

The Stubborn American Voter

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Partisan voting is back. Compared to the strong parties of yesteryear, today's partisanship is more strongly based on liberal/conservative ideological concerns. This trend has led to an increase in rationalization and, therefore, a weakened role for retrospection. Particularly, I look at these trends as applied to the economy. Voters are less willing to vote based on past economic performance but more willing to offer economic evaluations that, even if untrue, rationalize their partisan predispositions and vote choices. These characteristics form a part of a new, emerging American voter.

1 Introduction

Is a new age of American voter underway? Evidence suggests so and its implications are broad. Partisan polarization is on the rise (Bartels 2000). Its strength in predicting the vote is comparable to or beyond what it was in the era of party voting—1950’s. Although its predictive strength is reminiscent of another day, today’s partisanship is of a different sort. It is driven by liberal/conservative ideological stances (Abramowitz and Saunders 1998). These stances are, in turn, driven by a set of new issues (social, religious, racial) that promote sturdy and enduring partisan allegiances (Carmines and Stimson 1989; Niemi and Jennings 1991; Adams 1997; Wolbrecht 2000; Layman 2001).

These strong allegiances resist updating of candidate evaluations based on past performance. In their stead, voters are more likely to rationalize retrospective evaluations based on their political leanings. Rather, than support/oppose President George W. Bush based on true objective or personal economic evaluations, for example, voters offer economic retrospections that validate their ideologically driven political decisions (Erikson 2004). In sum, presidential performance is evaluated increasingly through a lens of partisan predisposition rather than objective conditions.

If rationalization truly is on the rise, such a phenomenon has consequences for the way survey researchers should understand public opinion responses. Individual-level responses which are tempered, given ideologically informed partisan attachments, must be studied with great caution. Rationalization also has lessened the importance of the fundamentals in predicting the vote.¹ This is because rationalization lessens the potential impact of objective evaluations. This has vast implications for the craft of forecasters seeking to predict election outcomes. We should expect these forecasts to become less precise in this era of ideologically driven partisan polarization.

This paper will explore these phenomena. It will show evidence of growing partisan polarization and, relatedly, partisan voting. It will make a case for a new brand of

¹Forecasters use measures of the fundamentals at the election year level to predict election outcomes. The fundamentals almost always include some measure of economic performance. Other variables in such models may include presidential approval, terms served and an incumbency indicator.

partisanship based on left/right ideological stances. It will further show the implications of this including greater levels of rationalization and weakened retrospection. The broader consequences of these trends will also be discussed.

2 Resurgent Partisanship

Partisan polarization has grown among officeholders. Between party differences and within party cohesion is at unprecedented levels for United States' legislators today (Rohde 1991; Aldrich 1996; McCarty and Rosenthal 1997). Elites and the mass public engage in a dynamic relationship with regard to political position taking. Thus, it is natural to expect elite polarization to result in or stem from changes among the mass public.² Even if officeholders take no cues from the American electorate, more clearly defined parties alone may promote partisan polarization among the public. Has the American electorate polarized across party lines since the era of partisan dealignment? Existing evidence points in this direction (Bartels 2000). In this section, I will seek to provide further evidence.

First, a simple plot of the standard deviation in seven-point partisan identification is telling. Figure 1 plots this statistic over all years in which NES asked the question from 1952 to 2002.³ Partisan polarization seems to be making a comeback in recent years. In the beginning of the series, polarization is quite high. In the mid-1960's, it begins to drop off substantially. However, in the 1980's, the trend reverses and partisan polarization increases. So far, it does not look like polarization levels reach the heights of the 1950's but it has risen to levels well-beyond what one would expect if partisan dealignment were true. It may be that very few members of the public polarize while the

²An interesting and enduring question in political science asks, do elites polarize while the general public follows suit or do elites align themselves in new ways to take advantage of growing cleavages among the American public? See, for example, Sundquist (1983); Carmines and Stimson (1989); Jacobs and Shapiro (2000) for a discussion of elite/public interactions

³The data are from the American National Elections Studies (NES) cumulative file. For descriptive statistics on party identification and all other individual level variables used throughout the study, see appendix E.

rest remain neutral. Evidence suggests this is not the case. For example, according to the NES, the number of pure independents in the 1996 and 2000 presidential elections is approximately the same as in the 1950's elections (around 7%), where in-between this share of the electorate tended to be higher (as high as 12% in 1976).⁴ The plot in appendix A shows further evidence in this regard. It shows the trend for strong, weak and independent partisans as well as for pure independents. Since the 1970's, the proportion of strongest partisans has grown while fewer Americans place themselves in the middle of the scale. Growing polarization is evident but to what extent and what of its impact on the vote?



Figure 1: *Standard deviation of the seven-point partisan identification self-placement item from 1952 to 2002. The variability in partisanship begins very high but takes a downward turn beginning in the mid-1960's to the 1970's. Polarization then reemerges beginning in the 1980's.*

The Michigan scholars first proclaimed the mighty importance of partisanship in predicting the vote (Campbell et al. 1960). Their finding seemed to become less relevant toward understanding electoral outcomes as an apparent partisan dealignment took hold

⁴Pure independents are those respondents who placed themselves in the middle of the seven-point partisanship scale.

in the 1960's and 1970's (Wattenberg 1994). This was to the chagrin of many political scientists who believed party allegiances served many important galvanizing and representation type functions (APSA 1950; Aldrich 1996). They would be happy to know that partisanship has grown substantially as a predictor of the vote since the dealignment period of the late 1960's and 1970's. Figure 2 shows a series of logistic regression coefficients (and their standard errors) for predictions of the Republican vote in each presidential election year from 1952 to 2000.⁵ Controls include demographics, education, religion, income, an indicator for southern voters, an interaction to measure white southerners and partisanship.⁶ The effect of most predictors is dampened by the inclusion of partisan identification. Partisanship itself was strong in the early post-WW II period but declined somewhat thereafter. A period of dealignment took hold until the end of the 1970's. Beginning in the 1980's, partisanship began to grow substantially as a predictor of the vote. Eventually, in the 1996 and 2000 presidential election, it was on par with partisanship levels studied by the Michigan scholars in the 1950's. The marginal effect for partisan identification is over one quarter in both 1952 and 2000, holding other predictors constant. It drops to one fifth in 1976.⁷ Partisan voting has grown significantly since the era of dealignment.

Is the trend toward a stronger role for parties important? For example, how much difference does partisanship really make compared to other predictors? If partisanship matters a great deal, what is the process explaining these changes over time. Few would disagree with the importance of partisanship as a predictor of the vote.⁸ Even casual scholars of electoral politics note the near unanimous support strong partisans give to

⁵Each year represents a separate regression equation.

⁶The data are from the American National Elections Studies (NES) cumulative file. Republican voters are coded 1 while Democratic voters are coded 0 in the outcome variable. Partisanship is measured on a seven point scale. Age is divided by 10 so that age squared has a reasonable range.

⁷This effect is equal to the slope of the probability curve at its mean. Other predictors are also held to their mean.

⁸Much research has focused on the stability of partisanship as a series. For example, researchers ask whether it can be considered an exogenous political measure or not. While partisanship has been shown to be among the most stable of political measures (Converse and Markus 1979; Green, Palmquist and Shickler 2002), there is some evidence of short-term fluctuations (Fiorina 1981; Franklin and Jackson 1983; MacKuen, Erikson and Stimson 1989).

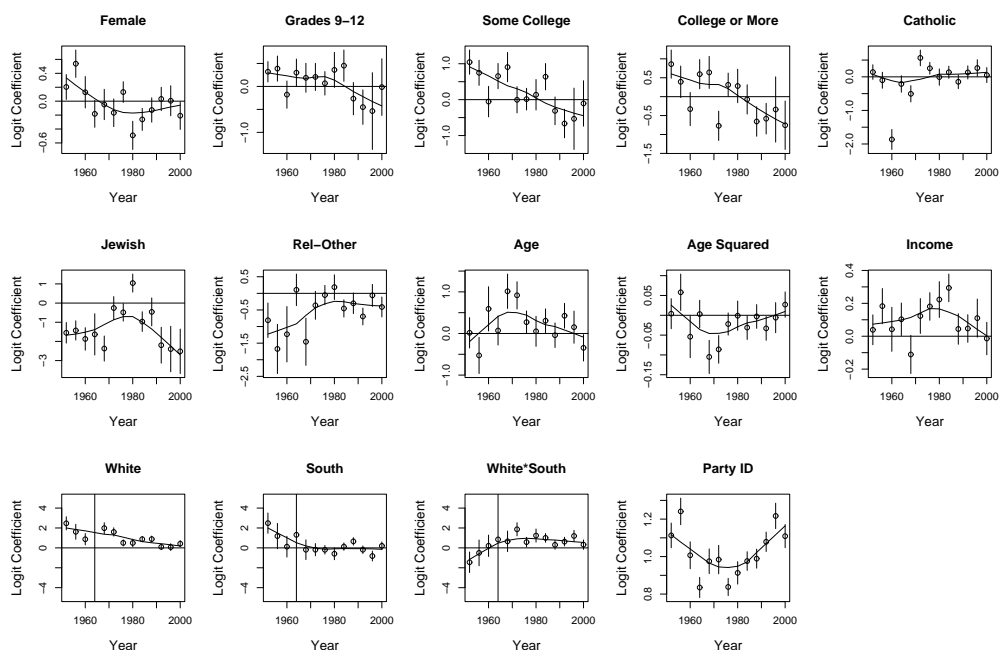


Figure 2: *Logistic regression predicting presidential vote choice from 1952 to 2000. Each year represents a separate regression equation. The bizarre parameter estimate for whites, southerners and their interaction in 1964 can be explained by a collinearity problem stemming from all blacks in the NES sample voting Democratic in that year. After a lull, the effect of partisanship has grown to 1950's levels.*

their party's candidate. The extent to which partisanship matters may nonetheless surprise even these people. Figure 3 shows the explanatory power of a multivariate versus bivariate vote choice equation predicting the vote.⁹ The full vote choice equation includes all the predictors listed above. The bivariate equation includes only party identification. The model with all predictors included is rarely much better than the model with party identification alone. Even in the worst days of party voting (1972), the full vote choice equation explains only about 13% more of the variability in the vote over the equation with just party identification. Clearly, party identification is the workhorse in the series of regressions viewed here. Also note that in terms of explanatory power, party identification reaches its highest level in 1996, not in the early periods of the series.

⁹The explanatory power is defined as $1 - (\text{deviance} / \text{null deviance})$ and is labeled "Pseudo R Squared". The deviance is equal to -2 times the log likelihood.

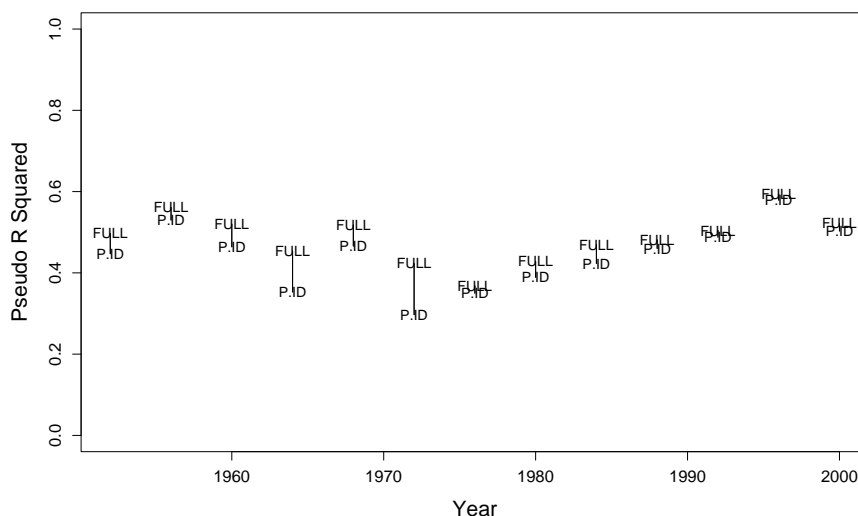


Figure 3: Variance explained in presidential vote choice equations from 1952 to 2000. The points labeled “FULL” show the variance explained after accounting for race, gender, education, age, income, party identification and region while the points labeled “P.ID” show the variance explained with only party identification. It is clear that party identification is the workhorse in the first equation but is weakest during the period of partisan dealignment. The variance explained for the series of logistic regression models is defined as $1 - (\text{deviance} / \text{null deviance})$ and is labeled “Pseudo R Squared”

3 A New Partisanship

Party identification is an important predictor of the vote. But what explains its fluctuations? History is our guide. In the early period in this series, the country had just survived years of severe economic depression. That depression resulted in a realignment among groups in the United States (such as immigrants, urban residents, black Americans, southerners, blue collar workers, etc.) that weighed heavily in favor of the Democrats (Key 1955).¹⁰ The 1950’s were a period of relative calm where this coalition held together.¹¹ Converse (1964) regarded this as an era of ideological innocence. Absent new issues to realign the parties, partisanship was stable and strongly predicted the vote. The group politics of the time as well as the relative political calm should have new entrance into the American political system engaging in greater levels of socialization

¹⁰This is one of several periods of partisan realignment (Key 1955).

¹¹To understand why a Republican president could be elected while a partisan coalition in favor of the Democrats remained strong see Green, Palmquist and Shickler (2002)

partisanship. Voters should be more likely to inherit the party status of their parents.

Figure 4 plots the coefficients for a series of linear regressions predicting a respondent's partisan identification with their parent's party identification and the controls listed above.¹² Parental party was asked by NES in four years from the 1950's to the era of dealignment without change of question-wording. These are the years studied here. Although this does not constitute a long series, the demographics work as one would expect. For example, females have become more likely to identify with the Democratic party over time while white southerners have become more likely to identify with Republicans. In 1958, during the period of socialization partisanship described above, the party of the respondent's parents was a stronger predictor of the vote as compared to partisan dealignment years. In 1958, a change of one point in a respondent's parents' party affiliation (on a five point scale) resulted in a change of greater than .7 on the seven-point partisan self-placement scale. The effect trended significantly downward to about .5 in 1970. Parental socialization was more important in predicting party identification early in the series absent new realigning issues. The political calm also resulted in a strong capacity for party to predict the vote as we saw in Figure 2. Party, inherited from parents, became the default source for vote choice decisions in this early period.

This would change. Ideological innocence would give way to a period of unusually high political turbulence through the 1960's and 1970's. The civil rights movement, the Vietnam War, social unrest, political assassination, etc. reawakened political antagonism.¹³ Ideology would take a new meaning in this period (Nie, Verba and Petrocik 1979). New issues, largely falling on the left/right ideological construct, forced Americans to rethink their partisan allegiances (Carmines, McIver and Stimson 1987). For example, white southerners grew increasingly uncomfortable with the national Democratic party as it accepted the mantle of civil rights. This period witnessed a partisan dealignment where

¹²Each year represents a separate regression equation. Partisan self-placement is measured on a seven-point scale from strong Democrat to strong Republican. Both father and mother's party are coded -1 for Democrats, 0 for independents and 1 for Republicans. A composite scale labeled parent's party is constructed by adding the two. This is the variable used in the model. The data run with an ordered response model shows the same result.

¹³For evidence that context effects matter see Bafumi (2003).

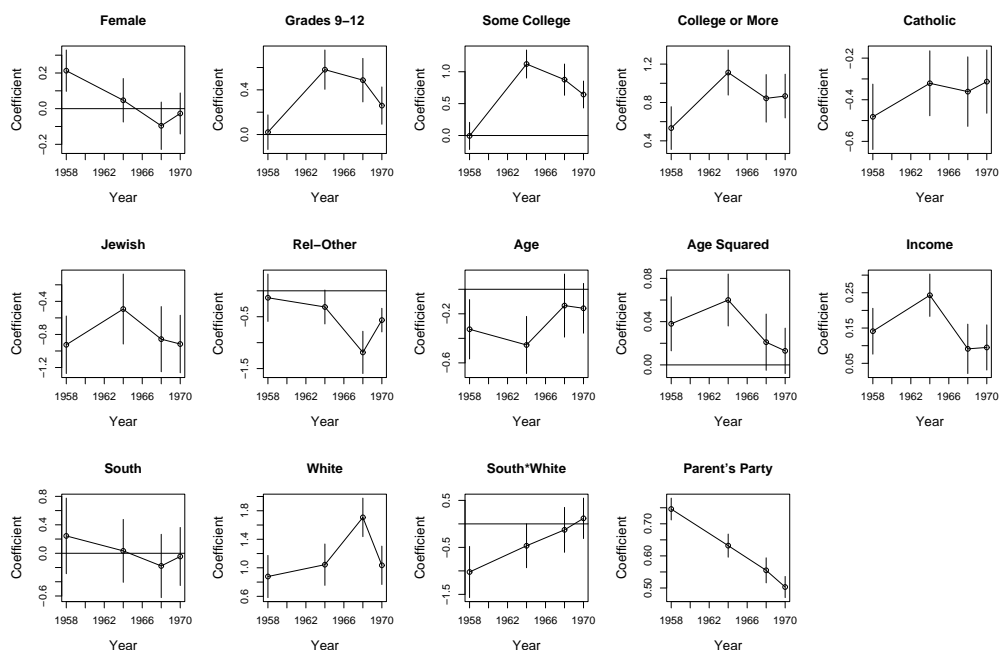


Figure 4: *Linear regression predicting party identification. The standard controls work as expected. Females have become significantly more Democratic over time while southern whites become more Republican. Most importantly, here, parental socialization has weakened as a predictor of partisan identification from the 1950's to the dealignment era.*

party seemed to become a less important predictor of the vote while allegiances sorted themselves anew. This takes us to the 1980's and the beginning of resurgent partisanship. The emerging issues of the 1960's and 1970's began to strongly delineate between the two major parties (Abramowitz and Saunders 1998).¹⁴ Other issues would further discriminate between the two parties (such as abortion, guns, gay rights, religiosity, etc.). Being liberal or conservative meant something real and predicted partisan identification.

Figure 5 shows evidence of the increasing importance of ideology in predicting partisanship.¹⁵ Again, a series of linear regression coefficients are plotted over time. In this figure, ideological self-placement on a seven-point scale is included as a predictor. The various controls tend to work as before. Ideological self-placement has increased from

¹⁴This is due in no small part to Ronald Reagan's success in redefining the Republican party as the party of conservatives in 1980. An effort 1964 presidential candidate Barry Goldwater had initiated but with less success.

¹⁵There is the potential for endogeneity here. One could argue that party predicts ideology. At the individual level, party has been shown to be the most stable of political behavior variables time and again. While party may predict ideology to some extent, much literature shows that the relationship runs more strongly in the other direction. See footnote 8.

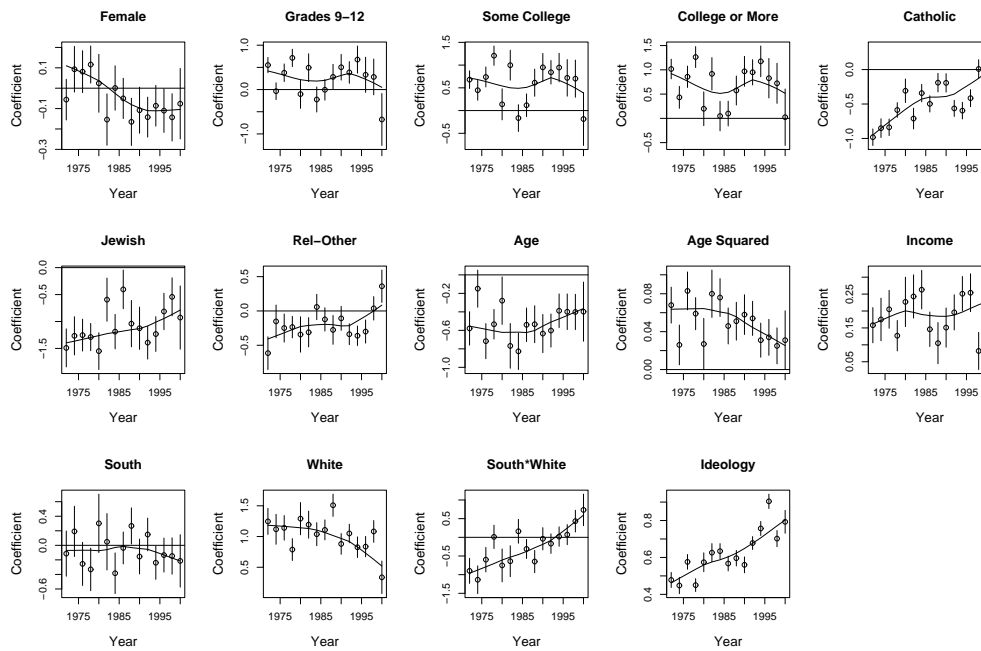


Figure 5: *Linear regression predicting party identification. Ideology has grown as a predictor from the 1970's to present times.*

its earliest data point in 1972. As emerging issues sorted partisan attachments anew, Americans were increasingly likely to have ideology inform their partisan identification (Luskin, McIver and Carmines 1989). Unfortunately, ideological self-placement was not asked before 1972. However, a useful and longer series exists from NES in the form of a composite liberal/conservative thermometer score. The score is based on two items where respondents were asked to place liberals and conservatives on a 100 point scale depending on their affect toward each group.¹⁶ This can serve as a good proxy for left/right ideological sentiments. In figure 6, the left/right composite thermometer score is shown to be an increasingly strong predictor of partisan identification beginning in the 1960's. Early in the series, a ten point change in the score results in about a .4 shift in partisan self-placement. In the 1990's, such a change produces as much as twice the shift in partisan self-placement.

¹⁶The composite thermometer score is calculated by NES as follows: First, the value for liberals is subtracted from 97 and that difference is added to the value for conservatives; this sum is then divided by 2, and .5 is added to the result; finally, the solution is truncated to obtain an integer value. The composite score correlates with seven-point ideological self-placement at about .6.

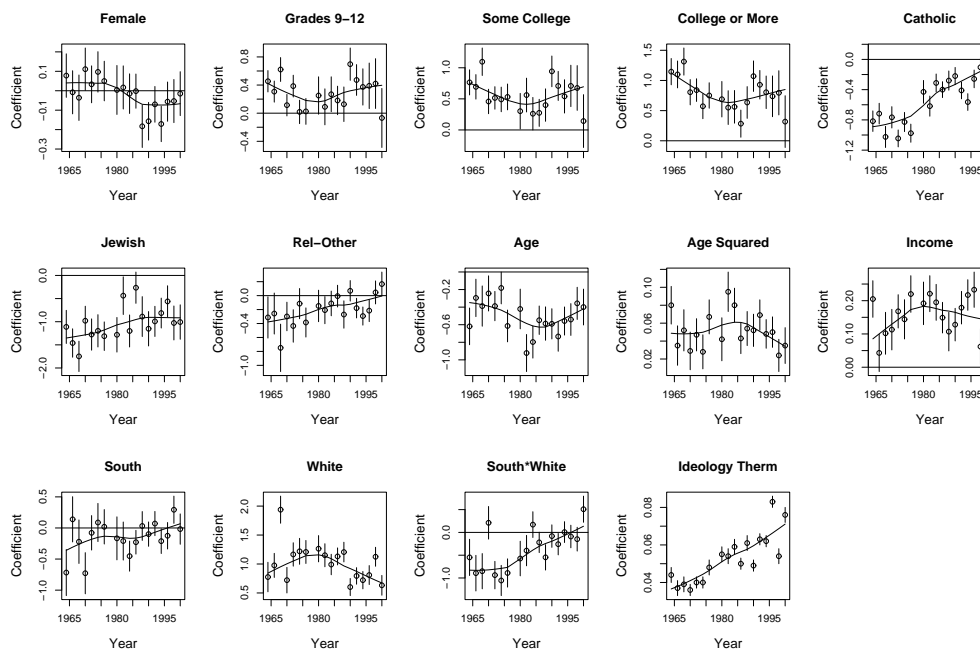


Figure 6: *Linear regression predicting party identification with liberal/conservative composite thermometer score.*

Partisanship has taken on a new importance in predicting the vote in recent years. Ideology increasingly has informed this partisanship. Ideology in itself is meaningless. It is the issues that fall on the left/right ideological dimension and attract the attention of the political elites and the public that make ideology important. These issues tend to be values based, social, racial and religious. As realized through ideology and, ultimately, partisanship, they are increasingly strong predictors of the vote in presidential election years. The consequences for this transformation are vast and will be explored next.

4 Implications of a New Partisanship

4.1 Increasing Rationalization

Voters who are ideologically compelled to be Democrats or Republicans may be less willing to offer unflattering evaluations of their party's president, regardless of what honest retrospection may suggest. Erikson (2004) has shown that Americans tend to rationalize the state of their personal financial situation over the previous year. They seek

to bring their vote preferences and the state of their personal financial situation in sync. This may be for one of two reasons. It may be that voters wish to offer consistent and coherent responses to a survey interviewer. For example, once put in the frame of mind of a particular election, the respondent may wish to offer responses that are consistent with his/her revealed vote preferences. If true, we should expect rationalization to exist at equal levels over time. Or, rationalization may be larger than issues with the survey instrument. In line with the theory above, as voters become more wedded to their party and, therefore, their party's candidate, they will offer retrospective evaluations that, even if untrue, rationalize their loyalties. The expectation then is that the public engages in greater levels of rationalization as ideologically based partisanship grows.¹⁷

First, let's reinvestigate if rationalization exists at all. Then let's see if it has grown in the period of ideologically driven partisanship. I study voters in presidential elections from 1956 to 2000 that took part in the relevant NES study. Figure 7 shows a path diagram of the model to be analyzed. Respondents were asked about their past personal financial situation.¹⁸ This is the outcome. Respondents could indicate that their situation had become better, stayed the same or had worsened. We can see if the distance in partisan alignment with the incumbent president predicts responses to changes in personal finances.

To measure this, I interact the seven-point partisan self-placement measure with incumbency. Taking each variable in turn, high values of partisan self-placement indicate stronger Republicanism.¹⁹ Incumbency is coded -1 for Democratic presidents and 1 for Republican presidents. Multiplying the two together yields a variable measuring partisan closeness with the incumbent presidential party. Let us consider the new measure during

¹⁷Another theory could explore the possibility that changes in media coverage over time effect the extent of rationalization in survey responses. I am indebted to Sunshine Hillygus for this insight.

¹⁸No such question existed in 1952. In 1956, 1960 and 1964, the question wording asks about a respondent's personal financial situation "during the last few years" rather than one year ago. Despite the differences in question wording, I treat this as one measure. This is because, first, individuals have been shown to weigh more recent periods heavier when engaging in retrospection (Hibbs 2000) and, second, both financial situation items correlate with the prospective personal financial situation item (which does not change question wording) at the same level—.26.

¹⁹Partisan self-placement is subtracted by 4 so that range runs from -3 to 3 rather than 1 to 7.

Path Diagram: Rationalization

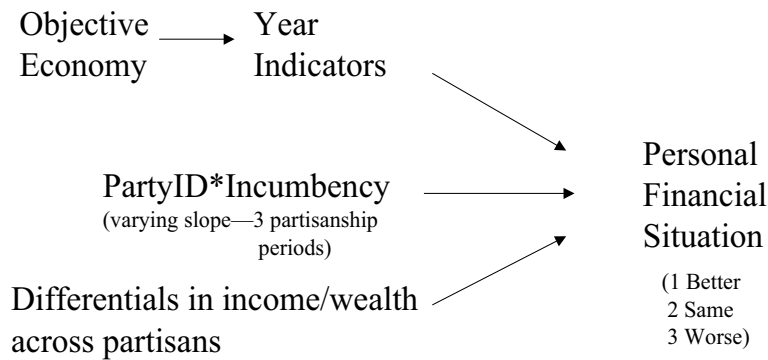


Figure 7: *Model predicting responses to personal financial situation.*

a Republican administration. Since it is multiplied by 1, it is the same as the partisan self-placement measure. Substantively, when Republicans are in the White House, higher partisan self-placement should result in better appraisals of one's financial situation. The party identification scale inverts when Democrats occupy the White House since incumbency is coded -1 for Democratic presidents. Thus, the substantive interpretation remains the same. Generically, as voters become more strongly aligned with the president's party, they should be more likely to say their personal financial situation has improved, holding all else constant.

Partisans at opposite ends of the scale tend to have wealth and income differentials. This could result in bias that distorts the parameter of interest. To control for this, I include partisan self-placement itself (without the incumbency interaction) as a predictor.²⁰ The objective economy can also effect changes in voters' personal financial situation. This effect can be controlled for with year indicators. I include these in the model. I also in-

²⁰I have also used income to control for this effect (not shown here). The results do not differ.

clude the best measure of the objective economy in forecast models; Hibbs' weighted real disposable income (RDI) (Hibbs 2000; Bartels and Zaller 2001; Erikson, Bafumi and Wilson 2001).²¹ Since this variable is measured at the year level and predicts varying year intercepts (as shown in Figure 7), a multilevel model is appropriate for proper estimates of uncertainty. The model, at each level, looks as follows:

$$Y_{it} = \beta_0 + \alpha_t + \beta^{PartyID} \cdot PartyID_{it} + \beta^{Interaction} \cdot Incumbency_t \cdot PartyID_{it} + \mu_{it} \quad (1)$$

$$\alpha_t = \alpha_0 + \alpha^{Hibbs} \cdot Hibbs_t + \nu_t \quad (2)$$

where Y_{it} is the outcome and α_t represent the varying year indicators. β_0 and α_0 are the model intercepts at each level. μ_{it} is the error in the first level equation and ν_t is the second level error term. Other parameters are labeled as described. Bayesian estimation strategies work very well for multilevel models, so I employ them here.²² I assign a normal prior distribution to the varying year indicators as follows:

$$\alpha_t \sim N(\alpha_0 + \alpha^{Hibbs} \cdot Hibbs_t, \sigma_{year}^2)$$

where the variance of the error, σ_{year}^2 , is estimated. It and other parameters are assigned uninformative distributions as follows:

$$\beta^{PartyID} \sim N(0, 100^2)$$

$$\beta^{Interaction} \sim N(0, 100^2)$$

$$\alpha_0 \sim N(0, 100^2)$$

²¹Hibbs' weighted Real Disposable Income is calculated by weighting and summing across each quarter of RDI growth in a presidential term. More recent quarters are weighted heaviest. The income data was obtained from the Bureau of Economic Analysis, a division of the U.S. Department of Commerce.

²²See appendix B for more detailed information on the usefulness of multilevel modeling and Bayesian inference.

$$\alpha^{Hibbs} \sim N(0, 100^2)$$

$$\sigma_{year} \sim U(0, 1000)$$

The discrete ordered categories of the outcome variable is best fit with an ordered response model. I use an ordered logit model. This gives equation 1 an error variance of $\pi^2/3$.²³ In all, I run a Bayesian multilevel ordered logit. First, I will show rationalization at work. Then I will show how it has increased substantially in the period of ideologically driven partisanship. I will do this by varying the coefficient for the party identification/incumbency interaction by appropriate time periods.

Table 1 shows the result for a model predicting personal financial situation by partisanship, partisanship times incumbency, Hibbs' weighted RDI and varying year intercepts.²⁴ Convergence of parameter estimates was achieved with 1000 iterations as measured by the Gelman-Rubin diagnostic (Gelman et al. 2003; Gill 2002).²⁵ Additive and multiplicative adjustments were applied to the varying year intercepts to aid in quicker convergence (Gelman N.d.). The additive adjustment (a mean adjustment) also offers greater interpretative ease.²⁶ The table shows the mean and the standard deviation of the posterior distribution for each parameter estimated (including the cut points for the ordered response, the year level error variance and the model deviance). It also shows the median, 95th and 50th percent confidence intervals for these distributions.

The summaries of the posterior distributions, shown in table 1, suggests partisanship, several year indicators, and the partisanship/incumbency interaction are statistically significant at traditional levels. The linearized coefficient for party (not shown) suggests Republicans are more likely to say they have done better financially in the past year. Hibbs' RDI provides some explanatory power but does not prove to be significant at traditional levels. Yet, many of the year indicators are significant suggesting that they may be

²³See appendix C for more details on the ordered response model employed here.

²⁴The varying intercepts are accomplished with the partial pooling strategies discussed in appendix B.

²⁵The first half of these 1000 draws are discarded as a burn-in.

²⁶See Appendix C for more information on these transformations. The WinBUGS model (with varying slopes) is shown in Appendix D.

	Mean	SD	2.5%	25%	50%	75%	97.5%
Constant	-0.38	0.02	-0.41	-0.39	-0.38	-0.37	-0.34
Party ID	-0.05	0.01	-0.07	-0.06	-0.05	-0.05	-0.04
Party ID.Incumb	-0.11	0.01	-0.13	-0.12	-0.11	-0.11	-0.10
1956	-0.16	0.05	-0.25	-0.19	-0.16	-0.12	-0.06
1960	0.02	0.06	-0.09	-0.02	0.02	0.06	0.13
1964	-0.38	0.05	-0.49	-0.41	-0.38	-0.34	-0.27
1968	0.06	0.06	-0.05	0.03	0.06	0.11	0.17
1972	-0.07	0.07	-0.20	-0.12	-0.07	-0.02	0.06
1976	0.18	0.05	0.09	0.15	0.18	0.21	0.27
1980	0.62	0.06	0.49	0.57	0.61	0.66	0.74
1984	-0.18	0.05	-0.27	-0.21	-0.18	-0.15	-0.09
1988	-0.16	0.05	-0.25	-0.19	-0.16	-0.13	-0.07
1992	0.37	0.04	0.28	0.34	0.37	0.39	0.45
1996	-0.18	0.05	-0.28	-0.21	-0.18	-0.15	-0.09
2000	-0.12	0.05	-0.23	-0.15	-0.12	-0.09	-0.03
Hibbs RDI	-0.46	0.32	-1.10	-0.67	-0.47	-0.26	0.18
Sigma Year	0.29	0.09	0.18	0.23	0.27	0.32	0.53
Cut 1	-0.85	0.01	-0.87	-0.86	-0.85	-0.84	-0.83
Cut 2	0.85	0.01	0.83	0.84	0.85	0.86	0.87
Deviance	30359.63	6.69	30350.00	30360.00	30360.00	30360.00	30370.00

Table 1: *Table showing properties of the posterior distributions (mean, standard deviation and percentiles) for estimated parameters from a Bayesian multilevel ordered logit model predicting personal financial situation.*

picking up other real economic effects. Most importantly, the partisanship/incumbency interaction is highly significant. The estimated parameter must be made substantively interpretable to fully understand the magnitude and direction of the relationship in an ordered response model.

A substantive interpretation is offered in Figure 8. It shows the predicted probability for respondents saying their personal financial situation has improved, stayed the same or worsened over the range of the partisanship/incumbency interaction. When aligned furthest from the president's party, respondents were most likely to say their personal financial situation stayed the same (with probability .4). Erikson (2004) discusses how this response serves as a quiet staying ground for respondents whose situation may have improved but are unwilling to admit to it given their dislike for the incumbent administration. Slightly more respondents were likely to say their financial situation had improved

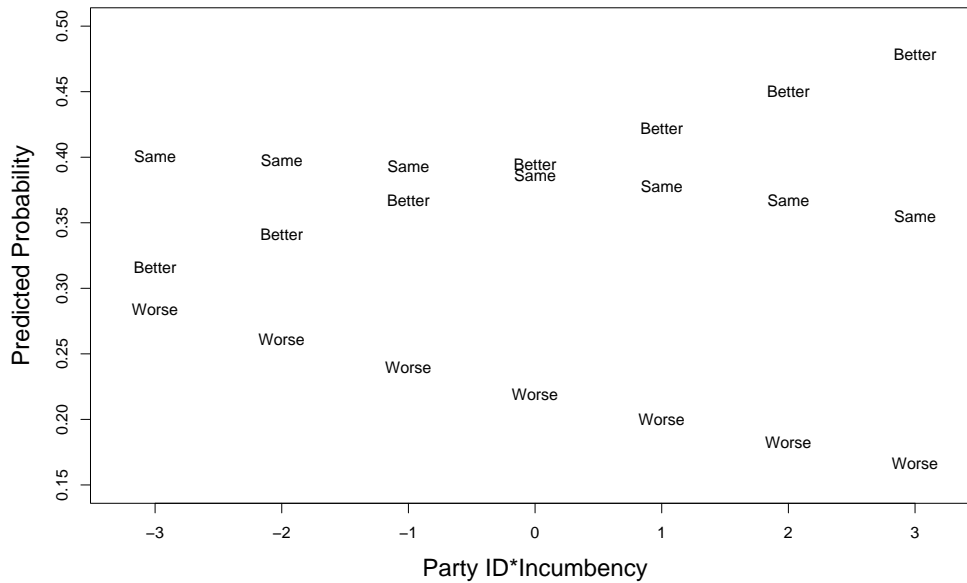


Figure 8: *Probability that a respondent will say their personal financial situation has improved, stayed the same or worsened across strength of alignment with the President's party. As voters align more closely with the president's party, they are much more likely to say their personal financial situation has improved and much less likely to say their situation has worsened.*

than worsened but with a difference of only about 5%. As respondents aligned more strongly with the president's party, they were dramatically more likely to say their situation had improved. They were somewhat less likely to say it had stayed the same but much less likely to say it had worsened. Respondents closest to the party of the president had a nearly .5 probability of saying their personal financial situation had improved but less than a .2 probability of saying it had worsened. This corroborates the findings of Erikson (2004). To test the theory above, we must see if this sort of rationalization has been increasing in presidential election years with ideologically based partisanship.

Table 2 shows the results for the model as above but with varying coefficients for the partisanship/incumbency interaction (where $\beta^{Interaction}$ becomes $\beta_{PartisanPeriod}^{Interaction}$). The coefficient varies over the three partisanship periods defined above; socialization partisanship, dealignment and ideologically based partisanship.²⁷ The control variables work

²⁷The interaction varies over partisan periods as follows: socialization partisanship (1956 and 1960), dealignment (1964, 1968, 1972, 1976 and 1980) and ideologically driven partisanship (1984, 1988, 1992, 1996 and 2000)

as before. The interaction is significant for all three periods, indicating some level of rationalization in each. It reaches greater levels of statistical significance in the period of ideologically driven partisanship. Rationalization seems to be strongest during this new era of partisanship. To understand this effect more fully, we must explore its substantive meaning.

	Mean	SD	2.5%	25%	50%	75%	97.5%
Constant	-0.38	0.02	-0.41	-0.39	-0.38	-0.37	-0.35
Party ID	-0.05	0.01	-0.07	-0.06	-0.05	-0.05	-0.04
Party ID.Incumb[1]	-0.06	0.02	-0.10	-0.08	-0.06	-0.05	-0.03
Party ID.Incumb[2]	-0.07	0.01	-0.10	-0.08	-0.07	-0.06	-0.05
Party ID.Incumb[3]	-0.16	0.01	-0.19	-0.17	-0.16	-0.16	-0.15
1956	-0.13	0.05	-0.22	-0.16	-0.12	-0.09	-0.04
1960	0.04	0.06	-0.09	0.00	0.04	0.09	0.16
1964	-0.42	0.04	-0.50	-0.45	-0.42	-0.39	-0.34
1968	0.05	0.06	-0.06	0.02	0.05	0.09	0.16
1972	-0.06	0.07	-0.20	-0.11	-0.06	-0.02	0.07
1976	0.20	0.05	0.12	0.16	0.20	0.24	0.29
1980	0.60	0.06	0.45	0.56	0.60	0.64	0.72
1984	-0.19	0.04	-0.27	-0.22	-0.19	-0.16	-0.11
1988	-0.17	0.05	-0.28	-0.20	-0.17	-0.13	-0.07
1992	0.34	0.05	0.24	0.31	0.34	0.37	0.43
1996	-0.16	0.05	-0.25	-0.20	-0.16	-0.13	-0.05
2000	-0.11	0.05	-0.21	-0.15	-0.12	-0.08	-0.02
Hibbs RDI	-0.48	0.32	-1.12	-0.67	-0.49	-0.29	0.19
Sigma Year	0.29	0.08	0.18	0.23	0.27	0.33	0.51
Cut 1	-0.85	0.01	-0.87	-0.86	-0.85	-0.85	-0.83
Cut 2	0.85	0.01	0.83	0.85	0.85	0.86	0.87
Deviance	30313.58	7.05	30300.00	30310.00	30310.00	30320.00	30330.00

Table 2: Table showing properties (mean, standard deviation and percentiles) of the posterior distributions for estimated parameters from a Bayesian multilevel ordered logit model. The outcome is personal financial situation. The model includes a varying slope for the party identification/incumbency interaction. The interaction varies over partisan periods as follows: socialization partisanship (1956 and 1960), dealignment (1964, 1968, 1972, 1976 and 1980) and ideologically driven partisanship (1984, 1988, 1992, 1996 and 2000)

Figure 9 shows a series of plots of a respondent's predicted probability for saying their personal financial situation has improved across the range of the partisanship/incumbency interaction. The first three plots trace the effect of the interaction during the periods of socialization based partisanship, dealignment and ideologically based partisanship,

respectively. The last plot compares the predicted probabilities for respondents' in all three periods. To recap, in the first period, party identification was more heavily based on parental partisanship and, generally, the maintenance of the New Deal coalition. During the dealignment period, voters were re-sorting their partisan affiliations with the emergence of new, galvanizing issues. In these periods, the range of the predicted probabilities are about the same. Respondents aligned furthest from the party of the president are nearly 10% less likely to say their situation has improved as compared to those aligned closest to the president's party. As compared to respondents in the dealignment period, respondents in the period of socialization partisanship were about 4% more likely to say their financial situation had improved at each level of the interaction. This is, perhaps, owing to the post-war economic boom. Rationalization is at work. However, the extent of rationalization in the current era substantially outweighs that of both past eras.

When partisan identification is more strongly driven by ideological underpinnings, the increase in the probability of claiming improved finances across the range of the interaction is most marked. When partisan alignment is furthest from the party of the president in this period, respondents had just over a one quarter probability of saying their situation had improved. Those most strongly aligned with the party of the president had greater than a .5 probability of offering such a response. This represents a change of approximately 25% over the range of the interaction. This is greater than twice the effect shown in the earlier two periods.

The fourth plot traces the effect of partisan alignment (with the incumbent president) on personal financial claims for respondents in the socialization, dealignment and ideologically driven partisanship eras. Note how the effect of partisan alignment is stronger for respondents during the ideological period. The slope of the predicted probabilities in this era is noticeably steeper than its two competitors. It begins at a lower probability at one end of the interaction's range and ends at a much higher probability at the opposite end. Rationalization has seen an unprecedented growth as partisanship has reemerged, driven by ideological concerns. Not surprisingly, the same story can be told of partisan evalua-

Probability of Saying Financial Situation has Improved

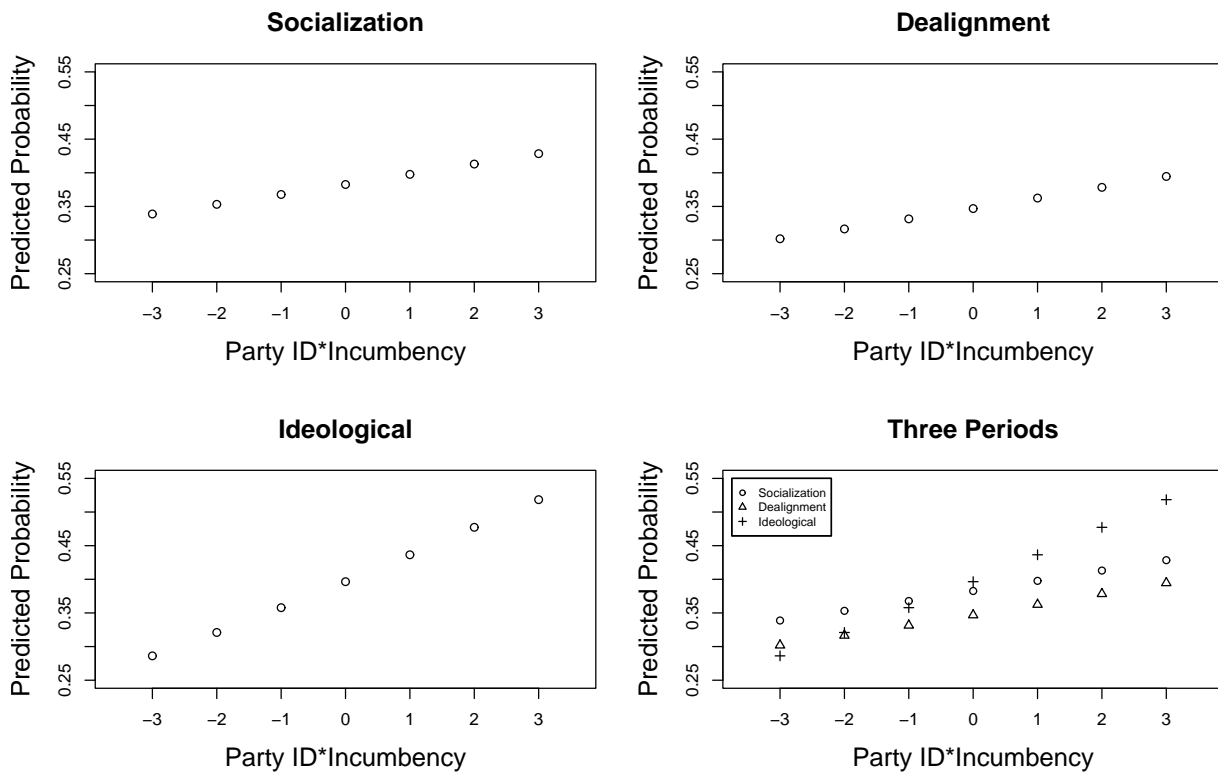


Figure 9: Probability that a respondent will say their personal financial situation has gotten better in the period of socialization partisanship, dealignment or ideologically based partisanship across strength of alignment with the President's party. In the period of ideologically based partisanship, rationalization increases substantially.

tions of presidential approval. Jacobson (2003) and Bond and Fleisher (2001) find that the differential in presidential job performance ratings among partisans has grown in the last couple decades. With the outcome analyzed here, we see rationalization growing even for a retrospective item with an objective basis. With the growth of such rationalization, we can expect a decline in objective retrospection. To that, I turn next.

4.2 Declining Retrospection

4.2.1 Controlling for Income Growth

Above, I looked at responses to the personal financial situation item over time. To control for objective retrospection based on the economy, I included year indicators and Hibbs'

weighted real disposable income. These variables control for the macroeconomy but tell us little about the pocketbook economies of voters. Unfortunately, data measuring income growth of each respondent are unavailable over the period studied above. However, such a control can be calculated from panel data available through NES. In these data, the same respondents were asked their family income over various waves of interview. With this information, income growth can be measured. I study two panels.²⁸ The first was collected in the era of partisan dealignment and the second in era of ideological driven partisanship. The interviews of interest were conducted in 1972, 1974 and 1976 in the dealignment panel and 1992, 1994 and 1996 in the current era's panel. These panels serve another very desirable function. By offering a measure of individual-level income growth, they present a source of objective retrospection with which tests of declining retrospection are possible.

Respondents are asked to report their family income in the year before the wave of interview. Thus, family income data exist for 1971, 1973 and 1975 in the 1970's panel and the symmetric years in the 1990's panel.²⁹ When predicting personal financial situation in years 1972 and 1992, I measure percent income growth from the year before the interview to the year after the interview (from 1971 to 1975 or 1991 to 1993).³⁰ For years 1976 and 1996, I measure growth beginning in the year before the middle wave of interviewing to one year before the year studied (1973 to 1975 or 1993 to 1995). Ideally, one would control for income growth in the year of study without including a future year or extraneous past years. However, such data do not exist. Thus, I settle for the algorithms above. Each shows the same substantive result.

In tables 3 and 4, I predict responses to the personal financial situation item in presidential election years with party identification, the log of family income and income growth. I study only presidential election years as these are years when rationalization

²⁸Certainly, one's financial situation may be effected by factors other than income growth. For example, having a child or sending one to college can worsen one's financial situation. This is a source of error that cannot be controlled for with the available data.

²⁹I set each income category to it's midpoint for the analysis.

³⁰Specifically, percent income growth is calculated as wave 2 income minus wave 1 income all divided by wave 1 income.

	1972	Marg. Effect Pr(y=Better)	1992	Marg. Effect Pr(y=Better)
Party ID	-.05 (.04)	.01	-.13 (.04)	.03
Log Family Income	-.28 (.12)	.07	-.43 (.10)	.09
Income Growth	-.19 (.09)	.04	.02 (.05)	-.00
Cut 1	-3.18		-5.55	
Cut 2	-1.35		-4.10	
Deviance	1004.112		1190.454	

Table 3: *Ordered logit predicting responses to state of personal financial situation. Standard errors are in parenthesis. Partisanship and family income are asked in the same wave of interviewing as the outcome (although respondents are asked for their previous year's income). For 1972, income growth is calculated as family income in 1973 minus family income in 1971 all divided by family income in 1971. The analogous calculation is made for 1992.*

	1976	Marg. Effect Pr(y=Better)	1996	Marg. Effect Pr(y=Better)
Party ID	-.05 (.03)	.01	.17 (.04)	-.04
Log Family Income	-.25 (.08)	.06	-.20 (.11)	.05
Income Growth	-.12 (.07)	.03	-.01 (.03)	.00
Cut 1	-3.09		-1.86	
Cut 2	-1.60		-.23	
Deviance	2160.287		905.907	

Table 4: *Ordered logit predicting responses to state of personal financial situation. Standard errors are in parenthesis. Partisanship and family income are asked in the same wave of interviewing as the outcome (although respondents are asked for their previous year's income). For 1976, income growth is calculated as family income in 1975 minus family income in 1973 all divided by family income in 1973. The analogous calculation is made for 1996.*

will most likely apply to the incumbent president's party. The variables to note are party identification and income growth. Income growth is a source of objective retrospection. Party identification reveals the extent of rationalization after controlling for income and income growth. It is coded from strong Democrat to strong Republican on a 7-point scale. Logged income is in the model to control for varying responses to the outcome across income groups.³¹ The expectation is that retrospection will decline while rationalization will increase from the early to the later panels. Let's first compare the earlier election years in each panel.³² Table 3 shows the results for 1972 and 1992.

In 1972, a Republican incumbent president was running for re-election. In this year, responses to the personal financial situation item were significantly predicted by actual income growth.³³ Income growth resulted in a higher propensity to say one's financial situation has improved (according to the direction of the marginal effect). Respondents were relying on real, objective retrospection to inform their responses. Closeness to the president's party had no significant impact, suggesting rationalization was not at work here. In 1992, another Republican incumbent president was seeking re-election. The story, here, is the reverse. Income growth is not significant. Meanwhile, partisanship was significant and its marginal effect suggests partisans closest to the incumbent president's party were more likely to say their financial situation had improved as compared to partisans at the opposite end of the scale. There is no evidence for retrospective thinking in 1992 but strong evidence for rationalization.

The waves of interviewing over 1976 and 1996 tell much the same story. Party is not a significant predictor of one's personal financial situation in 1976 while income growth nears statistical significance at traditional levels.³⁴ In 1996, party is quite strong as a predictor. Note that the reported marginal effect for party is negative here. This is

³¹This helps free party identification of the contamination brought about by income and wealth differentials across partisans.

³²I compare the early years and the later years separately to account for the different algorithms used to calculate income growth.

³³Again, the categories for income are set to midpoint of the range dollars the category represents. Thus, substantive interpretation is largely suspect and not offered here.

³⁴It may not reach traditional levels because it does not account for income growth in the year in which respondents are asked about their personal financial situation.

because, unlike in 1972, 1976 or 1992, there was a Democratic incumbent president in 1996. Therefore, as respondents become more Republican in 1996, they were less likely to say their financial situation had improved. What of income? In accordance with the theory, income growth has no effect on the outcome in 1996. Rationalization is strong and retrospection is weak in the era of ideologically driven partisanship. The reverse is true in the era of partisan dealignment. As ideological concerns increasingly determine voters' political predispositions, voters become less likely to rely on objective retrospection and more likely to rationalize their economic state in line with their predetermined political choices.

4.2.2 Sociotropic Economic Concerns

Evaluations of one's pocketbook economy work in line with the theory. Evaluations of the national economy (or sociotropic evaluations) may also be tested. NES does not ask respondents a consistent sociotropic question. Therefore, an analysis such as in table 2 is not feasible. An analysis across the 1970's and 1990's panel also suffers from inconsistent question-wording. Nonetheless, we can look at similar questions and see if there is some support for the theory. In the 1970's panel, respondents were asked whether *business conditions* were better or worse compared to one year ago. In the 1990's panel, respondents were asked whether the *national economy* was better or worse in that time frame. In each, respondents could volunteer that the situation was the same over the past year. Tables 5 and 6 show the results for equations predicting the respective sociotropic item in each panel. The outcome is all that changes from the analysis above. The expectation is that rationalization is greater in the 1990's than in the 1970's. Again, this is measured with partisan identification. Since the macroeconomy is not necessarily related to individual level income growth (even in the aggregate), this analysis does not offer a strong test for declining retrospection. However, we can test the extent of rationalization of sociotropic evaluations across the two partisan periods.

Let's see if partisans closest to the incumbent president's party are more optimistic

	1972	Marg. Effect Pr(y=Better)	1992	Marg. Effect Pr(y=Better)
Party ID	-.12 (.04)	.03	-.27 (.05)	.01
Log Family Income	-.35 (.13)	.09	-.12 (.13)	.00
Income Growth	-.25 (.11)	.06	.09 (.10)	-.00
Cut 1	-3.56		-5.21	
Cut 2	-1.79		-2.94	
Deviance	903.7938		775.3744	

Table 5: *Ordered logit predicting responses to state of national economy. Standard errors are in parenthesis. Partisanship and family income are asked in the same wave of interviewing as the outcome (although respondents are asked for their previous year's income). For 1972, income growth is calculated as family income in 1973 minus family income in 1971 all divided by family income in 1971. The analogous calculation is made for 1992.*

	1976	Marg. Effect Pr(y=Better)	1996	Marg. Effect Pr(y=Better)
Party ID	-.23 (.03)	.06	.30 (.05)	-.07
Log Family Income	-.32 (.08)	.08	-.31 (.12)	.08
Income Growth	.06 (.06)	-.01	.03 (.03)	-.01
Cut 1	-3.48		-2.57	
Cut 2	-2.46		-.39	
Deviance	1887.032		826.3541	

Table 6: *Ordered logit predicting responses to state of national economy. Standard errors are in parenthesis. Partisanship and family income are asked in the same wave of interviewing as the outcome (although respondents are asked for their previous year's income). For 1976, income growth is calculated as family income in 1975 minus family income in 1973 all divided by family income in 1973. The analogous calculation is made for 1996.*

in their retrospective sociotropic evaluations. Table 5 shows the result for 1972 and 1992. In both years, party is a significant predictor of the vote with a marginal effect in the expected direction. However, in 1992, party more strongly predicts the probability of claiming a worsened financial situation than in 1972.³⁵ Income growth and income levels are stronger predictors in 1972 than in 1992, but, for reasons stated, not so much can be gleaned here. In 1976 and 1996, we again see party identification significantly predicting sociotropic economic evaluations. This time, the difference between the two estimates is smaller. Nonetheless, there is more rationalization occurring in 1996 than in 1976. Substantively, as a voter moves from a strong Democrat to a strong Republican in 1976, his/her probability of reporting an improved national economy increases by .33. A move from a strong Republican to a strong Democrat in 1996, results in a .44 probability increase of this response. Once again, the marginal effect for party is positive only in 1996. This is as one would expect given a Democratic, rather than Republican, presidential administration at the time. Income growth and family income do not vary substantially across these waves of interview. The fact that growth is not significant in either era may be because it is a problematic control of retrospection, as discussed, or because growth is measured in the years before the outcome variable is asked. Despite the multiple sources of noise, there exists corroborating evidence that voters are more likely to engage in rationalization with respect to sociotropic concerns in the current era of ideologically based partisanship.

4.2.3 Macro Election Outcomes

We have seen rationalization grow at the expense of objective retrospection. This should have a detrimental impact on election forecasting. Election forecasters seek to predict election outcomes based on the fundamentals. These are variables measured per election

³⁵For consistency, I list the marginal effect for parties capacity to predict a claim of a better financial situation. Here, we do not see much difference in the two years studied. In fact, rationalization seems to be greater in 1972. However, the marginal effect of party is substantially stronger for predicting responses to a worsened financial situation in 1992 (-.05) as compared to 1972 (-.02). This also can be said of parties capacity to predict responses of the same personal financial situation.

year that are thought to have an important impact on the electoral result. Implicit in these models is retrospective voting. Voters are thought to evaluate the current and past state of the economy, presidential performance and other variables when casting their vote.³⁶ The rise of ideologically based partisanship may cloud these evaluations. Voters who engage in rationalization rely less on retrospection to inform their political decisions and therefore less on the fundamentals when making their vote choices. If true, we would expect a macro-level consequence for this micro-level phenomenon. Particularly, forecast equations should become less precise over time. Figure 10 shows this trend in two different ways. The first plot shows the predictive error for a series of out-of-sample linear regressions predicting incumbent (party) presidential vote outcomes by third quarter presidential approval, Hibbs' weighted Real Disposable Income (RDI) and an incumbency indicator.³⁷ The predictive (or forecast) error grows over time. This is particularly true in the era of ideologically based partisanship, in accordance with the theory outlined above.

The second plot shows the explanatory power of each of these out-of-sample regressions over time. When earlier years are removed, the equations explanatory power decreases below the average.³⁸ This suggests the data in these years are important for model fit. When later years are removed, the explanatory power of the regression equation improves substantially. These are years where model fit is at its worst. Again, evidence points to growing imprecision in forecasting models over time. Particularly, as ideologically driven partisanship takes hold, retrospection based on the fundamentals weakens.

³⁶Voters may also be prospective where retrospective evaluations and all other sources of information are taken into account in the aggregate. One may replace this discussion of retrospective voters with a discussion of prospective voters without loss of generality.

³⁷Approval rates were obtained from Gallup studies housed in the Roper Archive at the University of Connecticut. Other predictors that have been included in forecasting models such as terms served, party platforms or interacting the incumbency indicator do not change the result.

³⁸The average may be conceived of as the adjusted R^2 when data from all years are included in the model. It equals .847.

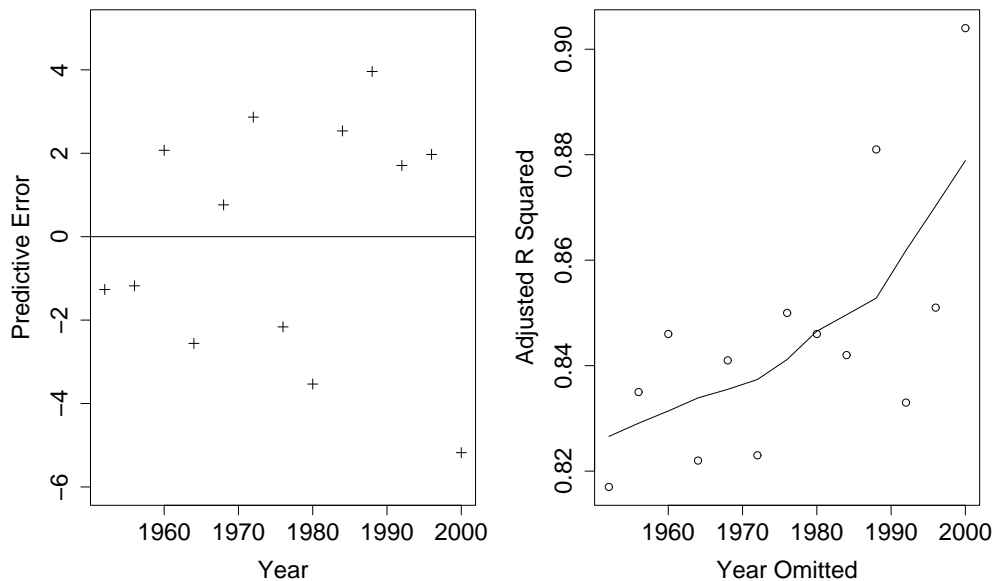


Figure 10: *Plot of the predictive error and variance explained for a series of out-of-sample presidential election forecasts. Forecast variables include third quarter presidential approval, Hibbs' weighted Real Disposable Income (RDI) and incumbency indicators. The inclusion of other variables such as terms served or party platform scores does not change the result.*

5 Discussion

5.1 Summary and Consequences

Partisan voting is back. It is fed by new issues that fall on the left/right ideological continuum. These are likely to be social, religious and racial issues. This trend has led to an increase in rationalization and, therefore, a weakening role for retrospection. Voters are less willing to vote based on past performance but more willing to offer evaluations that, even if untrue, rationalize their partisan predispositions and vote choices. The potential consequences are broad.

More so than ever, accurate forecasts may be a luck of the draw rather than an indication of a well fitting model. While this certainly applies to traditional forecasting equations, newer models such as those developed by Erikson, MacKuen and Stimson (2002) may offer more precise predictions. This is because they include new variables that tap into ideological and partisan predispositions. These include macropartisanship

and relative distance to the candidates on the liberal/conservative ideological continuum. Unfortunately, the data for such a model are not easily compiled until after the election is complete.³⁹ Meanwhile, the pre-election tournament among the traditional forecasters will look increasingly like a crap shoot.

Consequences also exist for those who study individual-level survey responses. In this era of ideologically based partisan identification, questionnaire items which ask respondents to be retrospective are more likely than ever to be tainted by partisan predispositions. It is worth noting that these items are likely to be meaningful in the aggregate where such effects and random errors are likely to cancel out (Page and Shapiro 1992; Erikson, MacKuen and Stimson 2002; Erikson 2004). As individual level responses go, however, an ideologically polarized public needs to be understood in a new light. As these voters become more strongly aligned with a party, they become less willing to accept cognitive dissonance. Rather than offer evaluations free of bias but damaging to their favored candidate, they temper their responses to more easily coincide with their predispositions. Erikson (2004) cautions researchers to be cognizant of the endogeneity problems this can engender. We know now that this warning must be heeded more seriously than ever in the data.

5.2 Election 2004

Given the theory and empirical support, what we saw during the 2004 presidential election should be no surprise. We witnessed a polarized public unwilling to swing easily from one side to the other. The fact that there are two, evenly matched sides makes it all the more interesting. John Kerry, the Democratic presidential nominee, garnered support from about half the electorate before he was a very well-known quantity. Since so many Americans had already taken a side, the Democratic convention, where the public was exposed to enormous amounts of pro-Kerry propaganda, did little to sway voters from

³⁹Nonetheless, these models are very useful toward understanding elections and should be pursued as the units of analyses (presidential election years for which there is data) increase.

one side to the other.⁴⁰ Similarly, Bush's convention bounce among likely voters was a paltry 2%.⁴¹ As polarization cements candidate preferences, swing voters dwindle. As noted before, according to the NES, the number of pure independents in the 1996 and 2000 presidential elections is approximately the same as in the 1950's elections (around 7%), where in between the independent share of the electorate tended to be higher (as high as 12% in 1976).

This is likely why the major party candidates worked so hard to appease their base voters. For example, President George W. Bush proposed amending the constitution to deny gay marriages in an overture to socially conservative voters. This would have been an unlikely event even just four years ago when compassionate conservatism was the Republican tagline. Meanwhile the Democrats were sure to feature many prominent African-American politicians rallying behind Senator John Kerry following his acceptance speech; including the divisive Reverend Al Sharpton. This despite the fact that Kerry has never aligned himself with these political leaders in the past nor distinguished himself on issues important to African-American voters. In a time of polarization, mobilizing the base vote has become as important as swaying the swing voter.

6 Conclusion

One thing we have learned here is that times change. The existing order will not last forever. Ideologically based partisanship is here but will pass as did dealignment and other partisan eras. In fact, the era of ideologically based partisanship may have reached it's height in this presidential election. What's to come is uncertain. For now, evidence indicates that parties are back as powerful forces in determining vote choices. They are driven by ideological concerns which align elites of one party with a segment of the mass

⁴⁰This is true even though Kerry's numbers seemed to improve with respect to his ability to deal with terrorism and other matters according to ABC News/Washington Post polls before and after the convention.

⁴¹This is according to Gallup polls of likely voters conducted before and after the Republican convention and reported by CNN.

public. These ideological concerns organize partisan thinking to a greater extent than we have witnessed in the data before.

The stronger partisan allegiances experienced by voters and driven by core ideological beliefs result in a growing tendency toward rationalization. Voters make evaluations not based on objective retrospection but increasingly through a partisan lens. The consequences of this are broad. For example, efforts at predicting presidential election outcomes based on the fundamentals prove to be less precise. Researchers have greater reason to be cautious about how they use and interpret survey results. Also, campaigns are less likely to move toward the center (as in past periods) after the nomination process is complete. Further consequences abound.

Here, I studied the economy. This is sensible given that it can be measured systematically and has an objective basis for measure. However, in moving forward, the theory should be tested on other issues. For example, there exists initial evidence that opinions regarding foreign policy matters may be increasingly seen through a partisan lens. This may also be true of perceptions of crime or welfare, for example. The role of the media in exacerbating polarization and rationalization is also a growing and fruitful line of research. All this I leave to future research.

7 Appendix A

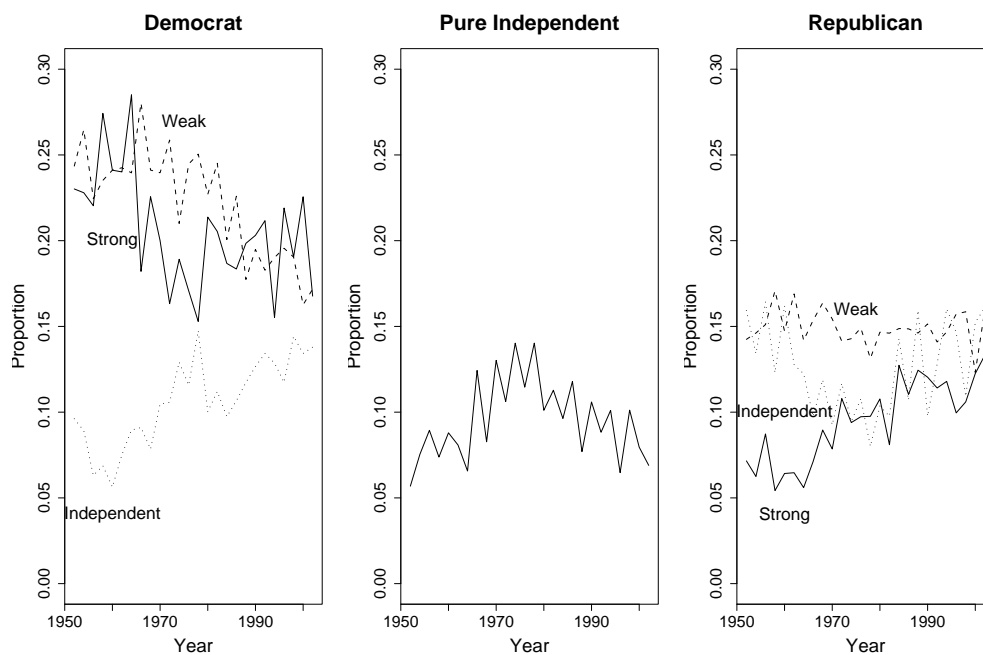


Figure 11: Plot of responses to the seven-point NES partisanship item.

8 Appendix B

8.1 Multilevel Modeling

Multilevel models have been introduced and applied in political science research (Gelman and King 1993; Steenbergen and Jones 2002; Park, Gelman and Bafumi 2004). These models incorporate data at all units of analysis to yield a best fit. For example, states and years can be modeled to predict presidential electoral outcomes (Gelman and King 1993), individual and state-level covariates can be simultaneously modeled to predict issue attitudes by state (Park, Gelman and Bafumi 2004) or individuals, nations and parties can be modeled to predict support for European integration (Steenbergen and Jones 2002).

Multilevel models are particularly appealing with comparative research projects where nations or states are at the macro level and nested within them are individuals. However, multilevel models should be viewed much more broadly. They can be useful with a variety of data structures, both nested and non-nested (Gelman N.d.). For example, modelers can use a multilevel model to overcome challenges associated with small n time series/cross-sectional data (e.g. Shor et al. (2003)) or in non-nested experimental designs (Gelman N.d.).

Multilevel models, when correctly specified, offer the best estimates of uncertainty because they allow for appropriate shrinkage among the units (Raudenbush and Bryk 1992; Gelman et al. 2003). Analysts can obtain consistent parameter estimates without employing multilevel models. They can run separate regressions for the multiple levels of interest. For example, a model may be run predicting vote outcomes by covariates that vary across time and space in time series/cross-sectional data. Year indicators would produce estimates of year specific effects. These effects can be run in a separate regression as outcomes against year level covariates (e.g. the macro economy). Point estimates from such a model should be consistent. However, estimates of uncertainty will often be incorrect. They will tend to show less certainty (or lower standard errors) than

actually exists. This is particularly true with lower sample sizes.

This will arise because the separate regressions cannot simultaneously take into account variation explained at each level. This is where multilevel models are most attractive. Equation 3 shows a level one equation. The substance here may be predicting vote choice, personal financial situation, etc. We consider it more generally here.

$$Y_{it} = \alpha_t + \Theta \mathbf{X}_{it} + \epsilon_{it}, \quad (3)$$

where $\epsilon_{it} \sim N(0, \sigma_\epsilon)$.

The outcome (Y_{it}) is subscripted for individuals and time. It is predicted by a series of individual level covariates (X_{it}) and varying slope indicators (α_t)(this may be for states, nations, years, etc.). The varying intercepts are, in turn, explained by level 2 covariates as shown in equation 4.

$$\alpha_t = \gamma X_t + \mu_t, \quad (4)$$

where $\mu_t \sim N(0, \sigma_\mu)$.

Substituting equation 2 into equation 1 shows the incorporation of separate error terms for the level 1 and level 2 equations (ϵ_{it} and μ_t , respectively) into one multilevel equation.

$$Y_{it} = \gamma X_t + \Theta \mathbf{X}_{it} + \epsilon_{it} + \mu_t, \quad (5)$$

The variance of the level two error (σ_μ) can be modeled in at least one of three different ways. It can be constrained to a very low value (complete pooling). This ignores the unit effects. It can be constrained to a very high value (no pooling). This estimates the maximal level 2 error variance and often results in overfitting. This is akin to fixed effects. Or, it can be estimated conditional on the data and other parameters in the model (partial pooling). Only the latter meets the test of a multilevel model in that information from all levels is taken into account during parameter estimation. The conditional estimation

implicit here is achieved via Bayesian simulation, leading us to a discussion of Bayesian inference.

8.2 Why Bayesian?

Multilevel models may be estimated using frequentist algorithms which are often quite complicated (Raudenbush and Bryk 1992) or Bayesian simulation (Gelman et al. 2003). Bayesian inference is most desirable for its greater conceptual validity and more intuitive approach to parameter estimation. Bayesians treat samples as fixed and population estimates as variable. Since samples are in fact fixed and estimates uncertain, this makes good intuitive sense. In terms of estimation, Bayesians can estimate all parameters of interest, treating them as if they are missing data (Jackman 2000). This is largely thanks to Markov chain Monte Carlo (MCMC) methods. MCMC methods iteratively sample from a set of conditional distributions to yield the posterior density of interest.⁴² Thus, with a partial pooling specification, modelers can estimate the variance of the errors for level 2 covariates conditional on the data and other parameters in the model at all levels.

Yet other advantages exist for Bayesians. Again, Bayesians can capture properties of the estimated parameters from their posterior densities with ease. The same can be said of auxiliary parameters such as predictions, forecasts, residuals and model fit statistics. Further, Bayesian modelers have better strategies for dealing with collinearity among a set of indicators. By assigning a common distribution to the set of indicators, Bayesians need not drop what are often arbitrary base categories.⁴³ While this simulation-based approach offers advantageous over classical algorithmic alternatives, MCMC methods require computational power far beyond that of frequentist approaches. This can make the pursuit of converged parameter estimates time consuming.

⁴²Among the suite of sampling methods housed under MCMC, the Gibbs sampler is most often used and the one employed here.

⁴³Another potential advantage of the Bayesian approach is the explicated priors. Here, priors can incorporate existing knowledge rather than that knowledge being ignored (Gill 2002).

9 Appendix C

9.1 The Basic Ordered Response Model

We begin with the outcome variable Y_i . Let us suppose that, as above, it is an ordered response variable. This means that while responses can be ranked in some order, the distances between responses are unequal or, more likely, unknown. In such a situation, it makes sense to estimate a ordered response (or regression) model as introduced to the social sciences by McKelvey and Zavoina (1975). Here, a latent variable, y_i^* , and cutpoints (or thresholds), τ_m , are calculated to produce the probabilities of each response. The latent variable is a prediction from a fitted model. It is a continuous measure ranging from ∞ to $-\infty$. This variable is mapped to the original ordered response by the cutpoints. The expectation is that values at or below the first cutpoint, for example, correspond to the lowest ranked response in the outcome and so on.

Formally, the latent variable, y_i^* , is modeled as follows:

$$y_i^* = \alpha + \Theta \mathbf{X}_i + \epsilon_i, \quad (6)$$

where α is the intercept, Θ is a vector of coefficients, \mathbf{X}_i is a matrix of covariates and ϵ_i is the error. Given the unknown nature of the latent variable, it is typical to assume either a normal or a logistic distribution to the errors. When assigned normally distributed errors (with mean=0 and variance=1), the model is called an ordered probit. When assigned logistically distributed errors (with mean=0 and variance= $\pi^2/3$), the model is called an ordered logit.⁴⁴ I choose the logistic distribution with a probability density function (pdf):

$$\lambda(\epsilon) = \exp(\epsilon)/(1 + \exp(\epsilon))^2$$

and a cumulative density function (cdf):

⁴⁴McCullagh (1980) discusses less frequently used alternative distributions.

$$\Lambda(\epsilon) = \exp(\epsilon)/1 + \exp(\epsilon)$$

The probability that the latent variable is equal to some response of the outcome variable is equal to the probability that it falls within the respective cutpoints. Formally for $Pr(y_i = 1|x_i)$,

$$Pr(y_i = 1|x_i) = Pr(\tau_0 \leq y_i^* < \tau_1|x_i)$$

After substitution and some algebra, the probabilities can be defined in terms of the cdf evaluated at the various cutpoints (Long 1997). In these terms, the probabilities for a trichotomous ordered response are as follows:

$$Pr(y_i = 1|\mathbf{X}_i) = \Lambda(\tau_1 - (\alpha + \Theta\mathbf{X}_i))$$

$$Pr(y_i = 2|\mathbf{X}_i) = \Lambda(\tau_2 - (\alpha + \Theta\mathbf{X}_i)) - \Lambda(\tau_1 - (\alpha + \Theta\mathbf{X}_i))$$

$$Pr(y_i = 3|\mathbf{X}_i) = 1 - \Lambda(\tau_2 - (\alpha + \Theta\mathbf{X}_i))$$

9.2 Identification

Ordered response models are unidentified since one can add or subtract an arbitrary constant to the intercept, α , and the cutpoints, τ_m , without changing the probabilities of an outcome. It is typical in these models to fix either α or τ_1 to 0 as an identifying assumption. In the ordered response model run here, I identify the model by de-meaning the cutpoints. This procedure forces the cutpoints to be centered around 0. In the case of two cutpoints, as here, they are symmetric around 0. To scale the model correctly, the mean of the cutpoints was subtracted from the model intercept; β_0 in equation 1. See Appendix C to view the model code or tables 1 and 2 to view the results.

9.2.1 Additive and Multiplicative Parameters

The model in Appendix C also shows other adjustments made to the model intercept, β_0 . This is a consequence of the multiplicative redundant parameter and additive transformation used on the varying year indicators. Note that the parameter for the indicators is multiplied by a new parameter coded xi.delta. This is the multiplicative redundant parameter. Also, the estimates are de-meanned. This is the additive transformation. These procedures aid in achieving convergence more quickly. They do so by reducing posterior correlation in posterior densities among correlated parameters (Gelman N.d.; Bafumi et al. N.d.). Once made, the model is readjusted through the model intercept.

10 Appendix D

```

model{
  for (i in 1:n){
    y[i] ~ dcat(p[i,])
    p[i, 1] <- max( min(Q[i, 1], 1), 0)
    p[i, 2] <- max( min(Q[i, 2] - Q[i, 1], 1), 0)
    p[i, 3] <- max( min(1 - Q[i, Ncut], 1), 0)
    for (j in 1 : Ncut) {
      logit(Q[i, j]) <- k[j] - mu[i]}
    mu[i] <- beta.0 + xi.delta*alpha.year[year[i]] + beta.partyid*partyid[i]
      + beta.partyid.incumb[partisan.period[year[i]]]*incumb[year[i]]*partyid[i]
  }
  for(c in 1:n.year){
    alpha.year[c] ~ dnorm(mu.year.hat[c], T.year)
    mu.year.hat[c] <- alpha.0 + alpha.hibbs*hibbs[c]
    alpha.year.adj[c]<- xi.delta*(alpha.year[c] - mean(alpha.year[]))
  }
  alpha.hibbs.adj<-xi.delta*(alpha.hibbs)
  alpha.0.adj<-xi.delta*(alpha.0)
  T.year <- pow(sigma.year,-2)
  sigma.year ~ dunif(0,1000)
  sigma.year.adj <- abs(xi.delta)*sigma.year
  beta.0 ~ dnorm(0,.0001)
  beta.0.adj <- beta.0 + xi.delta*mean(alpha.year[]) - mean(k[])
  for (t in 1:3){
    beta.partyid.incumb[t] ~ dnorm(0,.0001)
  }
  beta.partyid ~ dnorm(0,.0001)
  alpha.hibbs ~ dnorm(0,.0001)
  alpha.0 ~ dnorm(0,.0001)
  k[1] ~ dnorm(0, 0.0001)I( , k[2])
  k[2] ~ dnorm(0, 0.0001)I(k[1], )
  for (i in 1:Ncut){
    k.adj[i] <- k[i] - mean(k[])
  }
  xi.delta ~ dnorm(0, .0001)
}

```


11 Appendix E

Variable	Mean	Std. Dev.	Min.	Max.	N
Rep. Pres. Vote	0.506	0.5	0	1	17551
Female	0.552	0.497	0	1	41395
Education	2.395	0.958	1	4	41059
Religion	1.537	0.89	1	4	41053
Age	46.14	16.996	17	99	39532
Income	2.935	1.149	1	5	37020
White	0.833	0.373	0	1	41498
Party ID	3.61	2.114	1	7	40109
Ideology	4.309	1.419	1	7	22293
Parental Party	-0.531	1.748	-2	2	12779
Per. Fin. Situation	1.914	0.791	1	3	35561
Ideology Therm.	52.298	15.577	0	97	25862

Table 7: *Descriptive statistics for all individual-level variables used in this study. Each variables statistics are reported with their maximal sample size. For a variety of reasons, the actual sample sizes vary throughout the analysis.*

References

- Abramowitz, Alan I. and Kyle L. Saunders. 1998. "Ideological Realignment in the U.S. Electorate." *Journal of Politics* 60:634–652.
- Adams, Greg D. 1997. "Abortion: Evidence of Issue Evolution." *American Journal of Political Science* 41:718–737.
- Aldrich, John. 1996. *Why Parties? The Origin and Transformation of Party Politics in America*. Chicago: University of Chicago Press.
- APSA, Report of the Committee on Political Parties. 1950. "Toward a More Responsible Two-Party System." *APSA* 44:v–ix.
- Bafumi, Joseph. 2003. "The Regress of Ideological Sophisticates." Presented at the 2003 Annual Meeting of the American Political Science Association, Philadelphia, PA.
- Bafumi, Joseph, Andrew Gelman, David K. Park and Noah Kaplan. N.d. "Practical Issues in Implementing and Understanding Bayesian Ideal Point Estimation." Forthcoming, *Political Analysis*.
- Bartels, Larry. 2000. "Partisanship and Voting Behavior, 1952-1996." *American Journal of Political Science* 44:35–50.
- Bartels, Larry and John Zaller. 2001. "Presidential Vote Models: A Recount." *PS: Political Science & Politics* 34:9–20.
- Bond, Jon R. and Richard Fleisher. 2001. "The Polls: Partisanship and Presidential Performance Evaluations." *Presidential Studies Quarterly* 31:529–540.
- Campbell, Angus, Philip E. Converse, Warren E. Miller and Donald E. Stokes. 1960. *The American Voter*. New York: Wiley.
- Carmines, Edward G. and James A. Stimson. 1989. *Issue Evolution: Race and the Transformation of American Politics*. Princeton, NJ: Princeton University Press.
- Carmines, Edward G., John McIver and James A. Stimson. 1987. "Unrealized Partisanship: A Theory of Dealignment." *Journal of Politics* 49:376–400.
- Converse, Philip E. 1964. *The Nature of Belief Systems in Mass Publics*. In *Ideology and Discontent*, ed. David E. Apter. Ann Arbor: University of Michigan Press.
- Converse, Philip E. and Gregory B. Markus. 1979. "Plus ça Change..The NewCPS Election Study Panel." *American Political Science Review* 73:32–49.
- Erikson, Robert S. 2004. "Economic Voting: Micro vs. Macro Perspectives." Presented at the Annual Meeting of the Political Methodology, Stanford University.
- Erikson, Robert S., Joseph Bafumi and Bret Wilson. 2001. "Could the Close 2000 Elections Have Been Predicted?" *PS: Political Science & Politics* 34:815–819.

- Erikson, Robert S., Michael B. MacKuen and James A. Stimson. 2002. *The Macro Polity*. New York: Cambridge University Press.
- Fiorina, Morris P. 1981. *Retrospective Voting in American National Elections*. New Haven: Yale University Press.
- Franklin, Charles H. and John E. Jackson. 1983. "The Dynamics of Party Identification." *American Political Science Review* 77:957–973.
- Gelman, Andrew. N.d. "Regression and Multi-Level Modeling." *Unpublished Manuscript*.
- Gelman, Andrew and Gary King. 1993. "Why Are American Presidential Election Campaign Polls So Variable When Votes are So Predictable?" *British Journal of Political Science* pp. 409–451.
- Gelman, Andrew, John S. Carlin, Hal S. Stern and Donald B. Rubin. 2003. *Bayesian Data Analysis*. Boca Raton: Chapman and Hall.
- Gill, Jeff. 2002. *Bayesian Methods*. New York: Chapman & Hall.
- Green, Donald Philip, Bradley Palmquist and Eric Shickler. 2002. *Partisan Hearts and Minds: Political Parties and the Social Identities of Voters*. New Haven: Yale University Press.
- Hibbs, Douglas A. Jr. 2000. "Bread and Peace Voting in U.S. Presidential Elections." *Public Choice* 104:149–180.
- Jackman, Simon. 2000. "Estimation and Inference are Missing Data Problems: Unifying Social Science Statistics via Bayesian Simulation." *Political Analysis* 8:307–332.
- Jacobs, Lawrence R. and Robert Y. Shapiro. 2000. *Politicians Don't Pander: Political Manipulation and the Loss of Democratic Responsiveness*. Chicago: University of Chicago Press.
- Jacobson, Gary C. 2003. "Partisan Polarization in Presidential Support: The Electoral Connection." Presented at the Annual Meeting of the American Political Science Association, Boston, MA.
- Key, V.O. Jr. 1955. "A Theory of Critical Elections." *Journal of Politics* 17:3–18.
- Layman, Geoffrey. 2001. *The Great Divide: Religious and Cultural Conflict in American Party Politics*. New York: Columbia University Press.
- Long, J. Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, CA: Sage Publications.
- Luskin, Robert C., John P. McIver and Edward G. Carmines. 1989. "Issues and the Transmission of Partisanship." *American Journal of Political Science* 33:440–458.
- MacKuen, Michael B., Robert S. Erikson and James A. Stimson. 1989. "Macropartisanship." *American Political Science Review* 83:1125–1142.

- McCarty, Nolan, Keith Poole and Howard Rosenthal. 1997. *Income Redistribution and the Realignment of American Politics*. Washington, D.C.: American Enterprise Institute.
- McCullagh, P. 1980. "Regression Models for Ordinal Data." *Journal of Royal Statistical Society* 42:109–142.
- McKelvey, Richard D. and William Zavoina. 1975. "A Statistical Model for the Analysis of Ordinal Level Dependent Variables." *Journal of Mathematical Sociology* 4:103–120.
- Nie, Norman H., Sidney Verba and John R. Petrocik. 1979. *The Changing American Voter: Enlarged Edition*. Cambridge: Harvard University Press.
- Niemi, Richard G. and M. Kent Jennings. 1991. "Issues and Inheritance in the Formation of Party Identification." *American Journal of Political Science* 35:970–988.
- Page, Benjamin I. and Robert Y. Shapiro. 1992. *The Rational Public: Fifty Years of Trends in Americans' Policy Preferences*. Chicago: University of Chicago Press.
- Park, David K., Andrew Gelman and Joseph Bafumi. 2004. "Bayesian Multilevel Estimation with Poststratification: State-level Estimates from National Polls." *Political Analysis* 12:375–385.
- Raudenbush, Stephen W. and Anthony S. Bryk. 1992. *Hierarchical Linear Models: Applications and Data Analysis Methods*. Newbury Park, CA: Sage Publications.
- Rohde, David W. 1991. *Parties and Leaders in the Postreform House*. Chicago: University of Chicago Press.
- Shor, Boris, Joseph Bafumi, David K. Park and Andrew Gelman. 2003. "Multilevel Modeling of Time Series Data." Paper presented at the Annual meeting of the American Political Science Association, Philadelphia, PA.
- Steenbergen, Marco R. and Bradford S. Jones. 2002. "Modeling Multilevel Data Structures." *American Journal of Political Science* 46:218–237.
- Sundquist, James L. 1983. *Dynamics of the Party System: Alignment and Realignment of Political Parties in the United States*. Revised edition ed. Washington, D.C.: The Brookings Institution.
- Wattenberg, Martin P. 1994. *The Decline of American Political Parties*. Cambridge: Harvard University Press.
- Wolbrecht, Christina. 2000. *The Politics of Women's Rights: Parties, Positions, and Change*. Princeton: Princeton University Press.