

An Unclear Gap: How Vague Response Options Produce Partisan Knowledge Gaps

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Abstract

[Roush and sood \(Forthcoming\)](#) use a dataset of 162,083 responses to 187 items on 47 surveys to find that partisan gaps are smaller and less frequent than commonly understood. The average is a mere six and a half points and gaps’ “signs” run counter to expectations roughly 30% of the time. However, one exception is the size of gaps on retrospection items on the ANES, which are considerably bigger. These retrospection items use vague response options, e.g., ‘About the same.’ Using a novel experiment, we find that questions featuring vague response options allow individuals to interpret potential answers through their own biases, inflating gaps’ magnitudes. Our findings suggest that knowledge gaps—when they do exist—stem more from motivated responding than genuine differences in factual knowledge.

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Data from [Roush and sood \(Forthcoming\)](#) suggest that partisan knowledge gaps are highly variable, and that large differences in what Democrats and Republicans believe are less common than what many assume. Furthermore, very few common question features appear to systematically influence the size of partisan knowledge gaps.

If partisan gaps are small on average and difficult to predict based on question wording, why does the common wisdom that Democrats and Republicans differ substantially in political knowledge persist? One explanation may be that the knowledge items are not a representative set of relevant cognitions that partisans have. It may well be that the knowledge gaps are larger on partisan-relevant facts that are not asked about in the studies described above. To what degree this is so, we cannot say, except to note that the general bias is to “hunt where the ducks are.” That is, in at least two of our studies ([Bullock et al. 2015](#); [Prior, Sood and Khanna 2015](#)), expert political scientists constructed knowledge questions that they reasonably believed *a priori* would produce large partisan gaps; in the case of [Jerit and Barabas \(2012\)](#), the authors built a dataset of knowledge questions that they believed carried a partisan implication (in other words, in which they expected knowledge gaps between Democrats and Republicans to occur). The fact that statistically significant, “positive” knowledge gaps only emerge on about half of the items from these studies suggests that partisan knowledge gaps are less common even when looking in the most obvious place.

A potentially more satisfying explanation for this discrepancy is that such conventional wisdom is largely based on studies using data from the [American National Election Studies \(N.d.\)](#). Much of the literature on partisan knowledge gaps has built upon [Bartels \(2002\)](#), who was the first to write about these differences ([Bullock and Lenz 2019](#)). For example, using the ANES data, [Bartels \(2002\)](#) discovered that Democrats and Republicans reported different beliefs on a variety of objective facts—such as how inflation and unemployment changed over the previous eight years—while Ronald Reagan was president. In 1988, the estimated differences between Democrats and Republicans on knowledge questions ranged from approximately 12

to 36 percentage points, depending on the question.¹

There may be good reason, however, to think that the gaps in the ANES data are not representative of broader trends in partisan knowledge differences. Unlike most knowledge questions—which require partisans to identify an objectively correct answer—most ANES questions about party consequential “factual beliefs” do not ask respondents to do the same. Instead, these questions ask respondents to make subjective *assessments* about performance or policy over a certain time period. Canonical ANES questions, for example, ask people to gauge whether the budget deficit increased, decreased, or remained about the same over a president’s tenure, or how the rate of inflation changed over the past year. Because the response options for these questions—“got better,” “stayed about the same,” or “got worse”—are imprecise, people have a greater opportunity to interpret the meaning themselves (e.g. [Beyth-Marom 1982](#)) using common heuristics, including partisanship (e.g. [Sood and Guess 2017](#)). As a result, a large partisan “knowledge” gap may reflect how partisans interpret response options rather than a true difference between what Democrats and Republicans know.

This is particularly problematic for cases where changes in inflation, unemployment, the deficit, or other performance items are marginal. While there are certain contexts—such as a stock market crash—where unambiguous evidence forces partisans to acknowledge the same economic reality (e.g. [Bisgaard 2015](#); [Parker-Stephen 2013](#)), far more survey questions are asked in times when performance indicators change gradually over time. When researchers ask respondents to classify these changes in performance indicators using vague response options, it opens the door for partisan bias even if individuals know the same objective information. Consider the case of two highly knowledgeable survey respondents (who perhaps work in the Bureau of Labor Statistics) who know definitively that the national unemployment rate

¹These figures have been rescaled in percentage point terms. [Bartels’s \(2002\)](#) original calculation is that “the estimated differences between Democrats and Republicans rang[e] from .249 to .715 on the -1 to +1 scales” (137).

in the United States grew from 4.0% to 4.2% over the past year, a time during which a Republican president occupied the White House. When the first respondent, a Democrat, is asked to evaluate how unemployment changed over the past year, she might (correctly) reason that unemployment “got worse” as the rate objectively increased over the previous 12 months. On the other hand, the second survey respondent, a Republican, might also (reasonably) conclude that 0.2 percentage points is a negligible change in unemployment, and might therefore be more liable to answer that the unemployment rate “stayed about the same” over the past year. In this situation, two people who know *the exact same fact* could plausibly choose two different response options and still be correct. The end result is that some “knowledge gaps” may be artificially large simply because respondents interpret the same response categories differently.

As an initial test of this hypothesis, we first examined the average size of partisan knowledge gaps that occur in ANES data and compared them to the average partisan gaps in other studies. To do so, we rely on part of the data compiled by [Roush and sood \(Forthcoming\)](#): all knowledge items that carry a partisan implication that appeared on ANES surveys over the past 32 years.² To gauge partisans’ accuracy on these items, we identified “correct” responses based

²For reasons of subjectivity, they exclude questions that asked respondents to assess how “the economy” has fared. While many response options to questions on the ANES are vague, in this case, the question itself asks respondents to evaluate a vague concept (the economy) as well. That is, answers to these types of questions hinge on both what survey respondents think “the economy” means and on what they think is a good indicator of its health. For example, in answering a question about how “the economy” did over the previous year, some respondents may read the question as asking about their state or local economy, while others may mentally reference the unemployment rate, changes in their disposable income, or (among the highly knowledgeable) the performance of the stock market. While some political scientists have attached their own metrics, like real disposable income per capita (e.g., [Achen and Bartels 2016](#); [Hibbs Jr. 2000](#)), to “objectively” gauge how the economy is doing, many survey respondents

on information sourced from federal agencies like the Bureau of Labor Statistics, the Federal Reserve, and the Census Bureau, in addition to information gleaned from news reporting or academic studies.³ As before, we dichotomized response options into “correct” and “incorrect” categories. Like the authors in the other studies, we also assumed that there is no “hidden knowledge” behind “don’t know” responses and code them as incorrect (Luskin and Bullock 2011).⁴ In total, the ANES data provided us an additional 43,502 responses to 22 questions on nine surveys.⁵

Table ?? compares partisan gaps on ANES items to those included in the other studies in our analysis. As expected, the mean and median gaps on ANES knowledge items are substantially larger than those in the other three studies. In fact, the mean partisan knowledge gap in the ANES data (17 percentage points) is more than 50% larger than the largest average gap in any other study (10 percentage points, from Bullock et al. (2015)). Furthermore, only two will plausibly differ in their reference points. Nevertheless, in SI 1.1, we track partisan gaps in economic evaluations. As expected, there are much larger differences between Democrats and Republicans in their assessments of “the economy” compared to other knowledge items. These items produce an average gap of 18 percentage points.

³For the same reasons mentioned above, identifying which response option is “correct” requires some level of subjectivity. As we detail in SI 1.4, for the purposes of this exercise, we applied a consistent standard across the board: we classify changes in performance indicators as “stayed about the same” unless the change exceeds one third of one percentage point in either direction.

⁴Luskin and Bullock (2011) estimate proportion of “hidden knowledge” in “don’t know” responses to be only about 3%, suggesting that we are not substantially underestimating political knowledge by coding “don’t knows” as incorrect.

⁵For a full list of ANES items, along with their signed partisan gap, see SI 1.3; for a full accounting of the sources used to identify correct answers, see SI 1.4.

of the 28 items taken from ANES surveys produce negatively-signed partisan gaps, and only five of these items produce knowledge gaps that are not statistically significant at the 95% confidence level. While the sample size of questions taken from the ANES is small, it is clear that the partisan gaps produced from these items are markedly larger.

| Study | Mean Gap | Median Gap | SD | N(Items) |
|-----------------|----------|------------|-------|----------|
| ANES | 0.168 | 0.139 | 0.139 | 28 |
| Bullock et al. | 0.104 | 0.089 | 0.119 | 21 |
| Jerit & Barabas | 0.036 | 0.032 | 0.091 | 128 |
| Prior et al. | 0.063 | 0.035 | 0.093 | 10 |

Table 1: Partisan Gap by Study

Our hunch is that these large gaps are a result of vague response categories that allow partisans to classify the same information in different ways. To test this hypothesis, we conducted an original experiment using Amazon’s Mechanical Turk (MTurk) in June 2020. In the study, we provided all respondents with a question prompt that featured real economic information about the change in the inflation and unemployment rates during 2016.⁶ In addition to providing this information, we randomly assigned respondents to one of two treatments: one that attributed these changes to then-Democratic President Barack Obama and the other that attributed the changes to the Republican-controlled Congress. We then asked respondents to classify these changes using the canonical ANES response categories (“got worse,” “stayed about the same,” or “got better”). The specific treatment was as follows:

During 2016, (when Barack Obama was president | when Republicans were in control of both Houses of Congress), unemployment decreased from 5.0% to 4.8%, a change of 0.2 percentage points. How would you interpret this change? Would you say that unemployment got better, stayed about the same, or got worse?

⁶This information was collected from the U.S. Bureau of Labor, available at <https://data.bls.gov/timeseries/lms14000000>.

In 2016, inflation also decreased from 2.1% to 1.9%, a change of 0.2 percentage points. How would you interpret this change? Would you say that inflation got better, stayed about the same, or got worse?

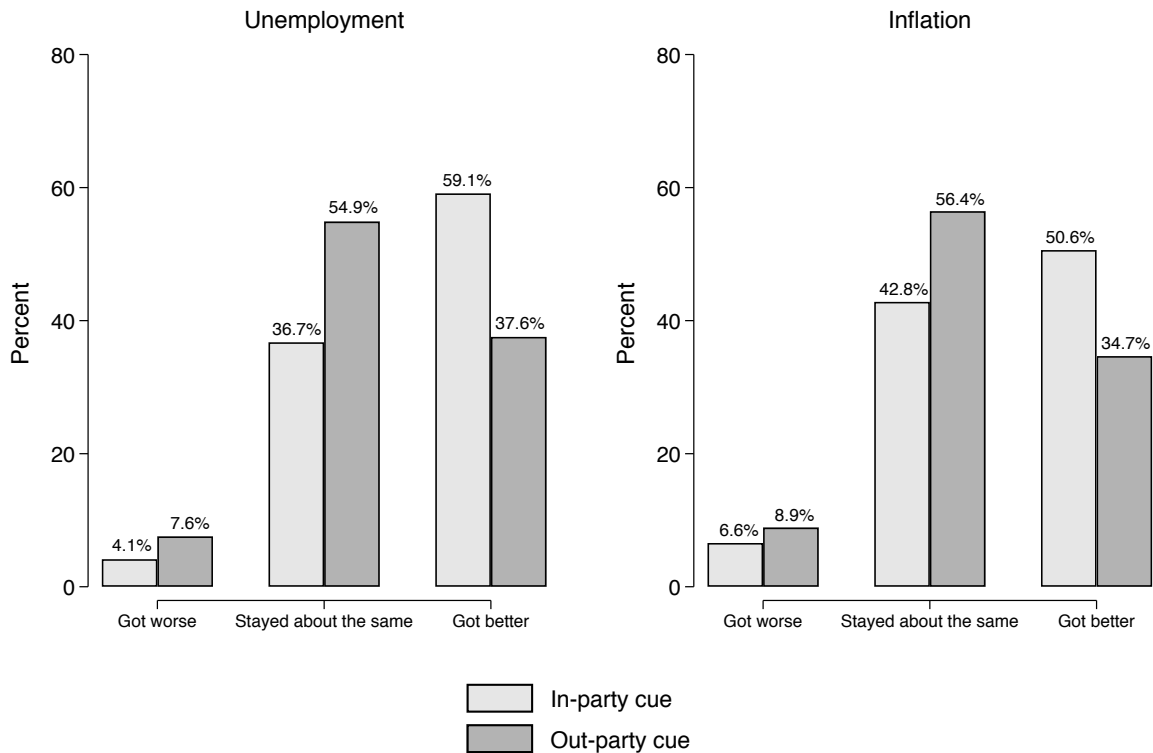
Since prior research demonstrates that partisans evaluate economic conditions favorably when their own party is in power and unfavorably when the other party is in power (e.g. [Bartels 2002](#); [Bisgaard 2015](#)), we expected respondents to classify objective economic information differently depending on the partisan cue they received. Specifically, we expected that partisans would be more likely to classify a 0.2 reduction in the unemployment or inflation rates as having “got[ten] better” under co-party leadership and as having “stayed about the same” (or “got[ten] worse”) under the opposing party’s leadership. For ease of interpretation, we recoded the data so that treatments and respondents are characterized in relation to one another: we classified Democrats who saw the President Obama cue and Republicans who saw the Republicans-in-Congress cue as receiving an *In-party cue* and Democrats who saw the Republicans-in-Congress cue and Republicans who saw the President Obama cue as having received an *Out-party cue*).⁷

Figure 1 presents the distribution of responses by experimental conditions for both dependent variables. As we can see, partisans classify a small, 0.2 percentage point change in unemployment or inflation very differently depending on the party to which the change was attributed. Respondents who received the *Out-party cue* were, on average, 21.5 percentage points less likely than those receiving the *In-party cue* to view the reduction in the unemployment rate as having “got[ten] better” during 2016. Respondents who received the *Out-party cue* were about 18 percentage points less likely than *In-party cue* respondents to classify the reduction in the unemployment as “stayed about the same.” We find similar results for inflation,

⁷Consistent with previous research (e.g., [Keith et al. 1992](#)), we classify Independent leaners as partisans.

albeit with somewhat smaller effects: those who received the *Out-party cue* were approximately 16 percentage points less likely than those who received the *In-party cue* to classify the 0.2 reduction in inflation as having “got[ten] better;” those who received the *Out-party cue* were also 13.6 percentage points more likely than *In-party cue*-receivers to classify the change as “stayed about the same.”

Figure 1: *Distribution of Dependent Variables by Experimental Condition*



We also estimated two regression models predicting evaluations of unemployment and inflation (where 1 = “got better,” 0.5 = “stayed about the same,” and 0 = “got worse”) as a function of whether or not respondents received the *Out-party cue*. The results of this analysis can be found in Table 2.⁸ Consistent with the results in Figure 1, partisans who received the

⁸In recent years, researchers have noted that significant portions of the data collected on MTurk is of questionable quality, provided either by respondents who provide misleading in-

Out-party cue were less likely than respondents who received the *In-party cue* to view (normatively positive) reductions in unemployment and inflation favorably. Specifically, those respondents who were told that an out-party leader oversaw the reduction in the unemployment rate viewed the change 12.5 percentage points less favorably than those who received the *In-party cue*. Similarly, respondents who received the *Out-party cue* viewed the reduction in the inflation rate 9.1 percentage points less favorably than those who received the *In-party cue*. The magnitude of these effects is sizeable.

Our results suggest that a significant portion of partisans' disagreement about the "acceptance of basic political facts, such as the state of the economy" (Berinsky 2017, 211) might be better explained as biased interpretation of response categories rather than genuine differences in knowledge. Even when partisans are presented with the *exact same* factual information, they classify it differently based upon their preexisting biases and political context (see also Gaines et al. 2007). The fact that vague response options are common on the ANES—

formation regarding the location from which they are completing a HIT or who provide humorous or insincere responses to survey questions (e.g., Ahler, Roush and Sood 2020; Amazon Mechanical Turk 2019; Bai 2018; Dreyfuss 2018; Kennedy et al. 2020; Ryan 2018). As demonstrated by Ahler, Roush and Sood (2020) and Kennedy et al. (2020), these bad actors can attenuate treatment effects by introducing noise into the data. Accordingly, we followed the recommendations of Ahler, Roush and Sood (2020) and Kennedy et al. (2020) to identify these suspicious responses and only present results among non-suspicious respondents in both Figure 1 and Table 2 ($n=861$). Consistent with previous research, we find that suspicious respondents attenuated treatment effects. Nevertheless, we still find impressive effects when including suspicious respondents in our analysis: among the full sample ($n=1,425$), receiving the *Out-party cue* causes respondents to view the change in unemployment 9.6 percentage points more negatively and the change in inflation 6.0 percentage points more negatively than those respondents who received the *In-party cue*. For more information, please see SI 3.

Table 2: *Impact of Treatment on Economic Evaluations*

| | Unemployment | Inflation |
|---------------|----------------------|----------------------|
| Out-party cue | -0.125*** (0.020) | -0.091*** (0.021) |
| Constant | 0.775*** (0.015) | 0.720*** (0.015) |
| Observations | 861 | 861 |
| R-squared | 0.043 | 0.022 |

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, two-tailed.

All variables have been rescaled 0-1 for ease of interpretation.

perhaps the most commonly used source of public opinion data in the discipline—helps contribute to the (mistaken) belief that differences in what Democrats and Republicans are large enough to warrant serious concerns about democratic accountability.

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SI 1 Additional ANES Information

SI 1.1 Signed Partisan Gaps by Item - ANES Economic Retrospection Questions

Table SI 1.1: Partisan Gap on Economic Retrospection Items

| Item | Study | Year | R | n(R) | D | n(D) | Signed Gap | <i>p(Gap)</i> |
|---|-------|------|-------|------|-------|------|------------|---------------|
| Economy over past year | ANES | 1980 | 0.962 | 528 | 0.931 | 841 | 0.031 | 0.016 |
| Economy over past year | ANES | 1982 | 0.530 | 445 | 0.758 | 774 | 0.228 | 0.000 |
| Economy over past year | ANES | 1984 | 0.627 | 883 | 0.246 | 1063 | 0.381 | 0.000 |
| Economy over past year | ANES | 1986 | 0.316 | 772 | 0.170 | 1088 | 0.146 | 0.000 |
| Economy over past year | ANES | 1988 | 0.281 | 829 | 0.104 | 954 | 0.177 | 0.000 |
| Economy over past year | ANES | 1990 | 0.958 | 714 | 0.954 | 1012 | 0.004 | 0.661 |
| Economy over past year | ANES | 1992 | 0.080 | 927 | 0.024 | 1228 | 0.056 | 0.000 |
| Economy over past year | ANES | 1994 | 0.329 | 749 | 0.366 | 834 | 0.036 | 0.131 |
| Economy over the past year | ANES | 1996 | 0.260 | 654 | 0.482 | 895 | 0.222 | 0.000 |
| Economy over past year | ANES | 1998 | 0.384 | 467 | 0.529 | 656 | 0.145 | 0.000 |
| Economy over past year | ANES | 2000 | 0.262 | 680 | 0.492 | 888 | 0.230 | 0.000 |
| Economy over past year | ANES | 2002 | 0.357 | 665 | 0.198 | 703 | 0.159 | 0.000 |
| Economy over past year | ANES | 2004 | 0.426 | 479 | 0.101 | 585 | 0.325 | 0.000 |
| Economy over past year | ANES | 2008 | 0.873 | 653 | 0.937 | 1364 | 0.064 | 0.000 |
| Economy over past year | ANES | 2012 | 0.441 | 1993 | 0.824 | 3100 | 0.383 | 0.000 |
| Economic condition of women over past year | ANES | 1984 | 0.543 | 875 | 0.411 | 1057 | 0.132 | 0.000 |
| Economic condition of blacks over past year | ANES | 1984 | 0.388 | 872 | 0.283 | 1023 | 0.105 | 0.000 |
| Economy since July 4th | ANES | 1992 | 0.730 | 857 | 0.575 | 1145 | 0.155 | 0.000 |
| Economy compared to four years ago | ANES | 1992 | 0.756 | 857 | 0.856 | 1145 | 0.100 | 0.000 |
| Economy since Clinton took office | ANES | 1998 | 0.646 | 468 | 0.839 | 659 | 0.193 | 0.000 |
| Economy compared to 1992 | ANES | 2000 | 0.648 | 646 | 0.771 | 822 | 0.123 | 0.000 |
| Economy compared to 2008 | ANES | 2016 | 0.214 | 1724 | 0.613 | 1936 | 0.399 | 0.000 |

SI 1.2 Knowledge Question Wordings and Correct Answers - ANES Economic Retrospection Items

- **Economy better or worse over past year**⁹

Would you say that over the past year the nation's economy has gotten better, stayed¹⁰ the same or gotten worse?¹¹

Response options: Better, stayed [about] the same, gotten worse

⁹National economic conditions based on Federal Reserve Economic data (available at fred.stlouisfed.org). The specific indicator is Real Gross Domestic Product per Capita, Quarterly, Seasonally Adjusted Rates, Chained to 2009 Dollars. To determine "correct" responses, we calculated the difference between real GDP per capita in Q3 in the year prior to the election and real GDP per capita in Q3 of the election year. Any difference with an absolute value of less than \$500 was coded as "stayed about the same;" anything above \$500 was coded as "better," and anything less than \$500 was coded as "worse." As noted in the manuscript, in calculating the signed partisan gap for these items, we did not change the sign of the partisan difference if the correct answer is coded as "stayed about the same."

¹⁰1984: "about" inserted here

¹¹An alternate version in 2002 reversed the direction of the options in the question.

Table SI 1.2: Economy over the past year - correct responses by year

| Year | Correct answer |
|-------------|-----------------------|
| 1980 | Worse |
| 1982 | Worse |
| 1984 | Stayed about the same |
| 1986 | Stayed the same |
| 1988 | Stayed the same |
| 1990 | Worse |
| 1992 | Stayed the same |
| 1994 | Better |
| 1996 | Better |
| 1998 | Stayed the same |
| 1990 | Worse |
| 1992 | Stayed the same |
| 1994 | Better |
| 1996 | Better |
| 1998 | Stayed the same |
| 2000 | Stayed the same |
| 2002 | Worse |
| 2004 | Stayed the same |
| 2008 | Worse |
| 2012 | Worse |
| 2016 | Better |

1984

- **Economic condition of women over past year**¹²

What about women? Would you say that over the past year the economic position of women has gotten better, stayed about the same, or gotten worse? *Response options: Better, stayed about the same, gotten worse*

- **Economic condition of blacks over past year**¹³

Would you say that over the past year the economic position of blacks has gotten better, stayed about the same, or gotten worse?

Response options: Better, stayed about the same, gotten worse

1992

- **Economy compared to four years ago**¹⁴

Compared to four years ago, would you say that the nation's economy has gotten better,

¹²Economic condition of women based on subgroup unemployment figures from the Bureau of Labor Statistics (available at data.bls.gov). The specific indicator is Annual Unemployment Rates. To determine “correct” responses, we compared unemployment levels from previous year’s annual average. (With the exception of 2008, in all years listed, unemployment did not change measurably—that is, by an increase or decrease of more than one third of one percentage point—over the course of the election year.) Unemployment was considered to have stayed “about the same” if it did not increase or decrease more than one third of one percentage point from the previous year.

¹³Economic condition of blacks based on subgroup unemployment figures from the Bureau of Labor Statistics (available at data.bls.gov). We follow our previous coding scheme for unemployment as described above.

¹⁴Economy compared to four years ago based on information chronicled in [Hershey Jr. \(1993\)](#).

stayed about the same, or gotten worse?

*Response options: Gotten better, stayed about the same, **gotten worse***

- **Economy since July 4th**¹⁵

What about in the last few months, since about the 4th of July. Would you say that the nation's economy has gotten better, stayed about the same, or gotten worse?

*Response options: **Gotten better**, stayed about the same, gotten worse*

1998

- **Economy since Clinton took office**¹⁶

Would you say that since Clinton took office, the nation's economy has gotten better, stayed about the same, or gotten worse?

*Response options: **Gotten better**, stayed about the same, gotten worse*

2000

- **Economy compared to 1992**¹⁷

Since 1992, would you say President Clinton has made the nation's economy better, made

¹⁵Economic information since July based on information chronicled in [Apple Jr. \(1992\)](#).

¹⁶Economy better/worse based on Federal Reserve Economic data (available at [fred.stlouisfed.org](#)). The specific indicator is Real Gross Domestic Product per Capita, Quarterly, Seasonally Adjusted Rates, Chained to 2009 Dollars. To determine the "correct" response, we calculated the difference between real GDP per capita in Q1 of 1993 and real GDP per capita in Q3 of 1998. We also checked the quarterly data between these endpoints to ensure the indicator trended upward.

¹⁷Economy better/worse based on Federal Reserve Economic data (available at [fred.stlouisfed.org](#)). The specific indicator is Real Gross Domestic Product per Capita, Quar-

the economy worse, or had no effect on the economy one way or the other?

*Response options: **Made the economy better**, made the economy worse, no effect*

2016

- **Economy compared to 2008**¹⁸

Would you say that compared to 2008, the nation's economy is now better, worse, or about the same?

*Response options: **Better**, worse, about the same*

terly, Seasonally Adjusted Rates, Chained to 2009 Dollars. To determine the “correct” response, we calculated the difference between real GDP per capita in Q1 of 1993 and real GDP per capita in Q3 of 2000. We also checked the quarterly data between these endpoints to ensure the indicator trended upward.

¹⁸Economy better/worse based on Federal Reserve Economic data (available at fred.stlouisfed.org). The specific indicator is Real Gross Domestic Product per Capita, Quarterly, Seasonally Adjusted Rates, Chained to 2009 Dollars. To determine the “correct” response, we calculated the difference between real GDP per capita in Q3 of 2008 and real GDP per capita in Q3 of 2016. We also checked the quarterly data between these endpoints to ensure the indicator trended upward.

SI 1.3 Signed Partisan Gap by Item - ANES

Table SI 1.3: Partisan Knowledge Gaps by Item - ANES

| Item | Study | Year | R | n(R) | D | n(D) | Signed Gap | p(Gap) |
|--|-------|------|-------|------|-------|------|------------|--------|
| Unemployment over past year | ANES | 1986 | 0.366 | 276 | 0.301 | 532 | 0.065 | 0.060 |
| Inflation over past year | ANES | 1986 | 0.431 | 276 | 0.427 | 532 | 0.004 | 0.903 |
| Unemployment over past year | ANES | 1988 | 0.581 | 830 | 0.268 | 954 | 0.312 | 0.000 |
| Inflation over past year | ANES | 1988 | 0.504 | 830 | 0.393 | 954 | 0.111 | 0.000 |
| Deficit compared to 1980 | ANES | 1988 | 0.768 | 776 | 0.729 | 883 | -0.039 | 0.070 |
| Social Security benefits since 1980 | ANES | 1988 | 0.490 | 774 | 0.393 | 900 | 0.096 | 0.000 |
| School spending since 1980 | ANES | 1988 | 0.286 | 774 | 0.210 | 900 | 0.076 | 0.000 |
| Unemployment over past year | ANES | 1992 | 0.684 | 928 | 0.885 | 1229 | 0.201 | 0.000 |
| Inflation over past year | ANES | 1992 | 0.091 | 929 | 0.033 | 1229 | -0.057 | 0.000 |
| Deficit under Clinton | ANES | 1996 | 0.247 | 654 | 0.341 | 894 | 0.094 | 0.000 |
| Taxes under Clinton | ANES | 1996 | 0.599 | 652 | 0.373 | 896 | 0.226 | 0.000 |
| Deficit compared to 1992 | ANES | 2000 | 0.513 | 646 | 0.606 | 821 | 0.094 | 0.000 |
| Crime compared to 1992 | ANES | 2000 | 0.298 | 646 | 0.420 | 822 | 0.122 | 0.000 |
| Unemployment over past year | ANES | 2004 | 0.442 | 446 | 0.109 | 518 | 0.334 | 0.000 |
| Inflation over past year | ANES | 2004 | 0.376 | 445 | 0.603 | 518 | 0.227 | 0.000 |
| Income tax for average person under Bush | ANES | 2004 | 0.298 | 485 | 0.131 | 592 | 0.167 | 0.000 |
| Unemployment over past year | ANES | 2008 | 0.748 | 644 | 0.903 | 1343 | 0.155 | 0.000 |
| Inflation over past year | ANES | 2008 | 0.189 | 646 | 0.148 | 1338 | 0.041 | 0.019 |
| Unemployment over past year | ANES | 2012 | 0.092 | 1995 | 0.461 | 3102 | 0.369 | 0.000 |
| Obama born in U.S. | ANES | 2012 | 0.200 | 1846 | 0.688 | 2888 | 0.488 | 0.000 |
| Health care end of life | ANES | 2012 | 0.140 | 1843 | 0.378 | 2872 | 0.239 | 0.000 |
| Government knew about 9/11 -2012 | ANES | 2012 | 0.239 | 1850 | 0.204 | 2889 | -0.036 | 0.003 |
| Katrina flooding | ANES | 2012 | 0.519 | 1851 | 0.396 | 2883 | 0.123 | 0.000 |
| Unemployment over past year | ANES | 2016 | 0.193 | 1728 | 0.559 | 1939 | 0.366 | 0.000 |
| Existence of global warming | ANES | 2016 | 0.676 | 1723 | 0.904 | 1934 | 0.228 | 0.000 |
| Cause of global warming | ANES | 2016 | 0.222 | 1724 | 0.530 | 1937 | 0.308 | 0.000 |
| Government knew about 9/11 -2016 | ANES | 2016 | 0.261 | 1469 | 0.198 | 1665 | 0.063 | 0.000 |
| Obama Muslim | ANES | 2016 | 0.501 | 1449 | 0.830 | 1661 | 0.329 | 0.000 |

SI 1.4 Knowledge Question Wordings and Correct Answers - ANES Items

- **Unemployment over past year**¹⁹

Would you say that over the past year, the level of unemployment in the country has gotten better, stayed about the same, or gotten worse?²⁰

Response options: Better, stayed about the same, gotten worse

Table SI 1.4: Unemployment over the past year - correct responses by year

| Year | Correct answer |
|------|-----------------------|
| 1986 | Stayed about the same |
| 1988 | Better |
| 1992 | Worse |
| 2004 | Better |
| 2008 | Worse |
| 2012 | Better |
| 2016 | Better |

- **Inflation over past year**²¹

Would you say that over the past year, inflation has gotten better, stayed about the same,

¹⁹National unemployment rates based on information from the Bureau of Labor Statistics (available at data.bls.gov). We followed the same coding scheme for unemployment data as described in SI 1.2.

²⁰1986 version: “Would you say that over the past year, the national unemployment rate has gotten better, stayed about the same, or gotten worse?”

²¹Inflation rates based on information from the Bureau of Labor Statistics (available at data.bls.gov). The specific indicator is Consumer Price Index, All Urban Consumers, which according to BLS is the inflation index most reported by national media. To determine “correct” responses, we compared inflation levels from previous year’s annual average. Inflation was considered to have stayed “about the same” if it did not increase or decrease more than one third of one percentage point from the previous year.

or gotten worse?²²

Response options: Better, stayed about the same, gotten worse

Table SI 1.5: Inflation over the past year - correct responses by year

| Year | Correct answer |
|-------------|-----------------------|
| 1986 | Stayed about the same |
| 1988 | Stayed about the same |
| 1992 | Better |
| 2004 | Worse |
| 2008 | Stayed about the same |

- **Gap between rich and poor - 2004, 2008, 2012, 2016²³**

Do you think the difference in incomes between rich people and poor people in the United States today is larger, smaller, or about the same as it was 20 years ago? *Response options: Larger, smaller, stayed about the same*

1988

- **Deficit compared to 1980²⁴**

Would you say that compared to 1980 the federal budget deficit has gotten smaller, stayed about the same, or gotten larger?

Response options: Gotten smaller, stayed about the same, gotten larger

²²1986 version: “Would you say that over the past year, the inflation rate has gotten better, stayed about the same, or gotten worse?”

²³Several sources, including [Bartels \(2008\)](#) and [inequality.org](#) demonstrate that the gap has been growing for decades.

²⁴Size of the federal budget deficit based on information from [usgovernmentspending.com](#), a site that aggregates federal data from multiple sources. Specific indicator used is Deficit-Federal in Billions of Nominal Dollars.

- **Social Security benefits since 1980**²⁵

Have Social Security benefits been increased, decreased, or stayed about the same as they were in 1980, or haven't you paid much attention to this?

*Response options: **Increased**, decreased, stayed about the same*

- **School spending since 1980**²⁶

Has federal spending on public schools been increased, decreased, or stayed about the same as it was in 1980, or haven't you paid much attention to this?

*Response options: Increased, **decreased**, stayed about the same*

1996

- **Deficit under Clinton**²⁷

Would you say that the size of the yearly budget deficit increased, decreased, or stayed about the same during Clinton's time as President?

*Response options: **Increased**, decreased, stayed about the same*

- **Taxes under Clinton**²⁸

Would you say that the federal income tax paid by the average working person has in-

²⁵Social Security benefits based on information from the Social Security Administration (ssa.gov). The specific indicator is Minimum and Maximum Monthly Retired-Worker Benefits Payable to Individuals who Retired at age 62, 1957-2010 (Table A27).

²⁶School spending based on information from the Department of Education ed.gov. Specific indicator used is Total Spending, Elementary and Secondary - Appropriation Numbers.

²⁷Deficit based on information from usgovernmentspending.com, a site that aggregates federal data from multiple sources. Specific indicator used is Federal Deficit in Nominal Billions of Dollars.

²⁸Tax rates based on information contained in [Allen \(1996\)](#).

creased, decreased, or stayed about the same during Clinton's time as President?

*Response options: **Increased**, decreased, stayed about the same*

2000

- **Deficit compared to 1992**²⁹

As you know, Bill Clinton was first elected President in November 1992. He will soon be leaving office after 8 years as President. The next several questions ask whether you think things have changed since Clinton came into office. First, would you say that compared to 1992, the federal budget deficit is now smaller, larger, or about the same?

*Response options: Gotten smaller, **gotten larger**, about the same*

- **Crime rate compared to 1992**³⁰

Would you say that compared to 1992 the nation's crime rate has gotten better, gotten worse, or stayed about the same?

*Response options: **Better**, worse, the same*

2004

²⁹Size of the federal budget deficit based on information from usgovernmentpending.com, a site that aggregates federal data from multiple sources. Specific indicator used is Deficit-Federal in Billions of Nominal Dollars.

³⁰Crime rate based on information from the Brennan Center (available at <https://www.brennancenter.org/sites/default/files/publications/Crime%20Trends%201990-2016.pdf>).

- **Income tax for average person under Bush**³¹

Would you say that, compared to 2000, the federal income tax paid by the average working person has increased, decreased, or stayed about the same during George W. Bush's time as President?

*Response options: Increased, **decreased**, stayed about the same*

2016

- **Global warming happening**³²

You may have heard about the idea that the world's temperature may have been going up slowly over the past 100 years. What is your personal opinion on this? Do you think this has probably been happening, or do you think it probably hasn't been happening?

*Response options: **Has probably been happening**, probably hasn't been happening*

- **Global warming cause**³³

(Do/Assuming it's happening, do) you think a rise in the world's temperatures would be caused mostly by human activity, mostly by natural causes, or about equally by human activity and by natural causes?

³¹Income tax information based on information from the Center on Budget and Policy Priorities (available at <https://www.cbpp.org/sites/default/files/atoms/files/3-31-17tax.pdf>).

³²Information on global warming taken from the Union of Concerned Scientists (available at <https://www.ucsusa.org/global-warming>).

³³Information on global warming taken from the Union of Concerned Scientists (available at <https://www.ucsusa.org/global-warming>).

Response options: Mostly by human activity, mostly by natural causes, about equally by human activity and natural causes

SI 2 Question Wording from June 2020 MTurk Experiment

Switching gears, we'd like to understand how you think various measures of the economy performed a few years ago, (*when Barack Obama was president | when Republicans were in control of both Houses of Congress*).

During 2016, (*when Barack Obama was president | when Republicans were in control of both Houses of Congress*), unemployment decreased from 5.0% to 4.8%, a change of 0.2 percentage points. How would you interpret this change? Would you say that unemployment got better, stayed about the same, or got worse?

- Got better
- Stayed about the same
- Got worse

In 2016, inflation also decreased from 2.1% to 1.9%, a change of 0.2 percentage points. How would you interpret this change? Would you say that inflation got better, stayed about the same, or got worse?

- Got better
- Stayed about the same
- Got worse

SI 3 MTurk Data Quality and Attenuation of Treatment Effects

As mentioned previously, we followed the advice of [Ahler, Roush and Sood \(2020\)](#) and [Kennedy et al. \(2020\)](#) to identify low-quality responses on Amazon’s Mechanical Turk (MTurk). To do so, we first used a Qualtrics plugin to record the IP addresses from which respondents were taking the survey. We further collected IP-level metadata and flagged any respondent who took the survey from outside the United States (as the survey was limited to American adults), completed the survey more than once, or completed the survey from a blacklisted address as suspicious/of potential low-quality. In order to identify respondents who may provide humorous or insincere responses to survey questions, we also asked respondents a series of low-incidence screener questions. These questions ask about rare afflictions and behaviors, such as whether the respondent was a member of a gang, whether the respondent used a prosthetic, etc. Following [Ahler, Roush and Sood \(2020\)](#) and [Lopez and Hillygus \(2018\)](#), we classified any respondent as suspicious/a potential provider of low-quality data if they answered in the affirmative to two or more of these questions. In all, we found that 38% of our data is of questionable quality.

To determine whether low-quality responses attenuate treatment effects, we estimated four regression models in [SI 3.6](#). For context, the first two models provide the results among the entire sample (including low-quality responses) using the unemployment and inflation dependent variables, respectively. The last two models include an indicator for whether the respondent was flagged as providing a *Low-quality response* and an interaction term comprised of the *Low-quality response* indicator and assignment to the *Out-party cue* condition. As we can see, flagged respondents attenuate treatment effects for both dependent variables, but impressive effects remain: even when including low-quality respondents in our data, respondents are 9.6 percentage points less likely to view the change in unemployment as having “gotten better” and 6.0 percentage points less likely to view the change in inflation similarly under out-party

leadership.

Table SI 3.6: *Impact of Low-Quality Responses on Treatment Effects*

| | (1) Unemployment | (2) Inflation | (3) Unemployment | (4) Inflation |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|
| Out-party cue | -0.096*** (0.015) | -0.060*** (0.016) | -0.125*** (0.020) | -0.091*** (0.021) |
| Low-quality response | | | 0.045** (0.022) | -0.022 (0.024) |
| Out-party cue * low-quality response | | | 0.076** (0.031) | 0.079** (0.033) |
| Constant | 0.793*** (0.011) | 0.711*** (0.012) | 0.775*** (0.014) | 0.720*** (0.015) |
| Observations | 1,425 | 1,425 | 1,425 | 1,425 |
| R-squared | 0.027 | 0.010 | 0.050 | 0.014 |