

The SOM Institute's Notes on Survey Methodology – 2021:2

The Trivial Pursuit effect: How political knowledge questions affect self-reported political interest

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ABSTRACT

In this note, the impact political knowledge questions have on self-reported political interest, perceived political knowledge, and political efficacy will be investigated. Respondents were randomly assigned to one of two groups that answered political knowledge questions either prior to or after reporting their political interest, perceived political knowledge, and political efficacy. Furthermore, respondents were assigned to answer either 6 easy, 6 medium, 6 hard, or a mix of easy and hard political knowledge questions. A comparison of the different groups showed that respondents reported having less political interest and perceived political knowledge when answering the political knowledge questions before reporting their interest. Furthermore, additional analyses revealed a statistically significant interaction effect between actual political knowledge and question order on political interest. That is, the relationship between political knowledge and political interest was stronger for the respondents who reported their political interest first. Answering knowledge questions before reporting one's political interest made the respondents less fine-tuned in their interest.

INTRODUCTION

A long-standing challenge in survey design has been the risk of question order effects. That is, asking a question affects the answers to subsequent questions (Schuman and Presser, 1981; Sigelman, 1981). Question-order effects can lead to increased measurement error as respondents may have the desire to appear consistent in their responses (Lasorsa, 2003). In those cases, the preceding questions provide the context in which the respondent answers a subsequent question.

In this note, the effect that political knowledge questions in a survey may have on responses to three key political variables – political interest, political knowledge, and political efficacy – will be investigated. Previous research has found that respondents sometimes report high levels of political interest even though they subsequently displayed relatively low levels of factual knowledge on politics and social issues (Delli Carpini and Keeter, 1993). Contrarily, another study found that respondents who answered political knowledge questions incorrectly were less likely to report being interested in politics (Lasorsa, 2003). Respondents may interpret their difficulty in answering political knowledge questions as evidence that they may not be politically interested, even if they initially would have thought so. If not knowing (or knowing) the answer to political knowledge questions influence self-reported political interest, the order of knowledge and interest questions might systematically influence the measurement of political interest. On the one hand, respondents may report their political interest with greater precision (less measurement error) if the knowledge questions help them fine-tune potential over- or underestimation of their political interest. On the other hand, if the knowledge questions affect self-reported interest, then the researcher might artificially lower or increase the reported interest by administering very difficult or very easy knowledge questions.

The present note presents a survey-embedded experiment designed to estimate the question-order effect of political interest and political knowledge questions as well as whether the difficulty of the knowledge questions affects self-reported political interest.

METHOD AND MATERIALS

The experiment was administered among a sample of panelists in the Swedish Citizen Panel (Martinsson et al., 2020). A total of 3,000 non-probability sampled respondents were invited to complete the questionnaire where the experiment was

embedded, and 1,881 completed it (AAPOR RR5: 61%). The questionnaire was administered between December 11, 2019, and January 15, 2020. Reminders were emailed to the respondents who had not yet responded on December 18, 2019, and again on January 7, 2020.

PROCEDURE

Respondents were randomly assigned to one of five groups. Groups 1-4 answered knowledge questions before questions about political interest, political knowledge, and political efficacy, whereas group 5 answered knowledge questions after those questions.¹

Group 1 answered six “easy” political knowledge questions ($n = 361$), group 2 answered six “medium” questions ($n = 404$), and group 3 answered six “hard” questions ($n = 361$). Groups 4 ($n = 381$) and 5 ($n = 369$) were assigned to six randomly selected questions of the “easy” and “hard” knowledge questions, meaning that these respondents were assigned to a difficulty range ranging from easy (six easy questions) to hard (six hard questions).

On the screen prior to the knowledge questions, all of the respondents were shown: “Now follows a few questions about what you know about Swedish and international politics. When answering these questions, we prefer that you do not ask for help or search the internet for the correct answer. Instead, answer what you think is right or what your best guess is, even if you are not entirely sure of the right answer.”

To limit the influence that the knowledge questions may have on the subsequent question and to generate a stronger test for our predictions, respondents in groups 1-4 estimated what proportion of all Swedes over the age of 18 had a higher, lower, or equal number of correct answers than them. For group 5, these questions were asked last in the survey.

¹ The outcome variables were formulated as follows. *Political interest*: “In general, how interested are you in politics?” (1 = Not at all interested, 2 = Not really interested, 3 = Somewhat interested, 4 = Very interested). *Political knowledge*: “In your opinion, how much knowledge do you have of politics and social issues?” (1 = Not at all good knowledge, 2 = Not particularly good knowledge, 3 = Fairly good knowledge, 4 = Very good knowledge). *Political efficacy* was made into an index ($\alpha = 0.61$) of three items in a matrix question: 1) “I am competent enough to participate in politics”, 2) “I can influence political decisions”, and 3) “I understand the country's most important political issues”.

MEASURES

POLITICAL KNOWLEDGE

The political knowledge questions were chosen to represent a universe of questions ranging from easy-to-know (common knowledge) to hard-to-know (expert knowledge). In line with the advice in Lupia (2016), the political knowledge questions were designed to measure 1) salient political topics recently in the news, 2) political systems, and 3) political history. In each domain, two easy, two medium, and two hard-to-answer questions were constructed. We followed the advice of Delli Carpini and Keeter (1993) in choosing multiple-choice format questions with four factual response options to reduce the propensity of wholly guessing the correct answers.

RESULTS

EFFECTIVENESS OF RANDOMIZATION

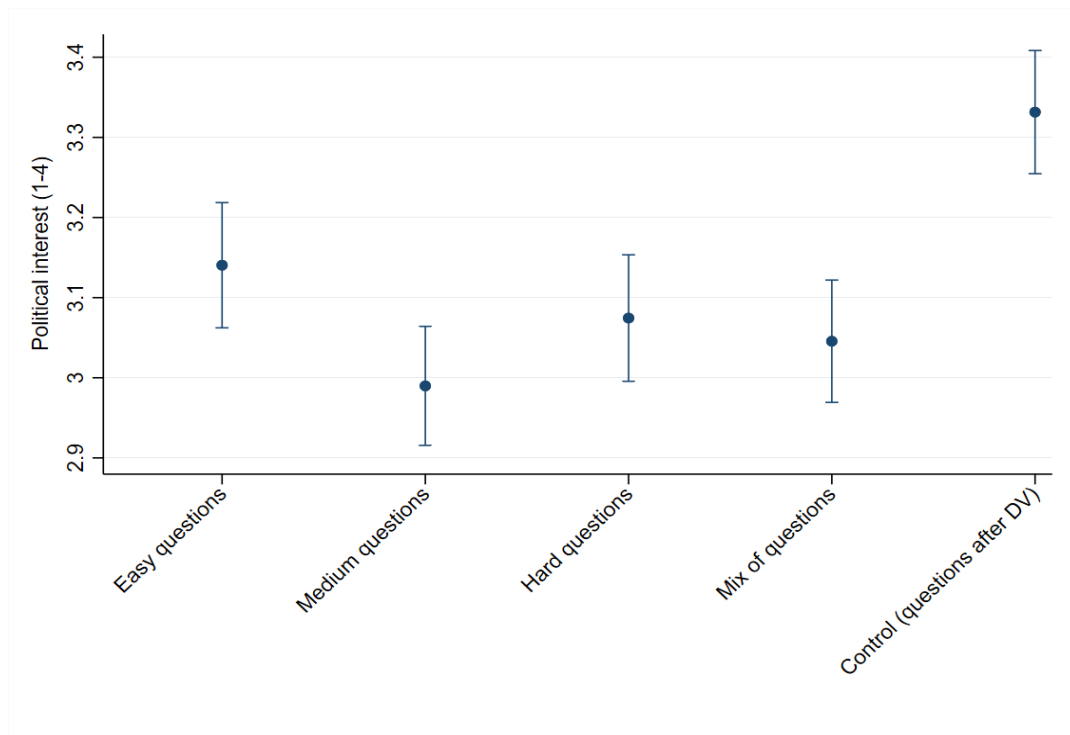
To control that the treatment groups were more or less equal in terms of demographic characteristics, one-way ANOVAs on sex ($F(1,1865) = 0.12, p = .73$), age ($F(2, 1779) = 1.10, p = .33$) and educational level ($F(1, 1814) = 0.33, p = .57$) were implemented and showed no statistically significant differences between the experimental groups.

THE IMPACT OF KNOWLEDGE QUESTIONS

Respondents reported statistically significantly less political interest when they answered the political knowledge questions before they reported their interest ($F(4, 1835) = 11.52, p < .001$). A Tukey post-hoc test revealed that the level of political interest was statistically significantly the greatest among the respondents who reported their interest before answering the knowledge questions ($p < .001$) (see Figure 1).

There was no difference between the reported political interest and the difficulty of the political knowledge questions. Respondents who answered only easy questions reported as much political interest than respondents who answered hard questions ($p = .77$), or a mix of easy and hard questions ($p = .43$). However, respondents who answered only easy questions reported higher political interest than respondents who answered medium questions, but the p-value is just below the 95% threshold for statistical significance ($p = .049$).

Figure 1. Effect of knowledge questions on political interest



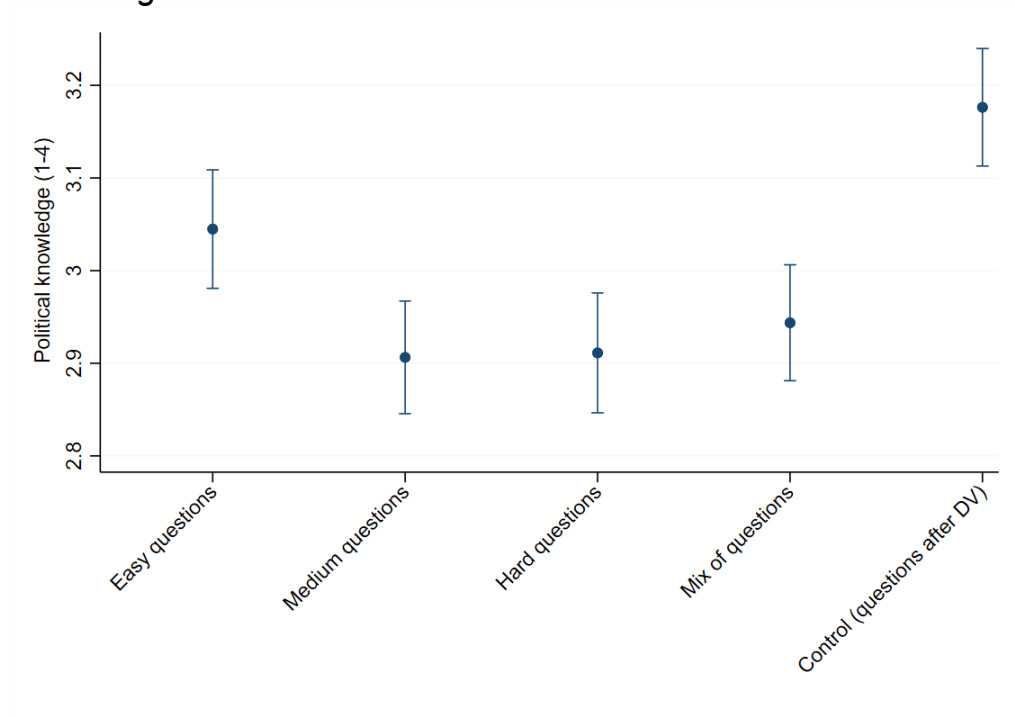
Note. Group means. The bars indicate a 95% confidence interval. Dependent variable: political interest

In similarity to the effect on political interest, self-assessed political knowledge was statistically significantly reduced when a respondent answered the knowledge questions before reporting his or her perceived knowledge ($F(4, 1832) = 12.75, p < .001$). A Tukey post-hoc test revealed that the self-reported political knowledge was statistically significantly greatest among the respondents who reported their knowledge prior to answering the knowledge questions ($p < .05$) (see Figure 2).

The difficulty of the knowledge questions also affected the self-assessed political knowledge. Respondents who answered only easy questions reported significantly greater political knowledge than respondents who answered medium ($p < .05$) or hard questions ($p < .05$). However, there was no difference between answering easy and answering a mix of difficult and easy questions ($p = .17$).

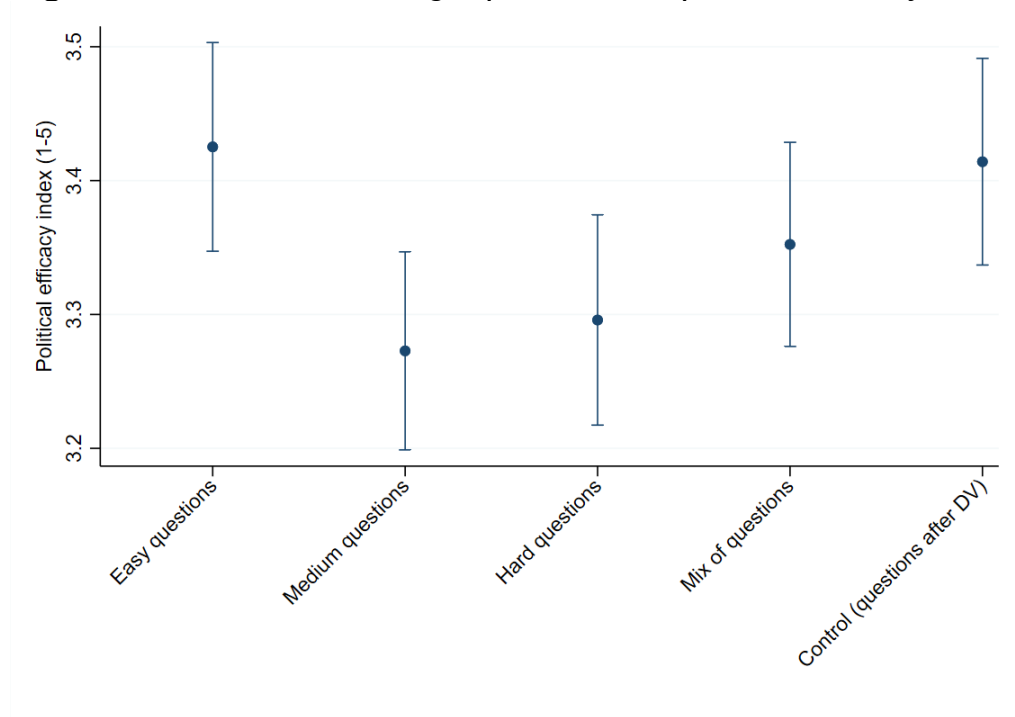
Turning to political efficacy, respondents did not report greater efficacy when they reported their efficacy before answering the knowledge questions ($F(1, 1815) = 3.22, p > .05$). However, respondents who answered only easy knowledge questions reported statistically significantly greater political efficacy than respondents who answered medium knowledge questions ($p < .05$). There was no difference between answering easy and answering hard questions ($p = .15$) or a mix of hard and easy questions ($p = .69$) (see Figure 3).

Figure 2. Effect of knowledge questions on self-assessed political knowledge



Note. Group means. The bars indicate a 95% confidence interval. Dependent variable: political knowledge

Figure 3. Effect of knowledge questions on political efficacy



Note. Group means. The bars indicate a 95% confidence interval. Dependent variable: political efficacy

KNOWLEDGE QUESTIONS FINE-TUNING POLITICAL INTEREST

Lastly, it may be the case that respondents who first answer political knowledge questions become more accurate in reporting their political interest. To assess this, the parameters of an OLS regression predicting political interest with actual political knowledge, that is, the number of correct answers to knowledge questions,² the order of the knowledge and interest questions, and the interaction between them were estimated.

As expected, the amount of political knowledge (the number of correct answers) statistically significantly predicted self-reported political interest. For the respondents who reported their political interest after they had already answered the knowledge questions, each additional correct answer corresponded to slightly greater self-reported interest ($b = 0.07$, $SE = 0.01$, $p < .05$).

In contrast to the expected, the relationship between political knowledge and self-reported political interest was stronger among respondents who reported their political interest before they answered the knowledge questions. That is, the interaction between political knowledge and reporting political interest was statistically significant ($b = 0.07$, $SE = 0.03$, $p < .05$).

Table 1. Effect of actual political knowledge on political interest

	Dependent variable: Political interest
Political knowledge (correct answers (0-6))	0.07*** (0.01)
Knowledge questions after the political interest report	0.01 (0.13)
Political knowledge * Knowledge questions after the political interest report	0.07* (0.03)
Intercept	2.79*** (0.05)
Observations	1,840
Adjusted R^2	0.05

Note. Standard errors in parentheses.

* $p < 0.05$, *** $p < 0.001$.

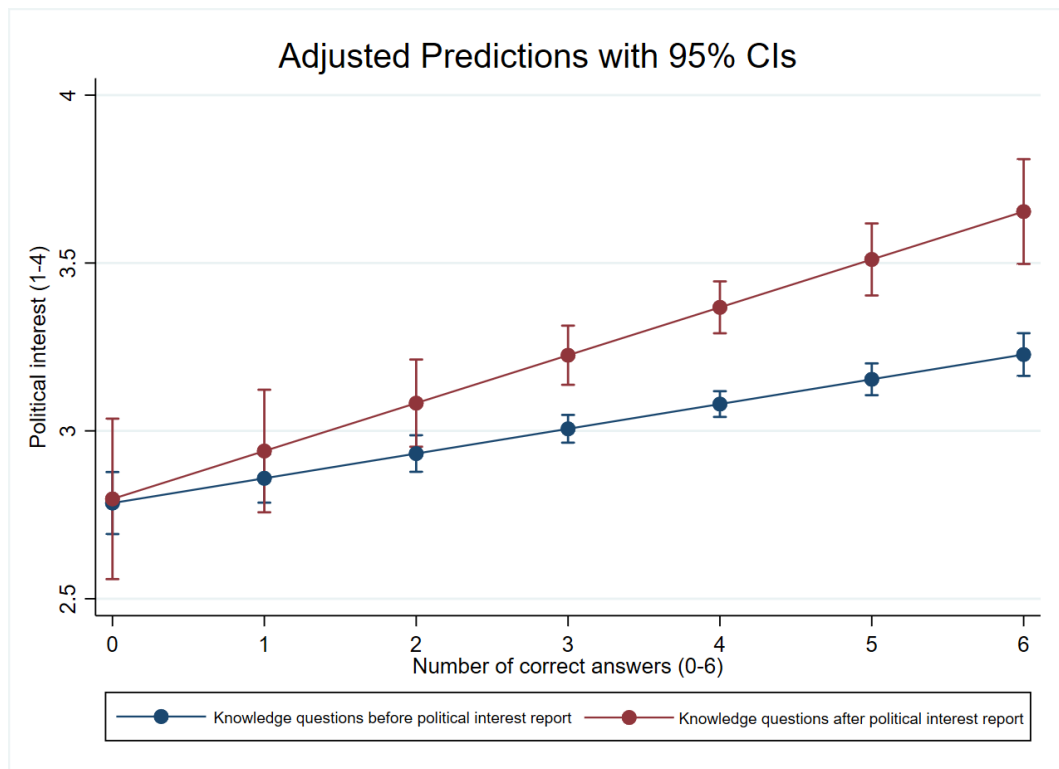
Figure 4 illustrates how the relationship between political knowledge and political interest was stronger for the respondents who reported their political interest first. However, among the respondents with very little political knowledge (0 or 1

² This variable ranged from 0 (no correct answers) to 6 (correct answers to all questions).

knowledge questions answered correctly), the order of the questions made no difference.

In other words, answering knowledge questions before reporting one's political interest made the respondents less fine-tuned in their interest, which was the opposite to what was hypothesized.

Figure 4. *Effect of actual political knowledge on political interest depending on knowledge questions presented first or last in the questionnaire*



Note. Group means across different levels of actual political knowledge. The bars indicate a 95% confidence interval.

CONCLUSION

In this note, the order of political knowledge questions was found to statistically significantly affect subsequent reported political interest and perceived political knowledge. The order of the questions did not affect self-reported political efficacy.

Additional analyses revealed a statistically significant interaction effect between actual political knowledge (the number of correct answers to the knowledge questions) and question order on political interest. That is, the relationship between actual political knowledge and political interest became stronger when

assessing interest before answering the knowledge questions. Therefore, the results presented in this paper should be taken as indicative that political interest should be measured prior to administering political knowledge questions in questionnaires.

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