How Do Voters Hold Politicians Accountable for Personal Welfare? Evidence of a Self-Serving Bias

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Examining a government's record is difficult. This is a problem for voters who want to hold governments accountable. One solution is for voters to hold governments accountable for changes in their personal welfare. Yet, it is often unclear whether changes in personal welfare are caused by government policies or voters' own actions. Since voters have a desire to protect their self-image, this ambiguity might fuel a self-serving bias in attribution. That is, voters might take personal responsibility for positive changes in personal welfare and hold the government responsible for negative changes. Using data from election surveys and survey experiments, this article shows that voters attribute responsibility for personal welfare in this self-serving way. This hurts democratic accountability because voters do not reward governments (enough) for improving their personal welfare.

A key question in representative democracies is how, if at all, voters can hold governments accountable. The media, political parties, and nonpartisan experts often disagree about what parts of a government's record are relevant (Is it national security or the economy?) and about the nature of this record (How much healthier is the economy really?). To complicate things further, voters have many other and more pressing obligations, such as work and family, apart from figuring out whether the government has done a good job. In light of this, it is natural to consider whether there is a shortcut or a heuristic voters might use to hold governments accountable. One such heuristic could be to focus on personal welfare. Fiorina, for instance, has argued that even uninformed voters "typically have one hard bit of data: they know what life has been like during the incumbent's administration" (1981, 5), and voters can use these data to judge the incumbent (Downs 1957; Key 1966; Popkin 1991). If voters behave in this way, punishing and rewarding the government for changes in personal welfare, some might end up reacting to personal experiences that have little to do with the government's behavior. Yet, overall, politicians will suffer at the polls if they make their voters suffer and prosper if they make their voters prosper. In this way, voters ensure some measure of democratic accountability by voting for incumbents when their personal welfare improves (Fiorina 1981; Surowiecki 2005).

Early enthusiasm for this type of "egotropic" voting behavior was tempered by research showing that voters are rarely moved to reject or support governing politicians because of changes in their personal welfare (e.g., Kinder and Kiewiet 1979, 1981; Stubager et al. 2014). Instead, this research suggested, voters focus on how society is doing as a whole (Lewis-Beck and Stegmaier 2013). However, more recent research has found that personal welfare might indeed affect support for governing politicians. Using more detailed measures and more appropriate research designs, both Healy, Persson, and Snowberg (2017) and Tilley, Neundorf, and Hobolt (2018) find that changes in voters' own economic situation powerfully shape support for incumbent governments (see also Healy and Lenz 2017; Simonovits, Kates, and Szeitl 2019). This puts the politicization of personal welfare back into play as a potential source of democratic accountability.

Even so, a key problem with holding politicians accountable for changes in personal welfare remains. The extent to which changes in personal welfare are the result of government policies or voters' own behavior is often unclear. Factors such as your employment situation, the size of your mortgage payments, and your children's test scores are influenced by

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government action, but they are also influenced by your own behavior as well as other extraneous factors. On its face, this ambiguity should not be a problem in the aggregate, as voters who happen to think the government is less responsible for some relevant outcome are canceled out by voters who think the government is more responsible. However, this article shows that even in the aggregate, ambiguity about the extent of voters' personal responsibility for changes in personal welfare is detrimental to democratic accountability. In particular, the article shows that voters seize on the ambiguity about who is responsible for changes in their personal welfare to attribute responsibility in a self-serving manner.

Protection and enhancement of one's self-image is an important motivation of human behavior (Baumeister 1999; Beauregard and Dunning 1998; Kurzban 2012; Sedikides and Strube 1995; Tavris and Aronson 2008). This is reflected in a ubiquitous, self-serving bias in attribution, which motivates people to draw causal inferences that make them look good (Heider 2013; Kunda 1999; Stephan, Rosenfield, and Stephan 1976). Because of this bias, people tend to take personal responsibility for desirable outcomes and externalize responsibility for undesirable outcomes. In the context of attributing responsibility for changes in voters' personal welfare, the self-serving bias implies that voters hold the government more responsible for bad outcomes (in order to exculpate themselves) and less responsible for good outcomes (in order to implicate themselves). This constitutes a valence asymmetry in attribution of political responsibility.

I discuss the implications of the self-serving bias for democratic accountability at length below, but it should already be clear that it will hurt the reelection prospects of politicians who are able and willing to increase voters' personal welfare because voters will not credit politicians adequately for improving their personal welfare (Achen and Bartels 2016). Therefore, it also attenuates politicians' electoral incentives to improve personal welfare and weakens voters' ability to select welfare-improving politicians (Fearon 1999). In sum, the self-serving bias undermines democratic accountability.

This article presents evidence of a self-serving bias in attribution of political responsibility for personal welfare in three separate studies: (1) using a number of election studies, it shows that voters punish incumbents more for negative changes in their economic situation than they reward incumbents for positive changes. (2) Using survey data, it shows that voters who say their personal finances are improving are less likely to say that the government can affect their personal finances. (3) Using three population-based vignette survey experiments ($n \approx 6{,}000$) that present voters with different hypothetical outcomes related to their personal welfare, it shows that voters hold the government more responsible for negative changes than for positive changes. All three studies thus find that voters attribute political responsibility for changes in their personal welfare in a self-serving way, attributing more responsibility to the government if the changes are negative than if they are positive.

THE POLITICAL RELEVANCE OF THE SELF-SERVING BIAS

The need to present a positive self-image—to be the best you can be—is important in many social settings (Goffman 1959). After all, if you do not signal kindness or competence, why should anyone want to spend time with you? Following the adage that "what convinces is conviction," evolutionary psychologists have argued that humans have developed a tendency to enhance and protect a positive self-image so that average humans can convincingly signal to others that they are really better than average (Kurzban 2012; Tavris and Aronson 2008).

An important consequence of the desire to self-protect and self-enhance is a self-serving bias in attribution (Fiske and Taylor 2013, 272; Greenwald 1980; Heider 2013; Stephan et al. 1976). This bias is reflected in a "tendency for people to take personal responsibility for their desirable outcomes yet externalize responsibility for their undesirable outcomes" (Shepperd, Malone, and Sweeny 2008, 895). If, for instance, students get a good grade on an exam, they infer that the grade reflects their own effort and skill. If they get a bad grade, they infer that it was due to the teacher's tough grading or the loud neighbors who made studying impossible (McAllister 1996; Miller 1976; Sedikides, Gaertner, and Toguchi 2003).

While previous studies have found that the self-serving bias shapes people's attributions in a number of different areas, such as who to blame for gun deaths (Joslyn and Haider-Markel 2017) and for losing in games of chance (Cassar and Klein 2017; Deffains, Espinosa, and Thöni 2016), it has not been shown to affect how voters attribute political responsibility for policy outcomes, such as the state of the economy or the quality of public services. If one considers the internal logic of the self-serving bias, there might be a good reason for this omission.

The self-serving bias is a type of "directional" motivated reasoning (Kunda 1990), meaning that the bias leads people to reach conclusions on the basis of a motive other than accuracy. Motivated reasoning feeds on ambiguity; ambiguity about which conclusions to draw makes room for rationalizations steered by motives like self-enhancement or self-protection. For the self-serving bias, this ambiguity relates to your own involvement in producing an outcome. If you are sure that you had nothing to do with a particular outcome, the self-serving bias cannot play a role in shaping how you attribute responsibility for this outcome, because there is no ambiguity regarding your own involvement. Consequently, the self-serving bias cannot affect how citizens attribute responsibility for outcomes such as the state of the national economy because outcomes like this are beyond the control of any one individual.

While individual citizens cannot meaningfully influence national welfare, citizens can meaningfully influence outcomes related to their own personal welfare, such as mortgage payments, income, and job security. These are all outcomes over which citizens have some individual control, and yet they are also policy outcomes—a partial result of government (in)action. The self-serving bias would predict that when outcomes like these change for the worse, the motivation to self-protect will lead people to externalize responsibility, and one of the external forces that might be blamed is the government. Conversely, when outcomes related to personal welfare change for the better, the motivation to self-enhance will lead people to internalize responsibility, and the government is one of the external actors that might receive less credit as a result. This valence asymmetry in how citizens attribute responsibility for changes in their personal welfare is the politically relevant implication of the self-serving bias that I want to interrogate further. It can be expressed in the following terms:

> **Self-Serving Bias Hypothesis.** Voters will hold governing politicians more responsible for changes in their personal welfare when these changes are for the worse than when they are for the better.

The self-serving bias hypothesis is somewhat similar to the partisan bias hypothesis: that is, voters who identify with or feel close to a particular party hold it responsible for desirable policy outcomes yet exculpate it for undesirable outcomes (Bisgaard 2015; Healy, Kuo, and Malhotra 2014; Malhotra and Kuo 2008; Marsh and Tilley 2010; Rudolph 2003, 2006; Tilley and Hobolt 2011). However, the self-serving bias is driven not by whether the voters' preferred party is in charge but by whether outcomes reflect poorly or well on the voters.

Since the self-serving bias hypothesis predicts a valence asymmetry in the attribution of responsibility for policy outcomes, it is natural to contrast it with studies identifying a negativity bias (or grievance asymmetry) in retrospective voting (e.g., Bloom and Price 1975). Conceptually, the self-serving bias is distinct from this literature because it suggests that the valence asymmetry in attributions will be stronger for particular outcomes—those related to personal welfare—contrary to the negativity bias literature in which the asymmetry is typically thought to be unconditional (e.g., Nannestad and Paldam 1997).

The self-serving bias has important implications for the aggregate-level relationship between economics and elections. For one, it may help explain why there appears to be a negativity bias in the effect of gross domestic product growth on incumbent support; that is, voters punish governments more for deteriorating economic conditions than they reward them for improvements (e.g., Bloom and Price 1975; Dassonneville and Lewis-Beck 2014). If growth translates into better personal welfare, then voters may attribute this change to their own character and grit, whereas they will be more likely to blame the government for any reversals of economic fortune associated with a recession. Relatedly, the self-serving bias may help explain why much of the literature has generally found small, inconsistent effects of personal economic conditions (Kinder and Kiewiet 1979, 1981; Lewis-Beck and Stegmaier 2013; Singer and Carlin 2013; Stubager et al. 2014). In particular, the self-serving bias implies that the estimated effect of personal economic conditions on government support is sensitive to the distribution of personal economic conditions in the electorate (i.e., the effect will be smaller when more voters experience stable or improving economic conditions).

The most important potential implication of the self-serving bias hypothesis is for democratic accountability. Recent studies have shown that voters are sensitive to changes in personal welfare (e.g., Larsen 2017) and hold governments electorally responsible for personal economic conditions (Tilley et al. 2018), perhaps even to the same extent that they hold them responsible for national economic conditions (Healy et al. 2017). As mentioned in the introduction, this type of voting behavior could potentially help secure effective democratic accountability (Ashworth 2012) as it pushes governments to maximize the personal welfare of their citizens. It is therefore also potentially problematic for democratic accountability if voters hold governments responsible for personal welfare in a self-serving way.

The self-serving bias implies that if a politician manages to increase voters' personal welfare, then voters will internalize responsibility in order to enhance their self-image. Similarly, some voters might hold the government responsible for negative changes in their personal welfare to externalize responsibility (even if the government only played a minor role in realizing the negative outcome). In this way, the self-serving bias will make it less likely that voters reelect politicians who are able and willing to improve their personal welfare, thus enhancing problems related to adverse selection (Fearon 1999). It will also reduce politicians' electoral incentive to make a

Table 1. Description of Surveys and Experiments

Goal of Study/Data Source	*N*
1. Identify signs of a self-serving bias in voter behavior:	
Danish National Election Study (1990–2015)	12,391
American National Election Study (1984–2012)	12,252
British Election Study (2001–17)	5,873
Australian Election Study (1987–2015)	15,904
Latinobarómetro (1995–2010)	112,096
2. Explore whether differences in behavior reflect differences in attributions:	
Survey of attributional beliefs and economic perceptions (2014)	943
3. Explore whether differences in attributions are caused by (hypothetical) changes in personal welfare:	
Vignette survey experiment randomizing hypothetical outcomes (2015)	1,002
Preregistered replication of first experiment (2019)	3,014
Vignette survey experiment with a different set of hypothetical outcomes and an alternative dependent variable (2019)	2,016

positive difference for their electorate, enhancing problems related to moral hazard (Ferejohn 1986).

RESEARCH DESIGN

The article employs a series of surveys and experiments to test the self-serving bias hypothesis. I have organized these different data sources into three separate studies. Study 1 examines voter behavior by using the Danish, American, British, and Australian national election studies as well as the Latinobarómetro, a comparative election survey of Latin American countries. For each election study, I estimate a valence asymmetry in the extent to which the government is held electorally responsible for personal economic conditions. In particular, I compare the propensity to vote for governing parties among respondents who say their personal finances are better, worse, or the same. Study 2 correlates voters' assessment of their personal finances with their beliefs about the government's capacity to affect their economic situation, using a population-based survey of Danish voters. Study 3 consists of three population-based vignette survey experiments with Danish voters who are asked to evaluate the extent to which the government is responsible for different outcomes. On the basis of these experiments, I am able to randomly assign outcomes to voters and estimate the causal effect of (hypothetical) changes in personal welfare on voters' attributions. Table 1 presents an overview of the studies.

While the experiments provide the strongest empirical evidence, the observational data are included because they have other inferential strengths. As such, even though there are many alternative explanations for the behavioral patterns identified in study 1, it examines real voting behavior based on experienced economic hardship, which adds a high level of ecological validity. Overall, the three studies aim to provide a methodologically triangulated test of the self-serving bias hypothesis.[1]

As presented in table 1, much of the data relate to Danish voters. Recent studies have identified average levels of economic voting in Denmark (Lewis-Beck, Stubager, and Nadeau 2013), with effects of economic growth and unemployment being of roughly the same size as in other Organization for Economic Cooperation and Development countries (Larsen 2016). While some older research has suggested that the effect of personal economic conditions is especially strong in Denmark because of the large welfare state (Nannestad and Paldam 1994), more recent research has shown that Denmark is similar to other countries in that the national economy appears to be more important than personal finances (Stubager et al. 2014).

STUDY 1: ELECTION STUDIES

Study 1 tests the self-serving bias hypothesis using election studies. Election studies do not generally include explicit questions about who is responsible for changes in respondents' personal welfare. Instead, I measure the extent to which voters hold their government responsible for economic outcomes by examining the correlation between voters' perceptions of the economy and their support for the incumbent

1. Another compelling test of the hypothesis would be to use panel data on attributional beliefs to examine whether voters become more likely to blame the government for changes in their personal welfare when they experience a negative (as opposed to positive) income or wealth shock. However, I was unable to find panel data that include survey items regarding the extent to which the government can affect voters' personal welfare.

government, inferring that a stronger correlation implies that voters believe the government is more responsible. This is a relatively standard assumption in retrospective voting research (e.g., Duch and Stevenson 2008; Lewis-Beck and Stegmaier 2013). Following the self-serving bias hypothesis, I expect that voters will hold governing politicians more electorally responsible when their personal finances deteriorate than when they improve.

Study 1 also examines whether there is a similar valence asymmetry when it comes to the national economy. Since an improving national economy reflects neither well nor poorly on the individual voter, the self-serving bias predicts a relatively weaker valence asymmetry. Additionally, the analysis of national economic perceptions may serve as a more general placebo test, showing that those who generally select into negative outcomes (i.e., pessimists) do not differ systematically from those who select into positive outcomes (i.e., optimists) in the extent to which they are politically responsive to economic conditions.

The study uses the American National Election Studies (ANES), the British Election Study (BES), the Danish National Election Studies (DNES), the Australian Election Study (AusES), and the Latinobarómetro. The Latinobarómetro is not a typical election study but rather an annual comparative survey of Latin American countries concerning primarily political matters. It is nevertheless included because long-running election studies are rare outside economically developed contexts, so the Latinobarómetro serves as a substitute, representing less economically developed countries.

In terms of representativeness, the countries studied here span the major fault lines identified by the comparative economic voting literature. In particular, they include countries with high and low clarity of responsibility (Anderson 2006; Duch and Stevenson 2008; Powell and Whitten 1993), presidential and parliamentary systems (Samuels 2004), as well as more and less developed countries (Singer and Carlin 2013).

Data and empirical strategy

I include all surveys from the ANES (1984–2012), the BES (2001–17), the AusES (1987–2017), the DNES (1988–2015), and the Latinobarómetro (1995–2010) that ask respondents about how their personal economic situation as well as the national economic situation have developed (see app. A; apps. A–H are available online).

The dependent variable is support for the incumbent government. In the ANES, this is operationalized as a dummy variable indicating whether the respondent reported voting for the incumbent presidential party at the presidential election. Denmark, the United Kingdom, and Australia have parliamentary systems, and the dependent variable is therefore a dummy variable indicating whether the respondent reported voting for one of the parties in government at the parliamentary election.[2] In Australia, which has two directly elected chambers, I use support for the government in the lower chamber. Since the Latinobarómetro data do not follow election cycles, I cannot use reported voting behavior at elections as the dependent variable. Instead, I use a dummy variable indicating whether the respondent approved of the incumbent president's performance.[3]

The independent variables are voters' evaluations of their own and the national economy. Specifically, I use two questions that were included in all election surveys: how (1) your own and your family's economy and (2) the national economy have developed (the period asked about varies from the last 12 months to the last three years). The responses are sorted into three categories: the economy had stayed the same, the economy had deteriorated, and the economy had improved. I also use a small set of control variables in some parts of the analysis (gender, age, education, and ideology). See appendix B for a detailed description of how all variables were measured as well as descriptive statistics.

To analyze the data, I model the probability of supporting the incumbent as a linear function of how voters perceive the national and their personal economic situation. I also include survey fixed effects to control for any election-specific or country-level confounders. For both national and personal economic evaluations, I include the variables as dummy variables using those who thought their own/the national economy had stayed the same as a reference category. I estimate the parameters of this linear probability model (LPM) using a linear regression with robust standard errors and estimate separate models for each of the five election studies. In appendix D, these analyses are replicated using a logistic link function. The results are substantively similar. The main analyses privilege the LPMs because they are easier to interpret.[4]

Results

Figure 1 presents the key results from study 1. In particular, it presents the estimated effect of reporting that the economy

2. See app. C for analyses that define incumbent supporters as only prime minister party voters.

3. This is the standard dependent variable when estimating retrospective voting models based on Latinobarómetro data (see Carlin and Singh 2015).

4. One concern with this model specification is that I do not allow the effect of personal economic perceptions to vary across national economic perceptions and vice versa. As shown in app. E, however, there are only signs of such a dependence in the DNES, suggesting that it is reasonable to estimate the effects of national and personal economic conditions as independent of each other.

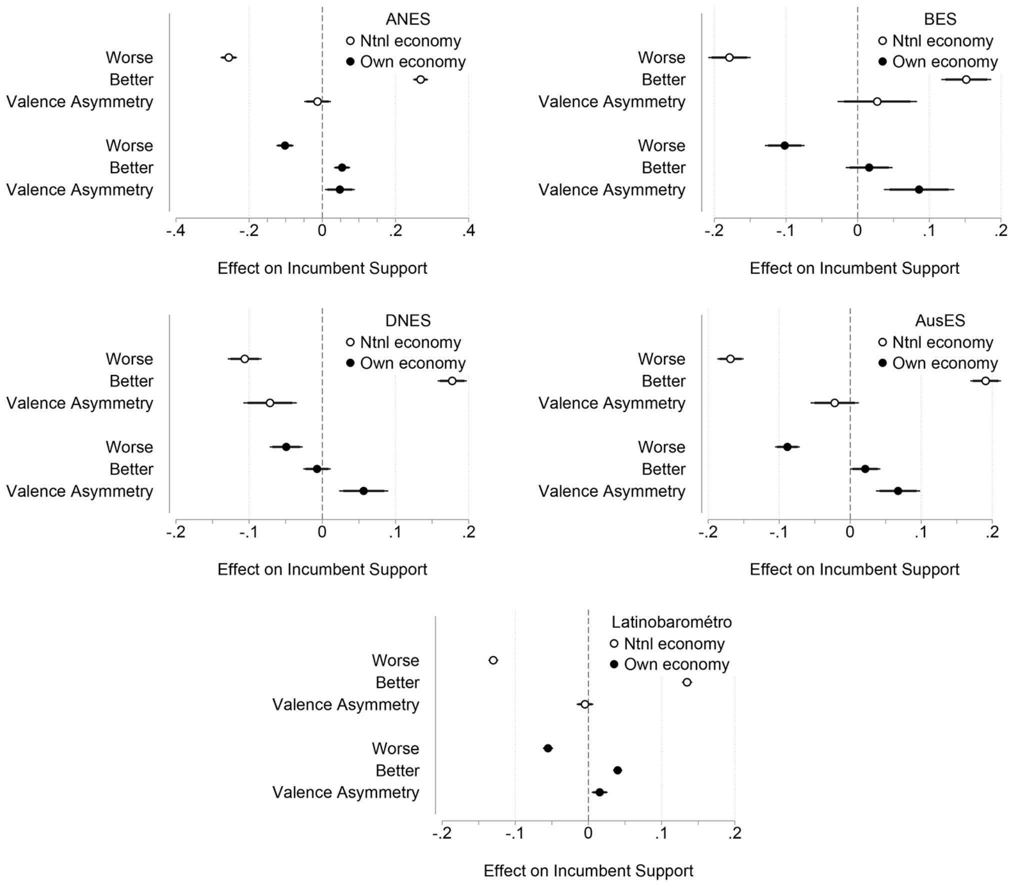

Figure 1. Perceptions of the economy and incumbent support across election studies. Estimated effects of believing your own or the national economy has become worse or better rather than stayed the same on voting for/supporting the incumbent government. The valence asymmetry is calculated as the sum of the worse and better effects divided by −1. Horizontal lines are 95% (*thin*) and 90% (*thick*) confidence intervals. See table 1 for sample sizes and app. G for the underlying regression models.

is doing better rather than the same, the estimated effect of reporting that the economy is doing worse rather than the same, and the estimated difference between these effects: the valence asymmetry.[5] The valence asymmetry represents the extent to which voters react more strongly when the economic situation changes for the worse rather than for the better. A positive valence asymmetry means that voters are more sensitive to things getting worse. I present estimates for national as well as personal economic conditions. The underlying regression models for this and subsequent figures can be found in appendix G.

All election studies are marked by a statistically significant and positive valence asymmetry for personal economic conditions ($p < .05$). This is in line with the self-serving bias hypothesis, which predicted a valence asymmetry in the attribution of responsibility for personal welfare. There is no comparable pattern for national economic conditions. In the DNES, improving national economic conditions seem to have a greater effect than deteriorating national economic conditions. The opposite is the case for personal economic conditions. The remaining election studies have no significant valence asymmetry for national economic conditions.

Rather unsurprisingly, figure 1 also shows that across all election surveys, perceptions of the national economy seem to be more closely related to government support than perceptions of the respondents' personal finances (as suggested by Kinder and Kiewiet 1981). There are also some differences across the election surveys. Both the Latinobarómetro and the ANES are marked by a clearly statistically significant estimated effect of perceiving one's own economy as improving rather than staying the same. This estimate is insignificant in the other election studies. Even so, in all elections studies, the estimated negative effect of personal welfare is larger than the positive effect.

To test how this pattern holds up to statistical control, I reestimate the models including age, gender, education, and ideology. These controls are not meant to be exhaustive, as they do not control for all possible confounders. Instead, the

5. See app. F for details on how the valence asymmetry is estimated.

analysis serves as a simple test of whether the patterns found above can be explained away by including a "standard set of controls."

Figure 2 plots the valence asymmetry estimated from LPMs with controls. For comparison, I also include the estimates from the models without controls. The controls reduce the valence asymmetry somewhat. However, in all election studies except the ANES, the valence asymmetry for the respondents' own economy remains significantly different from zero ($p < .05$). The estimated valence asymmetries are remarkably similar across election studies—only the Latinobarómetro stands out with a comparatively small valence asymmetry, perhaps because the dependent variable is presidential approval rather than vote choice.

Across the United States, Britain, Denmark, Australia, and Latin America, I thus find that voters hold the incumbent less electorally responsible for their personal welfare when it improves than when it deteriorates. This asymmetry is not present for the state of the national economy. These findings are especially noteworthy because of the diverse set of contexts analyzed. Signs of a self-serving bias in voting behavior do not seem confined to one particular type of election or country.

While the consistency of the results speaks in favor of the self-serving bias hypothesis, there are some important inferential issues these analyses cannot deal with. First, I assume that differences in the effect of economic conditions on incumbent support correspond to differences in the attribution of responsibility. As mentioned, this is a standard assumption in much research on retrospective voting, but it does not necessarily make it valid. Second, I assume that the correlation between how voters perceive the economy and incumbent support reflects a causal effect of the former on the latter. This might not be the case, as the variables that determine how voters perceive the economy might have an independent effect on incumbent support (Rudolph 2003). Studies 2 and 3 include new tests of the self-serving bias hypothesis that address these inferential issues.

STUDY 2: A SURVEY OF VOTERS' ATTRIBUTIONAL BELIEFS

Study 2 tests the self-serving bias hypothesis by examining once again the relationship between voters' perception of their personal finances and the extent to which they attribute responsibility for their personal finances to the government. However, instead of inferring attribution of responsibility from voting behavior, it is measured directly by asking voters about the extent to which they believe the government can affect their personal economic situation. Following the self-serving bias hypothesis, I expect that voters who believe that their personal finances are improving will be less likely to think that the government can affect their personal economic situation.

Data and empirical strategy

The survey used in study 2 was collected by a Danish polling company, Epinion, using a population-based sample frame. The survey ran from May 28 to June 28, 2014, included 1,028 respondents, and was conducted over the phone. The sample was diverse although not completely representative of the Danish voting-age population; in particular, it was better educated and slightly older (see app. B).

The survey included the following item, which is used as the dependent variable: "To what extent can the Danish government affect your personal economic situation?" As a placebo test, I also examine an alternative dependent variable: "To what extent can the Danish government affect the national economic situation?" For both questions, answers were recorded on a five-point scale from "not at all" to "a lot."

The key independent variable is the same as in study 1, namely, how voters perceive that their personal finances

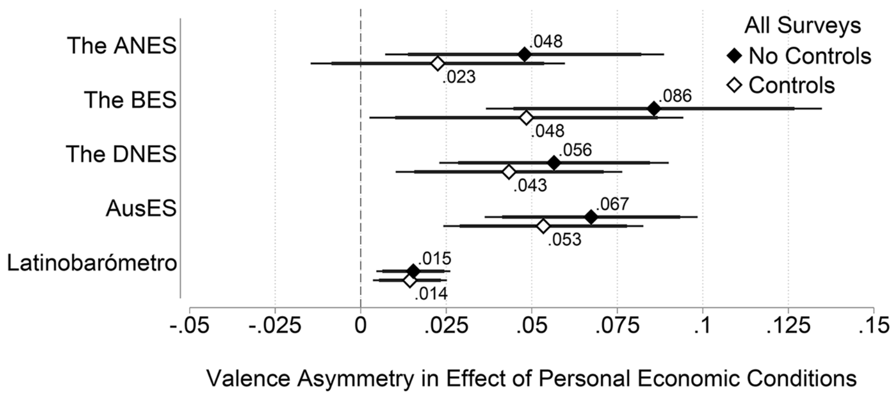

Figure 2. Estimated valence asymmetries with controls across election studies. The valence asymmetry is calculated as the sum of the worse and better effects divided by −1. Horizontal lines are 95% (*thin*) and 90% (*thick*) confidence intervals.

have changed over the past 12 months. Answers were recorded on a five-point scale from "a lot worse" to "a lot better."

To analyze the data, I estimate a linear regression with attributional beliefs as the dependent variable and personal economic conditions as the independent variable. Age, gender, education, and voters' perception of how the national economic situation developed over the past 12 months are included as controls. The model is estimated with robust standard errors.

Results

Figure 3 presents the results from study 2. It shows that voters are less likely to think the government can affect their personal economic situation when their personal finances are improving. The negative slope is significantly different from zero ($p < .01$). This is in line with a self-serving bias in attribution of political responsibility since those who are doing better should be motivated to credit themselves rather than the government.

Figure 3 also shows that there is no (or a very weak) relationship for the placebo outcome: beliefs about the government's effect on the national economic situation ($p > .35$). This is reassuring because it tells us that people who are doing well do not hold the government less responsible for all types of economic outcomes: they only hold the government less responsible for their own good fortune, not the good fortune of the nation.

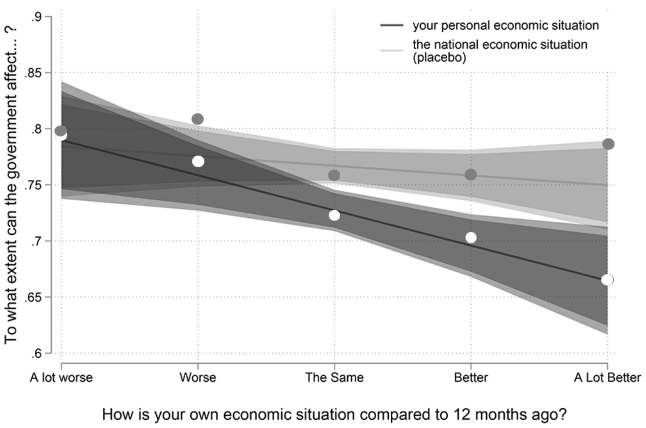

Figure 3. Perceptions of personal economic conditions and attributional beliefs. Linear fit with 90% and 95% confidence intervals. Linear fit for beliefs about the government's effect on voters' personal economy is shown in dark shaded areas, and beliefs about the government's effect on the national economy, in light shaded areas. Circles are marginal means from a regression with personal economic conditions as a set of dummies. Open circles represent average beliefs about the government's effect on voters' personal economy, and filled circles, beliefs about the government's effect on the national economy.

STUDY 3: SURVEY EXPERIMENTS

Study 3 tests the self-serving bias hypothesis using a set of survey experiments that randomly assign voters to vignettes describing different outcomes and then ask them to evaluate the government's responsibility for these outcomes. The key test of the self-serving bias hypothesis is whether voters hold the government more responsible for negative (as opposed to positive) outcomes when these outcomes are related to voters' personal welfare.

By randomly assigning economic outcomes to voters, I address a key problem with the analyses in studies 1 and 2: observed economic outcomes are endogenous to assignment of responsibility. In the previous analyses, I have estimated the effect of economic outcomes on the assignment of political responsibility by comparing voters who believe an outcome is improving with voters who believe the same outcome is deteriorating. This is potentially problematic, as voters with specific propensities to attribute responsibility to the government may select, inadvertently or intentionally, into specific types of beliefs about the economy (Rudolph 2003, 2006). By assigning outcomes at random, we can be sure that voters' propensity to hold the government responsible is balanced in expectation across those assigned to positive and negative outcomes.

Ideally, I would assign actual positive and negative changes in personal welfare to individuals at random and then measure whom they held responsible for these changes. However, this is neither practically feasible nor ethically defensible. Instead, the experiments in this article use hypothetical vignettes. This is a fairly common technique (see, e.g., Aarøe and Petersen 2014; Tomz and Van Houweling 2009), and studies have shown that when respondents are confronted with hypothetical situations in vignettes, their behavior mirrors their behavior in similar real-world situations (Hainmueller, Hangartner, and Yamamoto 2015).

It is important to note that a vignette survey experiment is a relatively hard test of the self-serving bias in the sense that people do not actually experience the outcomes described in the vignette. This potentially mutes the affective response that might drive motivated reasoning when respondents face a realized undesirable outcome (Lodge and Taber 2013). If anything, the experimental design therefore biases the findings against the self-serving bias hypothesis.

Data and empirical strategy

We rely on three separately collected survey experiments. The first survey experiment was conducted by Norstat, a Danish polling company, from June 2 to 4, 2015, and sampled 1,002 respondents. The second survey experiment was an exact preregistered replication of the first. It was conducted by the

Danish branch of YouGov from March 4 to 15, 2019, and sampled 3,014 respondents. The third survey experiment was also preregistered and conducted by YouGov from June 14 to 19, 2019, sampling 2,016 respondents.[6] The target population for all three survey experiments was the Danish voting-age population.

The first survey experiment presented voters with two experimentally manipulated outcomes: one related to housing and one related to employment. For each of the two outcomes, respondents were presented with one of four versions (positive vs. negative × personal vs. national).[7] Respondents were then asked: "To what extent would the government be responsible for this outcome?" Answers were given on an 11-point scale from "not at all" to "a great deal." The variable was rescaled to go from zero to one. Specifically, respondents were presented with one of the following hypothetical outcomes for housing (H1–H4) and for employment (E1–E4):

> **H1/H2.** Imagine that the price of your or your family's house [increases/decreases].[8]
>
> **H3/H4.** Imagine that the price of housing in the country as a whole [increases/decreases].
>
> **E1/E2.** Imagine that you or someone in your family [lost their job/got a better job].
>
> **E3/E4.** Imagine that unemployment in the country as a whole [increases/decreases].

The housing and employment outcomes have different inferential strengths and weaknesses. The balance across negative and positive outcomes is strong for housing prices but weaker for employment status. As such, there might be different causal processes involved in losing a job and getting a better job, whereas the causal processes involved in increasing and decreasing housing prices are more similar. At the same time, it might be difficult for voters to figure out what implications rising or falling house prices have for their personal welfare, that is, whether their own housing outcome is in fact positive or negative. Conversely, almost all voters should understand that getting a better job is a desirable outcome and that losing a job is undesirable. All in all, the housing outcomes thus provide a harder test of the self-serving bias hypothesis than the employment outcomes. By including both outcomes, the experiment should provide a fair overall test of the hypothesis.

The second experiment is an exact replication of the first, but the randomization schedule is adjusted to reflect the special interest in outcomes related to personal welfare. Two-thirds of the respondents in the second experiment were presented with a personal outcome (i.e., the outcomes E1/E2 and H1/H2 described above), and one-third, with a national outcome (i.e., the outcomes E3/E4 and H3/H4).

The first two experiments test whether voters hold the government more responsible for negative changes than for positive changes in personal welfare. They also test whether this reflects a general negativity bias in political attributions, by examining how voters respond to negative and positive changes in national welfare. The third experiment tests some additional implications of the self-serving bias.

First, it examines whether voters hold themselves less responsible for negative (as opposed to positive) changes in personal welfare. To do so, it presents respondents with the personal housing outcomes (H1/H2) and then asks them, "To what extent would you and your family be responsible for this outcome?" Second, it examines whether there is something special about personal outcomes that might be driving the differences in how voters assign political responsibility for positive and negative outcomes, even when there is no self-serving motive to attribute responsibility asymmetrically. To do so, respondents are presented with a slightly different set of personal housing outcomes. Instead of evaluating whether the government would be responsible for changes in the price of their own/their family's house, respondents are asked whether the government is responsible for "the price of a house [increasing/decreasing]." Asking about the change in prices of *a* house mutes respondents' self-serving motives, yet the outcome is still personal in scope. The third experiment thus has four treatment conditions related to housing: the two personal housing outcomes with a different dependent variable and two adjusted personal housing outcomes with the same dependent variable as in the first two experiments. The third experiment focuses only on the housing outcomes because, as argued above, the housing outcomes provide a harder test of the self-serving bias hypothesis than the employment outcomes.

In analyzing these experiments, I set up linear models that use voters' attribution of responsibility for the housing and

6. The preregistrations for the second and third survey experiments can be found at https://osf.io/29jfb and https://osf.io/a83pj, respectively.

7. The first two experiments also included a neutral version that presented both negative and positive outcomes (e.g., imagine that the price of housing in the country increases or decreases). Following the advice of several of the anonymous reviewers, I decided to omit the neutral category from the article, as it was not clear how it helped test the self-serving bias hypothesis. For transparency, results including the neutral category are reported in app. H.

8. The positive economic outcome in this case is rising house prices, whereas falling prices is the negative outcome, because changes in house prices are a de facto wealth shock (Ansell 2014).

unemployment outcomes as the dependent variables. The independent variables are the different experimental treatments. The models are estimated using a linear regression with robust standard errors.

Results

Figure 4 presents the results from the first two survey experiments. In the top panel, I examine the effects of the personal housing and employment outcomes. Across both types of outcomes, a similar pattern emerges: voters who were assigned to a positive outcome thought the government was less responsible for this outcome than voters assigned to a negative outcome ($p < .001$). This is in line with the self-serving bias hypothesis. In the bottom panel of figure 4, I examine the effects of the national housing and employment outcomes. Across both outcomes, voters are more likely to hold the government responsible for the positive outcome ($p < .01$), which is the exact opposite of what was found for personal economic outcomes in the top panel. This is important because it suggests that voters do not generally hold the government more responsible for negative outcomes—voters only hold the government more responsible for negative outcomes when they have a self-serving motive to do so.

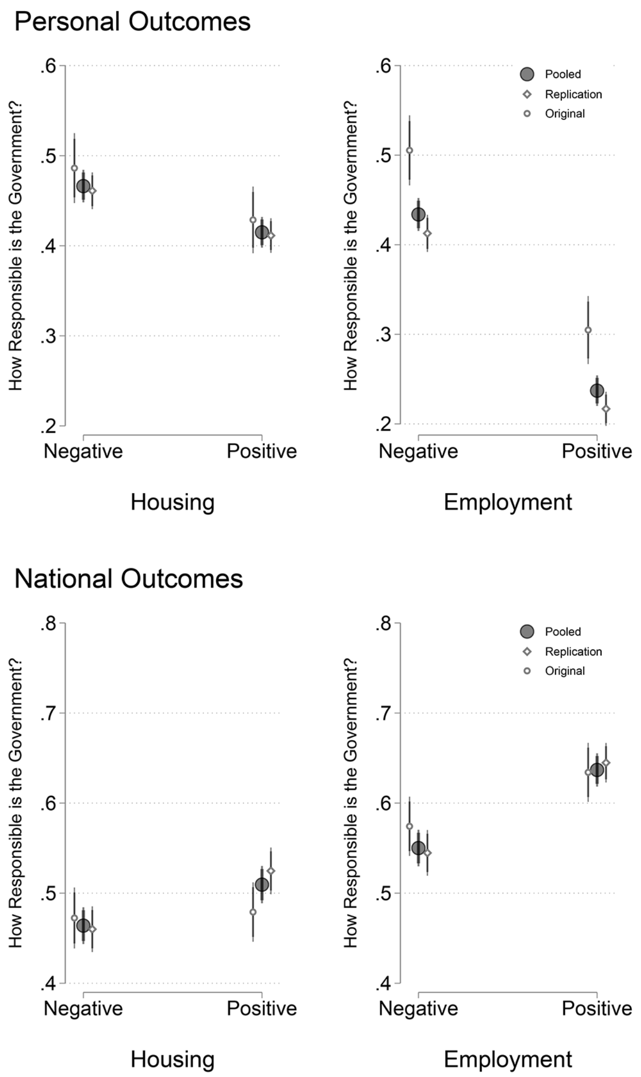

Figure 4. Government responsibility for negative and positive hypothetical changes in personal and national welfare. Plots represent average responses for each outcome. The smaller plot points represent results from the original experiment (*open circles*) and the replication (*diamonds*) separately. The larger, filled circles represent pooled results. Vertical lines are 95% (*thin*) and 90% (*thick*) confidence intervals. There are at least 830 observations in each treatment condition for personal outcomes and at least 505 observations in each treatment condition for the national outcomes.

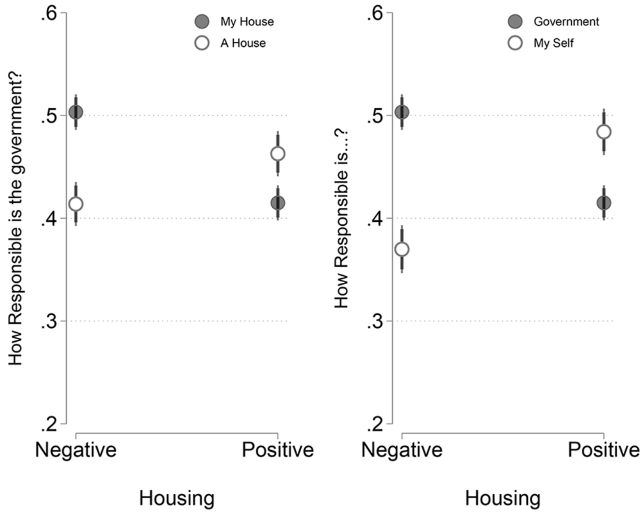

Figure 5. Testing additional implications of the self-serving bias. Circles represent average responses for each outcome. Vertical lines are 95% (*thin*) and 90% (*thick*) confidence intervals. Open circles are from the third experiment with at least 500 observations in each treatment condition. Filled circles are the pooled estimates from the top-left panel of figure 4.

Turning to the third survey experiment, the left panel of figure 5 shows the extent to which voters regard the government as being responsible for the price of *a* house either increasing or decreasing. For comparison, I also plot responses from the first two experiments where respondents were asked about their own or their family's house. The figure shows that when asked to evaluate who is responsible for changes in the price of an unspecified house, voters hold the government more responsible for positive changes ($p < .01$), but when they have to evaluate the extent to which the government is responsible for changes in the price of their own house, they hold the government more responsible for the negative changes (as was shown above). This is consistent with the self-serving bias because voters have no self-serving motive to hold the government less responsible for increases (as opposed to decreases) in the price of some house, but they do have a self-serving motive when it comes to the price of their own house, where rising and falling prices suggest that they have been either prudent or poor investors.

Since this article is interested in the political consequences of the self-serving bias, it has exclusively examined whether voters hold the government more responsible for negative changes than for positive changes in their personal welfare. However, another clear implication of the self-serving bias is that voters should hold themselves less responsible for negative changes than for positive changes in their personal welfare. The right panel of figure 5 presents some evidence for this contention, showing that voters hold themselves less responsible for decreasing than for increasing house prices ($p < .001$).

Taken together, the three survey experiments provide clear causal evidence of the self-serving bias hypothesis: voters hold the government more responsible for negative changes than for positive changes in their personal welfare. Consistent with this pattern being a result of a self-serving bias, I have also shown that there is no similar valence asymmetry in how voters hold the government responsible for changes in national welfare or for changes in the welfare of some other person. Finally, and in line with the self-serving bias in attribution, I have presented some evidence that suggests voters hold themselves more responsible for positive changes than for negative changes in their personal welfare.

CONCLUSION

People tend to exculpate themselves for undesirable outcomes yet implicate themselves in desirable outcomes. In this article, I have argued that this self-serving bias in attribution has important implications for how voters attribute political responsibility for changes in their personal welfare. In particular, I have found that voters shift blame toward the government when their personal welfare changes for the worse and shift credit away from the government when their personal welfare changes for the better.

I found evidence of such a self-serving bias in political attribution in a number of different places. For one, I showed that voters in Australia, Britain, Denmark, the United States, and a large number of Latin American countries punish their governments more for negative changes in their personal finances than they reward their governments for positive changes in their personal finances. I have also shown that when voters think their economic situation is getting better, they are less likely to believe the government can influence their economic situation. Finally, I have shown that if we ask voters how responsible the government is for hypothetical changes in their personal welfare in survey experiments, then they are more likely to hold the government responsible for negative as opposed to positive changes. At the same time, both in the election studies and in the survey experiments, I have shown that voters are not more likely to hold the government responsible for negative changes in national welfare, which is consistent with the self-serving bias in that voters have no self-serving motive to attribute responsibility for national welfare asymmetrically. In the survey experiments, I examined some additional implications of the self-serving bias, showing that voters hold themselves less responsible for negative changes in personal welfare and that when they are asked to evaluate who is responsible for someone else's personal welfare, voters are not more likely to hold the government responsible for negative changes.

One limitation of the studies presented here is that they are not able to examine whether the self-serving bias is primarily driven by voters holding the government more responsible for negative changes or less responsible for positive changes in personal welfare. The literature on the self-serving bias provides some guidance here, suggesting that the effect is the same in both directions (e.g., Heider 2013), but there is little evidence to back this assertion. Moreover, this article is silent on exactly how voters should attribute responsibility for personal welfare. Instead, it simply suggests that the tendency to attribute responsibility asymmetrically is problematic because politicians have the capacity to both improve and impair voters' personal welfare.

This article has important implications for the existing literature on how voters attribute political responsibility for social and economic outcomes. Previous work has focused on attribution for events that are national in scope, like the national economy (Alcañiz and Hellwig 2011; Duch and Stevenson 2008), national emergencies (Healy et al. 2014; Malhotra and Kuo 2008), or how the government handles public service provision (Tilley and Hobolt 2011; although see Tilley et al. 2018). This study underscores the importance of also focusing on how voters attribute blame for outcomes that are more personal in nature (Ansell 2014; Feldman 1982; Giuliano and Spilimbergo 2013; Kinder and Kiewiet 1979). In particular, it appears that voters can potentially attach political significance to personal economic outcomes, although, as this study has shown, they will tend to do so in a self-serving manner.

Most importantly, the findings should give pause to anyone who thinks that democratic accountability can proceed from voters punishing and rewarding the government for changes in their personal welfare. While changes in personal welfare are easily observable (Fiorina 1981) and do, at least to some extent, reflect government action, they are by definition personal to the voters, meaning that motivations such as self-protection and self-enhancement influence how voters attribute political responsibility for these changes. As this article has demonstrated, the result is that voters will tend not to credit the government for positive changes in their personal welfare yet blame it for negative changes. Therefore, politicians who promote voters' personal welfare will tend to be reelected at the same rate as politicians who do not, minimizing the prospects for reduction in moral hazard and adverse selection that ideally accompany elections. Simply put, the self-serving bias undermines democratic accountability for personal welfare.

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