United in States of Dissatisfaction: Confirmation Bias Across the Partisan Divide

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Abstract
Partisan polarization is a central feature of American political life, and a robust literature has shown that citizens engage in partisan motivated reasoning when processing political information. At the same time, however, recent events have highlighted a rising tide of antigovernment sentiment among Democrats and Republicans alike. Using an original set of survey experiments, we find that citizens engage in confirmation bias when they encounter new information, and this is driven not only by party and ideology but also by beliefs about the quality and efficiency of government. Taken together, our findings suggest important limitations to citizens’ capacity to learn about public administration, and expand our understanding of what drives confirmation bias with respect to public and private service provision.

Keywords
confirmation bias, motivated reasoning, privatization, trust in government

During the 2016 presidential election, Donald Trump promised to fight back aggressively against government waste and inefficiency. For instance, while experts estimated that the candidate’s proposed tax cut would increase the size of the debt by roughly US$10 trillion, Trump insisted much of that amount could be mitigated by cracking down on pervasive public mismanagement: “Department of Education. We’re getting rid of Common Core,” he said during the campaign. “Department of Environmental Protection. We’re going take a tremendous amount out. The waste, fraud, and abuse is massive.”

Coming from a Republican candidate seeking to appeal to a particularly disaffected segment of the American electorate, this sort of antigovernment rhetoric might be expected. What is more remarkable, though, is how closely it echoes some of the sentiments voiced by Democrats. Bernie Sanders, who also made government dysfunction a centerpiece of his candidacy, said during the primary campaign, “I believe in government, but I believe in efficient government, not wasteful government.” Similarly, Hilary Clinton noted in a campaign speech,

I would like to take a hard look at every part of the federal government and do the kind of analysis that would rebuild some confidence that we’re taking a hard look about what we have and what we don’t need anymore.

In this study, we conduct a set of survey experiments across four distinct policy domains—education, municipal waste management, emergency medical services, and criminal justice—to investigate whether Americans’ widely held beliefs about the quality and efficiency of government have implications for political information processing. In some treatment conditions, we provided respondents with clear information about the quality of a particular service. However, we did not tell them whether that service was administered by government or a private firm. In other conditions, we provided clear information about public versus private service provision, but provided only ambiguous information about service quality. We find that individuals engage in motivated reasoning to “fill in” missing information according to their preexisting beliefs about government. However, this bias is driven not only—or even primarily—by party identification and ideology. In addition, effects are conditioned on respondents’ general views of government incompetence and inefficiency.

Taken together, our findings suggest sizable limitations to citizens’ capacity to learn about public services from new information, and ultimately to form coherent assessments of what government delivers. Instead, many Americans process information in ways that simply confirm their preexisting beliefs.
views about the quality of the public sector vis-à-vis the private market. This may help to explain why improvements in the quality of public services are not always recognized by the citizens they are intended to serve; when government delivers high-quality services, citizens often mistakenly believe those services are privately delivered.

At the same time, our findings add to a large and growing body of evidence concerning confirmation bias in political domains. Partisan confirmation bias is critical to understanding modern politics in America. However, our results point to a crosscutting cleavage in American political life that is both meaningfully distinct and substantively important. Specifically, we show that large subsets within both parties hold generally negative views of government, and these beliefs have significant consequences for how Americans perceive the political world.

**Confirmation Bias Across the Party Divide**

Political partisanship is one of the defining features of modern American politics. In recent years, party polarization has reached a record high (e.g., Aldrich, 1996; Fiorina & Abrams, 2008; McCarty, Poole, & Rosenthal, 2006; Poole & Rosenthal, 1984, 2007; Rohde, 1991) and party identification is now a more significant predictor of Americans’ fundamental political values than any other social or demographic divide, including gender, race, education, and religion (Doherty, 2017). Partisanship serves as an important heuristic that individuals can rely on when deciding what policies to support or oppose (e.g., Lenz, 2012), determining how to interpret the state of the world (e.g., Bartels, 2002; Enns, Kellstedt, & McAvoy 2012; Popescu, 2013), interpreting candidates’ qualities (e.g., Hayes, 2005), and even when deciding whether or not to participate in public programs (Lerman, Sadin, & Trachman, 2017).

Partisanship also has important implications for information seeking and processing (Druckman, Peterson, & Slothuus, 2013; Lodge & Taber, 2000; Slothuus & de Vreese, 2010; Taber & Lodge, 2006). As Gerber and Green (1999) summarize, “The most influential statement of the hypothesis that citizens with different political orientations form different impressions of the same set of facts concerns the distorting influences of partisan attachments.” Essentially, partisans are more likely to seek out information that bolsters their preexisting beliefs, more heavily weight and more easily recall information that is congruent with what they already believe, and view evidence as being stronger if it is confirmatory. Conversely, they are more likely to avoid, ignore, or reject information that is congruent with the position of the other party (Berelson, Lazarsfeld, & McPhee, 1954; Lavine, Johnston, & Steenbergen, 2012; Smith, Terry, Crosier, & Duck, 2005; also see Dancey & Goren, 2010; Druckman et al., 2013; Iyengar, Sood, & Lelkes, 2012; Nicholson, 2012; Zaller, 1992).

These biases can persist even when efforts are made to correct inaccuracies (Bullock, 2007; Kuklinski, Quirk, Jerit, Schweider, & Rich, 2000; Nyhan & Reifler, 2010; Nyhan, 2010) and in some cases, individuals will inaccurately perceive contradictory information as confirmatory. As one study notes, “people literally are prone to see what they want to see” (Balcetis & Dunning, 2006, p. 613). Because confirmation bias is largely an unconscious process, one’s inability or unwillingness to incorporate discrepant information need not be intentional. In fact, individuals frequently do not realize that their preexisting preferences and beliefs are shaping their perceptions and decision-making (Sood, 2013).

Yet, while Americans are now more polarized than they have been at any point in the last two and a half decades (Pew Research Center, 2012), partisans in America do agree on one thing: Majorities of Republicans and Democrats alike have come to believe their government is wasteful and inefficient, and provides generally low-quality programs and services. In a 2010 survey, just 14% of Americans held the view that government was well run and effectively managed, while more than half said that government was either not so good or poor (24% and 29%, respectively). Even more striking is that only 7% of Americans rated the government as either “excellent” or “good” at “spending money efficiently” (Molyneux & Teixeira, 2010). When asked whether “when something is run by government, it is usually wasteful and inefficient,” majorities across all partisan groups agree. In some recent years, partisans’ attitudes toward government waste and efficiency have actually converged (Pew Research Center, 2010).

Concerns about government inefficiency are not only widespread; they are also highly salient. In a 2010 Pew Research Center poll, Americans were presented with a series of concerns they might have regarding government, including that government is wasteful and inefficient. Other options included government “is too big and powerful,” that it “interferes too much in peoples’ lives,” that government “does too little for average Americans” or that its “policies unfairly benefit some groups.” They were then asked whether each represented a serious problem. In the full sample, only 7% of Americans felt that government waste was not a problem at all.

In contrast, about 70% said this was a major problem. The issue was seen as a major concern by a larger proportion of Republicans than either independents or Democrats. However, a majority of each partisan group identified waste and inefficiency as a major problem—81%, 76%, and 58%, respectively. In fact, Republicans identified waste as a bigger problem than any of the other issues on the list, including that government is too big and powerful. For Democrats, concern about public-sector waste and inefficiency was only surpassed by concern that government “does too little for average Americans,” and then only by a small margin (about 5 percentage points).

In a significant departure from existing research on confirmation bias, we focus our attention on this other dimension of
political attitudes. Specifically, we hypothesize that citizens engage in confirmation bias when evaluating government service delivery, and they do this conditional not only—or even primarily—on partisanship or ideology, but also on this distinct, crosscutting dimension of antigovernment attitudes. The result is systematic bias in how individuals assess the relative quality of public versus private services, as well as to whom they attribute services of low versus high quality. In this way, we suspect that widespread, negative perceptions of American government provide a complementary explanation for when and how motivated reasoning occurs.

Data and Method

To test our hypotheses, we ran four sets of experiments in which subjects were asked to read a brief article describing a nonpartisan evaluation of service provision in a fictional town. Across these four sets of experiments, we kept the article largely the same, but we varied the policy domain in which services were being evaluated: in one experiment, respondents received an article about a school, while in other experiments respondents received a similar article about a garbage collection service, an emergency medical service, or a prison. Each policy area was chosen because it is a domain where services are provided by government in some places and by the private sector in others.

Within each of these four policy domains, we conducted a set of two experiments. In the first, we tested how subjects’ assessments of service quality are affected by whether the service is publicly or privately provided (the “assessment” experiments). In the second experiment, we tested how subjects’ attributions of service to public versus private provision are affected by whether the service is rated as high or low quality (the “attribution” experiments).

In the attribution experiments, subjects were randomly assigned to one of two experimental conditions, the “high-quality” condition or the “low-quality” condition. In each condition, the article described three distinct indicators of either high or low quality. In the high-quality condition, all three indicators were strongly positive, while in the low-quality condition, all three indicators were negative. For example, a respondent who participated in the garbage collection attribution experiment received an article about garbage collection service in the fictional Noah Haven Township. If she was assigned to the high-quality condition, she read that the nonpartisan evaluation

emphasizes three service-related factors—on-time pickups, lower costs, and better customer service—that are indicators of municipal garbage collection quality. In its review of Noah Haven’s garbage collection service, the [evaluation] reported that pickups were much more frequently on time than the state average, and that costs were significantly lower than average. Interviews with residents indicated almost unanimous satisfaction with the customer service they experienced.

In the low-quality condition, these three quality indicators—which we have underlined here for emphasis—were instead described as “much less frequently on time,” “costs were significantly higher,” and “almost unanimous dissatisfaction.”

The indicators of quality in each experiment were specific to the policy domain that was the focus of that experiment, and in each case, these indicators were designed to be controversial in whether they indicated higher or lower quality. For instance, in the prisons experiments, the quality indicators were level of gang activity, level of violence, and reincarceration rate. (Potentially more controversial quality indicators, which we did not use, might have included the proportion of inmates receiving drug treatment or vocational programs.) In the experiments focused on schools, the quality indicators were the rigor of the curriculum, class size, and support for teachers, while in the EMS experiments, they were response time, training level, and en-route deaths and complications. Although the vignettes we used in these attribution experiments provided unambiguous indicators of quality, they did not provide any information about whether the service was publicly or privately provided.

After reading the article, subjects were asked a series of questions, including a question requiring them to recall whether the service they had just read about was provided by government or a private company. This allowed us to test for bias in attributions of provision on the basis of quality. If respondents choose a provider at random, we would expect to see equal proportions inferring public and private provision, irrespective of people’s preexisting beliefs. If, instead, individuals are systematically biased in the direction of their preexisting attitudes, we should expect those with more negative views of government to be more likely to infer that low-quality services were public, and that high-quality services were provided by a private firm.

The assessment experiments were similar to the attribution experiments, but we reversed the direction of inference: Subjects received an article about service provision that was identical to the article used in the attribution experiments, except now the article included a clear signal of the service provider. In the “private” condition, the article clearly stated that the service was provided by a private firm, while in the “public” condition, the article clearly stated that services were provided by a government agency. In both cases, though, the quality signals were ambiguous—one indicator was positive, one indicator was negative, and the other indicator was average. After reading the article, subjects were asked to infer the quality of service. This allowed us to test for bias in quality assessments on the basis of public versus private service provision. Again, if respondents are engaging in motivated reasoning, we would expect people with more negative views of government to infer that public services were lower quality, and to infer a higher quality when they are told a service is provided privately.

We fielded our first two surveys in the spring of 2015 using samples of individuals from Amazon Mechanical Turk.
Respondents read an article about a school, and we varied either the information provided about quality and gave no cue as to attribution (the attribution experiment), or we varied the information about attribution and gave an ambiguous cue as to quality (the assessment experiment). To assure that our findings were not a function of attitudes specific to the Mechanical Turk population from which our sample was drawn, we then replicated this survey in the summer of 2015 using a demographically representative sample of Californians recruited by Survey Sampling International (N = 953).

As the results were consistent between the two samples, we then went back to Mechanical Turk and ran six additional survey experiments, this time to assure that our results were not specific to the context of public and private schools. Using the same experimental design, we substituted trash collection (N = 804), then emergency medical services (N = 801), and then prisons (N = 803) as the article’s focus. Across all four service types and both attribution and assessment experiments, we kept the style, structure, and content of the articles as similar as possible. Thus, we ran 10 experiments in total, each with a different sample of respondents: an assessment and an attribution experiment for each of the four domains of service, plus one assessment and one attribution replication survey (see Table 1). (Full article text and question wordings from all survey instruments are provided in the supplemental appendix.)

Because our experiments explicitly focus on confirmation bias, we also needed indicators for subjects’ prior beliefs. To the extent that being a Republican or conservative is a proxy for preferring private over public service delivery (Durant & Legge, 2002; Fernandez & Smith, 2006; Legge & Rainey, 2003; Thompson & Elling, 2000), we should expect attribution and assessment to vary by partisanship and political ideology. Specifically, we would expect Republicans and conservatives to be systematically more likely to pair high-quality services with private delivery and low-quality services with public delivery. Democrats and liberals, we expect, would be systematically more likely to make the opposite association.

As we have already suggested, however, negative evaluations of government quality and efficiency are actually highly prevalent across both political parties, as well as across ideological groups. We therefore chose five potential moderators, including partisanship and ideology but also three other measures that more directly assess attitudes toward government services. The first simply asked subjects if they thought that government services were generally of higher or lower quality than private services. The second presented a pair of statements expressing opposite views about the effectiveness and efficiency of government, and asking respondents to choose the one that best represented their beliefs. The third asked respondents whether they supported public versus private provision of the specific type of service mentioned in the experiment.

We placed our demographic and moderator questions at the end of the survey. We did this to avoid having these questions prime our subjects, but this raises concerns that answers to our moderator questions may also have been affected by our experimental treatment. We find evidence, however, that all of our moderators are relatively stable and consistent within individual respondents. To test this, we collected data on each moderator from a new sample of 860 MTurk workers. When we returned to this same sample a week later, we found very little movement. Specifically, the proportions who switched from pro- to antigovernment between surveys was 0.38% for party identification, 1.13% for ideology, 3.37% for government quality, 13.5% for government waste, and 0.38% for service preference. (Additional details of this analysis are provided in the supplemental appendix.)

More importantly, we find that all five moderators are well balanced across experimental conditions. Specifically, across 40 chi-square tests (Two sets of experiments [assessment and attribution] × 5 Moderators × 4 Service domains), only one p value was smaller than .10. The next smallest was .229 and the rest ranged between .400 and .900. If our

| Table 1. Sample Sizes for Both Sets of Experiments in All Four Policy Domains. |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Schools | Schools replication | Garbage Collection | Emergency Medical Service | Prisons |
| Attribution experiments Treatment variable: Random assignment to high versus low quality indicators Dependent variable of interest: Inference about public versus private service provider | 399 | 468 | 403 | 401 | 399 |
| Assessment experiments Treatment variable: Random assignment to public versus private service provider Dependent variable of interest: Inference about high versus low quality service | 419 | 485 | 401 | 400 | 404 |
| Total sample size by domain | 811 | 953 | 804 | 801 | 803 |
experimental treatment was affecting our moderators, we would expect to see consistent differences in our moderator variables across conditions. We do not see any empirical evidence that this is the case.

Results

In Figures 1 and 2, we present our main findings with respect to attribution of provider and assessment of quality, respectively. Each figure presents the results for each of our five moderators separately. In Figure 1, the first point estimate shows how the percentage of Democrats who attribute service provision to the public sector is affected by the quality signal they receive. Among Democrats shown a low-quality signal, 65.0% attributed the service to the public sector, while among those shown a high-quality signal, 66.6% did, a difference of 1.6 percentage points from private to public sector. The second point estimate describes results for Republicans. For this group, the corresponding percentages are 68.3% and 58.8%, respectively, a difference of 9.5 percentage points from public to private sector attribution.

The difference between the shift in attribution among Democrats and the shift among Republicans—the difference-in-differences—is shown below the two point estimates, along with the one-sided p value. The difference in differences is 11.1%, and is statistically significant at the 5% level. We interpret this as evidence of confirmation bias regarding the quality of public versus private sector service provision along the dimension of party identification. To the extent that Democrats have more favorable attitudes toward government service than Republicans, it appears that subjects from both parties are interpreting the quality signal in ways that confirm their prior attitudes. Moving across the figure, we find no statistically significant evidence of confirmation bias along the dimension of ideology. We do, however, find substantial and statistically significant confirmation bias along all three dimensions of attitudes toward government service. The difference-in-differences are 19.3% for government quality (p < .01), 10.3% for government waste (p < .05), and 23.2% for public versus private preference (p < .01).

We find similar results when we reverse our experiment, to test whether there is also confirmation bias on assessments of quality. Figure 2 presents our results on how signals of public versus private sector provision of a service affect subjects’ assessments of the quality of that service. Here, each point indicates the difference in the percentage of each group that assessed the quality of service as high. The double differences are small and are not statistically significant for either party identification or ideology. In contrast, they are again larger and statistically significant for the three variables measuring attitudes toward public versus private sector service provision. The difference-in-differences range from 8.3% for government waste (p < .05) to 13.5% for government quality (p < .05).

Our five moderator variables are positively, though in some cases weakly, correlated with one another (correlation coefficients between .099 and .401). We therefore turn to a principal components analysis to explore the underlying dimensionality of our measures. As expected, we find that there are two main factors. The first factor loads heavily on

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Figure 1. Difference between high and low quality signal in percent attributing service to the public sector, by moderator.

Note: Point estimates show difference between high-quality and low-quality treatment groups in attribution to the public sector, with 95% CI. Difference-in-difference estimates are calculated using one-sided hypothesis tests. CI = confidence intervals.

*p < .05. **p < .01. ***p < .001.
party identification and ideology, and the second loads on the three explicitly privatization-related variables. This allows for a straightforward interpretation of these two factors as “political orientations” and “public-private preferences,” respectively.10 We then conduct the same difference-in-differences analyses using the two factors as moderators. The results for attribution and assessment are shown in Figure 3. Because the scale of the factors is arbitrary and therefore hard to interpret, we present the results for hypothetical individuals half a
standard deviation above and below the median of each factor. Higher values of the first factor are associated with a Democratic party identification and liberal ideology, while higher values of the second factor are associated with generally positive attitudes toward the public sector.

The results for attribution show that, for a respondent who is half a standard deviation above the median for the political orientation factor, receiving a high rather than a low-quality signal shifts attribution from private to public sector by 1.3%. For a respondent who is half a standard deviation below the median, the shift is from public to private sector attribution by 2.3%. The double difference is thus 3.6%, and is not statistically significant. Meanwhile, for the public–private preferences factor, the corresponding shifts are 2.8% from private to public for a respondent who is half a standard deviation above the median, and 5.9% from public to private for a respondent who is half a standard deviation below the median. The double difference is larger (8.7%) and statistically significant (p < .001).

We find the same patterns in our quality experiments. For assessment of quality, the corresponding shifts for the political orientation factor are 0.7% and 1.9% and the double difference is not significant at conventional levels. In comparison, differences on the public-private preferences factor are again substantially larger (1.7% above the median and 5.2% below the median). At 6.9%, the double difference on this factor is of comparable size to the attribution difference-in-difference and is again statistically significant (p < .01).

To confirm that the difference between the confirmation bias effect along the dimension of public–private preferences is statistically different from that along the political orientation dimension, we also ran regressions of our attribution and assessment variables that include both factors, as well as their interactions with the relevant treatment dummies. We then conduct a postestimation test of the difference between the two double-difference coefficients. In both cases, we reject the null hypothesis of equal confirmation bias effects at the 5% level.

### Additional Analyses

We conduct three additional tests of our data. First, we assess whether our results change if we focus separately on respondents who have varying levels of political interest. Our logic here is that, if traditional partisanship is the primary explanation for our results, we might expect those with relatively high levels of political interest to be more susceptible to confirmation bias (Zaller, 1992). In each survey experiment, we asked respondents a standard question measuring political interest. We then reran all of our regressions using a stacked data set that includes interactions of each of the regressors with dummies for each interest-level subgroup. The results are identical to running separate regressions on the two groups, but stacking them allows us to conduct postestimation Chow tests of the hypothesis that the confirmatory bias was different between the two groups. In other words, we are able to test whether the double-difference coefficient used in our test of confirmation bias was smaller or larger in the high-interest versus the low-interest group. We find no statistically significant differences in confirmation bias by political interest for either the political orientation or public-private preferences dimensions.

Second, we conduct the same tests to examine whether our results are sensitive to subsetting the data by either ideological or partisan extremism. Here, we test whether the double-difference coefficient is smaller or larger when we compare ideological extremists with those who hold more moderate ideological views, or when we compare strong partisans versus those with weaker partisan attachments. As with political interest, we find no evidence that confirmation bias is more or less prevalent along these lines of comparison.

Finally, we use the schools survey experiment replications to assess whether our results are robust and replicable in a more representative sample. Using these data, we again ran a principal components analysis to see whether our moderators were capturing a set of underlying dimensions. As in the MTurk sample, we find two underlying factors that describe our moderator variables: public–private preferences and political orientation. As before, we then use these factor dimensions to estimate difference-in-differences for both attribution and assessment.

We find consistent results in our schools experiment replication; the results again show evidence of confirmation bias (see Table 2). Respondents who hold more negative views of government quality and who prefer private delivery are more likely to attribute high-quality services to private provision, and are more likely to infer that private services are high quality. Both results are statistically significant at the 5% level. With respect to attribution, the same is true for
those who hold more conservative political orientations. However, we find no evidence of confirmation bias on quality assessment along the political orientation dimension. We interpret these results as being consistent with those from the Mechanical Turk sample.

**Discussion and Conclusion**

Partisan motivated reasoning has long been recognized by scholars as a central feature of American politics. In the classic work of Campbell, Converse, Miller, and Stokes (1960), the authors suggest that partisan-biased reasoning serves as a “perceptual screen through which the individual tends to see what is favorable to his partisan orientation” (p. 133). These partisan biases help explain the magnitude and stability of partisan differences across a host of political issues and beliefs: when partisan political elites send divergent messages, strong partisans are more likely to listen to and believe the information that supports their existing political preferences (Druckman, Fein, & Leeper, 2012; Lavine et al., 2012; Zaller, 1992). Yet, while partisans in America are ideologically divided over a wide range of social issues (e.g., Abramowitz & Saunders, 2005; Bafumi & Shapiro, 2009; DiMaggio, John, & Bethany, 1996; Fiorina, Abrams, & Pope, 2005; Jacobson, 2005, 2008; Layman & Carsey, 2002), there is sizable consensus on the current state of government disarray. Specifically, Democrats and Republicans alike have come to view American government as both wasteful and inefficient, and as generally performing poorly in reaching its goals.

In this article, we hypothesized that these negative perceptions of government are consequential for how individuals process information about public service quality, as well as in how they attribute service provision. To assess this empirically, we ran a series of survey experiments in which we randomly varied whether individuals were provided with a signal of high or low quality services. We then asked respondents to infer whether the service was public or private. In a second set of experimental conditions, we randomly varied whether services were described as public or private, and then asked respondents to infer the quality of those services.

Our results strongly support a model of confirmation bias. In addition, our results suggest that confirmation bias occurs most strongly relative to “public–private preferences,” which are explicitly related to public versus private service provision. Confirmation bias in our experiments is less apparent with respect to more traditional “political identifications,” such as partisanship and ideology. In particular, ideology does not seem to be implicated in confirmation bias in regard to the aspects of service delivery we have examined here. This is potentially surprising, given the salience of these deeply rooted political orientations to American political life. However, it is consonant with data showing that beliefs about government incompetence are widely held across party groups. In our additional analyses, we also do not find evidence that the confirmatory bias we uncover is driven primarily by subjects who are more informed about political issues and current events.

One potential limitation of our study is that the variables we used to define prior preferences for public versus private service provision are somewhat similar to the quality assessment outcome variable. In particular, the question about overall quality of public versus private provision is highly similar to the quality assessment variable that asks respondents about the quality of the particular instance described in the article. This is one reason that we chose to use a total of three variables to measure prior preferences, and that our results are the same for all three reassures us that our results are not driven by the particular choice of dependent variables. Nonetheless, future research could explore other indicators of public–private preferences.

Our work also provides an important starting point for future research on how citizens understand and assess public services. Building on our findings, we might look at other programs and services to understand dimensions of difference across policy domains. We did not design our experiments to address this question; indeed, we took pains to be sure that our treatments were structurally identical across policy domains. We do see some suggestive differences in our different experiments, however. For instance, our strongest evidence of confirmation bias comes from the school and prison experiments. This potentially reflects the fact that these two service domains are more highly politicized than either garbage collection or emergency medical services. (Details of our results disaggregated by domain are provided in the supplemental appendix.)

Relatedly, our policy domains were all primarily controlled at the state or local levels. Future studies could design theory-driven manipulations specific to testing differences across levels of government, and even within levels of government but across states and localities where different political parties hold power. We would also be interested to see how confirmation bias of the kind we explore here is manifested in the case of public–private partnerships, which are an increasingly prominent feature of service delivery at every level of government (Warner & Hefetz, 2004).

Other important next step of this research agenda will be to assess the longer term effects of confirmation bias. The effects we have demonstrated involve individuals having preexisting beliefs about the quality of private versus public provision. When encountering a specific instance of a particular type of service being offered, but when information is incomplete, individuals choose to attribute provision or evaluate quality in such a way as to confirm their preexisting beliefs. It is not at all implausible, however, that this inference process will result not just in confirmation, but ultimately in reinforcement, of their prior beliefs. That is, when an individual encounters a high-quality service and infers that it is privately rather than publicly provided, this might
further strengthen the association between “private” and “high quality” in their minds. Effectively, the individual would be treating their inference about provision as if it were an actual signal about provision. If this is true, then the result would be an iterative process of updating whereby, as with Bayesian updating, the individual’s initial beliefs about the likelihood of public services being low quality (the prior probability) is combined with new information about the source and quality of a particular service, and the result (the posterior probability) can then be taken as a new prior. But in this case, the individual has mistaken their own biased inference of either quality or provision for a legitimate signal, leading to a potentially self-reinforcing process of incrementally increasing bias.

Finally, we might usefully build on this research by examining the extent to which preexisting beliefs about public services shape not only how services are evaluated but also how policy preferences are formed. We posit that not only do individuals engage in confirmation bias when considering the source and quality of services they receive; in addition, this biased learning informs their positions on increasing or decreasing public budgets, and their levels of support for privatizing public services (Lerman, forthcoming). More specifically, we suspect that when pro-private individuals obtain new information about high-quality public services but systematically misperceive them to be provided privately, they will increasingly support privatizing these services.

Over time, this might erode citizens’ ability to make informed decisions about what policies to support, develop preferences over the optimal range of services government should provide, and hold public actors accountable for delivering efficient and effective programs. As Suzanne Mettler (2011) concludes,

> Without basic information about its policies, citizens are ill-positioned to form and articulate opinions about, or even to understand what is at stake in reform efforts . . . More broadly, they are likely to assume that markets are more autonomous and effective then they are in actuality, and they may well fail to give government due credit for addressing society’s problems. (p. 27)

Taken together, our results suggest that negative perceptions of government can have important consequences for the psychology of public sector service evaluation. This might help to explain why negative evaluations of government appear widespread within the mass public and stable within individuals: Our findings suggest that perceptions of government might be resistant to change because Americans frequently fail to attribute high-quality government services to their source (Lowery, 1998, 2000; Mettler, 2011). Our results might similarly help to explain why citizens are inconsistent in their evaluations of the quality of government services. One study comparing internal government performance metrics with citizen satisfaction surveys found a disappointing lack of correlation between the two. Hypothesizing that citizen satisfaction would be higher where gains in internal performance metrics were reported, they instead found mixed results in citizens’ perceptions of these gains (Kelly & Swindell, 2002). In both of these cases, we believe that confirmation bias provides a ready explanation for systematic inaccuracies in both assessments and attributions.

Substantial confirmation biases in how citizens evaluate public sector programs have clear implications for democratic accountability. If the electorate is going to reward or punish public agencies and elected officials for the services they provide, citizens must have at least basic knowledge of what government delivers. They must also be able to assess the quality, efficiency, or effectiveness of these public goods. Basic information about public service delivery is similarly a prerequisite to meaningful political engagement; information about what government already does (and does not do) is required for citizens to be able to advocate for the adoption, retention, or expansion (or conversely, the elimination or contraction) of public services.

The idea that citizens can accurately identify and evaluate public sector services likewise underpins theories of public choice. In this framework, the political space can be thought of as akin to a market, in which the citizen-consumer will support the provision of programs and services that maximize their expected utility. To make this “market” function optimally, however, citizens must be capable of generating reasonable evaluations of the costs and benefits they can expect to accrue. However, our results suggest that citizens may be subject to systematic biases in assessing the value of what government and the private market can provide.

In sum, the findings we have presented suggest that the widespread characterization of government as an inefficient and low-quality service provider have substantial implications for how citizens evaluate what government does. In particular, confirmation bias of the type we have described means even a “good” public service, program, or policy might not reliably be recognized as such. This poses a challenge to the most basic tenets of public choice and democratic accountability. When citizens cannot or do not correctly identify the source of the services that are provided, they cannot correctly allocate credit and blame for the quality of those services. Nor can they make informed choices about whether to maintain current modes of service provision, or seek instead to change the status quo.

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Notes
1. Rather than being a marker of coherent and informed political attitudes, scholars have convincingly shown that partisanship is a stable social identity, structuring who is in our “in-group” and who is not “like us” (Green, Palmquist, & Schickler, 2004; see also Battaglio, 2009; Campbell, Converse, Miller, & Stokes, 1960; Niemi & Jennings, 1991).
2. There are many ways individuals receive and process information so as to confirm their prior beliefs. This can include, for example, seeking out confirmatory evidence, interpreting evidence in such a way that it bolsters existing attitudes, and ignoring inconsistent information. In this article, we use the term “confirmation bias” as synonymous with “motivated reasoning.” For more on this, see, for instance, Druckman, Peterson, and Slothuus (2013).
3. All observable covariates are well balanced across experimental conditions. Balance check results are provided in the supplemental appendix.
4. Because results across experiments were substantively similar, and because we had no clear ex-ante hypotheses about how our results might differ across domains, we pool our experiments. Results from each policy domain considered separately are available in the supplemental appendix.
5. For ease of interpretation, the results we present here are difference-in-difference results. The main effects of treatment on assessment and attribution outcomes are presented in the appendix. As should be expected, given our theory and results are driven by the role of our moderator variables, there is no statistically significant main effect when these moderators are removed.
6. For ease of interpretation, our results focus on the single differences between the two sides of each moderator variable. The underlying percentages of subjects assessing quality as high, or provision as private, are presented in the supplemental appendix.
7. We use a one-sided hypothesis test throughout our analysis, because we had a clear ex-ante hypothesis about the direction of effects.
8. As robustness checks, we conducted logit and ordered logit regressions for the attribution and assessment tests, respectively, and also reran the ordinary least squares (OLS) regressions on the subsample of subjects who answered our attention-check question correctly (86.74%). The results are available in the supplemental appendix. As should be expected, given that our theory and results are driven by the role of our moderator variables, there is no statistically significant main effect when these moderators are removed.
9. The full correlation matrix is provided in the supplemental appendix.
10. Additional details of the principal components analysis are provided in the supplemental appendix.
11. That question read, “Some people seem to follow what’s going on in government and public affairs most of the time, whether there’s an election going on or not. Others follow what’s going on less often. Would you say you follow what’s going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?”

Supplemental Material
Supplemental material for this article is available online.

References


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