ONLINE APPENDIX

Guide for the (Soon-to-be) Perplexed:

Considerations for Scholars Launching and Leading Survey Data Harmonization Journeys

Table of contents

A. Expanded Literature Documentation

This section includes documentation of our Web of Science query to identify survey data harmonization publications (A.1), a selective summary of methodology-oriented sources relevant for survey data harmonization (A.2), and a brief overview of relevant cross-national survey programs (A.3). In addition, we include two tables that provide expanded literature documentation:

Table A1. Illustrative Publications, Cross-national Survey Data Harmonization

Table A2. Illustrative Data Harmonization Projects

A.1. Web of Science literature search

To conduct a systematic search of publications in all social science categories that use survey data harmonization despite the lack of standardized terminology in the field, we searched the index date range of 1965-01-01 to 2024-12-31 using the following search term:

- "data*" near/2 "harmoniz*" (Topic) and "survey*" (Topic)

This search term, documented in the Web of Science url copied below, yielded 154 records when last conducted on December 18, 2025.

- https://www.webofscience.com/wos/woscc/summary/325755c1-7188-4070-862d-7f5aece0c2c7-019159a895/relevance/1

A.2. Brief summary of methodology-oriented sources

Relevant methodology-oriented sources worthy of note include Berwick and Caughey's (2025) introduction of a new approach for multidimensional scaling of aggregate survey data; Caughey and Warshaw's (2015) dynamic estimation of latent opinion; Cichocki and Jabkowski's (2023) study of linear stretching of response scales; Kołczyńska et al.'s (2024) use of Bayesian explanatory item response theory models to analyse public attitudes cross-nationally and longitudinally; and Kołczyńska and Bürkner's (2024) simulation study of latent trend models. See this Symposium's article on modeling aggregate trends (Koc and Kołczyńska 2026) for additional methodology-oriented sources on aggregate-level indicators.

A.3. Overview of relevant cross-national survey programs

To assist the reader who is not yet familiar with the most commonly used survey programs in cross-national survey data harmonization that are noted in Table A1 by acronym, we provide the following summary:

Relevant data sources combined in the studies documented in this section include survey programs that conduct sophisticated methodological research, such as the European Social Survey (ESS), as well as surveys with a broader geographic reach but comparatively less consistency in survey questions across country-years and less uniform sampling procedures, such as the International Social Survey Programme (ISSP) and the World Values Survey (WVS). Additional survey programs commonly harmonized in leading research include elections studies, such as the Comparative Study of Electoral Systems (CSES), and the European Election Studies (EES); as well as surveys focused on public opinion in specific regions, such as the European Values Survey (EVS), and the Barometers surveys. Some of these survey programs have consistently offered harmonized datasets for their own program's country-year survey waves (such as the ESS); while other programs only recently made cumulative datasets available following researchers' initiatives (such as the CSES and the Eurobarometer); and still others do not provide harmonized versions of their data (e.g., some of the regional Barometers), or provide a harmonized dataset for a fee (e.g., LAPOP's AmericasBarometer). Additional examples of surveys commonly used in cross-national survey data harmonization can be found in Lyberg et al. (2021, p. 21).

Table A1. Illustrative Publications, Cross-national Survey Data Harmonization

Authors (Year)	Journal / Press	Title (selectively abbreviated)	Surveys (selected)
Caughey, O'Grady, and Warshaw (2019)	APSR	Policy Ideology in European Mass Publics, 1981–2016	ESS, Eurobarometer, ISSP, Pew Global Attitudes Survey, WVS
Claassen (2020)	AJPS	Does Public Support Help Democracy Survive?	Barometers, ESS, EVS, Pew Global Attitudes, WVS
Claassen and McLaren (2022)	BJPS	Does Immigration Produce a Public Backlash or Public Acceptance?	ESS, Eurobarometer, ISSP, Pew Global Attitudes Survey, WVS
Dassonneville et al. (2021)	EJPR	Policy Responsiveness to all Citizens or Only to Voters?	CSES, ESS, Eurobarometer, Latinobarometer, WVS
Hu and Solt (2025)	BJPS	Macrointerest Across Countries	ESS, EVS, ISSP, WVS
Huijsmans, Rijken, and Gaidyte (2022)	Political Studies	The Income Gap in Voting: Moderating Effects of Income Inequality and Clientelism	AsianBarometer, ESS, ISSP, LAPOP, WVS,
Kostelka and Blais (2021)	World Politics	The Generational and Institutional Sources of the Global Decline in Voter Turnout	CSES and select national election studies
Kostelka et al. (2025)	PSRM	Electoral Participation and Satisfaction with Democracy in Central and Eastern Europe	Panel studies from 6 countries
Lachat (2017)	IPSR	Which Way from Left to Right?	Election studies in 5 countries
Lupu and Warner (2022a)	JOP	Affluence and Congruence	CSES, Eurobarometer, LAPOP, WVS
Lupu and Warner (2022b)	EJPR	Why are the Affluent Better Represented Around the World?	CSES, Eurobarometer, LAPOP, WVS
Mauk (2020a)	Oxford Univ. Press	Citizen Support for Democratic and Autocratic Regimes	Barometers (Afro, America, Arab, Asian, Latino), WVS
Mauk (2020b)	PRQ	How Democratic Value Orientations Affect Political Trust in Different Regimes	Barometers (Afro, America, Arab, Asian, Latino), WVS

Note: This table documents a select number of high-impact and well-cited publications in political science and related fields that use a variety of different modeling approaches to analyze cross-national survey data on topics related to political attitudes and behavior.

Table A1 (cont'd). Illustrative Publications, Cross-national Survey Data Harmonization

Authors (Year)	Journal / Press	Title (selectively abbreviated)	Surveys (selected)
Mongrain (2023)	EJPR	The Impact of Social Networks on Citizens' Forecasting Ability	Election studies (district, regional, etc.) in 10 countries
Neundorf, Gerschewski, and Olar (2020)	CPS	How Do Inclusionary and Exclusionary Autocracies Affect Ordinary People?	Barometers, CSES, ESS, WVS
Solt (2008)	AJPS	Economic Inequality and Democratic Political Engagement	EES, Eurobarometer, WVS,
Tai, Hu, and Solt (2024)	APSR	Democracy, Public Support, and Measurement Uncertainty	Barometers, ESS, EVS, Pew Global Attitudes, WVS
Valgarðsson and Devine (2022)	PRQ	What Satisfaction with Democracy?	Barometers, CSES, WVS
Valgarðsson et al. (2025)	BJPS	A Crisis of Political Trust?	Barometers, election studies, ESS, ISSP, WVS
van der Meer, Ackermann, Pellikaan (2024)	CEP	Can We Aggregate Voters' Perceptions of Political Parties' Left–Right Positions?	CSES, longitudinal analyses in 3 countries
Woo, Goldberg, and Solt (2023)	BJPS	Public Gender Egalitarianism	Barometers, EVS, Pew Research Center, WVS

Note: This table documents a select number of high-impact and well-cited publications in political science and related fields that use a variety of different modeling approaches to analyze cross-national survey data on topics related to political attitudes and behavior.

Table A2. Illustrative Data Harmonization Projects

Project leader(s)	Project name	URL (last accessed December 18, 2025)
Bechert, Quandt, May, Werhan (2025)	ONBound: Religion and Nation in Constitutions worldwide	https://www.gesis.org/en/services/processing-and-analyzing-data/data-harmonization/onbound
Claassen (2025)	Democratic Mood	https://chrisclaassen.com/data.html
Huijsmans, Arieke, and Gaidyte (2019)	POLPART: How Citizens Try to Influence Politics and Why (PI: Klandermans)	https://osf.io/gztky/
Neundorf (2025)	Global Citizen Politics	https://globalcitizenpolitics.net
Schmitt (2021)	True European Voter dataset; see Schmitt, Segatti and van der Eijk (2021)	https://doi.org/10.4232/1.13601
Słomczyński et al. (2023)	Survey Data Recycling, SDR2 Database	https://doi.org/10.7910/DVN/YOCX0M
Solt (2025)	Dynamic Comparative Public Opinion	https://dcpo.org/team/fsolt.html

Note: See Appendix Reference List (Section E) for full references to projects when relevant; see also Kołczyńska (2022, 63-64) for a discussion of survey data harmonization projects.

B. Interview Participant Consent Form

Title of Study:	Guide for the (Soon-to-be) Perplexed: Considerations for Scholars Launching Survey Data Harmonization Journeys
Principal Investigator:	Prof. Jennifer Oser, Ben-Gurion University of the Negev, Israel
Co-author:	Barak Zur, Tel Aviv University, Israel
Institute:	Department of Politics and Government, Ben Gurion University of the Negev, Israel

General Information

The purpose of this study is to provide a theoretical and practical discussion of considerations scholars should take into account when launching and leading a survey data harmonization research project. This study is designed as a symposium article as part of a journal symposium issue proposal accepted by *PS: Political Science & Politics* in October, 2024.

The study aims to synthesize the relevant literature, and to glean insights from leading scholars' experiences conducting survey data harmonization projects.

Participation in this study involves an interview of up to 1 hour, in person or online, in which you will be asked to answer questions about your experience conducting survey data harmonization. The interview will be recorded, and the content will remain anonymous unless you provide explicit approval for non-anonymized quotes.

Participation is voluntary, and you can choose not to participate in part or all of the project. You can withdraw at any stage of the project without being penalized or disadvantaged in any way.

Processing and Protection of Personal Data

The researchers will retain minimal personal data necessary for the purpose of the study, including name, contact information, and background information. The researchers will also retain the interview recordings. All non-anonymized data will be stored in secure environments that are password-protected, and will be de-identified if data are transferred to any person/institution beyond the collaborators on this project. Personal data will be retained for a period of 10 years, after which all electronic and non-electronic files containing personal data will be permanently destroyed.

The data and anonymized quotes may be published in journals and elsewhere without giving your name or disclosing your identity. Non-anonymized quotes from interviews will be possible only upon your explicit approval.

Your personal information will be used only for the purpose(s) set out in this statement and in compliance with the General Data Protection Regulation (GDPR) available at https://gdpr.eu/tag/gdpr/.

Your personal data as well as the interview recordings will be held by Ben-Gurion University as data controller. Data protection services for BGU are provided through a contractual agreement with the legal offices of Tulchinsky Marciano Cohen Levitski & Co., Law Offices, 4 Berkowitz St. (Museum Tower) Tel Aviv 6423806. The permanent email address of the DPO for Ben-Gurion University is dpo@bgu.ac.il.

Contact Information

If you have any further questions, you may contact the Principal Investigator (oser@post.bgu.ac.il).

Participant Consent

I confirm that

1. I have read and understood this consent form, and I volunteer to participate in this research study.
2. I have received a copy of this form for my records.
3. I agree to the arrangements for data storage, archiving, and sharing.
4. I agree to be contacted in the future for a further interview or for subsequent studies related to this research, should that be required.

Date:

Participant's Name:

Participant's Signature:

Researcher's Name:

Researcher's Signature:

C. Interview Methodology Documentation

<u>Supplemental Methodological Information</u>

A key question documented in the survey instrument in the following section invited researchers to reflect critically on their prior work by asking "What do you wish you had known when you first started on your survey data harmonization research, particularly in relation to producing high-impact peer-reviewed academic research? Can you think of advice you would now give to your younger self before starting this journey?" Similar to Manucci's (2022) interviews with experts on populism, and Munck and Snyder's (2007) interviews with leading researchers of comparative politics, the interviews created an opportunity for researchers to discuss their contributions in the broader context of the field.

<u>Semi-structured Survey Instrument</u>

1. Describe your prior survey data harmonization research project that you view as making the most impactful contribution, and why you chose to use this approach. You're welcome to describe more than one project.

2. What do you view as the most important *promises* or *opportunities* of survey data harmonization for making original scholarly contributions?

3. In your experience, to what extent did you find that the promises or opportunities that made you decide to conduct survey data harmonization were fulfilled in your research?

4. What do you view as the most important *challenges* of conducting research that uses survey data harmonization?

5. What do you wish you had known when you first started on your survey data harmonization research, particularly in relation to producing high-impact peer-reviewed academic research? Can you think of advice you would now give to your younger self before starting this journey?

6. Are there other published studies or scholars who inspired you to decide to embark on the survey data harmonization research that you undertook?

7. What data management tools and infrastructures did you use to conduct the survey data harmonization (e.g., Stata, R, Python, crosswalks in xl files, specific data harmonization tools)? What advice or warnings would you give researchers about optimal data management tools for data management and analytic replication?

8. Are there any other insights you would like to share with the broader readership of scholars considering launching a survey data harmonization journey?

D. Interviewee Characteristics Summary

Table D1. Interviewee Summary Table
Summary of key characteristics of the interview sample (n=22).

Characteristic	Interviewee summary
Gender	11 women; 11 men
Academic rank	7 early career; 7 mid-career; 8 senior scholars
Current geographic region	4 U.S.; 15 W. Europe; 3 E. Europe
Primary academic disciplines	13 political science; 4 sociology; 5 multidisciplinary

Note: All interviewees conduct political science research, and some also have expertise in related fields of sociology, economics, demography, and psychology. We intentionally recruited interviewees with diverse backgrounds regarding gender, academic rank, and geographic region.

E. Reference List for Online Appendix

Berwick, Elissa, and Devin Caughey. 2025. "MODGIRT: Multidimensional Dynamic Scaling of Aggregate Survey Data." *Political Analysis* 33 (2): 91-106. doi:10.1017/pan.2024.25.

Caughey, Devin, Tom O'Grady, and Christopher Warshaw. 2019. "Policy Ideology in European Mass Publics, 1981–2016." *American Political Science Review* 113 (3):674-93. doi:10.1017/S0003055419000157.

Caughey, Devin, and Christopher Warshaw. 2015. "Dynamic Estimation of Latent Opinion Using a Hierarchical Group-Level Irt Model." *Political Analysis* 23 (2):197-211. doi: 10.1093/pan/mpu021.

Cichocki, Piotr, and Piotr Jabkowski. 2023. "Response Scale Overstretch: Linear Stretching of Response Scales Does Not Ensure Cross-Project Equivalence in Harmonised Data." *Quality & Quantity* 57 (4):3729-45. doi: 10.1007/s11135-022-01523-5.

Claassen, Christopher. 2020. "Does Public Support Help Democracy Survive?" *American Journal of Political Science* 64: 118-134. doi:10.1111/ajps.12452. doi: 10.1017/S0007123421000260.

Claassen, Christopher, and Lauren McLaren. 2022. "Does Immigration Produce a Public Backlash or Public Acceptance? Time-Series, Cross-Sectional Evidence from Thirty European Democracies." *British Journal of Political Science* 52 (3):1013-31. doi: 10.1017/S0007123421000260.

Dassonneville, Ruth, Fernando Feitosa, Marc Hooghe, and Jennifer Oser. 2021. "Policy Responsiveness to All Citizens or Only to Voters?" *European Journal of Political Research* 60 (3): 583-602. doi:10.1111/1475-6765.12417.

Hu, Yue, and Frederick Solt. 2025. "Macrointerest Across Countries." *British Journal of Political Science.* doi:10.1017/S0007123424001042.

Huijsmans, Twan, Arieke J. Rijken, and Teodora Gaidyte. 2019. "Harmonised PolPart Dataset." doi:10.17605/OSF.IO/GZTKY.

Huijsmans, Twan, Arieke J. Rijken, and Teodora Gaidyte. 2022. "The Income Gap in Voting: Moderating Effects of Income Inequality and Clientelism." *Political Behavior* 44 (3): 1203-1223. doi:10.1007/s11109-020-09652-z.

Koc, Piotr, and Marta Kołczyńska 2026. "Modeling Trends in Aggregate Public Opinion Using Multiple Survey Sources: An Overview of Approaches, Assumptions and Trade-offs." *PS: Political Science & Politics*. DOI: XXXXXXXXX.

Kołczyńska, Marta. 2022. "Combining Multiple Survey Sources." *Methodological Innovations* 15 (1): 62-72. doi:10.1177/20597991221077923.

Kołczyńska, Marta, and Paul-Christian Bürkner. 2024. "Modeling Public Opinion over Time: A Simulation Study of Latent Trend Models." *Journal of Survey Statistics and Methodology* 12 (1):130-54. doi:10.1093/jssam/smad024.

Kołczyńska, Marta, Paul-Christian Bürkner, Lauren Kennedy, and Aki Vehtari. 2024. "Modeling Public Opinion over Time and Space: Trust in State Institutions in Europe, 1989-2019." *Survey Research Methods* 18 (1):1-19. doi:10.18148/srm/2024.v18i1.8119.

Kostelka, Filip, and André Blais. 2021. "The Generational and Institutional Sources of the Global Decline in Voter Turnout." *World Politics* 73 (4):629-67. doi:10.1017/S0043887121000149.

Kostelka, Filip, Lukáš Linek, Jan Rovny, and Michael Škvrňák. 2025. "Electoral Participation and Satisfaction with Democracy in Central and Eastern Europe." *Political Science Research and Methods*. doi:10.1017/psrm.2025.10028.

Lachat, Romain. 2017. "Which Way from Left to Right? On the Relation between Voters' Issue Preferences and Left–Right Orientation in West European Democracies." *International Political Science Review* 39 (4): 419-435. doi:10.1177/0192512117692644.

Lupu, Noam, and Zach Warner. 2022a. "Affluence and Congruence." *The Journal of Politics* 84 (1):276-90. doi:10.1086/714930.

Lupu, Noam, and Zach Warner. 2022b. "Why Are the Affluent Better Represented around the World?" *European Journal of Political Research* 61 (1):67-85. doi:10.1111/1475-6765.12440.

Lyberg, Lars, et al. 2021. AAPOR/WAPOR Task Force Report on Quality in Comparative Surveys. https://wapor.org/resources/aapor-wapor-task-force-report-on-quality-in-comparative-surveys/. Last accessed: December 18, 2025.

Manucci, Luca. 2022. *The Populism Interviews: A Dialogue with Leading Experts*: Taylor & Francis.

Mauk, Marlene. 2020a. *Citizen Support for Democratic and Autocratic Regimes*. Oxford University Press.

Mauk, Marlene. 2020b. "Disentangling an Elusive Relationship." *Political Research Quarterly* 73 (2): 366-380. doi:10.1177/1065912919829832.

Mongrain, Philippe. 2023. "With a Little Help from My Friends? The Impact of Social Networks on Citizens' Forecasting Ability." *European Journal of Political Research* 62 (4): 1320-1346. doi:10.1111/1475-6765.12576.

Munck, Gerardo L., and Richard Snyder. 2007. *Passion, Craft, and Method in Comparative Politics*. Baltimore, MD: Johns Hopkins University Press.

Neundorf, Anja, Johannes Gerschewski, and Roman-Gabriel Olar. 2020. "How Do Inclusionary and Exclusionary Autocracies Affect Ordinary People?" *Comparative Political Studies* 53 (12): 1890-1925. doi:10.1177/0010414019858958.

Schmitt, Hermann. 2021. The True European Voter (ZA5054; Version 1.0.0) [Data set]. GESIS, Cologne. doi:10.4232/1.13601.

Schmitt, Hermann, Paolo Segatti, and Cees van der Eijk, eds. 2021. *Consequences of Context: How the Social, Political, and Economic Environment Affects Voting*: ECPR Press.

Slomczynski, Kazimierz M., Irina Tomescu-Dubrow, Ilona Wysmulek, Przemek Powałko, J. Craig Jenkins, Marcin Ślarzyński, Marcin W. Zieliński, Zuzanna Skora, Olga Li, and Denys Lavryk. 2023. SDR2 Database. Harvard Dataverse. doi:10.7910/DVN/YOCX0M.

Solt, Frederick. 2008. "Economic Inequality and Democratic Political Engagement." *American Journal of Political Science* 52 (1):48-60. doi:10.1111/j.1540-5907.2007.00298.x.

Tai, Yuehong 'Cassandra', Yue Hu, and Frederick Solt. 2024. "Democracy, Public Support, and Measurement Uncertainty." *American Political Science Review* 118 (1):512-8. doi:10.1017/S0003055422000429.

Valgarðsson, Viktor Orri, and Daniel Devine. 2022. "What Satisfaction with Democracy? A Global Analysis of "Satisfaction with Democracy" Measures." *Political Research Quarterly* 75 (3): 576-590. doi:10.1177/10659129211009605.

Valgarðsson, Viktor Orri, Will Jennings, Gerry Stoker, Hannah Bunting, Daniel Devine, Lawrence McKay, and Andrew Klassen. 2025. "A Crisis of Political Trust?" *British Journal of Political Science*. doi:10.1017/S0007123424000498.

van der Meer, T. W. G., K. Ackermann, and H. Pellikaan. 2024. "Can We Aggregate Voters' Perceptions of Political Parties' Left–Right Positions?" *Comparative European Politics* 22 (6): 839-864. doi: 10.1057/s41295-024-00383-7.

Woo, Byung-Deuk, Lindsey A. Goldberg, and Frederick Solt. 2023. "Public Gender Egalitarianism." *British Journal of Political Science* 53 (2): 766-775. doi:10.1017/S0007123422000436.