Report on the Module 5 Pretest

August 31, 2016
# Table of Contents

Tables ........................................................................................................................................................................... ii

Figures ........................................................................................................................................................................... iii

Acknowledgements ................................................................................................................................................... iv

Executive Summary .................................................................................................................................................... v

**INTRODUCTION** .......................................................................................................................................................... 7

  MEASURING POPULISM ............................................................................................................................................ 8

**PRETEST DATA SETS AND COUNTRY COMPARISONS** ................................................................................................. 9

  CHARACTERISTICS OF DATA SETS ........................................................................................................................... 9

  WORDING DIFFERENCES ...................................................................................................................................... 10

**METHODS** ................................................................................................................................................................ 11

**MISSING DATA** ......................................................................................................................................................... 12

**TESTING FOR ATTITUDES ABOUT ELITES** ................................................................................................................ 13

  MEANS AND DISTRIBUTIONS ................................................................................................................................ 13

  SCALING AND DIMENSIONALITY ............................................................................................................................... 14

  VALIDITY .............................................................................................................................................................. 15

  SUMMARY ........................................................................................................................................................... 16

**TESTING FOR OUT-GROUP ATTITUDES** ..................................................................................................................... 17

  SCALING AND DIMENSIONALITY ............................................................................................................................... 17

  VALIDITY .............................................................................................................................................................. 18

  SUMMARY ........................................................................................................................................................... 18

**TESTING FOR NATIONAL IDENTITY** .......................................................................................................................... 19

  SCALING AND DIMENSIONALITY ............................................................................................................................... 19

  VALIDITY .............................................................................................................................................................. 20

  SUMMARY ........................................................................................................................................................... 21

**ANALYSIS FOR CROSS-COUNTRY COMPARISONS: MEASUREMENT INVARIANCE ACROSS COUNTRIES** .......... 21

  INTRODUCTION AND METHODS .......................................................................................................................... 21

  CONFIRMATORY FACTOR ANALYSIS ........................................................................................................................ 22

  MULTIPLE GROUP ANALYSIS .................................................................................................................................. 24

  CONCLUSION ....................................................................................................................................................... 27

**ATTITUDES TOWARD REDISTRIBUTION** .................................................................................................................... 27

  SUMMARY ........................................................................................................................................................... 29

**References** ............................................................................................................................................................... 31

Appendix A. Coefficients and Model Fit from Overall CFA, Full Set of Items Asked in all Countries .......... 32
Tables

Table 1. Differences between Data Sets ................................................................. 10
Table 2. Means and Ranges of Percent Missing for Sets of Items ................................. 13
Table 3. Means and Standard Deviations for Q04a by Country ................................ 14
Table 4. Cronbach's Alpha Scale Reliability Test for Attitudes About Elites by Country ... 15
Table 5. Validity Tests for Attitudes About Elites .................................................... 16
Table 6. Cronbach's Alpha for Out-Group Attitudes by Country ............................. 17
Table 7. Validity Tests for Out-Group Attitudes ..................................................... 18
Table 8. Cronbach's Alpha for National Identity by Country ..................................... 19
Table 9. Validity Tests for National Identity ........................................................... 20
Table 10. Sample size for multiple group analysis by country ................................... 22
Table 11. Coefficients and Model Fit from Overall CFA, Reduced Set of Items ............ 23
Table 12. CFI and RMSEA for Individual Country CFAs ......................................... 24
Table 13. Factor Loading for Multiple Group Analysis: Unconstrained Model ............. 25
Table 14. Model Fit and LRT for the Unconstrained and Fully Constrained Models ....... 26
Figures
Figure 1. Democracy Divided? Components of Populist Attitudes .................................................................................. 7
Figure 2. Distributions for Q04a by Country .............................................................................................................. 14
Figure 3. Question wording experiment for Attitudes Toward Redistribution: Percentage of respondents selecting each category .................................................................................................................. 28
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Executive Summary

In late 2015 through early 2016, six countries participated in a pretest of the Comparative Study of Electoral Systems (CSES) draft Module 5 questionnaire. The results of the pretest informed the final version of the questionnaire that was agreed on at the CSES Plenary Meeting in September 2016 in Philadelphia.

The draft questionnaire focused on the topics of divided democracy and political populism and was created on the basis of user community proposals and discussions by the CSES Planning Committee in March and October 2015. Three core sets of measures on populism were incorporated into the draft questionnaire: Attitudes About Elites, Out-Group Attitudes, and National Identity. Additional items designed to measure divided democracy were also incorporated, which included political interest, politics in the media, internal efficacy, perceptions of corruption, and attitudes towards redistribution. The questionnaire was pretested in Greece, Ireland, South Korea, Sweden, Switzerland, and Taiwan.

This pretest report evaluates the key measures that are new to the CSES based on the data from the six country pretests, focusing on divided democracy and political populism. Results from this report were presented on August 31, 2015 at the CSES Plenary Session in Philadelphia.

The analyses presented and contained in this report were designed to evaluate the performance of the individual measures in each country, their dimensionality within countries, and their performance in a cross-country context, in order to help determine which measures should be retained in the final version of the questionnaire. Individual reports were also created for each country, which go into more depth on some of the analyses presented in this report.

To examine the performance of individual measures within each country, we examined frequency distributions, summary statistics, and correlations, which can be found in the individual country reports. In this document, we report the results of an examination of the missing data. We also discuss the results of Cronbach’s alpha tests for each country that look at the internal consistency of the three proposed populism dimensions (i.e., Attitudes About Elites, Out-Group Attitudes, and National Identity), and we identify individual items that could be dropped to improve the scores. An overview of findings on the dimensionality of the three populism scales from the individual country reports are also reported here, assessed via factor analysis, as are discussions of the validity of the individual populism items with respect to voting for populist parties. To examine the comparability of the populist measures between countries, we used multiple group analysis, which we report on in depth in this document. Finally, we report on the results of an experiment conducted in Switzerland on the question wording of the attitudes towards redistribution item.

Generally, we found that the measures performed well with only a few items that stood out for further consideration. The three proposed populism dimensions could be treated as three separate scales corresponding to the three dimensions, but country context and the purpose for analysis will likely need to be taken into account by researchers using the data to make that determination.

Specifically, we found that the amount of missing data was quite low for all of the measures across all of the countries. Ireland tended to have the lowest percentage of missing responses, while Taiwan had the most missing data. Attitudes Towards Redistribution tended to have slightly higher levels of missing data than other items we investigated, but not at levels that were concerning.
Although examinations of the means and standard deviations can be found in the individual country reports, we highlighted Q04a “In a democracy it is important to seek compromise among different viewpoints” in this report because it appeared to have low means and standard deviations relative to the other elite attitude items. This indicated that people in each of these countries tended to agree that seeking compromise is important in a democracy. This item also did not scale well with other items, load well in factor analyses, and has potential face validity problems.

The Attitudes About Elite items tended to scale moderately well in each country based on Cronbach’s alpha tests, but factor analyses indicated that the items were not unidimensional. The Attitudes About Elite items did not meet the standard .75 level of reliability in Cronbach’s alpha tests, but generally came close in some cases, ranging from .53 in South Korea to .72 in Sweden for the full set of items. Although three factors emerged, there was not consistency across items in each dimension between countries. In some countries, items could be forced to load on a single factor, but this was not consistent across countries. Dropping questions Q04a (about compromise) and Q04e (about having a strong leader) improved Cronbach’s alpha scores and had the potential to decrease the dimensionality of the scale.

Items making up the Out-Group Attitudes dimension did not scale well overall, especially in Taiwan and South Korea where the Cronbach’s alphas were .25 and .40 respectively. Sweden was the only exception. These results suggest that the items as a group are not as strongly related or consistent as we would hope, and the measures may not work together as well in Asia. Factor analysis generally indicated unidimensionality, except in South Korea. However, low correlations between the minority item and the two immigrant items suggest that considering these two out-groups separately may be helpful.

The National Identity items scaled well in each country, nearly meeting or exceeding the .75 level for reliability. However, factor analyses produced one- to three-factor solutions. Different political situations in each country may account for differing dimensionality from country to country, and researchers might want to take these differing contexts into account.

Finally, we tested the measurement invariance across countries for the three populism dimensions (Attitudes About Elites, Out-Group Attitudes, and National Identity) using multiple group analysis (MGA) and concluded that the three factors may not be equivalent across all countries. To conduct this test, we created a confirmatory factor analysis (CFA) for all data combined across all countries followed by a MGA. For the CFA, a three factor model was run, with Attitudes About Elites, Out-Group Attitudes, and National Identity as the three factors. The model did not have a good fit, but came close. There were also significant differences between the constrained and unconstrained MGAs such that the magnitude of loadings differed across models, but varied in the same direction across countries.
INTRODUCTION

The CSES Module 5 was designed to introduce new measures of political populism to the CSES and investigate the notion of divided democracies. Core objectives of the module were to allow researchers to account for variation in the contestation of political elites and ‘populist’ attitudes across democracies, examine how ‘populist’ perceptions shape electoral behavior, and explore the distribution of populist attitudes cross-nationally. The module accounted for three core components, or dimensions, of populist attitudes: (1) attitudes towards political elites and electoral democracy, (2) attitudes towards out-groups within society, and (3) perceptions of “the people” and attachment to the nation. The CSES Planning Committee Module 5 Report and the CSES Module 5 Content Subcommittee Final Report further discusses these underlying dimensions, as well as possible sub-dimensions, and expand on the theoretical basis for the module. The latter report is available online (Hobolt, Anduiza, Carkoglu, Lutz, & Sauger, 2016).

Figure 1 below, from the CSES Planning Committee Module 5 Report, shows the three core components of populist attitudes.

Moreover, other questions were added to the CSES, some for the first time, in order to further investigate the notion of divided democracies. These included questions about the news media, internal political efficacy, the extent of corruption in government, and attitudes towards redistribution.
The goal of the pretest was to (1) examine the distribution of answers to the questions in the CSES Module 5, (2) determine how the measures performed as scales representing specific dimensions of populism, and (3) explore how populism measures relate to vote choice of populist parties.

MEASURING POPULISM

To measure attitudes toward the political elite in Module 5, eight questions were asked, each using a 5-point Likert Scale. The question reads:

*Please tell me whether you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with each of the following statements:

Q04a. In a democracy it is important to seek compromise among different viewpoints.
Q04b. Most politicians do not care about the people.
Q04c. Most politicians are trustworthy.
Q04d. Politicians are the main problem in [COUNTRY].
Q04e. Having a strong leader in government is good for [COUNTRY] even if the leader bends the rules to get things done.
Q04f. The people, and not politicians, should make our most important policy decisions.
Q04g. Most politicians care only about the interests of the rich and powerful.
Q04h. Poor people should have a greater voice in politics.

The next set of questions measured respondents’ attitudes about out-groups—both ethnic minorities and immigrants. A total of three questions, each on 5-point Likert Scales, were used to measure Out-Group Attitudes. The question about ethnic minorities was asked first, followed by questions about immigrants:

*Now thinking about ethnic minorities. Do you strongly agree, somewhat agree, neither agree nor disagree, or strongly disagree with the following statement?

Q05a. Ethnic minorities should adapt to [COUNTRY]’s way of life.

*And now thinking specifically about immigrants: Do you strongly agree, somewhat agree, neither agree nor disagree, or strongly disagree with the following statements?

Q05b. Immigrants are generally good for [COUNTRY]’s economy.
Q05c. [COUNTRY]’s culture is generally harmed by immigrants.

Finally, respondents were asked about their National Identity. This set of questions had seven items, each answered on a 4-point Likert-type scale.

*Some people say that the following things are important for being truly [NATIONALITY]. Other says they are not important.*
How important do you think each of the following is... Very important, fairly important, not very important, or not important at all?

Q06a. To have been born in [COUNTRY].
Q06b. To have lived in [COUNTRY] for most of one's life.
Q06c. To be able to speak [COUNTRY NATIONAL LANGUAGES].
Q06d. To be [COUNTRY DOMINANT RELIGION].
Q06e. To respect [COUNTRY NATIONALITY] political institutions and laws.
Q06f. To feel [COUNTRY NATIONALITY].
Q06g. To have [COUNTRY NATIONALITY] ancestry.
[ALTERNATIVE WORDING: For your grandparents to have been born in [COUNTRY].]

PRETEST DATA SETS AND COUNTRY COMPARISONS

CHARACTERISTICS OF DATA SETS

Six countries participated in the Module 5 Pretest: Greece, Ireland, S. Korea, Sweden, Switzerland, and Taiwan. In all countries except for Sweden, the module was tested in proximity to a national election. Greece, Ireland, S. Korea, and Switzerland held parliamentary elections, while Taiwan held a parliamentary and presidential election (i.e., Taiwan had concurrent elections where parliament and president were voted on separately). While the modes of data collection varied, all countries had at least 1,000 respondents and used either a probability or quota design. Table 1 below summarizes some of the key differences between each of the data sets.
Table 1. Differences between Data Sets

<table>
<thead>
<tr>
<th></th>
<th>Greece</th>
<th>Ireland</th>
<th>S. Korea</th>
<th>Sweden</th>
<th>Switzerland</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study</strong></td>
<td>ELNES 2015b</td>
<td>INES, 2016</td>
<td>20th National Assembly Election Survey</td>
<td>Sweden Citizens Panel, Wave 18</td>
<td>CSES Module 5 Pilot</td>
<td>TEDS 2016</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Probability, RDD</td>
<td>Probability, Panel</td>
<td>Quota</td>
<td>Quota, online opt-in panel*</td>
<td>Quota, online opt-in panel</td>
<td>Probability</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>Web, Phone</td>
<td>Phone</td>
<td>In person</td>
<td>Web</td>
<td>Web</td>
<td>In person</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>1068</td>
<td>1000</td>
<td>1199</td>
<td>1279</td>
<td>1000</td>
<td>1690</td>
</tr>
</tbody>
</table>

*Notes. The Swedish dataset was a combined dataset; 670 respondents came from an opt-in panel, and 609 came from a probability-based sample.

**WORDING DIFFERENCES**

Wording differences in cross-national surveys can arise for a variety of reasons, including the difficulty of directly translating the words or grammatical structures in questions from one language to another. There are also differences in culture or political structure that may cause confusion over the meaning of some of the directly translated questions. As a result, we can sometimes see wording differences arise across questionnaires in the CSES Module 5 Pretest.

In this section, we review some of the differences between the survey question wordings. For the most part, there were only small variations in question translations and wording of response categories in some of the countries. Here are examples of a few of the differences:

- In Sweden, Q04c, “Most politicians are trustworthy,” used the term “PÅLITLIG” which translates more closely to “reliable” than it does “trustworthy.” Additionally, the adverbs used in the scale anchors differed: “Fairly important” was replaced with “Rather important” and “Somewhat agree” was replaced with “Agree.”
• In Taiwan, the National Identity items did not explicitly use the word “Taiwan” in the question wording, but rather made reference to “our country.”

• In another example, the questionnaire used in Switzerland relied on a modified wording for the government spending item (Q08). It was changed from “spending more on social services such as health and education” to “spending more on social services, health, and education” because the Swiss do not view spending for health and education as “social services.”

These differences are small, and may make the results more or less comparable across surveys, although in many cases the effects are likely to be negligible. For more information about question wording differences across countries or cultures, see for example, Survey Research Center’s (2016) discussion of problems, solutions, and best practices in survey research.

METHODS

We conducted several different investigations, which can be found in detail in the individual country reports.1 We first looked at the individual items, examining the frequency distributions and summary statistics of each. We also looked at the amount of missing data, along with the skew and variance of some of the more problematic items. In these investigations, we were interested in determining if any of the specific questions were difficult for respondents to answer or lacked sufficient ability to discriminate between different attitudes or behaviors among individuals.

Next, we looked at the scaling and dimensionality of the items, to determine how internally consistent they are relative to the proposed dimensions. We ran correlations to examine the bivariate relationships of each item within a dimension with the other items in the same dimension. For this, we used polychoric correlations, which are appropriate for ordinal by ordinal data where there is a presumed continuous trait in the population. We ran tests using Cronbach’s alpha to look at the internal consistency of the proposed dimensions and looked for individual items that could be dropped to improve the scores. Finally, we looked at factor analyses, first of the full set of items across the three scales and second of the individual scales. The former test allowed us to examine whether the factor structure indeed indicated that there should be three dimensions to populism, and whether items grouped together across any of the three scales. The later test allowed us to determine whether the items fit together as a single dimension and whether there were possible sub-dimensions that emerged. The individual country reports detail the results of the full-set and dimension-specific factor analyses.

Finally, tests of validity were conducted and qualitative assessments of the items were made. The validity tests used logistic regression to predict populist vote choice from the populist measures. We focused on two left-wing populist parties and two right-wing populist parties to make this assessment. We suspected that if the items were adequately measuring individuals’ populist attitudes, they would be associated with individuals’ choices of populist parties during elections.

1 The frequency distributions and summary statistics were weighted only for probability samples. All other analyses were unweighted.
Below, we discuss the results of these tests as they pertain to cross-country comparisons. The individual country reports describe the individual tests, outlined above, as well as additional tests in more detail. Here we present relevant results that allow us to draw conclusions about the strength and weaknesses of individual items across countries, as well as the performance of the items as scales.

MISSING DATA

First, we looked at the amount of missing data present in the variables we investigated. In addition to the populism measures listed above in the subsection “Measuring Populism” (i.e., Attitudes About Elites, variables Q04a-Q04h, Out-Group Attitudes, Q05a-Q05c, and National Identity, Q06a-Q06g) we looked at the following additional variables:

Q01. Political interest: How interested would you say you are in politics? Are you very interested, somewhat interested, not very interested, or not at all interested?

Q02. Politics in the media: And how closely do you follow politics on TV, radio, newspapers, or the Internet? Very closely, fairly closely, not very closely, or not at all?

Q03. Internal efficacy: Please tell me whether you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with each of the following statements: You feel you understand the most important political issues of this country.

Q07. How widespread is corruption: Now on to another topic. How widespread do you think corruption such as bribe taking is among politicians in [COUNTRY]: very widespread, quite widespread, not very widespread, or it hardly happens at all?

Q08. Attitudes towards redistribution: Some people think that the government should cut taxes even if it means spending less on social services such as health and education. Other people feel that the government should spend more on social services such as health and education even if it means raising taxes. Where would you place yourself on this scale where 0 is "Governments should decrease taxes and spend less on services" and 10 is "Governments should increase taxes and spend more on services"?

D15. Either biological parent born outside of country: Was either or both of your parents born outside of [COUNTRY]? (Yes, No)

We considered data to be missing if it was marked as “Don’t Know,” “Refused,” missing, and depending on country, “It depends,” and “No opinion.” For each country, we looked at the percent missing for each item and also looked at the mean and range of the percent of missing data for sets of items. In Table 2 below, we report the mean percent of missing data from each set of items, as well as the range of missing data across the set of items.
Table 2. Means and Ranges of Percent Missing for Sets of Items

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Greece %</th>
<th>Ireland %</th>
<th>S. Korea %*</th>
<th>Sweden %</th>
<th>Switzerland %</th>
<th>Taiwan %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4a-h (Attitudes About Elites)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1.78</td>
<td>0.17</td>
<td>0.31</td>
<td>0.15</td>
<td>4.14</td>
<td>6.19</td>
</tr>
<tr>
<td>Range</td>
<td>(1.20-2.70)</td>
<td>(0.00-0.41)</td>
<td>(0.17-0.50)</td>
<td>(0.13-0.17)</td>
<td>(3.00-5.30)</td>
<td>(4.84-7.52)</td>
</tr>
<tr>
<td>Q5a-c (Out-Group Attitudes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1.63</td>
<td>0.26</td>
<td>1.00</td>
<td>0.11</td>
<td>2.40</td>
<td>8.43</td>
</tr>
<tr>
<td>Range</td>
<td>(1.50-1.80)</td>
<td>(0.19-0.31)</td>
<td>(0.92-1.08)</td>
<td>(0.11-0.12)</td>
<td>(1.90-3.20)</td>
<td>(6.76-9.73)</td>
</tr>
<tr>
<td>Q6a-g (National Identity)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1.47</td>
<td>0.18</td>
<td>0.31</td>
<td>1.46</td>
<td>3.07</td>
<td>4.70</td>
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<tr>
<td>Range</td>
<td>(1.10-1.70)</td>
<td>(0.09-0.30)</td>
<td>(0.17-0.42)</td>
<td>(1.30-1.70)</td>
<td>(2.20-4.00)</td>
<td>(3.67-5.71)</td>
</tr>
<tr>
<td>Additional Questions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1.55</td>
<td>0.16</td>
<td>0.52</td>
<td>NA</td>
<td>3.10</td>
<td>3.77</td>
</tr>
<tr>
<td>Range</td>
<td>(0.94-2.25)</td>
<td>(0.00-0.60)</td>
<td>(0.00-1.33)</td>
<td>NA</td>
<td>(0.40-8.90)</td>
<td>(0.28-10.29)</td>
</tr>
</tbody>
</table>

Notes. Excludes Q08 Attitudes Towards Redistribution. The Swedish pretest did not include the additional questions. *Korean data excludes D.15 Biological Parents and Q06d To be [COUNTRY’S DOMINANT RELIGION].

Overall, the amount of missing data was quite low. For example, across the Attitudes About Elites items, the mean percentage of missing data in Ireland was 0.17%, and it ranged from 0.00% percent missing to 0.41% of responses missing. Ireland tended to have the lowest percentage of missing responses, while Taiwan had the most missing data. It is important to note that, while not depicted in Table 2, Attitudes Towards Redistribution tended to have slightly higher levels of missing data, but not at levels that were concerning. Attitudes Towards Redistribution are discussed later in this report.

TESTING FOR ATTITUDES ABOUT ELITES
MEANS AND DISTRIBUTIONS

Attitudes About Elites were first tested by looking at the means and distributions of the individual items in the scale, the results of which can be found in the individual country reports. However, across all countries participating in the pretest, Q04a “In a democracy it is important to seek compromise among different viewpoints” appeared to have low means and standard deviations relative to the other elite attitude items. This indicated that people in each of these countries tended to agree that seeking compromise was important in a democracy. Table 4 shows the means and standard deviations for Q04a by country, and Figure 2 shows the distributions of
responses in each country. This figure shows that the percentage of respondents who either agree or strongly agree is high. A vertical line at the 80% mark shows that in most countries, close to 80% of respondents held one of these positions. Of all of the measures in the Attitudes About Elites dimension, this measure appeared to have the least variance.

Table 3. Means and Standard Deviations for Q04a by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>2.14</td>
<td>.90</td>
</tr>
<tr>
<td>Ireland</td>
<td>1.35</td>
<td>.68</td>
</tr>
<tr>
<td>S. Korea</td>
<td>2.06</td>
<td>.76</td>
</tr>
<tr>
<td>Sweden</td>
<td>1.64</td>
<td>.70</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.86</td>
<td>.95</td>
</tr>
<tr>
<td>Taiwan</td>
<td>2.00</td>
<td>.73</td>
</tr>
</tbody>
</table>

Notes. Strongly agree is 1, Strongly disagree is 5.

Figure 2. Distributions for Q04a by Country

SCALING AND DIMENSIONALITY

Next, the scaling and dimensionality of the Attitudes About Elites items were examined. First, Cronbach’s alpha was used to determine how internally consistent the items are relative to one another. Then, factor analysis was conducted to examine the dimensionality of the items, especially relative to the proposed dimensions. Table 3 below highlights the Cronbach’s alpha tests that were conducted on this scale in each country.
Table 4. Cronbach's Alpha Scale Reliability Test for Attitudes About Elites by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Cronbach’s alpha</th>
<th>Alpha without items a (compromise) or e (strong leader)</th>
<th>Other higher scores on alpha if item deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>.58</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>.69</td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>S. Korea</td>
<td>.53</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>.72</td>
<td>.75</td>
<td>h</td>
</tr>
<tr>
<td>Switzerland</td>
<td>.70</td>
<td>.76</td>
<td>c</td>
</tr>
<tr>
<td>Taiwan</td>
<td>.54</td>
<td>.60</td>
<td></td>
</tr>
</tbody>
</table>

Notes. Item “c” is trustworthy. Item “h” is poor people-greater voice.

The alphas range from .53 in South Korea to .72 in Sweden for the full set of items. In every country, the alphas improved if items a (compromise) and e (strong leader) were deleted. In all countries but Switzerland and Sweden, they had the two highest alpha-if-item-deleted scores. In Switzerland, they were the first and (close) third item. As a result, Table 3 presents the Cronbach’s alpha without items Q04a or Q04e. Without these items, alphas increase. The scores range from .56 in South Korea to .77 in Ireland. Dropping these items allowed the alpha scores to reach acceptable levels (of at least .75) in three countries. It is also worth pointing out that item h, in Sweden, had the highest alpha-if-item-deleted score. Additionally, the scale in Switzerland could be improved without item c.

Exploratory factor analyses were also conducted for the Attitudes About Elites items for each of the individual countries. These analyses used principal component factoring and oblimin (an oblique) rotation. First, the analysis was run with the number of factors free to vary. Across the countries, three factors emerged. The third factor involved items Q04a (compromise) or Q04e (strong leader) or both. For the other items, no clear pattern emerged between countries. Next, the analyses were run with the number of factors fixed to one. In several countries, items could be forced to load on a single factor with the exception of items 4a and 4e (which loaded <0.3). This suggests that the items are not unidimensional, although it is possible that the number of dimensions would be reduced in the absence of items 4a and 4e.

VALIDITY

To determine whether Attitudes About Elites have concurrent validity, the items were used to predict the vote for populist parties using logistic regression. Two of the pretest countries had popular right-wing populist parties: Sweden’s Sweden Democrats and Switzerland’s SVP. For the left-wing populist parties, Syriza in Greece and Sinn Féin in Ireland were used. Although Sinn Féin may not be a typical populist party, it shared enough characteristics of left-populism that we used it for the analysis. In the analyses, the dependent variable is coded “1” for voting for the populist party and “0” for all others. Though we could have included voting for smaller populist parties in some of these countries, there were not many people voting for these parties so we coded them as “0.” Respondents who cast invalid ballots or responded “Don’t Know” or refused were coded as missing values. We controlled for age, education, income, and gender in all of the models. Details for each of the analyses can be found in the individual country reports.
Table 5 below shows the results for each of the populism items from the Attitudes About Elites scale. The positive and negative signs represent significant coefficients and show the direction of the relationship. In Ireland, for example, two of the eight Attitude About Elite items have a significant, positive relationship with voting for Sinn Féin. Agreeing that poor people should have a greater voice (Q04_8) and most politicians only care about the rich (Q04_7) are significantly associated with a vote for Sinn Féin. These two items were designed to tap left-wing populism, and the positive relationship between the items and vote choice suggests the results are in the expected direction.

Table 5. Validity Tests for Attitudes About Elites

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greece</td>
<td>Ireland</td>
</tr>
<tr>
<td>4A</td>
<td>Compromise</td>
<td>-</td>
</tr>
<tr>
<td>4B</td>
<td>Do not care</td>
<td>+</td>
</tr>
<tr>
<td>4C</td>
<td>Trustworthy</td>
<td>-</td>
</tr>
<tr>
<td>4D</td>
<td>Main problem</td>
<td>+</td>
</tr>
<tr>
<td>4E</td>
<td>Strong Leader</td>
<td>+</td>
</tr>
<tr>
<td>4F</td>
<td>People Decide</td>
<td>+</td>
</tr>
<tr>
<td>4G</td>
<td>Care abt. Rich</td>
<td>+</td>
</tr>
<tr>
<td>4H</td>
<td>Greater Voice</td>
<td>+</td>
</tr>
</tbody>
</table>

Notes. Strongly and somewhat agree are coded as 1. Syriza, Sinn Féin, Sweden Democrats, and SVP are coded as 1. Positive and negative signs represent significant coefficients and show the direction of the relationship.

Although Sweden and Switzerland were used to test the validity of the Attitudes About Elites items for right populist parties, it is worth noting that the wording is slightly different for some of the questions (notably there were slightly different anchors on the scales and Q04c used the word “reliable” rather than “trustworthy”). The strong leader question was (Q04e), which was significant and positively related to voting for the right populist parties. In Switzerland, the odds of voting for the SVP are more than four times greater if you agree with a strong leader being good for the country than if you disagree. Strong leader was a significant, but not nearly as strong, predictor in Sweden.

SUMMARY

Overall, it is worth pointing out that items on this scale tend to be more reliable in Europe than elsewhere. Additionally, based on the results of the scaling and dimensionality tests, Q04a “In a democracy it is important to seek compromise among different viewpoints” and Q04e “Having a strong leader in government is good for [COUNTRY] even if the leader bends the rules to get things done” tend not to fit with the rest of the Attitudes About Elites items. This was determined from the Cronbach’s alpha with item-deleted scores as well as the exploratory factor analyses.
Moreover, descriptive statistics show that Q04a “seeking compromise” is highly skewed and has a low standard deviation. The standard deviation on this item is low even in comparison to other items on the Attitudes About Elites scale (not shown). The unusual findings for Q04a “seeking compromise” could be a result of the item tapping a general principle about democracy rather than a populist attitude regarding compromise within the country at hand. Some measures elsewhere in the literature on populism have measures of compromise that tend to present a more cynically worded perspective on compromise (e.g., Akkerman, Mudde, & Zaslove, 2014).

The item Q04e (above) “strong leader” seems to perform fine as an individual item, although Cronbach’s alpha and exploratory factor analyses suggest it does not fit the dimension. Considering this item on its own rather than as part of an Attitude About Elite scale may be helpful.

### TESTING FOR OUT-GROUP ATTITUDES

#### SCALING AND DIMENSIONALITY

Next, we tested the set of measures making up an Out-Group Attitudes dimension. As with the previous set of items, we first used Cronbach’s alpha to determine the reliability of the items, followed by factor analysis to determine the dimensionality of the items. Table 6 below highlights the Cronbach’s alpha tests that were conducted on this scale in each country.

Notably, the alpha for Taiwan is quite low at .25. None of the alphas reach acceptable levels (.75) with the exception of Sweden, which is .81. This suggests that the items as a group are not as strongly related or consistent as we would hope. Additionally, it is worth pointing out that the alpha is especially low in Taiwan and S. Korea, which suggests that the measures may not work together as well in Asia.

<table>
<thead>
<tr>
<th>Country</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>.65</td>
</tr>
<tr>
<td>Ireland</td>
<td>.54</td>
</tr>
<tr>
<td>S. Korea</td>
<td>.40</td>
</tr>
<tr>
<td>Sweden</td>
<td>.81</td>
</tr>
<tr>
<td>Switzerland</td>
<td>.62</td>
</tr>
<tr>
<td>Taiwan</td>
<td>.25</td>
</tr>
</tbody>
</table>

Next, exploratory factor analyses, using principal component factoring and oblimin rotation were conducted. All items from the Out-Group Attitudes dimension loaded on a single factor, except for the data from Taiwan, which loaded on two factors. It is worth pointing out that Q5a (Minorities should adapt), loaded on its own in Taiwan and had the lowest loading in all countries except Korea.
Separate analysis of bivariate correlations indicates Q5a has a lower correlation with the immigration measures than they do with each other. The item Q5a also had the lowest correlation with Q5b (immigrants good for the economy). More details on the correlational analyses can be found in the individual country reports.

The results of these analyses suggest that minorities and immigrants, while both out-groups, should not necessarily be combined in analyses, and researchers may want to consider each type of out-group separately.

VALIDITY

To determine whether the Out-Group Attitudes items have concurrent validity, the items were used to predict the vote for populist parties using logistic regression in the same way as the Attitudes About Elites measures. Again, we used Sweden Democrats and Switzerland’s SVP for the right-wing populism tests and Syriza in Greece and Sinn Féin in Ireland to test left-wing populism. In the analyses, the dependent variable is coded “1” for voting for the populist party and “0” for all others. We controlled for age, education, income, and gender in all of the models. Details for each of the analyses can be found in the individual country reports.

Table 7 below shows the results for each of the populism items from the Out-Group Attitudes scale. Results show that the items significantly predict right-wing populism in the expected direction in both countries with right-wing parties. On the other hand, the items appear to be inconsistent predictors of left-wing populism. For example, support for left-wing populism (Syriza) in Greece was predicted by disagreeing that minorities should adapt and that immigrants are bad for culture, but neither item significantly predicted support for Sinn Féin.

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greece</td>
<td>Ireland</td>
</tr>
<tr>
<td>5A</td>
<td>Minorities should adapt</td>
<td>-</td>
</tr>
<tr>
<td>5B</td>
<td>Immigrants good for economy</td>
<td>-</td>
</tr>
<tr>
<td>5C</td>
<td>Immigrants bad for culture</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes. Strongly and somewhat agree are coded as 1. Syriza, Sinn Féin, Sweden Democrats, and SVP are coded as 1. Positive and negative signs represent significant coefficients and show the direction of the relationship.

SUMMARY

In sum, the items in the Out-Group Attitudes scales are not particularly reliable. Generally, the scale had relatively low Cronbach’s alphas, especially in the Asian countries that participated in the pretest. Tests showed that Q5a, about minorities, does not fit as well with the other two items, which are about immigrants. Although the factor analyses suggest this scale is
unidimensional in most countries, the low reliability and bivariate correlations suggest that the question about minorities should be considered separately from the questions about immigrants.

Additionally, the logistic regressions testing the individual Out-Group Attitudes items against voting for left- and right-wing populist parties show that the items consistently predict right-wing, but not left-wing, populism.

**TESTING FOR NATIONAL IDENTITY**

**SCALING AND DIMENSIONALITY**

The set of measures making up the National Identity dimension of populist attitudes was the final set tested. As with the previous two sets of items, Cronbach’s alpha was used to determine the internal consistency of the items, followed by factor analysis to determine the dimensionality of the items. Table 8 below highlights the Cronbach’s alpha tests that were conducted on this scale in each country.

<table>
<thead>
<tr>
<th>Country</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>.73</td>
</tr>
<tr>
<td>Ireland</td>
<td>.72</td>
</tr>
<tr>
<td>S. Korea*</td>
<td>.79</td>
</tr>
<tr>
<td>Sweden</td>
<td>.83</td>
</tr>
<tr>
<td>Switzerland</td>
<td>.77</td>
</tr>
<tr>
<td>Taiwan</td>
<td>.72</td>
</tr>
</tbody>
</table>

*Notes. Q06d To be [COUNTRY’S DOMINANT RELIGION] is excluded in S. Korea questionnaire.

The National Identity items appear to form the most reliable scale of the three populist attitude dimensions; Table 8 shows that each of the Cronbach’s alphas are close to .75 and three countries (S. Korea, Sweden, and Switzerland) exceed .75. These alphas suggest that the set of National Identity items are closely related to each other in all of the countries in the pretest.

Next, we tested the dimensionality of the National Identity items via an exploratory factor analysis, using principal component factoring and oblimin rotation. This produced between one to three factors depending on the country. Two-factor solutions were produced in Ireland, Sweden, Switzerland, and Taiwan, while a one-factor solution emerged in S. Korea, and a three-factor solution was found in Greece. Item Q06e (respect laws) tended to load apart from other items, sometimes with Q06f (feel nationality). Item Q06f (feel nationality) tended to load on more than one factor. In separate tests of the means and standard deviations, we found that across countries, Q06e and Q06f (respect laws and feel nationality) tend to have low means and SDs relative to other items, which could explain why those two items tend to load together (see the individual country reports for details).
Overall, the Cronbach’s alphas and factor solutions suggest that the items are internally consistent, but that different political situations in each country may account for different dimensionality. Depending on the analysis, researchers might want to consider the political context of an individual country and take the dimensionality of the items into account.

VALIDITY

To determine whether the National Identity items have concurrent validity, the items were used to predict the vote for populist parties using logistic regression, in the same way as the previous two sets of measures. Again, we used Sweden Democrats and Switzerland’s SVP for the right-wing populism tests and Syriza in Greece and Sinn Féin in Ireland to test left-wing populism. In the analyses, the dependent variable is coded “1” for voting for the populist party and “0” for all others. We controlled for age, education, income, and gender in all of the models. Details for each of the analyses can be found in the individual country reports.

Table 9 below shows the results for each of the populism items from the National Identity scale. Results show that the items significantly predict right-wing populism in the expected direction in both countries with right-wing parties. However, only three items consistently predict right-wing populism: Q06a “Born in country,” Q06b “Lived in country,” and Q06d “Be religion.”

In terms of left-wing populism, the items do not seem predictive in any clear way. Although Q06d “Be religion” and Q06f “Feel nationality” have a significant negative relationship with voting for Syriza, it is not clear why a relationship would be present in the first place or whether it could be replicated in other countries with left-populist parties. In fact, in Ireland, none of the items are associated with voting for Sinn Féin.

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th></th>
<th>Right</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greece</td>
<td>Ireland</td>
<td>Sweden</td>
<td>Switzerland</td>
</tr>
<tr>
<td>6A</td>
<td>Born in country</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6B</td>
<td>Lived in country</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>6C</td>
<td>Speak language</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>6D</td>
<td>Be religion</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>6E</td>
<td>Respect laws</td>
<td></td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>6F</td>
<td>Feel nationality</td>
<td>-</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>6G</td>
<td>Have ancestry</td>
<td></td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

Notes. Very and fairly important are coded as 1. Syriza, Sinn Féin, Sweden Democrats, and SVP are coded as 1. Positive and negative signs represent significant coefficients and show the direction of the relationship.
SUMMARY

In sum, the National Identity items form a reasonably strong scale across countries but vary in their dimensionality across countries. Most countries produced two factor solutions to the exploratory factor analysis, but the underlying factors varied by country. This may not be surprising since the context of nationalism varies from country-to-country. In some countries “respect laws” and “feel nationality” could be a separate factor or dimension, especially because “respect laws” tended to load separately across the countries. Additionally, the items tend to be more predictive of right populism than left populism, as might be expected. However, the predictive items may not be consistent across countries, which could also be attributed to the different contexts for nationalism in each of the countries.

ANALYSIS FOR CROSS-COUNTRY COMPARISONS: MEASUREMENT INVARiance ACROSS COUNTRIES

INTRODUCTION AND METHODS

Multiple group analysis (MGA) is a widely used technique for testing measurement invariance, a statistical property that assesses the ability of a construct to measure the same thing across groups (Meredith, 1993). It is used within the context of structural equation modeling and confirmatory factor analysis to test for the equivalence of paths in a hypothesized model across key groups in the dataset, allowing analysts to understand where comparability breaks down and where model assumptions may not be met. Related techniques have been used in public opinion and survey methodology across a variety of settings, including testing for invariance in multinational studies and correcting for error (see Everett & Entrekin, 1980; McCutcheon, 2002; Kaminska, McCutcheon, & Billiet, 2010, for summaries and an application).

In the case of the CSES data, before proceeding with any analysis using the summary measures that are derived from the data, analysts should consider their comparability across countries. While there are many reasons why a particular set of measures may not yield equivalent results—sample composition, translation issues, and cultural context, to name a few—understanding how the measures may or may not be comparable across contexts is necessary for a well-informed analysis. Here, we focus on the three dimensions of populism proposed in the Module 5 Report: Attitudes About Elites, Out-Group Attitudes, and National Identity.

A typical approach to testing measurement invariance involves 1) assessing the overall confirmatory factor analysis (CFA); 2) testing whether the same model holds for each country by constraining all of the parameters to be the same across groups, then using a likelihood ratio test to compare the constrained and unconstrained models (the latter allowed to vary anywhere in the model); 3) if the same model does not hold for each country (that is, the constrained and unconstrained models are statistically different), testing to see whether the factor loadings are different across countries, the error variances are different across countries, or both. Should the factor loadings be different across countries, this suggests that the underlying construct is not measured in the same way across groups.
For this analysis, models were run in Stata 14.1 (Aycock, 2013) using the sem command, with model fit assessed using the Comparative Fit Index (CFI) and the root mean squared error of approximation (RMSEA) (Hox & Bechger, 1998). Models were estimated unweighted for the purpose of this analysis, and thus describe relationships between the items of interest for survey respondents only. Further work could apply appropriate weights in order to generalize to the population of interest. List-wise deletion of missing data was used, and the final sample sizes per country are shown in Table 10 below.

Table 10. Sample size for multiple group analysis by country.

<table>
<thead>
<tr>
<th>Country</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>1,068</td>
<td>14.76</td>
</tr>
<tr>
<td>Ireland</td>
<td>1,000</td>
<td>13.82</td>
</tr>
<tr>
<td>Korea</td>
<td>1,199</td>
<td>16.57</td>
</tr>
<tr>
<td>Sweden</td>
<td>1,280</td>
<td>17.69</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1,000</td>
<td>13.82</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1,690</td>
<td>23.35</td>
</tr>
<tr>
<td>Total</td>
<td>7,237</td>
<td>100%</td>
</tr>
</tbody>
</table>

**CONFIRMATORY FACTOR ANALYSIS**

The overall CFA is shown in Table 11. This CFA was run using the full data set and specifying three factors: Attitudes About Elites, Out-Group Attitudes, and National Identity. Prior to this step, preliminary model results (see the appendix for results from the full set of items) showed that several CSES items believed to be less related to the proposed factors of interest exhibited poor fit in the previous analyses. These were removed, along with one item not asked in all countries\(^2\), improving the fit of the CFA in Table 1. However, some caution is suggested in considering these three factors to be entirely appropriate for the data since commonly agreed-upon thresholds for CFI and RMSEA of a well-fitting model (.9 and .05, respectively) are not met below.

---

\(^2\) Excluded: **Attitudes About Elites:** Q4a: In a democracy it is important to seek compromise among different viewpoints; Q4e: Having a strong leader in government is good for [COUNTRY] even if the leader bends the rules to get things done; **National Identity:** Q6d: To be [COUNTRY DOMINANT RELIGION] (excluded because not asked in Korea); Q6e: To respect [COUNTRY NATIONALITY] political institutions and laws; Q6f: To feel [COUNTRY NATIONALITY].
Table 11. Coefficients and Model Fit from Overall CFA, Reduced Set of Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Std. Coef. (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitudes About Elites</strong></td>
<td></td>
</tr>
<tr>
<td><em>(Do you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statement?)</em></td>
<td></td>
</tr>
<tr>
<td>Most politicians do not care about the people.</td>
<td>0.729 (0.008)</td>
</tr>
<tr>
<td>Most politicians are trustworthy.</td>
<td>-0.570 (0.01)</td>
</tr>
<tr>
<td>Politicians are the main problem in [COUNTRY].</td>
<td>0.655 (0.009)</td>
</tr>
<tr>
<td>The people, and not politicians, should make our most important policy decisions.</td>
<td>0.442 (0.011)</td>
</tr>
<tr>
<td>Most politicians care only about the interests of the rich and powerful.</td>
<td>0.779 (0.008)</td>
</tr>
<tr>
<td>Poor people should have a greater voice in politics.</td>
<td>0.445 (0.012)</td>
</tr>
<tr>
<td><strong>Outgroup Attitudes</strong></td>
<td></td>
</tr>
<tr>
<td><em>(Do you strongly agree, somewhat agree, neither agree nor disagree, or strongly disagree with the following statement?)</em></td>
<td></td>
</tr>
<tr>
<td>Ethnic minorities should adapt to [COUNTRY]'s way of life.</td>
<td>0.257 (0.014)</td>
</tr>
<tr>
<td>Immigrants are generally good for [COUNTRY]'s economy.</td>
<td>-0.542 (0.014)</td>
</tr>
<tr>
<td>[COUNTRY]'s culture is generally harmed by immigrants.</td>
<td>0.822 (0.018)</td>
</tr>
<tr>
<td><strong>National Identity</strong></td>
<td></td>
</tr>
<tr>
<td><em>(How important do you think the following is for being truly [NATIONALITY]... very important, fairly important, not very important, or not important at all?)</em></td>
<td></td>
</tr>
<tr>
<td>To have been born in [COUNTRY].</td>
<td>0.794 (0.008)</td>
</tr>
<tr>
<td>To have lived in [COUNTRY] for most of one's life.</td>
<td>0.760 (0.008)</td>
</tr>
<tr>
<td>To be able to speak [COUNTRY NATIONAL LANGUAGES].</td>
<td>0.289 (0.013)</td>
</tr>
<tr>
<td>For your grandparents to have been born in [COUNTRY].</td>
<td>0.632 (0.01)</td>
</tr>
<tr>
<td><strong>CFI</strong></td>
<td>0.873</td>
</tr>
<tr>
<td><strong>RMSEA (with CI)</strong></td>
<td>0.080 (0.078, 0.083)</td>
</tr>
<tr>
<td><strong>AIC</strong></td>
<td>239903.403</td>
</tr>
<tr>
<td><strong>BIC</strong></td>
<td>240187.657</td>
</tr>
</tbody>
</table>
Running the CFA separately per country provides a rough sense of the countries in which the proposed factor structure yields adequate fit. The fit statistics for the separate models are displayed in Table 12. Using these two model fit criteria, it appears that the proposed three-factor structure fit best within Ireland and Korea (and met the thresholds for a well-fitting model), and less well within Greece, Sweden, Switzerland, and Taiwan. Factor loadings per country are displayed in the context of MGA below.

Table 12. CFI and RMSEA for Individual Country CFAs

<table>
<thead>
<tr>
<th></th>
<th>Greece</th>
<th>Ireland</th>
<th>Korea</th>
<th>Sweden</th>
<th>Switzerland</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFI</td>
<td>0.814</td>
<td>0.964</td>
<td>0.917</td>
<td>0.880</td>
<td>0.776</td>
<td>0.882</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.088</td>
<td>0.042</td>
<td>0.048</td>
<td>0.104</td>
<td>0.113</td>
<td>0.053</td>
</tr>
<tr>
<td>(CI)</td>
<td>(0.081, 0.095)</td>
<td>(0.035, 0.050)</td>
<td>(0.041, 0.054)</td>
<td>(0.098, 0.110)</td>
<td>(0.105, 0.113)</td>
<td>(0.047, 0.060)</td>
</tr>
</tbody>
</table>

MULTIPLE GROUP ANALYSIS

Next, the reduced set of items and full dataset were used in running a multiple group analysis, with country as the grouping factor. The model fits reasonably well (CFI=0.872, RMSEA=0.079) but still does not meet standards for a well-fitting model.

Table 14 below confirms that most coefficients (with the exception of one item in the outgroup attitudes scale) vary in the same direction across countries, though it is clear that the magnitudes of the loadings differs.
## Table 13. Factor Loading for Multiple Group Analysis: Unconstrained Model

<table>
<thead>
<tr>
<th>Item</th>
<th>Greece</th>
<th>Ireland</th>
<th>Korea</th>
<th>Sweden</th>
<th>Switzerland</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitudes About Elites</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most politicians do not care about the people.</td>
<td>0.660 (0.029)</td>
<td>0.793 (0.017)</td>
<td>0.45 (0.034)</td>
<td>0.833 (0.013)</td>
<td>0.781 (0.019)</td>
<td>0.626 (0.029)</td>
</tr>
<tr>
<td>Most politicians are trustworthy.</td>
<td>-0.336 (0.035)</td>
<td>-0.487 (0.028)</td>
<td>-0.343 (0.035)</td>
<td>-0.686 (0.018)</td>
<td>-0.369 (0.033)</td>
<td>-0.420 (0.032)</td>
</tr>
<tr>
<td>Politicians are the main problem in [COUNTRY].</td>
<td>0.448 (0.034)</td>
<td>0.693 (0.021)</td>
<td>0.349 (0.035)</td>
<td>0.769 (0.015)</td>
<td>0.718 (0.022)</td>
<td>0.412 (0.031)</td>
</tr>
<tr>
<td>The people, and not politicians, should make our most important</td>
<td>0.380 (0.035)</td>
<td>0.418 (0.03)</td>
<td>0.224 (0.035)</td>
<td>0.54 (0.023)</td>
<td>0.478 (0.03)</td>
<td>0.325 (0.033)</td>
</tr>
<tr>
<td>policy decisions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most politicians care only about the interests of the rich and</td>
<td>0.746 (0.028)</td>
<td>0.794 (0.017)</td>
<td>0.740 (0.035)</td>
<td>0.538 (0.023)</td>
<td>0.760 (0.021)</td>
<td>0.645 (0.028)</td>
</tr>
<tr>
<td>powerful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor people should have a greater voice in politics.</td>
<td>0.385 (0.035)</td>
<td>0.415 (0.03)</td>
<td>0.431 (0.032)</td>
<td>0.068 (0.031)</td>
<td>0.465 (0.031)</td>
<td>0.358 (0.033)</td>
</tr>
<tr>
<td><strong>Outgroup Attitudes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic minorities should adapt to [COUNTRY]'s way of life.</td>
<td>0.498 (0.03)</td>
<td>0.291 (0.035)</td>
<td>0.609 (0.05)</td>
<td>0.654 (0.019)</td>
<td>0.386 (0.032)</td>
<td>0.133 (0.032)</td>
</tr>
<tr>
<td>Immigrants are generally good for [COUNTRY]'s economy.</td>
<td>-0.577 (0.028)</td>
<td>-0.584 (0.033)</td>
<td>0.367 (0.041)</td>
<td>-0.822 (0.013)</td>
<td>-0.542 (0.028)</td>
<td>-0.307 (0.071)</td>
</tr>
<tr>
<td>[COUNTRY]'s culture is generally harmed by immigrants.</td>
<td>0.829 (0.027)</td>
<td>0.781 (0.036)</td>
<td>0.323 (0.041)</td>
<td>0.853 (0.012)</td>
<td>0.972 (0.032)</td>
<td>0.897 (0.193)</td>
</tr>
<tr>
<td><strong>National Identity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have been born in [COUNTRY].</td>
<td>0.739 (0.025)</td>
<td>0.806 (0.02)</td>
<td>0.706 (0.021)</td>
<td>0.898 (0.01)</td>
<td>0.709 (0.027)</td>
<td>0.712 (0.025)</td>
</tr>
<tr>
<td>To have lived in [COUNTRY] for most of one's life.</td>
<td>0.576 (0.03)</td>
<td>0.680 (0.023)</td>
<td>0.655 (0.022)</td>
<td>0.789 (0.013)</td>
<td>0.751 (0.027)</td>
<td>0.592 (0.026)</td>
</tr>
<tr>
<td>To be able to speak [COUNTRY NATIONAL LANGUAGES].</td>
<td>0.502 (0.031)</td>
<td>0.378 (0.032)</td>
<td>0.599 (0.024)</td>
<td>0.44 (0.025)</td>
<td>0.298 (0.039)</td>
<td>0.527 (0.028)</td>
</tr>
<tr>
<td>For your grandparents to have been born in [COUNTRY].</td>
<td>0.630 (0.028)</td>
<td>0.691 (0.023)</td>
<td>0.721 (0.021)</td>
<td>0.733 (0.016)</td>
<td>0.332 (0.038)</td>
<td>0.582 (0.027)</td>
</tr>
</tbody>
</table>
To test whether the factor structure does indeed differ across countries, a likelihood ratio test was performed assessing whether a fully constrained model (in which the loadings and the error variances are constrained to be the same across countries) fits the data as well as an unconstrained model. If insignificant, this would suggest that the same factor structure holds across all six countries. As shown in Table 14 below, the unconstrained models and the constrained models are significantly different; thus, the CFA does not hold equivalently across countries.

Table 14. Model Fit and LRT for the Unconstrained and Fully Constrained Models.

<table>
<thead>
<tr>
<th></th>
<th>Unconstrained</th>
<th>Fully Constrained</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFI</td>
<td>0.872</td>
<td>0.000</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.079</td>
<td>0.189*</td>
</tr>
<tr>
<td>(CI)</td>
<td>(0.076, 0.081)</td>
<td></td>
</tr>
<tr>
<td>AIC</td>
<td>220308.809</td>
<td>239903.403</td>
</tr>
<tr>
<td>BIC</td>
<td>222014.333</td>
<td>240187.657</td>
</tr>
<tr>
<td>LRT</td>
<td></td>
<td>$X^2(210)=20014.59$, $p&lt;.001$</td>
</tr>
</tbody>
</table>

*No CI generated for RMSEA.

A supplemental set of analyses can be run to assess whether the factor loadings or the error variances of these loadings are driving the difference. While these more fine-grained analyses did not converge using the full dataset, analyzing the data separately for European countries together and Asian countries together suggests that both the factor loadings and the error variances differ. For the Asian countries, an LRT of the unconstrained model versus the constrained coefficients model is significant ($X^2(10)= 200.79; p<.001$); this result is replicated for the European countries ($X^2(20)= 462.55; p<.001$). Additionally, using the European data it is evident that the error variances drive further differences in the models beyond those of the loadings, as an LRT testing the constrained coefficients model versus the constrained coefficients + constrained errors model is highly significant ($X^2(26)= 970.05; p<.001$).

Examining the Attitudes About Elites loadings in detail, “Most politicians do not care about the people,” “Most politicians care only about the interests of the rich and powerful” and “Most politicians care only about the interests of the rich and powerful” perform the best across countries and vary in the same direction. “Politicians are the main problem in [COUNTRY]” additionally performs well in Sweden and Switzerland, and “Most politicians are trustworthy” performs well in Sweden (in the opposite direction from the other items).

Looking next at the Outgroup Attitudes Items, magnitude of loadings (and in the case of “immigrants are generally good for [COUNTRY’s] economy,” direction of loadings) vary drastically across countries. “[COUNTRY’s] culture is generally harmed by immigrants” performs well across the board in all countries except for Korea. In general, Korea’s factor structure for this dimension differs from the other countries; Korea is the only country for which
immigrants as good for the country’s economy varies in the same direction as a desire for them to adapt to the way of life and a sense that the country is harmed by immigrants. In all other countries, the item referencing immigrants as good for the country’s economy is inversely related to the other two items.

Finally, all four items in the reduced national identity scale load fairly well (>.50) across countries, with the exception of Switzerland—for which national language and grandparents’ place of birth appear to be less related to national identity than in other countries. We also ran an analysis to include the religion item, while leaving out a country that was an outlier (Ireland), and found no difference in results.

CONCLUSION

While the items generally load in the direction expected, confirmatory factor analysis and multiple group analysis yields both room for improvement in the proposed factor structure, as well as in establishing equivalence across countries. This nonequivalence may arise from sample differences, translation issues or simply reflect the challenges of measuring complex latent constructs across very dissimilar country and cultural contexts. Future work could identify key items that perform well and use them to build a reduced scale; utilize the survey weights to generalize to the population of interest; and examine modification indices to identify the best-fitting model. In general, the nonequivalence across countries is important for researchers to keep in mind as they analyze these three dimensions of populism across countries in the CSES and elsewhere.

ATTITUDES TOWARD REDISTRIBUTION

The Attitudes Toward Redistribution question (Q08) was examined closely for potential problems. First, a question wording experiment was conducted in Switzerland. Recall from the section on question wording that the wording for this item on the Swiss pretest diverged slightly from the wording in the Module to better reflect the political situation in Switzerland (i.e., health and education are not typically considered social services); rather than include health and education as examples of social services, the Swiss pretest listed out health, education, and social services. However, this change was not the focus of the question wording experiment. The purpose of the experiment was to determine whether the order of the answer categories made a difference in the preferences people report. The team responsible for the data pretest in Switzerland hypothesized that seeing “increased taxes” could be perceived more negatively than “increased social spending.”

The question wording adapted from the Module for Switzerland, reads as follows:

**Q8. Some people think that the government should cut taxes even if it means spending less on social services, health and education. Other people feel that the government should spend more on social services, health and education even it means raising taxes. Where would you place yourself on this scale where 0 is "Governments should decrease taxes and spend less on services" and 10 is "Governments should increase taxes and spend more on services"?**
However, for the question wording experiment, two versions of this question were created. In version 1, taxes were listed first, while in version 2, services were listed first. Here are the changes in question wording for the experiment:

Version 1 (Q08_1), taxes first: “Governments should decrease taxes and spend less on services”

Version 2 (Q08_2) services first: “Governments should spend less on services and decrease taxes”

The Swiss team found that changing the order of taxes and services did not matter for this question. There is no statistically significant difference in the means for version 1 (MQ08_1=5.16, SD Q08_1=.12) and version 2 (MQ08_2=5.06, SD Q08_2=.11), with t(949) = .57, p=.56. Figure 3 shows the percentage of respondents falling into each category by experimental condition. As can be seen from the figure, the differences between the questions are negligible for each category.

Figure 3. Question wording experiment for Attitudes Toward Redistribution: Percentage of respondents selecting each category

Additionally, the Attitudes Toward Redistribution question was examined for missing data. In the Swiss case, a variable indicating the assignment to each question was missing; although who answered which question was clear from the responses in the data set, we do not know which version of the question respondents received where there was item nonresponse. As a result, we were unable to analyze whether one group had more missing data than the other. However, we looked at the missing data overall for this question by country.
The Redistribution item tended to have the highest percentage of missing data, relative to the other variables that we investigated (see the Missing Data section above). The missing data ranged from 0.50% missing in S. Korea to 8.61% missing in Greece.

In sum, the Redistribution item had the highest level of missing data of all of the items we investigated, but changing the order of taxes and services did not matter in Switzerland.

**SUMMARY**

The CSES Module 5 questionnaire introduced new items that had not been previously used on a CSES Module or questionnaire. The goal of the module was to introduce new measures of political populism and other items to the CSES to better investigate divided democracies. Besides the populism items, new questions on the CSES included questions about the news media, internal political efficacy, the extent of corruption in government, and attitudes towards redistribution. The goal of this pretest report was to investigate the performance of these new measures by (1) examining the distribution of answers to the questions in the CSES Module 5, (2) determining how the measures perform as scales representing specific dimensions of populism, and (3) exploring how populism measures relate to vote choice of populist parties.

We examined the three core components, or dimensions, of populist attitudes, as they had been identified by the Planning Committee in the Module 5 Stimulus Paper. The core components identified by the committee were: (1) attitudes towards political elites and electoral democracy, (2) attitudes towards out-groups within society, and (3) perceptions of “the people” and attachment to the nation. These dimensions corresponded with three sets of measures we examined: Attitudes About Elites, Out-Group Attitudes, and National Identity.

We found that the items and scales performed well overall, with some exceptions. At the 2016 Plenary Session in Philadelphia, we reported the areas where improvements could be made, focusing mainly on individual items. We found improvements could be divided into two areas—where action should be taken and where minor adjustments could be made. Below, we describe the results of the report in a similar format.

First, we found that the question on compromise in a democracy (Q04a) tended not to load well in the factor analyses in each country and did not scale as well with the other items in the Attitudes About Elites scale. It also had low means and standard deviations across all of the pretest countries. There were also potential face validity problems with this question. This was the item we found most in need of attention, and we recommended that action be taken.

From the Attitudes About Elites Scale, we also determined that minor adjustments to three additional measures may help. First, the question about having a strong leader (Q04e) did not scale or load well with the other items in the Cronbach’s alpha or factor analysis testing, and thus did not fit with the Elites dimension especially well. However, we did find it predictive of right wing populism. We concluded that this measure may belong by itself, especially because theoretically it tends to be located causally after attitudes about elites. Second, the question about poor people having a greater voice (Q04h) did not scale well in many of the countries, and it may measure attitudes about the poor rather than attitudes about elites. Third, not all languages may
have exact translations for the question about politicians being trustworthy (Q04c), so this question could be considered for adjustment.

Results from the Out-Group Attitudes tests revealed that the question about minorities could be considered separately from the other two measures about immigrants. Although the three items loaded on the same factor in all but one country, Cronbach’s alpha scores tended to be low and correlations between the minority item and the other two items about immigrants were also low. Because minorities are conceptually different from immigrants, the item on minorities could be considered separately from the items on immigrants.

For the National Identity items, we found that two items (Q06e and Q06f) tended to stand out relative to the other measures. While the National Identity items had the highest Cronbach alpha scores relative to the other two dimensions, and generally performed well on the reliability test in each of the countries, they did not appear to be unidimensional; the questions on respecting laws (Q06e) and feeling the nationality of the country (Q06f) tended to perform differently from the other measures. Not only did they tend to load separately in factor analyses, they also tended to have low means and standard deviations relative to the other items. We thought that the context of national identity in each country could vary quite a bit, which would explain why the factor structures differed as much as they did from country to country.

Finally, we thought minor adjustments could be made for the Attitudes Towards Redistribution item. Missing data tended to be higher for this item relative to the other items (although it was still below 9%). Qualitative evidence also suggested that respondents had difficulty answering the question as well (Lenzner, Otto, Neuert, Beitz, Schmidt, & Stiegler, 2016) and that wording could be simplified. The team in Switzerland was interested in seeing whether the order of the wording in the question affected how individuals responded. They tested the wording in a question wording experiment, although results showed no differences between versions. Two versions of this item were randomly presented to respondents; the first version presented taxes first (i.e., “Governments should decrease taxes and spend less on services”) while the second version presented services first (i.e., “Governments should spend less on services and decrease taxes”). Results showed no statistically significant difference in the means and almost no differences between categories.
References


Appendix A. Coefficients and Model Fit from Overall CFA, Full Set of 
Items Asked in all Countries

<table>
<thead>
<tr>
<th>Item</th>
<th>Std. Coef. (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitudes Toward Elites</strong></td>
<td></td>
</tr>
<tr>
<td>(Do you strongly agree, somewhat agree, neither agree nor disagree,</td>
<td></td>
</tr>
<tr>
<td>or strongly disagree with the following statement?)</td>
<td></td>
</tr>
<tr>
<td>In a democracy it is important to seek compromise among different</td>
<td>0.223 (0.013)</td>
</tr>
<tr>
<td>viewpoints.</td>
<td></td>
</tr>
<tr>
<td>Most politicians do not care about the people.</td>
<td>0.732 (0.008)</td>
</tr>
<tr>
<td>Most politicians are trustworthy.</td>
<td>-0.572 (0.010)</td>
</tr>
<tr>
<td>Politicians are the main problem in [COUNTRY].</td>
<td>0.651 (0.009)</td>
</tr>
<tr>
<td>Having a strong leader in government is good for [COUNTRY] even if</td>
<td>0.146 (0.014)</td>
</tr>
<tr>
<td>the leader bends the rules to get things done.</td>
<td></td>
</tr>
<tr>
<td>The people, and not politicians, should make our most important</td>
<td>0.443 (0.012)</td>
</tr>
<tr>
<td>policy decisions.</td>
<td></td>
</tr>
<tr>
<td>Most politicians care only about the interests of the rich and</td>
<td>0.776 (0.008)</td>
</tr>
<tr>
<td>powerful.</td>
<td></td>
</tr>
<tr>
<td>Poor people should have a greater voice in politics.</td>
<td>0.446 (0.012)</td>
</tr>
<tr>
<td><strong>Outgroup Attitudes</strong></td>
<td></td>
</tr>
<tr>
<td>(Do you strongly agree, somewhat agree, neither agree nor disagree,</td>
<td></td>
</tr>
<tr>
<td>or strongly disagree with the following statement?)</td>
<td></td>
</tr>
<tr>
<td>Ethnic minorities should adapt to [COUNTRY]'s way of life.</td>
<td>0.260 (0.014)</td>
</tr>
<tr>
<td>Immigrants are generally good for [COUNTRY]'s economy.</td>
<td>-0.539 (0.014)</td>
</tr>
<tr>
<td>[COUNTRY]'s culture is generally harmed by immigrants.</td>
<td>0.824 (0.018)</td>
</tr>
<tr>
<td><strong>National Identity</strong></td>
<td></td>
</tr>
<tr>
<td>(How important do you think the following is for being truly [</td>
<td></td>
</tr>
<tr>
<td>NATIONALITY]... very important, fairly important, not very</td>
<td></td>
</tr>
<tr>
<td>important, or not important at all?)</td>
<td></td>
</tr>
<tr>
<td>To have been born in [COUNTRY].</td>
<td>0.798 (0.008)</td>
</tr>
<tr>
<td>To have lived in [COUNTRY] for most of one's life.</td>
<td>0.769 (0.008)</td>
</tr>
<tr>
<td>To be able to speak [COUNTRY NATIONAL LANGUAGES].</td>
<td>0.289 (0.013)</td>
</tr>
<tr>
<td>To respect [COUNTRY NATIONALITY] political institutions and laws.</td>
<td>0.084 (0.014)</td>
</tr>
<tr>
<td>To feel [COUNTRY NATIONALITY].</td>
<td>0.240 (0.013)</td>
</tr>
<tr>
<td>For your grandparents to have been born in [COUNTRY].</td>
<td>0.618 (0.010)</td>
</tr>
</tbody>
</table>

| CFI                     | 0.744 |
| RMSEA (with CI)         | 0.092 (0.090, 0.094) |
| AIC                     | 304326.539 |
| BIC                     | 304690.948 |