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Measuring Political Knowledge in Spain: Problems and Consequences of the Gender Gap in Knowledge

La medición del conocimiento político en España: problemas y consecuencias para el caso de las diferencias de género

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Key words

Political Knowledge
- Gender Gap
- Surveys
- Measurement
- Validity

Abstract

How much do Spanish citizens know about politics? Is political knowledge unequally distributed among the Spanish population? While levels of political knowledge in Spain are low, there are also important socioeconomic and gender differences in levels of knowledge. Knowledge is higher among those with higher levels of education, greater socioeconomic and cognitive resources and, in particular, among men. These differences are explained as a function of citizens' resources, capacities, and motivation. However this study also shows that part of the gender gap in political knowledge in Spain is due to the way in which surveys measure that knowledge, which reveals important problems of validity. The results suggest the importance of testing new ways of asking survey questions about citizens' political knowledge, as studies in other countries have shown.

Palabras clave

Conocimiento político
- Diferencias de género
- Encuestas
- Medición
- Validez

Resumen

¿Cuánto saben los ciudadanos de política en España? ¿Existen desigualdades en la distribución del conocimiento político? El presente estudio confirma lo que investigaciones previas han concluido y es que en España los niveles de conocimiento político son más bien bajos y que se trata de un recurso desigualmente distribuido entre los ciudadanos: saben más de política los que tienen mayor nivel educativo, y aquellos con más recursos socio-económicos y cognitivos, y en particular, los hombres. Las diferencias se explican en función de las motivaciones, habilidades y oportunidades de la ciudadanía. El valor añadido del artículo es que muestra que parte de las desigualdades de género se deben a la forma en la que se mide el conocimiento político a través de las encuestas y, por lo tanto, a problemas de validez. Estos resultados sugieren la conveniencia de ensayar nuevas maneras de preguntar sobre el conocimiento político de la ciudadanía en las encuestas, tal y como otros estudios en otros países han mostrado.

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Introduction

Political knowledge represents a crucial resource for citizens. Prior studies have shown that well-informed citizens are more interested in and participate more in politics. An informed citizenry is better able to control the actions of their government, participate in politics and make responsible political decisions (Delli Carpini and Keeter, 1996).

Prior research on Spain, however, has shown that political knowledge is unequally distributed in the society. Political knowledge is in general higher among the higher educated, those with higher levels of socioeconomic and cognitive resources, and in particular, among men (Anduiza *et al.*, 2012; Fraile 2011; Fraile *et al.*, 2007). This inequality is also documented in the case of other European countries as well as the US and Canada (Delli Carpini and Keeter, 1996 and 2005; Fraile, 2014; Frazer and Macdonald, 2003; Stolle and Gidengil, 2010), where different levels of political knowledge are attributed to the unequal distribution in society of three types of factors: resources, capacities and motivation (Althaus, 2003; Delli Carpini and Keeter, 1996; Luskin, 1990). However, and despite abundant evidence regarding the unequal distribution of political knowledge, few studies have offered a conclusive explanation for this finding.

The unequal distribution of political knowledge in society raises important normative issues. If it is true that certain social sectors know less about politics, this could translate into a disadvantage in their ability to transmit their needs and demands to politicians and government.

Recently, effort has been made to explain why certain groups in the population know more about politics than others. This is the case, for example, regarding the consistent differences found in knowledge about politics between men and women. A recent line of research attributes some of this inequality to methodological factors related to how political knowledge is measured. This perspective hypothesizes that differences in levels of knowledge only appear to be such, and occur because different groups respond in different ways to the same stimulus provided by survey questions on political knowledge (Mondak and Anderson, 2004). This research affirms that survey respondents with an aversion to risk tend to respond "don't know" more frequently, and that women in particular choose this response more often than men.

This article examines this hypothesis using evidence from Spain. It shows that there are differences in levels of political knowledge between men and women, but it also shows that along with traditional factors that influence political knowledge and play an important role in explaining the unequal distribution of political knowledge among persons in Spain (as shown in prior studies; see Anduiza *et al.*, 2012; Fraile, 2011; Fraile *et al.*, 2007), methodological factors are also important when it comes to explaining this inequality between men and women.

Measuring political knowledge: the debate

As mentioned above, explanations in the literature on differences in levels of political knowledge point to on three factors: resources, capacities and motivation (Althaus, 2003; Delli Carpini and Keeter, 1996; Luskin, 1990). As these factors are unequally distributed among citizens, these inequalities are reproduced in the political arena. As a result, those citizens who have fewer cognitive and socioeconomic resources will also tend to have a lower level of political knowledge (Delli Carpini and Keeter, 1996).

In addition, the distribution of political knowledge can be explained in function of a series of citizen attitudes, such as interest in or predisposition to participate in politics, either by voting in elections or through some

alternative mechanism. Often it is argued that more politically active citizens also understand more about politics (Verba and Schlozman, 1997). What is not very clear in the literature is the direction of causality, or in other words: Is it political knowledge that promotes interest and political participation or rather, do citizens acquire information, knowledge and interest in politics through participation? (Verba, Burns and Schlozman, 1997)

There is a line of research, however, that argues that differences in levels of political knowledge may also be a product of a validity problem in measuring this knowledge. This is an especially complex concept involving many dimensions. The most appropriate instrument to measure the extent to which citizens understand and know about politics is the survey. However, the types of questions that are used in surveys are not always well-received by participants, since they often refuse to respond out of concern with being wrong and appearing to be ignorant or uninformed. In general, respondents feel like they are being tested by the interviewer, and this places them in an uncomfortable situation when responding to certain questions.

There are two formulas for designing survey questions on political knowledge[1]. The first presents respondents with a range of possible answers from which they choose the one they think is correct. Such questions are referred to as closed-ended and also include the response "don't know" (DK, from now on). The other formula is based on asking respondents open questions. Respondents provide answers, and the interviewer marks them as correct or incorrect. The format of closed-ended questions has the advantage (in comparison to open questions) of helping the respondent by reminding him or her of knowledge he or she might have but does not remember in the moment. However, the problem with this format is that it encourages guessing; that is, the respondent may not want to recognize that he or she does not know the answer or is not sure about the answer and guesses. In that case, we can never be sure if the correct answer genuinely reflects the respondent's real political knowledge.

The problem with open-ended question surveys is that they tend to underestimate what people know about politics because respondents who cannot remember the exact name of a minister might be able to identify him or her if they saw the name written among options to choose from, or if they saw a photograph. In short, one of the shortcomings of this question format is that it is too demanding for the ordinary citizen (Luskin and Bullock, 2011) and, therefore, underestimates citizens' political knowledge.

Both formats have been used in American electoral surveys (in the American National Election Studies (ANES) series) and in surveys in other countries (such as Canada, Denmark, Great Britain and Norway). Concretely, each ANES survey usually employs both formats. Famous in the literature is an anecdote referred to as the "Rehnquist case". William Rehnquist was the Chief Justice of the United States in 2000. The original question in the ANES survey was an open format question that asked the respondent: "Now we have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers and the like…?" Afterwards, a list of public political

[1] The brief discussion that we offer on the advantages or disadvantages of the open format in comparison to the closed format focuses on one of the three types of questions for which the discussion is relevant: questions about factual knowledge. Entering into a discussion on the two other types of questions (those that ask respondents to choose between nominal categories, such as the question of what the main problems in the country are; or those that ask about quantities, such as how much time respondents spend reading the newspaper every day) is outside the objectives of this article. See, related to this, Krosnick and Presser, 2010, and chapter 5 of Corbetta, 2003. Our discussion is also relevant for the face-to-face survey but not for other types of surveys (such as online or telephone surveys).

personalities and figures was presented, among them William Rehnquist, and they were asked: "What job or public office does he now hold?" (ANES 2000). The respondent provided an answer, and the interviewer coded it as correct or incorrect. The problem was that the interviewers were instructed to be especially demanding and only accept the answer, "Chief Justice of the United States". Based on this strict criteria, only 10.5% of total interviewees responded correctly to the question in the ANES 2000 survey. Subsequent research demonstrated (by looking at the original responses written down by the coders, which unprecedentedly, were not available for the ANES 2004, although they were for other years) that if the response, "Rehnquist is a Supreme Court judge", had been accepted (although not saying that he was the chief justice), the percentage of correct answers would have been 33% (Gibson and Caldeira, 2009), and the percentage would have increased even more if the criteria included simply identifying him as a famous judge. Gibson and Caldeira (2009: 432) even demonstrated that up to 71.8% of the total responses coded by the ANES as incorrect (excluding of course all of those that chose DK) could have been considered almost correct or approximately correct (what they call partial knowledge). It is for this reason that these authors concluded that it is more reasonable to consider respondents able to recognize a name among various options than to have to recall a name or a position (Gibson and Caldeira, 2009).

However, closed-ended questions with options to choose from clearly encourage guessing (Luskin and Bullock, 2011). All these problems related to the reliability of verbal responses also seem to affect easily identifiable groups of citizens, such as men and women, in different ways. Prior studies have shown that women respond in different ways to survey questions depending on various factors: the atmosphere in which the interview takes place, the sex of the interviewer (McGlone *et al.*, 2006) and the format of the questions (Mondak and Anderson, 2004).

According to Mondak and Anderson (2004), the format of questions on political knowledge in opinion surveys affects the responses of interviewees. These authors have also shown that closed-ended questions, offering a list of possible answers for the interviewee to choose from, encourage guessing. Their hypothesis is that women are less likely to guess so that when they have doubts, they choose the DK option. In contrast, men are more likely to take a risk and respond by guessing so that when they have doubts, they will choose to guess rather than providing the more honest option of DK. These authors have provided convincing evidence in the case of the United States, suggesting that at least half of gender differences regarding political knowledge could be explained by this measurement problem.

In this article we test this hypothesis, in addition to controlling for the main factors that, based on previous literature, explain the unequal distribution of political knowledge (resources, capacities and motivation). Specifically, we study the propensity of men and women in Spain to answer "don't know" when they are faced with a question about political knowledge[2]. If the hypothesis of Mondak and Anderson is correct, our study will help to provide a better understanding of gender inequalities regarding levels of political knowledge by examining a new methodological factor that has rarely been considered in prior research.

[2] It is important to insist on the empirical objective of our study: the unequal predisposition to choose the option DK between men and women when responding to survey questions trying to measure political knowledge. We are aware that a partial non-response to questions in face-to-face surveys is a subject of great importance in contemporary literature but in this article we focus on a very specific case (questions about political knowledge and gender inequality in response to these questions), and there is no room to comment on this current in the literature (regarding this, see, for example, Krosnick and Presser, 2010).

Data

To test our hypothesis on the importance of methodological factors in explaining the unequal distribution of levels of political knowledge between men and women (and controlling for the factors that the literature has focused on), we have used a survey carried out by Spain's Centro de Investigaciones Sociológicas (CIS survey 2.632) in January of 2006. This survey was chosen because it is one of the few surveys with enough questions on political knowledge (seven) to build an indicator that is reliable and comparable to those used in other countries[3].

There are only four other surveys that contain up to five questions on political knowledge. These are the second and third waves of the European Social Survey (ESS) in Spain, carried out in 2004 and 2006 respectively. These two surveys were used for a prior study on Spain (see Fraile, 2011) that found the socioeconomic and gender inequalities already pointed out. Likewise, another recent study using data from the European Election Study of 2009 found evidence of gender differences in all of Europe (Fraile, 2014). However, the format of the questions in these surveys is closed, providing respondents with four options from which to choose the correct answer (including the option DK). We have already seen that this format increases the likelihood of respondents guessing. In contrast, the questions about political knowledge in CIS survey 2.632 do not encourage guessing because they only use open-ended questions, although they also include the options "don't know" and "no answer". However, when reading the question, the interviewer did not mention those options,which could be considered a neutral use of the DK option[4]. If we find evidence of a distinct propensity among respondents to guess with data coming from this type of question format, the findings will be especially robust. In addition, the CIS survey 2.734 (whose field work was done in 2007) included five questions on political knowledge. However, this survey was carried out with representative samples of the population in only a limited number of Spain's autonomous regions (Andalusia, Catalonia, Castille and Leon, Galicia and the Basque Country) so that we do not have a national sample comparable to the survey we are using here[5].

The fieldwork for the survey used here was carried out between 16 and 26 of January, 2006. A total of 3,192 personal interviews were carried out in participants' homes[6]. The sample design provided a representative sample of the whole of the Spanish popula-

[3] In addition to the surveys mentioned, the last two post-electoral CIS surveys of 2008 and 2011 (CIS 2.757 and CIS 2.920, respectively) included a total of three questions on political knowledge, as did the non-electoral surveys, CIS 2.734, CIS 2.736, CIS 2.760, CIS 2.708. We believe that three questions are not sufficient to construct a valid and reliable indicator on how much Spanish people know about politics. For a more exhaustive description on the surveys in Spain that have included questions on knowledge, see Fraile (2006), which also discusses problems with using post-electoral surveys, such as the risk of overestimating levels of political knowledge, given the context of abundant information generated in electoral campaigns.

[4] The introduction to the questions on political knowledge in the questionnaire is: "Some public personalities are more well-known than others. We would like to know to what extent you know who they are". Originally the intention was to encourage the use of the DK response but finally it was decided to use this more neutral format because it did not work as well as was expected in the pre-test. According to the interviewers who did the pre-test (in December, 2005), the respondents were bothered and the interview took too long. Luskin and Bullock (2011) also came to the same conclusion in their study on the US.

[5] Even so we did an analysis of gender differences in the number of correct, incorrect and DK responses with data from the already mentioned CIS 2.734 survey and we found that women on average respond correctly to a question less than men (statistical value t = 17.98****) and responded DK on almost one half question more than men (statistical value t = 14.78****), while the gender differences in the number of incorrect responses was smaller (0.16 with a statistical value t = 7.10****). More detailed results are available upon request.

[6] For a detailed description of the type of sample , see the CIS web page: www.cis.es.

tion, to which 1,000 additional interviews with individuals in the 18 to 34 year old age group were added[7] For the empirical analysis, the results of which are presented in the following section, we used weights that allowed us to create a representative sample of all of the citizens of Spain between the ages of 18 and 100. This is not indicated in the tables due to space limitations.

The criteria used to select questions about political knowledge were varied: (i) include enough questions, even considering the limits imposed by the CIS survey (given that the survey dealt with the subject of new forms of political participation, while the issue of political knowledge was secondary) ; (ii) include a range of political subjects (that is, questions should not be limited to identifying important political actors of the day, but should include issues regarding contemporary political history or the functioning of government); (iii) include regional, national and international politics; and lastly, (iv) include questions of varying levels of difficulty, from easy to intermediate to difficult[8].

As can be seen in Table 1, respondents frequently chose the option DK and did not appear to have a problem with recognizing their ignorance regarding the correct answer to questions. The levels of DK/NR varied from a maximum of 68 percent of total respondents for the question of greatest difficulty to a minimum of 15 percent for the two questions of least difficulty. Therefore, the distribution of DK in function of the level of difficulty of the question suggests that this type of open format works, at least in the case of Spain.

Moreover, if we compare the percentage of incorrect answers with the percentage of those who chose the option DK, the DKs were systematically higher, which indicates that respondents did not tend to guess but instead recognized that they did not know the answer. This greater propensity to use the more honest option of DK is especially pronounced for the more difficult questions, which reinforces this finding.

Based on these results, what level of political knowledge do Spanish citizens have? Table 1 shows that respondents answered questions about political actors most accurately. The question about current politics was also answered correctly by a high percentage (69%). In contrast, questions about international political actors, such as the President of the European Commission, were answered correctly less often. What differences in political knowledge stand out the most among the Spanish population? These results are included in the following section.

Results

Most of the research on political knowledge coincides in demonstrating that the factors explaining how much citizens know about politics are differences in resources, capacities and motivation. Specifically, citizens that have greater capacities, socioeconomic resources and who are more motivated have higher levels of political knowledge (Althaus, 2003; Delli Carpini and Keeter, 1996; Luskin, 1990).

Table 2 presents the results of a multivariate analysis of the number of correct answers to the seven questions on political knowledge (the scores range between 0 and 7 and are obtained by simply adding up the correct answers). In line with previous studies (Anduiza *et al.*, 2012; Fraile, 2006 and

[7] More cases were also added in the region of Andalusia. The geographic distribution of the interviews, as a result, is the following: 1,186 interviews in Andalusia and 2,006 interviews in the rest of Spain.

[8] The pilot study carried out also included a question which asked respondents to place political parties based on their positions on certain policy measures. According to the interviewers, the format of this question was too complicated for respondents, and the question was removed. The rest of the questions worked and fit the objectives (especially that of having varying levels of difficulty).

TABLE 1: *Percentages (rounded off) of answers in each category for each of the questions on political knowledge, Spain, 2006*

Questions:	Correct	Incorrect	Don't know	No answer	*N*
Who is the president of the Autonomous Community where you live?	79	6	15	0	3,192
Could you tell me the name of the current Defence Minister?	66	7	27	0	3,192
And the name of the President of the European Commission?	12	19	68	1	3,192
And the name of the first president of the government under democracy?	69	9	21	1	3,192
Hugo Chávez is the president of which country?	50	19	31	0	3,192
In what year was the Spanish Constitution passed?	36	25	38	1	3,192
Does the PSOE currently govern with an absolute majority?	69	14	15	2	3,192

Source: By author based on CIS 2.632

2011; Fraile *et al.*, 2007), as indicators of resources and capacities, we used level of education and the ability to place oneself on an ideological scale, respectively. For indicators of motivation, we used stated interest in politics, exposure to the news and participation in non-electoral political activity, specifically signing petitions (this was chosen because it was the activity that the greatest number of respondents had participated in). Finally, the estimation controlled for age and sex. Table 1 in the appendix contains descriptive statistics of all the variables used in the analysis, while Table 2 in the appendix contains the original wording of the questions used, as well as their recoding. This was done based on two criteria: (i) prioritize fidelity with the original coding of the question in the questionnaire and (ii) maximize statistical efficiency when performing multivariate estimation (hence, the variables that originally had a very uneven distribution in different categories, such as interest in politics, were recoded as dummy variables with values of 0 and 1).

An estimation by ordinary least squares was carried out. The estimation was replicated with ordinal logit, and the results were equivalent, although the estimation through the ordinal logit equation did not satisfy the parallel regression assumption (confirmed by the results of the Brant test). We chose to present the results of the regression because the coefficients can be interpreted directly (they are expressed in values of the dependent variable, which range from 0 to 7 correct answers)[9].

[9] For the multivariate analyses presented in Table 2 and Table 6, the main assumptions of ordinary least squares regression have been confirmed and the estimations do not present relevant problems of multicollinearity and heteroscedasticity (verified by the Cook and Eisberg test and the variance inflation factor). The assumptionsoflinearity andadditivity have also been verified (the Ramsey RESET test) so that we can conclude that the specification of the variables is adequate, except in the case of the dependent variable of the number of incorrect answers, which did not pass the Ramsey test. As will be commented on later in the text, the estimation of the number of incorrect answers is the most inefficient, which indicates that other factors (such as guessing) can explain the propensity of respondents to provide incorrect answers (we will return to this argument later).

The results shown in Table 2 confirm that the main explanatory factors for predicting the level of knowledge about politics among Spanish citizens are resources, capacities and motivation, as other authors have demonstrated for both Spain (Anduiza *et al.*, 2012; Fraile, 2011; Fraile *et al.*, 2007) and other European countries (Althaus, 2003; Delli Carpini and Keeter, 1996; Fraile, 2014; Frazer and Macdonald, 2003; Luskin, 1990). Therefore, the political knowledge of citizens increases as their level of education, expo-

TABLE 2: *Determinants of the number of correct answers (0-7)*

	Number of correct answers
Education	0.444***
	(0.028)
Has an ideology	0.609***
	(0.073)
Interested in politics	0.576***
	(0.068)
Exposure to the news	
Newspapers	0.225***
	(0.022)
Radio / TV	0.258***
	(0.032)
Has signed a petition	0.271***
	(0.068)
Woman	-0.607***
	(0.056)
Age	0.101***
	(0.00830)
Age	-0.001***
	(0.000)
Constant	-0.703***
	(0.202)
N	3,116
R^2	0.424

Source: By author based on CIS 2.632

Regression coefficients with their associated standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05.

Dependent variable: indicator of number of correct answers (from 0 to 7).

Independent variables: Exposure to the news in newspapers and on the radio/television (from never, 0, to everyday, 4); Level of education (from no education, 0, to 4, bachelor's degree or more); Woman (1= women and 0 = men); Age (in years); Signs petitions (1= said he or she had signed a petition in the previous 12 months and 0 = had not done so); Has an ideology (1 = those who responded to the question and 0 = those who did not respond); Interested in politics (1= those who said they are very or quite interested in politics and 0 = those who said they are not very interested or not interested in politics).

More details on the original questions in the questionnaire and on its operationalization in the analysis carried out can be found in Appendix, Table 2.

sure to the news and age increase (although there is a turning point after which the age effect reverses: starting at 58 years of age, the number of correct answers decreases). In addition, political knowledge is greater among those citizens who demonstrate higher levels of motivation (those who state they are interested in politics and those who say they have signed a petition in the previous twelve months) and greater cognitive ability (those who can place themselves on the ideological scale). Moreover, women know significantly less about politics than men. Despite controlling for the main antecedents of knowledge, there are gender differences in political knowledge among Spanish citizens, as other studies have also shown (Anduiza *et al.*, 2012; Fraile, 2006 and 2011; Fraile *et al.*, 2007). But does the format of the survey questions have an effect on the unequal levels of political knowledge we found between men and women.

Table 3 shows the differences between men and women in the percentages of answers in each possible category – correct, incorrect, don't know and no answer – for each one of the questions on political knowledge. Positive percentages indicate that the difference favours men, and negative percentages that it favours women.

Table 3 indicates again the existence of a difference in the percentage of correct answers between men and women, which ranges from 8.6 points in the case of the name of the first president of Spain under democracy, to 24.1 points for the question on international politics. In the majority of cases (the exceptions being the differences in percentages of NA and in the percentages of some incorrect answers), the differences in percentages are statistically significant for a level of at least $p = 0.0001$. The magnitudes of the differences do not appear to be related to the levels of difficulty of the questions because lower magnitudes occur for both a difficult question (the name of the President of the European Commission), as well as for an easier question (the name of the first president). In addition, the largest differences between men and women are found in the question on international politics (more difficult) and the question on the name of the minister of defence (easier, given that at the time of the survey this minister was the most well-known among citizens according to a CIS barometer carried out one month earlier).

The most interesting result suggested by Table 3 is the overwhelming propensity of women (in comparison to men) to choose the DK option. The magnitude of the difference is almost as great as the difference in correct answers and is statistically significant for all questions. The differences vary from 5.75 points in the case of the name of Spain's first president under democracy, to 19.3 points for the question on international politics (see the third column in Table 3).

The differences in the percentage of incorrect answers between men and women are much smaller, and in some cases (such as the name of the President of the European Commission and that of the Autonomous Community in which the respondent lives), they are not statistically significant.

In short, the findings presented in Table 3 demonstrate that although the format of the questions on political knowledge minimizes the propensity to guess, there are significant gender differences, with women being much more likely to choose the option "don't know" and men much more likely to provide correct answers. These differences are not found in the case of incorrect answers[10].

[10] The gender differences shown in Table 3 may well be spurious and it is necessary to control for other characteristics, such as level of education, motivation, etc. This is shown in Table 2 for the number of correct answers, where gender differences are found to be significant (see the negative coefficient corresponding to women) and in Table 5 for the number of incorrect answers and DKs, where the gender differences found in Table 3 continue to be significant.

TABLE 3: *The difference between men and women in percentages (rounded off) of answers in each category for each question on political knowledge*

	Correct	Incorrect	Don't know	No answer
Who is the president of the Autonomous Community where you live?	11.2***	–2.8	–8.2***	–0.1
Could you tell me the name of the current Defence Minister?	20.5***	–3.7*	–16.7***	–0.2
And the name of the President of the European Commission?	9.1***	0.7	–10.2***	–0.3
And the name of the first president of the government under democracy?	8.6***	–3.1**	–5.7***	–0.2
Hugo Chávez is the president of which country?	24.1***	–5.0***	–19.3***	–0.2
In what year was the Spanish Constitution passed?	12.9***	–6.9***	–16.2***	–0.4
Does the PSOE currently govern with an absolute majority?	13.9***	–4.1*	–8.9***	–1.0

Source: By author based on CIS 2.632

(Men, N = 1590; Women, N= 1602) Positive numbers indicate advantage of men and negative, advantage of women.

*** p<0.001, ** p<0.01, * p<0.05.

Another empirical strategy to test this hypothesis is to create an indicator based on the number of correct, incorrect and "don't know" responses to see how reliability changes based on the type of answer and by respondent's sex. The idea is that the higher the predisposition to guess, the lower the reliability of the indicator (Mondak and Anderson, 2004), which we measure here through Cronbach's alpha coefficient[11].

Table 4 shows the distribution of percentages for the three indicators for all respondents, as well as for men and for women. The Table reveals that the most reliable indicator is the one that counts the number of correct answers (already used in the estimations summarized in Table 2), with a value of α-Cronbach of 0.75, and the least reliable is the one that counts the number of incorrect answers with a value of α-Cronbach of 0.62. Regarding the differences between men and women and the reliability of the indicator, it is in regard to the number of incorrect answers for the sub-sample of men where the reliability of the indicator is lowest (the value of α-Cronbach decreases to 0.38). In addition, the reliability of the indicator in the number of DKs is slightly higher for the sub-sample of women (with a value of α-Cronbach of 0.73 in comparison to a value of 0.68 for men), which indicates greater consistency in the use of the DK option among women.

Up to now the results support the hypothesis of the greater disposition of women to respond DK in comparison to men, but they also reveal a significant gender gap in the number of correct answers (for example, the

[11] The coefficient is used as a measure of the internal consistency of the indicator or scale constructed. The formula to calculate it is: $\frac{nr}{1+r(n-1)}$

With *n* being the number of elements (items or questions) included in the scale and *r* their average correlation. It varies between 0 and 1 and the higher the value, the greater the consistency of the indicator.

TABLE 4: *Distribution of percentages in the three indicators of knowledge and lack of knowledge about politics*

Number of correct answers	Total	Men	Women
0	7.2	4.9	9.3
1	8.6	5.5	11.6
2	10.9	8.0	13.7
3	13.9	11.0	16.6
4	18.2	18.4	18.1
5	18.2	19.6	16.9
6	15.8	21.9	9.9
7	7.2	10.7	3.8
Average (standard deviation)	3.81 (1.98)	4.32 (1.19)	3.32 (1.92)
α (Cronbach)	0.75	0.75	0.74
Number of incorrect answers	**Total**	**Men**	**Women**
0	35.2	35.5	35.1
1	35.2	36.8	33.6
2	18.2	18.1	18.3
3	7.0	7.0	7.0
4	2.6	1.7	3.6
5	1.3	0.7	1.8
6	0.4	0.2	0.5
7	0.1	0.0	0.1
Average (standard deviation)	1.12 (1.16)	1.05 (1.18)	1.18 (1.25)
α (Cronbach)	0.62	0.38	0.42
Number of "don't knows"	**Total**	**Men**	**Women**
0	24.1	30.3	18.1
1	23.9	28.1	19.9
2	15.9	15.4	16.4
3	11.8	10.0	13.5
4	9.1	5.9	12.1
5	6.7	4.3	9.0
6	5.3	3.7	6.8
7	3.2	2.2	4.2
Average (standard deviation)	2.15 (1.97)	1.72 (1.8)	2.57 (2)
α (Cronbach)	0.66	0.68	0.73
Number	3,192	1,590	1,602

Source: By author based on CIS 2.632. The category 0 includes the other two options for each indicator. That is, in the case of the number of correct answers, the 0 includes all of the respondents that provided an incorrect answer or that said they did not know. In the case of the number of incorrect answers, the 0 includes all of the respondents that provided a correct answer or that said they did not know. And finally in the case of the number of DK, the 0 includes all of the respondents who provided a correct or incorrect answer.

average number of correct answers is 4.32 for men and 3.32 for women, which means an average difference of one additional correct answer for men on an indicator which varies from 0 to 7). Therefore, and in agreement with previous studies, we have found that women are a particularly disadvantaged group regarding how much they know about politics in comparison to men.

But how robust is the evidence for this? Does the greater propensity to respond DK remain if we control for the other explanatory factors that were considered in the case of correct answers? To test this, we replicate the same estimation summarized in Table 2 for the number of DK answers and for the number of incorrect answers (the scores range from 0 to 7 and are obtained by adding DKs and incorrect answers respectively). The results are presented in Table 5.

Regarding the estimation of the determinants of the number of DK answers for each individual, the results shown in Table 5 (column 2) are equivalent to those of the number of correct answers presented in Table 2, but the opposite. That is, the number of DK answers given by respondents decreases as there is an increase in level of education, exposure to the news and age (again the relationship to age is curvilinear, as the number of DK answers increases starting at 58 years of age). In addition, the number of DKs is less for those who are more highly motivated (those who say they are interested in politics and those who have signed a petition within the previous 12 months) and have greater cognitive ability (those who place themselves on an ideological scale). As can be seen in the second column of Table 5, gender differences in the number of DKs continue to be significant, although the differences have been reduced by approximately half with respect to the exploratory evidence (that is, from a difference of 0.85 in Table 3 to 0.46). In other words, on average, women present half a DK response more than men. And again the differences are statistically significant. These results indicate, therefore, that resources, motivation and capacities are also important when it comes to explaining the DK response, given that the size of the gender difference decreases when controlling for these factors.

However, in the case of the number of incorrect responses, the explanatory power of the independent variables is smaller (see column 3 of Table 5). Of all the variables in the equation only level of education, having an ideology and interest in politics present statistically significant coefficients, although their magnitude is very small in comparison to the other estimated equation. Moreover, the differences between men and women in the number of incorrect answers are significant but very small in magnitude. On average, women present 0.12 more incorrect responses than men.

The results regarding the determinants of the number of incorrect answers also suggest that giving an incorrect answer is quite different from recognizing that one does not know the answer when it comes to measuring political knowledge. In the most recent debates on constructing valid and reliable indicators of political knowledge, Mondak and his collaborators argue that the more conventional additive indicators in the literature (that is, those that count the number of correct answers, considering as 0 incorrect answers and DKs) suffer from problems of reliability. They argue that giving an incorrect answer implies having a higher level of information and attention to politics than simply responding “don’t know” (Mondak, 1999; Mondak, 2001; Mondak and Creel, 2001). Thus, they recommend that incorrect answers and DKs not be treated in the same way.

Our results also suggest that the two types of responses should not be treated equally. However, in addition, incorrect answers do not seem to fall anywhere on the supposed latent continuum of the level of information and knowledge about politics. Or

TABLE 5: *Determinants of number of answers (0-7)*

	DK	Incorrect
Education	–0.383***	–0.056*
	(0.030)	(0.022)
Has an ideology	–0.687***	0.113*
	(0.077)	(0.056)
Interested in politics	–0.473***	–0.130*
	(0.072)	(0.052)
Exposure to the news:		
Newspapers	–0.220***	0.0032
	(0.024)	(0.017)
Radio / TV	–0.244***	–0.024
	(0.034)	(0.025)
Has signed a petition	–0.193**	–0.080
	(0.072)	(0.053)
Woman	0.466***	0.120**
	(0.059)	(0.043)
Age	–0.089***	–0.006
	(0.008)	(0.006)
Age^2	0.0008***	0.000
	(0.000)	(0.000)
Constant	6.259***	1.411***
	(0.215)	(0.156)
Observations	3,116	3,116
R^2	0.350	0.014

Source: By author based on CIS 2,632

Regression coefficients with their associated standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05.

Dependent variable: indicator of number of DK answers (column 2) and of number of incorrect answers (column 3) both from 0 to 7.

Independent variables: Exposure to the news in newspapers and on the radio/television (from never, 0, to everyday, 4); Level of education (from no education, 0 to 4, bachelor's degree or more); Woman (1= women and 0 = men); Age (in years); Signs petitions (1= said he or she had signed a petition in the previous 12 months and 0 = had not done so); Has an ideology (1 = those who responded to the question and 0 = those who did not respond); Interested in politics (1= those who said they are very or quite interested in politics and 0 = those who said they are not very interested or not interested in politics).

More details on the original questions in the questionnaire and on its operationalization in the analysis carried out can be found in Appendix, Table 2.

in other words, while the interpretation of the number of correct answers and DKs given by respondents is clear (the more correct answers, the greater their level of knowledge about politics, and the higher the number of DKs, the lower their level of knowledge), the interpretation of incorrect responses is not clear. The weak explanatory power of the equation suggests that chance is an important component when it comes to providing an incorrect answer this depite the fact that the open question format in principle is designed to minimize the effect of chance.

In short, our findings reveal an unequal distribution of political knowledge among the

Spanish, which is determined by individuals› resources, motivations and capacities, thus confirming the results of previous studies on Spain (Anduiza *et al.*, 2012; Fraile, 2006 and 2011; Fraile *et al.*, 2007).

Furthermore, the results of our analysis indicate that the differences between men and women may be artificially inflated by the type of indicators used to measure levels of political knowledge. Specifically, different propensities to guess and to admit that one does not know may be inflating the gender differences identified here. Men are more likely to guess, while women only seem to give an answer if they are sure and, if not, they give the honest response that they do not know. In the concluding section, we discuss the implications of our findings for the study of what citizens know about politics.

Conclusions

This article has shown the existence of differences in levels of political knowledge among Spanish citizens, just as is found in other countries, such as the United States, Canada and Great Britain. The majority of the research with similar findings provides relatively deterministic explanations for this, such as personal capacities, differences in motivation and the unequal distribution of resources in society.

In addition to testing these more conventional explanations, this article has also tested an alternative hypothesis: that the unequal distribution in levels of political knowledge among men and women can also be (or at least in part) a reflection of difficulties in measuring political knowledge. Thus, it is not that women know less about politics than men but that they respond in a different manner to the same survey questions.

To test this hypothesis, we used a survey which included seven questions on political knowledge and that was specifically designed to take this issue into account and to minimize respondents' guessing by using an open question format. The idea is that this format should minimize the propensity to respond by guessing and therefore, resulting gender differences. However, despite the use of this open format, a gender difference in the propensity to recognise one does not know the correct answer was found. Specifically, women, on average, responded DK more than men. However, gender differences in the number of incorrect answers were irrelevant. This same analysis demonstrated that on average men provide more correct answers than women. Such differences continue to be significant, even when controlling for individuals' resources, motivation and capacities.

These findings suggest that new ways of asking about political knowledge should be tested in surveys. One recent study has shown that the way political knowledge is measured in more conventional surveys presents problems of validity (Boudreau and Lupia, 2011). Indeed, what is being measured with these types of surveys is the ability of respondents to provide correct answers to factual questions on very specific dimensions of politics (mainly electoral politics). The use of these types of questions may be creating a distorted image of what people know and understand about politics.

There are three possible productive directions to take on this issue. The first is related to the format of the questions, the second to the types of subjects asked about and the third, to the use of alternative experimental methods. Here we will briefly discuss only the first two. With respect to format, various authors are in favour of not using the "Don't know" option or at least trying to discourage its choice (Mondak, 2001; Mondak and Anderson, 2004). According to a recent study (Luskin and Bullock, 2011), discouraging the use of DK increases the number of correct answers only in the case of open questions, but the magnitude of the effect is very small. In contrast, when the format is closed, discouraging the DK option has the side effect

of increasing guessing (among both men and women), but it does not increase the number of correct answers. One recent study shows the results of an experiment carried out in Spain where the same three questions on political knowledge were formulated with one protocol that was neutral regarding the DK option and with one protocol that discouraged the DK option. This study corroborates the findings of Luskin and Bullock (2001) demonstrating that discouraging the use of DK significantly increases random guessing (Ferrín, Fraile and Garcia, 2013).

Regarding the subject of the questions asked in surveys some authors have argued that the concept of politics in these questions is too limited and focused on electoral politics. In this regard, Norris's (2000) distinction between conventional and practical political information is especially useful. Pioneering studies have shown that gender differences in political knowledge decrease when there are questions about more practical aspects of politics such as social services, citizens' rights and even about political actors who are women (Stolle and Gidengil, 2010). In addition, other studies point out that conventional surveys overrate knowledge about names or dates in contrast to other types of knowledge that might be more visual. In this regard, the use of images or photographs for the respondent to recognize a political personality could be an interesting innovation (Prior, 2014). This does not mean that we have to abandon measuring the more traditional subjects (electoral politics or political actors) but that we should expand the content as well as the form of questions if we want to make progress in the study of what ordinary citizens know about politics and its key actors.

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APPENDIX.

TABLE 1: *Descriptive variables*

Variables	Mean	Standard deviation	Minimum	Maximum
Number of correct answers	3.81	1.98	0	7
Number of incorrect answers	1.12	1.16	0	7
Number of DK answers	2.15	1.97	0	7
Exposure to the news in newspapers	1.54	1.50	0	4
Exposure to the news on the radio/television	2.42	0.98	0	4
Education	1.70	1.14	0	4
Women	0.51	0.49	0	1
Age	46.28	18.36	18	99
Has signed a petition	0.23	0.42	0	1
Has an ideology	0.81	0.39	0	1
Interested in politics	0.32	0.46	0	1

Source: By author based on CIS 2.632

TABLE 2. *Format of the questionnaire used*

Variable	Question on the questionnaire	Coding
Exposure to news in the media	How often do you read the political sections in the newspaper?	1. Everyday 2. 3-4 days a week 3. 1-2 days a week 4. Not often 5. Never (recoded from 0 to 4)
	How often do you listen to or watch the news on the radio/television?	1. Everyday 2. 3-4 days a week 3. 1-2 days a week 4. Not often 5. Never (recoded from 0 to 4)
Stated interest in politics	Would you say that you are very, quite, not very or not at all interested in politics?	The variable was recoded with a value of 1 for those who said they are very or quite interested in politics and 0 for all others.
Participation in non-electoral politics	There are various ways of participating in social or political actions. Could you please tell me if you have signed a petition in the past 12 months?	The variable identifies those who said they have signed a petition with a value of 1 and all others with 0
Has an ideology	Left (0)-Right (10) scale	The variable identifies with a value of 1 those who placed themselves on the ideological scale and all others with 0.
Education level	Highest educational degree/certificate received up to time of interview	0 “no education or < 5 years” 1 “compulsory education” 2 “higher secondary” 3 “Higher VT or with a certificate” 4 “Bachelors degree or higher”

Note: The questions used to construct the three indicators on knowledge or ignorance about politics can be seen in Table 1 p. 59.

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La medición del conocimiento político en España: problemas y consecuencias para el caso de las diferencias de género

Measuring Political Knowledge in Spain: Problems and Consequences for the Gender Gap in Knowledge

Mónica Ferrín y Marta Fraile

Palabras clave

Conocimiento político
- Diferencias de género
- Encuestas
- Medición
- Validez

Resumen

¿Cuánto saben los ciudadanos de política en España? ¿Existen desigualdades en la distribución del conocimiento político? El presente estudio confirma lo que investigaciones previas han concluido y es que en España los niveles de conocimiento político son más bien bajos y que se trata de un recurso desigualmente distribuido entre los ciudadanos: saben más de política los que tienen mayor nivel educativo, y aquellos con más recursos socio-económicos y cognitivos, y en particular, los hombres. Las diferencias se explican en función de las motivaciones, habilidades y oportunidades de la ciudadanía. El valor añadido del artículo es que muestra que parte de las desigualdades de género se deben a la forma en la que se mide el conocimiento político a través de las encuestas y, por lo tanto, a problemas de validez. Estos resultados sugieren la conveniencia de ensayar nuevas maneras de preguntar sobre el conocimiento político de la ciudadanía en las encuestas, tal y como otros estudios en otros países han mostrado.

Key words

Political Knowledge
- Gender Gap
- Surveys
- Measurement
- Validity

Abstract

How much do Spanish citizens know about politics? Is political knowledge unequally distributed among the Spanish population? While levels of political knowledge in Spain are low, there are also important socioeconomic and gender differences in levels of knowledge. Knowledge is higher among those with higher levels of education, greater socioeconomic and cognitive resources and, in particular, among men. These differences are explained as a function of citizens' resources, capacities, and motivation. However this study also shows that part of the gender gap in political knowledge in Spain is due to the way in which surveys measure that knowledge, which reveals important problems of validity. The results suggest the importance of testing new ways of asking survey questions about citizens' political knowledge, as studies in other countries have shown.

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Introducción

El conocimiento político constituye una fuente de recursos crucial para la ciudadanía. Estudios previos han mostrado que los ciudadanos que saben más de política están más interesados y participan más en política. Una ciudadanía informada es más susceptible de controlar las acciones de sus gobiernos, de participar en política y de tomar decisiones políticas responsables (Delli Carpini y Keeter, 1996).

Los estudios previos muestran, sin embargo, que el conocimiento político está distribuido de forma desigual en la sociedad. Generalmente, saben más de política los que tienen mayor nivel de estudios, y aquellos con más recursos socio-económicos y cognitivos, y en particular, los hombres (Anduiza *et al.*, 2012; Fraile, 2011; Fraile *et al.*, 2007). Dicha desigualdad está igualmente documentada en el caso de otros países europeos y atlánticos (Delli Carpini y Keeter, 1996 y 2005; Fraile, 2014; Frazer y Macdonald, 2003; Stolle y Gidengil, 2010), donde se han atribuido las diferencias en los niveles de conocimiento político a la desigual distribución en la sociedad de tres tipos de factores: motivaciones, habilidades y oportunidades (Althaus, 2003; Delli Carpini y Keeter, 1996; Luskin, 1990). Sin embargo, y a pesar de la abundante evidencia respecto a la desigual distribución del conocimiento político, pocos estudios ofrecen una explicación concluyente de este hecho.

La desigual distribución del conocimiento político en la sociedad plantea cuestiones normativas importantes. Si es verdad que algunos sectores sociales saben menos de política, esto podría traducirse en una desventaja en su capacidad para transmitir sus demandas y necesidades a los políticos y a los gobernantes.

Recientemente, se ha hecho un esfuerzo en esta dirección, tratando de explicar por qué determinados grupos de ciudadanos saben más sobre política que otros. Es el caso, por ejemplo, de las recurrentes diferencias que aparecen entre los niveles de conocimiento político de hombres y mujeres. Una línea de investigación achaca parte de dichas desigualdades a aspectos metodológicos, relacionados con la forma en que se mide el conocimiento político. Esta perspectiva defiende la hipótesis de que las diferencias en los niveles de conocimiento son solo aparentes, y se deben a que los individuos responden de forma distinta al mismo estímulo proporcionado por las preguntas de cuestionario (Mondak y Anderson, 2004). Estos autores afirman que los entrevistados con aversión al riesgo tienden a utilizar con más frecuencia que los demás la opción «no sabe», y concretamente que las mujeres utilizan con más frecuencia que los hombres dicha opción.

El presente trabajo comprueba esta hipótesis con evidencia para España. Se muestra que efectivamente hay diferencias en los niveles de conocimiento político de hombres y mujeres. Aquí demostramos además que no solo los clásicos condicionantes del conocimiento político tienen un papel relevante en la explicación de la desigual distribución de los niveles de conocimiento político de los españoles (tal y como estudios previos han mostrado; véanse Anduiza *et al.*, 2012; Fraile, 2011; Fraile *et al.*, 2007) sino que otros aspectos de carácter metodológico son relevantes a la hora de explicar la desigualdad entre hombres y mujeres.

La medición del conocimiento político: problemas de formato y medida

Como se anticipaba en las líneas anteriores, las diferencias en los niveles de conocimiento político se han explicado en la literatura en función de tres factores: habilidades, motivaciones y oportunidades (Althaus, 2003; Delli Carpini y Keeter, 1996; Luskin, 1990). Como estos tres factores están desigualmente dis-

tribuidos entre los ciudadanos, estas desigualdades se reproducen en el terreno de lo político. Por lo tanto aquellos ciudadanos que disponen de menores recursos cognitivos y socioeconómicos tenderán también a mostrar un menor nivel de conocimiento político (Delli Carpini y Keeter, 1996).

Por otro lado, la distribución del conocimiento político se ha explicado en función de una serie de actitudes de los ciudadanos, tales como el interés o la predisposición a participar en política, bien votando en elecciones o bien a través de algún mecanismo alternativo. A menudo se argumenta que aquellos ciudadanos más activos políticamente son también los que más entienden de política (Verba, Burns y Schlozman, 1997). Lo que no queda muy claro en la literatura es la dirección de causalidad o en otras palabras: ¿es el conocimiento político el que propicia el interés y la participación en política o más bien el ciudadano al participar adquiere información, conocimiento e interés por la política? (Verba, Burns y Schlozman, 1997).

Existe una línea de investigación que, sin embargo, defiende que las diferencias en los niveles de conocimiento político de los ciudadanos pueden ser también el producto de un problema de validez en la medición de dicho conocimiento. Se trata este de un concepto especialmente complejo, que implica muchas dimensiones. El instrumento más adecuado para medir hasta qué punto los ciudadanos entienden y se mueven con comodidad en el campo de la política es la encuesta. Sin embargo, el tipo de preguntas que se usan en ella suele tener muy mala acogida entre los entrevistados, ya que a menudo se niegan a responderlas por miedo a equivocarse y parecer un ignorante o un ciudadano poco entendido. Por lo general, los entrevistados se sienten «examinados» por el entrevistador y esto les sitúa en una incómoda situación de cara a responder a las preguntas del cuestionario.

Existen fundamentalmente dos fórmulas para diseñar las preguntas sobre conocimiento político en las encuestas[1]. La primera plantea un abanico de opciones entre las cuales los entrevistados tienen que elegir la que ellos creen que constituye la respuesta correcta. Se trata de preguntas cerradas donde también se incluye la opción «No sabe» (NS a partir de ahora). La otra fórmula es la que plantea la pregunta abierta al entrevistado. Este proporciona la respuesta y el entrevistador la clasifica como correcta o incorrecta. El formato de las preguntas cerradas presenta la ventaja (con respecto a las abiertas) de ayudar al que responde a recordar el conocimiento que podría tener, pero que en ese momento no recuerda. Sin embargo, el inconveniente de este formato es que se fomenta la respuesta al azar, es decir, que el entrevistado no quiera reconocer que no sabe la respuesta o no está seguro de ella y se limite a responder al azar. En ese caso, nunca podremos estar seguros de que la respuesta correcta refleje el conocimiento político del que responde de forma genuina.

Por su parte, el inconveniente de las preguntas abiertas es que tienden a infraestimar lo que la gente sabe de política puesto que los entrevistados que no recuerdan exactamente el nombre de un ministro podrían muy bien ser capaces de identificarlo si lo ven escrito entre otras opciones o si lo ven en una

[1] La breve discusión que ofrecemos a continuación sobre las ventajas e inconvenientes del formato abierto frente al cerrado se centra en uno de los tres tipos de preguntas para los cuales la discusión es relevante: preguntas de conocimiento factual. Adentrarnos en la discusión de los otros dos tipos de preguntas (las que supongan elegir entre categorías nominales tales como la pregunta de cuáles son los principales problemas del país o las que plantean cantidades numéricas como la pregunta de cuántas horas dedica cada día a leer la prensa) está fuera de los objetivos de este artículo. Véanse a este respecto Krosnick y Presser, 2010 y el capítulo 5 de Corbetta, 2007. Del mismo modo, la discusión es relevante para la encuesta administrada cara a cara, pero no para encuestas que contemplen otro tipo de administración (tales como las encuestas on line o las telefónicas).

fotografía. En definitiva, se dice en contra de este formato de preguntas que son demasiado exigentes para el ciudadano ordinario (Luskin y Bullock, 2011). Y, por lo tanto, infraestiman el nivel de conocimiento político de los ciudadanos.

Ambos formatos se han utilizado de forma recurrente en las encuestas electorales americanas (de la serie American National Election Studies) y en otros países europeos (como Canadá, Dinamarca, Gran Bretaña o Noruega). En concreto, para cada encuesta ANES se suelen utilizar preguntas con los dos formatos. Es famosa en la literatura la anécdota del caso Rehnquist. Se trata del entonces (año 2000) presidente del Tribunal Supremo de Justicia (Chief Justice) de los EE.UU., William Rehnquist. La pregunta original de la encuesta ANES es de formato abierto y pregunta al entrevistado: «Ahora tenemos un conjunto de preguntas relacionadas con varias figuras públicas. Queremos saber cuánta información sobre ellos obtienen los ciudadanos de los medios de comunicación». A continuación, se ofrece una lista de personalidades y líderes público-políticos, entre los que figura William Rehnquist, y pregunta exactamente: «¿qué trabajo o qué cargo público ostenta en la actualidad?» (ANES, 2000, traducción nuestra). La entrevistada proporcionaba la respuesta y, a continuación, el entrevistador la codificaba como correcta o incorrecta. Los entrevistadores tenían instrucciones especialmente exigentes, de tal manera que solo consideraban como respuesta correcta la que dijera «Juez Presidente del Tribunal Supremo de los EE.UU.». De acuerdo a este estricto criterio, solo el 10,5% del total de los entrevistados respondió correctamente a la pregunta en la encuesta ANES 2000. Investigaciones posteriores han mostrado (accediendo a las respuestas originales apuntadas por los codificadores, de forma inaudita no disponibles para el ANES 2004, aunque sí para los demás años) que si se considera como respuesta correcta a los que identificaron a Rehnquist como un juez del Tribunal Supremo (aunque no dijeran que es el presidente), el porcentaje de aciertos asciende hasta un 33% (Gibson y Caldeira, 2009), y el porcentaje aumenta mucho más si el criterio se relaja a simplemente identificarlo como un juez famoso. Es más, Gibson y Caldeira (2009: 432) muestran que hasta un 71,8% del total de las respuestas CORRECTAS codificadas por el ANES como incorrectas (excluyendo a todos los que optaron por el NS) podrían considerarse como respuestas o aproximadamente correctas (lo que ellos denominan el conocimiento parcial). Es por ello que estos autores concluyen que es más razonable que los ciudadanos puedan reconocer un nombre entre varias opciones que recordar en frío un nombre o una actividad (Gibson y Caldeira, 2009).

Aun así, las preguntas cerradas con opciones para elegir la respuesta claramente incentivan la respuesta al azar (Luskin y Bullock, 2011).Todos estos problemas de fiabilidad del comportamiento verbal además parece que afectan de forma distinta a grupos de ciudadanos fácilmente identificables. Estudios previos han mostrado que las mujeres responden de forma distinta a las preguntas de un cuestionario dependiendo de varios factores: el contexto en el que se realice la entrevista, el sexo del entrevistador (McGlone *et al.*, 2006) y el formato de las preguntas (Mondak y Anderson, 2004).

De acuerdo a Mondak y Anderson (2004) el formato de las preguntas sobre conocimiento político en las encuestas afecta las respuestas de los entrevistados. Estos autores también muestran que cuando las preguntas son de formato cerrado, que ofrece una lista de posibles respuestas para que el entrevistado elija la que piensa que es correcta, se incentiva la respuesta al azar. Su hipótesis es que las mujeres presentan menor disposición a responder al azar, por lo que en cuanto tienen dudas eligen la opción de NS. Por el contrario, los hombres tienen mayor predisposición a arriesgar y, por lo

tanto, a responder al azar, por lo que cuando tienen dudas elegirán la opción que consideran correcta al azar y no la opción más sincera de NS. Estos autores muestran evidencia convincente para el caso de los EE.UU. y sugieren que al menos la mitad de las diferencias de género en lo que la gente sabe de política podría explicarse en función de este problema de medición.

En el presente artículo se comprueba esta hipótesis, además de controlar por los principales factores que de acuerdo a la literatura previa explican la desigual distribución del conocimiento político (habilidades, motivaciones y oportunidades). En concreto, estudiamos la propensión de hombres y mujeres a contestar «no sabe» cuando se les enfrenta a una pregunta de conocimiento político para el caso español[2]. Si la hipótesis de Mondak y Anderson es correcta, ayudaríamos con nuestro estudio a una mejor comprensión de las desigualdades de género en los niveles de conocimiento político, incorporando un nuevo factor —el metodológico— que raramente se toma en consideración en la literatura precedente.

Los datos: características y descripción

Para poner a prueba la hipótesis de la importancia de los factores metodológicos para explicar la desigual distribución de los niveles de conocimiento político entre hombres y mujeres (y controlando por los factores que la literatura ha señalado) se ha utilizado la encuesta CIS 2.632, cuyo trabajo de campo se realizó en enero de 2006. Se utiliza esta encuesta porque es una de las pocas que contienen una cantidad suficiente de preguntas de conocimiento político (hasta siete) como para construir un indicador fiable y comparable con los que se utilizan en otros países[3].

Solamente existen otras cuatro encuestas alternativas que contienen hasta cinco preguntas de conocimiento político. Se trata de la segunda y la tercera oleada de la European Social Survey (ESS) en España, realizadas en 2004 y 2006 respectivamente. Precisamente estas son las dos encuestas que utiliza un estudio previo para el caso de España (véase Fraile, 2011), donde se encuentran las desigualdades socioeconómicas y de género que ya se han señalado. Del mismo modo, un estudio reciente que utiliza los datos de la European Election Study de 2009 encuentra evidencia de las diferencias de género en toda Europa (véase Fraile, 2014). Sin embargo, el formato de las preguntas en estas encuestas es cerrado, proporcionándose cuatro y dos opciones (para la ESS y la EES respectivamente) la que cree que es correcta (incluyendo la opción NS). Ya hemos visto que este formato incrementa las probabilidades de que los entrevistados respondan al

[2] Conviene insistir en el objeto empírico de nuestro estudio: la desigual predisposición a utilizar la opción de «No sabe» entre hombres y mujeres cuando responden a preguntas de encuesta que tratan de medir el conocimiento político. Somos conscientes de que la no respuesta parcial en las preguntas de encuestas administradas de forma presencial es un tema de gran relevancia en la literatura contemporánea, pero en este artículo nos centramos en un caso muy específico (el de las preguntas de conocimiento político y las desigualdades de género en la respuesta a ese tipo de preguntas) y no tenemos espacio para comentar esa corriente de la literatura (a este respecto véase, por ejemplo, Krosnick y Presser, 2010).

[3] Además de las encuestas señaladas, las dos últimas encuestas postelectorales del CIS de 2008 y 2011 (CIS 2.757 y CIS 2.920 respectivamente) incluyeron un total de tres preguntas de conocimiento político. También las encuestas no electorales CIS 2.734, CIS 2.736, CIS 2.760, CIS 2.708. Consideramos que tres preguntas son insuficientes como para construir un indicador válido y fiable de cuanto saben los españoles de la realidad política. Para una descripción más exhaustiva de las encuestas que en España han incluido preguntas de conocimiento político véase Fraile (2006), donde se discuten además los inconvenientes de utilizar encuestas postelectorales tales como el riesgo de sobrestimar los niveles de conocimiento político de la ciudadanía, dado el contexto rico en información que generan las campañas electorales.

azar. Por el contrario, las preguntas de conocimiento político de la encuesta CIS 2.632 no incentivan la respuesta al azar porque se utilizaron exclusivamente preguntas de formato abierto, pero incluyendo las opciones «no sabe» y «no contesta», aunque sin mencionarlo por parte de los entrevistadores al leer la pregunta, lo que se podría considerar como un uso neutral de la opción del NS[4]. Si encontramos evidencia de una propensión distinta entre los ciudadanos a responder al azar con datos provenientes de este tipo de formato de preguntas, el resultado será especialmente robusto.

Además, la encuesta CIS 2.734 (cuyo trabajo de campo se realizó en 2007) incluyó cinco preguntas de conocimiento político. Sin embargo, esta encuesta se realizó a muestras representativas de la población en solo algunas Comunidades Autónomas (en concreto Andalucía, Cataluña, Castilla y León, Galicia y País Vasco), por lo que no contamos con una muestra a nivel nacional comparable con la encuesta que aquí utilizamos[5].

El trabajo de campo de la encuesta que aquí utilizamos se llevó a cabo entre el 16 y el 26 de enero de 2006. Se realizó un total de 3.192 entrevistas personales en domicilios[6]. El diseño muestral tuvo la peculiaridad de aumentar el tamaño de la muestra correspondiente a individuos en el grupo de edad entre 18 y 34 años. Por tanto, se diseñó una muestra representativa del conjunto de la población española, a la que se añadieron 1.000 entrevistas más a individuos en el grupo de edad entre 18 y 34 años[7]. Para el análisis empírico cuyos resultados se presentan a continuación se han utilizado los pesos que permiten que la muestra sea representativa del total de la ciudadanía (es decir, entre 18 y 100 años y para el total de España). No se indica en las tablas por economía de espacio.

Los criterios utilizados para seleccionar las preguntas de conocimiento político fueron varios: i) incluir un número suficiente de preguntas, aun contando con los límites que el CIS impuso (dado que la encuesta versaba sobre el tema de las nuevas formas de participación política mientras que el tema del conocimiento era secundario); ii) que hubiera variedad temática (es decir, que no se limitara a la identificación de actores políticos relevantes de la actualidad sino que también hubiera alguna pregunta sobre cuestiones de historia política contemporánea o de funcionamiento del gobierno); iii) que se incluyeran tanto la dimensión nacional de la política como la regional y la internacional; y finalmente, iv) que las preguntas tuvieran un grado de dificultad variable, incluyendo fáciles, intermedias y difíciles[8].

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[4] La introducción a las preguntas de conocimiento político en el cuestionario es: «Algunos personajes públicos son más conocidos que otros. Queremos saber en qué medida Ud. conoce a alguno de ellos». Originalmente se pretendía incentivar el uso del NS, pero finalmente se decidió utilizar este formato más neutral porque en el pretest no funcionó como se esperaba. De acuerdo con los entrevistadores que realizaron el pre-test (en diciembre de 2005), los entrevistados se mostraban molestos y la duración del cuestionario se alargaba innecesariamente. A esta conclusión también llegan Luskin y Bullock (2011) para el caso de los EE.UU.

[5] Aun así realizamos un análisis de las diferencias de género en el número de respuestas correctas, incorrectas y NS con la evidencia proveniente de la mencionada CIS 2.734 y encontramos que las mujeres por término medio responden una pregunta correcta menos que los hombres (valor del estadístico t = 17,98****) y responden algo más de media pregunta NS que los hombres (valor del estadístico t = 14,78****) mientras que las diferencias de género en el número de respuestas incorrectas es de magnitud más pequeña (0,16 con un valor del estadístico t = 7,10****). Los resultados más detallados están disponibles para el lector interesado.

[6] Para una descripción detallada del tipo de muestreo realizado, véase la página web del CIS: www.cis.es.

[7] También se añadieron más casos en la Comunidad Autónoma de Andalucía. La distribución de las entrevistas atendiendo a este criterio es la siguiente: 1.186 entrevistas en Andalucía y 2.006 entrevistas en el resto de España.

[8] En el estudio piloto que se realizó se incluyó además una pregunta en la que se pedía colocar a los partidos de acuerdo a su postura respecto a determinadas medidas políticas. De acuerdo con los entrevistadores, el

TABLA 1. *Porcentajes (redondeados) de respuesta en cada categoría para cada una de las preguntas de conocimiento político. España, 2006*

Preguntas:	Correcto	Incorrecto	No sabe	No contesta	*N*
¿Quien ocupa la presidencia de la CC.AA. en que vive?	79	6	15	0	3.192
¿Me podría decir el nombre del actual ministro de Defensa?	66	7	27	0	3.192
¿Y el nombre del presidente de la Comisión Europea?	12	19	68	1	3.192
¿Y el nombre del primer presidente del gobierno de la democracia?	69	9	21	1	3.192
¿De qué país es presidente del gobierno Hugo Chávez?	50	19	31	0	3.192
¿En qué año se aprobó la Constitución Española?	36	25	38	1	3.192
¿Gobierna actualmente el PSOE por mayoría absoluta?	69	14	15	2	3.192

Fuente: Elaboración propia a partir de CIS 2.632.

Tal y como se muestra en la tabla 1, los entrevistados utilizaron en gran medida la opción del NS, y no parecieron mostrar una disposición desfavorable a reconocer su ignorancia respecto al tema objeto de la pregunta. Los niveles de no respuesta variaron desde un máximo del 68% del total de los entrevistados para la pregunta con mayor grado de dificultad hasta un mínimo de un 15% para las dos preguntas de menor nivel de dificultad. Por tanto, la distribución de NS en función del nivel de dificultad de la pregunta sugiere que este tipo de formato abierto funciona, al menos en el caso de España.

Además, si comparamos el porcentaje de respuestas incorrectas con el de los que optaron por responder que no sabían, los últimos presentan valores sistemáticamente por encima, lo que indica que los entrevistados no tendieron a responder al azar sino más bien a reconocer que no sabían la respuesta. Esta mayor propensión para utilizar la opción más sincera del NS es especialmente acusada en las preguntas más difíciles, lo que refuerza aún más el hallazgo.

De acuerdo a esta evidencia, ¿cuál es el nivel de conocimiento político que presentan los ciudadanos en España? La tabla 1 muestra que los entrevistados aciertan en mayor medida las respuestas a las preguntas sobre actores políticos. También la pregunta sobre la actualidad política del momento presenta un alto porcentaje de respuestas correctas (69%). Por el contrario, las preguntas sobre actores políticos internacionales, como la del presidente de la Comisión Europea, son las que en menor medida son capaces de responder correctamente los entrevistados. Ahora bien, ¿cuáles son las diferencias más destacadas entre los ciudadanos por lo que respecta a este tipo de preguntas? Esta evidencia se comenta en el siguiente apartado.

formato era demasiado complicado para los entrevistados y se decidió descartar esta pregunta. Se confirmó que el resto de preguntas funcionaban y que correspondían a los objetivos planteados (especialmente el de distinto grado de dificultad).

Los resultados

La mayoría de investigaciones coinciden en señalar que los factores que explican cuánto saben los ciudadanos de política son las diferencias en habilidades, motivación y oportunidades. En concreto, aquellos ciudadanos que cuentan con mayores habilidades, recursos socioeconómicos y que están más motivados presentarán mayores niveles de conocimiento político (Althaus, 2003; Delli Carpini y Keeter, 1996; Luskin, 1990).

TABLA 2. *Determinantes del número de respuestas correctas (0-7)*

	Número de respuestas correctas
Estudios	0,444***
	(0,028)
Tiene ideología	0,609***
	(0,073)
Interés en política	0,576***
	(0,068)
Exposición a noticias:	
Prensa	0,225***
	(0,022)
Radio / TV	0,258***
	(0,032)
Firma petición	0,271***
	(0,068)
Mujer	-0,607***
	(0,056)
Edad	0,101***
	(0,00830)
Edad^2	-0,001***
	(0,000)
Constante	-0,703***
	(0,202)
N	3116
R^2	0,424

Coeficientes de regresión con sus errores típicos asociados entre paréntesis.

*** p<0,001, ** p<0,01, * p<0,05.

Variable dependiente: índice del número de respuestas correctas (de 0 a 7).

Variables independientes: Exposición a noticias en prensa y en radio/TV (de nunca 0 a todos los días 4); Nivel de estudios (de Sin estudios 0 a 4 licenciado o mas); Mujer (1 = mujeres y 0 = hombres); Edad (en años); Firma petición (1 = los que declaran haber participado en los últimos 12 meses y 0 = los que no han participado); Tiene ideología (1 = los que responden a la pregunta y 0 = los que no responden); Interés en política (1 = los que declaran tener mucho o bastante interés y 0 = los que declaran tener poco o nada interés).

Más detalles sobre la pregunta original del cuestionario y la operacionalización de la misma en los análisis aquí realizados en el Apéndice, tabla 2.

Fuente: Elaboración propia a partir de CIS 2.632.

La tabla 2 presenta los resultados de un análisis multivariado del número de respuestas correctas de los entrevistados a las siete preguntas de conocimiento político (el índice oscila entre 0 y 7 y se obtiene contando el número de respuestas correctas frente a NS o respuestas incorrectas). Siguiendo estudios previos (Anduiza *et al.*, 2012; Fraile, 2006 y 2011; Fraile *et al.*, 2007) se utiliza como indicador de recursos y habilidades el nivel de educación y la capacidad para responder a la pregunta de la autoubicación en la escala ideológica. Como indicadores de motivación se utilizan el interés declarado por la política, la exposición a noticias en los medios y la participación de los ciudadanos en una actividad política no electoral como es la firma de una petición (se seleccionó esta por ser la que un mayor porcentaje de entrevistados declararon haber realizado). Finalmente, la estimación controla por la edad y el sexo de los ciudadanos. La tabla 1 del apéndice contiene los estadísticos descriptivos de todas las variables utilizadas en el análisis, mientras que la tabla 2 del apéndice contiene la redacción original de las preguntas utilizadas así como su recodificación. Esta última se ha realizado utilizando dos criterios: i) primar la fidelidad de la codificación original de la pregunta en el cuestionario y ii) maximizar la eficiencia estadística a la hora de realizar la estimación multivariada (por lo tanto, las variables que presentaban originalmente una distribución muy desigual en sus distintas categorías tales como el interés en política fueron recodificadas como variables ficticias con valores 0 y 1).

Se ha realizado una estimación por mínimos cuadrados ordinarios. Se replicó la estimación con logit ordinal y los resultados son equivalentes, si bien la estimación a través de la ecuación logit ordinal no cumplía el supuesto de las regresiones paralelas (comprobado a través del test de Brant). Se eligió presentar los resultados de regresión porque los coeficientes pueden interpretarse directamente (están expresados en valores de la variable dependiente que oscila de 0 a 7 respuestas correctas) [9].

Los resultados plasmados en la tabla 2 confirman a las habilidades, motivaciones y oportunidades como los principales factores explicativos a la hora de predecir el nivel de conocimiento sobre la política de la ciudadanía en España, tal y como otras autoras han mostrado tanto para España (Anduiza *et al.*, 2012; Fraile, 2011; Fraile *et al.*, 2007) como para otros países europeos (Althaus, 2003; Delli Carpini y Keeter, 1996; Fraile, 2014; Frazer y Macdonald, 2003; Luskin, 1990). Por lo tanto, el conocimiento político de los ciudadanos aumenta conforme se incrementa su nivel de estudios, su exposición a noticias en los medios y su edad (si bien existe un punto de inflexión a partir del cual el efecto cambia de signo; por tanto, a partir de los 58 años el número de respuestas correctas disminuye con la edad). Asimismo, el conocimiento político es mayor en aquellos ciudadanos que muestran tener mayores motivaciones (los que declaran tener interés en política y los que dicen haber firmado una petición en los últimos doce meses) y capacidades cognitivas (los que se sitúan en la escala ideológica). Además, las mujeres saben menos sobre política que los hombres. A pesar de estar controlando por los principales deter-

[9] Para los análisis multivariados presentados en las tablas 2 y 5 se han comprobado los principales supuestos de la regresión de mínimos cuadrados ordinarios y las estimaciones no presentan problemas relevantes de multicolinealidad ni de heterocedasticidad (comprobados a través del test de Cook y Eisberg y del factor de inflación de la varianza). También se han comprobado los supuestos de linealidad y aditividad (a través del test reset de Ramsey), por lo que concluimos que la especificación de las variables es adecuada, salvo en el caso de la variable dependiente del número de respuestas incorrectas que no superó el test de Ramsey. Tal y como se comenta más adelante en el texto, la estimación del número de respuestas incorrectas es la más ineficiente, lo que indica que otros factores (como el azar) pueden estar explicando la propensión de los entrevistados a proporcionar una respuesta incorrecta (volvemos sobre este argumento más adelante).

minantes del conocimiento político de acuerdo con la literatura relevante sobre el tema, existen diferencias de género en el conocimiento político de los ciudadanos españoles, tal y como otros estudios han mostrado (Anduiza *et al.*, 2012; Fraile, 2006 y 2011; Fraile *et al.*, 2007). Pero ¿tiene el formato de las preguntas un efecto sobre los desiguales niveles de conocimiento político de hombres y mujeres que hemos encontrado, incluso una vez que hemos controlado por el resto de factores que explican dichas desigualdades?

La tabla 3 muestra las diferencias entre hombres y mujeres en los porcentajes de respuesta en cada categoría —correcto, incorrecto, No sabe y No contesta— para cada una de las preguntas de conocimiento político. Porcentajes positivos indican ventaja de los hombres, y negativos, ventaja de las mujeres.

La tabla 3 indica de nuevo la existencia de una diferencia en el porcentaje de respuestas correctas entre hombres y mujeres que va desde un 8,6% para el caso del nombre del primer presidente de la democracia hasta un 24,1% para la pregunta de política internacional, tal y como se veía anteriormente. En la mayoría de los casos (salvo en el de las diferencias en los porcentajes de NC y en los porcentajes de algunas respuestas incorrectas) las diferencias de porcentajes son estadísticamente significativas para un nivel de al menos $p = 0{,}0001$. Las magnitudes de las diferencias no parecen tener relación alguna con los niveles de dificultad de las preguntas puesto que las magnitudes menores se producen tanto para una pregunta difícil (el nombre del presidente de la Comisión Europea) como para otra más fácil (el nombre del primer presidente). Asimismo las diferencias mayores entre hombres y mujeres se localizan en la pregunta sobre política internacional (más difícil), pero también en la del nombre del ministro de Defensa (más fácil, dado que en el momento en que se rea-

TABLA 3. *Diferencia entre hombres y mujeres en los porcentajes (redondeados) de respuesta en cada categoría para cada una de las preguntas de conocimiento político*

	Correcto	Incorrecto	No sabe	No contesta
¿Quién ocupa la Presidencia de la CC.AA. en que vive?	11,2***	–2,8	–8,2***	–0,1
¿Me podría decir el nombre del actual ministro de Defensa?	20,5***	–3,7*	–16,7***	–0,2
¿ Y el nombre del presidente de la Comisión Europea?	9,1***	0,7	–10,2***	–0,3
¿Y el nombre del primer presidente del gobierno de la democracia?	8,6***	–3,1**	–5,7***	–0,2
¿De qué país es presidente del gobierno Hugo Chávez?	24,1***	–5,0***	–19,3***	–0,2
¿En qué año se aprobó la Constitución Española?	12,9***	–6,9***	–16,2***	–0,4
¿Gobierna actualmente el PSOE por mayoría absoluta?	13,9***	–4,1*	–8,9***	–1,0

(Hombres, N = 1.590; Mujeres, N = 1.602) Números en positivo indican ventaja de los hombres y negativos ventaja de las mujeres.

*** p<0,001, ** p<0,01, * p<0.05.

Fuente: Elaboración propia a partir de CIS 2.632.

lizó la encuesta ese ministro era el más conocido por los ciudadanos de acuerdo a un barómetro del CIS realizado el mes antes).

El resultado más interesante que la tabla 3 sugiere es que la mayor predisposición de las mujeres a elegir la opción NS (en comparación con los hombres) es contundente. La magnitud en las diferencias es casi tan grande como en el caso de los porcentajes de respuestas correctas y estadísticamente significativa para todas las preguntas. Las diferencias varían desde un 5,75% para el caso del nombre del primer presidente de la democracia hasta un 19,3% de diferencia para la pregunta de política internacional (véase la tercera columna de la tabla 3).

Las diferencias en los porcentajes de respuestas incorrectas entre hombres y mujeres son mucho menores en magnitud y, en algunos casos (como el del nombre del presidente de la Comisión Europea, y el de la Comunidad Autónoma en la que el entrevistado vive), no son estadísticamente significativas.

En definitiva, los resultados de la tabla 3 muestran que a pesar de que el formato de las preguntas sobre conocimiento político minimizan la propensión a responder al azar, existen diferencias significativas entre las respuestas de hombres y mujeres, siendo estas últimas mucho más propensas a elegir la opción «no sabe» y los hombres mucho más propensos a proporcionar respuestas correctas. Estas diferencias no se producen en el caso de las respuestas incorrectas[10].

Otra estrategia empírica para ahondar más en la comprobación de esta hipótesis consiste en construir índices de recuento del número de respuestas correctas, incorrectas y «no sabe» para comprobar cómo cambia su fiabilidad en función del tipo de respuesta y por el sexo del entrevistado. La idea es que conforme mayor sea la predisposición a emitir las respuestas al azar, menor será la fiabilidad del índice (Mondak y Anderson, 2004) que mediremos aquí a través del coeficiente alfa de Cronbach[11].

La tabla 4 muestra la distribución de porcentajes de los tres índices para todos los entrevistados, para hombres y para mujeres. Esta tabla muestra que el índice más fiable es el que cuenta el número de respuestas correctas (ya utilizado en las estimaciones mostradas en la tabla 2), con un valor α (Cronbach) de 0,75 y el menos fiable es el que cuenta el número de respuestas incorrectas, con un valor α (Cronbach) de 0,62. Por lo que respecta a las diferencias entre hombres y mujeres en cuanto a la fiabilidad del índice, es en el caso del número de respuestas incorrectas y para la submuestra de hombres donde la fiabilidad del índice es menor (el valor α [Cronbach] disminuye hasta 0,38). También la fiabilidad del índice en el número de NS es ligeramente mayor para la submuestra de mujeres (con un valor α [Cronbach] de 0,73 frente a un valor de 0,68 para los hombres), lo que indica una mayor coherencia en el uso de la opción NS para las mujeres.

Hasta aquí se ha mostrado evidencia exploratoria que avala por un lado la hipótesis de la mayor predisposición de las mujeres a responder NS en comparación con los hombres pero, por otro, también muestra que la

[10] Las diferencias de género que muestra la tabla 3 pueden muy bien ser espurias y es necesario controlar por otras características de los ciudadanos tales como el nivel de estudios, la motivación, etc. Eso es precisamente lo que se plasma en la tabla 2 para el número de respuestas correctas, donde se aprecia que las diferencias de género siguen siendo significativas (véase el coeficiente negativo correspondiente a Mujer) y en la tabla 5 para el número de respuestas incorrectas y NS, donde las diferencias de género encontradas en la tabla 3 siguen siendo significativas.

[11] El coeficiente se utiliza como una medida de la coherencia interna del índice o la escala que se construye. La fórmula para calcularlo es: $\frac{nr}{1+r(n-1)}$

Siendo *n* el número de elementos (o ítems o preguntas) incluidos en la escala, y *r* su correlación media. Varía entre 0 y 1 y a mayor valor, mayor la coherencia del indicador.

TABLA 4. *Distribución de porcentajes de los tres indicadores de conocimiento y desconocimiento de la política*

Número de respuestas correctas	Todos	Hombres	Mujeres
0	7,2	4,9	9,3
1	8,6	5,5	11,6
2	10,9	8,0	13,7
3	13,9	11,0	16,6
4	18,2	18,4	18,1
5	18,2	19,6	16,9
6	15,8	21,9	9,9
7	7,2	10,7	3,8
Media (desviación típica)	3,81 (1,98)	4,32 (1,19)	3,32 (1,92)
α (Cronbach)	0,75	0,75	0,74
Número de respuestas incorrectas	Todos	Hombres	Mujeres
0	35,2	35,5	35,1
1	35,2	36,8	33,6
2	18,2	18,1	18,3
3	7,0	7,0	7,0
4	2,6	1,7	3,6
5	1,3	0,7	1,8
6	0,4	0,2	0,5
7	0,1	0,0	0,1
Media (desviación típica)	1,12 (1,16)	1,05 (1,18)	1,18 (1,25)
α (Cronbach)	0,62	0,38	0,42
Número de «No Sabe»	Todos	Hombres	Mujeres
0	24,1	30,3	18,1
1	23,9	28,1	19,9
2	15,9	15,4	16,4
3	11,8	10,0	13,5
4	9,1	5,9	12,1
5	6,7	4,3	9,0
6	5,3	3,7	6,8
7	3,2	2,2	4,2
Media (desviación típica)	2,15 (1,97)	1,72 (1,8)	2,57 (2)
α (Cronbach)	0,66	0,68	0,73
Número de observaciones	3.192	1.590	1.602

La categoría 0 incluye para cada indicador las otras dos opciones. Es decir, en el caso del número de respuestas correctas, el 0 incluye a todos los entrevistados que proporcionaron una respuesta incorrecta o que dijeron que no sabían. En el caso del número de respuestas incorrectas, el 0 incluye a todos los entrevistados que proporcionaron una respuesta correcta o que dijeron que no sabían. Y, finalmente, en el caso del número de NS, el 0 incluye a todos los entrevistados que proporcionaron una respuesta correcta o incorrecta.

Fuente: Elaboración propia a partir de CIS 2.632.

brecha de género en el número de respuestas correctas es de una magnitud importante (por ejemplo, el número medio de respuestas correctas es de 4,32 para los hombres y 3,32 para las mujeres, lo que supone una diferencia media de una respuesta correcta adicional para los hombres en un índice que varía de 0 a 7). Por tanto, y de acuerdo con estudios previos, vemos que las mujeres son un sector especialmente desfavorecido con respecto a cuánto saben de política, si se comparan con los hombres.

Pero ¿cómo de robusta es esta evidencia? ¿Se mantiene la mayor propensión de las mujeres a responder que NS si controlamos por el resto de factores explicativos que

TABLA 5. *Determinantes del número de respuestas (0-7)*

	NS	Incorrectas
Estudios	–0,383***	–0,056*
	(0,030)	(0,022)
Tiene ideología	–0,687***	0,113*
	(0,077)	(0,056)
Interés en política	–0,473***	–0,130*
	(0,072)	(0,052)
Exposición a noticias:		
Prensa	–0,220***	0,0032
	(0,024)	(0,017)
Radio / TV	–0,244***	–0,024
	(0,034)	(0,025)
Firma petición	–0,193**	–0,080
	(0,072)	(0,053)
Mujer	0,466***	0,120**
	(0,059)	(0,043)
Edad	–0,089***	–0,006
	(0,008)	(0,006)
Edad^2	0,0008***	0,000
	(0,000)	(0,000)
Constante	6,259***	1,411***
	(0,215)	(0,156)
Observaciones	3.116	3.116
R^2	0,350	0,014

Coeficientes de regresión con sus errores típicos asociados entre paréntesis.

*** p<0,001, ** p<0,01, * p<0,05.

Variable dependiente: índice del número de respuestas NS (columna 2) y del número de respuestas incorrectas (columna 3), ambas de 0 a 7.

Variables independientes: Exposición a noticias en prensa y en radio/TV (de nunca 0 a todos los días 4); Nivel de estudios (de Sin estudios 0 a 4 licenciado o más); Mujer (1 = mujeres y 0 = hombres); Edad (en años); Firma petición (1 = los que declaran haber participado en los últimos 12 meses y 0= los que no han participado); Tiene ideología (1 = los que responden a la pregunta y 0 = los que no responden); Interés en política (1 = los que declaran tener mucho o bastante interés y 0 = los que declaran tener poco o nada interés)

Más detalles sobre la pregunta original del cuestionario y la operacionalización de la misma en los análisis aquí realizados en el Apéndice, tabla 2.

Fuente: Elaboración propia a partir de CIS 2.632.

ya se han considerado para el caso de las respuestas correctas? Para comprobarlo, replicamos la misma estimación mostrada en la tabla 2 para el número de respuestas NS y para el número de respuestas incorrectas (los índices varían de 0 a 7 y se obtienen contando el número de NS y de respuestas incorrectas respectivamente). Los resultados se presentan en la tabla 5.

Por lo que respecta a la estimación de los determinantes del número de respuestas NS para cada individuo, los resultados de la tabla 5 (columna 2) son equivalentes a los del número de respuestas correctas que se presentaban en la tabla 2, pero al contrario. Es decir, el número de respuestas NS emitido por los entrevistados disminuye conforme aumentan su nivel de estudios, su exposición a noticias y su edad (de nuevo la relación es curvilínea, por lo que el número de NS disminuye con la edad, pero a partir de los 58 el número de NS aumenta con la edad). Asimismo, el número de NS es menor para quienes muestran una mayor motivación (los que declaran tener interés en política y los que dicen haber firmado una petición en los últimos doce meses) y mayores capacidades cognitivas (los que se sitúan en la escala ideológica). Como se puede apreciar en la segunda columna de la tabla 5, las diferencias de género en el número de NS siguen siendo significativas, aunque se han reducido respecto a la evidencia exploratoria aproximadamente a la mitad (esto es, de una diferencia de 0,85 en la tabla 4 a una de 0,46). Es decir, por término medio las mujeres presentan media respuesta NS más que los hombres. Y las diferencias de nuevo son estadísticamente significativas. Estos resultados indican, por tanto, que habilidades, motivaciones y oportunidades también son relevantes a la hora de explicar la opción por el NS, dado que el tamaño de las diferencias de género se reduce a la mitad una vez que se controla por ellas.

¿Cuál es la evidencia para el número de respuestas incorrectas? La primera diferencia a resaltar respecto a los resultados de los NS es que en este caso el poder explicativo de las variables independientes es mucho menor. De todas las variables especificadas en la ecuación solamente el nivel de estudios, tener ideología e interés por la política presentan coeficientes estadísticamente significativos, aunque su magnitud es muy pequeña en comparación con la otra ecuación estimada. Además, las diferencias entre hombres y mujeres en el número de respuestas incorrectas son significativas pero muy pequeñas en magnitud. Por término medio las mujeres presentan 0,12 más respuestas incorrectas que los hombres.

Los resultados sobre los determinantes del número de respuestas incorrectas sugieren además que emitir una respuesta incorrecta es muy distinto que reconocer que no se sabe la respuesta correcta a la hora de medir el nivel de conocimiento político de la ciudadanía. En los debates más recientes sobre la construcción de indicadores de conocimiento político que sean válidos y fiables, Mondak y sus colaboradores argumentan que los índices aditivos más convencionales en la literatura (esto es: los que cuentan el número de respuestas correctas, considerando como 0 respuestas incorrectas y NS) adolecen de problemas de fiabilidad. Su argumento es que proporcionar una respuesta incorrecta implica un mayor nivel de información y atención a la política que simplemente responder que «no se sabe» (Mondak, 1999, 2001; Mondak y Creel, 2001). Por eso, los autores recomiendan que las respuestas incorrectas y las NS no se traten de forma idéntica.

Los resultados del presente trabajo sugieren que efectivamente no se deberían considerar igual los dos tipos de respuesta. Pero es que además las respuestas incorrectas no parecen colocarse en ningún lugar del supuesto *continuum* latente de grado de información y conocimiento de la política. O dicho de otra forma, mientras que la interpretación del número de respuestas correctas y

NS proporcionadas por los entrevistados es clara: cuantas más respuestas correctas mayor será su nivel de conocimiento político y cuantas más respuestas NS, menor será ese nivel. Sin embargo, la interpretación de la respuesta incorrecta no queda clara. El poco poder explicativo de la ecuación sugiere que el azar interviene a la hora de proporcionar una respuesta incorrecta. Y eso que el formato abierto de la pregunta en principio está diseñado para minimizar el efecto del azar.

En resumen, la evidencia muestra una desigual distribución del conocimiento político de los españoles. La misma depende de las habilidades, motivaciones y oportunidades de que dispongan los ciudadanos. Se confirman así los resultados de estudios previos para el caso de España (Anduiza *et al.*, 2012; Fraile, 2006 y 2011; Fraile *et al.*, 2007).

Además, los resultados de los análisis indican que las diferencias entre hombres y mujeres pueden estar artificialmente infladas por el tipo de indicadores que se utilizan para medir los niveles de conocimiento político. En concreto, en el caso de la comparación entre hombres y mujeres, la distinta propensión a adivinar y a admitir que no se sabe la respuesta puede estar inflando las diferencias de género identificadas aquí. Mientras los hombres presentan una mayor propensión a responder al azar, las mujeres solo parecen dar una respuesta si están seguras y, en caso contrario, afirman de forma sincera que no lo saben. En el siguiente apartado discutimos las implicaciones de estos hallazgos para el estudio de lo que la ciudadanía sabe de política.

Conclusiones

Esta investigación corrobora la existencia de diferencias en los niveles de conocimiento político de la ciudadanía en España, tal y como ocurre en otros países, como los EE.UU., Canadá o Gran Bretaña. La mayoría de las investigaciones que dan cuenta de este resultado recurren a explicaciones relativamente deterministas tales como las habilidades personales, las distintas motivaciones de los ciudadanos y la desigual distribución de oportunidades y recursos en la sociedad.

Además de poner a prueba esas explicaciones más convencionales, este trabajo comprueba una hipótesis alternativa que defiende que la desigual distribución de los niveles de conocimiento entre hombres y mujeres puede ser también (o al menos en parte) un reflejo de las dificultades para medir el conocimiento político. De este modo, no se trata de que las mujeres sepan menos de política que los hombres, sino de que responden de forma distinta a las mismas preguntas de un cuestionario. Hemos comprobando esta hipótesis.

Para ello se ha utilizado una encuesta en la que se incluyeron siete preguntas sobre conocimiento político en cuyo diseño se tuvo en cuenta precisamente esta cuestión y se trató de minimizar la respuesta al azar, utilizando el formato abierto. La idea es que un formato de preguntas abiertas debería minimizar la propensión a responder al azar en general y, por lo tanto, las diferencias de género a este respecto. Pues bien, a pesar de que en la encuesta utilizada aquí el formato de las preguntas de conocimiento político era abierto, se ha encontrado una diferencia de género en la propensión a reconocer que no se sabe la respuesta correcta. En concreto, por término medio las mujeres proporcionan una respuesta NS más que los hombres. Sin embargo, las diferencias de género en el número de respuestas incorrectas son irrelevantes. Este mismo análisis muestra que por término medio los hombres presentan una respuesta correcta más que las mujeres. Dichas diferencias siguen siendo significativas, aun controlando por las habilidades, motivaciones y oportunidades de los ciudadanos.

Estos resultados sugieren la conveniencia de ensayar nuevas maneras de preguntar sobre el conocimiento político de la ciudada-

nía en las encuestas. Un estudio reciente señala que la forma en la que se mide el conocimiento político en las encuestas más convencionales presenta problemas de validez (Boudreau y Lupia, 2011). En efecto, lo que se está midiendo con este tipo de encuestas es la habilidad de los entrevistados para proporcionar una respuesta correcta a preguntas factuales sobre una dimensión muy concreta de la política (la dimensión institucional, histórica o la de actores políticos relevantes del momento). El uso de este tipo de preguntas puede estar proporcionando una imagen distorsionada sobre lo que los ciudadanos de a pie saben y entienden de política.

Existen tres posibles vías fructíferas para avanzar en esta cuestión. La primera relacionada con el formato de las preguntas, la segunda con el tipo de temas sobre los que se preguntan y la tercera utilizando métodos alternativos de carácter experimental. Aquí vamos a esbozar solo las dos primeras. Con respecto al formato, varios autores se han mostrado a favor de no utilizar la opción de «No sabe» o al menos de intentar desincentivarla (Mondak, 2001; Mondak y Anderson, 2004). De acuerdo con una reciente investigación (Luskin y Bullock, 2011), el desincentivo del uso de la opción NS aumenta el número de respuestas correctas solo en el caso de preguntas abiertas, pero la magnitud del efecto es muy pequeña. En cambio, cuando el formato es cerrado, desincentivar la opción de NS tiene el efecto colateral de aumentar los niveles de respuesta al azar (tanto de los hombres como de las mujeres), pero no de aumentar el número de respuestas correctas. Un estudio reciente muestra los resultados de un experimento realizado en España donde las mismas preguntas de conocimiento político (tres) se formulan con un protocolo de uso neutral de la opción NS y con un protocolo desincentivador de la opción NS. Dicho estudio corrobora los hallazgos de Luskin y Bullock (2001), mostrando que desincentivar el uso de la opción NS aumenta significativamente la respuesta al azar especialmente en el caso de los hombres (Ferrín, Fraile y García, 2013).

Respecto al tema sobre el que se pregunta en las encuestas, algunas autoras han defendido que el concepto de política que se maneja en estas preguntas es demasiado limitado y centrado en cuestiones institucionales o de historia política reciente. En ese sentido, la distinción de Norris (2000) entre información política convencional y práctica resulta especialmente útil. Estudios pioneros han mostrado que las diferencias de género en el conocimiento político se diluyen cuando se pregunta por aspectos más prácticos de la política tales como los servicios sociales, los derechos del ciudadano o, incluso, sobre actores políticos que sean mujeres (Stolle y Gidengil, 2010). Otros estudios además apuntan que las encuestas convencionales sobrevaloran el conocimiento de nombres o de fechas frente a otros tipos de conocimiento como podría ser el visual (Prior, 2014). En ese sentido, el uso de imágenes o fotografías para que el entrevistado reconozca a una personalidad política sería una innovación interesante. Esto no quiere decir que haya que abandonar la medición de los temas más clásicos (institucionales o de actores políticos), sino simplemente que hay que ampliar tanto los temas como la forma en las que se preguntan si queremos avanzar en el estudio de lo que los ciudadanos de a pie saben sobre la política y sus principales protagonistas.

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APÉNDICE.

TABLA 1. *Descriptivos de las variables*

Variables	Media	Desviación Típica	Mínimo	Máximo
Número respuestas correctas	3,81	1,98	0	7
Número de respuestas incorrectas	1,12	1,16	0	7
Número de respuestas NS	2,15	1,97	0	7
Exposición a noticias de prensa	1,54	1,50	0	4
Exposición a noticias de radio/TV	2,42	0,98	0	4
Estudios	1,70	1,14	0	4
Mujer	0,51	0,49	0	1
Edad	46,28	18,36	18	99
Firma petición	0,23	0,42	0	1
Tiene ideología	0,81	0,39	0	1
Interés en política	0,32	0,46	0	1

Fuente: Elaboración propia a partir de CIS 2.632.

TABLA 2. *Formato de las preguntas del cuestionario utilizadas*

Variable	Pregunta en el cuestionario	Codificación
Exposición a noticias en los medios	¿Con qué frecuencia lee las secciones políticas del periódico?	1. Todos los días 2. 3-4 días por semana 3. 1-2 días por semana 4. Con menor frecuencia 5. Nunca (Re-codificada de 0 a 4)
	¿Con que frecuencia escucha o ve las noticias en la radio o la televisión?	1. Todos los días 2. 3-4 días por semana 3. 1-2 días por semana 4. Con menor frecuencia 5. Nunca (Re-codificada de 0 a 4)
Interés declarado en política	¿Diría Ud. que la política le interesa mucho, bastante, poco o nada?	La variable se recodificó con el valor 1 para los que declaran tener mucho o bastante interés en política y 0 para los demás.
Participación política no electoral	Existen diversas formas de participación en acciones sociales y políticas que la gente puede llevar a cabo. Por favor, indíqueme si Ud. ha firmado una petición en los últimos 12 meses	La variable identifica a aquellos que declaran haber participado con el valor 1 frente a los demás (0).
Tiene ideología	Escala izquierda (0)–derecha (10)	La variable identifica con el valor 1 a los que se posicionan en la escala ideológica frente a los demás (0).
Nivel de estudios	Máximo título conseguido hasta el momento de la entrevista	0 «sin escuela o < de 5 años» 1 «enseñanza obligatoria» 2 «secundaria superior» 3 »FP superior o diplomado» 4 «licenciados o más».

Nota: Las preguntas utilizadas para construir los tres índices de conocimiento e ignorancia sobre la política se pueden ver en la tabla 1, p. 59.

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Measuring Political Knowledge in Spain: Problems and Consequences of the Gender Gap in Knowledge

La medición del conocimiento político en España: problemas y consecuencias para el caso de las diferencias de género

Mónica Ferrín and Marta Fraile

Key words

Political Knowledge
- Gender Gap
- Surveys
- Measurement
- Validity

Abstract

How much do Spanish citizens know about politics? Is political knowledge unequally distributed among the Spanish population? While levels of political knowledge in Spain are low, there are also important socioeconomic and gender differences in levels of knowledge. Knowledge is higher among those with higher levels of education, greater socioeconomic and cognitive resources and, in particular, among men. These differences are explained as a function of citizens' resources, capacities, and motivation. However this study also shows that part of the gender gap in political knowledge in Spain is due to the way in which surveys measure that knowledge, which reveals important problems of validity. The results suggest the importance of testing new ways of asking survey questions about citizens' political knowledge, as studies in other countries have shown.

Palabras clave

Conocimiento político
- Diferencias de género
- Encuestas
- Medición
- Validez

Resumen

¿Cuánto saben los ciudadanos de política en España? ¿Existen desigualdades en la distribución del conocimiento político? El presente estudio confirma lo que investigaciones previas han concluido y es que en España los niveles de conocimiento político son más bien bajos y que se trata de un recurso desigualmente distribuido entre los ciudadanos: saben más de política los que tienen mayor nivel educativo, y aquellos con más recursos socio-económicos y cognitivos, y en particular, los hombres. Las diferencias se explican en función de las motivaciones, habilidades y oportunidades de la ciudadanía. El valor añadido del artículo es que muestra que parte de las desigualdades de género se deben a la forma en la que se mide el conocimiento político a través de las encuestas y, por lo tanto, a problemas de validez. Estos resultados sugieren la conveniencia de ensayar nuevas maneras de preguntar sobre el conocimiento político de la ciudadanía en las encuestas, tal y como otros estudios en otros países han mostrado.

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Introduction

Political knowledge represents a crucial resource for citizens. Prior studies have shown that well-informed citizens are more interested in and participate more in politics. An informed citizenry is better able to control the actions of their government, participate in politics and make responsible political decisions (Delli Carpini and Keeter, 1996).

Prior research on Spain, however, has shown that political knowledge is unequally distributed in the society. Political knowledge is in general higher among the higher educated, those with higher levels of socioeconomic and cognitive resources, and in particular, among men (Anduiza *et al.*, 2012; Fraile 2011; Fraile *et al.*, 2007). This inequality is also documented in the case of other European countries as well as the US and Canada (Delli Carpini and Keeter, 1996 and 2005; Fraile, 2014; Frazer and Macdonald, 2003; Stolle and Gidengil, 2010), where different levels of political knowledge are attributed to the unequal distribution in society of three types of factors: resources, capacities and motivation (Althaus, 2003; Delli Carpini and Keeter, 1996; Luskin, 1990). However, and despite abundant evidence regarding the unequal distribution of political knowledge, few studies have offered a conclusive explanation for this finding.

The unequal distribution of political knowledge in society raises important normative issues. If it is true that certain social sectors know less about politics, this could translate into a disadvantage in their ability to transmit their needs and demands to politicians and government.

Recently, effort has been made to explain why certain groups in the population know more about politics than others. This is the case, for example, regarding the consistent differences found in knowledge about politics between men and women. A recent line of research attributes some of this inequality to methodological factors related to how political knowledge is measured. This perspective hypothesizes that differences in levels of knowledge only appear to be such, and occur because different groups respond in different ways to the same stimulus provided by survey questions on political knowledge (Mondak and Anderson, 2004). This research affirms that survey respondents with an aversion to risk tend to respond "don't know" more frequently, and that women in particular choose this response more often than men.

This article examines this hypothesis using evidence from Spain. It shows that there are differences in levels of political knowledge between men and women, but it also shows that along with traditional factors that influence political knowledge and play an important role in explaining the unequal distribution of political knowledge among persons in Spain (as shown in prior studies; see Anduiza *et al.*, 2012; Fraile, 2011; Fraile *et al.*, 2007), methodological factors are also important when it comes to explaining this inequality between men and women.

Measuring political knowledge: the debate

As mentioned above, explanations in the literature on differences in levels of political knowledge point to on three factors: resources, capacities and motivation (Althaus, 2003; Delli Carpini and Keeter, 1996; Luskin, 1990). As these factors are unequally distributed among citizens, these inequalities are reproduced in the political arena. As a result, those citizens who have fewer cognitive and socioeconomic resources will also tend to have a lower level of political knowledge (Delli Carpini and Keeter, 1996).

In addition, the distribution of political knowledge can be explained in function of a series of citizen attitudes, such as interest in or predisposition to participate in politics, either by voting in elections or through some

alternative mechanism. Often it is argued that more politically active citizens also understand more about politics (Verba and Schlozman, 1997). What is not very clear in the literature is the direction of causality, or in other words: Is it political knowledge that promotes interest and political participation or rather, do citizens acquire information, knowledge and interest in politics through participation? (Verba, Burns and Schlozman, 1997)

There is a line of research, however, that argues that differences in levels of political knowledge may also be a product of a validity problem in measuring this knowledge. This is an especially complex concept involving many dimensions. The most appropriate instrument to measure the extent to which citizens understand and know about politics is the survey. However, the types of questions that are used in surveys are not always well-received by participants, since they often refuse to respond out of concern with being wrong and appearing to be ignorant or uninformed. In general, respondents feel like they are being tested by the interviewer, and this places them in an uncomfortable situation when responding to certain questions.

There are two formulas for designing survey questions on political knowledge[1]. The first presents respondents with a range of possible answers from which they choose the one they think is correct. Such questions are referred to as closed-ended and also include the response "don't know" (DK, from now on). The other formula is based on asking respondents open questions. Respondents provide answers, and the interviewer marks them as correct or incorrect. The format of closed-ended questions has the advantage (in comparison to open questions) of helping the respondent by reminding him or her of knowledge he or she might have but does not remember in the moment. However, the problem with this format is that it encourages guessing; that is, the respondent may not want to recognize that he or she does not know the answer or is not sure about the answer and guesses. In that case, we can never be sure if the correct answer genuinely reflects the respondent's real political knowledge.

The problem with open-ended question surveys is that they tend to underestimate what people know about politics because respondents who cannot remember the exact name of a minister might be able to identify him or her if they saw the name written among options to choose from, or if they saw a photograph. In short, one of the shortcomings of this question format is that it is too demanding for the ordinary citizen (Luskin and Bullock, 2011) and, therefore, underestimates citizens' political knowledge.

Both formats have been used in American electoral surveys (in the American National Election Studies (ANES) series) and in surveys in other countries (such as Canada, Denmark, Great Britain and Norway). Concretely, each ANES survey usually employs both formats. Famous in the literature is an anecdote referred to as the "Rehnquist case". William Rehnquist was the Chief Justice of the United States in 2000. The original question in the ANES survey was an open format question that asked the respondent: "Now we have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers and the like…?" Afterwards, a list of public political

[1] The brief discussion that we offer on the advantages or disadvantages of the open format in comparison to the closed format focuses on one of the three types of questions for which the discussion is relevant: questions about factual knowledge. Entering into a discussion on the two other types of questions (those that ask respondents to choose between nominal categories, such as the question of what the main problems in the country are; or those that ask about quantities, such as how much time respondents spend reading the newspaper every day) is outside the objectives of this article. See, related to this, Krosnick and Presser, 2010, and chapter 5 of Corbetta, 2003. Our discussion is also relevant for the face-to-face survey but not for other types of surveys (such as online or telephone surveys).

personalities and figures was presented, among them William Rehnquist, and they were asked: "What job or public office does he now hold?" (ANES 2000). The respondent provided an answer, and the interviewer coded it as correct or incorrect. The problem was that the interviewers were instructed to be especially demanding and only accept the answer, "Chief Justice of the United States". Based on this strict criteria, only 10.5% of total interviewees responded correctly to the question in the ANES 2000 survey. Subsequent research demonstrated (by looking at the original responses written down by the coders, which unprecedentedly, were not available for the ANES 2004, although they were for other years) that if the response, "Rehnquist is a Supreme Court judge", had been accepted (although not saying that he was the chief justice), the percentage of correct answers would have been 33% (Gibson and Caldeira, 2009), and the percentage would have increased even more if the criteria included simply identifying him as a famous judge. Gibson and Caldeira (2009: 432) even demonstrated that up to 71.8% of the total responses coded by the ANES as incorrect (excluding of course all of those that chose DK) could have been considered almost correct or approximately correct (what they call partial knowledge). It is for this reason that these authors concluded that it is more reasonable to consider respondents able to recognize a name among various options than to have to recall a name or a position (Gibson and Caldeira, 2009).

However, closed-ended questions with options to choose from clearly encourage guessing (Luskin and Bullock, 2011). All these problems related to the reliability of verbal responses also seem to affect easily identifiable groups of citizens, such as men and women, in different ways. Prior studies have shown that women respond in different ways to survey questions depending on various factors: the atmosphere in which the interview takes place, the sex of the interviewer (McGlone *et al.*, 2006) and the format of the questions (Mondak and Anderson, 2004).

According to Mondak and Anderson (2004), the format of questions on political knowledge in opinion surveys affects the responses of interviewees. These authors have also shown that closed-ended questions, offering a list of possible answers for the interviewee to choose from, encourage guessing. Their hypothesis is that women are less likely to guess so that when they have doubts, they choose the DK option. In contrast, men are more likely to take a risk and respond by guessing so that when they have doubts, they will choose to guess rather than providing the more honest option of DK. These authors have provided convincing evidence in the case of the United States, suggesting that at least half of gender differences regarding political knowledge could be explained by this measurement problem.

In this article we test this hypothesis, in addition to controlling for the main factors that, based on previous literature, explain the unequal distribution of political knowledge (resources, capacities and motivation). Specifically, we study the propensity of men and women in Spain to answer "don't know" when they are faced with a question about political knowledge[2]. If the hypothesis of Mondak and Anderson is correct, our study will help to provide a better understanding of gender inequalities regarding levels of political knowledge by examining a new methodological factor that has rarely been considered in prior research.

[2] It is important to insist on the empirical objective of our study: the unequal predisposition to choose the option DK between men and women when responding to survey questions trying to measure political knowledge. We are aware that a partial non-response to questions in face-to-face surveys is a subject of great importance in contemporary literature but in this article we focus on a very specific case (questions about political knowledge and gender inequality in response to these questions), and there is no room to comment on this current in the literature (regarding this, see, for example, Krosnick and Presser, 2010).

Data

To test our hypothesis on the importance of methodological factors in explaining the unequal distribution of levels of political knowledge between men and women (and controlling for the factors that the literature has focused on), we have used a survey carried out by Spain's Centro de Investigaciones Sociológicas (CIS survey 2.632) in January of 2006. This survey was chosen because it is one of the few surveys with enough questions on political knowledge (seven) to build an indicator that is reliable and comparable to those used in other countries[3].

There are only four other surveys that contain up to five questions on political knowledge. These are the second and third waves of the European Social Survey (ESS) in Spain, carried out in 2004 and 2006 respectively. These two surveys were used for a prior study on Spain (see Fraile, 2011) that found the socioeconomic and gender inequalities already pointed out. Likewise, another recent study using data from the European Election Study of 2009 found evidence of gender differences in all of Europe (Fraile, 2014). However, the format of the questions in these surveys is closed, providing respondents with four options from which to choose the correct answer (including the option DK). We have already seen that this format increases the likelihood of respondents guessing. In contrast, the questions about political knowledge in CIS survey 2.632 do not encourage guessing because they only use open-ended questions, although they also include the options "don't know" and "no answer". However, when reading the question, the interviewer did not mention those options,which could be considered a neutral use of the DK option[4]. If we find evidence of a distinct propensity among respondents to guess with data coming from this type of question format, the findings will be especially robust. In addition, the CIS survey 2.734 (whose field work was done in 2007) included five questions on political knowledge. However, this survey was carried out with representative samples of the population in only a limited number of Spain's autonomous regions (Andalusia, Catalonia, Castille and Leon, Galicia and the Basque Country) so that we do not have a national sample comparable to the survey we are using here[5].

The fieldwork for the survey used here was carried out between 16 and 26 of January, 2006. A total of 3,192 personal interviews were carried out in participants' homes[6]. The sample design provided a representative sample of the whole of the Spanish popula-

[3] In addition to the surveys mentioned, the last two post-electoral CIS surveys of 2008 and 2011 (CIS 2.757 and CIS 2.920, respectively) included a total of three questions on political knowledge, as did the non-electoral surveys, CIS 2.734, CIS 2.736, CIS 2.760, CIS 2.708. We believe that three questions are not sufficient to construct a valid and reliable indicator on how much Spanish people know about politics. For a more exhaustive description on the surveys in Spain that have included questions on knowledge, see Fraile (2006), which also discusses problems with using post-electoral surveys, such as the risk of overestimating levels of political knowledge, given the context of abundant information generated in electoral campaigns.

[4] The introduction to the questions on political knowledge in the questionnaire is: "Some public personalities are more well-known than others. We would like to know to what extent you know who they are". Originally the intention was to encourage the use of the DK response but finally it was decided to use this more neutral format because it did not work as well as was expected in the pre-test. According to the interviewers who did the pre-test (in December, 2005), the respondents were bothered and the interview took too long. Luskin and Bullock (2011) also came to the same conclusion in their study on the US.

[5] Even so we did an analysis of gender differences in the number of correct, incorrect and DK responses with data from the already mentioned CIS 2.734 survey and we found that women on average respond correctly to a question less than men (statistical value t = 17.98****) and responded DK on almost one half question more than men (statistical value t = 14.78****), while the gender differences in the number of incorrect responses was smaller (0.16 with a statistical value t = 7.10****). More detailed results are available upon request.

[6] For a detailed description of the type of sample , see the CIS web page: www.cis.es.

tion, to which 1,000 additional interviews with individuals in the 18 to 34 year old age group were added[7] For the empirical analysis, the results of which are presented in the following section, we used weights that allowed us to create a representative sample of all of the citizens of Spain between the ages of 18 and 100. This is not indicated in the tables due to space limitations.

The criteria used to select questions about political knowledge were varied: (i) include enough questions, even considering the limits imposed by the CIS survey (given that the survey dealt with the subject of new forms of political participation, while the issue of political knowledge was secondary) ; (ii) include a range of political subjects (that is, questions should not be limited to identifying important political actors of the day, but should include issues regarding contemporary political history or the functioning of government); (iii) include regional, national and international politics; and lastly, (iv) include questions of varying levels of difficulty, from easy to intermediate to difficult[8].

As can be seen in Table 1, respondents frequently chose the option DK and did not appear to have a problem with recognizing their ignorance regarding the correct answer to questions. The levels of DK/NR varied from a maximum of 68 percent of total respondents for the question of greatest difficulty to a minimum of 15 percent for the two questions of least difficulty. Therefore, the distribution of DK in function of the level of difficulty of the question suggests that this type of open format works, at least in the case of Spain.

Moreover, if we compare the percentage of incorrect answers with the percentage of those who chose the option DK, the DKs were systematically higher, which indicates that respondents did not tend to guess but instead recognized that they did not know the answer. This greater propensity to use the more honest option of DK is especially pronounced for the more difficult questions, which reinforces this finding.

Based on these results, what level of political knowledge do Spanish citizens have? Table 1 shows that respondents answered questions about political actors most accurately. The question about current politics was also answered correctly by a high percentage (69%). In contrast, questions about international political actors, such as the President of the European Commission, were answered correctly less often. What differences in political knowledge stand out the most among the Spanish population? These results are included in the following section.

Results

Most of the research on political knowledge coincides in demonstrating that the factors explaining how much citizens know about politics are differences in resources, capacities and motivation. Specifically, citizens that have greater capacities, socioeconomic resources and who are more motivated have higher levels of political knowledge (Althaus, 2003; Delli Carpini and Keeter, 1996; Luskin, 1990).

Table 2 presents the results of a multivariate analysis of the number of correct answers to the seven questions on political knowledge (the scores range between 0 and 7 and are obtained by simply adding up the correct answers). In line with previous studies (Anduiza *et al.*, 2012; Fraile, 2006 and

[7] More cases were also added in the region of Andalusia. The geographic distribution of the interviews, as a result, is the following: 1,186 interviews in Andalusia and 2,006 interviews in the rest of Spain.

[8] The pilot study carried out also included a question which asked respondents to place political parties based on their positions on certain policy measures. According to the interviewers, the format of this question was too complicated for respondents, and the question was removed. The rest of the questions worked and fit the objectives (especially that of having varying levels of difficulty).

TABLE 1: *Percentages (rounded off) of answers in each category for each of the questions on political knowledge, Spain, 2006*

Questions:	Correct	Incorrect	Don't know	No answer	*N*
Who is the president of the Autonomous Community where you live?	79	6	15	0	3,192
Could you tell me the name of the current Defence Minister?	66	7	27	0	3,192
And the name of the President of the European Commission?	12	19	68	1	3,192
And the name of the first president of the government under democracy?	69	9	21	1	3,192
Hugo Chávez is the president of which country?	50	19	31	0	3,192
In what year was the Spanish Constitution passed?	36	25	38	1	3,192
Does the PSOE currently govern with an absolute majority?	69	14	15	2	3,192

Source: By author based on CIS 2.632

2011; Fraile *et al.*, 2007), as indicators of resources and capacities, we used level of education and the ability to place oneself on an ideological scale, respectively. For indicators of motivation, we used stated interest in politics, exposure to the news and participation in non-electoral political activity, specifically signing petitions (this was chosen because it was the activity that the greatest number of respondents had participated in). Finally, the estimation controlled for age and sex. Table 1 in the appendix contains descriptive statistics of all the variables used in the analysis, while Table 2 in the appendix contains the original wording of the questions used, as well as their recoding. This was done based on two criteria: (i) prioritize fidelity with the original coding of the question in the questionnaire and (ii) maximize statistical efficiency when performing multivariate estimation (hence, the variables that originally had a very uneven distribution in different categories, such as interest in politics, were recoded as dummy variables with values of 0 and 1).

An estimation by ordinary least squares was carried out. The estimation was replicated with ordinal logit, and the results were equivalent, although the estimation through the ordinal logit equation did not satisfy the parallel regression assumption (confirmed by the results of the Brant test). We chose to present the results of the regression because the coefficients can be interpreted directly (they are expressed in values of the dependent variable, which range from 0 to 7 correct answers)[9].

[9] For the multivariate analyses presented in Table 2 and Table 6, the main assumptions of ordinary least squares regression have been confirmed and the estimations do not present relevant problems of multicollinearity and heteroscedasticity (verified by the Cook and Eisberg test and the variance inflation factor). The assumptionsoflinearity andadditivity have also been verified (the Ramsey RESET test) so that we can conclude that the specification of the variables is adequate, except in the case of the dependent variable of the number of incorrect answers, which did not pass the Ramsey test. As will be commented on later in the text, the estimation of the number of incorrect answers is the most inefficient, which indicates that other factors (such as guessing) can explain the propensity of respondents to provide incorrect answers (we will return to this argument later).

The results shown in Table 2 confirm that the main explanatory factors for predicting the level of knowledge about politics among Spanish citizens are resources, capacities and motivation, as other authors have demonstrated for both Spain (Anduiza *et al.*, 2012; Fraile, 2011; Fraile *et al.*, 2007) and other European countries (Althaus, 2003; Delli Carpini and Keeter, 1996; Fraile, 2014; Frazer and Macdonald, 2003; Luskin, 1990). Therefore, the political knowledge of citizens increases as their level of education, expo-

TABLE 2: *Determinants of the number of correct answers (0-7)*

	Number of correct answers
Education	0.444***
	(0.028)
Has an ideology	0.609***
	(0.073)
Interested in politics	0.576***
	(0.068)
Exposure to the news	
Newspapers	0.225***
	(0.022)
Radio / TV	0.258***
	(0.032)
Has signed a petition	0.271***
	(0.068)
Woman	-0.607***
	(0.056)
Age	0.101***
	(0.00830)
Age	-0.001***
	(0.000)
Constant	-0.703***
	(0.202)
N	3,116
R^2	0.424

Source: By author based on CIS 2.632

Regression coefficients with their associated standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05.

Dependent variable: indicator of number of correct answers (from 0 to 7).

Independent variables: Exposure to the news in newspapers and on the radio/television (from never, 0, to everyday, 4); Level of education (from no education, 0, to 4, bachelor's degree or more); Woman (1= women and 0 = men); Age (in years); Signs petitions (1= said he or she had signed a petition in the previous 12 months and 0 = had not done so); Has an ideology (1 = those who responded to the question and 0 = those who did not respond); Interested in politics (1= those who said they are very or quite interested in politics and 0 = those who said they are not very interested or not interested in politics).

More details on the original questions in the questionnaire and on its operationalization in the analysis carried out can be found in Appendix, Table 2.

sure to the news and age increase (although there is a turning point after which the age effect reverses: starting at 58 years of age, the number of correct answers decreases). In addition, political knowledge is greater among those citizens who demonstrate higher levels of motivation (those who state they are interested in politics and those who say they have signed a petition in the previous twelve months) and greater cognitive ability (those who can place themselves on the ideological scale). Moreover, women know significantly less about politics than men. Despite controlling for the main antecedents of knowledge, there are gender differences in political knowledge among Spanish citizens, as other studies have also shown (Anduiza *et al.*, 2012; Fraile, 2006 and 2011; Fraile *et al.*, 2007). But does the format of the survey questions have an effect on the unequal levels of political knowledge we found between men and women.

Table 3 shows the differences between men and women in the percentages of answers in each possible category – correct, incorrect, don't know and no answer – for each one of the questions on political knowledge. Positive percentages indicate that the difference favours men, and negative percentages that it favours women.

Table 3 indicates again the existence of a difference in the percentage of correct answers between men and women, which ranges from 8.6 points in the case of the name of the first president of Spain under democracy, to 24.1 points for the question on international politics. In the majority of cases (the exceptions being the differences in percentages of NA and in the percentages of some incorrect answers), the differences in percentages are statistically significant for a level of at least $p = 0.0001$. The magnitudes of the differences do not appear to be related to the levels of difficulty of the questions because lower magnitudes occur for both a difficult question (the name of the President of the European Commission), as well as for an easier question (the name of the first president). In addition, the largest differences between men and women are found in the question on international politics (more difficult) and the question on the name of the minister of defence (easier, given that at the time of the survey this minister was the most well-known among citizens according to a CIS barometer carried out one month earlier).

The most interesting result suggested by Table 3 is the overwhelming propensity of women (in comparison to men) to choose the DK option. The magnitude of the difference is almost as great as the difference in correct answers and is statistically significant for all questions. The differences vary from 5.75 points in the case of the name of Spain's first president under democracy, to 19.3 points for the question on international politics (see the third column in Table 3).

The differences in the percentage of incorrect answers between men and women are much smaller, and in some cases (such as the name of the President of the European Commission and that of the Autonomous Community in which the respondent lives), they are not statistically significant.

In short, the findings presented in Table 3 demonstrate that although the format of the questions on political knowledge minimizes the propensity to guess, there are significant gender differences, with women being much more likely to choose the option "don't know" and men much more likely to provide correct answers. These differences are not found in the case of incorrect answers[10].

[10] The gender differences shown in Table 3 may well be spurious and it is necessary to control for other characteristics, such as level of education, motivation, etc. This is shown in Table 2 for the number of correct answers, where gender differences are found to be significant (see the negative coefficient corresponding to women) and in Table 5 for the number of incorrect answers and DKs, where the gender differences found in Table 3 continue to be significant.

TABLE 3: *The difference between men and women in percentages (rounded off) of answers in each category for each question on political knowledge*

	Correct	Incorrect	Don't know	No answer
Who is the president of the Autonomous Community where you live?	11.2***	–2.8	–8.2***	–0.1
Could you tell me the name of the current Defence Minister?	20.5***	–3.7*	–16.7***	–0.2
And the name of the President of the European Commission?	9.1***	0.7	–10.2***	–0.3
And the name of the first president of the government under democracy?	8.6***	–3.1**	–5.7***	–0.2
Hugo Chávez is the president of which country?	24.1***	–5.0***	–19.3***	–0.2
In what year was the Spanish Constitution passed?	12.9***	–6.9***	–16.2***	–0.4
Does the PSOE currently govern with an absolute majority?	13.9***	–4.1*	–8.9***	–1.0

Source: By author based on CIS 2.632

(Men, N = 1590; Women, N= 1602) Positive numbers indicate advantage of men and negative, advantage of women.

*** p<0.001, ** p<0.01, * p<0.05.

Another empirical strategy to test this hypothesis is to create an indicator based on the number of correct, incorrect and "don't know" responses to see how reliability changes based on the type of answer and by respondent's sex. The idea is that the higher the predisposition to guess, the lower the reliability of the indicator (Mondak and Anderson, 2004), which we measure here through Cronbach's alpha coefficient[11].

Table 4 shows the distribution of percentages for the three indicators for all respondents, as well as for men and for women. The Table reveals that the most reliable indicator is the one that counts the number of correct answers (already used in the estimations summarized in Table 2), with a value of α-Cronbach of 0.75, and the least reliable is the one that counts the number of incorrect answers with a value of α-Cronbach of 0.62. Regarding the differences between men and women and the reliability of the indicator, it is in regard to the number of incorrect answers for the sub-sample of men where the reliability of the indicator is lowest (the value of α-Cronbach decreases to 0.38). In addition, the reliability of the indicator in the number of DKs is slightly higher for the sub-sample of women (with a value of α-Cronbach of 0.73 in comparison to a value of 0.68 for men), which indicates greater consistency in the use of the DK option among women.

Up to now the results support the hypothesis of the greater disposition of women to respond DK in comparison to men, but they also reveal a significant gender gap in the number of correct answers (for example, the

[11] The coefficient is used as a measure of the internal consistency of the indicator or scale constructed. The formula to calculate it is: $\frac{nr}{1+r(n-1)}$

With *n* being the number of elements (items or questions) included in the scale and *r* their average correlation. It varies between 0 and 1 and the higher the value, the greater the consistency of the indicator.

TABLE 4: *Distribution of percentages in the three indicators of knowledge and lack of knowledge about politics*

Number of correct answers	Total	Men	Women
0	7.2	4.9	9.3
1	8.6	5.5	11.6
2	10.9	8.0	13.7
3	13.9	11.0	16.6
4	18.2	18.4	18.1
5	18.2	19.6	16.9
6	15.8	21.9	9.9
7	7.2	10.7	3.8
Average (standard deviation)	3.81 (1.98)	4.32 (1.19)	3.32 (1.92)
α (Cronbach)	0.75	0.75	0.74
Number of incorrect answers	**Total**	**Men**	**Women**
0	35.2	35.5	35.1
1	35.2	36.8	33.6
2	18.2	18.1	18.3
3	7.0	7.0	7.0
4	2.6	1.7	3.6
5	1.3	0.7	1.8
6	0.4	0.2	0.5
7	0.1	0.0	0.1
Average (standard deviation)	1.12 (1.16)	1.05 (1.18)	1.18 (1.25)
α (Cronbach)	0.62	0.38	0.42
Number of "don't knows"	**Total**	**Men**	**Women**
0	24.1	30.3	18.1
1	23.9	28.1	19.9
2	15.9	15.4	16.4
3	11.8	10.0	13.5
4	9.1	5.9	12.1
5	6.7	4.3	9.0
6	5.3	3.7	6.8
7	3.2	2.2	4.2
Average (standard deviation)	2.15 (1.97)	1.72 (1.8)	2.57 (2)
α (Cronbach)	0.66	0.68	0.73
Number	3,192	1,590	1,602

Source: By author based on CIS 2.632. The category 0 includes the other two options for each indicator. That is, in the case of the number of correct answers, the 0 includes all of the respondents that provided an incorrect answer or that said they did not know. In the case of the number of incorrect answers, the 0 includes all of the respondents that provided a correct answer or that said they did not know. And finally in the case of the number of DK, the 0 includes all of the respondents who provided a correct or incorrect answer.

average number of correct answers is 4.32 for men and 3.32 for women, which means an average difference of one additional correct answer for men on an indicator which varies from 0 to 7). Therefore, and in agreement with previous studies, we have found that women are a particularly disadvantaged group regarding how much they know about politics in comparison to men.

But how robust is the evidence for this? Does the greater propensity to respond DK remain if we control for the other explanatory factors that were considered in the case of correct answers? To test this, we replicate the same estimation summarized in Table 2 for the number of DK answers and for the number of incorrect answers (the scores range from 0 to 7 and are obtained by adding DKs and incorrect answers respectively). The results are presented in Table 5.

Regarding the estimation of the determinants of the number of DK answers for each individual, the results shown in Table 5 (column 2) are equivalent to those of the number of correct answers presented in Table 2, but the opposite. That is, the number of DK answers given by respondents decreases as there is an increase in level of education, exposure to the news and age (again the relationship to age is curvilinear, as the number of DK answers increases starting at 58 years of age). In addition, the number of DKs is less for those who are more highly motivated (those who say they are interested in politics and those who have signed a petition within the previous 12 months) and have greater cognitive ability (those who place themselves on an ideological scale). As can be seen in the second column of Table 5, gender differences in the number of DKs continue to be significant, although the differences have been reduced by approximately half with respect to the exploratory evidence (that is, from a difference of 0.85 in Table 3 to 0.46). In other words, on average, women present half a DK response more than men. And again the differences are statistically significant. These results indicate, therefore, that resources, motivation and capacities are also important when it comes to explaining the DK response, given that the size of the gender difference decreases when controlling for these factors.

However, in the case of the number of incorrect responses, the explanatory power of the independent variables is smaller (see column 3 of Table 5). Of all the variables in the equation only level of education, having an ideology and interest in politics present statistically significant coefficients, although their magnitude is very small in comparison to the other estimated equation. Moreover, the differences between men and women in the number of incorrect answers are significant but very small in magnitude. On average, women present 0.12 more incorrect responses than men.

The results regarding the determinants of the number of incorrect answers also suggest that giving an incorrect answer is quite different from recognizing that one does not know the answer when it comes to measuring political knowledge. In the most recent debates on constructing valid and reliable indicators of political knowledge, Mondak and his collaborators argue that the more conventional additive indicators in the literature (that is, those that count the number of correct answers, considering as 0 incorrect answers and DKs) suffer from problems of reliability. They argue that giving an incorrect answer implies having a higher level of information and attention to politics than simply responding “don’t know” (Mondak, 1999; Mondak, 2001; Mondak and Creel, 2001). Thus, they recommend that incorrect answers and DKs not be treated in the same way.

Our results also suggest that the two types of responses should not be treated equally. However, in addition, incorrect answers do not seem to fall anywhere on the supposed latent continuum of the level of information and knowledge about politics. Or

TABLE 5: *Determinants of number of answers (0-7)*

	DK	Incorrect
Education	–0.383***	–0.056*
	(0.030)	(0.022)
Has an ideology	–0.687***	0.113*
	(0.077)	(0.056)
Interested in politics	–0.473***	–0.130*
	(0.072)	(0.052)
Exposure to the news:		
Newspapers	–0.220***	0.0032
	(0.024)	(0.017)
Radio / TV	–0.244***	–0.024
	(0.034)	(0.025)
Has signed a petition	–0.193**	–0.080
	(0.072)	(0.053)
Woman	0.466***	0.120**
	(0.059)	(0.043)
Age	–0.089***	–0.006
	(0.008)	(0.006)
Age^2	0.0008***	0.000
	(0.000)	(0.000)
Constant	6.259***	1.411***
	(0.215)	(0.156)
Observations	3,116	3,116
R^2	0.350	0.014

Source: By author based on CIS 2,632

Regression coefficients with their associated standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05.

Dependent variable: indicator of number of DK answers (column 2) and of number of incorrect answers (column 3) both from 0 to 7.

Independent variables: Exposure to the news in newspapers and on the radio/television (from never, 0, to everyday, 4); Level of education (from no education, 0 to 4, bachelor's degree or more); Woman (1= women and 0 = men); Age (in years); Signs petitions (1= said he or she had signed a petition in the previous 12 months and 0 = had not done so); Has an ideology (1 = those who responded to the question and 0 = those who did not respond); Interested in politics (1= those who said they are very or quite interested in politics and 0 = those who said they are not very interested or not interested in politics).

More details on the original questions in the questionnaire and on its operationalization in the analysis carried out can be found in Appendix, Table 2.

in other words, while the interpretation of the number of correct answers and DKs given by respondents is clear (the more correct answers, the greater their level of knowledge about politics, and the higher the number of DKs, the lower their level of knowledge), the interpretation of incorrect responses is not clear. The weak explanatory power of the equation suggests that chance is an important component when it comes to providing an incorrect answer this depite the fact that the open question format in principle is designed to minimize the effect of chance.

In short, our findings reveal an unequal distribution of political knowledge among the

Spanish, which is determined by individuals› resources, motivations and capacities, thus confirming the results of previous studies on Spain (Anduiza *et al.*, 2012; Fraile, 2006 and 2011; Fraile *et al.*, 2007).

Furthermore, the results of our analysis indicate that the differences between men and women may be artificially inflated by the type of indicators used to measure levels of political knowledge. Specifically, different propensities to guess and to admit that one does not know may be inflating the gender differences identified here. Men are more likely to guess, while women only seem to give an answer if they are sure and, if not, they give the honest response that they do not know. In the concluding section, we discuss the implications of our findings for the study of what citizens know about politics.

Conclusions

This article has shown the existence of differences in levels of political knowledge among Spanish citizens, just as is found in other countries, such as the United States, Canada and Great Britain. The majority of the research with similar findings provides relatively deterministic explanations for this, such as personal capacities, differences in motivation and the unequal distribution of resources in society.

In addition to testing these more conventional explanations, this article has also tested an alternative hypothesis: that the unequal distribution in levels of political knowledge among men and women can also be (or at least in part) a reflection of difficulties in measuring political knowledge. Thus, it is not that women know less about politics than men but that they respond in a different manner to the same survey questions.

To test this hypothesis, we used a survey which included seven questions on political knowledge and that was specifically designed to take this issue into account and to minimize respondents' guessing by using an open question format. The idea is that this format should minimize the propensity to respond by guessing and therefore, resulting gender differences. However, despite the use of this open format, a gender difference in the propensity to recognise one does not know the correct answer was found. Specifically, women, on average, responded DK more than men. However, gender differences in the number of incorrect answers were irrelevant. This same analysis demonstrated that on average men provide more correct answers than women. Such differences continue to be significant, even when controlling for individuals' resources, motivation and capacities.

These findings suggest that new ways of asking about political knowledge should be tested in surveys. One recent study has shown that the way political knowledge is measured in more conventional surveys presents problems of validity (Boudreau and Lupia, 2011). Indeed, what is being measured with these types of surveys is the ability of respondents to provide correct answers to factual questions on very specific dimensions of politics (mainly electoral politics). The use of these types of questions may be creating a distorted image of what people know and understand about politics.

There are three possible productive directions to take on this issue. The first is related to the format of the questions, the second to the types of subjects asked about and the third, to the use of alternative experimental methods. Here we will briefly discuss only the first two. With respect to format, various authors are in favour of not using the "Don't know" option or at least trying to discourage its choice (Mondak, 2001; Mondak and Anderson, 2004). According to a recent study (Luskin and Bullock, 2011), discouraging the use of DK increases the number of correct answers only in the case of open questions, but the magnitude of the effect is very small. In contrast, when the format is closed, discouraging the DK option has the side effect

of increasing guessing (among both men and women), but it does not increase the number of correct answers. One recent study shows the results of an experiment carried out in Spain where the same three questions on political knowledge were formulated with one protocol that was neutral regarding the DK option and with one protocol that discouraged the DK option. This study corroborates the findings of Luskin and Bullock (2001) demonstrating that discouraging the use of DK significantly increases random guessing (Ferrín, Fraile and Garcia, 2013).

Regarding the subject of the questions asked in surveys some authors have argued that the concept of politics in these questions is too limited and focused on electoral politics. In this regard, Norris's (2000) distinction between conventional and practical political information is especially useful. Pioneering studies have shown that gender differences in political knowledge decrease when there are questions about more practical aspects of politics such as social services, citizens' rights and even about political actors who are women (Stolle and Gidengil, 2010). In addition, other studies point out that conventional surveys overrate knowledge about names or dates in contrast to other types of knowledge that might be more visual. In this regard, the use of images or photographs for the respondent to recognize a political personality could be an interesting innovation (Prior, 2014). This does not mean that we have to abandon measuring the more traditional subjects (electoral politics or political actors) but that we should expand the content as well as the form of questions if we want to make progress in the study of what ordinary citizens know about politics and its key actors.

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APPENDIX.

TABLE 1: *Descriptive variables*

Variables	Mean	Standard deviation	Minimum	Maximum
Number of correct answers	3.81	1.98	0	7
Number of incorrect answers	1.12	1.16	0	7
Number of DK answers	2.15	1.97	0	7
Exposure to the news in newspapers	1.54	1.50	0	4
Exposure to the news on the radio/television	2.42	0.98	0	4
Education	1.70	1.14	0	4
Women	0.51	0.49	0	1
Age	46.28	18.36	18	99
Has signed a petition	0.23	0.42	0	1
Has an ideology	0.81	0.39	0	1
Interested in politics	0.32	0.46	0	1

Source: By author based on CIS 2.632

TABLE 2. *Format of the questionnaire used*

Variable	Question on the questionnaire	Coding
Exposure to news in the media	How often do you read the political sections in the newspaper?	1. Everyday 2. 3-4 days a week 3. 1-2 days a week 4. Not often 5. Never (recoded from 0 to 4)
	How often do you listen to or watch the news on the radio/television?	1. Everyday 2. 3-4 days a week 3. 1-2 days a week 4. Not often 5. Never (recoded from 0 to 4)
Stated interest in politics	Would you say that you are very, quite, not very or not at all interested in politics?	The variable was recoded with a value of 1 for those who said they are very or quite interested in politics and 0 for all others.
Participation in non-electoral politics	There are various ways of participating in social or political actions. Could you please tell me if you have signed a petition in the past 12 months?	The variable identifies those who said they have signed a petition with a value of 1 and all others with 0
Has an ideology	Left (0)-Right (10) scale	The variable identifies with a value of 1 those who placed themselves on the ideological scale and all others with 0.
Education level	Highest educational degree/certificate received up to time of interview	0 “no education or < 5 years” 1 “compulsory education” 2 “higher secondary” 3 “Higher VT or with a certificate” 4 “Bachelors degree or higher”

Note: The questions used to construct the three indicators on knowledge or ignorance about politics can be seen in Table 1 p. 59.