Refined or Biased Opinions? Examining Self-selected Participation in Deliberation and Post-survey in On-line Deliberative Polls

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Abstract
Advocates of deliberative polls argue that deliberation promotes considered and refined opinions rather than raw opinions collected in ordinary polls. Due to high costs and mobilization difficulties of face-to-face deliberation in national polls, on-line methods became popular among deliberative polling practitioners. Unlike face-to-face polls which are usually conducted during a short period of time, on-line deliberation often spreads out over a few weeks and thus suffer to a greater extent from the attrition of participation in both the discussion and the post-surveys.

This paper looks at three on-line polls conducted by Knowledge Networks – at each time there is a deliberative poll and an ordinary poll designed as a control condition to test the effect of deliberation. There is some evidence suggesting that self-selection biases exist for participation in both the post-survey and the deliberation, where in general those who are more interested in the topics and who are more politically knowledgeable were more likely to respond to the post-survey (for both deliberation and control conditions). Similar patterns were also held for participation in deliberations; however, the results are not consistent across different polls. It was also found that people who participated in more discussion sessions were more likely to respond to the post-surveys in the deliberation condition, which is another evidence of self-selected participation. There is no clear evidence that more privileged respondents were more or less likely to deliberate and participate in the post-survey.

If self-selection of deliberation and participation follows a systematic pattern, and if deliberation is correlated with more attrition in on-line deliberative polls, we need to be cautious whether deliberation in fact produced refined or biased opinions in these on-line polls. Meanwhile, if the patterns of attrition are different between deliberation and control conditions, we need to be cautious when comparing the deliberation condition with the control condition to test the effectiveness of deliberation.

Key Words: Nonresponse, panel attrition, Deliberative Polls, on-line survey

1. Introduction

Representativeness is a crucial element in the model of ideal democracy, but the struggle between the democratic goal of representativeness and the reality of self-selection biases exists in the real world. Two forms of self-selection in the political process may harm the democratic ideal: (1) self-selection of information exposure (e.g., Sunstein, 2007); and (2) self-selection of political participation (e.g., Fiorina, 1990; Verba and Nie, 1972; and Verba, Schlozman, and Brady, 1995). Even when citizens are given political equality, it is still up to the individuals as to whether they are willing to expose to diverse information or viewpoints and whether they are willing to participate in political processes.

Studies (e.g., Bennett, 1989; Bennett, 1995; and Delli Carpini and Keeter, 1996) have suggested that American public is not well informed about politics. Advocates of Deliberative Polls think that the conventional public opinion polls represent the public's surface impressions of sound bites and headlines (e.g., Fishkin, 1997). The public, subject to "rational ignorance" (Downs, 1956), has little reason or incentive to confront trade-offs or invest time and effort in acquiring information or coming to a considered judgment.

The basic idea of deliberation in the model of deliberative democracy is to give citizens an opportunity to hear a full range of competing arguments that are regarded as crucial by participants in an ongoing public debate and motivate them to ponder and debate about the issues in a face-to-face, small-group discussion. Even though the participants selected in deliberative polls might have biased or extreme views about an issue due to their prior experience or unbalanced information they previously self-selected themselves to expose to before they came to the discussion, they are, in principle, guaranteed to encounter and even exchange opinions with randomly selected people with quite different viewpoints, and expose to competing arguments from a much larger and balanced pool in the process of deliberation.

The difference between conventional public opinion polls and Deliberative Polls is that – the conventional polls collect people's raw opinions, which are not well considered nor well informed, by doing a one-time questionnaire survey; by contrast, the Deliberative Polls collect people's refined opinions, which are well considered and informed, by doing questionnaire surveys both before and after the deliberation. Deliberative Polls conducted by Fishkin and Luskin (e.g., Luskin et al., 2002) suggested that better informed publics have noticeably different policy and voting preferences, and the differences in opinion changes came mostly from those who gained most knowledge. Decisions by policy-makers are usually made based on the informed and refined opinions collected in the post-survey.

Similar to the panel attritions in other longitudinal surveys, Deliberative Polls suffer from

participation attrition as well because more than one poll is conducted. In face-to-face Deliberative Polls, the attrition of participation is not that significant since the event is usually conducted during a short period of time (usually two days over a weekend) and participants who came to the deliberation event would usually completed the post-survey, which is scheduled as the last part of the deliberation event.

Due to the high cost and mobilization difficulty of the face-to-face deliberation in national polls, on-line methods became more popular among deliberative polling practitioners. Unlike face-to-face polls, on-line deliberations often spread out over a few weeks and therefore suffer more from the attrition of participation in both the discussion and the post-survey. This poses an important question to us – what kind of people are we losing in the post-survey of a Deliberative Poll? Are we left with a self-selected group of people, who are more privileged, more interested, or more knowledgeable? If self-selection of deliberation and participation follows a systematic pattern, and if deliberation causes more attrition in on-line deliberative polls, we need to be cautious whether deliberation in fact produced refined or biased opinions in these on-line polls.

2. Methods

This paper will look at three on-line polls conducted by Knowledge Networks – at each time there is a deliberative poll and an ordinary poll designed as a control condition to test the effect of deliberation. For those assigned to the deliberation condition, participants were asked to participate in eight online chat sessions, two sessions per week spreading out over four weeks.

2.1 Data

Poll 1: 2002 Online Deliberative Poll on Foreign Policy This Deliberative Poll was the first online DP. The Political Communication Lab at Stanford University conducted this Poll from December 9, 2002 to January 16, 2003 (CDD, 2006). A nationally representative sample of 381 for the treatment group and 302 for the control group were drawn by Knowledge Networks. Both the treatment and the control groups completed pre and post questionnaires, except that the control group did not deliberate. Nine out of the 381 respondents in the DP group didn't respond to both the pre and post questionnaires, and they are excluded from the analysis.

For this Deliberative Poll, participants who already had a computer and internet access received financial compensation of $300. Participants without computer and internet access received the necessary equipment as compensation for their participation. The Poll used Lotus Sametime software for the online discussions. The software permitted participants to start and stop their microphones to speak and icons of small heads were available on the screen for participants to see who requested their microphones. This

software was voice-only, so online participants had voice-based discussions, as opposed to text-based discussions, which would be more like a chat room. A text box was available for participants, but the box was reserved for technical issues.

Participants in the treatment group were randomly assigned to 15 small groups and had bi-weekly online discussions over a 4 week period, total of 8 hours of discussion. All small groups had trained moderators that facilitated discussions and encouraged all deliberators to participate equally. Participants also posed questions to experts from the *Online Newshour*, a partner of this Poll, similar to the plenary sessions in face to face polls. The answers were posted on the *Online Newshour* website.

The briefing documents were prepared by the National Issues Forums and the Kettering Foundation; the documents are available at the website of the Center for Deliberative Democracy at Stanford University. The briefing documents titled "America's Role in the World" focused on general foreign policy issues such as multilateralism, democracy, and trade. The documents presented key facts and arguments from a variety of angles.

Poll 2: 2004 Online Deliberative Poll on the Primaries This online Poll was held during the presidential nomination process, which began on January 19th, 2004 and continued for five weeks (Iyengar, Luskin and Fishkin, 2005). Knowledge Networks invited 755 people to participate in this poll and 385 agreed to participate. Of the participants who agreed to participate, 284 completed the pre and post deliberation questionnaires. Knowledge Networks also provided a control group of 460 people; the control group completed the pre and post deliberation questionnaires, but did not deliberate. Participants without computer and/or internet access were offered a free computer and trial ISP membership as compensation and participants already equipped with computer and internet access received $200. Control groups were offered $40 (Iyengar, et al., 2005).

Participants were randomly assigned to 16 small groups and participated in weekly hour long discussions. Like Poll 1, participants used Lotus Sametime software. Participants also submitted questions electronically to the *Online Newshour* and answers were posted in between groups' sessions.

The briefing materials for this Poll consisted of reading material prepared by the MacNeil/Lehrer Productions and a multimedia CD prepared by the Political Communication Lab at Stanford University. The reading materials focused on the topics of national security and international trade. The CD presented the platforms of the ten declared presidential candidates, at the time, on the topics of national security, trade, healthcare, tax and the economy (Iyengar, et al., 2005). The CD provided equal coverage for each candidate on each issue. The video clips were drawn from candidates' speeches, televised interviews, and debates. A few candidates did not have television

advertisements and thus, their sections were a bit shorter than others. Those without advertisements were given about 15 pages each, while those with advertisements were given about 20 pages each (Iyengar, et al., 2005).

Poll 3: 2004 Online Deliberative Poll on the General Election This online Poll was a part of the *PBS Deliberation Day* experiment, in which 17 face to face Deliberative Polls were held in 17 different cities across the United States. The online participants began deliberations in early September 2004 and continued for five weeks, until *PBS Deliberation Day* on October 16, 2004. The participants met weekly for one hour and fifteen minutes of discussion. A nationally representative sample of 336 for the treatment and 987 for the control group were drawn by Knowledge Networks. Both groups completed pre and post deliberation questionnaires, but the control group did not deliberate. 654 out of the 987 respondents in the control group did not respond to the pre survey; 13 out of the 336 in the DP group did not answer to the pre-survey; and 9 in the DP group did not respond to both pre and post surveys. These people were excluded from the analysis.

Like previous polls, participants without a computer and internet access were supplied the equipment in exchange for participation and participants with equipment were given monetary compensations. Lotus Sametime software was used for this Poll as well.

The participants were randomly assigned to 15 small groups and throughout the weeks, they submitted questions and retrieved answers from the *Online Newshour*. The briefing materials for this Poll focused on national security and the global economy and were prepared by the MacNeil/Lehrer Productions. As with other Deliberative Poll briefing documents, these documents presented arguments for a variety of angles and the materials are available at the website of the Center for Deliberative Democracy.

This paper will examine whether and to what extent the on-line deliberative polls suffer from the attrition of participation in both the discussion and the post-surveys, and whether the attrition follows a systematic pattern. If self-selection of deliberation and participation follows a systematic pattern, and if deliberation causes more attrition in on-line deliberative polls, we need to be cautious whether deliberation in fact produced refined or biased opinions in these on-line polls.

2.2 Variables

2.2.1 Dependent Variables

Two important dependent variables are: (1) the likelihood of participation in the post-surveys – a variable indicating whether respondents participated or not in the post-surveys in both the control and the DP conditions; and (2) the likelihood of participation in the discussion sessions in the DP condition – a variable indicating the

percentage of discussion sessions the respondents in the DP condition participated in.

2.2.2 Independent Variables

Experimental Condition Since this study tries to look at whether deliberative polls would generate more or less attrition compared to the ordinary polls, an important independent variable indicates whether the respondents were assigned to either the deliberative polling condition or the control condition.

Participation in Deliberation Sessions Meanwhile, we also try to look at whether there is any relationship between respondents' likelihood of participating in the discussion sessions and their likelihood of participating in the follow-up surveys. A variable indicating the percentage of discussion sessions that the respondents participated in is also included in the analysis.

Prior Experience We also try to look at whether respondents' prior survey experience (either participants or drop-outs in previous polls) is related to their likelihood of participation in the current polls.

Political Interest In each poll, there are a few questions that can capture respondents' interests in politics and their likelihood of participation. In Poll 1 and Poll 2, respondents were asked how interested they are in politics in general.

Political Knowledge Political knowledge indices were generated for each respondent in the three polls based on their answers to a series of political factual questions or candidate placement questions. For each question, correct answers were coded "1" and incorrect answers were coded "0." All questions had "don't know" or "haven't thought much about this" answer options and these options along with missing data were coded as incorrect. Then the percentage of correct answers for all the questions in each poll was calculated as an indicator of respondents' levels of political knowledge. The questions used to generate the political knowledge indices were shown in the appendix, with the correct answers italicized.

Demographics The most important demographic variables in the analysis are those that can to some extent indicate the prestige of the respondents, such as education, income, ethnicity, gender and age.

3. Results

Table 1 shows the basic demographic distributions of both the control and the DP samples for the three polls. As compared to the results of the 2004 National Election Study, the differences between the control samples, the DP samples, and the benchmarks do not

seem to be very dramatic. As can be seen in Table 1, the DP samples have slightly more male respondents, while the control samples have fewer people with higher income (60,000 and above). All the polls tended to under-represent minority ethnic groups (except for the DP sample in Poll 1), and the higher educated and higher income populations. Since all the samples were randomly drawn from Knowledge Networks' panels and our focus is the non-response to the follow-up surveys, the differences between the initial samples and the benchmarks are deliberatively ignored in the following analyses.

Table 1: Demographics for the three polls by experimental conditions, compared to NES 2004 benchmarks.

	Poll 1		Poll 2		Poll 3		NES 2004 [c]
	Control	DP	Control	DP	Control	DP	
Male	49.7%	52.5%	48.7%	53.5%	49.9%	50.6%	46.7%
Age, in years	48.4	46.8	47.4	45	47.5	46.9	47.3
White	80.5%	70.9%	78.1%	82.0%	75.8%	83.0%	72.3%
Higher Educated [a]	31.5%	30.4%	27.4%	26.9%	25.0%	32.7%	39.8%
Higher Income [b]	29.8%	33.9%	28.4%	34.9%	27.6%	37.3%	40.3%

Note: [a] BA/S degree and beyond; [b] annual income is $60,000+; [c] data is from the 2004 National Election Study.

Table 2 shows the respondent's status in the three polls by the experimental conditions. As described before, since this study focuses on non-responses to the follow-up surveys in the ordinary polls and the DPs, only respondents highlighted in grey (those who answered the baseline pre-surveys) will be used in the following analysis.

Table 2: Respondent's Status in the Three Polls by Experimental Conditions.

Experimental Condition	Respondent Status	Poll 1	Poll 2	Poll 3
Control	Baseline and Follow-up Rs	247	460	275
		(81.8%)	(51.6%)	(27.9%)
	Baseline Rs, Follow-up NRs	55	432	58
		(18.2%)	(48.4%)	(5.9%)
	Baseline NRs, Follow-up Rs			654
				(66.3%)
	Baseline and Follow-up NRs			
	Total	302	892	987
		(100%)	(100%)	(100%)
Deliberation	Baseline and Follow-up Rs	263	284	255
		(69.0%)	(86.9%)	(75.9%)
	Baseline Rs, Follow-up NRs	109	43	59
		(28.6%)	(13.1%)	(17.6%)

Baseline NRs, Follow-up Rs			13
			(3.9%)
Baseline and Follow-up NRs	9		9
	(2.4%)		(2.7%)
Total	381	327	336
	(100%)	(100%)	(100%)
Total	683	1219	1323

3.1 Participation in the Post-surveys

Table 3 summarizes the logistic regressions of the likelihood of non-participation in the post-surveys of the three polls on experimental condition, political interest, political knowledge, respondents' prior survey experience, and demographic variables. Model 1, 3 and 5 tested the main effects of all the predictors, and Model 2, 4 and 6 added the interaction effects.

As can be seen in Model 1 of Table 3, respondents assigned to the DP condition are 2.084 times more likely to not participate in the post-survey, compared to those assigned to the control group ($p<.001$). Respondents who are not interested in politics were significantly more likely to not participate in the post-survey ($p<.05$), compared to those who are very interested in politics. The more knowledgeable respondents were significantly less likely to drop out to the post-survey ($p<.05$). In addition, male respondents were less likely to drop out than female respondents ($p=.07$).

Model 2 of Table 3 presents the full model including all the predictors and the interactions between the experimental condition and each predictor. As can be seen, respondents' overall likelihood of participation is still highly correlated with their political interest and knowledge. The difference in the likelihood of non-participation in the post-survey as suggested in Model 1 disappeared after adding the interaction terms. The effect of political knowledge on respondents' likelihood of non-participation is stronger in the DP condition ($p=.071$). Older people, white and lower incomes are less likely to drop out compared to younger, other races and higher incomes.

Model 3 shows the results of the same analysis for Poll 2 as for Model 1 of Poll 1. In addition to all the predictors in Model 1, whether respondents participated in Poll 1 is included in the analysis. 136 respondents who were assigned to the DP condition participated in Poll 1 (135 in the DP condition and 1 in the control group). Different from the findings in Poll 1, respondents assigned to the DP condition in Poll 2 were significantly less likely to drop out ($p<.001$), compared to those assigned to the control condition. However, this difference is less significant after accounting for the interaction effects ($p=.065$). Different from Poll 1, political interests, political knowledge, and prior survey experience are not significantly related to participation in Poll 2. Meanwhile, as

suggested in Model 4, none of the interaction terms are statistically significant, suggesting that there is no difference in terms of each predictor's effect on the likelihood of drop-outs between respondents in the DP condition and the control condition.

Table 3: Logistic regressions of the likelihood of non-participation in the post-surveys of the three polls on the experimental condition, political interest, political knowledge, prior experience, and demographic variables (odds ratio presented).

Predictors	Poll 1		Poll 2		Poll 3	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Experimental Condition						
DP condition (Control)	2.084***	.544	.143***	.227†	.850	.211
Political Interest (Very interested)						
Some what interested	1.381	2.249	1.216	1.176	na	na
Not interested	1.902*	3.418*	.954	.970	na	na
Some what interested * DP		.573		1.357		na
Not interested * DP		.447		.977		na
Political Knowledge						
Knowledge indices	.292*	.045**	.895	.917	.223***	.121***
Knowledge * DP		11.774†		.986		3.623
Prior Experience (Fresh)						
Prior participants	na		1.374	1.753	1.765†	3.880†
Prior drop-outs	na		na	na	3.073*	1.082
Prior participants * DP				na		.401
Prior drop-outs * DP				na		4.590
Demographic						
Male (Female)	.710†	1.075	.847	.837	.735	.966
Age	.990	.976*	.993	.995	.991	.998
White (Others)	.912	.491†	.711*	.689*	.848	.581
Higher educated (Lower educated)	.731	.551	.876	.887	1.386	1.159
Higher income (Lower income)	1.370	2.273*	.829	.871	1.029	.910
Male * DP		.541		1.080		.569
Age * DP		1.022		.900		1.005
White * DP		2.307†		1.267		2.364
Higher educated * DP		1.473		.914		1.227
Higher income * DP		.498		.798		1.153
-2 Log likelihood	699.658	683.481	1437.873	1433.857	569.070	557.652
N	665		1188		628	

Note: *** $p \leq .001$, ** $.001 < p \leq .01$, * $.05 < p \leq .01$, † $.1 < p \leq .05$; reference group in the parenthesis; na: not applicable.

Similar to Poll 2, whether respondents participated in either Poll 1 or Poll 2 was included in Model 5 and 6. There were 227 respondents in Poll 3 who participated in either Poll 1

or Poll 2 or both (17 in the control condition and 210 in the DP condition of Poll 3). Since Poll 3 didn't ask questions about political interests, this variable was not included in the analyses. As can be seen in Model 5, there is no significant difference in terms of the attrition to the follow-up surveys between the DP and the control conditions. As suggested in Model 5, respondents who had previous drop-out experience were much more likely to not participate in the post-survey ($p<.001$), while those who had previous participation experience were slightly more likely to drop out. Political knowledge is significantly related to participation in the post-surveys, where the more knowledgeable respondents were much less likely to drop out before the post-survey. There is no difference in each predictor's effect on the attrition between the DP and the control conditions.

Table 4: Logistic regressions of the likelihood of non-participation in the post surveys of the three polls on political interest, political knowledge, prior experience, and demographic variables, within the DP and the control subgroups (odds ratio presented).

Predictors	Poll 1		Poll 2		Poll 3	
	DP	Control	DP	Control	DP	Control
Political Interest (Very interested)						
Some what interested	1.289	2.249	1.595	1.176	NA	NA
Not interested	1.529	3.418*	.947	.970	NA	NA
Political Knowledge						
Knowledge indices	.530	.045**	.904	.917	.457	.121***
Prior Experience						
Prior participants (Fresh)	NA	NA	1.753	NA	2.231*	3.880†
Prior drop-outs (Fresh)	NA	NA	NA	NA	4.505*	1.082
Demographic						
Male (Female)	.582*	1.075	.904	.837	.515†	.966
Age	.997	.976*	.975†	.995	1.001	.988
White (Others)	1.134	.491†	.873	.689*	2.504†	.581
Higher educated (Lower educated)	.811	.551	.811	.887	1.952	1.159
Higher income (Lower income)	1.133	2.273*	.695	.871	.989	.910
-2 Log likelihood	433.736	249.745	241.641	1192.216	196.944	276.195
N	366	299	318	870	306	322

Note: *** $p\leq.001$, **$.001 < p\leq.01$, * $.05< p\leq.01$, † $.1<p\leq.05$; reference group in the parenthesis.

Table 4 presents the logistic regressions of the likelihood of drop-outs on political interest, political knowledge, prior experience, and demographic variables within the DP and the control subgroups in the three polls. Even though the patterns of attrition in the DP condition seem to be different from that in the control condition, among the DP respondents, there is no evidence that post-survey participation is related to political interest or political knowledge. Only prior survey experience seems to lead to more

drop-outs as compared to the fresh samples.

3.2 Participation in the Discussion Sessions

The regression of the percentage of discussion sessions respondents participated on political interest, political knowledge, prior survey experience, and demographic variables were performed for the three polls. For Poll 1, discussion session participation was not related to political interest or political knowledge. However, the percentage of discussions participated by male respondents was 9.3% higher than female respondents ($p<.05$). Similarly, for Poll 2, discussion participation is not related to political interest, political knowledge, or prior survey experience. However, it is positively correlated with respondents' age, where the older the respondents are the more discussion sessions they participated ($p=.002$). For Poll 3, discussion participation is not related to political knowledge. Compared to respondents who had dropout experience in previous polls, those who had participated in previous polls (and never dropped out) participated in more discussion sessions in Poll 3 ($p<.05$).

In addition, participation in discussion sessions is highly correlated with post-survey participation. In every poll, the more discussion sessions the respondents participated in, the less likely they would drop out before the post-survey ($p<.001$ for all polls).

4. Discussions

There is some evidence suggesting that self-selection biases exist in terms of participation in both the post-surveys and the deliberation process, where in general those who are more interested in politics and those who are more politically knowledgeable were more likely to respond to the post-surveys (for the control conditions especially). Similar patterns were held for participation in deliberations; however, the results are not consistent across different polls. It was also found that people who participated in more discussion sessions were more likely to respond to the post-surveys in the deliberation condition, which is another evidence of self-selected participation. Respondents who had prior survey experience were more likely to drop out. No clear evidence suggests that more privileged respondents were more or less likely to deliberate or participate in the post-survey.

The results have several implications. First, if the patterns of attrition are different between the deliberation group and the control group, it would be problematic if the experiments were designed to test the deliberation effect. In fact in this study, we found quite different attrition patterns between the DP and the control conditions. So we need to be cautious when testing the deliberation effect. Second, if decision making is based on opinions solicited in the post-surveys of the DPs, the problem is that the post-deliberation opinions might be biased if participants self-selected themselves to either participate or

not participate in the post-surveys based on their self-interest or due to other factors. There is some evidence that participation is positively related to respondents' political interest and knowledge. Therefore, some non-response adjustments need to be made if the final policy making is based on opinions collected in the post-survey of these DPs.

Appendix:

The knowledge indices for Poll 1 contain 11 factual questions (Luskin, Fishkin, and Iyengar, 2006):

1. Placement of Parties' positions on global warming (two questions). Respondents were asked to correctly place the Democratic and Republican Party's position on global warming, 0 being "global warming is not really a problem" and 10 being "we need to act now." A correct answer for the Democratic Party was on the "we need to act now" side of the midpoint and a correct answer for the Republic Party was on the "global warming is not really a problem" side of the midpoint.
2. Whether Bush wanted to *increase*, decrease or keep foreign aid spending the same.
3. Whether Bush supported or *opposed* international agreements to control greenhouse gases.
4. Out of every 100 dollars in the federal budget, how much goes to military spending? Answer choices: 1, 5, 10, *20* or 30 plus dollars
5. The above question for foreign aid. Answer choices: *1*, 5, 10, 20 or 30 plus dollars
6. The above question for "goods & services produced by the U.S….are sold to customers abroad." Answer choices: 4, 8, *12*, or 24 plus dollars
7. Out of every 100 adults in "African countries with the highest rates of infection with the AIDS virus," how many "have AIDS or the AIDS virus"? Answer choices: less than 5, about 10, about 20, or *30 plus*
8. True/*False*. "The U.S. has a veto on World Trade Organization decisions."
9. *True*/False. "The U.S. has a veto on the United Nations Security Council."
10. What are the causes of global warming? Answer choices: *human activities*, cars and fuel, natural climate changes, or global warming is not occurring

Knowledge indices for Poll 2 consist of factual questions and candidate placement questions (Iyengar, Luskin and Fishkin, 2005):

7 Factual Questions:

1. The Bush tax cuts *lowered*, raised, or kept the tax rate the same on income from investments such as dividends and capital gains.

2. The unemployment rate in the US has decreased, *increased* or stayed about the same since Bush took office.
3. "President Bush end[ed] U.S. tariffs on imported steel" for which of the following reasons? "The steel industry and steelworkers unions objected," "*He wanted to avoid increased tariffs by the European Union on American exports*," "Domestic steel production is insufficient to meet demand, thus raising the price of steel," or "He has never supported tariffs."
4. The Bush administrations *supported*, opposed, or neither supported nor opposed the creation of Free Trade Area of the Americas.
5. John Edwards, Howard Dean, Joe Lieberman or *Richard Gephardt* "served as Majority Leader of the House of Representatives."
6. Wesley Clark was a Senator from Arkansas, Secretary of the Air Force, *Supreme Allied Commander of NATO* or National Security Advisor to the President.
7. How many Americans have been killed since the Iraq invasion? Answer choices: "fewer than a hundred," "*several hundred*," "several thousand," or "more than twenty thousand."

24 Candidate Placement Questions:

Respondents were asked to correctly place 6 candidates - Bush, Clark, Dean, Edwards, Kerry and Sharpton on four issues: "support free trade" vs. "protect US industries," "intervene on our own" vs. "intervene with UN approval," "increase defense spending/decrease domestic spending" vs. "decrease defense spending/increase domestic spending," and "fewer services/lower taxes" vs. "more services/higher taxes." All placement questions were on a 7-point scale. Correct answers for Bush would be on the "support free trade," "intervene on our own," "increase defense spending/decrease domestic spending," and "fewer services/lower taxes" sides of the midpoints. For the Democratic candidates, correct answers would be on the "protect US industries," "intervene with UN approval," "decrease defense spending/increase domestic spending," and "more services/higher taxes" sides of the midpoint.

Knowledge indices for Poll 3 also consist of factual questions and candidate placement questions:

9 Factual Questions:

1. John Kerry *voted for*, voted against or did not vote "on the resolution authorizing President Bush to go to war with Iraq."
2. India, *Pakistan*, Sri Lanka, or Indonesia "harbors the most Al Qaeda and Taliban fighters."
3. True/*False*. "Iraq was directly involved in the attacks on the World Trade Center and the Pentagon on 9-11-2001."

4. True/*False*. "Large quantities of weapons of mass destruction have been found in Iraq."
5. True/*False*. "On average, prescription drugs cost more in Canada than in the U.S."
6. George Bush was "drafted but never went to Vietnam," "decorated officer serving in Vietnam," "ineligible to serve in the military because of medical deferment," or "*served in the Texas Air National Guard*."
7. John Kerry was "drafted but never went to Vietnam," "*decorated officer serving in Vietnam*," "ineligible to serve in the military because of a medical deferment," or "served in the Massachusetts Air National Guard."
8. South Africa, Japan, Brazil, or *India* is "a major destination for white collar jobs".
9. How many Americans have been killed since the Iraq invasion? Answer choices: "100," "500," "*1,000*," or "10,000."

12 Candidate Placement Questions:

Respondents were asked to correctly place Bush and Kerry on six issues, on a 7-point scale: "ensure constitutional rights" vs. "find every terrorist," "government plan" for health insurance vs. "individuals & insurance companies," "constitutional amendment to prohibit gay marriage" vs. "marry like anyone else," "support free trade" vs. "protect US industries", "intervene on our own" vs. "intervene with UN approval", and "fewer services/lower taxes" vs. "more services/higher taxes". Correct answers for Bush would be on the "find every terrorist," "individuals & insurance companies," "support free trade," "constitutional amendment to prohibit gay marriage" "intervene on our own," and "fewer services/lower taxes" sides of the midpoints. For Kerry, correct answers would be on the "ensure constitutional rights," "government plan," "marry like anyone else," "protect US industries," "intervene with UN approval," and "more services/higher taxes" sides of the midpoint.

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