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WHO TOES THE PARTY LINE? Cues, Values, and Individual Differences

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This article explores individual differences in citizens' reliance on cues and values in political thinking. It uses experimental evidence to identify which citizens are likely to engage in heuristic processing and which citizens are likely to engage in systematic processing in developing opinions about a novel issue. The evidence suggests that political awareness crisply distinguishes between heuristic and systematic processors. The less politically aware rely on party cues and not on an issue-relevant value. As political awareness increases, reliance on party cues drops and reliance on an issue-relevant value rises. Need for cognition fails to yield clear results. The results suggest two routes to opinion formation: heuristic processing and systematic processing. Political awareness, not need for cognition, predicts which route citizens will take.

Key words: public opinion; political psychology; political awareness; party cues; dual-process models; need for cognition.

How do citizens, as "cognitive misers" in the political world (Bargh, 1999; Downs, 1957; Lippmann, 1922/1997), formulate opinions given their paltry stores of knowledge? One answer to this question comes from parties. Contemporary research has identified several ways in which parties influence citizens' political choices and information-processing. In *The American Voter*, Campbell, Converse, Miller, and Stokes (1960/1980) characterize the party as "a supplier of cues by which the individual may evaluate the elements of politics" (p. 128). Information about candidates' party affiliations or party ties can shape opinion-holding on candidates (Mondak, 1993a); the direction of citizens' preferences (Jacoby, 1988; Mondak, 1993b; Squire and Smith, 1988); and perceptions of candidates' issue positions (Conover and Feldman, 1989; Feldman and Conover, 1983). Popkin (1994), for example,

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argues that voters use shortcuts such as party affiliation and personal information about the candidates to reduce their uncertainty about candidates; he calls this mode of reasoning "low-information rationality, or gut reasoning" (p. 212).

Another body of research identifies the importance of values in driving opinion formation. Citizens are often exposed to arguments in political discourse that can resonate with their underlying values. Empirical research has found that values often underlie issue preferences and that how an issue is framed may activate some values over others. Further, political discourse can heighten the relative importance of some values over others (Feldman, 1988, 2003; Feldman and Zaller, 1992; Kinder, 1983; Kinder and Sanders, 1996; McClosky and Zaller, 1984).

These lines of research identify instances in which citizens rely on party cues and instances in which citizens rely on values in evaluating candidates and formulating opinions on policies. The present article contributes to the literature by specifying *which* citizens are more or less likely to rely on party cues and *which* citizens are more or less likely to rely on issue-relevant values in opinion formation. The article compares the utility of two individual difference measures in predicting cue-based versus value-based opinion formation: need for cognition, a leading measure in social psychology, and political awareness, a leading measure in political science. The results show that political awareness, not need for cognition, crisply distinguishes between cue-based and value-based opinion formation.

THEORETICAL FRAMEWORK

Political theorists dating back to Plato have worried about the ways in which citizens think about politics. Normative approaches to political judgment view thinking that is careful, reflective, and open-minded as more desirable than political thinking that is impulsive, stereotypical, and effortless (Dewey, 1927/1954, 1933/1997; Mill, 1859/1998). This more systematic, reflective mode of thinking has both instrumental and intrinsic value for democratic citizens.

Dual-process theories in social psychology provide empirical guidance for specifying the different ways in which citizens think about politics. These theories propose that individuals perceive the world through two different processes: one less effortful and one more effortful (Bargh, 1999; Fazio, 1999; Giner-Sorolla, 1999). Eagly and Chaiken's heuristic systematic model (HSM) characterizes the less effortful mode as *heuristic processing*, during which the perceiver employs simple rules in making social judgments (Chen and Chaiken, 1999). Petty and Cacioppo's elaboration likelihood model (ELM) calls this route *peripheral processing*, during which the perceiver

heeds elements of the communication that are outside the core content of the message (i.e., source credibility and message length) (Petty and Wegener, 1999). In the political world, heuristic processing occurs when individuals lean on non issue-relevant features, such as source cues (i.e., party cues and celebrity endorsements) when formulating opinions.[1]

The second mode of processing requires more cognitive effort. In the ELM, this second mode is called *central route processing*, and it concerns "relatively extensive and effortful information processing activity" (Petty and Wegener, 1999, p. 42), where perceivers evaluate the content of the messages they receive. Similarly, in the HSM, *systematic processing* consists of "a relatively analytic and comprehensive treatment of judgment-relevant information" (Chen and Chaiken, 1999, p. 74). Here, perceivers look beyond easily-processed information (such as source cues) and take the cognitive effort to interpret harder-to-process information, such as arguments that resonate with issue-relevant values.

Here, I focus on a source cue that is fundamental to the American political system: the party cue. Dual-process theories provide us with a framework for understanding susceptibility to party cue effects: that toeing the party line is, in part, a manifestation of heuristic processing in politics. Isolating the impact of party cues *per se* can best be done through experimentation, where party cues themselves can be manipulated. By manipulating party cues, we eliminate the possibility of partisanship proxying something else. In the political world, citizens may side with political parties simply because parties are a credible source (Lupia and McCubbins, 1998) or because parties advocate policies that resonate with citizens' values. This study's experimental design manipulates the side that each party adopts, which then allows us to identify whether a newly-formed opinion derives from the party cue or something else.

In political life, citizens are exposed not only to cues but also to arguments. However, studies that find source cue effects often fail to include arguments as well as cues.[2] Grice's (1975) rules of conversation specify that speakers will say things that are relevant to the conversation at hand – and not say things that are irrelevant. By this reasoning, if an interviewer states that Celebrity X prefers position A, then by conversational rules of relevance, the respondent would be "expected" to take this information into account (see Clark and Schober, 1992; Suchman and Jordan, 1990; Sudman, Bradburn, and Schwarz, 1996 for research on conversational conventions and the survey response). Bolstering this line of reasoning, Mondak (1993b) finds that the longer the question, the less powerful a source cue becomes. Whether source cues would hold sway in the *presence* of issue-relevant arguments is a different question, and one that more faithfully represents discourse in the political world. This research addresses this limitation by presenting individuals with cues and arguments on both sides of an issue

and by posing the question of *which* citizens will rely on cues or values in forming issue opinions.

WHICH CITIZENS?

Dual-process theories have served as a framework for understanding political information-processing in several existing studies (see for example, Mondak, 1993a, b; Rahn, 1993). This article asks not only *whether* dual-process theories are appropriate for modeling political cognition, but *who* engages in which process. Prior work has inquired to a limited extent into this question. Zaller's (1992) model, for example, predicts that the politically aware will respond to messages that resonate with their predispositions – but both party identification *and* values qualify as predispositions, so no distinction is made between easily processed cues and more difficult to process arguments. Mondak (1993a), for example, explores the impact of "need for cognitive efficiency" in determining reliance on source cues, where this "need for cognitive efficiency" is measured by respondents' level of education. The present study compares two individual difference measures: one that is prominent in social psychology (need for cognition) and another that is prominent in political science (political awareness).

Need for cognition is a key individual difference measure examined in social psychology studies (Bizer et al., 2000; Cacioppo and Petty, 1982; Cacioppo, Petty, Feinstein, and Jarvis, 1996). Cacioppo and Petty (1982) define need for cognition as "stable individual differences in people's tendency to engage in and enjoy thinking" (p. 130). In a 1996 literature review, Cacioppo et al. (1996) note that need for cognition has been studied in a wide variety of disciplines, "in fields ranging from social, personality, developmental, and cognitive psychology to behavioral medicine, education, journalism, marketing, and law" (p. 198). Accordingly, need for cognition ought to predict heuristic versus systematic processing in politics. Those low in need for cognition should be more easily swayed by party cues than those high in need for cognition, who should be swayed by issue-relevant information.

Despite the abundance of studies in the psychological literature on the need for cognition construct, it has rarely appeared in political science (for exceptions see Bizer et al., 2000; Mutz, 1998). As a practical matter, this neglect could be ascribed to a lack of instrumentation, since only recently has need for cognition appeared on large-scale surveys such as the National Election Studies (NES). This pattern is changing, as instrumentation becomes more readily available and as political scientists have begun exploring how ostensibly *nonpolitical* individual differences predict political cognition (Bizer et al., 2000; Druckman and Nelson, 2003).

As a theoretical matter, however, effortful political cognition might be better predicted by a *domain-specific* measure of propensity to think effortfully about politics, rather than a more general, nonpolitical measure. This possibility has heretofore been untested. Political awareness might constitute one such domain-specific measure of propensity to think effortfully about politics. Existing work on political awareness has interpreted what people know about politics in several ways. It affects the cognitive representation of considerations (Lusk and Judd, 1988; McGraw, Pinney, and Neumann, 1991), attention to and reception of messages (Converse, 1962, 1990; Zaller, 1990, 1992), and ability to counter-argue communications (Krosnick, 1990; Zaller, 1990, 1992). Here, the proposition is that the politically aware are not just citizens who happen to know more about politics, but they are citizens who are effortful processors of politics. As such, the less politically aware should be more likely to engage in cue-based processing, and the more politically aware should be more likely to engage in issue-relevant processing, as detected by greater reliance on an issue-relevant value in opinion formation.

DATA AND MEASURES

Two pen-and-paper experiments were administered in the Summer of 2001 and the Summer and Fall of 2002 to 309 students at a large Midwestern university.[3] Subjects ranged in age from 18 to 29; the average age was 20 years. The sample was 53% female, and 68% white. Twenty-seven percent of the sample identified as Republican, 20% as pure independents or apolitical, and 53% as Democratic.

Subjects first responded to a battery of news media questions, then read three articles, ostensibly taken from local newspapers. The second news story focused on the novel issue of food irradiation, a relatively low-information, low-salience issue on which the parties have not taken clear stands.[4] Following the news stories, subjects responded to questions regarding each of the articles as well as a more extensive questionnaire including measures of partisanship, need for cognition, and political awareness.

The target article provided background on food irradiation and then stated that the state legislature was about to debate a proposal on whether to ban the technology. In the control group, the article referred to "proponents" and "opponents" of the ban on food irradiation, without mentioning political parties. In the second condition, the article states that Democrats have proposed a ban and Republicans oppose it, and in the third condition, the positions of the parties are reversed. The article provides arguments for and against a ban on food irradiation, and these arguments are presented identically across the three conditions. The only variations across the target

article are in whether and on what side the political parties are placed on the issue. Figure 1 presents one version of the article. To impose a stricter test on the impact of partisan cues, the target article provides *both* the cues *and* arguments on each side of the issue.

RESULTS

The first analysis examines the relative importance of party cues and an issue-relevant value on opinion formation. If parties are a salient cue, then a

Lawmakers consider ban on food irradiation

LANSING-- Last February, the federal government approved – but did not mandate - the irradiation of beef, pork and lamb as a possible means of attacking the problem of severe food poisoning.

Irradiation involves exposing food to brief doses of gamma rays or electron rays. These rays kill micro-organisms, including potentially deadly bacteria like E. coli, salmonella, and listeria.

Yet irradation is proving to be a controversial solution to the food poisoning problem, and responses at the state level have been mixed. Grocers in Minnesota, Florida, and Kansas are currently selling irradiated food. In contrast, the state of New Jersey has established a

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Food irradiation debate comes to Michigan State Legislature

five-year ban on the sale and production of irradiated food, and the same five-year ban is under consideration in New York and Michigan.

Democrats Propose Ban

Democrats in the Michigan House of Representatives note that the federal Food and Drug Administration has not yet determined whether there are any long-term health effects of eating irradiated food. Most FDA scientists support the five-year ban.

Democrats claim that irradiation changes the taste, odor, color, and texture of food. They also believe irradiation could encourage careless food handling in the food industry, since workers will know that poor hygiene could be disguised by eventual irradiation.

Democratic lawmakers also point to environmental concerns. More irradiation could mean radioactive leaks, increased worker contamination and possible accidents involved in moving nuclear material.

These legislators say food irradiation would cause more problems than it could solve. Instead of rushing to irradiate, Democrats argue that the state should prevent contamination in the first place. They promote stronger regulations on sanitation and hygiene in feedlots and processing plants, and claim that Republicans are succumbing to the influence of agricultural corporations and the nuclear waste industry.

As one Democratic proponent of the five-year ban noted: "Irradiation is a deal with the devil. Consumers have a right to a safe food supply, unzapped by nuclear radiation."

Republicans Oppose Ban

Republicans believe Michigan should allow food irradiation to occur immediately, and they strongly oppose the five-year ban. They say that Democrats are trying to scare the public with wild myths about irradiation, and that enough research has been done to prove the technique is safe.

Republicans note that irradiation has been used for decades on a number of medical and consumer goods, including contact lenses, medical supplies, cosmetics and milk cartons. Hospitals serve irradiated food to burn victims and chemotherapy patients. And astronauts have been eating irradiated food since the 1960s.

Republicans disagree with claims that irradiation alters the food value, taste, texture or color. Canning, they say, alters food more than irradiation.

Though opponents of the ban concede that there are some environmental risks to allowing irradiation of food, they note that in the fifty years the technique has been used on medical supplies and other foods, not a single nuclear accident has been blamed on irradiation.

Republicans deny accusations that they see irradiation as the solution for every food safety problem. Instead, they say, irradiation will complement, not replace, proper food handling practices.

Finally, Republicans also note that consumers should have the right to choose which foods they want.

"Irradiation can do for beef what pasteurization did for milk. Food irradiation will save lives," said one prominent Republican.

FIG. 1. Stimulus article: "Democrats Propose Ban".

party's endorsement of the ban should effectively persuade in-partisans and repulse out-partisans.

The issue-relevant value to be tested is based on the particular issue under consideration: food irradiation. This particular issue was selected because it is a low-salience issue that does not immediately implicate a partisan stance. The issue-relevant value refers to general orientations towards scientific innovation. That is, if a subject were to formulate an opinion on food irradiation based on his or her values, the most immediately relevant value would seem to relate directly to the content of the issue at hand: scientific innovation, rather than, say, egalitarianism or moral traditionalism. To the extent that a subject's attitude derives from an issue-relevant value (rather than the party cue manipulation), then the subject's trust in scientific innovation should predict her attitude towards the proposed ban on food irradiation. I measure trust in scientific innovation with a series of questions that originally appeared in the General Social Survey. Respondents were asked to report whether they strongly agreed, agreed, neither agreed nor disagreed, disagreed, or strongly disagreed with the following four statements:

(1) Science will solve our social problems like crime and mental illness.
(2) One trouble with science is that it makes our way of life change too fast.
(3) Scientists always seem to be prying into things that they really ought to stay out of.
(4) One of the bad effects of science is that it breaks down people's ideas of right and wrong.[5]

The greater the subject's trust in scientific innovation, the more the subject should object to a ban on the new technology of food irradiation, if indeed the subject relies on this issue-relevant value in forming an opinion on the proposed ban. Trust in scientific innovation and party identification are barely related (r=0.04), further allowing us to disentangle party cues from an issue-relevant value.

The dependent variable is each subject's opinion on whether food irradiation should be banned. Subjects were asked the following question: "Do you support or oppose a ban on food irradiation?" The five response categories ranged from strong support for a ban on food irradiation to strong opposition to a ban on food irradiation.[6,7]

To investigate the effects of party cues and this issue-relevant value on opinion formation, I estimate support for a ban on food irradiation as a function of receiving in-partisan cues, out-partisan cues, or no party cues, and trust in scientific innovation.

The model is as follows:

$$\begin{aligned} \textit{Support for Ban} = {} & \beta_0 + \beta_1 \textit{In-Party Endorsement} \\ & + \beta_2 \textit{Out-Party Endorsement} \\ & + \beta_3 \textit{Trust in Scientific Innovation}^{8} \end{aligned}$$

If an in-party endorsement persuades partisans, then β_1 should be positive and significant. If an out-party endorsement repulses partisans, then β_2 should be negative and significant. And if trust in scientific innovation persuades subjects, then β_3 should be negative and significant.

The ordered probit results appear in Table 1. They show that party cues persuade in-partisans and repulse out-partisans. The coefficient on *In-Party Endorsement* indicates that when the in-party proposes a ban, in-partisans are significantly more likely to support the ban compared with their counterparts in the no party cue condition. The significant coefficient on *Out-Party Endorsement* likewise shows that when the out-party proposes a ban, partisans are significantly less likely to support that ban compared with their counterparts in the no party cues condition. The effects of in-party and out-party endorsements are both statistically significant and symmetric in magnitude. Finally, trust in scientific innovation has a strong, negative relationship with support for the ban. The greater the trust in scientific innovation, the lower the support for the ban.

TABLE 1. Predicting Reliance on Party Cues and Trust in Science
Ordered Probit Coefficients with Standard Errors in Parentheses

	Dependent Variable: Support for Ban	
	Coefficient	(s.e.)
In-Party Endorsement	0.394*	(0.201)
Out-Party Endorsement	−0.453**	(0.186)
Trust in Scientific Innovation	−0.756*	(0.396)
τ_1	−2.115	(0.279)
τ_2	−1.082	(0.252)
τ_3	−0.269	(0.246)
τ_4	0.679	(0.252)
LnL	−357.13	
$p>\chi^2$	0.000	
N	247	

Support for Ban: 0 (strongly oppose ban) to 1 (strongly support ban).
In-party endorsement: 0 (out-party endorses ban or no party cues); 0.5 (leaning partisan, in-party endorses ban); 1 (weak or strong partisan, in-party endorses ban).
Out-party endorsement: 0 (in-party endorses ban or no party cues); 0.5 (leaning partisan, out-party endorses ban); 1 (weak or strong partisan, out-party endorses ban).
Trust in scientific innovation: 0 (low) to 1 (high).
*$p<0.05$, one-tailed; **$p<0.01$, one-tailed.

The analysis shows that both party cues and an issue-relevant value influence opinion. Past literature has shown that citizens are apt to rely on party cues when such cues are presented to them (Druckman, 2000; Squire and Smith, 1988), and in the case of a novel issue such as food irradiation, it is perhaps not surprising that party cues figure so prominently into opinions on the issue. However, the central purpose here is to identify *for whom* cues or values matter. Can individual differences in political awareness or need for cognition help us identify *which* citizens rely on party cues or an issue-relevant value?

This analysis examines two individual difference measures: need for cognition and political awareness. Need for cognition is measured with subjects' level of agreement or disagreement with the two statements that have appeared on the NES 1998 Pilot and the NES 2000 Study:

(1) I like to have the responsibility of handling a situation that requires a lot of thinking.
(2) I would prefer complex to simple problems.[9]

Political awareness is measured with an additive scale consisting of responses to four questions about the offices held by political figures.[10]

To investigate whether reliance on party cues and trust in scientific innovation depends on a predisposition towards effortful thinking, I introduce an interaction term to capture the extent to which the effects of party cues and trust in scientific innovation vary by need for cognition and then by political awareness. I impose additional constraints on the model, given that I am introducing continuous interaction terms into the model, and there are less than 250 observations. Since the results so far indicate symmetric party cue effects (that is, similarly sized persuasion and repulsion effects), I create a variable to represent party cues. It ranges from −1 (strong or weak partisan exposed to out-partisan endorsement) to 0 (no party cues) to 1 (strong or weak partisan exposed to in-partisan endorsement). The suppressed reference group thus consists of partisans in the no party cue condition. I estimate the following model:

$$\begin{aligned} \textit{Support for Ban} = {} & \beta_0 + \beta_1 \textit{Party Cue} \\ & + \beta_2 \textit{Party Cue} \times \textit{Individual Difference} \\ & + \beta_3 \textit{Trust in Scientific Innovation} \\ & + \beta_4 \textit{Trust in Scientific Innovation} \\ & \times \textit{ Individual Difference} \\ & + \beta_5 \textit{Individual Difference} \end{aligned}$$

In this equation, $\beta_1$represents the effect of party cues when the individual difference measure equals zero. If low-effort processors are indeed persuaded by in-party endorsements and repulsed by out-party endorsements,

then β_1 should be significant and positive. If high-effort processors lean less on party cues than their low-effort counterparts, then the coefficient on β_2 should be negative, suggesting that the impact of party cues is attenuated as the score on the individual difference measure increases. Taking both β_1 and β_2 into consideration, the effect of party cues among subjects scoring highest on the individual difference measure should be indistinguishable from zero. The marginal effect of in-party cues is thus expected to vary across the range of the individual difference measure, with the expectation that party cues will be statistically significant and distinguishable from zero among the least effortful processors and will be indistinguishable from zero for the most effortful processors.

If low-effort processors neglect the issue-relevant value, then we would expect the coefficient on β_3 to be indistinguishable from zero. If high-effort processors lean more on this issue-relevant value as political awareness or need for cognition increases, then β_4 should be negative and significant, such that those who are high in trust in scientific innovation are less supportive of a ban on food irradiation.

TABLE 2. Predicting Reliance on Party Cues and Trust in Science with Interactions
Ordered Probit Coefficients with Standard Errors in Parentheses

	Dependent Variable: Support for Ban			
	Need for Cognition		Political Awareness	
	Coefficient	(s.e.)	Coefficient	(s.e.)
Party Cue	0.255	(0.300)	0.582**	(0.144)
Party Cue* Individual Difference	0.262	(0.427)	−0.550*	(0.307)
Trust in Scientific Innovation	0.281	(1.208)	0.304	(0.563)
Trust in Scientific Innovation * Individual Difference	−1.536	(1.742)	−3.640**	(1.220)
Individual Difference	0.573	(1.030)	2.234**	(0.736)
$\tau 1$	−1.726	(0.707)	−1.517	(0.340)
$\tau 2$	−0.689	(0.701)	−0.450	(0.325)
$\tau 3$	0.133	(0.700)	0.382	(0.323)
$\tau 4$	1.083	(0.701)	1.353	(0.331)
LnL	−354.29		−351.08	
$p>\chi 2$	0.000		0.000	
N	246		247	

Support for Ban: 0 (strongly oppose ban) to 1 (strongly support ban).
Party Cue: −1 (strong or weak partisan, out-party endorses ban); −0.5 (leaning partisan, out-party endorses ban); 0 (no party cue); +0.5 (leaning partisan, in-party endorses ban); +1 (strong or weak partisan, in-party endorses ban).
Trust in scientific innovation: 0 (low) to 1 (high).
Need for cognition and political awareness: 0 (low) to 1 (high).
*$p<0.05$, one-tailed; **$p<0.01$, one-tailed.

The ordered probit results appear in Table 2. The first column of results displays the analysis with the need for cognition interactions.[11] Although the coefficient on *Party Cue* is positive, it is not significant and is fairly small in magnitude. The coefficient on *Trust in Scientific Innovation* * *Need for Cognition* is large and negative but fails to reach statistical significance. Nothing in the model attains statistical significance; there is an overwhelming degree of uncertainty in the results. Need for cognition, in short, does not help us distinguish between those who rely on party cues and those who rely on an issue-relevant value in formulating opinions in this case.

The results for political awareness appear in the next set of columns of Table 2, and they are markedly different. In contrast with the results using need for cognition, we see that the coefficient on *Party Cue* is significant and positive. This tells us that in-party endorsements significantly persuade the less politically aware to support a ban on food irradiation and out-party endorsements significantly repulse the less politically aware from supporting a ban on food irradiation. Party cues strongly influence the views of the less politically aware.

The expectation is that the impact of party cues on the politically aware should be indistinguishable from zero; this means that the coefficient on the interaction term should be negative. And it is: the coefficient on *Party Cue* * *Political Awareness* is negative, suggesting that as political awareness increases, the impact of the party cue is attenuated. Since the null hypothesis is that β_2 should be negative, a one-tailed hypothesis is appropriate, and the coefficient on the interaction term is statistically distinguishable from zero at one-tailed $p<0.05$. That the interaction term is statistically significant is the strongest test of the differential impact of party cues as political awareness changes. The effect of party cues is strong and positive for the least sophisticated, the effect of party cues is indistinguishable from zero for the most sophisticated, and the effect of party cues among the least aware is statistically distinguishable from the effect of party cues among the most aware.

The coefficients in Table 2 also show that when awareness is zero, the effect of trust in scientific innovation is indistinguishable from zero (as evidenced by the statistically insignificant coefficient on the trust in scientific innovation variable). As awareness rises, trust in scientific innovation takes on a statistically significant effect on opinion. The politically aware rely on trust in scientific innovation, an issue-relevant value, when forming an opinion on the ban.

Figure 2 highlights the impact of party cues and trust in scientific innovation among the least and most politically aware. These graphs provide predicted probabilities of supporting a ban on food irradiation, along with 90% confidence intervals. The impact of party cues appears in the difference in predicted support for a ban, between those who are in-partisans and those

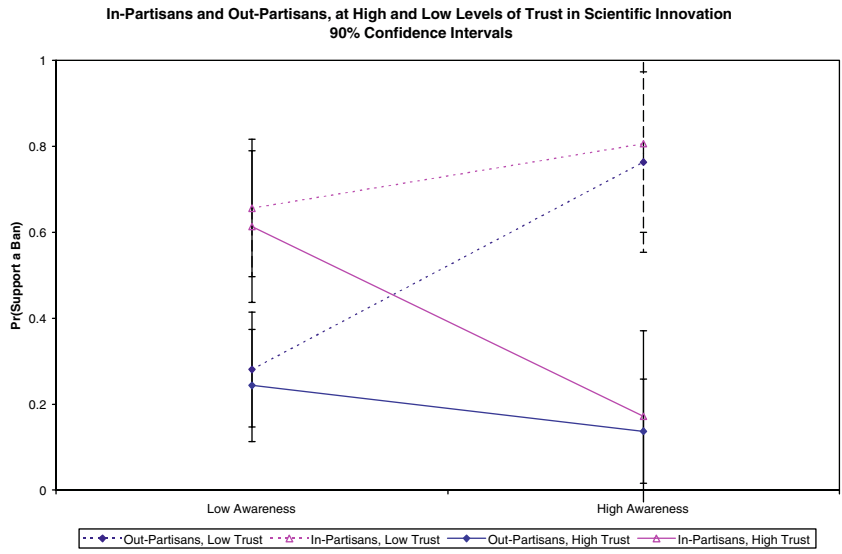

FIG. 2. Predicted support for a ban, by party cues, political awareness and trust in scientific innovation.

who are out-partisans. Among the least politically aware, we see that party cues clearly distinguish in-partisans from out-partisans. For example, at low levels of trust in scientific innovation, the predicted probability of supporting a ban, given in-party endorsement is 0.61; in the presence of out-party endorsement, even with low levels of trust in scientific innovation, this predicted probability plummets to 0.19. The 90% confidence intervals around these predicted probabilities do not overlap, thus visually emphasizing the statistical significance of party cues among the least politically aware. We also see that trust in scientific innovation essentially makes no difference among the less politically aware.

As political awareness increases, two shifts occur: party cues become less important and trust in scientific innovation becomes more important. Among the more politically aware, we see that party endorsements do not help us distinguish in-partisans from out-partisans. In-partisans and out-partisans are utterly indistinguishable from each other, as shown by the substantial overlap in the 90% confidence intervals. Thus, the effect of party endorsements is indistinguishable from zero among these more effortful processors, which is consistent with the expectations identified above. What does matter among the most politically aware is trust in scientific innovation, as shown by the sharp polarization across the solid and dotted lines. The probability of supporting a ban is dramatically different across levels of trust in scientific innovation; those with high levels of trust in scientific

innovation are sharply against the proposed ban. Their predicted probabilities of supporting a ban are 0.17 and 0.19, in the presence of out-partisan and in-partisan endorsements, respectively. In contrast, those with low levels of trust in scientific innovation have predicted probabilities of 0.79 and 0.81, in the presence of out-partisan and in-partisan endorsements, respectively.

These results show that the impact of party cues changes as political awareness rises. Its impact is positive and statistically distinguishable from zero among the least politically aware, and its impact is indistinguishable from zero among the most politically aware. Concurrently, the impact of an issue-relevant value changes as political awareness rises. Its impact is indistinguishable from zero among the least politically aware and is highly significant among the most politically aware. These results appear in models using political awareness, not need for cognition, thus suggesting that political awareness, not need for cognition, helps distinguish between more and less effortful political thinkers.

CONCLUSIONS

The analyses speak to the importance of party cues and an issue-relevant value in the formation of opinion on a novel issue. The first analysis highlights the importance of party cues and an issue-relevant value in the formation of opinion on a novel issue, even when a stricter test is used, by providing subjects with both cues *and* arguments. "On average," *both* matter: party cues *and* an issue-relevant value significantly influence opinion formation.

The subsequent analysis examines *which* citizens are more swayed by party cues or an issue-relevant value. The results show that need for cognition does not effectively pull apart systematic from heuristic processors, at least in this particular case. Perhaps need for cognition simply does not capture effortful processing in the *political world*; the results from these analyses should raise some suspicions about how well the self-reported propensity for thinking, in general, can help us understand how people think about politics.

Political awareness, in contrast, is much more useful in identifying more and less effortful processing. This politically relevant individual difference crisply distinguishes between heuristic and systematic processing in the political world. The politically aware are less likely to be swayed by "easy cues" and more likely to rely on an issue-relevant value in the formation of opinion on this novel issue.

A criticism of the results reported herein might focus on the use of a convenience sample of students. The standard reasoning is that student

samples are atypical of the general population and any results are limited in their generalizability to the rest of the public. Sears (1986), in his overview of psychological literature, worries that over-reliance on student samples can lead to biased perceptions of human behavior. In this case, the concerned researcher intent on identifying limits to external generalizability should take Sears' first piece of advice seriously, which is first of all to identify "the ways in which college students in the laboratory differ from the general population in everyday life" (p. 520). More precisely, one must establish that the student sample is atypical from the general population *in ways that are relevant to the study in question*.

With reference to this specific study, the critic might worry that the distribution of political awareness is substantially different from the distribution of political awareness in the general population (i.e., students might be more knowledgeable). Second, the critic might worry that the distribution of need for cognition among the subjects is substantially different from the distribution of need for cognition in the general population (i.e., students might be higher in need for cognition). Comparisons with nationally representative data from the NES (see footnotes 9 and 10) show that neither of these conditions is met. The distributions of the individual difference measures are similar between the subject pool and the national sample; even the correlations between the individual difference measures are similar.

As a third source of concern, the critic might worry that these measures mean different things across the student sample and general population. True, some specific measures of political awareness are more readily accessible in memory to college students than the general population. However, the measures used in the present study rely not on longstanding knowledge of the rules of the game (which are learned in high school civics, history, and social science classes and that might be more accessible to younger citizens), but on items that arguably require "current" information – items that are meant to measure active, cognitive engagement in politics. This particular measure of political awareness ought to tap a similar latent construct across the student sample and the general population.

Finally, the critic might worry that strength of party identification is a weaker cue for these youthful subjects, whose party affiliations are still in the formative stages. If this were the case, then the use of a student sample would make it even more difficult to discover party cue effects. However, this study shows strong party cue effects among the less politically aware, even under conditions (e.g., where subjects are provided with both arguments *and* party cues) that should attenuate overall reliance on party cues. In sum, the results of this study should not necessarily be viewed as limited in their external generalizability.

The evidence here and elsewhere using nationally representative survey data (Kam, 2003) suggests that political awareness reliably predicts more

effortful thinking. The politically aware are more likely to form opinions (on policies and political figures), they are more likely to engage in open-minded thinking, they are more likely to engage in information-seeking, and in this study, they are more likely to rely on an issue-relevant value and eschew party cues. On the surface, political awareness measures what people know; these results suggest it also shows how people think.

The results also shed light on how we can interpret the continuing influence of party identification on issue opinions. The results suggest two different paths that can produce a correspondence between party identification and issue opinions. The less politically aware can arrive at convergence between party identification and issue opinions by toeing the party line – if they know what the party line is. The more politically aware can arrive at this convergence by following their issue-relevant values – to the extent that these values resonate with the party line. When values and party cues converge, then both the more and less politically aware will appear to toe the party line. When values and party cues diverge, political awareness should predict which considerations underlie opinion formation.

What are the democratic implications of these findings? In this line of research, we typically must accept the notion that citizens are "cognitive misers" in the political world. We hope that the shortcuts citizens take will get them to the same place that they would have arrived at if they had taken the "long way around." Sometimes these routes take them to the same place (Lupia, 1994), but sometimes we worry because they do not (Althaus, 1998; Bartels, 1996; Gilens, 2001; Kuklinski and Hurley, 1994). In this particular case, citizens might toe the party line and arrive at a policy position that contradicts where their values might otherwise have led them.

But research in political science and social psychology has identified the ways in which *context* can encourage less effortful processors to take the "long way around." These contextual factors include instruction sets (Egeland, 1974; Mutz, 1998; Perkins, Farady, and Bushey, 1991; Taber and Lodge, 1999; Theiss-Morse, Marcus, and Sullivan, 1993), the personal relevance of the judgment task (Petty, Haugtvedt, and Smith, 1995), and motivational goals (Chen, Shechter, and Chaiken, 1996; Kruglanski and Webster, 1996; Petty and Cacioppo, 1981; Tetlock, 1983).

These studies demonstrate that how people think is not necessarily anchored to chronic individual differences. The right contextual inducements – be they perceptions about personal relevance or interest or a sense of accountability – can encourage citizens who might not otherwise have done so to engage in more effortful thinking. The next step for those concerned about encouraging more effortful thinking among citizens is to examine how variation in political institutions and political contexts (for example, in political campaigns, in the media, and in forums like

deliberative polls) might encourage less effortful processors to think more than they otherwise might have.

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NOTES

1. Party cues would certainly be considered issue-relevant in cases where the issue is inextricably linked with the parties' philosophies. However, in some circumstances, the mere position of a party can be considered non issue-relevant and serve as a peripheral cue.
2. In their study of source credibility, for example, Lupia and McCubbins (1998) present respondents with a single source cue on one side of the issue and no arguments about the issue. Likewise, Squire and Smith (1988) find that party cues matter when respondents are told who appointed nonpartisan political candidates, but respondents were given no further information about the candidates.
3. Students received course credit or a small monetary payment in exchange for participation. The manipulation of party cues was exactly the same in both studies, as was nearly all of the instrumentation. The first experiment included a vividness manipulation, but the second did not. For present purposes, I collapse the vivid and nonvivid cells and focus on the party cue manipulation. Subjects across the two studies were indistinguishable in terms of trust in scientific innovation and party identification. Subjects in the first study scored significantly higher on need for cognition and political awareness compared with subjects in the second study; this is not surprising, since subjects in the first study were recruited from political science summer courses and subjects in the second study were recruited from introductory psychology courses. Pooling the studies increases variance in political awareness and need for cognition. Results using the separate studies were substantively similar but statistically weaker than pooled results. There were no significant differences across conditions in demographics, engagement in politics, need for cognition, or political awareness.
4. Food irradiation was a low-salience issue in May 2001 and continued as such for the ensuing year and a half. According to a Lexis-Nexis search, during the twenty month period between May 2001 and December 2002, the topic of food irradiation was mentioned in the full text of only 127 articles. In contrast, other topics such as abortion, health insurance, affirmative action, and defense each were mentioned in more than 1000 articles during the *six* month period from May to November 2001. History effects attributable to the lag between the studies are possible but unlikely.
5. Immediately after reading the newspaper articles, subjects were asked a set of four questions on each of the three articles. They were then administered a long battery (27 statements total) measuring political efficacy, moral traditionalism, egalitarianism, need for cognition, and trust in scientific innovation. The trust in scientific innovation items were thus spaced quite far from the dependent variable. An additive scale is created and ranges from 0 (low) to 1 (high in trust), with a mean of 0.56, standard deviation of 0.17, and

$\alpha = 0.67$. Trust in scientific innovation is evenly distributed and similarly reliable across the cells. A Wald test showed that trust in scientific innovation was unlikely to have been affected by the experimental conditions. Hence, I treat it as exogenous.

6. This variable is coded from 0 (strongly oppose ban) to 1 (strongly support ban), with a mean of 0.58 and standard deviation of 0.29.
7. An investigation of the impact of party cues among pure independents deserves its own theoretical development and a sustained treatment elsewhere. As such, pure independents are omitted from analysis, leaving N=247.
8. In-party endorsement is measured as a three-category variable, where 0 = out-partisan or no party cue, 0.5 = leaning partisan when in-party endorses ban, 1 = weak or strong partisan when in-party endorses ban. Out-party endorsement is measured with a three-category variable, where 0 = in-partisan or no party cue, 0.5 = leaning partisan when out-party endorses ban, 1 = weak or strong partisan when out-party endorses ban. With both variables included in the model, the suppressed reference group consists of partisans in the no party cue condition. Results separating out weak and strong partisans were substantively similar, but only about 5% of the sample categorized themselves as strong partisans. Results separating out Democrats from Republicans were substantively similar. Since theory suggests it is not partisanship *per se* but the relationship between the subject's party and the party's stance, I have collapsed the analyses to represent in- or out-partisan endorsement.
9. Subjects were asked to indicate whether they strongly agreed, agreed, neither agreed nor disagreed, disagreed or strongly disagreed with the statements. The additive scale composed of the two items ranges from 0 to 1, has a mean of 0.64 (with a standard deviation of 0.18), and $\alpha = 0.48$. There were no significant differences across conditions. In the NES 2000, the additive raw scale ranges from 0 to 1, has a mean of 0.60 (s.d. 0.35) and $\alpha = 0.61$. The difference in the standard deviations can be attributed to differences in response alternative format. Since one of the need for cognition items on the NES was measured in only two (instead of five) categories, it consequently has a higher variance.
10. Subjects were asked to identify the positions of four political figures: Trent Lott, William Rehnquist, Tony Blair, and John Ashcroft. The four items are averaged to form a scale. There were no significant differences across conditions. The distribution of political awareness in the experimental sample was very similar to that in the NES 2000: experimental sample mean is 0.34 (with standard deviation of 0.34) compared with 0.27 (s.d. 0.28) in NES 2000; reliability for the scale is 0.71 for the experimental sample and 0.64 for NES 2000. The need for cognition and political awareness scales are mildly correlated at 0.11 (and similarly in the NES 2000, at r=0.18). The higher variance in the NES sample (see footnote above) inflates the correlation between the need for cognition scale and political awareness scale.
11. Substantive results when the model is run with need for cognition and political awareness together (with their respective interactions) were similar, but the introduction of so many interactions strained the data such that there were few significant coefficients.

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