Retrospective Voting Reconsidered

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Abstract

We review advances in the study of retrospective voting, or how citizens evaluate and act on their perceptions of government performance. As a whole, the recent literature provides a more complete and nuanced picture of the retrospective voter as sometimes, but not always, effectively incentivizing elected officials to enhance public welfare. Leveraging examples of retrospective voting in areas other than the economy, the field is heading toward a middle ground in which voters resemble decision makers in many other domains. In many cases, a coherent logic governs voters' choices. In other instances, voters make mistakes, often in predictable ways subject to well-known psychological biases. Understanding the circumstances under which retrospective voting achieves effective democratic accountability and when it fails to do so is an important task for subsequent research. We discuss two additional issues for future exploration: a better understanding of normative benchmarks, and increased attention to the relationship between retrospective voting behavior and policy outcomes.

INTRODUCTION

The evaluation of incumbent performance at the ballot box plays a key role in democratic accountability (Besley 2006, Ashworth 2012). Through this retrospective behavior, citizens can incentivize politicians by sanctioning poor performance (Ferejohn 1986) and selecting leaders who will govern competently and honestly (Fearon 1999). Democratic governance is thus normatively appealing because elections should be an effective means of enhancing public welfare. Underlying these theoretical conceptions is a model of retrospective voting wherein citizens consider information on past government performance in order to make forward-looking decisions. Many models of political economy assume that voters behave in such a fashion (e.g., Persson et al. 1997, Canes-Wrone et al. 2001).

Accordingly, scholars of political behavior have long analyzed how citizens consider events and outcomes in deciding whether to retain the incumbent (party). Challenging the Michigan School's conception of the American voter as lacking both knowledge about political issues and a coherent ideological structure (Campbell et al. 1960, Converse 1964), V.O. Key stated in *The Responsible Electorate* (1966) that "voters are not fools." He argued that voters were capable of executing the vital tasks of citizenship required in a republican democracy. In Key's view, voters updated their beliefs based on government performance.

Nearly every article and book on retrospective voting—the study of how citizens evaluate and act on their perceptions of government performance—cites *The Responsible Electorate*. As a result, the retrospective voter has generally been conceived of as a foil to the Michigan voter. Scholars in this research tradition have argued that if we observe that voters respond to changes in objective performance indicators—such as an increasing unemployment rate or contracting gross domestic product (GDP) growth, as shown by Kramer (1971) and Fair (1978)—then the electorate as a whole holds policy makers accountable in an effective manner even though most individual voters possess little political knowledge and are generally disinterested in politics (Page & Shapiro 1992).

As Fiorina argued in *Retrospective Voting in American National Elections* (1981), citizens can implement effective accountability even if they lack basic political knowledge by focusing on simple performance metrics. Voters just have to answer the kinds of questions that Ronald Reagan posed in his closing statement in his 1980 debate against Jimmy Carter: "Are you better off than you were four years ago? Is it easier for you to go and buy things in stores than it was four years ago?" The answers to these questions and related ones represent easily accessible and digestible information. Encyclopedic knowledge is not needed; these shortcuts are sufficient heuristics for voters to judge overall government competence (Lupia 1994). Voters may judge incumbents based on personal pocketbook considerations or sociotropic attitudes (Kinder & Kiewiet 1981, Kramer 1983, Markus 1988). Regardless, all the key pieces of information are easily accessible. The pocketbook voter need only consult his bank account; the sociotropic voter can consult the news to assess the health of the economy.[1] However, recent research casts doubt on this sanguine view of retrospective voting. Voters do not merely lack knowledge. They appear to make substantial, consistent, and correlated errors, often holding politicians accountable for actions beyond their control. The effect sizes are often small, suggesting that these errors may make a difference only in close elections.

No one would claim that voters are either perfectly sophisticated optimizers or completely clueless rubes. Nonetheless, both the Michigan model and the rational choice approach have

[1]At the same time, the media can distort economic perceptions. For example, Hetherington (1996) shows that the way the media frames the health of the economy can significantly affect how voters construct their sociotropic assessments. Similarly, Vavreck (2009) argues that campaign strategy not only is shaped by economic conditions but also influences voters' perceptions of the economy.

been mischaracterized and caricatured over the decades (Cox 1999, Converse 2006). Perhaps the problem is that much of the literature frames retrospective voting as a salvation for democratic competence and accountability. This divide between the Michigan voter and the retrospective voter as portrayed in the literature is unfortunate and unnecessary. Instead, recent research suggests a middle ground where voters sometimes, but not always, make mistakes. Moreover, these errors are consistent with psychological biases that influence people's decisions in domains outside of politics. A rich and accurate model of voter behavior needs to account for sensible voter responsiveness but also these important biases, identifying the conditions under which retrospective voting achieves effective democratic accountability and when it fails to do so.

To provide the background for this hybrid model, we review the literature on retrospective voting over the past decade or so. The field has experienced a renaissance in recent years largely driven by an emphasis on research design (e.g., controlled and natural experiments) to address issues of causality and to combat persistent concerns such as omitted variables bias, reverse causality, and simultaneity (Angrist & Pischke 2009, 2010). Coincident with the increased focus on design has been the flourishing of creative approaches and applications to study retrospective voting. Scholars have moved beyond studying how the health of the economy (perceived or actual) influences political behavior. We have learned a great deal over the past decade about how voters actually make decisions and what their behavior implies for democratic accountability and public welfare. Yet these advances in knowledge have also generated more open questions and areas for future research.

Before we begin our summary of the recent literature, we mention topics related to retrospective voting that this article does not discuss. We do not review research on "policy performance," that is, whether policy actions taken by the incumbent government reflect promises made during the campaign or represent citizens' preferences (e.g., Downs 1957, Miller & Stokes 1963, Canes-Wrone et al. 2002). Rather, we restrict our attention to studies of how voters assess whether incumbent governments have competently managed the economy, war, public safety, and the like. By and large, the domains we discuss are ones in which all citizens have common interests, such as a prosperous and peaceful society. Although research on this topic has been increasingly and interestingly studied from a comparative perspective (and we do review some studies from non-US contexts), we generally position our discussion in relation to the American politics subfield.

This article builds on Anderson's (2007) review of economic voting in this journal. He argues that retrospection is moderated by the cognitive limitations of voters as well as political institutions. Anderson contends that economic voting sometimes does not take place, thereby hindering democratic accountability and creating "contingency dilemmas." We depart from Anderson by arguing that voter responsiveness to the economy (and other performance metrics) does not enhance public welfare *per se*. Recent research that has explored retrospective voting both within and outside of the economic domain has sometimes found that voter responsiveness creates bad incentives for leaders. Therefore, the relevant question may not be "Do voters react to government performance or not?" but rather "Are voters reacting in the right way?"

The research that we describe here answers the following questions: How do voters evaluate government performance? What does this imply about the health of American democracy and the policies it produces? These two questions suggest that this research agenda is both positive and normative. From a positive perspective, we aim to understand and analyze voters' behavior and the cognitive bases of their decisions. Yet, a primary reason we care about this behavior is to compare it to some normative benchmark of how voters should be incentivizing politicians to pursue policies that maximize public welfare. Beyond ensuring that citizens have rights, a main argument in favor of liberal democracy is that elections produce good outcomes via the processes of sanctioning and selection. However, if voters' decisions sometimes fail to provide appropriate incentives to elected officials or distort those incentives altogether, democracy may produce inefficient policies in those cases. Also, similar to classic collective action problems, individually rational behavior by voters can sometimes produce bad outcomes for society. The literature thus suggests that retrospective voting does not automatically ensure good incentives, particularly given voter errors. Understanding exactly how and under what conditions voter biases impact public welfare remains an important research agenda.

THREE MODELS OF RETROSPECTIVE VOTING

As mentioned above, scholars have extensively documented correlations between performance indicators, particularly economic ones, and election outcomes. From a theoretical perspective, at least three models of voting behavior are consistent with these empirical patterns. Two of these are the familiar sanctioning and selection models, while the third is rooted in psychological biases. These models are not mutually exclusive. Voters whose decisions are subject to some psychological biases may be *attempting* to implement decisions that accord with a rational choice model.

The most traditional interpretation of retrospective voting is a reward-punishment, or sanctioning, model. In the language of rational choice, voters (principals) are attempting to reduce moral hazard on the part of elected representatives (agents). This was Key's (1966) informal description of retrospective voting, later formalized by Barro (1973) and Ferejohn (1986). By reelecting high-performing politicians and throwing out poor performers, voters incentivize good behavior on the part of politicians. As Key noted, it is the threat of marginal voters abandoning their party (and nonaligned voters swinging back and forth) that induces accountability.

A second model, also in the rational choice framework, describes retrospective voters as selecting the leaders who will perform most competently after being elected (Fearon 1999). After learning about an incumbent's quality through his or her performance in office, voters can choose to reelect a competent leader or take their chances on an unknown challenger (Persson & Tabellini 2002, Duch & Stevenson 2008). In the long run, elections serve the process of selecting good performers (Ashworth 2005, Padro-i-Miguel & Snyder 2006). Using the identification strategy of comparing term-limited and non-term-limited governors, Alt et al. (2011) found empirical evidence consistent with both mechanisms. Importantly, both the sanctioning and selection models suggest that retrospective voting serves the normatively beneficial function of reducing moral hazard and adverse selection.

A third interpretation of the relationship between performance indicators and election outcomes incorporates cognitive and emotional biases. Voters may find it difficult to process all relevant information and instead rely on cognitive shortcuts when faced with difficult problems. Conceiving of voters using heuristics follows in Kahneman and Tversky's tradition (see e.g., Kahneman et al. 1982, Kahneman 2003) and corresponds to how people appear to make decisions in fields ranging from finance to consumer behavior (e.g., Shefrin 2002, Tufano 2009). Heuristics often lead people to make optimal economic decisions but sometimes lead them astray. The same pattern appears to be true in politics: party cues or endorsements can be reasonable guides in most cases (Lupia 1994, Lupia & McCubbins 1998, Lau & Redlawsk 2001), but such heuristics can also produce significant mistakes. As many authors have discussed, the election-year economy has a large impact on voting behavior whereas conditions in other years have little effect on election outcomes (e.g., Kramer 1971, Fair 1978, Tufte 1978, Achen & Bartels 2004, Bartels 2008). This behavior is consistent with either of the two rational choice models above (e.g., MacKuen et al. 1992). For instance, the explanation could be that voters gain the most information about incumbent quality from recent performance, so it may be sensible for people to ask, "What have you done for me lately?" However, Healy & Lenz (2012) and Hill et al. (2012) argue that at least part of the explanation for voters' election-year emphasis comes from a pure cognitive bias. Voters find it hard to think about total growth over a president's entire term. Even though people say that they would like to base their decisions on the full set of information, they substitute a more easily available attribute—recent economic performance—for the less accessible attribute they are searching for (Healy & Lenz 2012). Therefore, voters' decisions may be subject to the "availability heuristic" (Tversky & Kahneman 1973). Such reasoning can also help explain the power of the status quo because it may be a powerful reference point for voters to consider (Kahneman & Tversky 1979).

In addition to predictable cognitive biases, emotions may influence voters so that they sometimes reward or punish politicians simply because they feel happy or sad for reasons that have nothing to do with incumbent performance (Achen & Bartels 2002). In other words, what may look like sanctioning and selection may reflect voters' emotional reactions to the current state of affairs. There are two potential mechanisms for this. First, voters in a bad mood may misattribute their emotional state to the incumbent (Schwarz & Clore 1983). Second, voters may be more likely to remember positive (negative) actions of the incumbent when they are in a good (bad) mood (Bower 1981).

This psychologically based third model paints a less sanguine portrait of retrospective voting than traditional interpretations based in rational choice. Cognitive and emotional biases may compromise democratic accountability. The use of conditions at the end of a president's term to stand in for overall economic performance at a minimum may lead elections to be highly dependent on the vagaries of the business cycle (Achen & Bartels 2004) and can also distort incentives toward inflationary policies in election years (Tufte 1978, Rogoff 1990, Abrams 2006). Similarly, mood may be a useful heuristic in many decision-making environments, but it is generally not closely tied to actual government performance. For instance, if the president is managing the economy effectively but it is still not performing well owing to external factors or not achieving some arbitrary threshold of performance, voters in a bad mood may punish the incumbent even if sanctioning or selection would call for the incumbent to be retained. Furthermore, events that are loosely related or unrelated to government performance can significantly affect mood but may not be grounds for reward and punishment.

Although a great deal of research adopted the two rational choice mechanisms as theoretical starting points, the third model has been gaining some empirical traction. However, it is important to make a conceptual distinction between what voters are trying to do and what voters actually do. Research in the psychological tradition does not argue that voters lack a desire to minimize moral hazard and adverse selection in the electoral process. Instead, the psychology literature suggests that even if voters have this motivation, they may not be doing what they intend or even what they think they are doing.

Retrospective voting can be considered a four-step process that forms a feedback loop. Voter psychology is particularly important in the first two steps and thereby can affect the entire process. Voters observe events in the world (e.g., disasters, wars), outcomes (e.g., macroeconomic statistics, test scores), and policy actions taken by elected officials (Step 1). They then attribute responsibility for these events, outcomes, and actions to particular elected officials (Step 2). These attributions then lead people to evaluate the performance of officeholders, thereby influencing their voting decisions (Step 3). The manner in which events, outcomes, and actions are translated into election results creates incentives for elected officials, thereby influencing the formation of policy both before and after elections take place (Step 4). Finally, these policy choices feed back into the events and outcomes that voters observe.

The research we review can be thought of as examining various pieces of this overall process. Existing studies, which most often focus on Steps 2 and 3, generally do not consider the policy implications of voter behavior. There is growing evidence that voters make mistakes in Steps 1–3 according to a strict definition of rationality. It is unsurprising that voters fail to adhere to such a strict standard; decision makers in other areas with much more at stake often display bounded rationality. However, the question of normative importance is whether voters make the kinds of mistakes that will impact Step 4. Here, the evidence indicates that voting behavior often introduces a considerable amount of noise into democratic accountability, potentially distorting policy-maker incentives in some cases.

RECENT ADVANCES IN ECONOMIC VOTING RESEARCH

Before describing new directions that the retrospective voting literature has taken beyond the classic economic voting research agenda, we describe the work on that much-explored topic since the publication of Anderson's (2007) comprehensive review. In particular, we consider (*a*) recent evidence on the influence of local economic conditions on voting behavior and (*b*) the comparative politics literature exploring how institutions condition the magnitude of the economic vote.

The Local Context

Conditions prevailing in the local economy appear to bias people's perceptions of the national economy. In part due to the measurement error associated with measures of local economic conditions, this topic has received relatively little attention. However, creative research designs and new geographic analysis techniques have added to what we can say about the local economy's influence. Gas prices, the housing market, and local unemployment all appear to influence perceptions of national economic conditions (Mondak et al. 1996, Books & Prysby 1999, Ansolabehere et al. 2012, Reeves & Gimpel 2012).

Nonetheless, the effects are fairly small. For instance, Reeves & Gimpel (2012) find that a one-standard-deviation increase in the county-level home foreclosure rate in the four months before the 2008 presidential election increased negative evaluations of the national economy by 0.026 units on a five-point response scale, with somewhat larger effects in states most directly affected by the housing crisis. In Nevada, a one-standard-deviation increase in foreclosure rates was associated with a 0.15-unit increase in negative economic perceptions, greater than the effect of unemployment status. Local peak gas prices in the summer before the election did not affect economic attitudes overall, but among independents a $1 increase in the price of gas was associated with a 0.062-unit decrease in the economic perceptions scale. Similarly, analyzing American National Election Studies (ANES) data from 1980–2008, Ansolabehere et al. (2012) find that a one-percentage-point increase in the state unemployment rate decreases national retrospective economic evaluations by 0.05 points on a five-point scale.

Not only do local conditions affect economic perceptions, but those conditions may affect election outcomes differently according to the type of shock that occurs. Margalit (2011) finds that American voters respond to layoffs in their county and somewhat more strongly to layoffs that are related to trade. He reports that a one-percentage-point increase in the share of the county workforce losing a job because of foreign competition reduced President Bush's vote share by 0.15 percentage points in the 2004 election, double the effect of job losses caused by other factors. Voters, he finds, may particularly hold presidents accountable for losses due to outsourcing and similar phenomena that voters may (perhaps incorrectly) trace to trade-related policies.

Institutional Context and the Economic Vote

Recent research has supplemented earlier work on the importance of institutional context in moderating retrospective voting. Duch & Stevenson (2008) show how institutional context affects the magnitude of the economic vote in theoretically plausible ways. Examining 163 election surveys from 18 countries, they provide some of the clearest evidence that economic voting appears to be more prevalent in places where responsibility for economic policy is most easily assigned to one party and where economies are less subject to external forces, among other factors. Although the authors argue forcefully for the selection model, they more generally contend that voters respond sensibly to the conditions that they observe.

Voters, the authors find, manage to incorporate subtle information about potential future governments in their decision making. Specifically, voters think about the alternative governments that might be formed when deciding how economic conditions should affect their vote for a given party. Voters respond less strongly to economic performance when the incumbent party can potentially belong to many possible coalitions, not only to the existing incumbent coalition.[2] Such behavior is predicted by a selection model, but not by a sanctioning one, where the responsibility for past policy is all that matters. Duch & Stevenson's (2008) model places significant demands on voter awareness of coalition outcomes. Given limited political knowledge among voters, such findings are perhaps surprising but suggest that citizens may figure out what they need to know to select effective governments. European voters, in comparison to American voters, may need to be more politically sophisticated in order to deal with the more complex forms of parliamentary government.

Duch & Stevenson (2008) find evidence that voters respond more strongly to performance when it is easier to assign responsibility for economic outcomes to a given party. For example, their model predicts the economic vote to be stronger in economies that are less influenced by foreign trade because open economies are more subject to global forces beyond the government's control. Their empirical analyses support this prediction. At the same time, the theoretical expectation may be unclear because the executive or government may control trade policies and therefore may be held responsible for trade-related outcomes (per Margalit 2011). However, other results are more unambiguously consistent with the theory that greater clarity of responsibility enhances economic voting. For example, Duch & Stevenson find that the concentration of responsibility for economic policy within a single party is positively associated with the strength of the economic vote. Moving across the range of their concentration variable increases economic voting by 15–20 percentage points.

Altogether, Duch & Stevenson make a compelling case that voters' decisions have a coherent logic that governs their responses to the economy. We view these results as entirely consistent with other findings that voters' decisions sometimes make less sense in different contexts.

UNPACKING THE BLACK BOX OF ATTRIBUTION

The first wave of retrospective voting research, using both aggregate and individual-level data, sought to understand how economic performance indicators influence voting behavior. Attribution, the process by which voters allocate blame and credit to political actors, while not the focus of that initial research, was assumed to be an intermediate step. Social psychology provides important insights into how people make these kinds of attributions. In particular, psychologists have highlighted the "group-serving bias" (Taylor & Doria 1981). People tend to make internal attributions for positive outcomes enjoyed by their own group and external attributions for negative outcomes (e.g., Taylor & Jaggi 1974, Fletcher & Ward 1988). With respect to out-groups, the reverse pattern holds. Hence, much attributional research has focused on how partisanship colors

[2]Other evidence also suggests that voters respond to the potential outcomes of coalition formation (Kedar 2005).

voters' allocations of credit and blame to political actors (e.g., Rudolph 2006, Malhotra & Kuo 2008, Brown 2010, Tilley & Hobolt 2011).

Peffley (1984) and Peffley & Williams (1985), who first modeled the attributional process explicitly, found that the relationship between economic conditions and vote choice was strongest for people who attributed those conditions to the incumbent's performance (see also Kinder et al. 1983, Abramowitz et al. 1988, Stein 1990). Several recent research agendas have also leveraged the central role of attributions in retrospective voting. For example, Gomez & Wilson (2001, 2003) argue that political sophisticates are more likely to understand complex economic processes and apportion blame across multiple political institutions.

A series of papers by Rudolph (2003a,b, 2006) argues that both individual-level factors (e.g., partisanship) and contextual ones (e.g., divided government) influence attributions of economic performance. For instance, Rudolph (2003a) showed that in 1998, Democrats who thought the economy had improved were 13% more likely to attribute credit to President Clinton than to the Republican Congress; conversely, Republicans were 10% more likely to credit Congress for economic improvement. Marsh & Tilley (2010) and Tilley & Hobolt (2011) find that these partisan rationalizations not only affect attributions but also spill over into vote intentions.

Leveraging the different party affiliations of federal and local officials responsible for responding to Hurricane Katrina, Malhotra & Kuo (2008) confirm that partisanship can affect attributions but find that citizens' partisan rationalizations are mitigated by contextual information about officials' roles. In their experiment, receiving a party cue made Democratic respondents 1.75 times more likely to blame Republican officials for the deaths and damage stemming from the hurricane; however, the effect of the party cue disappeared when participants observed simple information about the Republican officials' titles. Arceneaux (2006) similarly examines the complex task of assigning responsibility in a federalist system. He finds that citizens do make meaningful distinctions among different levels of government in assessing performance but that these attitudes only translate into vote choice for easily accessible issues. Additionally, citizens' views of the responsibilities of local, state, and national governments affect attitudes on which levels of government should have policy-making influence (Arceneaux 2005).

Similarly, partisanship can bias people's perceptions of economic conditions themselves and thereby affect attributions (Conover et al. 1986, Wlezien et al. 1997, Bartels 2002, Evans & Andersen 2006). In an influential paper, Bartels (2002) showed that Democrats and Republicans have drastically different views of objective economic realities such as changes in unemployment rates, inflation rates, and the budget deficit.[3] For instance, over half of strong Democrats in 1988 claimed that inflation had gotten worse since 1980 even though it had actually plummeted nearly 10 percentage points during that time. This bias also affects subjective perceptions of the incumbent's economic performance (Evans & Andersen 2006, Evans & Pickup 2010). For instance, controlling for lagged partisanship reduces the estimated effect of current sociotropic perceptions on vote choice by a little more than two-thirds in the 1997 British elections (Evans & Andersen 2006). Subsequent research has shown similar patterns of partisan bias in performance evaluations for other issues such as war and foreign policy (Gaines et al. 2007).

An open question is whether partisan bias in economic perceptions has been increasing over time as voters have become increasingly well sorted ideologically into parties (Levendusky 2009). Using ANES data from 1980–2012, we examine Democrats' and Republicans' answers to the

[3] Bullock et al. (2012) explored whether these partisan differences are simply an artifact of "cheap talk" partisan cheerleading in survey responses. They asked people similar questions about objective economic conditions but paid some respondents for answering the question correctly. Offering respondents monetary incentives for providing correct responses substantially reduced partisan gaps but did not eliminate them entirely.

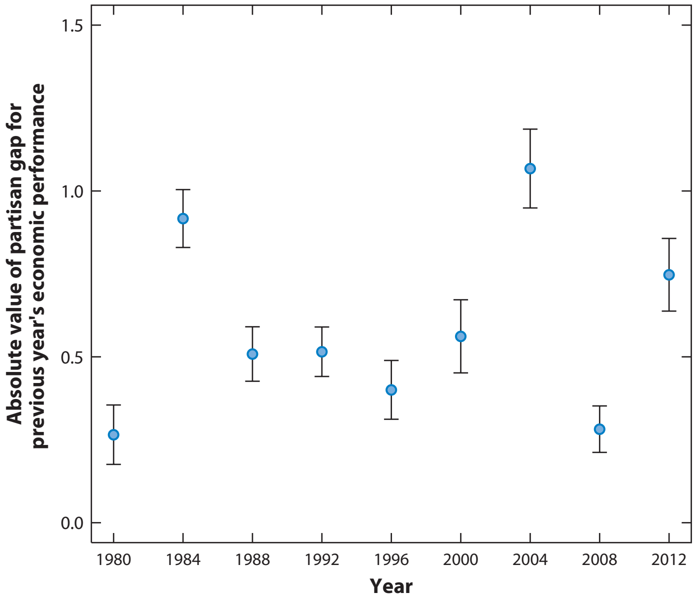

Figure 1

Partisan bias in economic perceptions (1980–2012).

following item: "Now thinking about the economy in the country as a whole, would you say that over the past year the nation's economy has gotten better, stayed about the same, or gotten worse?" Respondents who did not select "stayed about the same" were then asked: "Has the economy gotten much better (worse) or somewhat better (worse)?" We analyzed the resulting five-point scale of economic perceptions. In each election year, partisans of the incumbent presidential party evaluated the economy significantly more favorably than did people who identified with the challenger's party. In **Figure 1**, we plot the absolute value of the difference between Democrats' and Republicans' responses to the item across the last nine presidential elections along with 95% confidence intervals.[4] In every single election the partisan gap is highly statistically significant and substantively meaningful, ranging from 7% of the length of the scale to 27%. There does not seem to be any systematic pattern suggesting that partisan bias has been increasing; however, the larger partisan divides in 2004 and 2012 may reflect an upward trend that was masked in 2008 by an economy that was performing so poorly that there was little room for interpretation.

More generally, partisan bias seems strongest when economic performance is middling (as in 2012) as opposed to being clearly good (as in 1996) or bad (as in 1980, 1992, and 2008). In **Figure 2**, we plot the partisan divide against the absolute value of the mean deviation in all respondents' overall assessment of the economy from the midpoint position on the response scale ("stayed the same"). There appears to be an inverse relationship between the size of the partisan divide and the extremity of the perceived economic state. This analysis is simple but suggestive of potential influences on partisan bias. It seems clear that partisanship colors economic perceptions, but future scholarship can examine the conditions under which these partisan divides are large or small.

[4]Following Keith et al. (1992), we pool leaners and partisans together, excluding pure independents from the analysis. Because the 2012 time-series study was not completed at the time of writing, we used the fourth wave of the ANES Evaluations of Government and Society Study (EGSS) conducted between February 18 and 23, 2012.

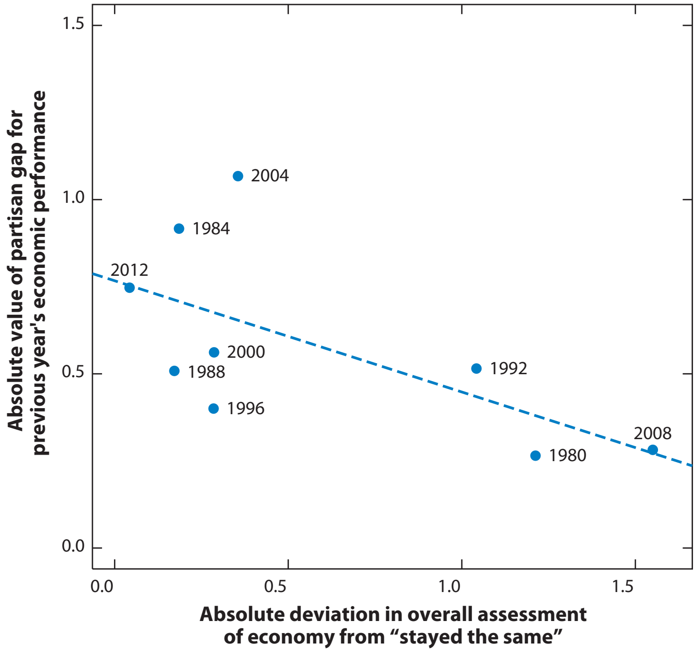

Figure 2

Partisan bias and the extremity of the state of the economy.

NEW DIRECTIONS

In recent years, the literature has expanded in three directions distinct from the classic economic voting literature. First, a series of papers has examined how voters respond to conditions other than the economy. These noneconomic domains sometimes allow clearer conclusions about the retrospective voter. Second, researchers have tested for the presence of apparent errors in voter decision making, most notably looking at voters' responses to events seemingly beyond any politician's control. A third strand of work has explicitly considered how retrospective voting relates to policy outcomes.

Moving Beyond the Economy

Despite the economy's obvious importance as a source of retrospective voting, there are several reasons why it is often difficult to interpret voters' responses to economic conditions, and these limitations make it difficult to establish normative benchmarks. First, political economists debate the extent to which fiscal policy affects the economy, suggesting that federal officials may have limited ability to influence it (Alesina et al. 1993). Moreover, the condition of the national economy affects state and local elections (Carsey & Wright 1998), even though it is implausible that elected officials at those levels have substantial influence on national economic outcomes. Second, it is unclear whether voters should care more about levels or changes in economic indicators (or maybe even the second derivative), and which baselines they should be using. Third, voters should perhaps not only evaluate the current state of the economy but also compare it to what would have happened if the losing candidate had been elected. Fourth, it is unclear which economic indicators should be indicative of government performance, particularly since some are negatively correlated and have different distributional implications (e.g., unemployment versus inflation). Fifth, it is extremely difficult to tie the actions of politicians to particular macroeconomic outcomes. Indeed, there is a debate on when the previous administration should stop receiving credit and blame for the current administration's record (see Bartels 2008 and Campbell 2011).

A great deal of contemporary research has attempted to study retrospective voting outside the economic domain, in part to avoid many (but not all) of the problems listed above. For instance, Berry & Howell (2007) find that voters evaluate school board members on the basis of student test scores, but only when the media highlights testing and accountability as an issue. Under these circumstances, moving across the interquartile range of test-score change is associated with a three-percentage-point increase in incumbent vote share. Gasper & Reeves (2011) find that governors are rewarded for asking the federal government for assistance after a natural disaster (by about four percentage points) and that presidents are punished if they reject the request (by about one percentage point). Similarly, Healy & Malhotra (2009) demonstrate that voters reward presidential administrations for delivering relief payments after natural disasters. Examining a comparative context, Bechtel & Hainmueller (2011) find that German voters who suffered from the Elbe flooding rewarded the robust response of the Socialist government not only in the election immediately following the floods but also in a future election. In the immediate aftermath of the flood in 2002, government response increased incumbent vote share in the affected areas by seven percentage points; about a quarter of this reward was still present in the next election in 2005.

Building on Mueller's (1973) pioneering work in the aftermath of the Vietnam War, recent scholars have leveraged the similarly unpopular Iraq War to demonstrate the relationship between casualties and vote shares for presidents (Karol & Miguel 2007), senators (Kriner & Shen 2007), and representatives (Grose & Oppenheimer 2007).[5] Karol & Miguel's results suggest the counterfactual that if it were not for the 10,000 US casualties in the Iraq War prior to the 2004 election, President Bush would have won two more percentage points in the national popular vote, producing a decisive Electoral College victory. All of these examples of noneconomic retrospective voting—test scores, disaster response, and casualties—have the advantages that the events and outcomes in question are temporally isolated and can be clearly attributed to a particular incumbent.

Do Voters Make Mistakes?

In addition to the findings on voters' responses to noneconomic outcomes, a second recent advance in the retrospective voting literature has come from work challenging the presumption that retrospective voting reflects individual and collective rationality. This line of research suggests that biases in citizens' evaluations of government performance can hamper electoral accountability, in contrast to the sanctioning and selection models of retrospective voting. We highlight three areas of voter mistakes that have been documented by this recent literature: (*a*) the influence of irrelevant information on voter decision making, (*b*) citizens' inability to benchmark, and (*c*) excessive weighting of recent events.

An editorial cartoon at the beginning of Fiorina's *Retrospective Voting* (1981) depicts two curmudgeonly businessmen looking out a window into a blizzard. One remarks, "We never had winters like these past two before Carter took office!" Although Fiorina included this cartoon as a parody of retrospective voting, recent scholars have argued that voters indeed often respond to events irrelevant to an incumbent's performance, damaging the incentivizing function of retrospective voting. Achen & Bartels (2002) famously offered evidence that Woodrow Wilson lost vote share in coastal New Jersey towns in the 1916 election due to a rash of shark attacks preceding

[5]See also Gartner et al. (2004) and Gartner (2008).

the election. The extensive analysis in Achen & Bartels' paper uses data from 1896–2000 to suggest that voters systematically punish politicians for events such as floods and droughts that are beyond the incumbent's control. They find, in particular, that extreme droughts or wet spells in the election year cost the incumbent presidential party roughly 1.5 percentage points of the vote.

The most important critique of Achen & Bartels' examples is that although government could not reasonably be held responsible for aberrant weather or shark attacks, voters could reasonably expect government to be responsible for preparation, mitigation, and response to natural disasters. In other words, it may be not the drought itself that matters, but rather the failure to deliver relief in the aftermath.[6] Consistent with this idea, Healy & Malhotra (2010) show that the way voters respond to tornadoes is more consistent with a standard economic voting story than with the "shark attacks" logic. Although voters punish politicians for every 1% increase in tornado-caused monetary damage by about 0.014 percentage points of the vote (which government may be expected to respond to), voters do not punish politicians for deaths caused by tornadoes, which are more stochastic and beyond government response. Thus, voters do not appear to simply respond to tornadoes emotionally; they seem to separate out economic and noneconomic concerns. A more subtle critique of Achen & Bartels' (2002) examples is that one could write down a model of a rational voter who simply responds to any negative event by punishing the incumbent because he knows that some portion of any negative event may be a signal about the incumbent's competence. Because it is costly to seek information that separates signal from noise, it could make sense to simply punish all politicians for negative events.

Healy et al. (2010) demonstrate that at least some voters do reward and punish incumbent presidents, governors, and senators for events that are completely beyond their control. They consider voters' responses to wins and losses by the local college football team shortly before elections. Unlike aberrant weather, local sports outcomes are not something that citizens could expect government to prepare for nor to respond to, so this empirical strategy isolates the effect of mood on voting. Healy et al. (2010) find that a win by the local college football team in the week before Election Day increases incumbent vote share by about 1.6 percentage points in Senate, gubernatorial, and presidential elections. The effect is bigger where teams have more fan support, where we would expect a greater shock to voters' moods.

A second demonstration of apparent voter error in retrospective voting is improper benchmarking. For instance, Leigh (2009) studies whether world leaders benefit from global macroeconomic swings relative to their own country's economic performance. He finds that voters do a poor job of distinguishing signal from noise; they are more sensitive to the global economy than to their own country's economic performance net of global swings. Wolfers (2009) finds similar evidence from US gubernatorial elections. Although voters are able to distinguish between state and national economic performance, voters in oil-producing states base voting decisions on the international price of oil, which should be beyond any governor's control.

Nonetheless, analyses using different datasets have suggested that voters sometimes benchmark more appropriately. Ebeid & Rodden (2006) use data from US states to show that in states highly dependent on natural resources and farming, there is little relationship between macroeconomic indicators and gubernatorial reelection. Such behavior is sensible because the

[6]Mo Fiorina reminded us of the scene in *The Godfather* where Don Corleone tells the other Mafia bosses, "If some unlucky accident should befall my youngest son [Michael], if some police officer should accidentally shoot him, or if he should hang himself in his cell, or if my son is struck by a bolt of lightning, then I will blame some of the people here" (Puzo & Coppola 1972). By holding the bosses responsible for *any* event, even those outside their control, Corleone incentivized them to especially look out for Michael's safety. Similarly, voter responses to any negative event may reflect an attempt to ensure maximum effort.

economic performance of these states is more subject to factors outside the governor's control. In contrast, economic voting is stronger in states less reliant on natural resources and agriculture. Kayser & Peress (2012) examine multiple countries and, in contrast to Leigh, find that voters do an excellent job benchmarking domestic economic performance to global swings, with the effect of benchmarked growth exceeding that of aggregate national growth by a factor of two.[7]

Finally, recent research has argued that voters do not take into account the full extent of an incumbent's economic record. Building on earlier work by Kramer (1971), Tufte (1978), and Fair (1978), Achen & Bartels (2004) find that voters overweight the last year of economic growth relative to the previous three in a presidential term. A one-percentage-point increase in real disposable income growth in the election year increases incumbent party vote share by three percentage points, whereas income growth early in the term has no effect. The authors claim that such voter behavior makes presidential elections a game of "musical chairs" in which politicians are selected largely based on luck, since elected officials cannot precisely time the economy to perform well in a given year. Further, Bartels (2008) argues that voter myopia has substantial implications for election outcomes. Because Republicans have tended to achieve slightly higher income growth in election years than Democrats after substantially weaker income growth earlier in their terms (see also Alesina et al. 1993), voter myopia has helped lead to the reelection of Republican presidents who achieve lower overall growth. Bartels (2008) thus argues that voter myopia has led to the election of presidents who manage the economy less well.

Recent experimental work has attempted to unpack the mechanisms underlying voters' overemphasis on recent events. Hill et al. (2012) use an experiment to strip political institutions out of the equation, examining whether voters decide to retain an "allocator" based on a stream of random payments they receive. They find that voters overweight recent payments from the allocator and thus make voting decisions that fail to maximize their welfare. The conclusion is that recent events, even in an experiment that takes place over a matter of minutes, exert undue influence on voting decisions.[8] Controlling for performance overall, an incumbent who does better than average in the last few quarters is 6.5% more likely to win reelection. Healy & Lenz (2012) conduct a series of survey experiments to provide evidence on the reasons why voters put so much weight on the election-year economy. They find that people intend to evaluate incumbents based on their overall performance over an entire term but rely on election-year income growth because it is a more easily available metric than the information on overall performance that they are searching for.

Retrospective Voting and Policy

Although the majority of the literature on retrospective voting studies how voters respond to outcomes, some recent work considers the relationship between retrospective voting and policy. Some of these papers consider voters' responses to policy decisions, others look at how policy responds to the implied incentives provided by voters, and some research considers both of these

[7]There are several possible reasons why Leigh (2009) and Kayser & Peress (2012) obtain different results. Leigh's sample includes 58 countries; Kayser & Peress examine 22 OECD states, mainly European. Perhaps European voters in wealthy nations are especially politically sophisticated owing to the complexity of coalitional government. Leigh's time series covers only 1978–1999, whereas Kayser & Peress examine 1948–2012. The studies also differ with respect to data analysis; Leigh excludes both the United States and Japan because of their large economies, whereas Kayser & Peress exclude only the United States. Leigh's dependent variable is whether the leader is reelected; Kayser & Peress predict the vote share of the leader party. Therefore, it may be that Kayser & Peress' results are driven by uncompetitive elections.

[8]They also replicate Healy et al.'s (2010) finding by showing that exogenous shocks to experimental payments in the form of lotteries—even when respondents are explicitly told that the allocator had no impact on the lottery—predict retention choices, suggesting that emotional responses unrelated to performance influence evaluations.

aspects together. The empirical results can often only be suggestive, but some important insights emerge from these analyses.

A series of papers has considered the effect that federal spending in the aggregate has had on election outcomes, particularly for the US House of Representatives. Most of these papers have found that spending has little effect in House elections, although sometimes spending influences certain subgroups of incumbents and voters (e.g., Alvarez & Schousen 1993, Bickers & Stein 1996, Alvarez & Saving 1997, Levitt & Snyder 1997, Lazarus & Reilly 2010). Kriner & Reeves (2012) look instead at the effect of spending on the president's vote share and find clear positive effects. Specifically, they find that an 80% increase in federal grant spending increases the incumbent presidential party vote share by more than 0.5%. They also find that this effect appears to depend on the ideology of individual voters, with more liberal voters being more likely to reward presidents for spending. The variation in voter responses indicates the importance of accounting for context when describing the retrospective voter, in keeping with the conclusions of Duch & Stevenson (2008).

Other research has looked at particular kinds of spending to provide additional insights into the relationship between retrospective voting and policy. In a particularly thorough example, Chen (2012) combines detailed data on FEMA disaster spending and wind intensity during the 2004 Florida hurricane season with individual-level voter files. He finds that disaster relief spending mobilizes incumbent party turnout but demobilizes the opposing party. Specifically, Governor Jeb Bush's targeting of hurricane relief aid increased Republican turnout by 5.1% and decreased Democratic turnout by 3.1%. The logic is that members of the opposing party are less motivated to show up to vote against the incumbent because relief payments mitigate their ideological disagreement. The results have important implications for policy-maker incentives as incumbent administrations may choose to direct resources strategically in advance of elections. In fact, policy makers often appear to respond to those incentives. For example, in election years, governments provide more agricultural credit (Cole 2009), pay back wages owed to government workers (Akhmedov & Zhuravskaya 2004), hire more police officers (Levitt 1997), and provide more relief in response to natural disasters (Cole et al. 2012). Much like there are political business cycles (Nordhaus 1975), there may be political relief and policy cycles.

Other scholars have also utilized government response to natural disasters to identify the relationship between policy action and voter response (e.g., Bechtel & Hainmueller 2011). Our paper (Healy & Malhotra 2009) studies retrospective voting and public policy in a unified framework; we combine data on voting behavior (election results), elite actions (disaster preparedness and relief spending), and public welfare outcomes (disaster damage). We find that voters reward the incumbent presidential party for disaster relief spending (a 10% increase in relief spending increases incumbent vote share by 0.045 percentage points) but not for disaster preparedness efforts. As our paper describes, this may be due to the fact that preparedness spending is not very salient compared to relief payments (see also Ashworth 2012). We also find that politicians appear to devote insufficient resources to disaster preparedness. On average, we estimate that a dollar of disaster preparedness spending was worth between $3 and $27 in terms of reduced future damage. Even though our results are consistent with voters and elites acting rationally at the individual level, the results suggest that the collective failure to adequately provide disaster preparedness leads to welfare losses of about $4.1 billion per year.

The intersection between natural disasters and elections recently received a great deal of attention due to Hurricane Sandy, which hit the mid-Atlantic in October 2012. President Obama's well-received response, and New Jersey Governor Chris Christie's endorsement of that response, may have helped him win a closely decided election. The storm and its aftermath dominated the news for days and gave Obama the opportunity to appear as a strong leader in a time of crisis. The political effects of Sandy can be contrasted with the perceived poor federal response to Hurricane Andrew in 1992 and Hurricane Katrina in 2005, which damaged the standing of incumbent presidents. Elected officials appear not to face such clear consequences for failing to build needed infrastructure that might make power delivery more resilient in a hurricane or that might mitigate the climate change that makes storms more severe. Whatever the reason why elections do not turn on issues like disaster preparedness, the important point is that voters' actions help to explain policy outcomes.

OPEN QUESTIONS

Can Responsiveness Decrease Welfare?

Besides the few studies listed above, we uncovered almost no literature that explores how retrospective voting actually influences policy outcomes. Identifying this link in the retrospective voting chain is empirically difficult but also crucially important if we are to interpret retrospective voting as a normatively appealing phenomenon. For example, a natural extension of Berry & Howell's (2007) study of school boards (described above) would be to see if voter (un)responsiveness to test scores improves future educational performance, not only with respect to test scores but also dropout rates, college attendance, personal income growth, juvenile crime rates, and the like. Further, to close the feedback loop, future research can explore whether policy changes that may arise from retrospective voting then affect voting behavior itself.

A theme in many of the papers we have discussed is that voters can be *too* responsive and place too much accountability pressure on government. Healy & Malhotra (2009) provide evidence that responsiveness *per se* may not always be associated with good normative outcomes and public welfare gains, as much research has often argued. For example, Gasper & Reeves (2011) conclude that voters reward politicians for delivering disaster relief and interpret this as an example of democracy functioning well. Yet, disaster relief spending may not be as efficient as preparedness spending. Similarly, Berry & Howell (2007) suggest that voters *should* be rewarding and punishing school board incumbents based on test score performance. However, school districts can easily manipulate test scores by shuffling students in and out of districts (Bryk et al. 2010). Additionally, it is uncertain whether test scores reliably and validly measure student achievement or whether schools that "teach to the test" are actually providing a better education. Hence, there may be cases where we would prefer that voters did not respond at all and did not place accountability pressure on government.

Consistent with these ideas, some recent evidence suggests that making politicians less accountable to voters can sometimes increase public welfare. Achen & Bartels (2004) show that a policy they consider unambiguously beneficial—fluoridation of tap water—was undertaken earlier in cities where mayors had longer terms and were thus more insulated from voters. Likewise, Dal Bo & Rossi (2011) examined a natural experiment where Argentine legislators were randomly assigned to different term lengths to show that longer terms enhanced legislator effort. Moving from two-year terms to four-year terms increased the number of bills passed, a measure of legislative productivity, by 45%. In some cases, less electoral pressure may lead to improved government performance.

Of course, if we ask "Is it always good that voters are responsive?" an important follow-up question is "Compared to what?" In other words, what is the alternative model of voting behavior that would produce better policy outcomes than a responsive electorate? In the case of the economy, it is likely better that voters pay attention to performance in some form rather than completely ignoring macroeconomic indicators. However, it seems likely that public welfare would be enhanced if voters took a longer view with respect to the economy. If voters only consider macroeconomic indicators in the election year, then they are liable to get policies that privilege short-term growth even at the expense of higher long-term costs. These electoral motivations have altered pre-election monetary policy in countries such as Mexico, Russia, and the United States (Stein & Streb 2004, Abrams 2006). Post-election crises or inflation have followed pre-election manipulations. Evidence from the Nixon tapes indicates that his administration pushed the Federal Reserve to pursue expansionary monetary policy in 1972 because of a desire to please voters with strong election-year growth (Abrams 2006). The subsequent overheating of the economy in 1972 appears to have advanced Nixon's goal of securing reelection while decreasing overall welfare by contributing to the inflation and recession that characterized the years immediately following the election.

Will Sorting Make Retrospective Voting Rarer?

As mentioned above, Key (1966) challenged the Michigan School's depiction of the American voter (Campbell et al. 1960) by showing that citizens often abandoned their party in order to reward or punish the incumbent based on performance. However, Key was writing in a period when parties were less strong and party identification was more loosely associated with vote choice. Today, voters are ideologically well sorted into Republicans and Democrats and have clear understandings of where the parties stand on policy issues (Levendusky 2009). Even though voters may not have polarized (Fiorina et al. 2005), an electorate increasingly sorted along party lines may be less likely to abandon party allegiances to vote retrospectively (Niemi et al. 2011).

Improving Democratic Accountability

A last suggestion for future research is to inquire how voters can make better retrospective voting decisions. Ferraz & Finan (2008, 2011) provide models for such research (see also Chong et al. 2011). The authors studied the effect of government audits in exposing corruption among Brazilian mayors. Using clever natural experiments, Ferraz & Finan found that when voters were informed about municipal corruption before the election, they threw out corrupt mayors. Further, corruption was much lower in cases where mayors could be reelected. These findings suggest that elections can improve accountability and that institutions that provide voters with information can assist them in making good retrospective decisions.

Consistent with recent evidence from psychology, Healy & Lenz (2012) illustrate that even psychological biases can be overcome if voters have the right kind of information. Specifically, if voters are provided with the attribute—total economic growth over a president's term—on which they intend to base their decisions, they are able to evaluate presidents based on their overall performance rather than relying so heavily on the election year. These results suggest that economic voting could be improved if journalists presented more complete economic information.

Similarly, Schwarz & Clore (1983) found that people who were in a bad mood because of the weather evaluated unrelated subjects more harshly. Simply making people think about the reasons for their bad mood helped them think more carefully about their evaluations. Once aware of the reason for their mood, people no longer transferred it to their other evaluations. Likewise, Healy et al. (2010) demonstrate in a survey experiment that the effect of sporting outcomes on incumbent evaluations can be eliminated if people are made aware of the irrelevant events that are influencing their moods. If voters are in a bad mood for some reason unrelated to politics, these results suggest that helping voters to think about the reasons underlying their vote choices could help them to not transfer their mood to their voting decisions.

Future research can also explore how well the media helps voters induce good government performance and how the media can do a better job informing the electorate. For example, Snyder & Stromberg (2010) find that press coverage of Congress affects not only the policies that constituents get, but also the amount of effort that legislators put into serving their constituents and the level of knowledge those constituents have about politics. These findings suggest the media can serve an important role in ensuring that voters receive relevant information before Election Day.

CONCLUSIONS

A plethora of important research over the decades has uncovered findings about how voters reward and punish politicians based on their performance. We believe that future research on the topic can benefit from three main considerations:

1. In many contexts, scholars have found evidence of voter responsiveness. What the literature has done less well is address the normative question of whether the responsiveness that we observe incentivizes politicians to maximize social welfare. In other words, the study of retrospective voting may require a paradigm shift; the new question is not whether voters are responding to government performance but whether they are responding in the right manner.
2. In order to assess this, a normative benchmark is necessary. Some studies have implicitly posited normative benchmarks (e.g., lower crime is better; higher test scores are better) but have not demonstrated why these are good benchmarks or that voter responsiveness helps reach them. The normative question of whether retrospective voting produces good social outcomes is important in part because this was exactly V.O. Key's response to the Michigan School.
3. Finally, we see the potential for more research to close the circle connecting retrospective voting behavior with policy outcomes.

Altogether, scholarship on political behavior is providing a more nuanced, realistic, and complete picture of how retrospective voting actually takes place. Democratic accountability often works wonders. Voters who throw out corrupt officials when made aware of their actions clearly provide the right incentives for future policy makers in addition to showing a capacity for learning. This behavior accords with Sen's (1981) famous assertion that famines do not occur in democracies. However, voters often provide the wrong incentives. In a variety of situations, the ways in which voters assess government performance may lead to inefficient policies and poorer-performing politicians.

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