding more information of the source surveys in order to give credit to data creators and enhance data-collection transparency (Appendix XXXX). To present the information clearly, we separate the survey and item information to two tables. Moreover, R2 suggested that Figure A1 is hard to read. We split it into several smaller panels according to the continents of the involved countries.

`DCPOtools`. On the recommendation of R1, we expanded and moved our discussion of the automation of the data cleaning process to Appendix A.

Estimating Cross-National Macrointerest

Method comparison. We follow R1's suggestion to compare DCPO with other methods, especially, Peterson et al. (2022)'s Wcalc in more detail. In the main text (p. XXXX), we state the rationale to use DCPO over Wcalc in this research and direct readers to a special appendix, Appendix XXX. In the new appendix, we discuss the methodological and operational differences between DCPO and Wcalc. Furthermore, we compare the outcomes from the two methods and point out the advantage of DCPO on yielding more efficient estimation by incorporating information from other countries and scaling.

Validating Cross-National Macrointerest

Validation. R2 queried of the validity of the DCPO outcome. In the research, we used the validation method that has been applied in publications of APSR and BJPS (Caughey, O'Grady, and Warshaw 2019; Woo, Goldberg, and Solt 2023). At the same method, we agree with R2 that it is difficulty to interpret the results of this method without any benchmarks. Therefore, we listed the correlations of an APSR publication using the similar validation method for readers' reference (n. XXX). Moreover, we point out to the readers that the correlations can also be affected by other factors.

Testing Theories of Macrointerest Cross-Nationally

Uncertainty. In response to R1's suggestion to provide more details about the uncertainty incorporation, we made a specific discussion in Footnote XXX. We used the "Method of Composition" to account for the uncertainty in the ex post analysis based on the estimated latent variable together with others. This is a method that has been used in a series of latent variable analyses in political science. We listed several other applications and also direct readers to a more detailed technical note of how the method is incorporated in the DCPO framework.

Hypothesis testing. R2 questioned why we tested the theory on OECD countries and "why not just take ESS data, which include most of the OECD countries, and save ourselves all the harmonization effort." We added an Appendix (Appendix XXX) to address the this issue:

As stated there, there are specific theoretical and empirical reasons to examine the theoretical inferences about the source of macrointerest on OECD countries. First, most theories about political interests addressed in the letter were built upon the assumption of stable institutions for public political participation. OECD countries are valid cases to examine such theories. The both sociopolitical stability and socioecomic and geographic diversity also provide unique conditions fot the hypothesis testing.

Second, while EES also includes a fair amount of data of the European members of OECD, it does not include members out of Europe, which will noticeably diminished the country diversity. Note that the primary goal of DCPO is not only to broaden the scope of research beyond the well-surveyed countries but also to enable full-time-rank analysis and more sufficiently adjust country-based variances (Claassen 2020). DCPO has shown noticeable advantage to fulfill such design than single projects like EES.

Third, at the end of the Appendix, we presented the numeric results for Figure 5 as R2 required and welcomed future researchers to extend the hypotheses testing in this article on other country cases. They, however, need to be aware that non-OECD countries vary in many dimensions. An examination based on them requires more efforts to prevent confounding effects from this variance on the results. This has been beyond the scope of this research.

In terms of the results of the hypothesis testing, we adopted R2's suggestion and rewrite the description of the findings from the perspective of posterior probabilities. The credible intervals are kept in the visualization for both Bayesian and frequentist readers to understand the results.

Conclusions

Good and bad times. We adopted R1's suggestion of using the "good/bad times." We gave a clearer definition indicating the goodness specifically refers to economic growth when the first time the phrases are used (p. XXXX). Later in the theoretical setup, we borrowed R1's framing to indicate the exact relationship between economic growth and macrointerest (p. XXX).

We further accepted R2's suggestion to revise the summary of the empirical findings about the good/bad (economic) times to prevent overstatment (p. XXXX).

Participation. R2 provides an intriguing insight for the theoretical implication of the theory test section of our research that the findings suggest the distinctiveness of macrointerest with other types of participation/engagements. Although there is little room for a more sufficient discussion due to the word limit, we pointed out this insight to the readers and direct them to relative literature for further comparison.

Appendices

In the appendix, we added more information on the source surveys in order to give credit to data creators and enhance data-collection transparency (Appendix XXXX).

Scaling. R1 also suggested us to consider employing the cumulative distribution function (CDF) of the normal distribution—that is, the probit transformation—as an alternative to the logistic transformation, for scaling responses on the unit interval within the DCPO framework or at least discuss the relative merits of the two in the appendix. We appreciate the suggestion of the probit transformation. The preference for the logistic function in the DCPO model is grounded in its inherent flexibility and enhanced tolerance for deviations from standard normal assumptions. Pertinently, within the macrointerest context, we see

little reason to presume that the the source data are devoid of extreme values or adhere to a symmetric distribution. The logistic transformation exhibits greater leniency under such conditions compared to the normal CDF. On the other hand, we concur with R1 that the interpretation of the probit transformation is more intuitive. We have added a discussion of these points to Appendix B, our summary of the DCPO model. Amd as the DCPO model is published as open source software on CRAN (**Solt2020a?**), future researchers have the option of modifying the transformation method if they see fit.

R2 suggested that Figure A1 is hard to read. We split that figure into several panels by region to allow it to be split across pages and so expanded for legibility.

Reference

Caughey, Devin, Tom O'Grady, and Christopher Warshaw. 2019. "Policy Ideology in European Mass Publics, 1981–2016." *American Political Science Review*, 1–20.

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Peterson, David A. M., Joanne M. Miller, Kyle L. Saunders, and Scott D. McClurg. 2022. "Macrointerest." *British Journal of Political Science* 52 (1): 200–220.

Tai, Yuehong 'Cassandra', Yue Hu, and Frederick Solt. 2022. "Democracy, Public Support, and Measurement Uncertainty." *American Political Science Review*, May, First View.

Woo, Byung-Deuk, Lindsey A. Goldberg, and Frederick Solt. 2023. "Public Gender Egalitarianism: A Dataset of Dynamic Comparative Public Opinion Toward Egalitarian Gender Roles in the Public Sphere." *British Journal of Political Science* 53 (2): 766–75.