Coordination and Policy Moderation at Midterm

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Abstract

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Eligible voters have been coordinating their turnout and vote decisions for the House of Representatives in midterm elections. Coordination is a noncooperative rational expectations equilibrium. Stochastic choice models estimated using individual-level data from NES surveys of years 1978–1998 support the coordinating model and reject a nonstrategic model. The coordinating model shows that many voters have incentives to change their votes between presidential year and midterm after learning the outcome of the presidential election. But this mechanism alone does not explain the size of midterm cycles. The largest source of loss of support for the president's party at midterm is a regular pattern in which the median differences between voters' ideal points and the parties' policy positions have become less favorable for the president's party than they were at the time of the presidential election (nonvoters show the same pattern). The interelection changes are not consistent with the theory of surge and decline.

Do Americans coordinate their electoral choices in midterm congressional elections? We use *coordination* to describe a situation in which two conditions hold for everyone who is eligible to vote (i.e., every elector). Each elector combines information that each elector has privately with information that everyone has in common to make the best possible prediction of the election outcome, and each elector makes the choice—consistent with the elector's prediction—that is most likely to produce the best possible result for the elector. Each elector's prediction takes into account what all electors' best strategies would be given the information they have in common, a condition described by saying that each elector has rational expectations. The choice each elector makes is part of the elector's private information. When every elector makes choices according to a strategy that is consistent with the elector's rational expectations, and no elector can produce a personally better outcome by using a different strategy, then there is a noncooperative equilibrium. Coordination is defined as the existence of a noncooperative equilibrium that is based on everyone having rational expectations.

Beyond implications for the regularity with which the president's party loses vote share in midterm elections, which we discuss below, the existence of coordination is important because coordination implies that electors take one another into account in a constitutionally significant way. In American elections, coordination is based on the separation of powers between the president and Congress. Coordination occurs when electors anticipate how election outcomes will affect bargaining about policy within the legislature and between the legislature and the executive. By instituting the constitutional separation of powers, Madison believed that elected officials' pursuit of their selfish interests and ambitions would lead them to act with regard to one another in ways that would prevent governmental tyranny (Carey 1978, 159–160). Even electors who did not coordinate might hope, with Madison, that the separation of powers would affect officials in that way. But if coordination exists, electors shift from being mere observers of consequences the constitutional provisions may produce to being agents who are led to counteract one another by the constitutional incentives. Coordinating electors are as wary of one another as they are of officials.

Coordination produces policy moderation. An elector is acting to moderate policy when the elector chooses what to do based on the idea that, via the institutional structure, the policy outcome will be intermediate between the parties' positions. With coordination it is not that electors individually prefer to have government produce moderate policy. Indeed, no elector prefers moderation or divided government per se. Rather, the separation of powers and the institutions that create public information together channel each elector's selfish efforts in such a way that collectively there is a moderated result.

In the strategic theory of policy moderation introduced by Alesina and Rosenthal (1989; 1995; 1996), which motivates our analysis, each voter's rational expectation about the midterm outcome is part of a noncooperative equilibrium that encompasses the presidential and midterm elections. Based on empirical tests of a rational expectations noncooperative equilibrium model of voters' choices among candidates for president and for the House of Representatives, Mebane (2000) argues that there is coordination among voters in presidential elections. We use an extension of Mebane's (2000) fixed-point methods to develop an equilibrium model for turnout and vote choice decisions by midterm electors. We test the model using National Election Studies (NES) survey data from the six midterm elections of years 1978 through 1998. We also compare the coordinating model explicitly to an institutional balancing model that asserts that electors do not act strategically. Finally, we examine how well the coordinating model explains midterm loss (Erikson 1988), taking into account the alternative theory of surge and decline (Born 1990; Campbell 1966; Campbell 1987; 1991).

Our analysis is a counterexample to Green and Shapiro's claim that "rational choice theory fares best in environments that are evidence poor" (1994, 195). Indeed, we sharply test the strategic theory using exactly the kind of survey data with which Green and Shapiro assert that "rational choice theories have been refuted or domesticated" (p. 195). Our analysis is not subject to the pathologies that Green and Shapiro show have generally afflicted rational choice theory. The statistical model we use to confront the survey data is isomorphic to the formal equilibrium theory. We test the parameters of the estimated model for internal coherence and the model as a whole against a relevant alternative, namely the nonstrategic model.

It may be surprising to many, including some formal theorists, that voters are able to behave in the strategic fashion our model posits. No one disputes the long-established fact that most voters are politically ignorant (e.g., Adams [1805] 1973; Bryce [1888] 1995; Converse 1964; Delli Carpini and Keeter 1996). What widespread voter ignorance implies is controversial, however. Even though individuals are poorly informed, political and electoral institutions may allow voters to make decisions that are much the same as they would make if they had better information. For instance, McKelvey and Ordeshook (1985a; 1985b) suggest that polls and interest group endorsements may perform such cuing functions. Mebane (2000) regards such institutions as implicitly providing foundations for coordination and so do we. It is clear, however, that neither such cues nor the aggregate cancellation of individual voter errors are sufficient to produce election results that fully match what would happen if all electors were better informed (Bartels 1996).

That electors interact strategically does not imply that they live up to the democratic ideal of being active participants in a rational-critical discourse on public issues (Habermas [1964] 1989; [1981] 1984; [1981] 1987). The noncooperative framework takes preferences as given, and when assessing the efficacy and desirability of possible actions, strategic electors know they are interacting with others who are similarly rational. In discourse, individuals may modify their preferences in response to arguments, and if engaged in communicative action they are "coordinated not through egocentric calculations of success but through acts of reaching understanding" (Habermas [1981] 1984, 285–286). Communicative reasoning is about individuals together reflecting on background assumptions about the world and bringing shared basic norms to the fore to be questioned and negotiated. Even if strategic electors might be thought Madisonian because the constitutional separation of powers causes them collectively to moderate policy, instrumental rationality has individuals taking background assumptions and norms for granted, as common knowledge, and focusing on pursuit of gains.

Overview

We assume that each elector has the same basic institutional understanding that is attributed to voters in the theories of Alesina and Rosenthal (1995; 1996) and Mebane (2000). Each elector knows post-election policy outcomes are compromises between the positions taken by the president and the Congress, and each elector believes the two political parties push for distinct policy alternatives. In our theory different electors have different beliefs about what the parties' policy positions are, and not all electors care about the policy outcomes. An elector may vote for one of the parties or not vote.

The equilibrium concept in our model is similar to Mebane's (2000): each elector is able to make an equilibrium strategic choice that is based on accurate expectations regarding the aggregate results of other electors' intended choices.[1] Different electors have beliefs about the upcoming election results that are similar because of common knowledge all electors have but differ because of private information each elector has. Our equilibrium includes the level of turnout along with the two-party split of votes for House candidates. The fixed-point values determined in the empirical analysis estimate the aggregate values that are common knowledge in equilibrium in the theoretical model.

We compare the coordinating model to an empirical model derived from the nonstrategic theory that Fiorina (1988; 1992, 73–81) introduced to describe institutional balancing by voters in elections during presidential years. Mebane (2000) finds the nonstrategic model to be significantly inferior to his coordinating model in NES data from presidential election years 1976–1996. Our findings for the midterms data are similar.

One of the most important implications of Alesina and Rosenthal's theory is an explanation of midterm loss. According to their theory, some who voted for a congressional candidate of the president's party when the presidential outcome was uncertain would have voted for the other party had they known which presidential candidate would win. At midterm such voters change their votes, so the president's party loses congressional vote share. Alesina and Rosenthal (1989; 1995; Alesina, Londregan and Rosenthal 1993) show patterns in aggregate data that in several respects match the kind of midterm cycle their theory implies, but, as they observe, the midterm cycle occurs too frequently to be fully consistent with their theoretical model (Alesina and Rosenthal 1995, 207).[2] We use the data and parameter estimates from our model and from Mebane (2000) to confirm that the disappearing uncertainty of Alesina and Rosenthal's theory accounts for only a small part of the midterm cycles that occurred between 1976 and 1998. The predominant part of the explanation for the frequency and magnitude of the midterm cycles is a regular pattern of interelection changes in the relationship between voters' policy ideal points and the policy positions they attribute to the parties. Usually the changes work against candidates of the president's party, but in 1998 the changes helped Democrats achieve a midterm gain.

An alternative explanation for midterm loss is the theory of surge and decline. The details of the theory vary somewhat in different accounts (Born 1990; Campbell 1966; Campbell 1987; 1991; Kernell 1977), but there are two central ideas. First, there are people who turn out in the presidential election and vote for House candidates of the party that wins the presidency but who do not vote at midterm. Second, presidential coattails cause many voters to choose House candidates of the president's party, but at midterm, absent presidential coattails, the president's party suffers a predictable and regular midterm loss proportional to the party's prior presidential vote margin (Campbell 1991).

One formulation of the surge and decline argument highlights the claim that Independents are more likely to vote in the presidential election than at midterm, so that the midterm electorate consists of a higher proportion of party identifiers whose vote choices are relatively unmoved by short-run concerns (Campbell 1966). Using NES data, Born (1990) finds little support for that or related claims about turnout variations. We find that policy evaluations change systematically between the presidential election and midterm in ways that do not match the theory. Consistent with surge and decline, Born (1990) finds that short-run concerns matter more during the presidential election than at midterm. We explain that this asymmetry arises because retrospective economic evaluations significantly affect House votes in presidential years, but these evaluations do not significantly affect House votes at midterm.

A negative voting variant of the surge and decline theory argues that voters weigh negative aspects of a president's performance more heavily than positive aspects (Bloom and Price 1975; Kernell 1977). Several studies find mixed support for various interpretations of the negative voting idea (Abramowitz 1985; Cover 1986), but Fiorina and Shepsle (1989) show that evidence of negative voting reflects nothing more than a technical artifact. Born (1990) rejects the idea based on NES data from several elections. Because of the lack of evidence for asymmetric negative voting, we do not directly engage this variant of surge and decline.

The negative voting variant claims to explain an interesting regularity that surge and decline otherwise does not. A party consistently receives a higher vote proportion in midterm House elections when the other party controls the White House than when they themselves control it.

Surge and decline compares midterm election returns to the previous presidential election but usually ignores the distribution of returns across midterms. Our moderation theory explains that distribution and, unlike negative voting, has strong individual-level support.

A Model of Coordination in Turnout and Vote Choices at Midterm

In a manner similar to Mebane (2000), the model of coordination we develop is based on a fixed-point theorem that defines the common knowledge belief that all electors have about the upcoming election results. The values of two aggregate statistics summarize the election results: (i) the proportion of the two-party vote to be cast nationally for Republican candidates for the House and (ii) the proportion of electors who will vote. Our theory differs from Mebane's by including electors whose election-time preferences and hence strategies do not depend on expected post-election policies. Each elector who does care about the policies responds to the belief each has about the aggregate values, because the values affect the loss each expects.

The election is a game among everyone who is eligible to vote, that is, among all the electors, assumed to be a large number. Electors act noncooperatively and simultaneously, each choosing whether to vote for a Democratic or a Republican candidate for a House seat or not to vote. In some House districts a candidate may be unopposed. Every elector's expectations about the election outcome depend on the strategies other electors are expected to use. Equilibrium occurs when every elector uses all available information to form such expectations and, given everything each elector knows, no elector expects to gain by using a different strategy. In the following discussion we sketch the main features of the model. Further details, including the extension to include unopposed candidates in some districts, appear in the Appendix.

Elector i expects that after the election Democrats will try to implement policy position θ_{Di} and Republicans position θ_{Ri}. Given expectations that a proportion $\bar{V}_i$ of the N electors will vote and a proportion $\bar{H}_i$ of the vote will go to Republicans, i expects post-election policy to be

$$\tilde{\theta}_i = \begin{cases} \alpha\theta_{Di} + (1-\alpha)[\bar{H}_i\theta_{Ri} + (1-\bar{H}_i)\theta_{Di}], & \text{if Democrat is president} \\ \alpha\theta_{Ri} + (1-\alpha)[\bar{H}_i\theta_{Ri} + (1-\bar{H}_i)\theta_{Di}], & \text{if Republican is president ,} \end{cases}$$

where α, $0 \leq \alpha \leq 1$, represents the president's strength in comparison to the House, and $\bar{H}_i\theta_{Ri} + (1-\bar{H}_i)\theta_{Di}$ is the position i expects the House to take. If elector i's preferences depend on policy, then i's expected loss from $\tilde{\theta}_i$, denoted λ_i, depends on i's ideal point θ_i, according to $\lambda_i = |\theta_i - \tilde{\theta}_i|^q$, where $0 < q < +\infty$, and we set an indicator variable $\gamma_i = 1$.[3] If i does not care about policy, then $\lambda_i = 0$ and we set $\gamma_i = 0$.

Every elector's choice—whether to vote for the Republican, the Democrat, or not to vote—affects $\bar{H}_i$ and hence affects $\tilde{\theta}_i$. We write $\bar{H}_i = \bar{H}_{i,R}$ if i votes Republican and $\bar{H}_i = \bar{H}_{i,D}$ if i votes Democrat, with $\bar{H}_{i,R} > \bar{H}_{i,D}$. The effect an increase in $\bar{H}_i$ has on λ_i is

$$w_{Ci} = \begin{cases} q(\theta_{Di} - \theta_{Ri})(1-\alpha)|\theta_i - \tilde{\theta}_i|^{q-1}\,\mathrm{sgn}(\theta_i - \tilde{\theta}_i)\,, & \text{if } \gamma_i = 1 \\ 0\,, & \text{if } \gamma_i = 0\,, \end{cases}$$

where $\mathrm{sgn}(x) = -1$ if $x < 0$, $\mathrm{sgn}(x) = 0$ if $x = 0$, and $\mathrm{sgn}(x) = 1$ if $x > 0$. Each choice also involves additional gains and losses, such that the total loss for i is

$$\tilde{\lambda}_i = \begin{cases} \lambda_{i,D} + z_{i,D} + \epsilon_{i,D}, & \text{if } i \text{ votes for the Democrat} \\ \lambda_{i,R} + z_{i,R} + \epsilon_{i,R}, & \text{if } i \text{ votes for the Republican} \\ \lambda_{i,A} + z_{i,A} + \epsilon_{i,A}, & \text{if } i \text{ does not vote .} \end{cases}$$

To minimize $\tilde{\lambda}_i$, i chooses the value from the set $K = \{D, R, A\}$ that minimizes $x_{i,h} + \epsilon_{i,h}$, $h \in K$, where D denotes voting for the Democrat, R voting for the Republican and A not voting, and, using $\bar{V}_{i,A}$ to denote the value of $\bar{V}_i$ if i does not vote,

$$x_{i,D} = -(N\bar{V}_{i,A})^{-1}\bar{H}_{i,D}w_{Ci} + z_{i,D} \tag{1a}$$

$$x_{i,R} = (N\bar{V}_{i,A})^{-1}\left(1 - \bar{H}_{i,R}\right)w_{Ci} + z_{i,R} \tag{1b}$$

$$x_{i,A} = z_{i,A}\ . \tag{1c}$$

Variable Y_i denotes i's choice from K. Because Y_i depends on $\bar{V}_i$ and $\bar{H}_i$, the best choice for each elector who has $\gamma_i = 1$ depends on what i expects others to do. Y_i is an equilibrium only if it minimizes $\tilde{\lambda}_i$ when each i assumes that everyone else is using the same rule and only if it is supported by every i believing "mutually consistent" (Mebane 2000, 41) values for $\bar{H}_i$ and $\bar{V}_i$. The definition of Y_i and assumptions we make about the probability distribution of w_{Ci}, $z_{i,h}$ and $\epsilon_{i,h}$, imply choice probabilities $\mu_{i,D}$, $\mu_{i,R}$ and $\mu_{i,A}$.

We use Mebane's (2000) method to characterize each mutually consistent pair $(\bar{H}_i, \bar{V}_i)$ as a deviation from common knowledge expections $(\bar{H}, \bar{V})$ that all electors have when each elector i knows only the distribution of w_{Ci}, $z_{i,h}$ and $\epsilon_{i,h}$. In that case, the proportions of electors expected to vote Republican and Democratic are respectively $\bar{R}$ and $\bar{D}$ such that $\bar{V} = \bar{R} + \bar{D}$, $\bar{H} = \bar{R}/\bar{V}$ and, in (1a) and (1b), $\bar{V}_{i,A} = \bar{V}$ and $\bar{H}_{i,D} = \bar{H}_{i,R} = \bar{H}$, and i's choice probabilities are $\bar{\mu}_{k_i,h} = \bar{\mu}_{k,h}$ (same for all i in a set indexed by k). The difference between $(\bar{H}_i, \bar{V}_i)$ and $(\bar{H}, \bar{V})$ reflects i's private information, which is the actual values of w_{Ci}, $z_{i,h}$ and $\epsilon_{i,h}$. Let $y_{i,h}$ indicate the value of Y_i when i knows w_{Ci}, $z_{i,h}$ and $\epsilon_{i,h}$, $h \in K$, but for other electors has only the common knowledge: $y_{i,h} = 1$ if $Y_i = h$, $y_{i,h} = 0$ if $Y_i \neq h$, $h \in K$. Define $\bar{R}_{iy_{i,R}} = \bar{R} + (y_{i,R} - \bar{\mu}_{k_i,R})/N$, $\bar{D}_{iy_{i,D}} = \bar{D} + (y_{i,D} - \bar{\mu}_{k_i,D})/N$, $\bar{V}_{iy_{i,R}y_{i,D}} = \bar{R}_{iy_{i,R}} + \bar{D}_{iy_{i,D}}$, and $\bar{H}_{iy_{i,R}y_{i,D}} = \bar{R}_{iy_{i,R}}/\bar{V}_{iy_{i,R}y_{i,D}}$. A set of equilibrium choices Y_i and expectations $(\bar{H}_i, \bar{V}_i)$, $i = 1, \ldots, N$, is given by

Theorem 1 *There is a coordinating elector equilibrium if, with all electors using the same fixed point $(\bar{H}, \bar{V})$ computed from common knowledge, each elector i has $(\bar{H}_i, \bar{V}_i) = (\bar{H}_{iy_{i,R}y_{i,D}}, \bar{V}_{iy_{i,R}y_{i,D}})$ and $Y_i = h$, $h \in K$, for whichever of the three possible pairs of values $(\bar{H}_{iy_{i,R}y_{i,D}}, \bar{V}_{iy_{i,R}y_{i,D}})$ corresponds to the smallest value of $\tilde{\lambda}_i$: either $\bar{H}_i = \bar{H}_{i01}$, $\bar{V}_i = \bar{V}_{i01}$ and $Y_i = D$; $\bar{H}_i = \bar{H}_{i10}$, $\bar{V}_i = \bar{V}_{i10}$ and $Y_i = R$; or $\bar{H}_i = \bar{H}_{i00}$, $\bar{V}_i = \bar{V}_{i00}$ and $Y_i = A$.*

A Coordinating Model for Survey Data

With survey data we observe choices $Y_i \in K$ reported by each elector i in a sample S of size n, $i = 1, \ldots, n$, and a set of variables Z_i that affect electoral choices. Given Z_i and a set of parameter values, we adapt Mebane's (2000) method to compute values $(\hat{\bar{H}}, \hat{\bar{V}})$. In (1a–c) we set $\bar{H}_i = \hat{\bar{H}}$ and $\bar{V}_i = \hat{\bar{V}}$ and substitute $b_C \hat{\bar{V}}^{-1}$ for $(N\bar{V})^{-1}$, where $b_C > 0$ is a constant parameter:

$$x_{i,D} = -b_C \hat{\bar{V}}^{-1} \hat{\bar{H}} w_{Ci} + z_{i,D} \tag{2a}$$

$$x_{i,R} = b_C \hat{\bar{V}}^{-1} \left(1 - \hat{\bar{H}}\right) w_{Ci} + z_{i,R} \tag{2b}$$

$$x_{i,A} = z_{i,A} \; . \tag{2c}$$

Further details, including the definition of the log-likelihood, are in the Appendix.

We test whether the parameters satisfy conditions necessary for coordination to exist. If $\alpha = 1$, then $w_{Ci} = 0$ so that electors' strategies depend on neither $\hat{\bar{H}}$ nor $\hat{\bar{V}}$ and there is no coordination. We use confidence intervals and likelihood-ratio (LR) tests to check whether $\alpha = 1$ can be rejected for each year of our data. We use Davies's method (1987, 36, eq. 3.4) to adjust the LR test significance probabilities for a nonregularity that arises because the model does not depend on ρ when $\alpha = 1$. Also necessary for the model to describe coordination are that $q > 0$ and that $b_C > 0$: $q = 0$ implies $w_{Ci} = 0$, and $b_C = 0$ implies that w_{Ci}, $\hat{\bar{H}}$ and $\hat{\bar{V}}$ do not affect i's choice.

A Nonstrategic Moderating Model

To test further whether electors coordinate, we define an empirical model that applies to midterm elections the core idea in Fiorina's (1988; 1992, 73–81) nonstrategic theory of institutional balancing by voters in presidential-year elections. The theory considers a situation in which each voter has a choice between two candidates for president and two candidates for the legislature, one from each of two parties. Each voter chooses the mix of party control of the presidency and the legislature, either unified or divided government, that would produce a policy outcome nearest the elector's ideal point. The voter ignores the expected election outcome. The theory is nonstrategic because no voter's choice depends on the likely choice of any other voter.

We apply the nonstrategic theory by assuming that at midterm each elector i treats the party of the president as fixed in forming a preference between unified or divided government but ignores the expected election outcome. The post-election policies i expects if there is a Democratic majority in the House are[4]

$$\tilde{\theta}_{Di} = \begin{cases} \theta_{Di}, & \text{if Democrat is president} \\ \alpha\theta_{Ri} + (1-\alpha)\theta_{Di}, & \text{if Republican is president ,} \end{cases} \tag{3}$$

and the post-election policies i expects if there is a Republican majority are

$$\tilde{\theta}_{Ri} = \begin{cases} \alpha\theta_{Di} + (1-\alpha)\theta_{Ri}, & \text{if Democrat is president} \\ \theta_{Ri}, & \text{if Republican is president ,} \end{cases} \tag{4}$$

with $0 \leq \alpha \leq 1$. The nonstrategic theory says that, other things equal, i votes for the Democrat instead of the Republican if i's ideal point is closer to the policy expected with a Democratic majority than to the policy expected with a Republican majority, i.e., if $|\theta_i - \tilde{\theta}_{Di}| < |\theta_i - \tilde{\theta}_{Ri}|$. If $|\theta_i - \tilde{\theta}_{Di}| > |\theta_i - \tilde{\theta}_{Ri}|$, then i votes for the Republican instead of the Democrat.

In the nonstrategic model there is policy moderation only if $0 < \alpha < 1$. If $\alpha = 1$, then the president's party's position is the expected policy, hence $\tilde{\theta}_{Di} = \tilde{\theta}_{Ri}$, and policy comparisons do not affect midterm vote choices. If $\alpha = 0$, then $\tilde{\theta}_{Di} = \theta_{Di}$ and $\tilde{\theta}_{Ri} = \theta_{Ri}$ regardless of who is president. There is no moderation but rather a simple choice between the parties' alternative policies.

To include the possibility of not voting, we use the same log-likelihood function as with the coordinating model, except based on modified definitions of $x_{i,h}$, $h \in K$. Defining

$$w_{NSi} = \begin{cases} |\theta_i - \tilde{\theta}_{Ri}|^q - |\theta_i - \tilde{\theta}_{Di}|^q \,, & \text{if } \gamma_i = 1 \\ 0\,, & \text{if } \gamma_i = 0 \,, \end{cases}$$

with $0 < q < +\infty$, we define

$$x_{i,D} = -b_{NS} w_{NSi} + z_{i,D} \tag{5a}$$

$$x_{i,R} = b_{NS} w_{NSi} + z_{i,R} \tag{5b}$$

$$x_{i,A} = z_{i,A} \ , \tag{5c}$$

with $b_{NS} \geq 0$. If $b_{NS} > 0$, then $\partial\mu_{i,D}/\partial w_{NSi} > 0$ and $\partial\mu_{i,R}/\partial w_{NSi} < 0$.

The coordinating and nonstrategic models differ only in that the former uses $\hat{\hat{V}}^{-1}\hat{\hat{H}} w_{Ci}$ and $\hat{\hat{V}}^{-1}\left(1 - \hat{\hat{H}}\right) w_{Ci}$ to define $x_{i,D}$ and $x_{i,R}$ while the latter uses w_{NSi}. We use Vuong's (1989, 320) test to compare them, first testing separately whether $b_C > 0$ and $b_{NS} > 0$. The models may fit the data about equally well because w_{Ci} and w_{NSi} have the same sign if $\tilde{\theta}_i = (\tilde{\theta}_{Di} + \tilde{\theta}_{Ri})/2$.

Definitions of Empirical Choice Attributes

To estimate the models we pool NES Survey data from years 1978, 1982, 1986, 1990, 1994 and 1998 (Miller and the National Election Studies 1979; 1983; 1987; Miller, Kinder, Rosenstone and the National Election Studies 1992; Rosenstone, Miller, Kinder and the National Election Studies 1995; Sapiro, Rosenstone and the National Election Studies 1999). Some parameters vary by year.

We use NES seven-point scales and the method described by Mebane (2000, 55) to determine values of θ_i, ϑ_{Di}, ϑ_{Ri}, and ϑ_{PDi} or ϑ_{PRi} for each i.[5] If an elector i does not provide values for the policy position variables (θ_i, ϑ_{Di}, ϑ_{Ri}, and ϑ_{PDi} or ϑ_{PRi}), we assume that i does not experience policy-related losses, so that such losses do not affect the choices i makes. We set $\gamma_i = 0$ if there is not at least one complete set of policy position variable values for i and $\gamma_i = 1$ if at least one complete set exists.[6] We include γ_i in $z_{i,A}$. To allow for the possibility of ideologically based mobilization, we also include each elector's ideal point in $z_{i,A}$, using the form $\gamma_i\theta_i$ to switch the effect off when i lacks a complete set of policy position values.

Evidence that retrospective economic evaluations matter in presidential elections is strong, but systematic direct effects seem not to exist for candidate choices in House elections at midterm (Alesina and Rosenthal 1989; Born 1991; Erikson 1990; Jacobson 1989). Effects on turnout decisions also have been found to be weak (Arcelus and Meltzer 1975; Fiorina 1978). To measure retrospective evaluations we use responses to a question asking whether the national economy has gotten worse or better over the past year.[7] In $z_{i,D}$, $z_{i,R}$ and $z_{i,A}$ we include the variable, EC_i, multiplied by $\mathrm{PP}_i = 1$ if the president is Republican; $\mathrm{PP}_i = -1$ if Democrat.

Party identification has long been known to affect vote choices (e.g. Campbell and Miller 1957) and to be associated both with varying rates of voter turnout (Campbell 1966; Converse 1966; Miller 1979) and with policy preferences and perceptions (Brady and Sniderman 1985). We measure party identification with six dummy variables that correspond to the levels of the NES seven-point scale, using "Strong Democrat" as the reference category: $\mathrm{PID}_{\mathrm{D}i}$, $\mathrm{PID}_{\mathrm{ID}i}$, $\mathrm{PID}_{\mathrm{I}i}$, $\mathrm{PID}_{\mathrm{IR}i}$, $\mathrm{PID}_{\mathrm{R}i}$ and $\mathrm{PID}_{\mathrm{SR}i}$.[8] We include the variables in $z_{i,D}$, $z_{i,R}$ and $z_{i,A}$.

To take incumbent-related effects into account, we use a pair of dummy variables that indicate whether a Democratic or Republican incumbent is running for reelection in elector i's congressional district. $\mathrm{DEM}_i = 1$ if a Democratic incumbent is running, otherwise $\mathrm{DEM}_i = 0$, and likewise for REP_i and a Republican incumbent.[9] In the choice between candidates we expect to see an incumbency advantage.[10] Because the presence of an incumbent usually means the absence of a vigorous campaign, the probability of not voting should be higher when an incumbent is running than when there is an open seat.[11]

We include in $z_{i,A}$ a measure of subjective political efficacy (EFF_i), defined as the average of responses to two survey items (Abramson and Aldrich 1982; Balch 1974),[12] and four demographic variables that are frequently observed to have strong effects on voter turnout (Born 1990): education, age, marital status, and time at current residence. Three dummy variables measure education: high school diploma, 12+ years of school, no higher degree ($\mathrm{ED1}_i$); AA or BA level degrees, or 17+ years of school and no higher degree ($\mathrm{ED2}_i$); advanced degree, including LLB ($\mathrm{ED3}_i$). The reference category for the dummy variables is: 11 grades or less, no diploma or equivalency. Age we measure as time in years, minus 40 (AGE_i). Marital status is a dummy variable (MAR_i) coded one for "married and living with spouse (or spouse in service)" and zero otherwise. Time at current residence (RES_i) is measured in whole years for durations between three and nine years, otherwise it is coded using the same values used by Born (1990): less than 6 months, .25; 6–12 months, or 1 year, .75; 13–24 months, or 2 years, 1.5; ten years or more, 10.[13]

The definitions of the attributes of the choices are

$$\begin{aligned} z_{i,D} &= c_0 - c_{DEM}\mathrm{DEM}_i + c_{EC}\mathrm{PP}_i\mathrm{EC}_i \\ &\quad + c_D\mathrm{PID}_{\mathrm{D}i} + c_{ID}\mathrm{PID}_{\mathrm{ID}i} + c_I\mathrm{PID}_{\mathrm{I}i} + c_{IR}\mathrm{PID}_{\mathrm{IR}i} + c_R\mathrm{PID}_{\mathrm{R}i} + c_{SR}\mathrm{PID}_{\mathrm{SR}i} \qquad (6a) \\ z_{i,R} &= -c_0 - c_{REP}\mathrm{REP}_i - c_{EC}\mathrm{PP}_i\mathrm{EC}_i \\ &\quad - c_D\mathrm{PID}_{\mathrm{D}i} - c_{ID}\mathrm{PID}_{\mathrm{ID}i} - c_I\mathrm{PID}_{\mathrm{I}i} - c_{IR}\mathrm{PID}_{\mathrm{IR}i} - c_R\mathrm{PID}_{\mathrm{R}i} - c_{SR}\mathrm{PID}_{\mathrm{SR}i} \qquad (6b) \\ z_{i,A} &= d_0 + d_{EFF}\mathrm{EFF}_i + d_{ED1}\mathrm{ED1}_i + d_{ED2}\mathrm{ED2}_i + d_{ED3}\mathrm{ED3}_i + d_{AGE}\mathrm{AGE}_i + d_{MAR}\mathrm{MAR}_i \\ &\quad + d_{RES}\mathrm{RES}_i + d_\gamma(1-\gamma_i) + d_\theta\gamma_i\theta_i + d_{REP}\mathrm{REP}_i + d_{DEM}\mathrm{DEM}_i + d_{EC}\mathrm{PP}_i\mathrm{EC}_i \\ &\quad + d_D\mathrm{PID}_{\mathrm{D}i} + d_{ID}\mathrm{PID}_{\mathrm{ID}i} + d_I\mathrm{PID}_{\mathrm{I}i} + d_{IR}\mathrm{PID}_{\mathrm{IR}i} + d_R\mathrm{PID}_{\mathrm{R}i} + d_{SR}\mathrm{PID}_{\mathrm{SR}i}\ , \qquad (6c) \end{aligned}$$

where parameters c_0, c_{EC}, d_0, d_{EC} and d_θ are constant in each year, and the remaining parameters are constant over all years. A variable that increases the probability of choosing $h \in K$ will have a negative coefficient.[14] The effects measured by the c parameters primarily contrast the candidate alternatives to one another, while the d parameters measure effects that contrast the choice not to vote to the choice to vote. For the attributes of the candidates, parameter signs should be $c_0 < 0$ and c_{EC}, c_{DEM}, c_{REP}, c_D, c_{ID}, c_I, c_{IR}, c_R, $c_{SR} > 0$. For the attributes of not voting, parameter signs should be d_γ, d_{REP}, d_{DEM}, d_D, d_{ID}, d_I, d_{IR}, $d_R < 0$, and d_{EFF}, d_{ED1},

d_{ED2}, d_{ED3}, d_{AGE}, d_{MAR}, $d_{RES} > 0$. The signs of d_0, d_θ and d_{EC} are indeterminate.

To measure choices $y_{i,h}$ we use individuals' self reports.[15] The sample size of electors used, pooled over the six NES surveys, is 9,639 (by year, 1978–98, the sizes are 1,814, 1,226, 1,972, 1,833, 1,648, 1,146). Only those who did not vote or who voted for either a Democrat or a Republican are included. Of the 10,954 respondents in all the NES data, 1,315 were omitted due to missing or invalid data.[16]

Model Estimates and Results of Tests of Coordination

The coordinating and nonstrategic models produce similar results. Maximum likelihood estimates [MLEs] and standard errors [SEs] for the parameters of the models, using observed attribute specifications (2a–c), (5a–c) and (6a–c), appear in Table 1.[17] All the parameters that have the same interpretation in both models have statistically indistinguishable estimates. The MLEs for c_{EC} are near zero for every year except 1990, suggesting that for the most part retrospective economic evaluations do not affect choices between candidates.[18] Except for 1994, the MLEs for d_{EC} are statistically insignificant, so that retrospective evaluations also have no systematic effect on the choice not to vote. The MLEs for the party identification dummy variables show the familiar effects of party identification on candidate choices and turnout. The MLEs for c_{DEM} and c_{REP} point to a substantial incumbent advantage, while the MLEs for d_{DEM} and d_{REP} show the probability of voting is smaller when an incumbent is running for reelection. Greater subjective political efficacy, higher education, greater age, being married and having lived longer at one's current residence all increase the loss from not voting and so increase the probability of voting. An elector who does not report at least one complete set of policy position values ($\gamma_i = 0$) is significantly more likely not to vote than an elector who does report policy positions. For 1994 and 1998, electors who have higher values of θ_i are significantly more likely to vote than electors who have lower values of θ_i: conservative electors were especially mobilized in those elections.

*** Table 1 about here ***

The coordinating model passes the tests of the conditions necessary for coordinating behavior. The LR test statistics for the constraint $\alpha = 1$, imposed separately for each year, reject the constraint in every year.[19] The 95% confidence intervals shown in Table 2 support the same conclusions.[20] Regarding the other conditions, 95% confidence intervals computed as in Table 2 show q (1.28, 1.81) and b_C (1.10, 1.90) to be positive and bounded well away from zero.

*** Table 2 about here ***

The MLEs for the nonstrategic model do not support the theory of nonstrategic institutional balancing. Only two of the six MLEs for α ($\hat{\alpha}_{78}$ and $\hat{\alpha}_{86}$) are statistically distinguishable from zero; $\hat{\alpha}_{82} = \hat{\alpha}_{90} = \hat{\alpha}_{94} = \hat{\alpha}_{98} = 0$. Rather than moderating, the estimates suggest that in most years electors are making direct choices between the parties' alternative policies.

While the log-likelihood of the coordinating model (-6824.7) is not much greater than that of the nonstrategic model (-6825.4), Vuong's (1989) overlapping models test nonetheless rejects the nonstrategic model as an alternative to the coordinating model. The MLEs and SEs in Table 1 clearly reject both $b_C = 0$ and $b_{NS} = 0$. Using the distribution of Vuong (1989, eqn. 6.4), the test statistic is $n^{-1/2}LR_n/\hat{\omega}_n = 4.3$ ($p < .0001$).[21]

Moderation, Institutional Balancing and the Midterm Cycle

In the coordinating model, every elector anticipates a post-election policy that is intermediate between the parties' positions, unless $\alpha = 1$. The coordinating model MLEs for α are less than .5 in every year except 1986 (see Table 1), suggesting that electors expected the president to be weaker than the House in determining post-midterm policy. The estimates for $\hat{\bar{H}}$ show that the position of the House was expected to be closer to the Democratic position in 1978, 1982, 1986 and 1990 and closer to the Republican position in 1994 and 1998.[22]

The systematic foundation for a midterm cycle in the coordinating model is that the equilibrium Republican House vote share each elector expects at the time of the presidential election is no longer an equilibrium once the identity of the president becomes known. The post-election disequilibrium decreases the probability that each elector votes for a House candidate of the president's party. The aggregation of such changes is the cycle-generating mechanism.

Does the coordinating model's moderating mechanism, which is based on λ_i, generate a midterm cycle? For a baseline measure of the effect policy-related incentives have on choices in the presidential election year preceding each midterm, we use Mebane's (2000, Table 7) estimates of the proportion of presidential-year voters for whom each combination of presidential and House choices would minimize expected policy-related losses.[23] Consider the proportion of voters in a presidential election who would minimize their expected policy-related losses by voting for a House candidate of the same party as the new president. There is a policy-related foundation for a midterm cycle if that proportion is greater than the proportion of voters in the subsequent midterm who would minimize their policy-related losses by voting for a candidate of the same party as the president. Table 3 shows that such a pattern occurs for all six midterm elections, although the decline from 1996 to 1998 is considerably smaller than for the other years.[24]

*** Table 3 about here ***

It is doubtful, however, whether most of the change in votes from presidential election to midterm is due purely to the post-election disequilibrium that the disappearance of uncertainty about the identity of the president brings about. Simulation using presidential-year NES data and Mebane's (2000) coordinating voting model suggests that immediately after the presidential election, due solely to the identity of the new president having become known, the equilibrium proportion of House votes for the new president's party typically falls by values ranging from about .01 to about .06.[25] The simulated loss is substantially smaller than the corresponding decrease in policy-related support for the president's party shown in Table 3 for each midterm year except 1998. Other factors that change between the presidential and midterm elections are modulating the magnitude of the policy-related midterm losses. Such factors include the fact that the president is usually expected to have less influence on policy after midterm than after the preceding presidential election.[26] The form of each elector's evaluation of the policy-related losses also changes: at midterm an elector's evaluation of λ_i does not depend on the elector's retrospective evaluation of the economy, as it does in presidential election years.[27] And between elections parties may change their policy positions, or voters may change their ideal points, and substantively different policies come into play.

Surge and Decline

The theory of surge and decline suggests a possible reason for the relationship between voters' most preferred policies and the policy positions they attribute to the parties to change in a systematic way between the presidential and midterm elections. According to the theory, during the heightened mobilization of presidential elections more electors with marginal political involvement turn out to vote than during midterm elections, and this group disproportionately votes for the party of the winning presidential candidate (Campbell 1966). Campbell's (1987) revised theory treats midterm as a return to a normal partisan vote, less influenced by short-run concerns than the presidential election. He writes, "surge of interest and information in presidential elections will affect the turnout of peripheral partisans and the vote choice of independents" (p. 968). Born (1990, 642, note 30) raises serious doubts about those revisions.

Perhaps the surge of marginal electors who, according to the theory, vote for House candidates of the same party as the presidential winner do so because they like that party's policy position better than the other party's policy position. The posited midterm decline in their turnout should have two major effects. On average, midterm voters should tend to have policy ideal points that are farther from the president's party than presidential-year voters do, and midterm nonvoters should tend to have policy ideal points that are closer to the president's party than presidential-year nonvoters do. We show that NES data from the elections of 1976 through 1998 do not support the existence of such a surge and decline mechanism.

For most electors, turnout at midterm is only weakly related to expected policy-related losses. In the empirical coordinating model, the policy-related loss expected by elector i affects the probability that i does not vote ($\mu_{i,A}$) via w_{Ci}. We assess the effect that policy-related losses have on midterm turnout by computing the effect on $\mu_{i,A}$ of setting $w_{Ci} = 0$ for each i in the midterm NES data. By midterm year, 1978–98, the median differences between $\mu_{i,A}$ using the original w_{Ci} value and $\mu_{i,A}$ with $w_{Ci} = 0$ are $-.0000017$, $-.0017$, $-.00047$, $-.0014$, $-.0018$ and $-.0011$.[28] The median differences always have smaller magnitude for Independents than for other electors.[29] Such small effects will usually be dominated by other factors, such as partisanship per se, that much more strongly affect the probability of not voting.

Nonetheless it may be that midterm voters see themselves as farther from the president's party on policy than presidential-year voters do, while midterm nonvoters see themselves as closer to the policy of the presidential winner's party than do presidential-year nonvoters. To compare the policy proximities, we use the coordinating model parameter estimates of Mebane (2000) to compute ideal points (θ_i) and party policy positions (θ_{Di} and θ_{Ri}) for both voters and nonvoters in the NES data for each presidential election year from 1976 through 1996. We define a voter to be anyone who reports having voted for either the Democrat or the Republican in the House race and a nonvoter to be anyone who does not report such a vote. We include only those who report at least one complete set of policy position values.[30] For each elector i we compute the absolute difference between i's ideal point and the position of the party that won the presidential election. The absolute difference is $|\theta_i - \theta_{Di}|$ if the Democrat won the election and $|\theta_i - \theta_{Ri}|$ if the Republican won.

Each panel in Figure 1 displays for each year the median of the absolute differences for a different set of electors. Panel (a) shows the medians for all voters and nonvoters, and the remaining panels show the medians for each of the seven NES types of party identifiers. Among all voters—Figure 1(a)—the median absolute difference between each voter's ideal point and the position the voter attributes to the presidential winner's party is always greater at midterm than it is during the preceding presidential election year. But in every case except 1992–94, the median absolute difference is also greater at midterm among all nonvoters. The pattern among nonvoters does not match what surge and decline theory predicts.

*** Figure 1 about here ***

The closest match to the pattern predicted by the surge and decline theory occurs among Independent Independents (Figure 1(b)), but even there the support for surge and decline is weak at best. In 1978, 1990 and 1994 there are decreases at midterm in the median absolute difference among nonvoters. But in the remaining three midterms the median absolute difference increases from the preceding presidential year among nonvoters. Moreover, in 1990 the median absolute difference decreases among voters. There is hardly any support for surge and decline in the data for Independent Democrats and Independent Republicans (Figure 1(e) and 1(f)). Among nonvoters there are nine instances where the median absolute difference increases at midterm and only three instances where it decreases at midterm. Moreover, among Independent Democrats there are two instances (1990 and 1998) where the median absolute difference for voters decreases at midterm and among Independent Republicans there is one instance (1998).

Instead of the pattern that the surge and decline theory predicts, what we see is that typically both voters and nonvoters are farther from the policy of the president's party at midterm than they were at the time that the party won the presidency in the preceding election. Nonvoters are somewhat more likely than voters are to be closer to the president's party at midterm, but the difference is not regular enough for surge and decline to be a compelling explanation.

Surge and decline theory also asserts that some regular voters deviate from their partisan affiliation during the presidential elections and vote for House candidates of the presidential winner's party, but return to their normal partisan vote at midterm (Born 1990, 635). The insignificant effects (c_{EC}) we estimate retrospective economic evaluations have on choices between candidates may partly account for that. In Mebane (2000), the corresponding parameters (c_{H1}) are significant in four of the six presidential years. Presidential-year deviations prompted by economic evaluations tend to disappear at midterm.

Moderation by Changes in Policy Positions

Figure 1 shows that the absolute difference between electors' ideal points and the policy positions of the party that won the presidential election usually increases at midterm. Figure 1 is a bit one-sided, however, because it summarizes the relationship between electors' ideal points and only one party's policy positions, but the expected policy-related losses that affect vote choices depend on both parties' policies.

To assess the components of change it is important to consider not merely the magnitudes but also the directions in which the aggregate of voters moves with respect to the parties. Consider a situation in which all voters think the Democratic party policy position is left of the Republican party position, i.e., $\theta_{Di} < \theta_{Ri}$ for all voters i. We may characterize the aggregate movement across elections in terms of two median statistics: the median difference between ideal points and Democratic positions, denoted $\text{med}_i(\theta_i - \theta_{Di})$, and Republican positions, denoted $\text{med}_i(\theta_i - \theta_{Ri})$.

Let $\Delta_D = \mathrm{med}_i^M(\theta_i - \theta_{Di}) - \mathrm{med}_i^P(\theta_i - \theta_{Di})$ denote the difference between the median policy difference with respect to the Democratic party at midterm and the median difference in the preceding presidential year. If $\Delta_D < 0$, then at midterm voters have ideal points more to the left of the positions they attribute to the Democratic party than in the preceding presidential year, and, other things equal, a greater proportion vote for Democratic candidates at midterm than in the preceding presidential year. If $\Delta_D > 0$, then midterm voters have ideal points more to the right of Democratic party positions, and a smaller proportion vote for Democratic candidates at midterm. Analogously let $\Delta_R = \mathrm{med}_i^M(\theta_i - \theta_{Ri}) - \mathrm{med}_i^P(\theta_i - \theta_{Ri})$ denote the difference between midterm and the preceding presidential year of the policy differences with respect to the Republican party. If $\Delta_R > 0$, then midterm voters have ideal points more to the right of Republican party positions, and Republican candidates receive a greater proportion of votes at midterm than in the preceding presidential year. If $\Delta_R < 0$, then Republican candidates receive a smaller proportion of votes at midterm. Because θ_i, θ_{Di} and θ_{Ri} vary independently, all combinations of positive and negative values for Δ_D and Δ_R are possible.

Of particular interest are circumstances in which Δ_D and Δ_R are either both positive or both negative. If $\Delta_D > 0$ and $\Delta_R > 0$, then between elections the distribution of voters' ideal points has moved to the right relative to both parties' positions. Other things equal, Republican House vote share $\bar{H}$ increases. If a Democrat is president, the result is a kind of policy moderation: policy outcomes are expected to be closer to the midterm Republican position.[31] If $\Delta_D < 0$ and $\Delta_R < 0$, then between elections the distribution of voters' ideal points has moved to the left relative to both parties' positions, Republican House vote share decreases and, if a Republican is president, there is moderation of expected policy toward the midterm Democratic position.

Moderation via such a pattern of changes occurs in five of the six midterm elections from 1978 through 1998, according to NES data. Using NES data to compute the median differences between ideal points and the parties' positions, it is necessary to adjust for the fact that some voters place the Democratic party policy position to the right of the Republican party position: for some voters, $\theta_{Di} > \theta_{Ri}$. Because moderation refers to movement from one party toward the other and does not depend on the orientation with which each voter interprets its ideal point and the parties' positions, we use the sign of the difference between θ_{Ri} and θ_{Di} to orient all voters the same way. We compute $\text{med}_i^M[(\theta_i - \theta_{Di})\,\text{sgn}(\theta_{Ri} - \theta_{Di})]$ and $\text{med}_i^M[(\theta_i - \theta_{Ri})\,\text{sgn}(\theta_{Ri} - \theta_{Di})]$ for each midterm year and analogous quantities for each presidential year. In Figure 2 we plot the values for all voters who report at least one complete set of policy position values (as in Figure 1) and, in separate panels, for party identifier subsets. The interelection differences are now:

$$\Delta_D = \text{med}_i^M[(\theta_i - \theta_{Di})\,\text{sgn}(\theta_{Ri} - \theta_{Di})] - \text{med}_i^P[(\theta_i - \theta_{Di})\,\text{sgn}(\theta_{Ri} - \theta_{Di})]$$

$$\Delta_R = \text{med}_i^M[(\theta_i - \theta_{Ri})\,\text{sgn}(\theta_{Ri} - \theta_{Di})] - \text{med}_i^P[(\theta_i - \theta_{Ri})\,\text{sgn}(\theta_{Ri} - \theta_{Di})].$$

The sign of each Δ_D and Δ_R value is indicated by the slope of the line that joins each presidential-year median to the succeeding midterm median.

*** Figure 2 about here ***

Figure 2(a) shows that among all voters, in every midterm except 1998 there is moderation based on interelection changes in the location of voters' ideal points relative to the parties' positions.[32] In 1978 and 1994, with Democratic presidents, we have $\Delta_D > 0$ and $\Delta_R > 0$, and in 1982, 1986 and 1990, with Republican presidents, we have $\Delta_D < 0$ and $\Delta_R < 0$. In 1998 there is a Democratic president but nonetheless $\Delta_D < 0$ and $\Delta_R < 0$: Democrats' House vote share was pushed up, because between 1996 and 1998 the distribution of voters' ideal points shifted to the left relative to both parties' positions. The pattern of interelection changes is similar across all of the partisan subsets and within each subset is by and large similar to the pattern among all voters, except for 1988–90. Between 1988 and 1990 we have $\Delta_R < 0$ among all voters but within each partisan subset $\Delta_R > 0$. The reason for the difference is that a higher proportion of voters identified as Democrats and a lower proportion as Republicans in 1990 than in 1988,[33] and $(\theta_i - \theta_{Ri})\,\mathrm{sgn}(\theta_{Ri} - \theta_{Di})$ is more negative among Democratic voters than among Republican voters.

The moderating pattern associated with having either a Democratic president, $\Delta_D > 0$ and $\Delta_R > 0$ or a Republican president, $\Delta_D < 0$ and $\Delta_R < 0$ differs from the mechanism of disappearing uncertainty, but the fluctuations in policy positions may relate to the idea that parties may commit to policies different from their ideal policies. Alesina and Rosenthal (1995, 127–136) report that in such an extension of their model parties often announce policies that are more polarized than their ideal policies are. Polarization increases as the president's power (α) falls. As we mentioned previously, voters usually believe the president will be more powerful before midterm than afterward. Alesina and Rosenthal (1995) do not examine models in which α changes at midterm, but we may speculate that—with the parties possibly changing their positions at midterm—there would be a tendency for polarization to increase at midterm.

The NES data from 1976 through 1998 support the idea that polarization is greater at midterm. Among voters, the median absolute difference between the parties' positions is smaller in the presidential election than at midterm in five of the six pairs of elections (the exception is 1988–90).[34] The interelection changes in the median absolute differences are, however, small compared to the observed magnitudes of Δ_D and Δ_R. These results are only suggestive because by construction our measures of party positions are within the unit interval $[0, 1]$ in every year.

The changes Δ_D and Δ_R may also arise because voters learn something after the presidential election. They may learn more about what a party's true policy position is, about a policy position's consequences, or about elected officials' competence to implement the policy. Any of these may be a reason for a voter to update the relationship between the voter's ideal point and the positions the voter attributes to the parties. A party's actions either in the presidency or in Congress may be informative. Perhaps, for instance, the Democrat-favoring changes shown in

Figure 2 for 1996 to 1998 stem from judgments that Republicans in the House were especially incompetent or extreme.[35] The unanswered question is why are movements away from the president's party more typical. Why do electors not learn more often that the president's party is more competent or less extreme than they previously thought?

One of the difficulties of explaining why moderation by policy position changes occurs is that our policy position measures are based on the gaps between electors' ideal points and the perceived positions of the two major parties. Across elections, we cannot distinguish between movement in electors' ideal points and movements in the positions of the political parties. For example, notwithstanding the polarization argument, it is possible that a party in office follows policies more extreme than it proposed at election time. Electors may learn this and consequently the gap between the president's party and electors increases at midterm because electors' perceptions of the parties change. With our data we cannot distinguish such a pattern from one in which electors change their ideal points because they learn more about policies' consequences.

Moderation by policy position changes may explain the pattern that was the original focus of the negative voting variant of surge and decline. Beyond turnout and coattails effects, there is an additional midterm loss apparently due to "public disappointments with the incumbent presidential party's performance" (Campbell 1991, 483). Tufte (1975) measures this phenomenon by a decline in presidential approval that usually occurs in the first two years of an administration. Born (1990, Table 4) measures the same phenomenon by changes in feeling thermometer scores. The usual pattern of interelection changes in policy positions would cause such changes in approval and in feeling thermometers.

Conclusion

The NES data strongly confirm the strategic theory of policy moderation. The estimated parameters of the coordinating model satisfy all of the conditions necessary to describe coordinating behavior. The nonstrategic model fails to describe policy-moderating behavior and fits the data significantly worse than does the coordinating model. Coordination also affects decisions whether to vote, but the effects on turnout probabilities are typically small.

Midterm loss is in part caused by policy moderation that occurs because uncertainty about which party will control the presidency disappears after the presidential election. But the mechanism of disappearing uncertainty does not itself explain why midterm losses are as large as they are, nor why midterm losses occur as frequently as they do.

The largest source of loss of support for the president's party at midterm is a regularly repeated pattern in which by midterm the median differences between voters' ideal points and the parties' policy positions have become less favorable for the president's party than they were at the time of the presidential election (the same pattern occurs among nonvoters). Such a pattern occurs in all five of the interelection periods during 1976–98 after which the president's party suffered a midterm loss. Between 1996 and 1998 the pattern reverses: the distribution of voters' ideal points and party positions becomes more favorable to the Democratic party notwithstanding the fact that Democrat Bill Clinton is president, to such an extent that on the whole the Democrats enjoyed a small midterm gain in 1998.

The policies involved in the interelection changes are not limited to macroeconomic policy. Indeed, only in 1980 do the NES survey items we use to measure ideal points and party positions include scales that refer to macroeconomic policy. The interelection changes we document involve a wide range of policies, and the composition of the set of policies changes over time. Nonetheless, changes go in the same direction—away from the president's party—during five of the six interelection periods our data cover. Why the changes typically cut against the president's party is not clear. The dynamic is not explained by variations in turnout.

Our finding that strategic coordination exists extends the reach of the incentives the constitutional separation of powers creates from officials to electors. The separation of powers causes electors to attend to one another and make choices that help produce moderate policy outcomes. It is important to keep clear that in moderation via noncooperative coordinating equilibrium, no one has a taste for moderation per se. It is not that coordinating electors are committed to divided government because of a sincere commitment to "cognitive Madisonianism" (Ladd 1990, 67; Sigelman, Wahlbeck and Buell 1997). Each elector always most prefers his or her own ideal point. Moderation occurs only as a collective outcome due to electors' mutual strategic adjustments.

Appendix

Coordinating Model Details: Let ϑ_{Di}, ϑ_{Ri}, ϑ_{PDi} and ϑ_{PRi} denote values in the interval $[0,1]$ that elector i, $i = 1,\dots,N$, believes are the positions of the Democratic party (ϑ_{Di}), Republican party (ϑ_{Ri}), and, as relevant, Democratic president (ϑ_{PDi}) or Republican president (ϑ_{PRi}), where zero represents the extreme liberal position and one represents the extreme conservative. Likewise i's ideal point $\theta_i \in [0,1]$. We define

$$\theta_{Di} = \begin{cases} \rho\vartheta_{PDi} + (1-\rho)\vartheta_{Di}, & \text{if Democrat is president} \\ \vartheta_{Di}, & \text{if Republican is president} \end{cases} \tag{A-1}$$

$$\theta_{Ri} = \begin{cases} \vartheta_{Ri}, & \text{if Democrat is president} \\ \rho\vartheta_{PRi} + (1-\rho)\vartheta_{Ri}, & \text{if Republican is president} \end{cases} \tag{A-2}$$

with $0 \le \rho \le 1$. Using $\bar{R}_i$ to denote the proportion of electors i expects to vote nationally for Republicans and $\bar{D}_i$ the proportion for Democrats, we have $\bar{V}_i = \bar{R}_i + \bar{D}_i$ and $\bar{H}_i = \bar{R}_i/\bar{V}_i$.

If $\gamma_i = 1$, then $\bar{R}_i$, $\bar{H}_i$ and λ_i each has one of three values, depending on whether i chooses the Republican ($\bar{R}_{i,R}$, $\bar{H}_{i,R}$, $\lambda_{i,R}$), chooses the Democrat ($\bar{R}_{i,D}$, $\bar{H}_{i,D}$, $\lambda_{i,D}$) or does not vote ($\bar{R}_{i,A}$, $\bar{H}_{i,A}$, $\lambda_{i,A}$). In particular, $\bar{R}_{i,R} = \bar{R}_{i,D} + 1/N = \bar{R}_{i,A} + 1/N$ and, using $\bar{V}_{i,V} = \bar{V}_{i,A} + 1/N$ to denote the proportion of electors i expects to vote, including i, $\bar{H}_{i,R} = \bar{R}_{i,R}/\bar{V}_{i,V}$, $\bar{H}_{i,D} = \bar{R}_{i,D}/\bar{V}_{i,V}$ and $\bar{H}_{i,A} = \bar{R}_{i,A}/\bar{V}_{i,A}$, so $\bar{H}_{i,D} < \bar{H}_{i,A} < \bar{H}_{i,R}$. If $\gamma_i = 0$, then $\lambda_{i,R} = \lambda_{i,D} = \lambda_{i,A} = 0$.

Based on λ_i, elector i prefers the Democrat to the Republican if $\lambda_{i,R} - \lambda_{i,D} > 0$ and prefers not to vote if $\lambda_{i,R} - \lambda_{i,A} > 0$ and $\lambda_{i,D} - \lambda_{i,A} > 0$. For N large and $\bar{V}_{i,V}$ not near zero, we have the approximations $\lambda_{i,R} - \lambda_{i,D} \approx (N\bar{V}_{i,V})^{-1} d\lambda_i/d\bar{H}_i$, $\lambda_{i,R} - \lambda_{i,A} \approx (N\bar{V}_{i,A})^{-1}(1 - \bar{H}_{i,R}) d\lambda_i/d\bar{H}_i$ and $\lambda_{i,D} - \lambda_{i,A} \approx -(N\bar{V}_{i,A})^{-1}\bar{H}_{i,D} d\lambda_i/d\bar{H}_i$, with $d\lambda_i/d\bar{H}_i = w_{Ci}$.[36] The statement of i's strategy as

$$Y_i = \arg\min_{h \in K} (x_{i,h} + \epsilon_{i,h}) \tag{A-3}$$

uses $(N\bar{V}_{i,A})^{-1}(1 - \bar{H}_{i,R} + \bar{H}_{i,D}) = (N\bar{V}_{i,A})^{-1}[1 - (N\bar{V}_{i,V})^{-1}] = (N\bar{V}_{i,V})^{-1}$.

We make common knowledge assumptions similar to those of Mebane (2000). The parameters and the joint probability distribution of the variables in $\tilde{\lambda}_i$, $i = 1, \ldots, N$, are common knowledge. It is common knowledge that the distribution is all each i knows about the variables for every other elector $j \neq i$, and that every i acts to minimize $\tilde{\lambda}_i$ knowing the values of i's own variables. Consequently it is common knowledge that (A-3) is every elector's choice rule.

For every elector i there is an ordered set Z_i that includes γ_i, θ_i, ϑ_{Di}, ϑ_{Ri}, ϑ_{PDi} or ϑ_{PRi}, $z_{i,D}$, $z_{i,R}$ and $z_{i,A}$. Z_i takes values in a set $\tilde{Z}$. The vector $\epsilon_i = (\epsilon_{i,D}, \epsilon_{i,R}, \epsilon_{i,A})'$ is independent of Z_i and identically and independently distributed across electors with a generalized extreme value (GEV) distribution denoted F_H. Each elector is in one of $M \ll N$ sets E_k, $k = 1, \ldots, M$; set E_k has M_k electors and $\sum_{k=1}^{M} M_k = N$. Z_i is distributed independently across i, and for every $i \in E_k$, Z_i has probability measure f_k with $\int_{\tilde{Z}} df_k(Z_i) = 1$ and $\int_{\tilde{Z}} Z_i df_k(Z_i)$ finite. $\tilde{Z}$, F_H, M and all M_k and f_k are common knowledge.

Because many of the costs (or benefits) of voting are the same regardless of which candidate an elector prefers, we assume that $\epsilon_{i,R}$ and $\epsilon_{i,D}$ covary but are independent of $\epsilon_{i,A}$. Using

$$G_i = \left(v_{i,D}^{1/1-\tau} + v_{i,R}^{1/1-\tau}\right)^{1-\tau} + v_{i,A} \ , \qquad 0 \leq \tau < 1 \ , \tag{A-4}$$

where $v_{i,h} = \exp\{-x_{i,h}\}$, we define $F_H(x_{i,D}, x_{i,R}, x_{i,A}) = \exp\{-G_i\}$. If $\epsilon_{i,R}$ and $\epsilon_{i,D}$ are independent, then $\tau = 0$. If $\bar{H}_{i,D}$, $\bar{H}_{i,R}$, $\bar{V}_{i,A}$ and Z_i are known but ϵ_i is known only to have distribution $\exp\{-G_i\}$, then (A-3) implies choice probabilities

$$\mu_{i,h} \equiv \Pr(Y_i = h \mid \bar{H}_{i,D}, \bar{H}_{i,R}, \bar{V}_{i,A}, Z_i) = \frac{v_{i,h}}{G_i} \frac{\partial G_i}{\partial v_{i,h}} \ , \quad h \in K \tag{A-5}$$

(McFadden 1978; Resnick and Roy 1990). The common knowledge probabilities for $i \in E_k$ are

$$\bar{\mu}_{k,h} \equiv \Pr(Y_i = h \mid i \in E_k, \bar{H}_{i,D} = \bar{H}_{i,R} = \bar{H}, \bar{V}_{i,A} = \bar{V}) = \int_{\tilde{Z}} \mu_{i,h} df_k(Z_i) \ , \quad h \in K \ . \tag{A-6}$$

Using $\bar{\mu}_{k,h}$, the proportions of electors expected to vote for Republican and Democratic candidates given only the common knowledge are $\bar{R} = N^{-1} \sum_{k=1}^{M} M_k \bar{\mu}_{k,R}$ and

$\bar{D} = N^{-1}\sum_{k=1}^{M} M_k\bar{\mu}_{k,D}$. An argument similar to Mebane's (2000) Theorem 2 proves existence of a fixed point $(\bar{H},\bar{V})$. $\bar{\mu}_{k_i,h}$ denotes $\bar{\mu}_{k,h}$ for k such that $i \in E_k$. Theorem 1 holds when N and each M_k are large. Proof is similar to that of Theorem 1 of Mebane (2000).

When a candidate runs unopposed, we assume that each elector in the affected district uses the strategy defined by (A-3), except conditioning on the pair of choices that are available. Elector i conditions on the choice set $\{D, A\}$ if a Democrat is running unopposed, and on $\{R, A\}$ if a Republican is running unopposed. The respective choice probabilities are

$$\mu_{i,h|\{D,A\}} \equiv \Pr(Y_i = h \mid \bar{H}_{i,D}, \bar{V}_{i,A}, Z_i, K = \{D, A\}) = \begin{cases} \dfrac{\mu_{i,A}}{\mu_{i,A} + \mu_{i,D}}, & h = A \\ \dfrac{\mu_{i,D}}{\mu_{i,A} + \mu_{i,D}}, & h = D \\ 0, & h = R \end{cases}$$

$$\mu_{i,h|\{R,A\}} \equiv \Pr(Y_i = h \mid \bar{H}_{i,R}, \bar{V}_{i,A}, Z_i, K = \{R, A\}) = \begin{cases} \dfrac{\mu_{i,A}}{\mu_{i,A} + \mu_{i,R}}, & h = A \\ \dfrac{\mu_{i,R}}{\mu_{i,A} + \mu_{i,R}}, & h = R \\ 0, & h = D \ , \end{cases}$$

where $\mu_{i,h}$ is defined by (A-5). Integrating over unknown data as in (A-6), it is straightforward to redefine $\bar{R}$ and $\bar{D}$ and characterize equilibrium as in Theorem 1, with only minor changes.

Survey Data Model Details: Given Z_i and parameter values, we use (A-5) to compute choice probabilities $\hat{\mu}_{i,h}$. Let $S_{\{D,R,A\}}$ denote the subsample in districts with a fully contested race, $S_{\{D,A\}}$ the subsample with an unopposed Democrat and $S_{\{R,A\}}$ the subsample with an unopposed Republican. Given sampling weights $1/\zeta_i$ and values $\hat{\mu}_{i,h}$, we compute

$$\hat{\bar{R}} = \left(\sum_{i \in S_{\{D,R,A\}}} \frac{\hat{\mu}_{i,R}}{\zeta_i} + \sum_{i \in S_{\{R,A\}}} \frac{\hat{\mu}_{i,R|\{R,A\}}}{\zeta_i} \right) \Big/ \left(\sum_{i=1}^{n} 1/\zeta_i \right) \ ,$$

$$\hat{\bar{D}} = \left(\sum_{i \in S_{\{D,R,A\}}} \frac{\hat{\mu}_{i,D}}{\zeta_i} + \sum_{i \in S_{\{D,A\}}} \frac{\hat{\mu}_{i,D|\{D,A\}}}{\zeta_i} \right) \Big/ \left(\sum_{i=1}^{n} 1/\zeta_i \right) \ ,$$

$\hat{\hat{V}} = \hat{\hat{R}} + \hat{\hat{D}}$ and $\hat{\hat{H}} = \hat{\hat{R}}/\hat{\hat{V}}$.

In (2a–c), b_C equals N^{-1} divided by the standard deviation of the elements of the unstandardized GEV disturbance.[37] We reparameterize (A-4) to decrease the correlation between the estimate $\hat{\tau}$ and the estimates of the parameters of $x_{i,D}$ and $x_{i,R}$:[38]

$$G_i = (v_{i,D} + v_{i,R})^{1-\tau} + v_{i,A}\ , \qquad 0 \leq \tau < 1\ . \tag{A-7}$$

Given $T \geq 1$ samples S_t with subsets $S_{\{D,R,A\}t}$, $S_{\{D,A\}t}$ and $S_{\{R,A\}t}$, the log-likelihood function is

$$\begin{aligned} L = \sum_{t=1}^{T} \Bigg(& \sum_{i \in S_{\{D,R,A\}t}} \sum_{h \in K} y_{i,h} \log \mu_{i,h} + \sum_{i \in S_{\{D,A\}t}} \sum_{h \in \{D,A\}} y_{i,h} \log \mu_{i,h|\{D,A\}} \\ & + \sum_{i \in S_{\{R,A\}t}} \sum_{h \in \{R,A\}} y_{i,h} \log \mu_{i,h|\{R,A\}} \Bigg)\ . \end{aligned} \tag{A-8}$$

where $y_{i,h} = 1$ if $Y_i = h$ and $y_{i,h} = 0$ if $Y_i \neq h$, $h \in K$. The estimation algorithm is similar to that of Mebane (2000), with each year's $(\hat{\hat{H}}, \hat{\hat{V}})$ values recomputed at each iteration. If the model is correct and a stability condition (Mebane 2000, 43–44) is satisfied, the algorithm converges to parameter estimates and $(\hat{\hat{H}}, \hat{\hat{V}})$ values that characterize the choices electors make in equilibrium.

Notes

1. Mebane's (2000) analysis of presidential and House candidate choices in presidential election years considers only voters.

2. Scheve and Tomz (1999) use NES panel data to study the relationship between surprise about the presidential election outcome and midterm loss. As a test of Alesina and Rosenthal's theory their analysis is limited because they do not distinguish policy preferences from party identification and do not impose equilibrium conditions on voters' beliefs or strategies.

3. In Mebane's (2000) coordinating model, the weight each voter places on the expected policy-related loss from each party depends on the voter's retrospective evaluation of the national economy (see Mebane's equations 3 and 16). In alternative specifications, not reported here, estimation of the stochastic choice model (see equations 2a–c, and A-7 and A-8 in the Appendix) showed no evidence of such dependence in the expected policy-related losses of midterm electors. Hence we have simplified the definition of the midterm theoretical model.

4. θ_{Di} and θ_{Ri} are as defined in Appendix equations (A-1) and (A-2).

5. Here are the NES variables for each set of scales for each year. "Reversed" indicates an item for which we reversed the original 1-to-7 ordering. In years 1982–98 respondents who initially declined to place themselves on the Liberal/Conservative scale, or who initially described themselves as "moderate" on the scale, were asked a follow-up question; we used those responses to categorize them as either "slightly liberal," "moderate" or "slightly conservative." **1978**: 357–360; 365–368; 373–376; 381–384; 389–392; 399–402. **1982**: 393, 394, 404-406; 407–410; 415–418; 425–428; 435–438; reversed 443–446. **1986**: 385–387, 393, 394; 405, 406, 412, 413; 428, 429, 435, 436; reversed 448, 449, 455, 456. **1990**: 406–408, 413, 414; 439, 440, 443, 444; 447–450; reversed 452, 453, 456, 457. **1994**: 839–841, 847, 848; 930, 931, 934, 935; 936–939; reversed 940, 941, 944, 945; 950, 951, 954, 955. **1998** (omitting the prefix '980'): 399, 401, 403, 411, 412; 448,

449, 453, 454; 457, 458, 460, 461; reversed 463, 464, 468, 469.

6. There is a "complete set" if i placed all four of the referents for any single scale topic, e.g., placing self, the parties and the president on the scale for Rights of the Accused (vars 365–368) in 1978. Among the cases used to compute the estimates reported in Table 1, the percentage with $\gamma_i = 0$ is, by year, 14.2, 10.9, 10.9, 12.2, 4.8, and 5.0.

7. By year, NES variables are: 338; 328; 373; 423; 909; 980419. Codes are as in Mebane (2000, 55).

8. By year, NES variables are: 433; 291; 300; 320; 655; 980339.

9. By year, NES variables are: 4; 6; 43; 58; 17; 980065.

10. Eubank and Gow (1983) and Gow and Eubank (1984) document pro-incumbent biases in 1978 and 1982 NES data. Estimated incumbency effects may be exaggerated (cf. Eubank 1985).

11. Including dummy variables based on Jacobson's (1989) candidate quality measure improves the fit to the data but does not change any of the results of primary interest in the analysis.

12. The items are "have say" and "don't care much." By year, NES variables are: 351, 354; 531, 532; 549 ("don't care"); 509, 508; 1038, 1037; 980525, 980524. In 1978, 1982 and 1986, the response codes are -1 for "agree" and 1 for "disagree." In 1990, 1994 and 1998, five responses range from "agree strongly" to "disagree strongly," coded -1, $-.5$, 0, .5 and 1. In 1986 only the "don't care" item is available and only for half the sample. We use a proxy variable to replace missing values for variable 549, constructed by summing the values of four variables: 62, 64 and 66, each being coded 1 if yes and 0 otherwise; and 59, coded 1 if "very interested" or "somewhat interested," otherwise coded 0. Respondents with INDEX = 4 are assigned the value 1, those with INDEX $<$ 4 are assigned -1. Support for the proxy comes from a logistic regression model for the binary responses to variable 549 in the half-sample that was asked that question, with INDEX as the regressor: the MLEs give Pr(var. 549 = disagree) $>$ .5 only if INDEX = 4.

13. By year, NES variables for education, age, marital status and residency are: 513, 504, 505, 628; 542, 535, 536, 760; 602, 595, 598, 753; 557, 552, 553, 684; 1209, 1203, 1204, 1426; 980577, 980572, 980573, 980662.

14. In Appendix equation A-4, $\partial v_{i,h}/\partial z_{i,h} < 0$.

15. By year, NES variables are: 470, 473, 474; 501, 505, 506; 261, 265, 267; 279, 287, 289; 601, 612, 614; 980303, 980311, 980313.

16. In the NES data, ζ_i is the number of eligible adults in each household, multiplied by a time-series weight in 1994. We rescaled each number of adults and time-series weight variable to give each a mean of 1.0 over the whole of each survey sample. By year, NES variables are: 38; 53; 14; 29; 6, 58; 980035.

17. Over all years for the coordinating model, the percent correctly classified by "predicting" for each observation the choice that has the highest probability using the parameter MLEs is 67.3% (by year, 64.2%, 66.4%, 68.2%, 68.7%, 66.7%, 70.1%), and the average probability of the choice actually made is .57 (by year, .54, .56, .58, .59, .56, .59).

18. The 95% confidence interval for $c_{EC,90}$, computed as in Table 2, is $(-.001, .558)$.

19. By year, the LR statistics $-2(L_{\text{constrained}} - L)$ and associated significance probabilities are: 13.2, $p < .001$; 35.2, $p < .0001$; 12.0, $p < .01$; 28.6, $p < .0001$; 53.3, $p < .0001$; 26.7, $p < .0001$. The significance probability is the upper-tail probability for the χ^2_1 distribution under the null hypothesis $\alpha = 1$, using the method of Davies (1987, eqn. 3.4) to adjust for the nuisance parameter ρ.

20. Table 1 shows α_{90}, α_{94}, ρ_{78}, ρ_{86}, ρ_{90} and ρ_{98} to have MLEs equal to either 0.0 or 1.0, on boundaries of the parameter space. We bootstrap (20,000 resamples) the score vectors of the MLEs of Table 1 to estimate quantiles of the asymptotic distribution implied by the hypothesis that $\alpha_{90} = \alpha_{94} = \rho_{78} = 0$ and $\rho_{86} = \rho_{90} = \rho_{98} = 1$, which is a mixture of 64 censored multivariate

normal distributions (Self and Liang 1987), and hence estimate the confidence intervals of Table 2.

21. $LR_n = 16.50197$ (Vuong 1989, eqn. 3.1) and $\hat{\omega}_n^2 = 0.0014981 - 0.0017120^2 = .0014952$ (Vuong 1989, eqn. 4.2). We compute both LR_n and $\hat{\omega}_n^2$ with adjustments for sampling weights.

22. By year, $\hat{\bar{H}}$ and $\hat{\bar{V}}$ computed using the parameter MLEs in Table 1 and 1978–98 NES data are: .393, .477; .437, .550; .418, .481; .373, .439; .544, .558; .524, .455.

23. From Mebane's (2000) Table 7 coordinating model results we sum the percentages with choices RR and DR to get the percentage for whom choosing a Republican House candidate minimizes the expected policy-related loss, and we sum the percentages with choices DD and RD to get the percentages for whom choosing a Democrat minimizes the loss.

24. By midterm year, the decreases shown in Table 3 are .167, .229, .206, .124, .278 and .028.

25. The simulation consists of recomputing the choice probabilities of Mebane's (2000) empirical coordinating model with $\bar{P}$ set equal to zero or one depending on which party actually won the presidency in each election. By presidential year, 1976–96, the losses for the new president's party are .011, .060, .015, .035, .043 and .058.

26. The upper bounds of the 95% confidence intervals for α, in Table 2, are smaller than the lower bounds of the 95% confidence intervals Mebane (2000, Table 4) reports for α_D or α_R for the winning presidential candidate for all years except 1984. The interval for $\alpha_{R,84}$, (.34, .79), is virtually the same as the interval for α_{86} in Table 2, suggesting that voters believed that Reagan's influence on policy remained about the same throughout his second term.

27. Recall footnote 3.

28. The medians include only observations that have $\gamma_i = 1$.

29. For Independent Independents the medians are 0, −.00003, 0, 0, −.00002 and −.00041.

30. Voters and nonvoters by year: 982, 887; 802, 551; 1,099, 617; 940, 725; 1,244, 841; 996, 600.

31. This assumes that α does not increase after midterm (recall footnote 26).

32. The pattern of changes is similar among nonvoters.

33. In 1988 the proportions identifying as Strong Democrats, Democrats, Republicans and Strong Republicans were .20, .16, .14 and .20. In 1990 the proportions were .28, .18, .14 and .14.

34. By pairs of elections, the $\mathrm{med}_i\,|\theta_{Ri} - \theta_{Di}|$ values are: 1976–78, .20 and .21; 1980–82, .33 and .39; 1984–86, .36 and .45; 1988–90, .33 and .29; 1992–94, .37 and .41; 1996–98, .34 and .36.

35. The July 1997 plot to remove Newt Gingrich as Speaker revealed disarray among the Republican House leadership. Gingrich resigned shortly after the 1998 election. Polls during 1998 showed that most voters disliked the Republican effort to impeach the president (e.g., Pew Research Center 1998).

36. Because $\bar{H}_{i,R} - \bar{H}_{i,D} = (N\bar{V}_{i,V})^{-1} > 0$ and $N\bar{V}_{i,V}$ is large, $\lambda_{i,R} - \lambda_{i,D} = (\bar{H}_{i,R} - \bar{H}_{i,D})(\lambda_{i,R} - \lambda_{i,D})/(\bar{H}_{i,R} - \bar{H}_{i,D}) \approx (N\bar{V}_{i,V})^{-1} d\lambda_i/d\bar{H}_i$. The other two approximations follow from $\bar{H}_{i,R} - \bar{H}_{i,A} = (1 - \bar{H}_{i,R})/(N\bar{V}_{i,A})$ and $\bar{H}_{i,D} - \bar{H}_{i,A} = -\bar{H}_{i,D}/(N\bar{V}_{i,A})$.

37. NES survey respondents may overreport the frequency with which they vote. Slight inflation in $\hat{\bar{V}}$ should induce slight inflation in $\hat{b}_C$, via the ratio $\hat{b}_C/\hat{\bar{V}}$.

38. Using (A-4), correlations between $\hat{\tau}$ and parameter estimates in $z_{i,D}$ and $z_{i,R}$ approach -1 as $\tau \to 1$ for parameters that have positive values and 1 for parameters that are negative.

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Table 1: Parameter Estimates for the Coordinating and Nonstrategic Models

	Coordinating		Nonstrategic			Coordinating		Nonstrategic	
parm	MLE	SE	MLE	SE	parm	MLE	SE	MLE	SE
q	1.557	.137	1.433	.208	τ	.769	.068	.732	.068
b_C	1.491	.217	—	—	$d_{0,78}$	−1.184	.185	−1.249	.187
b_{NS}	—	—	1.390	.387	$d_{0,82}$	−1.256	.215	−1.318	.218
α_{78}	.463	.167	.359	.176	$d_{0,86}$	−1.518	.187	−1.594	.190
α_{82}	.143	.141	0*	.192	$d_{0,90}$	−1.630	.200	−1.706	.203
α_{86}	.570	.111	.408	.125	$d_{0,94}$	−1.790	.212	−1.827	.211
α_{90}	0*	.118	0*	.189	$d_{0,98}$	−2.048	.227	−2.095	.229
α_{94}	0*	.072	0*	.154	d_{EFF}	.292	.033	.292	.033
α_{98}	.272	.140	0*	.177	d_{ED1}	1.099	.071	1.098	.071
ρ_{78}	0*	.353	0*	.373	d_{ED2}	1.773	.087	1.770	.087
ρ_{82}	.780	.434	.086	.515	d_{ED3}	2.029	.119	2.026	.119
ρ_{86}	1*	.424	1*	.393	d_{AGE}	.031	.002	.031	.002
ρ_{90}	1*	.386	1*	.402	d_{MAR}	.423	.051	.425	.051
ρ_{94}	.752	.430	.641	.423	d_{RES}	.117	.007	.117	.007
ρ_{98}	1*	.467	1*	.523	d_γ	−.605	.115	−.585	.115
$c_{0,78}$	−1.018	.093	−.990	.093	$d_{\theta,78}$	−.057	.222	−.024	.223
$c_{0,82}$	−.898	.114	−.923	.119	$d_{\theta,82}$	.245	.312	.282	.313
$c_{0,86}$	−.772	.097	−.744	.097	$d_{\theta,86}$	.381	.295	.427	.295
$c_{0,90}$	−.864	.124	−.775	.124	$d_{\theta,90}$	−.169	.260	−.107	.262
$c_{0,94}$	−.871	.091	−.871	.092	$d_{\theta,94}$	.961	.280	.934	.280
$c_{0,98}$	−1.063	.110	−.992	.118	$d_{\theta,98}$	.881	.347	.881	.349
$c_{EC,78}$	.078	.112	.080	.111	$d_{EC,78}$	−.023	.117	−.023	.117
$c_{EC,82}$	.096	.109	.107	.109	$d_{EC,82}$	.015	.132	.015	.133
$c_{EC,86}$	.066	.094	.048	.094	$d_{EC,86}$	−.146	.110	−.146	.110
$c_{EC,90}$	.284	.143	.285	.143	$d_{EC,90}$	−.156	.131	−.149	.131
$c_{EC,94}$	.023	.101	.031	.101	$d_{EC,94}$	−.404	.121	−.408	.121
$c_{EC,98}$	−.061	.144	−.067	.141	$d_{EC,98}$	.152	.156	.153	.156
c_D	.493	.074	.485	.074	d_D	−.833	.081	−.816	.081
c_{ID}	.603	.083	.604	.083	d_{ID}	−.880	.094	−.860	.094
c_I	.946	.093	.931	.093	d_I	−1.265	.104	−1.242	.105
c_{IR}	1.408	.087	1.386	.086	d_{IR}	−.712	.099	−.691	.100
c_R	1.433	.082	1.418	.082	d_R	−.780	.091	−.760	.091
c_{SR}	1.892	.094	1.862	.094	d_{SR}	−.114	.103	−.103	.103
c_{DEM}	.683	.066	.685	.066	d_{DEM}	−.260	.085	−.269	.085
c_{REP}	.636	.067	.631	.067	d_{REP}	−.343	.087	−.348	.087

Note: Maximum likelihood estimates and standard errors. * indicates a boundary-constrained parameter. Pooled NES Post-Election Survey data, 1978–98, $n = 9639$ cases. Log-likelihood values: coordinating model, −6824.7; nonstrategic model, −6825.4.

Table 2: 95% Confidence Intervals for α

parameter	lower bound	upper bound
α_{78}	.157	.787
α_{82}	0^*	.423
α_{86}	.348	.775
α_{90}	0^*	.196
α_{94}	0^*	.127
α_{98}	.007	.541

Note: Estimates are based on tabulation of an asymptotic mixture distribution of the kind derived in Self and Liang (1987), under the hypothesis that $\alpha_{90} = \alpha_{94} = \rho_{78} = 0$ and $\rho_{86} = \rho_{90} = \rho_{98} = 1$. * indicates a boundary-constrained value.

Table 3: House Vote Choices That Minimize Policy-related Losses, by Year

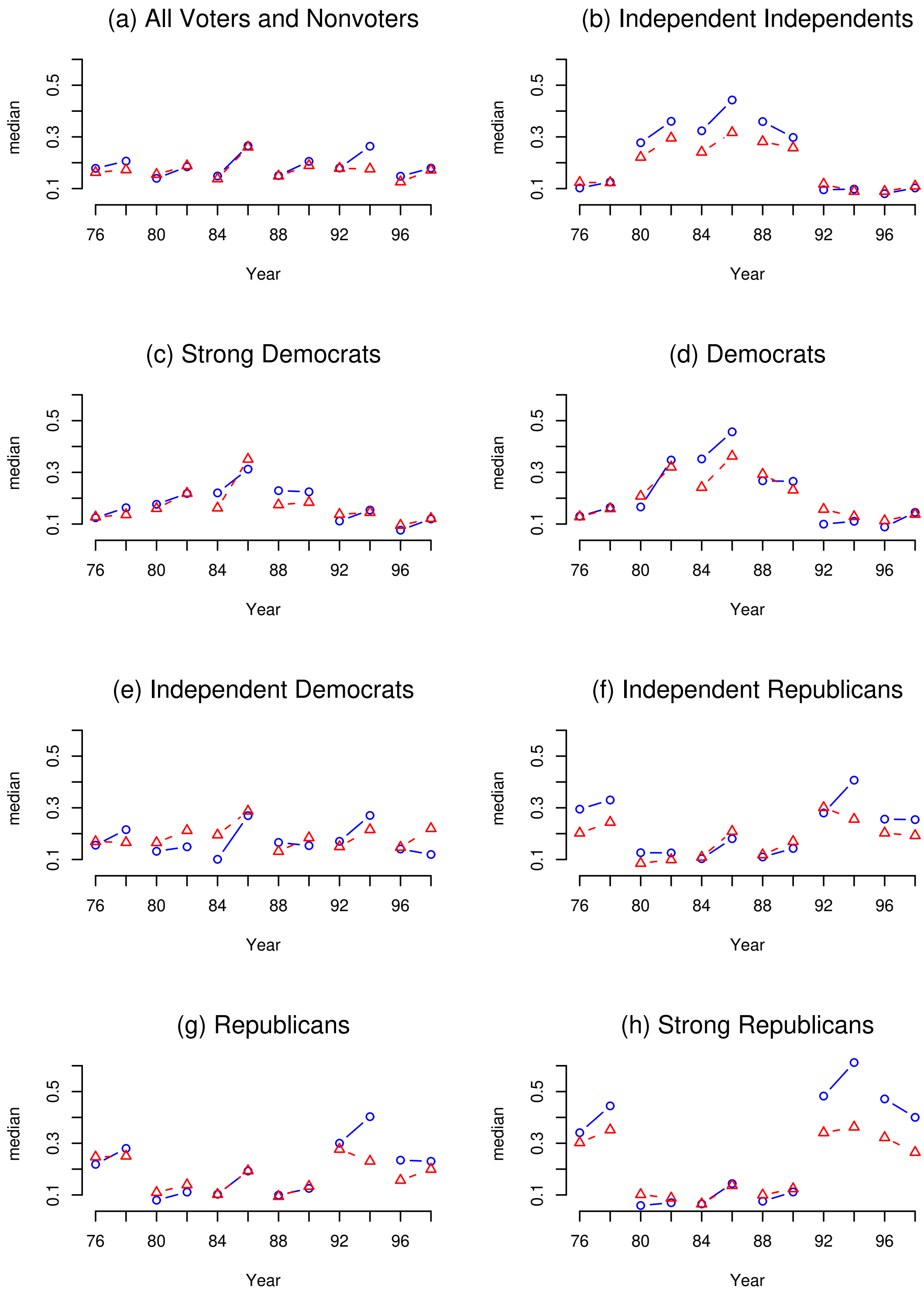
midterm year	president's party	preceding presidential year[a] D	preceding presidential year[a] R	midterm coordinating model[b] D	midterm coordinating model[b] R
1978	D	.500	.500	.333	.667
1982	R	.337	.663	.566	.434
1986	R	.593	.407	.799	.201
1990	R	.337	.663	.461	.539
1994	D	.635	.365	.357	.643
1998	D	.544	.456	.516	.484

Note: Entries show the proportion of voters in each year for whom a vote for a House candidate of the indicated party is associated with a smaller policy-related loss than is a vote for the other party. Midterm entries are computed using the parameter MLEs in Table 1 and 1978–98 NES data. Each observation is weighted by the sampling weight $1/\zeta_i$.

[a] Proportion of voters in the preceding presidential election year for whom the indicated House candidate choice minimizes the expected policy-related loss according to the coordinating voting model estimates of Mebane (2000, Table 7).

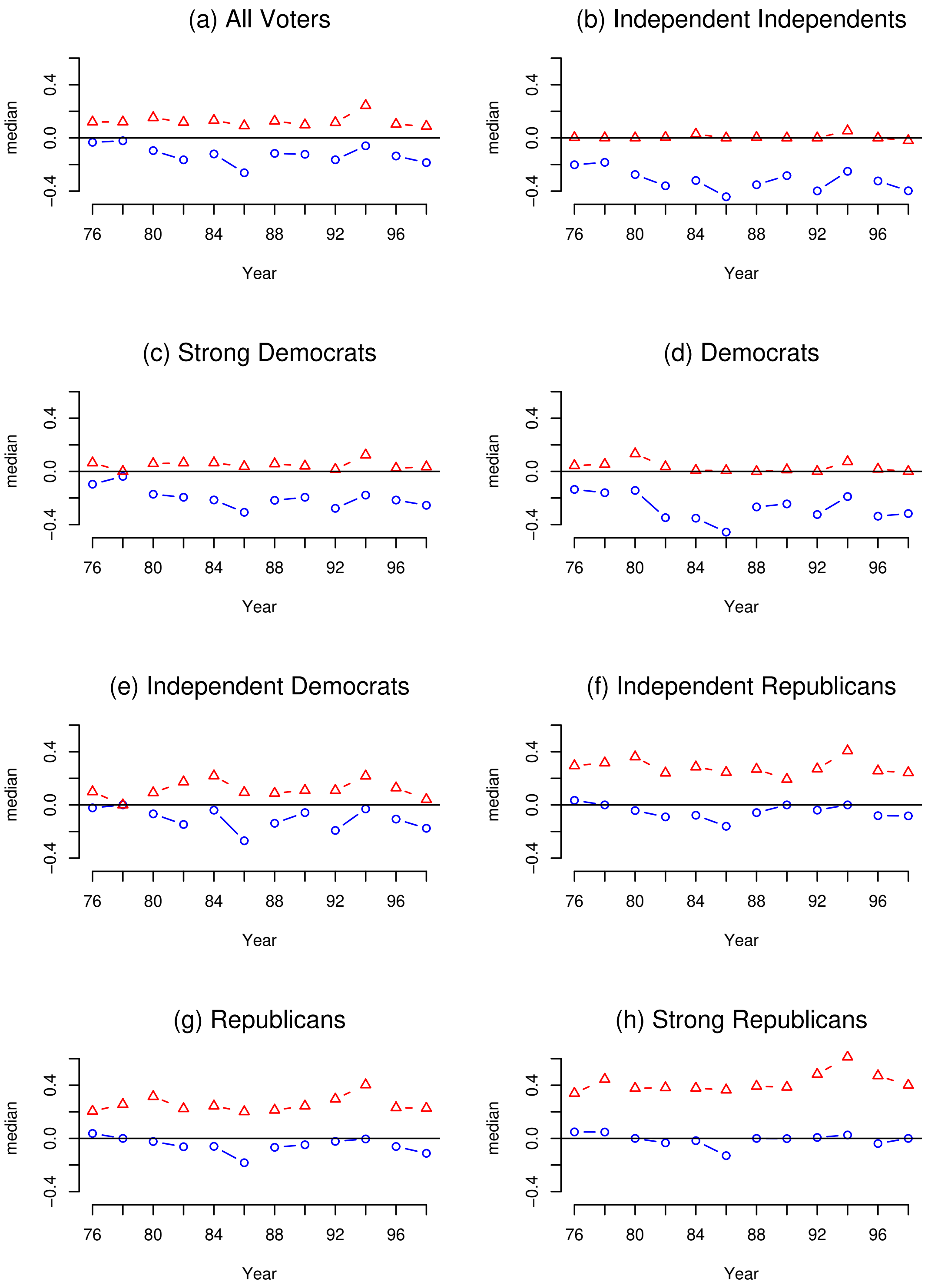
[b] Of voters with $\gamma_i = 1$ and $w_{Ci} \neq 0$, the proportion under D have $w_{Ci} > 0$ and the proportion under R have $w_{Ci} < 0$.

Figure 1: Median Absolute Differences between Self and Presidential Election Winner's Party, Voters and Nonvoters



Legend: Circles denote voters. Triangles denote nonvoters.

Figure 2: Median Signed Differences between Self and Democratic and Republican Parties, Voters Only



Legend: Circles denote Republican party. Triangles denote Democratic party.