‘JUST THINKING:’ ATTITUDE AUTHENTICITY AND CITIZEN COMPETENCE*

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ABSTRACT

Several decades of empirical research have established that most citizens know very little about politics. Most of the recent work in the area has focused instead on the consequences for political attitudes and choices. Some scholars have argued that by using cues from friends, interest groups, or other sources, even ill-informed citizens arrive at roughly the same attitudes and choices as if they were highly informed. Others, however, have suggested that knowledge affects attitudes and preferences, both at the individual level and in the aggregate. But while these scholars reach divergent conclusions about the implications for electoral democracy, they all focus their attention on knowledge, be it detailed or encapsulated into simple cues. Knowledge undoubtedly matters, but I argue and show, using survey-experiments conducted in Brazil and the U.S. that thinking more carefully about what one already knows also affects people’s attitudes. More precisely, I show that increased thought produces authentic attitudes, that is, attitudes reflective of underlying interests.

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In order to express his or her preferences accurately, each citizen ought to have adequate and equal opportunities for discovering and validating, in time permitted by the need for a decision, what his or her preference are on the matter to be decided.

—Robert Dahl (Dahl 1979, pp.104-105)

Several decades of empirical research have established that most citizens know very little about politics (Bennett 1989; Bennett 1995; Bennett, Flickinger, Baker, Rhine and Bennett 1996; Converse 1964; Converse 1970; Delli Carpini and Keeter 1996; Luskin 1987; Luskin 2002; Kinder 1998; Price 1999). The first systematic evidence indicating that the electorate was not very knowledgeable came from the Columbia group (Lazarsfeld, Berelson and Gaudet 1944) during the 1940s. Their finding of considerable individual-level response instability suggested a paucity of well-developed political belief systems. A little later, the Michigan group (Campbell, Converse, Miller and Stokes 1960; Converse 1964; Converse 1970), exploring the question more deeply and directly, came to similar conclusions: most people have very limited political knowledge.

Converse’s (1964) seminal work showed, first, that most people made little use of common ideological abstractions like liberal and conservative in evaluating the two major parties and their presidential candidates, second, that most people displayed a confused or limited sense of such terms when asked directly about them, third, that across individuals the correlations between different policy attitudes were low, fourth, that the correlations between given individuals’ answers to the same policy questions asked two years apart were also low, and fifth and finally, that the pattern of these over-time correlations was largely consistent with a ‘black-white’ model, in which some fraction of the electorate has true, unchanging opinions and the rest responds randomly. Converse’s estimates showed these latter respondents, whom he described as possessing non-attitudes, to be anywhere from a substantial minority to a large majority, depending on the issue. Later work, most notably by Nie, Verba and Petrocik (1976), challenged most of these findings, but still later work laid waste to the challenges (Bishop, Oldendick, Tuchfarber and Bennett 1978; Sullivan, Pierson and Marcus 1978; Smith 1989; Luskin 1987), and there is now a strong consensus that Converse’s original conclusions still hold (Delli Carpini and Keeter 1996; Luskin 1987; Luskin 2002; Kinder 1998; Price 1999).

The one partial exception is Converse’s contention that on most issues most people did not even have very meaningful attitudes. The non-attitudes thesis has been challenged (Achen 1975; Erickson 1979) on the grounds that the undisputed over-time wobble in the same people’s re-
responses to the same policy questions stemmed from the inherent imprecision of answering closed-ended survey questions, rather than the absence of well-formed preferences. These studies have in turn been answered by others adducing direct or side evidence in support of Converse’s original thesis (Converse 2000; Converse and Pierce 1986; Hill and Kriesi 2001; Judd, Krosnick and Milburn 1981; Luskin 1987, and even, in part, Achen 1983).

But while the controversy over non-attitudes still simmers, it is hard to see how non- or minimal attitudes (to use Luskin’s (1987) softening of Converse’s term) are not rampant, given what we now know about the distribution of political knowledge, about which there is no longer much controversy. In both the U.S. and elsewhere, mass publics know relatively little about most issues (Luskin 1987; Bennett 1989; Delli Carpini and Keeter 1996; Price 1999; Baker, Bennett, Bennett and Flickinger 1996; Gordon and Segura 1997; Klingemann 1979; Fournier 2001).

Current research, taking it as a given that political knowledge has “low mean and high variance (Converse 1990, p.372),” focuses instead on the consequences for attitudes and political choices. One group of scholars have argued that widespread low levels of political knowledge do not matter much because most people get where they should be as if they were knowledgeable (Bowler and Donovan 1998; Lupia 1994; Lupia and McCubbins 1998; Popkin 1991; Sniderman, Brody and Tetlock 1991). By using cues provided by their environment, their friends, or groups they like or dislike, the ill-informed approximate the attitudes and choices of the well-informed. Brady and Sniderman (1985) and Sniderman, Brody and Tetlock (1991), for example, suggest that people use a “likability heuristic,” taking positions similar to those of groups they like and far from those of groups they don’t like. Similarly, Lupia (1994) suggests that people use the positions of stakeholder and public interest groups during referendum campaigns to guide themselves.

Other scholars have also drawn similar conclusions about the consequences of ill-informed publics but for different reasons. Page and Shapiro (1992), for example, have argued that individual citizens make errors but that these wash out in the aggregate, so that the distribution of attitudes approximates well that that would be obtained if everyone were knowledgeable. Lodge and his colleagues (Lodge, Steenbergen and Brau 1995), for their part, have shown that people can make meaningful electoral choices despite not remembering much about the reasons behind them because voters process political information on-line, that is, they encode information as they receive it into a running evaluative tally only to discard the information right after updating the tally. And, finally, Lau and Redlawsk (1997) have argued that most people vote “correctly” because few of
them would change their vote preferences if provided with complete information and opportunity to review it more carefully.

On the other end, another group of scholars have shown that the general lack of political knowledge introduces important distortions in people’s political attitudes and preferences, both at the individual level and in the aggregate. Statistical simulations, for example, show that political knowledge affects attitudes and vote choices (Althaus 1998; Althaus 2003; Bartels 1996; Delli Carpini and Keeter 1996). Similarly, Gilens (2001), using both traditional surveys and survey-based experiments, shows that policy-specific knowledge also induces people to hold attitudes different from those they would hold otherwise.

As one can see, the implications for electoral democracy of ill-informed publics differ sharply in both groups. Scholars in the former group picture citizens as being able to manage the demands of the political system despite their apparent lack of political knowledge while scholars in the latter group judge them to be handicapped by it. But this literature misses some important points. First, it focuses almost exclusively on the impact of knowledge, rather than on the impact of thought as distinct from and in addition to knowledge. Knowledge, be it detailed or encapsulated into simple cues, undoubtedly matters, but so does the thought given to knowledge already held. Knowledge without thought is like uncooked eggplant, zucchini, tomato, and onion. It takes seasoning and stewing those raw ingredients, analogous to thought, to make a ratatouille.

In that respect, the evidence from Deliberative Polling, in which the participants learn and think about the issues, is telling: attitudes frequently change, even in the aggregate (e.g. Luskin, Fishkin and Jowell 2002). The results from Kuklinski, Quirk, Jerit and Rich (2001) are also indicative: people’s ability to make tradeoffs in choosing among policy goals is increased when provided with the right amount of guidance and motivation. But are the uncovered effects only due to learning, thinking, or both learning and thinking? This paper proposes, in part, to untangle some of these effects.

Second, most work in the area has failed to establish clear standards by which to judge the effects of information on attitudes and behaviors (Kuklinski and Quirk 2001; Price and Neijens 1997). While their results show that people would hold different attitudes and vote differently if they were more informed or possessed the right information shortcuts, most are silent about the ways in which knowledge makes for ‘better’, more ‘enlightened’ and ‘considered’ attitudes and behaviors. In talking about studies on deliberation, Barabas (2004) forcefully, and rightly, summarizes that ”[...]

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researchers actively seek, occasionally find, and enthusiastically celebrate evidence of changes in the aggregate survey frequencies without attending to the underlying opinion processes at work (p.688).” Similarly, Price and Neijens (1998) state that “Demonstrating some change in opinion, however, only establishes that we obtain a distinctive result when providing information to respondents. It is another matter entirely to establish that this result is distinctively ‘better’ (p.158)” and add that “Data bearing on this question are in short supply (p.158).”

This paper addresses some of these concerns by first defining clearly what constitutes for ‘better,’ or more ‘enlightened’ or ‘considered’ attitudes and behaviors to latter offer a theoretical framework for understanding why information and thought make for ‘better’ attitudes and behaviors. It presents results from two original survey-experiments, one conducted with a representative sample of adult Americans measuring attitudes toward the role of the federal government in the provision of healthcare services and another one in Brazil measuring attitudes toward general government spending. In both cases, the ‘political environment’ (to use Kuklinski et al.’s (2001) term) is manipulated by providing some people with greater opportunity to think, others with domain-specific information, and still others with both. By comparing these “treated” attitudes with those of people who did not receive either stimulus, I find that domain-specific information and thought, alone or in addition to information, make for ‘better’ attitudes. The paper ends with a discussion about the findings and their implications for electoral democracy. It also proposes potential future research avenues.

Attitude and Behavior Authenticity

Evaluating the ‘quality’ of political attitudes and behaviors is not an easy task (Kuklinski and Quirk 2001; Price and Neijens 1997), but the enterprise is not futile either, given the impact that carry public opinion and elections on the kinds of public policies and laws that are enacted (Geer 1996; Quirk and Hinchliffe 1998; Stimson, MacKuen and Erickson 1995). I propose here to follow a suggestion by Luskin, Fishkin and Jowell (2002), but left unexplored, at least directly, by the authors and many others, that recommends to evaluate attitudes and behaviors with respect to their degree of ‘authenticity.’ In their concluding remarks, Luskin, Fishkin and Jowell (2002) ask: “How ‘authentic’ are the policy and candidate preferences in ordinary polls and election returns—how much in keeping with the respondents’ own fundamental values and interests [...] (p.487)” Thus the key
to evaluate attitudes and behaviors is to evaluate the extent to which they are reflective of people’s underlying interests, values, and political predispositions like one’s party identification or ideological self-placement. In the realm of citizen competence, the ability to express authentic attitudes and cast authentic votes is important because electoral democracy should produce governments and public policies that reflect people’s underlying interests, values, and predispositions.

Precedent work in the area, with the exception of Althaus (1998), has avoided using values and political predispositions in evaluating attitudes and behaviors, and has relied, instead, exclusively on interests. (e.g. Althaus 1998; Bartels 1996; Delli Carpini and Keeter 1996; Gilens 2001; Luskin, Fishkin, and Jowell 2002). Their approach assumes that the attitudes and votes of the more knowledgeable are more in line with their underlying interests, and should consequently, form the benchmark of the evaluation. But, as nicely pointed out in Kuklinski and Quirk (2001), this approach is circular because knowledge “is doing inadmissibly double duty: defining enlightened self-interest and explaining how people arrive at it. (p.300).” With such a role for knowledge, one easily understands why values and predispositions have to be excluded from their models to avoid further circularity because knowledge can reasonably too affect people’s values and predispositions.

Closer to what I propose here is the work by Lupia (1994) that also adopts an interest-based approach to evaluate Californians’ votes on propositions aimed at reforming the auto insurance industry, but that relaxes the assumption that only the more knowledgeable make better choices (even though Lupia expects those that know more about the propositions to also be more likely to make better choices). In his article, Lupia assumes instead that Californian voters should favor propositions that will lower their auto insurance premiums and provide them with higher-valued policies. The author finds evidence that those who know most about the propositions or those possessing the right information shortcuts (as measured by the knowledge of the auto insurance industry’s, trial lawyers’, and consumers groups’ positions on the propositions) favored policies that represented best their interests and opposed those that did not.

But, if one looks closer at the details of the various propositions facing the Californian voters, one finds Lupia’s approach to also be imperfect because it overlooks the differences in interests between “good” and “bad” drivers, for example. The former should favor reforms that propose an insurance premium system based on drivers’ records (Propositions 100 and 103), but bad drivers should instead prefer the status quo because it attributes most weight to other factors, including

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1Althaus makes exception as he also includes party identification as a measure of political predispositions in his analyses.
most notably where one lives. Unfortunately, Lupia’s sample is not representative enough of the entire Californian population to test for such possibilities, but the main point here is that ‘across-the-board’ assumptions about what people’s attitudes and votes should be do not generally travel well in most, if not all, political contexts because people’s interests, values, and political predispositions do not lie at the same place.

The approach proposed here overcomes some of the limitations mentioned above by recommending to evaluate political attitudes and behaviors by examining the connections between one’s underlying interests, values, and predispositions and one’s political attitudes or choices, and judging the extent to which those connections are ‘authentic.’ Note that this approach requires making theoretically-grounded expectations about how interests, values, and political predispositions should shape people’s political attitudes and behaviors. This approach is distinct from precedent ones because it does not stipulate that the attitudes and the choices of the more knowledgeable should constitute any kind of benchmark. Moreover, it also rejects making ‘across-the-board’ assumptions about where people’s interests, values, and political predispositions lie. Instead, evaluating the degree of authenticity of one’s attitudes and behaviors requires specifying the ways in which his or her interests, values, and political predispositions define his or her attitudes and choices. The remaining question now is: How does thought and information provide for authentic political attitudes and choices?

**Thinking, Information, and Attitude Authenticity**

The issue at hand is what should help people into developing or revisiting attitudes to make them authentic, i.e. in line with their underlying interests, values, and political predispositions.\(^2\) Relying on recent developments in the study of attitude formation or change in social psychology and that on the psychology of survey response, I argue that both thought and information, alone or in combination, help in producing authentic attitudes.

Social psychologists have long proposed dual-process models of attitude change like the Elaboration-Likelihood Model (ELM) (Petty and Cacioppo 1986a; Petty and Cacioppo 1986b) or the Heuristic-Systematic Model (HSM) by Chaiken and colleagues (Bohner, Moskowitz and Chaiken 1995; Chen 2014).

\(^2\)From now I will only talk about political attitudes even though a similar theoretical framework could also be applied to the study of political behaviors like voting in an election or in a referendum. This decision rests only on the fact that the results presented here come from survey-experiments measuring attitudes and not behaviors.
and Chaiken 1999; Chaiken, Liberman and Eagly 1989; Eagly and Chaiken 1993) that posit that people adopt strategies from the low and high ends of a continuum of processing effort depending on their motivation and cognitive ability. When people are highly motivated and possess adequate cognitive capabilities they generally favor a more effortful information process (central route or systematic processing) than they would otherwise. Less motivated and cognitively able people instead are more likely to employ the less cognitively demanding (peripheral) route to information processing and rely more heavily on heuristics.³ When employing the effortful path to information processing, people put great cognitive efforts at retrieving attitude-relevant considerations, scrutinizing their relevance and importance, and integrating them into their attitudes. Effortless information processing, on the other hand, does not involve great cognitive effort as people rely instead on easily retrieved considerations from memory or provided by the environment.

Thinking more carefully (and taking the time to do so) affects the balance of cognitive efforts one deploys by pushing it toward the high end of the processing effort continuum. Consequently, by thinking more people are more likely to perform the deliberative tasks of more systematic information processing mentioned above. But why should thinking more or expanding greater cognitive efforts lead to authentic attitudes?

Authentic attitudes result from more systematic information processing induced by greater thought because it affects some of the important steps to attitude development or change like the retrieval of attitude-relevant considerations and their evaluation and integration into attitudes (Tourangeau 1984; Tourangeau 1987; Tourangeau and Rasinski 1988; Tourangeau, Rips and Rasinski 2000). Indeed, we know that attitude development or change occurs when the quantity, balance, and range of accessible considerations are altered (Zaller 1992; Zaller and Feldman 1992). Not surprisingly, people often change their attitudes when exposed to new information (Gilens 2001; Luskin, Fishkin and Jowell 2002) or persuasive communications (Iyengar and Kinder 1987). Increased thought, as mentioned above, induces effortful search of relevant bits of information from long-term memory, and evidence from Sadler and Tesser (1973) suggest the people, in effect, tend to recall more considerations when induced to think more carefully. Thus thought affects the sampling of considerations by expanding the number of considerations retrieved. This, in turn, opens up opportunities for attitude development or change.

³Note that this may not always be the case, especially with respect to the HSM where motivated and cognitively able people may also rely, at times, on heuristics to make judgments. That is also true, to some extent, of the ELM (Petty and Wegener 1998).
Thinking also promotes a better evaluation of the considerations retrieved. People with more motivation and opportunity to think tend to review the considerations they retrieved more carefully and to integrate them better into their attitudes (Fazio 1990; Petty and Cacioppo 1986a; Sanbonmatsu and Fazio 1990). This means that more thought allows one to better evaluate, and weight accordingly, the retrieved considerations in light of his or her underlying interests, values, and predispositions. Thus this sort of cognitive “elaboration” (Petty and Cacioppo 1986a) or deliberation “from within” (McGuire 2000, p.191) is likely to tighten the connections between one’s attitudes and interests, values, and predispositions, and produce, in turn, authentic attitudes.

But the effects of thought should be conditioned by knowledge already held. The more knowledgeable, by definition, have more considerations to retrieve and also generally possess greater cognitive abilities to tie the retrieved considerations with their underlying interests, values, and political predispositions. As a consequence, knowledge should strengthen thought’s effects on attitude authenticity.

Finally, the provision of domain-specific information, which also stirs some thought, should too promote attitude authenticity. Providing people with information increases directly the number of considerations that can be used to develop or change an attitude, but also indirectly by triggering the retrieval of relevant considerations already held. To some extent, the new information may also encourage people to review more carefully the information they have at hand, especially if some of the new information contradicts or reinforces one’s initial attitude. Again, those who are already knowledgeable and possess enough cognitive ability are expected to benefit most from the new information, as found in Gilens (2001).

Survey-Experiments to Gauge Thought’s and Information’s Effects

Brazil. A first survey-experiment was conducted in Brazil by the survey firm Market Analysis Brazil in the fall of 2004 to look at the effects of thought and information on attitudes toward government spending. Subjects were selected from ten large Brazilian cities scattered around the country, and the interviews were conducted by telephone. Thus the sample is not a national sample but not too far as Brazil’s urban population now accounts for over 80% of Brazil’s population, and these ten cities harbor, themselves, over 28% of the total population. The sampling follows a proportionate

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4www.marketanalysis.com.br
5This study was funded by a Dissertation Improvement Grant by the National Science Foundation.
to population size distribution, with stratified clustering of census districts and sectors within each city, and random selection of districts, clusters, and household. The sample frame includes all adults 18-69 years old from the general population, and quotas of gender, age, and socio-economic level are followed to ensure representativeness.

The experimental manipulation involves five treatment groups and a control, all randomly assigned. Each group was asked one question about their preferred level of government spending and five related knowledge questions, but with differences in wording, ordering, and surrounding script to manipulate information and thought.

The control group was simply asked these questions in an unadorned, conventional way, with the spending question preceding the knowledge questions. The first treatment group (ST, for “stop-and-think”) was asked the same questions in the same order but was also asked to think for 30 seconds before answering the spending question. A still longer period for thinking might produce stronger effects (Tesser and Conlee 1975), but 30 seconds was the longest pause I felt I could afford. The interviewers were barred from recording any preference before the 30 seconds elapsed.

Note that the stop-and-think instruction here differs from the manipulation in Zaller and Feldman (1992). Their design, borrowed from Wilson and colleagues (Wilson, Sunn, Bybee, Hyman and Rotondo 1984; Wilson, Dunn and Lisle 1989; Wilson, Kraft and Dunn 1989), has the respondents required not only to stop and think but to voice their thoughts as they do so. Zaller and Feldman call their manipulation “stop-and-think,” but it is really “stop-and-think-aloud.” The voicing of relevant thoughts makes this manipulation an impure measure of the effect of thought alone. Interviews are social interactions, and the thoughts respondents choose to express are not necessarily an unbiased sample of the thoughts they have. The reasons voiced also underrepresent the affective, the felt-to-be embarrassing, and the hard-to-articulate (Millar and Tesser 1986). But this possibly biased sample then affects subsequent expressions of attitude. Wilson himself has found that thinking aloud, coupled with pervasive tendencies to be—and appear—consistent, biases the ensuing policy responses toward whatever consideration the respondent voiced and generally produces lower ‘quality’ responses (Wilson, Dunn and Lisle 1989; Wilson, Kraft and Dunn 1989; Wilson and Hodges 1992), just like found in Zaller and Feldman (1992). But Zaller and Feldman conclude

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*The response rate was 29.1% as measured by AAPOR’s RR5: the “number of complete interviews divided by the number of interviews (complete plus partial) plus the number of non-interviews (refusal and break-off plus non-contacts plus others) (American Association for Public Opinion Research 2004).*

*Socioeconomic level follows the standard Brazilian criterion classification (Associação Nacional de Empresas de Pesquisa (ANEP), www.anep.org.br.*
that “A more carefully crafted manipulation might yet produce the reliability gain (p.606).”

The ST treatment is also distinct from that of Barker and Hansen (2005) that required, not simply induced, subjects in their experiment to review systematically decision criteria before choosing from two presidential candidates running in a real election (Bush and Gore in 2000) using the Analytic Hierarchy Process (AHP) tool developed by the mathematician Thomas Saaty “to encourage and facilitate decision making (Barker and Hansen 2005, pp.326).” The authors find that systematic information processing induces the less knowledgeable to rely more heavily on partisan cues and ideology than the more knowledgeable. It also induces the latter to express vote preferences that are more ambivalent and less predictable. Their findings, however, do not tell us much about the ‘quality’ or the ‘correctness’ of the vote preferences, as acknowledged by the authors themselves (Barker and Hansen 2005, pp.320).

The treatment being proposed here is more similar to what the social psychologist Abraham Tesser and his colleagues have done by simply inducing people to stop and think for a certain period of time (from a few seconds to several minutes) before evaluating objects or answering attitudinal questions (e.g. Sadler and Tesser 1973; Tesser and Conlee 1975; Tesser and Cowan 1975; Tesser 1976; Tesser and Leone 1977; Tesser 1978; Millar and Tesser 1986), or, more recently, to what Kuklinski et al. (2001) have done in their survey-experiment where subjects were simply induced to take the time needed before answering the questions.

The second treatment group (FLAG, for flagging considerations) received the same questions as the control group but with the order of the spending and knowledge questions reversed. The exposure to the knowledge questions flags the factual information they ask about as relevant considerations and stirs some thought. The third group (ANSWERS, for providing the correct answers to the knowledge questions) received the same questions in the same order as in the FLAG treatment (i.e., knowledge questions before spending question), but respondents were also told the right answers to each knowledge question after answering it.

Note the differences, again, between this last treatment and those of similar experimental designs. In Gilens (2001), for example, subjects are provided with only one piece of information. The problem with Gilens’ approach is that providing only one bit of information undoubtedly induces people to move all in the same direction, that favored by the information given, because the new information “primes” subjects to think about that particular aspect of the issue (Iyengar and Kinder 1987). Not surprisingly, Gilens finds subjects to favor less spending on prisons when told
that the national crime rate has gone down systematically over the past ten years. Similarly, he finds people being more favorable toward aid to foreign countries when told that the U.S. government spends less than a cent of every dollar of its budget on foreign aid. But Gilens’ contribution is important because it tells us that people are willing to change their attitudes in light of new relevant information. It is not useful for present purposes, however, because authentic attitudes come about when people consider a fuller set of considerations.

The ANSWERS treatment proposed here also diverges from the Deliberative Polls conducted by Fishkin and Luskin (e.g. Fishkin and Luskin 1999; Luskin, Fishkin and Jowell 2002). In their experiments, randomly selected participants gather over a weekend period and are provided with objective and balanced information on a targeted issue. One notable problem with this design is that their participants receive more information than what most people can possibly manage, knowing the limitations of working-memory in capacity (Miller 1957), attention (Payne 1982), and encoding new information (Simon 1978). But more importantly for present purposes, participants in Deliberative Polls are also required to break into group discussions. Their design, therefore, differs also from the one proposed in that participants also interact with other participants. What I propose here is intraindividual deliberation.8

Thus the decision here to provide five balanced pieces of information was to prevent subjects from favoring one side of the issue over the other, but also to provide them with a manageable amount of relevant information.

The fourth treatment (ST-FLAG) was the same as FLAG, except that the subjects were also asked, just before answering the spending question, to stop and think about the issue before choosing their preferred level of spending, just as in the ST treatment. The fifth treatment (ST-ANSWERS), similarly, is the same as ANSWERS, except that the subjects were also asked, just before answering the spending question, to stop and think, again just as in the ST treatment.

The spending item asks first whether government spending should be increased, decreased, or kept as is. Those respondents wanting to increase or decrease it are then asked by how much: a little, somewhat, or a lot. There are also five multiple-choice knowledge questions, all domain-specific. Since the knowledge questions are asked to provide as well as measure knowledge, it is worth noting that the facts being asked about are balanced, in the sense that some might be expected to make most people want to spend less, others to make most people want to spend

8In addition, most of their events are really only quasi-experiments with “control groups” not quite separated by random assignment.
more. The knowledge questions asked about items on which governments in Brazil spend the most (social security) and the least (culture), about where most of the government’s revenues come from (corporate income tax), about the evolution of the national debt (it has decreased), and about the consequences of the recent social security reform (the reform is likely to reduce the costs of the program). The order of the knowledge questions was randomized.

A total of six questions were asked of each of six groups (one control and five treatments), each numbering about 175 respondents. The appendix provides the government spending question wording.

U.S. A second experiment was designed and conducted in the U.S. by the on-line survey firm Knowledge Networks\(^9\) to look this time at the effects of thought and information on attitudes toward healthcare.\(^10\) The U.S. study has a more representative sample, as subjects were randomly selected from the entire U.S. adult population.\(^11\) It has, however, fewer treatment groups because the funding awarded for it did not allow, unfortunately, for reproducing all five treatment groups administered in Brazil.

The experimental design involves two treatment groups and a control, all randomly assigned. Each subject was asked a question about his or her preferred level of federal government intervention in the provision of health care services and one about their current and past health care coverage. Subjects in the control and first treatment groups were also asked questions measuring their knowledge regarding healthcare in the U.S. The questions measured the respondents’ knowledge about the percent of Americans without health insurance whatsoever (15%), about the percent of the federal government’s budget devoted to healthcare services (22%), about the fiscal burden of a universal healthcare system (the fiscal burden would be highest for average and above average income people), about its waiting period as compared to a private one (waiting lists are generally longer in universal healthcare systems), and, finally, about the current health care systems found in other industrialized countries (Britain, Canada, France, and Germany all have universal healthcare systems). Like in the first study, the knowledge questions were aimed to be balanced, and their

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\(^9\)www.knowledgenetworks.com
\(^10\)This study was conducted through TESS (Time-Sharing Experiments for the Social Sciences), by the National Science Foundation.
\(^11\)The response rate was 30.9% as measured by AAPOR’s RR3: the “number of complete interviews divided by the number of interviews (complete plus partial) plus the number of non-interviews (refusal and break-off plus non-contacts plus others) plus all cases of unknown eligibility. It also estimates what proportion of cases of unknown eligibility is actually eligible,” (American Association for Public Opinion Research 2004). Note that RR3 could not be measured in Brazil because Market Analysis Brazil could not estimate what proportion of cases of unknown eligibility was actually eligible.
order was randomized for each subject.

Here too, the control group was simply asked these questions in a straightforward, conventional way, with the healthcare question preceding the domain-specific knowledge questions. The control group has 247 respondents.

The first treatment group (ST-FLAG) received the questions in the reverse order and was required to stop and think for 30 seconds before answering the healthcare question, just like the ST-FLAG subjects in Brazil. After reading the question, respondents were asked to click on an icon that initiated the 30-second countdown. Respondents were barred from recording any preference by making it impossible to select any option before the 30 seconds elapsed. The exposure to the knowledge questions before the healthcare question serves, as mentioned earlier, to flag important considerations worth thinking about. The ST-FLAG treatment group has 251 respondents.

The second treatment group (FACTS, for providing facts about healthcare) first received information about healthcare in the U.S. and then was asked the healthcare question without the stop-and-think prompt, just as in the control group. Note the difference between FACTS and the ANSWERS treatment in Brazil. As in the ANSWERS treatment, the subjects are provided too with domain-specific information. In the ANSWERS treatment, the information is the correct answers to the knowledge questions, provided just after each has been asked and answered. In FACTS, the information was a list of five facts, randomly ordered, constituting the correct answers to the knowledge questions being asked of the other groups. The FACTS subjects are not asked the questions, just given the facts constituting the correct answers. The facts were displayed on a one-page screen with no need to scroll.

Information was provided differently in the U.S. study to prevent ill-informed respondents from getting discouraged by discovering that they have been answering incorrectly.12 The downside of simply presenting the information is that domain-specific knowledge could not be measured in the FACTS treatment. The FACTS treatment group has 262 respondents.

Finally, subjects were asked about their current and past healthcare coverage after a series of unrelated questions. Thus a total of seven questions were asked to the control and ST-FLAG treatment subjects and two questions only were asked of those in FACTS. The appendix provides the question wording for all groups.

The treatments are expected to stimulate thought and induce greater cognitive processing which

12Note that the Brazil study was conducted first and after talking with some of the interviewers, I realized how rapport could, at times, be affected by providing the right answer after each knowledge question.
should, in the end, affect the ‘quality’ of the responses to the attitude question by making the attitudes reported reflective on one’s underlying interest, values, and political predispositions. Now recall that the experimental design stimulates thought in three different ways. First, the stop-and-think instruction in \textit{ST}, \textit{ST-FLAG}, and \textit{ST-ANSWERS} is intended to increase thought by motivating respondents to think and giving them more time to do so before answering the attitude question. Second, asking the knowledge questions before the attitude question in \textit{FLAG}, \textit{ANSWERS}, \textit{ST-FLAG}, and \textit{ST-ANSWERS} serves to highlight some relevant empirical considerations and thus to stimulate thought. Third, and finally, providing domain-specific information, like done in \textit{ANSWERS}, \textit{ST-ANSWERS}, and \textit{FACTS}, serves to expand the number of relevant considerations subjects may find worth thinking about, and, consequently, to also stimulate thought. Finally, note that \textit{ST-FLAG} and \textit{ST-ANSWERS} benefit from two and three of the stimuli to think, respectively.

As compared to the control group, subjects in all treatment groups should express more authentic attitudes, i.e. attitudes more in line with interests, values, and predisposition. But, because the more knowledgeable have more considerations to retrieve and also generally possess greater cognitive abilities, the effects of the treatments should be strongest for them.

\section*{Evaluating Attitude Authenticity}

\subsection*{Aggregate-Level Differences}

Past work in the area has shown that the aggregate distribution of political attitudes and votes would look different if the masses were generally more informed. Althaus (1998), for example, shows that a fully knowledgeable electorate would prefer a more dovish and interventionist foreign policy and more progressive social policies. Bartels (1996), looking at vote choices in six presidential elections (1972-1992), finds incumbent presidents and Democratic candidates to benefit from the general lack of political knowledge. The results from Delli Carpini and Keeter (1996), on the other hand, show that a more informed electorate would generally favor more progressive social policies. These authors, however, have not always found substantial and statistically significant "information effects," just like studies on deliberation do not always find aggregate change in attitudes (Denver, Hands and Jones 1995). Moreover, the direction of the effects is not always the same. But what about the effects of thought and information, alone or in combination, on the aggregate distributions of attitudes toward general government spending in Brazil and on healthcare in the
Figure 1 presents, by treatment groups, the distributions of attitudes toward government spending in Brazil (Panel A) and on healthcare in the U.S. (Panel B). Attitudes on government spending are measured on a 7-point NES-type scale where 1 means that “governments should reduce taxes by a lot, even if it means providing fewer services”, 4 that “governments should make no change in either services or taxes”, and 7 that “governments should provide a lot more services, even if it means an increase in taxes.” Attitudes on healthcare are also measured on a 7-point scale where 1 means that “all medical expenses should be paid by individuals, through private insurance company plans or other company paid plans” and 7 that “there should be a federal government insurance plan which would cover all medical and hospital expenses for everyone one regardless of age, income, and race.”

Panel A for Brazil shows clearly that, on average, subjects induced to think more carefully and/or provided with information generally preferred lower taxes and government services. In the control group, only 46% of the subjects preferred lower taxes and spending as compared to 57%, 54%, 58%, 59%, and 50% for subjects in ST, FLAG, ANSWERS, ST-FLAG, and ST-ANSWERS, respectively. Note that these differences were statistically significant at the conventional .05 level (one-tailed) in three of the five treatments groups (ST, ANSWERS, and ST-FLAG). Subjects in the treatment groups were also all less supportive of the status quo, i.e. “making no change in either services or taxes.” Indeed, the status quo was preferred by 36% of the control subjects, but only 27%, 26%, 27%, 28%, and 30% of the ST, FLAG, ANSWERS, ST-FLAG, and ST-ANSWERS subjects, respectively, preferred it. These differences were statistically significant in all treatment groups but ST-ANSWERS. Together, these results suggest that increased thought and information moved people away from the middle toward wanting less government spending and lower taxes.

Panel B for the U.S. also shows some interesting between-group differences in attitudes toward the role of the federal government in the provision of healthcare services. First, support for an entirely public healthcare system (7) is lower for both subjects who received information (FACTS) or were induced to think (ST-FLAG). Admittedly, the differences are not big but only 19.8% and 21.0% of the subjects in ST-FLAG and FACTS, respectively, favored an entirely public system as compared with 26.6% of the subjects in the control group. The difference was significant for subjects

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13 Note that the scale for healthcare has been inversely recoded from the original question.
in ST-FLAG and fell only shortly from significance for those in FACTS. The other notable difference is found for subjects who favored the middle category (4), presumably a preference for a system similar to the existing one where the government offers some kind of healthcare coverage for some people but where the private sector also plays an important role. Here, the FACTS subjects favored this position more than both the control and ST-FLAG subjects by 6.0% and 5.5%, respectively. The difference between FACTS and the control reached statistical significance.

But, the hypothesis that thought and/or information produce more authentic attitudes does not imply that there ought to be differences in the distributions of attitudes between groups. Instead, the key to evaluating the effects of thought and information on attitude authenticity is to examine the connections between one’s attitude and underlying interests, values, and political predispositions. It becomes imperative, therefore, to move from the aggregate to the individual level of analysis to explore those connections.

### Individual-Level Differences

Judging the authenticity of attitudes requires making assumptions about how interests, values, and predispositions shape people’s attitudes. Unfortunately, the funding awarded for the two studies limited the number of questions that could be asked of subjects to the ones presented earlier. Both Market Analysis Brazil and Knowledge Networks, however, have also collected independently socio-demographic information about the subjects that can be used to proxy interests (Luskin 2002). But no measure of values or political predispositions was collected, with the exception of one predispositional variable collected of most subjects by Market Analysis Brazil that asked Brazilians how confident they were with their government. Thus the analysis presented here rely almost exclusively on interests to evaluate attitude authenticity.

The use of interests in evaluating attitude ‘quality’ is imperfect but adequate (Price and Neijens 1997), especially when used with caution (Kuklinski and Quirk 2001). It is generally agreed that interests matter most when the issue at hand implies visible, tangible, large, and certain costs or benefits (Citrin and Green 1990; Sears and Funk 1990) and there are notable recent examples demonstrating the value of interests in explaining behaviors and attitudes under such circumstances. Campbell (2002), for example, finds political participation among senior citizens to be highest among those

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14The survey-experiment was administered to 1055 subjects but 134 of them, distributed nearly equally among the groups, did not receive, unfortunately, the confidence question.
that benefit most from Social Security and not among those of higher socio-economic status, as conventionally expected. The benefits provided by Social Security are clearly visible, tangible, large, and certain and this explains why the main beneficiaries of the program have great interests in protecting and increasing them. Their higher participation, therefore, is not surprising. Similarly, Barabas (2006) shows that support for reforming Social Security by establishing individual investment accounts increases with financial market performances. Again, here, people seek to maximize their benefits (or minimize their losses) when those are visible, tangible, large, and certain.

The issue of healthcare is similar to that of Social Security in that the benefits and costs associated with more government intervention in the provision of healthcare services are also visible, tangible, large, and certain. Benefits are visible and tangible because healthcare services profit those that receive them; large given the high costs of those services; and, certain because governments providing medical and hospital services cannot exclude the beneficiaries from receiving them. But, most importantly, it is easy to identify those that would benefit most and least from greater government intervention in the provision of healthcare services. Indeed, lower income people should benefit most from greater federal intervention as they would gain more from these services than they would need to contribute to fund them while higher income people, on the contrary, should benefit less as their gains would be smaller than their contributions. Moreover, higher income people can afford better quality healthcare services in the marketplace than those they would typically receive from a universal government-based healthcare program. Consequently, the provision of healthcare services represent costs rather than benefits for higher income people. And these costs are visible, tangible, large, and certain as people can hardly avoid paying taxes they owe. Thus it appears fairly reasonable to expect an important role for interests in explaining attitudes toward the role of the federal government in the provision of healthcare services.

On the other hand, I expect weaker effects for interests on the issue of general government spending in Brazil because the benefits of general government spending are more diffused. Indeed, governments in Brazil spend on education, healthcare, defense, social security, and in many other areas benefiting some people some times and others at other times. For example, the middle class is the one that benefits most from the free public superior education and the generous social security programs (Bank 1999; Madrid 2003). The poor, for their part, benefit most from the universal healthcare system because the rich and the upper middle class people generally have private health insurance and are attended by private clinics and hospitals. But, again, taxation in Brazil is
progressive, meaning that the more you earn the more you pay, marginally, in taxes. And, taxes represent visible, tangible, certain, and for some people, large costs that one cannot avoid. In sum, there may be a role for interests in explaining attitudes toward general government spending and taxes, but that role is likely to be more modest.

I propose two models, one for explaining attitudes toward government spending in Brazil and another one for attitudes toward healthcare in the U.S. The model for Brazil includes only one measure of interests, namely one’s household wealth as defined by the Brazilian National Business Association for Survey Research (ANEP). Wealth is a complex measure that is based on respondents’ self-reported household income, ownership of several different goods, and the head of the household’s level of education. The measure is simply labeled Wealth, and it runs from 4 to 34, with higher values indicating greater wealth. Wealthy subjects are expected to prefer lower taxes and government spending because they do not generally benefit much from most government services, at least, as compared to their contribution. Less wealthy subjects, however, tend to benefit more from government services than what they commonly contribute.

The model for Brazil is completed by the addition of a predispositional variable that measures one’s level of confidence in the Brazilian State (labeled Confidence). The variable runs from 1 to 4, where 1 indicates that the subject is not very confident in the Brazilian State and 4 that he or she is very confident. The hypothesis is that subjects confident in the Brazilian State should be generally more predisposed to higher government spending and taxes than the less confident ones because they trust more, on average, their government to make appropriate decisions, including how to use tax revenues. The equation explaining government spending in Brazil is as follows:

\[
\text{Spending}_i = \beta_0 + \beta_1 \times \text{Wealth}_i + \beta_2 \times \text{Confidence}_i + u_i
\]  

where \(\beta s\) are coefficients to be estimated, \(u_i\) is a disturbance term, and the subscript \(i\) identifies the individuals. The equation is estimated by OLS and independently for each treatment group.

The results are reported in Table 1 by treatment group. As expected, Wealth has a negative effect on government spending on subjects in all groups. But, only for those in ST-ANSWERS does Wealth has a statistically significant effect at the conventional .05 level or higher (two-tailed). Note that its effect in ST and ST-FLAG fell only shortly from statistical significance. The effect of Confidence on attitudes toward government spending is also in the expected direction for subjects

15Associação Nacional de Empresas de Pesquisa (www.anep.org.br).
in all groups, with more confident subjects preferring higher taxes and spending. The effect of Confidence, however, is only statistically significant in ST.

[Table 1 about here.]

To be sure, as the earlier discussion about the diffusion of the benefits of general government spending anticipated, the model for Brazil does not explain much variation in attitudes toward government spending, as indicated by the generally rather very low $R^2$s. The model did perform better, however, for subjects in ST and ST-ANSWERS.

But, the best way to gauge the effects of Wealth and Confidence on attitudes toward government spending is by presenting first differences where the values of the independent variables are manipulated, holding the others at their mean. I present three different scenarios. In the first one, I calculate the change in attitude toward government spending by running Wealth from its lowest value (4) to its highest (34), holding Confidence at its mean. In the second scenario, I manipulate the values of Confidence from its lowest (1) to its highest (4), holding, this time, Wealth at its mean. In the last and third scenario, I manipulate both values of Wealth and Confidence to examine the difference in attitude toward government spending between two hypothetical kinds of subjects: poor and confident subjects and rich and less confident ones. The former, of course, should prefer more government spending than the latter. To avoid extreme counterfactuals (King and Zeng 2006), poor and confident subjects are defined as those whose wealth and confidence are one standard deviation below their respective sample means while rich and less confident subjects have wealth and confidence levels one standard deviation above their respective means. The changes in attitude are reported at the bottom of Table 1 by treatment groups and were calculated using the statistical software Clarify to test for significance (Tomz, Wittenberg and King 2003; King, Tomz and Wittenberg 2000).

The results reported at the bottom of Table 1 show some important effects for Wealth and Confidence, together or separately, on attitudes toward government spending, especially for subjects in ST and ST-ANSWERS. For example, the difference in attitudes toward government spending between the very wealthy and the very poor subjects (scenario 1) in treatment ST-ANSWERS reached a substantial 1.66 unit on the 7-point scale, with the very wealthy preferring somewhat less government spending at 2.36 and the very poor preferring the status quo at 4.02. This difference was significant at .05 (one-tailed). In ST and ST-FLAG that difference was also notable at 1.10 and .83, respectively, but both failed (shortly) from reaching statistical significance. The effect for Confidence
(scenario 2) in ST was also substantial. In effect, the most confident subjects in ST significantly preferred something similar to the status quo at 3.66 as compared to those less confident subjects in that same group who preferred less government spending at 2.55, a difference of 1.11 unit on the government spending scale. The differences attributed to Confidence were generally weak in the other groups and none surpassed .50. Finally, when manipulating the values of both Wealth and Confidence (scenario 3), we find too significant changes in attitude for subjects in ST and ST-ANSWERS. Poorer but confident subjects in ST and ST-ANSWERS favored the status quo (both at 3.89) while the richer and less confident ones in both groups favored somewhat (2.32) or slightly (2.74) less government spending and taxes, respectively.

Now, contrast the effects of Wealth and Confidence, alone or combined, in ST and ST-ANSWERS with those in the control group. In the latter group, the attitudes of the very wealthy and the very poor do not differ much—both favored only very slightly less government spending at 3.14 and 3.47, respectively. This difference (-0.33) is three times smaller than that found in ST (-1.10) and five times smaller than that in ST-ANSWERS (-1.66). Only for subjects in ANSWERS was the effect of Wealth weaker (a meager difference of only .14 between the richest and poorest subjects). The effect of Confidence (scenario 2) for subjects in the control group on attitudes toward government spending and taxes is not much stronger. Specifically, the difference in attitude between the very confident and the not very confident is only .38 (three times smaller than that found for subjects in ST). And, finally, the combined effect of Wealth and Confidence (scenario 3) in the control (-0.52) is three and two times weaker than that for subjects in ST (-1.57) and ST-ANSWERS (-1.15), respectively. Needless to mention that none of the differences in the control group reaches statistical significance.

Together these findings suggest a role for thought, alone or in addition to information, on attitude authenticity because subjects in ST and ST-ANSWERS (and to some extent those in ST-FLAG too) expressed attitudes that were reflective of their underlying interests and political predispositions. As it stands, however, it is not possible to conclude that the attitudes of the ST and ST-ANSWERS subjects were more authentic than those of subjects in the control group because the effects of Wealth and Confidence, alone or together, in ST and ST-ANSWERS were not statistically different from those in the control group (event though they fell only shortly). What has been uncovered here are within-group differences that suggest a role for thought, alone or in combination with information, on attitude authenticity.

Before moving on to the U.S. study, it is worth asking why only providing information like in
ANSWERS or simply flagging important considerations like in FLAG did not produce too authentic attitudes. The difference between these two treatment groups and ST and ST-ANSWERS can potentially be explained by the fact that subjects in the former two did not have the opportunity in time to think carefully (by not receiving the stop-and-think prompt) about what they already knew and/or about the new information they had just received. But then, again, the effects in ST-FLAG too are not very strong, despite the fact that subjects in that group benefited from two of the three stimuli to thought, including the prompt to stop-and-think. Wealth did produce a sizable change in attitudes in ST-FLAG (.83, nearly three times as big as in the control(.33)) but the effect for Confidence is very weak (.14). The U.S. study, with its replication of the ST-FLAG treatment, might elucidate matters a bit more.

I propose an exclusively interest-based model for explaining attitudes toward federal government intervention in the provision of healthcare services in the U.S. with household income and insurance coverage as sole predictors. I expect support for greater federal government intervention to be strongest among low-income people and weakest among the high-income, for reasons given earlier. Income is measured on a 19-point scale with higher values indicating higher income. The model also includes a measure of the subjects’ household past and present healthcare coverage. This variable (labeled Coverage) is measured on a 5-point scale where 0 means that the subject or any member of his or her family has never been without any healthcare coverage during the past five year, and 4 that himself or any member of his or her family has been without any healthcare coverage whatsoever for the past five years. The values of 1, 2, and 3 capture periods of less than one year, one to two years, and three to four years, respectively, during which the subject or any member of his or her family has been without any healthcare coverage whatsoever. I expect subjects who have not been covered for long periods of time to favor greater government intervention, as opposed to those that have been covered most of the time, because greater intervention would benefit them most.

But, to be sure, Coverage may not be a very reliable predictor of attitudes toward the role of the federal government in the provision of healthcare services because the decision to buy healthcare insurance is a function of other important factors like one’s health and preferences for particular types of healthcare services. Indeed, healthy people may not see the benefits of buying healthcare insurance (or paying higher taxes to receive healthcare coverage) because they generally do not need medical and hospital assistance. They prefer instead to pay directly for the occasional health-
care services they may need. Similarly, some people may also prefer not to buy health insurance (and do not wish government intervention either) because the healthcare services they want to consume are not generally covered by typical healthcare insurance policies (and would likely not be covered by government insurance). More specifically, not every healthcare insurance providers, even the very best ones, cover chiropractors, acupuncturists, naturopaths, midwives, etc. Thus the effect of Coverage on attitudes on healthcare are murkier than those of Income.

For present purposes, the inclusion of Coverage in the model also accounts for its conditioning role on income. Indeed, the effect of income on attitudes on healthcare should be strongest for subjects who have not been covered for long periods of time. Middle income families who have private health insurance provided by their employers, for example, may not be as inclined to favor greater federal intervention in the provision of healthcare services than those who do not receive the same benefits from their employers. Consequently, Coverage is also multiplied by Income. The equation to estimate is as follows:

$$ Healthcare_i = \beta_0 + \beta_1 \times Income_i + \beta_2 \times Coverage_i + \beta_1 \times Income_i \times Coverage_i + u_i \tag{2} $$

where $\beta$s are coefficients to be estimated, $u_i$ is a disturbance term, and the subscript $i$ identifies the individuals. The equation is estimated by OLS and independently, again, for each treatment group.

The estimates are presented by treatment groups under Model 1 in Table 2. As expected, the model performed better, on average, than it did for Brazil, as the much higher $R^2$s testify. But, the effects of Income and Coverage are hard to untangle from Table 2 because of the interaction term and are best presented by looking at first differences. Like in Brazil, I propose three scenarios. The results are reported at the bottom of the table. In the first one, the values of Income are manipulated from its lowest (1) to its highest (19), holding Coverage at its mean. In the second scenario, the values of Coverage are manipulated from its lowest values (0) to its highest (4), holding Income at its mean. Finally, the third scenario presents the difference in attitude toward healthcare between poor and frequently uninsured subjects and rich and always insured ones. Poor and frequently uninsured subjects are defined as those whose income and insurance coverage are one standard deviation below their respective sample means, and rich and always insured subjects as those whose income is one standard deviation above its mean and Coverage at 0.

The effect of Income (scenario 1) are quite impressive, especially for subjects in ST-FLAG. In that
group, poor subjects preferred more federal government intervention in the provision of government spending (5.51) than did richer subjects (3.93), a difference of 1.58 unit on the 7-point healthcare scale. Similarly, poor subjects in FACTS also preferred more government intervention (5.01) than richer subjects (3.88). These two differences were statistically significant at .05 (one-tailed). *Income*, on the other hand, had no effect on attitudes on healthcare for subjects in the control group.

*Coverage* (scenario 2) also had an effect on attitudes on healthcare, but this time only on subjects in the control and FACTS groups. The effect on the former is substantial and significant. Indeed, “never insured” control group subjects preferred more government intervention in the provision of healthcare services (5.88) than the “always insured” (4.31). The difference in attitudes was almost as important for subjects in FACTS, with the “never insured” subjects preferring more intervention (5.47) than the “always covered” (4.21). *Coverage*, however, had no effect on subjects in ST-FLAG.

By manipulating both values of *Income* and *Coverage*, as done in scenario 3, we find, in all three groups, that poor and frequently uninsured subjects always preferred more government spending than rich and always insured ones. The strongest combined effect is found for subjects who were provided with healthcare-related information (FACTS).

In sum, *Income* and *Coverage* affected, in ways expected, attitudes on healthcare for subjects in the control, FACTS, and ST-FLAG. Their effects were particularly strong for subjects in FACTS. Interestingly, *Income* had a very strong effect on attitudes toward healthcare on subjects in FACTS and ST-FLAG, but it had no effect on those in the control group. *Coverage*, on the other hand, strongly affected attitudes on healthcare for subjects in the control and FACTS groups, but not those of subjects in ST-FLAG.

Note that both *Income* and *Coverage*, alone or on combination, had statistically different effects on attitudes toward federal government intervention in healthcare for subjects in the control and ST-FLAG groups. The daggers (†) in Table 2 indicate that the effect of *Income* in ST-FLAG was statistically stronger for subjects in that group than it was for those in the control, but that *Coverage*, for its part, had a statistically weaker effect on the attitudes of the ST-FLAG subjects as compared to those in the control. An F-test also concluded that the combined effect of *Income* and *Coverage* in ST-FLAG was statistically different than that in the control ($F(3,412)=2.67$).\(^{16}\) It is worth now exploring more deeply these differences to evaluate better the role of thought on attitude authenticity.

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Note that no such difference about the individual or combined effects of *Income* and *Coverage* on attitudes toward healthcare was found, however, between the FACTS and control group subjects.
The Conditioning Role of Political Knowledge

Recall that I argued earlier that thought should have its strongest effect among the more knowledgeable. Thus I propose a slightly modified model for examining attitudes on healthcare that accounts for differences in knowledge about healthcare in the U.S. Knowledge is measured by summing the number of correct answers to the knowledge questions presented earlier. More precisely, correct answers were given a value of 1 and incorrect ones, ‘don’t knows,’ and refusals a 0, as standardly done elsewhere (e.g. Althaus 1998; Delli Carpini and Keeter 1996; Lupia 1994). The knowledge scale ranges from 0 to 8 because respondents could score up to 4 points on the last knowledge question by identifying correctly all four countries that have a universal healthcare system.\textsuperscript{17} The equation to estimate remains the same but with the addition of Knowledge and its interaction with Income and Coverage.

The estimates are presented in Table 2 under Model 2. Note that the analysis is now limited to subjects in the control and ST-FLAG groups because knowledge was not measured for subjects in FACTS but only provided beforehand. Due to the many interaction terms, the effects of Income and Coverage on attitudes on healthcare are best presented visually in Figures 2 and 3, respectively, by treatment group and knowledge, holding the other independent variable at its mean.\textsuperscript{18}

The results indicate that income (Figure 2) has no effect whatsoever on attitudes on healthcare for subjects in the control group, irrespective of knowledge. The attitudes of the lower income control subjects never statistically differ from those with higher income. But the story is quite different for subjects in ST-FLAG as we note important differences among subjects who scored 3 or more on the knowledge scale. For example, subjects who scored 4 on the knowledge scale in ST-FLAG and that have an annual income of less than $10,000 all preferred significantly more federal government intervention that those who earn above $34,999; those making less than $15,000 annually more than those earning above $39,999; those making less than $20,000 annually more than those earning above $59,999; and so on until those making less than $60,000 annually preferred more government intervention than those earning above $175,000, after which point the attitudes of the wealthier subjects do not differ anymore. Similar statistically significant differences exist for subjects who scored 3 and 5 on the knowledge scale.

\textsuperscript{17}To the knowledge questions asked, 20.5% of the subjects got them all wrong, 24.2% answered one correctly, 23.8% answered two correctly, 13.9% answered three correctly, 10.2% answered four correctly, 4.4% answered five correctly, 1.7% answered six correctly, 1.3% answered seven correctly, and none got them all right.

\textsuperscript{18}Note that Figures 2 and 3 do not present attitudes for those respondents who scored 6 or 7 on the knowledge scale because they are not numerous enough (see precedent footnote) to draw any meaningful inferences.
And the differences between the richer and the poorer subjects increase with knowledge (see how the slope for subjects in ST-FLAG becomes steeper with knowledge), just as expected. As an example, the difference between the richest and the poorest subjects is of only .7 (5.1 vs. 4.4) for the least knowledgeable subjects (score of 0 on Knowledge) but reaches 2.9 (6.2 vs. 3.3) for the most knowledgeable (score of 5 on Knowledge).

But more importantly, figure 2 shows that thought, as induced by the extra time to think and by flagging attitude-related considerations, benefited the more knowledgeable subjects most. Indeed, low income subjects who were induced to think and were knowledgeable (scores of 3 or higher on the knowledge scale) significantly preferred more government intervention in the provision of healthcare services than similarly knowledgeable control subjects. More specifically, the ST-FLAG subjects who scored 3 on the knowledge scale and had an income below $25,000 all significantly preferred (at .05, one-tailed) more government intervention in the provision of healthcare services than similarly knowledgeable control subjects. Similarly, the ST-FLAG subjects who scored 4 and 5 on knowledge and earn less than $35,000 and $40,000, respectively, also significantly all preferred more government intervention in healthcare. And, as expected too, the difference in attitudes between the ST-FLAG and control group subjects increases with knowledge. The results for Income strongly suggest that thought helped subjects express more authentic attitudes, and that those that benefited most were those that already had some prior knowledge about healthcare in the U.S.

[Figure 2 about here.]

[Figure 3 about here.]

Figure 3, for its part, presents the attitudes on healthcare for subjects in the control and ST-FLAG groups by Coverage. This figure also presents some interesting findings. First, note that the attitudes of the ST-FLAG subjects are not affected by Coverage, irrespective of political knowledge. Unexpectedly, subjects in that group who have suffered long periods of time without healthcare insurance whatsoever and scored lowest on the knowledge scale (score of 0) generally preferred less government intervention than similarly knowledgeable subjects in that group that have always been covered. None of the differences, however, reaches statistical significance. But, reassuringly, as knowledge increases the situation is reversed, with the less covered subjects wanting more government intervention.

Second, control group subjects who have experienced long periods of time without insurance whatsoever, on the other hand, always preferred more government intervention in the provision
of healthcare services than nearly always insured subjects, irrespective of knowledge. The effect of Coverage, as indicated by the steepness of the slope, is strongest among the least knowledgeable (score of 0 on knowledge). For example, subjects in that group that have not had any healthcare coverage for the past five years preferred a universal healthcare system (at 6.94) as compared to the “always insured” subjects who preferred less intervention (at 4.94). Note that this difference is statistically significant at .05 (one-tailed). As knowledge increases, however, the differences dissipate, up to a point where they are not statistically significant anymore.

When comparing directly the attitudes of the control and ST-FLAG subjects with respect to Coverage’s effect, we do not find much statistically significant differences. The most important ones concern those subjects who scored lowest (0) on the knowledge scale. Here, the control group subjects who have been without health insurance for more than one year (points 2, 3, and 4) all preferred more government intervention than similar subjects in ST-FLAG. The only other statistically significant difference is found among the most (5) knowledgeable subjects. This time, it is those subjects induced to think more carefully and that have been without health insurance for less than a year (point 1) that preferred more government intervention then similar control group subjects.

In sum, the results for Coverage suggest that inducing thought among the least knowledgeable may have actually led the latter to express lower ‘quality’ or less authentic attitudes, a result more similar to those reported in studies by Wilson and his colleagues about the disruptive effects of thought on attitudes (e.g. Wilson et al. 1984; Wilson, Dunn and Lisle 1989; Wilson, Kraft and Dunn 1989). But then, again, thought benefited the more knowledgeable subjects as predicted by the theory. Thus these results are in line with those reported for Income in that the least knowledgeable too did not express authentic attitudes but the more knowledgeable subjects did.

**Discussion**

There is no disagreement anymore about the generalized low level of political knowledge among mass publics. The latest work in the area, including this essay, has focused instead on the consequences for electoral democracy. The results from the survey-experiments conducted in Brazil and the U.S. show that thought, alone or in combination with knowledge, helps people develop authentic attitudes, that is, attitudes reflective of one’s underlying interests, values, and political predispositions.
The results from the survey-experiment in Brazil suggest that thought, alone or in addition to thought, helped people express attitudes on government spending that were more reflective of their underlying interests and predispositions. The findings for attitudes on healthcare in the U.S. are also particularly telling. Indeed, it has been shown that when induced to think more carefully, wealthy people tend, on average, to favor less government intervention in the provision of healthcare services than less wealthy ones, presumably because the former would have to contribute more than the share of benefits that they would receive from greater federal government intervention in healthcare while low income people would benefit more than their contribution. Note that the same was also found for subjects who were provided with healthcare-related information. They too expressed authentic attitudes. But, again, increased thought did not benefit everyone equally. The effects were strongest among those that knew already a great deal about healthcare. The effect of thought with respect to one’s present and past healthcare coverage was weaker, especially among the least knowledgeable, but also showed consistent findings among the more knowledgeable.

In addition, the closer analysis of the U.S. case, has also shown that simply being knowledgeable may not be enough to express authentic attitudes, at least in a conventional survey environment where opportunities for thinking are rather limited. This is an indication that knowledge is most beneficial when one actually makes the effort to think more carefully about what one already knows, most likely because this cognitive effort increases the considerations retrieved but also improves their evaluation before integrating them into attitudes.

Together, these results are important not only because the ability to express attitudes reflective of underlying interests is a valid criterion for judging citizen competence (Kuklinski and Quirk 2001; Price and Neijens 1997), but also because public opinion plays a significant role in shaping public policies (Geer 1996; Quirk and Hinchliffe 1998; Stimson, MacKuen and Erickson 1995).

But, unfortunately, thought does not appear to help those that need it most. Indeed, while thought helps the moderately and highly knowledgeable to develop more authentic attitudes it has essentially no effect on the least knowledgeable who constitute, after all, the largest segment of the electorate. Thought plays an important role, but it does not appear to be a palliative for ill-informed mass publics.

Admittedly, in practice, the measurement of thought is essentially impossible but tractable. There are notable occasions like elections or major national and international events (e.g. September 11th, the Iraq War), for example, when people do give increased attention and thought to politics.
And, it is also in these times that we would hope citizens to act in the best of their capacities because these are periods when interests, values, and predispositions are most threatened.

Methodologically, this project also leaves some questions unanswered. For example, the current experimental design does not allow to evaluate the persistence of the effects of thought herein uncovered. It would be needed to conduct similar thought manipulations and measure their effects on attitude authenticity at different intervals of time (e.g. after 1 minute, 15 minutes, 1 hour, 1 day, 1 week, etc.). Similarly, this design does not allow to examine if the effects of thought increase the longer subjects spend thinking or if they reach a cap or even decrease after a certain period of time. The results on attitude polarization by the social psychologists Abraham Tesser and Mary Charles Conlee suggest that the effects of thought increase with the amount of time subjects spend thinking (Tesser and Conlee 1975). But what about the effects of time spent thinking on attitude authenticity? These are important questions for future research.

But, finally, despite these shortcomings, the results presented in this essay are important because they uncover an important role for thought, alone or in combination with information, on attitudes. More specifically, the results have showed that thought, similarly to providing information, helps people express authentic attitudes, especially among those that are already knowledgeable.

Appendix: Attitude Questions

1. Question on general government spending, Brazil

1.1 Simple version:
Some people think governments (federal, state, and municipal) should reduce taxes, even if it means providing fewer services. Other people feel it is important for the government to provide more services even if it means an increase in taxes. Of course, other people think nothing should be changed in either services or taxes. Do you think governments should increase, decrease, or make no change in either spending or taxes?

Follow-up question for those subjects who said increase or decrease:
Do you think taxes and services should increase/decrease a little, somewhat or a lot?

1.2 Stop-and-think version:
Many people spend time thinking about the various aspects of tough or serious choices before making a decision. Here, we are interested in your views on government spending, which are very important to us. Thus we’d like to ask you to spend at least thirty seconds thinking about the question. I will indicate when the thirty seconds have elapsed.

Some people think governments (federal, state, and municipal) should reduce taxes, even if it means providing fewer services. Other people feel it is important for the government to provide more services even if it means an increase in taxes. Of course, other people think nothing should be changed in either services or taxes. Do you think governments should increase, decrease, or make no change in either spending or taxes?

Please do not respond before the 30 seconds have elapsed. I will tell you when the 30 seconds have elapsed.

After the 30 seconds have elapsed:
Like I already said, some people think governments (federal, state, and municipal) should increase taxes and services, others that they should reduce taxes and services, and still others that nothing should be changed in either services or taxes. What about you? Do you think governments should increase, decrease, or make no change in either spending or taxes?  
Follow-up question for those subjects who said increase or decrease:
Do you think taxes and services should increase/decrease a little, somewhat or a lot?

2. Question on healthcare, US
2.1 Simple version:
There is much concern about the rapid rise in medical and hospital costs. Some people feel there should be a federal government insurance plan which should cover all medical and hospital expenses for everyone regardless of age, income, and race. Suppose these people are at one end of a seven-point scale, at point 1. Others feel that all medical expenses should be paid by individuals, and through private insurance plans or other company paid plans. Suppose these people are at the other end of the scale, at point 7. People who are exactly midway between are at point 4. Of course, other people have opinions at points 2 or 3 or 5 or 6. Where would you place yourself on this scale, or don’t you have an opinion about this? (Seven-point scale shown to subjects)

2.2 Stop-and-think version:
Many people spend time thinking about the various aspects of tough or serious choices before making a decision. Here, we are interested in your views on the role played by the federal government in healthcare, which are very important to us. We’d like to ask you to spend at least 30 seconds thinking about the question before you answer it. A clock on the upper right side of the screen will indicate when the 30 seconds have elapsed. There is much concern about the rapid rise in medical and hospital costs. Some people feel there should be a federal government insurance plan which should cover all medical and hospital expenses for everyone regardless of age, income, and race. Suppose these people are at one end of a seven-point scale, at point 1. Others feel that all medical expenses should be paid by individuals, and through private insurance plans or other company paid plans. Suppose these people are at the other end of the scale, at point 7. People who are exactly midway between are at point 4. Of course, other people have opinions at points 2 or 3 or 5 or 6. Where would you place yourself on this scale, or don’t you have an opinion about this? (Seven-point scale shown to subjects)

Again, this question is very important to us. Please take the next 30 seconds or so to think carefully about what you think the federal government role in healthcare should be and how what it does or doesn’t do may affect your interests, those of your family, or those of the country as a whole.

References


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**Scenarios (expected effect)**

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<tr>
<td>2. From not confident to confident (+)</td>
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<tr>
<td>3. From poor and confident to rich and less confident (-)</td>
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*Indicates statistically significant coefficients at .05 (two-tailed) or higher.
†Indicates treatment group coefficients that are statistically different from those in the control group at .05 (one-tailed) or higher.
‡Indicates statistically significant changes in attitude at .05 (one-tailed), as indicated by Clarify.
Table 2: Explaining Attitudes on Healthcare, U.S.

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Scenarios (expected effect)      | Change in attitude
1. From poor to rich (-)          | -0.19 -1.13‡ -1.58‡
2. From always insured to never insured (+) | 1.57‡ 1.26‡ 0.22
3. From poor and frequently uninsured to rich and always insured (+) | -0.92‡ -1.28‡ -0.81‡

Note: FACTS is excluded from the analysis in Model 2 because knowledge of healthcare was not measured for subjects in that group.
*Indicates statistically significant coefficients at .05 (two-tailed) or higher.
†Indicates treatment group coefficients that are statistically different from those in the control group at .05 (one-tailed) or higher.
‡Indicates statistically significant changes in attitude at .05 (one-tailed), as indicated by Clarify.
Figure 1: Distribution of Attitudes by Study

Panel A: Government Spending, Brazil

Panel B: Healthcare, US
Figure 2: Attitudes on Healthcare by Income, Knowledge, and Treatment Groups (U.S.)

Graphs by Knowledge
Figure 3: Attitudes on Healthcare by Insurance, Knowledge, and Treatment Groups (U.S.)