

## Political Knowledge Sub-Committee Report

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This sub-committee was charged with evaluating the performance of the new political knowledge items that appeared in Module 4 based on election studies that have already run CSES Module 4. The sub-committee was also asked to make recommendations regarding the measurement of political knowledge in CSES Module 5.

### A. Evaluating the Module 4 Political Knowledge Questions

**1. Distributions:** The first criterion for evaluating political knowledge questions in a cross-national survey is whether there is sufficient variation in scores *within* countries to allow for meaningful analysis. This requires that the political knowledge items differentiate levels of political knowledge within countries. Delli Carpini and Keeter (1993) recommend that the level of difficulty vary between 30% and 70% correct answers on the items to be included in a political knowledge index in order to achieve sufficient differentiation. This appears to be very difficult to approximate in a cross-national study spanning a wide variety of countries.

The first three CSES modules sought to achieve a similar distribution by instructing local investigators to select one question that two thirds would answer correctly, one question that half would answer correctly and one question that only one third would answer correctly. This approach was deemed a failure (Elff 2009). In module 2, for example, only seven countries achieved the desired distribution of correct answers. Accordingly, the module 4 planning committee opted to have four common multiple-choice questions: the name of the finance minister, the party or group of parties that came in second in the election, the unemployment rate, and the name of the UN Secretary-General. The question about the unemployment rate proved to be especially challenging as indicated by the very low proportion of correct responses in some countries (see Table 1). This question also elicited a high proportion of incorrect responses, though the ratio of incorrect responses and don't knows varied substantially across countries. This lends weight to Delli Carpini and Keeter's (1993) conclusion that questions asking respondents to state a number or percentage perform poorly (though unemployment was an exception in their study). The question about the UN Secretary-General also proved very difficult for respondents in a number of countries, but on this question don't knows typically outnumbered incorrect responses.

Having a common battery of political knowledge does not appear to have performed any better than the approach used in the first three modules, as the distribution of percentage correct answers shows (see Table 1). Only Iceland displays the distribution recommended by Delli Carpini and Keeter (1993). The distributions for Mexico and Thailand are especially problematic. Only 19.1 percent of Mexican respondents answered the easiest question (as indicated by the percentage correct) correctly while a mere 4.3 percent answered the most difficult question correctly. The comparable figures for Thailand were 31.0 percent and 0.5 percent, respectively. The median

respondent in both countries answered none of the four questions correctly. The median respondent in the United States answered only a single question correctly. At the other extreme, the median respondent in Australia, Austria, Germany, Greece, and New Zealand had three correct answers. Only in Australia, France and Switzerland was there a somewhat even distribution of respondents across the five possible values of an additive knowledge scale. Mean centering<sup>1</sup> can help to mitigate the problem of wide variation between countries in the percentage of correct answers but this will obviously do nothing to address the problem of a lack of variation within some countries. Similarly, standardizing<sup>2</sup> the distributions to zero mean and unit standard deviation cannot even out the distributions. A final alternative is to dichotomize at the median value, especially if political knowledge is being used as a moderating variable.

Table 1: Distribution of % Correct Answers<sup>3</sup>

	2 <sup>nd</sup> party	Finance	UN Secretary	Unemployment
Australia	61.4	55.7	50.6	64.1
Austria	90.1	78.1	58.3	50.3
France	63.3	52.9	22.4	42.5
Germany	94.2	87.9	42.3	34.7
Greece	88.4	68.6	50.0	35.7
Iceland	72.3	61.6	38.9	31.9
Japan	59.2	58.2	41.0	38.8
Mexico	19.1	5.9	4.3	9.3
Montenegro	74.6	46.3	47.7	11.6
New Zealand	86.8	85.3	47.2	33.2
Poland	84.1	47.0	7.8	35.9
Serbia	56.6	43.7	56.5	16.4
Switzerland	48.4	53.8	61.4	56.5
Taiwan	87.1	34.8	18.7	33.8
Thailand	4.1	31.0	10.8	0.5
USA	41.7	27.8	11.3	44.5

One contributing factor to the wide variation in the percentage of correct answers across countries may be differences in the propensity to guess rather than respond don't know. Thai and Mexican respondents, for example, are much more likely to say don't know than give an incorrect answer and so are Australian and Polish respondents (see Table 2). The opposite is true of Austrian,

<sup>1</sup> Mean-centered scores could be added to the module 4 datasets. However, the distribution would need to be truncated since the three Mexican respondents and one Thai respondent who answered all four questions correctly skew the distribution.

<sup>2</sup> Standardized scores could be added to the module 4 dataset but again the scale would first have to be truncated to avoid extreme values in the case of Mexico and Thailand, given the very small number of respondents answering three or more questions correctly.

<sup>3</sup> Ireland has been omitted because there are data only for the first political knowledge question. The percentages have been calculated after excluding missing cases, which include cases coded as volunteered refusal. The demographic weight has been used for all countries throughout this report.

German, Greek and Swiss respondents. Differential propensity to guess may reflect cultural differences (Mondak and Canache 2004) but whether don't knows are encouraged may also play a role. There was a good deal of variation in how the political knowledge questions were introduced. Some surveys had no introduction; others had a neutral introduction; still others explicitly encouraged don't know responses. For example, the Australian survey prefaced the political knowledge questions as follows: "Now a few questions about your interest in and knowledge of politics. If you don't know the answer, just indicate that and move on to the next one." Similarly, the Polish introduction noted that, "Many people are not interested in politics" and explicitly encouraged don't know responses. These introductory statements may help to explain why respondents in these countries were much more likely to say don't know than give an incorrect response. On the other hand, Mexico<sup>4</sup> also had a low guessing rate, even though don't knows were not encouraged. Conversely, Austria had a high guessing rate even though the introduction stated that, "The next few questions are a quiz about Austrian politics. We are interested in recording the current level of information of the public. If you are uncertain about a question, please say it. We will then continue with the next question." Don't know responses may also be encouraged by the provision of a response box for don't know in self-administered surveys, which may help to account for the low guessing rate in the New Zealand survey.

Table 2: Distribution of Mean Number of Correct, Incorrect and Don't Know Responses

	Correct	Incorrect	Don't know	Guessing Rate
Australia	2.32	0.43	1.26	0.25
Austria	2.77	0.74	0.49	0.60
France	1.82	1.18	1.01	0.54
Germany	2.59	0.84	0.57	0.60
Greece	2.44	0.98	0.57	0.63
Iceland	2.05	1.11	0.84	0.57
Japan	1.97	1.12	0.91	0.55
Mexico	0.38	0.86	2.76	0.24
Montenegro	1.83	0.81	1.36	0.37
New Zealand	2.52	0.50	0.98	0.34
Poland	1.75	0.52	1.73	0.23
Serbia	1.73	1.25	1.02	0.55
Switzerland	2.27	1.17	0.56	0.68
Taiwan	1.74	0.95	1.31	0.42
Thailand	0.49	0.44	3.07	0.12
USA	1.25	1.15	1.60	0.42

Note: The guessing rate is the number of incorrect responses as a proportion of the total number of incorrect and don't know responses (see Mondak and Canache 2004).

<sup>4</sup> The Thai survey has not been translated so it is not possible to tell whether the introduction may have influenced the propensity to respond don't know.

Another factor that may influence the propensity to respond don't know is the survey mode. The CSES module is administered in a variety of modes (face-to-face, telephone, and self-administered), raising the possibility of mode effects.<sup>5</sup> How a survey is administered may influence the effort respondents put into answering and whether their responses are susceptible to social desirability biases (which could affect respondents' propensity to guess when unsure of the correct answer or when they have no idea of what the answer might be).

**2. Scalability:** A second criterion for evaluating a battery of political knowledge questions is how well they scale. Conventionally, a Cronbach's Alpha of .70 or higher is taken as indicating that a scale has acceptable reliability. Australia is the only country where this value was achieved (see Table 3). Cronbach's Alpha was less than .50 in nine of the 16 countries and as low as .36 in Germany and .29 in Mexico. Cronbach's Alpha measures the internal consistency of a set of items i.e. how well do the items correlate with one another. Arguably, Loevinger's H is a more appropriate way of evaluating the scalability of the module 4 political knowledge questions. As noted above, the questions need to differ in degree of difficulty. This implies that the items have a cumulative structure. In other words, respondents who answer more difficult

Table 3: Scalability of the Political Knowledge Questions

	Cronbach's Alpha	Loevinger's H
Australia	.70	.44
Austria	.42	.28
France	.60	.42
Germany	.36	.29
Greece	.51	.40
Iceland	.44	.27
Japan	.48	.24
Mexico	.29	.15
Montenegro	.44	.31
New Zealand	.55	.48
Poland	.55	.56
Serbia	.48	.28
Switzerland	.49	.22
Taiwan	.54	.42
Thailand	.44	.60
USA	.57	.39

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<sup>5</sup> To date, web-based surveys have not been included in the CSES. Should this change, it is worth noting that a comparison of responses to the same political knowledge questions administered by telephone and on the web in Norway and the United States found "rather small differences" in the number of correct responses (Strabac and Aalberg 2011). To limit the possibility of cheating in the web-based surveys, a 30-second limit was imposed on answering each question.

questions correctly should answer easier questions correctly as well. Loevinger's H summarizes how well a cumulative structure fits the data. According to Mokken and Lewis (1982, 422), H values greater than .50 indicate a strong scale, values between .40 and .50 indicate a medium scale, and values between .30 and .40 indicate a weak scale. A strong scale was only achieved in two countries; a medium scale was achieved in five countries; and a weak scale in two countries. In seven countries, the value of Loevinger's H fell below the .30 cut off for a weak scale, with a value as low as .15 for Mexico.

Based on the criteria of producing sufficient variation within countries and yielding acceptable scales, the Module 4 political knowledge questions did not perform satisfactorily. It seems extremely unlikely that an alternative battery of common questions would perform any better, given the many contextual factors that can influence the relative ease or difficulty of questions across a diverse set of countries. Accordingly, the sub-committee recommends that direct measures of political knowledge be omitted from the Module 5 core.

## **B. Alternative Approaches to Measuring Political Knowledge**

The sub-committee has considered other possible approaches to measuring political knowledge.

**1. Interviewer ratings:** Based on his analysis of the ANES, Zaller (1985) concluded that five-point interviewer ratings of respondents' political knowledge are highly effective measures. Interviewers were instructed to classify respondents' "general level of information about politics and public affairs" as "very high", "fairly high", "average", "fairly low" or "very low". Zaller's analysis pointed to the discriminating power of these ratings as demonstrated by their ability to discriminate successfully between respondents in different ranges of a 27-item political knowledge scale. He also reports that the ratings were not biased in favor of higher-status respondents. One advantage of using interviewer ratings is that respondents would be assessed relative to the average level of political knowledge in their own country. This is likely to produce more variation in political knowledge scores within countries. This approach also avoids all of the issues relating to systematic variation in don't know responses.

However, two considerations argue against using interviewer ratings in the CSES. First, the validity and reliability of the ratings would be a function of the training and experience of the interviewers (Delli Carpini and Keeter 1993), which may vary across countries. Second, this approach could obviously only be used in face-to-face and telephone interviews. Based on these considerations, the sub-committee concluded that the use of interviewer ratings is not a viable option.

**2. Left-Right Party Placements:** The CSES asks respondents to place up to nine parties on a left-right scale (or on an alternative scale where principal investigators consider the left-right scale to be inappropriate). The responses could be used to measure political knowledge. The advantage of using left-right party placements as a measure of political knowledge is that it would not add to the length of the module. However, this approach has some problems.

Like the Module 4 questions, this approach fails to elicit sufficient variation to differentiate political knowledge levels within some countries. This becomes apparent when the placements of

the top four parties within each country (as indicated by vote shares) are used to create a political knowledge scale.<sup>6</sup> Table 4 scores a response as correct if the respondent has placed the party on the ‘correct’ side of the scale (0 to 4 if the macro report places the party on the left and 6 to 10 if the macro report places the party on the right). If the party is in the center of the spectrum (as indicated in the macro report), scores of 4, 5 or 6 could be considered ‘correct’. Note that only four parties were placed at 5 in the macro reports.

Table 4: Distribution of % Correct Answers on Left-Right Party Placement Questions

	1 <sup>st</sup> place	2 <sup>nd</sup> place	3 <sup>rd</sup> place	4 <sup>th</sup> place
Australia	68.5	56.2	69.9	60.6
Austria	55.5	47.2	70.4	66.4
France	74.4	87.4	84.8	88.7
Germany	58.1	68.4	87.9	67.5
Greece	77.0	75.1	21.2	67.0
Iceland	85.0	61.9	50.3	82.0
Ireland	63.4	43.1	52.1	62.7
Japan	55.3	50.4	54.5	36.6
Mexico	16.9	55.5	48.8	37.2
Montenegro	29.0	26.3	30.1	28.1
New Zealand	68.5	61.9	56.1	23.1
Poland	43.5	54.1	46.4	47.2
Serbia	37.6	38.1	52.7	31.8
Switzerland	85.8	82.8	68.3	38.9
Thailand	n/a	n/a	n/a	n/a
Taiwan	n/a	n/a	n/a	n/a
USA	40.7	45.6	n/a	n/a

Note: Don’t know responses are collapsed with incorrect responses. The macro report for Taiwan does not provide party placements on the alternative scale used in the survey and the Thai report places all parties at 5.

Only in Ireland and Japan was there a relatively even distribution of respondents across the five possible values of a simple additive scale. Some countries had quite skewed distributions. For example, 43.1 percent of Greek respondents received the same score on the scale and so did 41.5 percent of Icelandic respondents and 42.2 percent Swiss respondents. The French distribution is especially problematic with 59.7 percent of respondents placing all four parties on the correct side of the ideological spectrum. At the other extreme, 53.8 percent of Montenegrin respondents were

<sup>6</sup> Other scoring protocols are possible. Arguably, a respondent who places a center-right party, say, at 9 is no more deserving of being scored correct than a respondent who places the party at 5. Scoring protocols could be devised to deal with this (e.g. placing a center-right party at 5, 6 or 7 could be considered ‘correct’), though the effect would likely be to depress knowledge scores. Also, it is not clear whether placing a party at 5 indicates that the respondent really thinks the party is in the center or is using the midpoint as a way of hiding an inability to place the party.

unable to place a single party correctly. On the other hand, using the party placements as measures of political knowledge elicited considerably more variation in Mexico than did the Module 4 knowledge questions, with a median score of two correct answers.

For a number of countries, left-right party placements yielded a higher coefficient Alpha than the Module 4 political knowledge battery, indicating superior scalability (see Table 5).<sup>7</sup> For almost every country, using placements for three parties rather than four parties produced a higher Alpha value. The improvements in scalability were substantial in the cases of Austria, Germany, Iceland, Japan, Mexico, Montenegro and New Zealand. However, the values dropped for Greece and Serbia. The values of Loevinger’s H are also typically higher for the left-right party placement scales than they are for the Module 4 political knowledge scales. In other words, there is a clearer cumulative structure to the party placements. A strong scale was achieved in four countries; a moderate scale in three countries; and weak scale in four countries. Again, the improvements in the strength of the scale were substantial in some countries (particularly in Germany, Iceland, Japan, and Mexico). On the other hand, the value of Loevinger’s H fell below the .30 cutoff in three countries, indicating that a cumulative structure is a poorer fit than it is for the Module 4 political knowledge questions.

Table 5: Comparing the Scalability of Political Knowledge Questions and Left-Right Party Placements

	Political knowledge	Left-right placements (4 parties)	Left-right placements (3 parties)	Loevinger’s H
Australia	.70	.78	.76	.55
Austria	.42	.58	.63	.34
France	.60	.61	.61	.38
Germany	.36	.63	.68	.43
Greece	.51	.40	.45	.25
Iceland	.44	.69	.74	.59
Ireland	n/a	.69	.69	.46
Japan	.48	.71	.75	.46
Mexico	.29	.56	.67	.37
Montenegro	.44	.81	.82	.54
New Zealand	.55	.75	.83	.67
Poland	.55	.42	.40	.17
Serbia	.48	.38	.39	.15
Switzerland	.49	.43	.52	.30
Taiwan	.54	n/a	n/a	n/a
Thailand	.44	n/a	n/a	n/a
USA	.57	.n/a	n/a	n/a

Note: Coefficient Alpha is used to measure scalability in the first three columns.

<sup>7</sup> Adding whether respondents were able to place themselves on the same left-right dimension resulted in uniformly lower estimates of scalability.

Overall, the left-right party placements appear to outperform the Module 4 political knowledge battery but problems remain with lack of variation and poor scalability in some countries. Three factors likely influence the relative difficulty of party placement questions within countries. First, the further a party is to the left or to the right the easier it may be for respondents to place the party on the ‘correct’ side of the ideological spectrum. Second, the larger a party’s vote and/or seat share the more likely respondents may be to place it ‘correctly’. Third, it may be easier for respondents to place long-established parties. All three factors obviously vary across countries and so does the extent to which left-right terminology is used to characterize the party system.<sup>8</sup> Finally, the two-party system makes it impossible to derive a comparable scale for the USA.

The sub-committee concluded that the availability of left-right party placements offers researchers a way of measuring political knowledge that performs at least as well as, if not better than, the Module 4 questions. However, the sub-committee believes that the construction of political knowledge measures using left-right party placements should be left to researchers and recommends against the inclusion of a CSES-created measure in data releases.

**3. Opinionation:** The sub-committee considered the possibility of using a count of don’t know responses on political opinion questions as an alternative way of measuring political knowledge. Based on some additional analyses using the AmericasBarometer surveys as well as CSES questions (leader ratings, party ratings, left-right party placements, left-right self-placement), the sub-committee concluded that "opinionation" cannot substitute for factual political knowledge questions. In fact, the factual knowledge questions appear to perform better than counts of don’t knows as measures of political knowledge. This is largely attributable to the fact that the majority of don’t know responses are attributable to the same respondents, resulting in a lack of variation.

**4. Political Interest:** One implication of the analyses presented in this report is that coming up with questions that measure a similar political knowledge construct cross-nationally is just too difficult, given the range of countries included in the CSES. Accordingly, the sub-committee recommends dropping the political knowledge questions and adding political interest to the Module 5 core.<sup>9</sup> The sub-committee recognizes that political interest is not an adequate substitute for political knowledge (see Boudreau and Lupia 2011): someone can be interested in politics without being knowledgeable and they can be knowledgeable without being particularly interested. Social desirability bias is also a potential problem, though this is a problem with political knowledge questions as well, leading people to guess rather than admit a lack of knowledge. Although political interest is not a measure of political knowledge, it is a strong predictor of political knowledge and it only requires a single question in place of the four-item political knowledge battery in Module 4.

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<sup>8</sup> An alternative party placement scale was used in Poland, in addition to the left-right placements. However, the value of coefficient Alpha (.01) indicated that that the items simply do not scale.

<sup>9</sup> Media attention is a possible alternative to political interest but asking questions about media attention may be problematic given the wide variation in the nature of media systems across countries as well as the proliferation of online sources of political information.



We suggest the following wording (which has been used in the Americas Barometer, among others): How much interest do you have in politics: a lot, some, a little or none?

### **Citations**

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