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DOI

[10.1016/j.electstud.2016.02.016](https://doi.org/10.1016/j.electstud.2016.02.016)

Publication date

2016

Document Version

Final published version

Published in

Electoral Studies

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[Link to publication](#)

Citation for published version (APA):

Dahlberg, S., & Harteveld, E. (2016). Left–right ideology as an inferential device in multiparty systems: Can citizens overcome low information by imputing parties' policy positions? *Electoral Studies*, 42, 175-187. <https://doi.org/10.1016/j.electstud.2016.02.016>

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Left–right ideology as an inferential device in multiparty systems: Can citizens overcome low information by imputing parties' policy positions?



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ARTICLE INFO

Article history:

Received 7 April 2015

Received in revised form

25 February 2016

Accepted 25 February 2016

Available online 3 March 2016

Keywords:

Political knowledge

Heuristics

Party positions

Ideology

ABSTRACT

This study examines the extent to which knowledge about parties' ideological Left–Right positions can be used schematically by voters to impute these parties' stances on specific policy issues. Can Left–Right familiarity help citizens, whose knowledge of political and societal issues is often limited, to overcome the low information problem? Based on two Swedish panel studies, we show that - in contrast to the American two-party context - the least knowledgeable voters benefit most from using inferences based on parties' Left–Right locations. The effectiveness of schema-based deduction is thus dependent on its place within a given political culture. In the Swedish multiparty context, the Left–Right dimension is meaningful for most voters, and can be used schematically to partly alleviate a lack of knowledge.

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1. Introduction

Most studies on democratic representation assert that voters need to be accurately informed about political matters in order to make reasoned choices. Various recent studies in *Electoral Studies* confirm that less knowledgeable voters generally make vote choices of poorer quality than their knowledgeable counterparts (Dusso, 2015; Singh and Roy, 2014; Fowler and Margolis, 2014). Unfortunately, a lack of such comprehensive knowledge is widespread (Converse, 1964; Luskin, 1987; Page and Shapiro, 1992; Bartels, 1996). This has potentially serious consequences for the prospects of democratic representation (Druckman, 2005). How can voters decide what party deserves their vote, if they are unaware of what these parties stand for?

At the same time, there is an extensive literature suggesting that voters can make sense of politics *without* having comprehensive knowledge of it. According to this literature, cognitive shortcuts or heuristics provide efficient information about what parties stand for. The most prominent shortcut available for a party's policy orientation is its ideological location, most commonly on a

Left–Right dimension (Downs, 1957; Feldman and Conover, 1983; Fiske and Linville, 1980; Lupia and McCubbins, 1998; Popkin, 1991; Slothuus, 2008; Tomz and Sniderman, 2004; Zaller, 1992). Knowing where a party stands in terms of Left and Right, this argument goes, can be used deductively to infer parties' standpoints on a range of specific policy issues, such as health care or taxes (Downs, 1957; Fuchs and Klingemann, 1989; Holmberg and Oscarsson, 2004; Knutsen, 1995a; 1995b; van der Brug, 1997). Because knowledge of parties' positions in terms of Left and Right is relatively easy to obtain and store, this would suggest voters' lack of in-depth knowledge of political affairs is less troublesome.

However, some authors have shed doubt on this view, arguing that expecting heuristics to solve the “low knowledge problem” of the majority of citizens is “optimistic” (Fowler and Margolis, 2014). One of the reasons is that studies have suggested that heuristics – in general – are mostly informative for those citizens who *already have* comprehensive knowledge about politics (Lau and Redlawsk 2001, 2006; Blais et al., 2009). At the same time, most of the existing studies about the heuristic role of Left–Right ideology were conducted in the United States, while empirical evidence from European multiparty contexts is scarce. We aim to fill this void.

We argue that Left–Right schemas, as a cue to parties' specific positions on explicit issues, are more prominent and generally accessible in a European multiparty context. Higher levels of

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prospective rather than retrospective voting, in combination with the central role of parties rather than candidates (Norris, 2004; Oscarsson, 2007a, 2007b), make Left–Right schemas potentially much more informative for voters in multiparty systems than is the case in the United States. To test this expectation, this study investigates the role of Left–Right as a voting rationale in Sweden. Sweden is a most-likely case to find such schemas to be accessible and efficient. Due to block politics and the ongoing dominance of class voting, the Swedish multi-party system is probably one of the most unidimensional multiparty systems in Europe (Granberg and Holmberg, 1988; Oscarsson, 2007a, 2007b; Oscarsson and Dahlberg, 2006; Krouwel, 2012). This optimizes the information contained in ideological schemas. Furthermore, the large number of parties increases citizens' possibility to triangulate their knowledge of ideological positions. Indeed, most Swedish have been shown to have some understanding of Left and Right (Granberg and Holmberg, 1988; Holmberg and Oscarsson, 2004; Oscarsson and Holmberg, 2008). If Left–Right schemas cannot partly alleviate the low knowledge problem for the least politically sophisticated voters in Sweden, such schemas are unlikely to play such a role in other contexts. On the other hand, if it does, this has theoretical and normative consequences for the possibility of informed voting – and, by extension, representative democracy.

Using survey data from 2006 and 2009, we examine to what extent voters' familiarity with parties' ideology in terms of Left and Right is related to their capacity to tell where these parties stand on various specific policies. By employing an innovative cross-lagged design, we aim to alleviate endogeneity problems. Our analysis yields robust evidence that knowledge about the abstract ideological position of parties is indeed used in a schematic manner, helping voters to know what these parties stand for on a range of specific issues. Respondents who improved their familiarity with parties' place on the ideological spectrum became substantially better able to correctly assess what these parties think about private health care, the six-day workweek, labor market policies etcetera. This effect remains after controlling for a range of potentially confounding variables – most importantly respondents' factual knowledge of political matters. Moreover, we show that respondents with lower levels of knowledge of political facts benefit most from Left–Right knowledge.

Respondents who knew much about societal issues were still superior in assessing what parties stand for. Heuristics thus cannot fully replace facts, and citizens' knowledge of day-to-day politics still matters. However, inferences based on Left–Right ideology can help the large number of less knowledgeable voters to partly alleviate their “low knowledge problem” – at least in the Swedish multiparty system. While it was beyond this study to test whether Left–Right schemas help citizens to vote more “correctly” (Lau and Redlawsk, 2001, 2006), our findings suggests that it helps bring about an important precondition. We conclude that this study finds evidence that Left–Right schemas can play a heuristic role, but also that this role depends on the political system – thus inviting research in other settings.

2. Theory

Below, we first discuss how voters can potentially use shortcuts to arrive at better knowledge of what parties stand for, even if they have little information. After that, we turn to the question of how their role might depend on the party system and introduce our case.

2.1. Voters, knowledge, and ideology as a heuristic

Voters' knowledge of matters of a political or societal character has been a subject of study for over half a century. Many studies

have concluded that the amount of detailed information among voters is often generally poor, and that the normative requirement of reasoned choice is beyond the capability of the vast majority of citizens, who are often ignorant of the details of the decisions they face (Bartels, 1996; Berelson, 1952; Campbell et al., 1960; Delli Carpini and Keeter 1996a, 1996b; Converse, 1964; Downs, 1957; Key, 1966; Kinder and Sears, 1985; Kuklinski, 2002; Luskin, 1987; Page and Shapiro, 1992; Zaller, 1992).¹ Research suggests that a lack of factual political knowledge leads citizens to vote out of line with their preferences (Fowler and Margolis, 2014; Singh and Roy, 2014), thus reducing the quality of the vote choice. Citizens' alleged incapability for reasoned choices has been labeled a ‘democratic dilemma’, as it threatens representative democracy (Lupia and McCubbins, 1998). The goal of this paper is to investigate whether voters, even in the absence of full knowledge, can still be reasonably informed about parties' positions.

It has been suggested that voters are in fact capable of making complex decisions on the basis of very little information (Adams, 2001; Downs, 1957; Enelow and Hinich, 1984; Lupia, 1994; Lupia and McCubbins, 1998; van der Brug, 1997; Zaller, 1992). The key point here is the fact that voters use cognitive shortcuts or heuristics in their decision-making, and this is claimed to be a sufficient basis for reasoned choices (Downs, 1957; Feldman and Conover, 1983; Fiske and Linville, 1980; Lupia and McCubbins, 1998; Popkin, 1991; Slothuus, 2008; Tomz and Sniderman, 2004; Zaller, 1992). Heuristics² enable individuals to short-circuit complex information processing by relying on cues from others or from the situation to make a decision. This is a common assertion in many studies on public opinion and voting behavior. For instance, party cues – in which voters substitute party positions for detailed knowledge about the ideological position of candidates (Fortunato and Stevenson, 2013:11) – constitute one of the most studied political heuristics. Voters can rely on party labels on a ballot to infer concrete positions (“they're called Green Party, so they probably support the environment”). A voter who follows the vote choice of close friends who have world views similar to his or hers could also be argued to rely on heuristics (Zuckerman, 2005).

In spite of the large body of literature, we still have limited knowledge about the quality of various heuristics: can such shortcuts be a substitute for more detailed information? Lupia and McCubbins tried to answer this by testing theories on connectionism in experimental studies.³ Their study suggests that voters do not necessarily need detailed political information to make a reasoned choice, as the use of different cognitive shortcuts can give them sufficient information (Lupia and McCubbins, 1998, 1994; see also Tomz and Sniderman, 2004 for a similar study). More recent studies have confirmed that almost all voters utilize cognitive heuristics, especially in situations in which the decisions are complex, and that this use increases the probability of correct voting

¹ A valid explanation for this generally low amount of information among voters is that, among most citizens, interest in politics is often moderate (Zaller, 1992).

² A ‘heuristic’ is usually defined as a problem-solving strategy (often employed automatically or unconsciously) that serves to keep the information processing demands of a task within bounds (Lau and Redlawsk, 2001).

³ Connectionism is a concept taken from cognitive science and can best be explained as the process where people systematically connect current observations of their physical world to physical or emotional responses derived from experience. Connectionist models show how people systematically attribute meaning to new or relevant objects by connecting them with already familiar objects, procedures or people. Connectionist activity underlies the capacity to recognize features or patterns given only partial information and, by focusing attention on different features of one's sensory input, the ability in an instant to see complex analogies by recalling relevant information (Lupia and McCubbins, 1998). Reasoned choice would require encyclopaedic information without a process like connectionism; with such a process, reasoned choice requires less information (Popkin, 1991).

among more knowledgeable voters while it has the opposite effect among novices (Lau and Redlawsk 2001, 2006). Lau and Redlawsk (1997) show that about 70% of American voters make a “correct vote” in spite of widespread low information.

However, other studies have found heuristics to have less impact. These studies suggest that *factual* political knowledge – usually based on measures such as knowing how many countries are members of the EU or whether employment rates have decreased – plays a much more important role (Delli Carpini and Keeter, 1996a; 1996b; Bartels, 1996). Oscarsson (2007a, 2007b), Hansen (2009), Bhatti (2010) and Toka (2008) conclude that an extensive use of cognitive heuristics cannot fully compensate for a voter's lack of factual political knowledge. On the other hand, it would be a misconception to expect heuristics and schemas to be substitutes for *full* information. Rather, they present ‘good enough’ information, allowing for a ‘satisficing’ vote (Gigerenzer, 2008). Heuristics serve as an alternative to full rational calculation and cannot compensate for it per se. In other words, they are computational rather than informational shortcuts (Druckman et al., 2009).

In this article we study the role played by ideology as such an informational shortcut. Anthony Downs (1957) delivered the insight that parties’ ideological positions serve as one of the more prominent cognitive shortcuts for voters. Ideologies, according to Downs, work as cognitive schemas that voters use to process real-world information and, to some extent, compensate for a lack thereof.⁴ Downs built his theory partially on the empirical findings of the Columbia studies, which suggested that voters mostly lack knowledge about governments and politics (Berelson et al., 1954, Popkin, 1991; Lupia and McCubbins, 1998). Voters lack incentives to collect information about political matters for the sole purpose of improving their voting choices. By relying on cognitive shortcuts and heuristics, Downs argued, voters are not sacrificing their issue orientation; instead, they are dealing with it in a more economical way.⁵

Downs’ assertion that the Left–Right spectrum summarizes a large number of underlying issues can perhaps most accurately be viewed as a combination of schema-based inference and heuristic decision-making (van der Brug, 1999).⁶ Schemas are pyramids of information where more abstract information is stored on a higher level and can be used to fill in missing information lower down in the hierarchical structure. Voters gradually learn how the abstract notions of ‘left’ and ‘right’ are related to concrete issues such as health care. In a later stage, they can employ this ‘schema’ to impute knowledge of – for instance – a left-wing party's position on the health care issue (in this case being in favor of publicly produced

health care). According to Fiske and Linville (1980: 543), a schema may be defined as “a cognitive structure of organized prior knowledge, abstracted from experience with specific instances; schemas guide the processing of new information and the retrieval of stored information.”

Schemas are related to associative memory-based reasoning but are regularly updated when new information is attained (Smith and DeCoster, 2000). More specifically, voters take some old information (general Left–Right position) and turn it into new information (specific policy positions). This is not substitution but *imputation* (Conover and Feldman, 1984).⁷ In this respect, Sniderman et al. (1991) talk about party positions as *symbols* that can be used as a heuristic tool for deducing further knowledge by imputing information that a voter does not directly possess about a party's stances in policy specific issues.⁸

While knowledge of ideological positions cannot replace full information, it is thus a potentially powerful schema that can inform voters of parties’ stances in specific positions. In this study, we will test the extent to which this is the case. At the same time, not all voters are likely to use this rationale to the same extent. Most importantly, the extent to which they do will in all likelihood depend on their factual knowledge of political and societal topics. Sniderman et al. (1991) argue that the most sophisticated voters benefit more from employing ideological heuristics than less sophisticated voters. While this is theoretically counter-intuitive, it has nonetheless been confirmed empirically (Lau and Redlawsk, 2006).⁹ However, as we will argue more extensively below, this likely reflects the American context of these studies (Bhatti, 2010; Hansen, 2009). In the political dynamics of a multiparty European context, the reverse is possibly true. Let us now turn to this discussion.

2.2. Left–right in a multiparty context

Studies show that there are substantial differences between the political contexts of America and Europe, and differences in the role of ideology in shaping voting behavior provide one of the greatest contrasts (Granberg and Holmberg, 1988). Different sources of information are needed more in retrospective two-party elections (where, to a larger extent, governments are held accountable on notions of performance issues) than in prospective multi-party elections (where voters are more inclined to base their choice prospectively on programmatic stands; see Norris, 2004; Oscarsson, 2007a, 2007b; Fiorina, 1981; van der Brug et al., 2007). These differences make ideological schematic inferences potentially more valuable in a European multiparty context, where a multitude of parties need to be considered and party discipline makes alternative heuristics concerning individual candidates (such as traits or experience) less useful.

This implies that even if theories of ideological shortcuts tend to be falsified in certain contexts – and most studies in this field have been conducted in the American context – this does not necessarily mean that they lack validity in other contexts. In fact, according to Kinder

⁴ Party ideologies are generally reckoned as being concretized through the party program and advertised in election manifestos, which in the U.S. are often referred to as election platforms (Budge, 1994; Budge et al., 2001). In agreement with most discussions, the concept of ideology is here understood as a value or belief system that is accepted [...] by some group, composed of sets of attitudes towards the various institutions and processes of society. It provides the believer with a picture of the world both as it is and as it should be and, in so doing, organizes the tremendous complexity of the world into something fairly simple and understandable; ideologies thus provide a cognitive structure through which to interpret and understand events (see Page and Shapiro, 1992 for a similar interpretation).

⁵ The theory draws heavily from rational choice theory, where voters are assumed to be cognitive misers but, by using various types of information shortcuts, will still be able to act rationally when deciding which candidate or party to vote for (Zaller, 1992).

⁶ It is useful to point out that heuristics and schemas are distinct cognitive constructs. Heuristics are judgment tools (Gigerenzer, 2008), whereas schemas are generic knowledge structures that can be used to ‘fill in’ missing information (Fiske and Linville, 1980). Both enable individuals to overcome the cognitive burden imposed by traditional notions of rational decision-making and can be used simultaneously, but in different ways.

⁷ A parallel can be drawn with statistical imputation of missing data, as is often applied in survey research. The incomplete data can then be thought of as informational input (similar to voters’ knowledge of general Left–Right positions), the imputation algorithm as the heuristic rule (specific positions correlate highly to certain general positions) and the imputations as the outputs (voter perceptions of specific issue positions). The quality and quantity of the data one does have will determine one's ability to accurately make those imputations.

⁸ Since parties are placed in relation to each other, parties with positions that are known less well can be located as well through cognitive triangulation based on knowledge of the positions of a few parties.

⁹ Even if better informed voters are better at using the Left–Right schema, less informed voters may benefit more, because, without this schema, they would be completely uninformed.

and Sears (1985), Americans are relatively “innocent of ideology” in the context of making vote choices. This does not mean they are generally less knowledgeable than Europeans, but rather that, in the U.S., ideological inferences play a weaker role as a schematic rationale in determining vote choices. If this is true, familiarity with ideological positions is likely to be relatively more widespread even among the least knowledgeable voters in Europe. As a result, it is important to test its role in a European multiparty context.

In the European context, Sweden can be argued to be a *most likely case* to observe a substantial heuristic role of ideology as a cue to party positions. This is true because the party system in Sweden is probably one of the most unidimensional systems available: vote choices are guided to a particularly high extent by Left–Right ideology (Granberg and Holmberg, 1988; Oscarsson, 2007a, 2007b; Oscarsson and Dahlberg, 2006; Krouwel, 2012).¹⁰ It is therefore especially likely that Swedish citizens can benefit from knowledge of Left–Right ideology to impute specific party positions. In terms of design, this makes Sweden a good starting point to investigate the role of schematic ideological inferences in European multiparty systems. If Left–Right ideology plays no such role here, it is unlikely to do so anywhere else.

A large proportion of Swedish citizens are familiar with the Left–Right structure, and this knowledge is only weakly related to education or political sophistication (Granberg and Holmberg, 1988; Holmberg and Oscarsson, 2004; Oscarsson and Holmberg, 2008). This means that those with the least factual knowledge of political and societal issues can also rely on their knowledge of Left–Right positions to infer more specific stances. In fact, in contrast to some earlier findings in the U.S. context, we argue that the least knowledgeable are especially likely to do so since schematic inference is an especially efficient way to handle complex information for less motivated voters. In an American context, substantial knowledge about the parties’ Left–Right positions constitute “tough” information: although, given the two-party system, it is easy to know what side in the Left–Right dimension a party is, the agreement among voters on the parties’ exact position is less paramount (Dahlberg, 2009). In a European context, on the other hand, knowing about parties’ Left–Right locations is easier: the competition is party-centered and, in a multiparty system, triangulation is easier. As mentioned earlier, heuristics are not substitutions for full information but rather ‘satisficing’ information (Gigerenzer, 2008). In the absence of further information, knowledge of ideological positions is the most efficient way to infer what parties stand for.

2.3. Research aims

In conclusion, insight from prior research raises important research questions about the usefulness of Left–Right positions as a schema-based heuristic device in multiparty European contexts. Our main question is: can Swedish voters use knowledge of party locations to deduce knowledge about parties’ stances in specific policy issues? To be able to answer “yes” to this question, it is not enough to show a correlation between voters’ knowledge of parties’ stances on specific issues is related to their ability to place parties on a Left–Right continuum; we also need to establish whether the former is the *consequence* of the latter. All else being equal, we expect that an increase in knowledge of ideological positions brings a greater improvement in specific knowledge than vice versa. We

hypothesize that it is above else abstract knowledge (*Left–Right familiarity*) that can help to infer concrete knowledge (*knowledge of specific policy stances*). To rule out confounding, this effect should remain even when controlling for factual political knowledge.¹¹

We expect the use of heuristics to generally vary among voters with different levels of factual political knowledge (Lau and Redlawsk 2001, 2006; Blais et al., 2009). More specifically, as discussed above, we expect that, in Sweden, *the less knowledgeable voters benefit more from Left–Right schemas than more informed voters*.

3. Data and design

These hypotheses will be tested on the Swedish *E-panel*, a web-based survey that has been carried out since 2002 as a complement to traditional election studies by the *Swedish National Election Studies* program, in collaboration with the Laboratory of Opinion Research (LORe), at the University of Gothenburg.¹² The analyses in this paper were first carried out as a pre-test to a sub-sample of 979 respondents of the *E-panel* during the national election of 2006 and to all E-panelists (consisting of a total of 2097 respondents) during the European parliament elections in 2009. The 2009 panel study was launched three weeks before the EP election in June and consisted of four surveys, one survey for each week, with the last carried out directly after the election. The study has thus been replicated both during a national election and in a low stimuli election such as the EP election in 2009. The results of the two studies were identical. The analyses presented in the main text are based on data from the E-panel study conducted during the European parliament elections of 2009, because these data are based on a larger sample of respondents than the 2006 study. The results of the analyses of the 2006 survey are discussed in the section on robustness.

The web survey for 2009 was based on an opt-in sample and consisted of a group of 2097 respondents. The first survey was sent on the 18th of May, the second on the 25th of May, the third on the 1st of June and the final survey was carried out on the 8th of June, 2009. The main part of the recruitment for the panel took place during the spring and summer of 2006 via web pages offered by the two large national daily Swedish newspapers *Expressen* and *Aftonbladet* (for more detailed information, see Dahlberg et al. 2006). Among the 2097 persons recruited, 1774 took part in the actual survey and 1245 participated in all four waves, which gives an effective completion rate of approximately 60 percent. Since the participants were recruited through newspaper web portals by signing up with their e-mail address, we unfortunately do not know much about any eventual difference between the pool of respondents and the actual survey participants.

The fact that the sample is based on self-selection implies that any kind of inference to the entire population should be made with caution (for differences between the sample and the population, see Appendix A). In order to make strict generalizations of the results, the study should preferably be replicated using representative samples. However, the purpose of this paper is not merely to make descriptive inferences about absolute levels (which are often affected by the sampling bias) but rather to test hypotheses about causal effects. Effect estimates are empirically often less sensitive to

¹⁰ This is true despite the relatively large number of parties in the Swedish parliament. The reason for this is block politics, which constrains the number of dimensions of competition while allowing for a wide spectrum with differently positioned parties.

¹¹ As mentioned, it has been demonstrated that party location items as measures of political knowledge are often highly correlated with other information (Luskin, 1987; Delli Carpini and Keeter, 1996a; 1996b). Are they then substitutable measures for similar aspects of political sophistication or do they measure different underlying knowledge dimensions?

¹² All data are available at and provided by the Laboratory of Opinion Research (LORe), University of Gothenburg, www.lore.gu.se.

the sampling biases than univariate statistics. Nevertheless, Appendix C shows that the respondents are, across the board, relatively knowledgeable about and interested in politics. Enough variation in factual knowledge remains to draw reliable conclusions about its effect on schematic inferences. As a caveat, it must be noted that the most unknowledgeable are possibly not included in the data, and conclusions about less knowledgeable voters might not hold for this specific group of citizens.

The key methodological challenge concerns endogeneity. The dependent variable, *knowledge of specific policy stances*, and the main independent variable, *Left–Right familiarity*, are obviously related (Luskin, 2002). However, as discussed above, a schematic approach to Left–Right implies that – all else being equal – an increase in the knowledge of ideological positions brings about a greater improvement in specific knowledge than vice versa. However, investigating the direction of causality in this matter is difficult due to endogeneity, especially with a cross-sectional design. The study was therefore carried out as a four-wave panel design (see Table 1). While this cannot completely account for endogeneity, longitudinal data allows for stronger claims regarding the causal mechanism than is possible with cross-sectional data. Our design follows the logic of a cross-lagged model (Kenny, 2005): to establish that X is a more powerful cause of Y than vice versa, i.e., X_1 should be a stronger predictor of Y_2 (controlling for X_2) than Y_1 is of X_2 (controlling for Y_2). In other words, Left–Right familiarity at t_1 should predict knowledge of specific party positions at t_2 more strongly than specific party positions at t_1 predicts Left–Right familiarity at t_2 . We therefore collected both our X and Y at two time points.

A potential complication to this design is that respondents might be 'primed' by asking the Left–Right familiarity questions in the same wave as the knowledge of specific party positions, which would make it more difficult to measure them independently. To reduce priming, the two questions were asked not in the same, but rather in two subsequent waves, and asked a second time in again two subsequent waves (see Table 1). By comparing waves 1–2 (t_1) to 3–4 (t_2), the benefits of a cross-lagged design are still available while avoiding as much as possible any priming effect. If we find that abstract priming better predicts concrete knowledge than vice versa, it would be fair to conclude that voters employ Left–Right in a schematic way.¹³

4. Operationalization

4.1. Dependent variable

The dependent variable, *knowledge about specific policy stances*, was measured by the extent to which respondents knew the positions

of all Swedish parties on five different specific policy issues. To establish this knowledge, it is important to select policies that can be considered to be related to Left–Right ideology. Left–Right has historically been flexible and has taken on different meanings dependent on context. However, its content in the Swedish context has for decades been, and still is, above all economical (Oscarsson and Dahlberg, 2006; Krouwel, 2012).¹⁴ Knowledge about issues is therefore measured regarding policies with an economic component. To allow a comparison with the actual positions taken by parties, questions were selected that were also asked in the *Swedish National Parliamentary Study* among Swedish MPs after each election since 1969 (see Brothén and Holmberg, 2006). The items, including question wording, are listed in Table 2. Regarding each item, MPs were asked the extent to which they favored it (see Appendix F). Respondents of the web survey were asked to indicate for seven parties whether this party was, in their view, in favor of this policy.

Because the MPs' opinions regarding these policies were measured on a five-point scale, it is possible to conduct a factor analysis of the selected questions in order to more formally judge whether the questions tap the same underlying dimension. The results of this factor analysis (Table 3) confirm that all five policy areas are highly correlated and capture the same underlying dimension, in this case a Left–Right structure.

We established whether parties were or were not in favor of the specific policy based on the mean values on the five-point response scale among MPs from each party. On that basis, the web survey respondents' assessments of the parties' positions were subsequently coded as 'correct' or 'incorrect' and then constructed into a set of additive indices, one for each specific policy area (with the maximum value of seven if a respondent indicated the correct position for all seven parties and zero if the positions of all parties were wrong, or if the respondent answered that he/she did not know). All the policy specific indices were then added and weighted according to the response rates for each index, resulting in a total index labeled as *knowledge about policy-specific party positions*. That index was finally rescaled with a minimum value of 0 and a maximum value of 1 (in the first wave $M = 0.66$; $SD = 0.24$; 26% changed substantially between waves¹⁵).

4.2. Independent variables

Knowledge of Left–Right ideological party locations, or *Left–Right familiarity*, is the key independent variable. It is measured by an index based on respondents' capability of placing the parties in the correct order from left to right. We established the correct ordering of parties by relying at the mean self-placement among each party's members of parliament.¹⁶ The ordering of parties

Table 1
Overview of design.

t_1		t_2	
Wave 1	Wave 2	Wave 3	Wave 4
Left–Right familiarity	Knowledge of specific party positions	Left–Right familiarity	Knowledge of specific party positions
Factual knowledge			Factual knowledge

¹³ In both pairs of waves, LR familiarity was asked about *before* knowledge of specific positions. This could potentially affect the way respondents answered the specific questions, having the LR questions in mind. On the other hand, in wave 3, the question about LR familiarity was preceded by the specific position questions in the wave before. We therefore expect the overall effect of the order to be small, and still preferable over asking both questions during the same wave (in which order effects *within* the wave would be even larger).

¹⁴ Left and right can be defined in the Swedish context as a conflict over the extent to which a market economy should be allowed to operate freely in society and, conversely, the extent to which the public sector should be allowed to expand (Kumlin 2006).

¹⁵ Substantial change is operationalized as a distance of more than half of the scale. This is more informative than the number of nominal changes, given that the measure is so extensive.

¹⁶ The resulting order was: V, MP, S, C, FP, M, KD.

Table 2
Questions.

<i>Question introduction</i>		
MPs: What is your opinion about the following proposals?		
Respondents: Which parties are, in your opinion, in favor of the following proposals?		
<i>Items</i>		
1. Introduce a 6-h work day for all working persons		
2. Reduce taxes		
3. Reduce the public sector		
4. Pursue more health care in a private regime		
5. Reduce income disparities in society		
<i>Response options</i>		
MPs: very good proposal, pretty good proposal, neither good nor bad idea, quite a bad idea, very bad idea		
Respondents: in favor, not in favor, DK (for the following parties: FP, S, M, V, C, MP, KD) ^a		

^a 'Do not know' options should preferably be included in knowledge measures (Sturgis et al., 2008; Luskin and Bullock, 2011).

Table 3
Principal factor analysis (unrotated).

Variable	Factor1	Uniqueness
Public sector	0.680	0.538
Reduce taxes	0.649	0.579
Six-hour work day	0.567	0.678
Reducing income disp.	0.503	0.747
Private health care	0.751	0.435

Comment: No. Obs = 560. No. factors = 1. Eigenvalue: 2.023. Chi2(10) = 711.20.

based on the parliamentarians corresponded perfectly with the (mean) ordering of parties made by the *E-panel* respondents, which strengthens the assumption that a single Left–Right continuum is a salient and established dimension underlying Swedish politics.¹⁷

It was not necessary for respondents to locate the parties' exact position on the continuum to be considered familiar with the Left–Right placement of parties. Rather, they had to correctly assess their relative positions (that is, rank) in relation to other parties. This was measured as follows. For each pair of parties it was established whether a respondent ordered them correctly or incorrectly in relation to each other. 'Do not know' was coded as a wrong answer. With seven parties, this results in 42 party combinations, which taken together constitute an index running from 0 to 42. This index was subsequently rescaled with a minimum value of 0 and a maximum value of 1 ($M = 0.80$; $SD = 0.12$; 25% changed substantially between waves). Simply put, the better the knowledge of the parties' Left–Right positions, the more likely it is that the respondents also know something about what the Left–Right dimension actually means.

A second key independent variable is *factual political knowledge*. To measure this, two different sets of general knowledge questions (based on the national representative election study, NES) were included in the web survey. For the first set of questions, the respondents were given the names of 12 more prominent politicians and then asked to indicate which parties they represented. The other set of knowledge questions concerned lexical and civic matters, such as unemployment rates, the number of EU member states, the number of representatives in the Swedish Parliament, etcetera. Appendix B reports a full description of these questions. The answers to these questions were used to construct two additive indices of political knowledge where a wrong or a 'do not know' answer was given the

value of 0 and a correct answer 1. The correlation between the index of naming the party representatives and that of general knowledge was almost perfect ($r = 0.90$, with a combined internal alpha of 0.80). Both indices had a very similar effect and were therefore put together into one single index of *factual political knowledge*, which was rescaled to a minimum value of 0 and a maximum value of 1. A histogram of the distribution of factual political knowledge among the respondents can be found in Appendix C.¹⁸

For all three measures (specific party policies, Left–Right familiarity and factual political knowledge), missing values for specific items are coded as *do not know*, while missing values for whole batteries of questions are coded as missing. The reason for this is that skipping entire batteries of questions probably did not result from a lack of knowledge about these questions but rather something else (for instance, judging the battery to be too long or too easy). An indication of this is that respondents that skipped the party placement battery are equally distributed in terms of education and knowledge. In contrast, skipping *individual* items is coded as 'not knowing'. The results are not substantially different when 'do not know' answers are left out of the analyses.

The main regression models are estimated using listwise deletion. To investigate whether the omission of respondents with missing values has any impact, we replicate the analysis using multiple imputation of missing values and report this in the section on robustness.¹⁹

5. Results

5.1. Mechanism

Fig. 1 summarizes a cross-lagged model (estimated as a Structural Equation Model, SEM) predicting knowledge of specific policy stances and Left–Right familiarity at two different time points, allowing for synchronous covariance between the two constructs at t_1 . The cross-lagged model uses mlmv estimation and has a very good fit in terms of RMSEA. Fig. 1 clearly show that, in line with our expectations, Left–Right familiarity at time t_1 predicts knowledge of specific policy positions at t_2 , while the reverse effect – knowledge of specific positions at t_1 predicting Left–Right familiarity at t_2 – is much smaller and even insignificant at the 5% level. This dovetails with the literature on cognitive schemas and heuristics. While no design can completely

¹⁷ It also correlated almost perfectly with the ordering by Chapel Hill Expert Survey experts in 2010. The only exceptions were S (Social Democrats) and MP (Green Party), as the respondents placed S slightly to the right of MP, while the Chapel Hill Experts did the reverse. This difference might reflect that the expert survey was collected later than the e-panel data. Still, it shows that different sources basically agree on the order of parties, stressing the fixed meaning of Left and Right in the Swedish context.

¹⁸ It could be argued that factual political knowledge, such as measured here, is not directly related to policy preferences or policy specific knowledge. However, as earlier mentioned, it has been suggested that general factual political knowledge captures a mixture of information, engagement, interest and capability to understand the political world (Zaller, 1992).

¹⁹ The cross-lagged SEM model deals with missing values through full information maximum likelihood (FIML).

prevent endogeneity, the large difference between the two effects in Fig. 1 strengthens the expectation that Left–Right familiarity is a strong imputation tool.

It could still be argued that Left–Right familiarity, as operationalized here, is just another way to measure a more abstract form of political knowledge. Left–Right familiarity would in that case be highly correlated to factual knowledge, rather than potentially acting as a substitute for it. We therefore also investigate the direction of causality linking Left–Right familiarity and factual political knowledge, using the same procedure as employed in Fig. 1. Fig. 2 illustrates a regression model predicting Left–Right familiarity by factual political knowledge and vice versa.

As can be seen in Fig. 2, there is no clear (causal or correlational) relation between the two constructs. This becomes clear from the fact that the covariance at t_1 is non-significant. The effect of factual knowledge on t_1 on Left–Right familiarity at t_2 is significant, but negative. Moreover, this negative effect disappears without controlling for the synchronous Left–Right familiarity at t_2 , which shows that no robust, substantial and positive relation exists between the two constructs. It thus appears that both variables capture a form of political knowledge, but that they are separate constructs on theoretical and empirical grounds. This is an important result, and it has implications for studies using party placement as a substitute or proxy for factual political knowledge. At the very least in the Swedish context, Left–Right familiarity is a specific kind of knowledge that is not directly or unambiguously related to factual political knowledge. To the extent that they are related, this is so in an indirect way: Left–Right familiarity correlates with specific issue knowledge, which in turn correlates with factual knowledge. Fig. 2 shows that they do not go together inherently. We can therefore continue to investigate whether Left–Right familiarity can – to a certain extent – function as a substitute for factual knowledge.

5.2. Left–Right and factual knowledge

Does the effectiveness of Left–Right cues vary among voters with different levels of factual political knowledge? To get a first impression, Table 4 shows the average knowledge of parties' specific policy positions, split between respondents with different levels of factual political knowledge as well as different levels of Left–Right familiarity. To ease comparability, respondents were divided into three groups of equal size based on their scores on the factual knowledge question ('low', 'medium' and 'high').²⁰ Table 4 clearly shows that the amount of knowledge about specific party

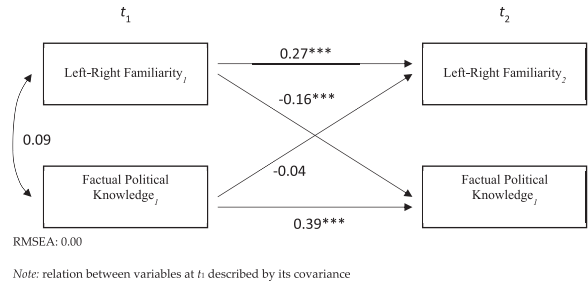


Fig. 2. Relation between factual political knowledge and the ability to order parties on a Left–Right continuum at two different time points (standardized solution).

policies is lower among respondents with low degrees of factual political knowledge than among those with high degrees of factual knowledge. Not surprisingly, being knowledgeable about politically relevant facts thus improves voters' understanding of what parties stand for on various policies (Fowler and Margolis, 2014; Singh and Roy, 2014).

More importantly, and in line with our hypothesis, respondents' knowledge of parties' policy positions is also higher for those with more Left–Right familiarity than for those who do not know where parties stand on the ideological dimension. Again, understanding Left–Right seems to facilitate knowledge about policy positions.

Most interesting, however, is that this beneficial effect of Left–Right familiarity is strongest for the least knowledgeable respondents. Table 4 shows that the largest difference in policy-specific knowledge between those with low and high Left–Right familiarity can be found among those with the least factual knowledge (these are in fact the only two means that differ significantly). These initial results support the idea that familiarity with what the Left–Right dimension is about – and knowledge about the parties' positions on it – can be used to some extent as a device for deducing information about the parties' standpoints on more concrete issues, and that its effect is largest among respondents with low levels of factual political knowledge.²¹ The already highly knowledgeable ones are less dependent on such schemes, because they probably have in-depth knowledge of everyday politics which allows them to know what parties stand for, even when they are less familiar with Left–Right positions. An alternative explanation is a ceiling effect: if the average level of the dependent variable is close to its maximum value when factual knowledge is high, then Left–Right familiarity cannot lead to a further increase in the dependent variable. However, this still supports the idea that the least knowledgeable voters especially benefit from the schema strategy.

5.3. Multivariate analysis

A multivariate regression analysis is necessary to more formally examine whether there is an independent, significant effect of Left–Right familiarity on the levels of knowledge of specific party policies. This is especially so since, on the basis of a solid amount of research, we know that the levels of political knowledge among individuals are also affected by a number of socio-economically related factors. For example, we know that older, more highly educated, party identifying and politically interested men are more knowledgeable about political matters in general (see f.c. Holmberg and Oscarsson, 2004; Dahlberg, 2009; Sniderman and Stiglitz,

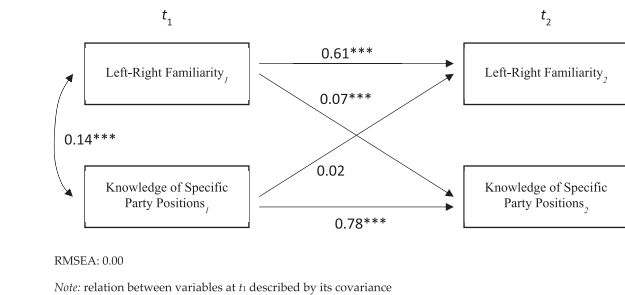


Fig. 1. Structural Equation Model of knowledge about parties' standpoints on specific issues and the capability to order parties on a Left–Right continuum at two different time points (standardized solution).

²⁰ In Table 3 the groups are no longer of equal size because of missing values in the other variables.

²¹ The selection bias when using a self-recruited convenience sample of internet users is quite apparent, as a majority of the respondents actually possesses rather high degrees of both factual political knowledge and Left–Right familiarity. The mean value among all respondents is 0.647 for knowledge about party politics, 0.613 for Left–Right familiarity and 0.611 for factual political knowledge.

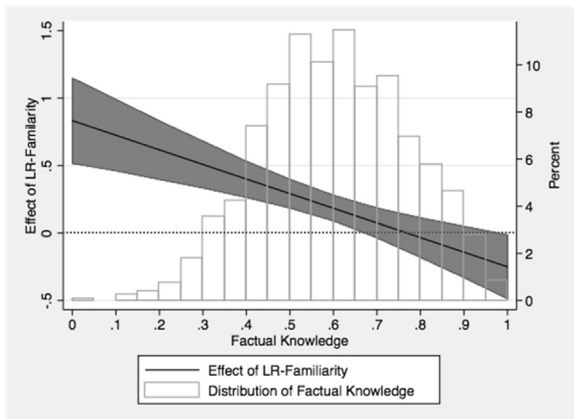


Fig. 3. Marginal effect of Left–Right familiarity on knowledge of specific party positions.

discussed in the section on theory, Lau and Redlawsk (2006) showed that heuristics increase the probability of correct voting *only* among more knowledgeable voters – at least, in the American context. This study delivers the opposite result: in Sweden, it is the *least* knowledgeable group of voters that seems to benefit most from the usage of schemas, while the opposite is true for the group of most knowledgeable respondents. At the same time, the overlaid distribution shows that only a minority of the respondents – even in a sample skewed towards knowledgeable voters – has sufficient factual knowledge to not benefit at all from schematic imputation. Most respondents have levels of knowledge for which the effect of Left–Right familiarity is positive.

While factual political knowledge accounts for most of the explained variance, the results in this study clearly show that schema-based inferences in terms of ideology do to some extent work as a cognitive shortcut, and that voters with low factual political knowledge benefit most from this schema strategy. The effect of Left–Right familiarity is highly robust through all models, even when all other variables are held constant.

A positive interpretation of these results could thus be that voters do not need to be fully informed about the details of political matters in order to make (at least to some extent) informed vote choices. Knowing something about what the Left–Right dimension means and being able to identify the parties' positions on this dimension help voters to respond correctly on specific questions about specific policy positions that are ideologically related to that dimension.

6. Robustness checks

To check the robustness of these findings, we repeated our analysis on a different dataset. As mentioned, the measures used in this paper had been pre-tested on a sub-sample of 979 respondents of the *E-panel* during the national election of 2006. We repeated our models with those 2006 data. The only difference in the specification was the exclusion of three variables that were not available in the 2006 data: party ID, interest and extremism (due to the absence of a Left–Right self-positioning). We used the 2009 data to check whether these variables have an impact on the results, and their exclusion did not affect the coefficients beyond the second decimal. We are thus confident that the 2006 data can be used for a meaningful replication. The results of this replication confirmed the conclusions of the 2009 data (see Appendix D). The study has thus been replicated both during a national election and in a low-stimuli European election in 2009, delivering similar results. This strengthens our faith in the reliability of our conclusions.

Second, to deal with the high number of missing values, the analyses were replicated substituting imputed values for missing information. The results are reported in Appendix E. The results are highly comparable in terms of significance and direction. There are some differences in size: most notably, the effect of Left–Right familiarity becomes somewhat larger, and its interaction with factual knowledge smaller. Still, the main conclusions drawn earlier seem robust.

Finally, we checked whether our findings also hold for individual parties. To that end, we replicated the cross-lagged models – the main causal test – for all parties individually. In other words: does knowing where – for instance – the Social Democrats fit in on the Left–Right spectrum improve knowledge of the stances of that party (and more so than the reverse)? For five of the seven parties, the pattern found for all parties combined is confirmed: there is a stronger and more reliable effect of general Left–Right on policy-specific knowledge than the other way around. In the case of the Center Party (an agrarian party) and Green Party, the effects were of similar size in both directions. This suggests that Left–Right as a heuristic works less well when parties are more diffuse (Center Party) or mobilize along an alternative dimension (Green Party). All in all, both the general replication and the two exemptions strengthen our confidence in our conclusions.

7. Conclusions

In this study we investigated the extent to which knowledge about parties' ideological Left–Right positions can be used as an informative schema for imputing parties' stances on specific policy issues. We also analyzed the extent to which the use and efficiency of such inferences is equally distributed among voters with different levels of factual political knowledge. After all, voters' knowledge of political and societal matters is often weak (Converse, 1964; Luskin, 1987; Page and Shapiro, 1992; Bartels, 1996). While Downsian theory predicts that voters can efficiently obtain more specific knowledge of what parties stand for based on these parties' ideological position, this assumption has hardly been tested, and especially not in a European multiparty context.

As a starting point for studying the relation between abstract ideological (Left–Right) familiarity and knowledge of parties' positions on specific issues in the European context, we studied voters in a country with a political system that can be considered most likely to allow citizens to understand and employ Left–Right positions as a computational shortcut: Sweden. Data from the Swedish *E-panel* suggest, first of all, that the relation between party placements and knowledge of specific issues is asymmetric: Left–Right familiarity improves knowledge about specific party politics (such as health privatization) more strongly than vice versa. This is true for politics as a whole, as well as for most individual parties. This confirms our expectation that parties' Left–Right location primarily functions as a cognitive shortcut for parties' policy-specific stances. Moreover, the data shows that Left–Right familiarity is not directly related to *factual* political knowledge. Factual knowledge and Left–Right familiarity thus capture theoretically and empirically separate aspects of political knowledge. This has implications not only for studies of political knowledge, but also for studies using party placements as proxies for factual political knowledge.

We show that citizens who know where parties stand on a Left–Right dimension are better able to describe these parties' position on specific issues, even under control for a wide range of variables such as education, gender, age, political interest, party identification and Left–Right self-placement. To be sure, *factual* political knowledge is of still greater importance for voters' ability to correctly identify parties' specific positions. Hence, 'facts are facts': schemas cannot fully compensate for a lack of factual knowledge, supporting the

general conclusion in the literature that knowledge matters (c.f. Delli Carpini and Keeter, 1996a, 1996b; Bartels, 1996). Nevertheless, the effect of Left–Right familiarity on voters' knowledge about specific party politics was non-negligible and significant.

Most importantly, especially from the view of the “democratic dilemma”, we found that the cognitive shortcut of Left–Right familiarity was *most* beneficial for those respondents that had the *least* understanding of political and societal matters. For them, understanding parties' Left–Right location substantially improved their ability to describe what these parties stand for on everyday issues. From the point of view of representative democracy, this potentially improves the quality of their vote choice – although this could not be investigated using these data. In contrast, among those with high levels of factual political knowledge, the effect of Left–Right familiarity is much smaller or even absent.

This dovetails with numerous experimental studies in psychology and marketing showing that, when the cognitive engagement and interest of subjects in a task decreases, reliance on heuristics increases (e.g. Chaiken, 1980). It does, however, contradict earlier findings in an American context (Lau and Redlawsk, 2006). We argue that there are good reasons why the heuristic role of ideological familiarity is stronger (for all voters) in party-centered multiparty systems structured along a Left–Right dimension. In highly unidimensional Sweden, the Left–Right distinction appears meaningful irrespective of political knowledge or interest. The effectiveness of schema-based deduction is thus dependent on its place within a given political culture.

Obviously, this is just a first tentative study, and more research is needed in a European context – especially in countries with less unidimensional systems (Kriesi et al., 2012). While the cross-lagged model allowed us to make stronger causal inferences than many previous studies employing cross-sectional data, this research field could benefit from innovative data that allow pinning down the mechanism through which voters make their decisions. Still, the conclusion suggested by the data that citizens can – to a certain extent – overcome the low knowledge problem has appealing consequences for representative democracy.

Appendix A. Comparison of sample and population

Table A1

Comparisons between the sample of the E-panel and the Swedish population entitled to vote (percent).

	E-panel	Population	Difference
Politically interested (very or rather)	85	55	29
Non-voters	2	18	–16
Voted for liberals	14	8	6
Voted for social democrats	17	35	–15
Women	44	50	–6
Socialist bloc voters	34	46	–12
Left-of-middle ideological self-placement	31	40	–9

Comment: Data sources: EP 2009 and Statistics Sweden.

Appendix B. Question wording

Survey question about party positions

Which of the parliamentary parties are in your opinion in favor of the following proposals? (Note that you can select multiple parties for each subject.)

Reducing the public sector?

1. Softening labor laws?
2. Reducing taxes?

3. Establishing a 6-h working day for all working people?
4. Reducing income inequality in society?
5. Engaging more of the health services privately?

The alternatives were: Left Party, Social Democrats, Center Party, Liberal Party, Moderates, Christian Democrats, Green Party and Do not know.

Survey question about factual knowledge

Here is a list of names of various people. Can you tell which party each of them belongs to?

Name:	Options:
Sören Wibe? (<i>June List</i>)	Left Party
Marit Paulsen? (<i>Liberal Party</i>)	Social Democrats
Gunnar Hökmark? (<i>Moderates</i>)	Center Party
Eva-Britt Svensson? (<i>Left Party</i>)	Liberal Party
Carl Schlyter? (<i>Green Party</i>)	Moderates
Lena Ek? (<i>Center Party</i>)	Christian Democrats
Anna Ibrisagic? (<i>Moderates</i>)	Green Party
Marita Ulvskog? (<i>Social Democrats</i>)	June List
Christian Engström? (<i>Pirate Party</i>)	Pirate Party
	Do not know

Survey question about factual knowledge (answer added)

Now a number of claims follow. Can you for each of them tell whether it is true or false?

1. Spain is a member of the EU. *True*
2. One euro is now worth more than eleven Swedish kronor. *False*
3. The EU Parliament enacts all laws within the EU. *False*
4. The next Swedish parliamentary election will be held in 2010. *True*
5. The European Parliament can dismiss the Commission. *True*
6. Most of the parties in the Parliament are against Swedish membership in EMU. *False*
7. The Social Democrats (PES) are the largest group in the European Parliament in Brussels/Strasbourg. *False*
8. Income compensation benefits from the public health insurance currently cover 90 percent of one's salary from the first day of sickness. *False*
9. The open unemployment in Sweden is less than five percent. *False*
10. Since the parliamentary elections of 2006, Sweden has had a Social Democratic one-party government. *False*

The alternatives were: Correct statement, incorrect statement and Do not know.

Survey question about the left–right placement of the political parties

One sometimes talks about the parties' opinions being able to be arranged from left to right according to their political ideology. We would like you to use the scale below to locate the parliamentary parties.

The alternatives were: 0 = Far to the Left; 5 = Neither Left nor Right; 10 = Far to the Right.

Appendix C. Distribution of factual knowledge

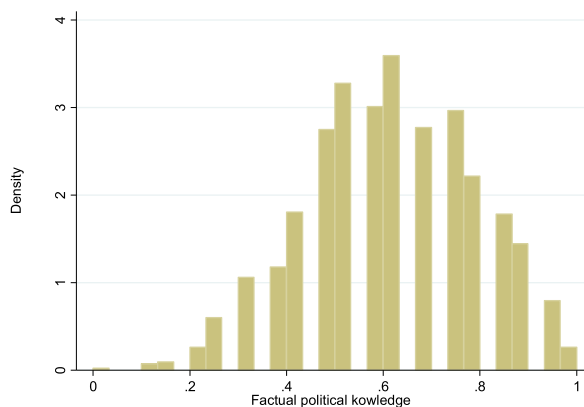


Fig. C1. Distribution of factual knowledge. Data: EP 2009.

Appendix D. Replication on 2006 data

Table D1

Multiple regressions (OLS). The effect of Left–Right heuristics and factual political knowledge on information about specific party politics. Data: EP 2006.

	Model 1	Model 2	Model 3	Model 4	Model 5
LR familiarity (0–1)	0.791*** (0.221)	0.574*** (0.195)	1.258*** (0.445)	0.461** (0.192)	1.286*** (0.430)
Factual political knowledge (0–1)		0.597*** (0.064)	0.900*** (0.189)	0.669*** (0.071)	1.036*** (0.185)
LR famil.*Fact. pol. knowl.			–0.072 (0.042)		–0.088** (0.041)
Education				0.075 (0.159)	0.096 (0.159)
Age				–0.087*** (0.019)	–0.090*** (0.019)
Sex				0.709 (0.486)	0.754 (0.483)
Constant	23.266*** (1.049)	17.527*** (1.106)	14.744 (1.968)	19.140*** (1.478)	15.719*** (2.169)
Adjusted R ²	0.04	0.269	0.274	0.317	0.326
N	274	274	274	274	274

Comment: *p < 0.05 **p < 0.01 ***p < 0.001. Standard errors within parentheses.

Appendix E. Replication with imputed missings

Table E1

Multiple regressions (OLS) based on multivariate multiple imputation. Data: EP 2009.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Left–Right familiarity	0.200*** (0.044)		0.248*** (0.042)	0.220*** (0.042)	0.222*** (0.039)	0.200*** (0.039)
Factual knowledge		0.482*** (0.042)	0.495*** (0.036)	0.487*** (0.037)	0.373*** (0.040)	0.368*** (0.041)
Left–Right familiarity X Factual Knowledge				–0.673** (0.243)		–0.528* (0.224)
Education					0.014*** (0.004)	0.013*** (0.004)
Age					–0.004*** (0.000)	–0.004*** (0.004)
Sex					0.023 (0.014)	0.023 (0.014)
Political interest (1–4)					0.062*** (0.009)	0.061*** (0.010)
Extremism (0–5)					0.013** (0.005)	0.013*** (0.005)
Party identification (0–1)					–0.001 (0.012)	–0.000 (0.012)
Constant	0.659*** (0.044)	0.662*** (0.036)		0.661*** (0.005)	0.498*** (0.049)	0.501*** (0.049)
R-squared						
N						

Note: imputation on the basis of all other dependent and independent variables.

Appendix F. Summary statistics on policy positions among members of the Swedish parliament.

Left Party	Obs	Mean	Std. Dev.	Min	Max
Reduce the public sector	21	4.952381	0.2182179	4	5
Reduce income disparities in society	21	1.047619	0.2182179	1	2
Pursue more health care in private regime	21	4.904762	0.3007926	4	5
Introduce a 6-h work day for all working persons	21	1.190476	0.4023739	1	2
Reduce taxes	18	4.5	0.5144958	4	5
Social democratic party					
Reduce the public sector	117	4.529915	0.5504332	2	5
Reduce income disparities in society	121	1.231405	0.4788934	1	4
Pursue more health care in private regime	109	4.477064	0.5017807	4	5
Introduce a 6-h work day for all working persons	85	3.635294	1.223257	1	5
Reduce taxes	100	4.3	0.6276459	2	5
Center party					
Reduce the public sector	22	1.681818	0.4767313	1	2
Reduce income disparities in society	19	2.421053	1.169795	1	5
Pursue more health care in private regime	26	1.538462	0.5083911	1	2
Introduce a 6-h work day for all working persons	26	4.538462	0.5083911	4	5
Reduce taxes	24	1.583333	0.5036102	1	2
liberal party					
Reduce the public sector	21	1.619048	0.4976134	1	2
Reduce income disparities in society	15	3.4	1.242118	1	5
Pursue more health care in private regime	25	1.44	0.5066228	1	2
Introduce a 6-h work day for all working persons	25	4.8	0.4082483	4	5
Reduce taxes	23	1.521739	0.5107539	1	2
Moderates					
Reduce the public sector	84	1.357143	0.5519485	1	4
Reduce income disparities in society	55	3.763636	1.070888	1	5
Pursue more health care in private regime	87	1.172414	0.3799295	1	2
Introduce a 6-h work day for all working persons	87	4.827586	0.3799295	4	5
Reduce taxes	89	1.303371	0.5916943	1	5
Christian democrats					
Reduce the public sector	18	1.888889	0.6763995	1	4
Reduce income disparities in society	14	2.785714	1.311404	1	5
Pursue more health care in private regime	24	1.583333	0.5036102	1	2
Introduce a 6-h work day for all working persons	24	4.5	0.5107539	4	5
Reduce taxes	19	1.684211	0.4775669	1	2
Green party					
Reduce the public sector	12	4.083333	0.7929615	2	5
Reduce income disparities in society	17	1.235294	0.4372373	1	2
Pursue more health care in private regime	10	2.6	1.264911	1	5
Introduce a 6-h work day for all working persons	16	1.5625	1.030776	1	5
Reduce taxes	11	3.545455	1.035725	2	5

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