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## The issue context of modern American politics: Semiparametric identification of latent factors from discrete data

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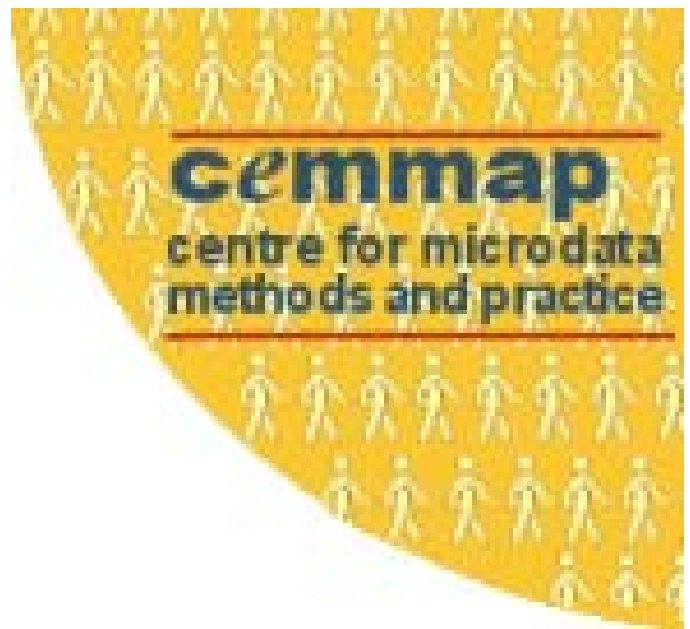
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# THE ISSUE CONTEXT OF MODERN AMERICAN POLITICS: SEMIPARAMETRIC IDENTIFICATION OF LATENT FACTORS FROM DISCRETE DATA

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**cemmap** working paper CWP16/02

# THE ISSUE CONTEXT OF MODERN AMERICAN POLITICS: SEMIPARAMETRIC IDENTIFICATION OF LATENT FACTORS FROM DISCRETE DATA

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**Abstract.** A new methodology that estimates attitudes semiparametrically and estimates actions nonparametrically, as a function of the resulting attitudinal measures, is used to examine the behavioral effects of 'cultural' and 'economic' preferences in the Presidential elections of 1984 and 1992. The results suggest a shift toward 'cultural politics', achieved first among the highly educated but spreading throughout society by the later election. One consequence is that both parties are now consistent in their policy alignments—the Democrats being liberal on both scales, the Republicans conservative. Despite this aggregate consistency, different social groups are attached to the parties in different ways, thereby heightening the potential for intraparty conflict while sharpening the problem of fashioning a platform that is broadly attractive. These problems, finally, express themselves very differently within the Democratic and the Republican parties.

## 1. The Issue Context of Modern American Politics

Social science is on its most firm ground when it deals with concrete behavior – the patterning to that behavior, the measurement of this patterning, the comparison of those measures. Nevertheless, many of the central notions of social life are not directly observable, in principle. Students are said to have aptitudes. Consumers are said to have tastes. Citizens are said to have policy preferences. And education, consumption, or, in this case, voting can hardly be understood in the absence of these attributes. This produces a great and familiar, two-part psychometric problem: how to infer an actual distribution of unobserved attributes from responses to a series of questions or items, and how to infer the relationship between that distribution and individual behavior or aggregate outcomes.

In this paper, we attempt a fresh approach to deriving an attitudinal distribution, where the attitudes involve preferences for public policy. We proceed, in essence, by specifying individual responses as a probabilistic function of a (small) number of attitudes. And we then use the result to construct an issue context for modern American politics, in which attitudinal distributions shape voting behavior. This allows us to affirm some conventional

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understandings of that behavior more convincingly. It also allows us to pursue some implications which cannot be well addressed through standard summary statistics. The next three sections describe the method and present its central model, so that those who might wish to use or test this method should begin there. Four subsequent sections set out the main preliminary findings – the alleged substantive landscape for American politics. We have tried to write them so that those whose primary interest is electoral behavior or campaign strategy can repair there directly.

## 2. Some Concepts and a Methodology

The notion of an 'issue context' brings together many of the methodological and theoretical disputes in the realm of policy preferences and voting behavior. At its most basic, an issue context comprises the main substantive conflicts and associated social coalitions which together shape the politics of any historical era, including, of course, our own. (Carmines and Stimson 1986) Some classical work on political conflicts suggests that these fall generally into two grand and encompassing clusters, involving the distribution of material goods versus the reinforcement of behavioral norms – short-handed here as 'Economics' and 'Culture'. (Lipset and Rokkan 1967) If they do, the general public ought to hold underlying but ongoing attitudes on both these two grand dimensions, and substantial research suggests that this public in fact does. (Fleishman 1988; Heath, Evans, and Martin 1994)

The possibility of two main dimensions, while it intensifies all the old psychometric problems, also increases the value of the approach offered here, for dealing with a more complex issue context. Moreover, the proposed method has the advantage that it will easily permit a second dimension to collapse, should the evidence so demand. (While graphic presentation would not be as easy, it also permits the introduction of additional dimensions, though that is not attempted here.) Some recent work which provides analogs to the alleged underlying economic and cultural dimensions is used to begin our analysis (Shafer and Claggett 1995). Though another advantage of the proposed methodology is that, if these dimensions do generate distinctive relationships, it would be possible to move on to other items with similar effect and escape the specifics of any original work entirely.

We proceed by specifying an individual's item responses as a probabilistic function of a (small) number of attitudes. The data are taken from two large, recent, and substantively comprehensive surveys of national public opinion. (Times-Mirror 1987, Pew Trust 1994) The initial attitude scales for policy preferences on Economics and Culture involve five questions to which each is exclusively related. With an estimated model of categorical response as a function of attitude, it is possible, via Bayes' Theorem, to assign each individual a probability distribution for his place on each attitude scale.

Since we scale our measure of a particular attitude to reside uniformly in the unit interval, our estimate of the probability distribution of each individual's attitude is a probability

distribution on the unit interval. Consequently, to estimate the distribution of an outcome conditional on a single attitude scale, we impute the outcome of each individual to each point in the unit interval in proportion to the probability of his attitude actually residing there. Adding up at all points over all individuals gives (after division by the number of individuals), the probability at each point of the outcome, conditional on the attitude at that point. Since economic and cultural attitudes may not be independent, probabilities of outcomes conditional on both attitudes are slightly more complicated to compute, but follow by a similar application of Bayes' Theorem.

Since we have only a small number of items which can be assumed a priori to relate to a single attitude scale, we cannot usually infer an attitudinal position for any individual with precision. That is, for any individual, we have ...ve very imperfect measurements of position, which correspond to the responses (ordinarily chosen from among "strongly agree", "agree", "disagree", "strongly disagree") to the ...ve items pertaining to each scale. Consequently, for any individual, we are faced with a substantial measurement problem. Nonetheless, under appropriate regularity conditions, as the number of individuals increases, our estimates of the distribution of outcomes conditional on attitudes converge to the true distributions. In addition, the estimates of the distribution of attitudes conditional on responses also converge to the truth.

The methodology we develop and apply below has two stages. In the ...rst stage, we estimate the item response probabilities as determined by an individual's percentile or quantile rank. This is done by hypothesizing a relation between the unobservable attitude and the response distribution, using a method that imposes as few assumptions about the response as we can devise. The one restriction we are concerned to impose is that as the 'liberality' of the underlying attitude increases, so does some measure of the liberality of the response distribution. It is this restriction that gives coherence to the notion of an attitude scale, and which allows us to infer, in the case of any individual's speci...c responses, a corresponding estimate of his attitude, expressed as a probability distribution over the attitude scale.

This stage is semiparametric in that we do not (in principle) impose any restriction between the attitude and the statistics of the response except for some notion of monotonicity. (In the application, the monotonicity is imposed on the conditional mean of a latent response variable.) However, as this 'calibration' stage is implemented by the method of sieves (or series estimation) and since a particular response function is inevitably chosen, parametric techniques are used in the actual estimation: maximum likelihood is applied to the response patterns of individuals.

The second stage of the procedure is completely nonparametric. To construct the probability distribution (conditioned on attitudes) of an observed variable that is outside the 'calibration set', whether it be an additional item response or an outcome such as the vote,

we use the natural relative frequency estimator based on the Bayesian estimates of individual locations in attitude space. Thus, no assumption whatever is built into the estimation process as to the relation between attitudes and outcomes: it is entirely possible that the probability of voting Democratic is highest, for example, only for those at the high and low extremes of the economic attitude scale, or that this relation does not hold for some subset of the population, like protestant evangelicals or high-school graduates.

### 3. The Model and Its Estimation

Let  $p(Y_i = \mathbf{r}|A)$  = probability that respondent  $i$  has (vector) response  $\mathbf{r}$  to a set of items conditional upon having (vector) factor value  $A$ ; in the application  $A = (C, E)$  (a single cultural and a single economic factor.) There is a fixed number of items; the asymptotics are in  $n$ , the number of individuals.

Since  $A$  is an arbitrary construct, we can, if we have a flexible enough model for  $p(Y_i = \mathbf{r}|A)$ , scale its components any way we choose, though there are obvious advantages to making its marginal distributions uniform on the unit interval. Since the data we have are discrete (typically 3 or 4 categorical responses to 5 items, hence  $4^5$  possibilities), and because it makes calculations intuitive and exact, we choose to specify the components of  $A$  as evenly spaced with equal probabilities. In the base case we consider, each component takes on 20 evenly spaced values on  $[0, 1]$ , so the population probability of falling at a particular scale value is .05. (It turns out to make no practical difference how many grid points we choose for each dimension, so long as it is more than about 6.) We denote the distribution of  $A$  by  $p(A)$ .

The likelihood of observing a particular response is:

$$(1) \quad \ell(Y_i = \mathbf{r}) = \sum_{j=1}^J p(Y_i = \mathbf{r}|A_j)p(A_j)$$

In some ways,  $p(Y_i = \mathbf{r}|A)$  is a nuisance function. There are two basic desiderata for the item response model. First, it should contain some notion of monotonicity for at least some key items—those with more liberal attitudes should give more liberal responses to those items. Second, it should reproduce the response structure of the data—the proportion of those giving, for example, the response “agree” to item 3 who gave the response “strongly agree” on item 1 should be predicted accurately by the estimated model. Because we are choosing to measure  $A$  in arbitrary percentile units, we will need a flexible specification for the response model; that is, other than to impose monotonicity, the relation between  $A$  and  $\mathbf{r}$  should be as free from further assumptions as possible. Writing (1) explicitly with parameter  $\theta$  as

$$(2) \quad \ell(Y_i = \mathbf{r}; \theta) = \sum_{j=1}^J p(Y_i = \mathbf{r}|A_j; \theta)p(A_j)$$

and assuming independence across respondents, it is apparent that, given a specification for  $p(Y_i = \mathbf{r}|A_j; \theta)$ ,  $\theta$  can be estimated by maximum likelihood.

To draw an inference about the value of  $A$  that characterizes an individual with response  $\mathbf{r}$  we apply Bayes' Theorem and write:

$$(3) \quad p(A_i = A|Y_i = \mathbf{r}) = \frac{p(Y_i = \mathbf{r}, A)}{p(Y_i = \mathbf{r})} = \frac{p(Y_i = \mathbf{r}|A)p(A)}{\sum_j p(Y_i = \mathbf{r}|A_j)p(A_j)}$$

As explained above, we assume economic attitudes determine responses to economic items and cultural attitudes to cultural items, with independence across item responses after conditioning. More explicitly, we assume the conditional independence condition

$$(4) \quad p(Y_i = \mathbf{r}|A) \equiv p(Y_i = \mathbf{r}|C, E) = p(Y_{ci} = \mathbf{r}_c|C)p(Y_{ei} = \mathbf{r}_e|E)$$

where  $c$  and  $e$  subscripts refer to the cultural and economic components of the response vector. Notice that this does not mean that  $C$  and  $E$  are independently distributed in the population. This distribution is represented by  $p(A) \equiv p(C, E)$ . Thus, if it so happens that  $C$  and  $E$  are highly correlated in a population, this fact can be exploited, in that, for example a high  $E$  (other things being equal) leads us to infer a higher  $C$  than otherwise.

What we are assuming in (4) is that if we knew the  $C$  position of the respondent, knowing  $E$  also would not affect our prediction of the distribution of  $C$ -scale responses. (Of course, we are never in the position of knowing the exact  $C$  position of a respondent.) This has the implication that we can consistently (though not efficiently) estimate the  $C$ -response model without recourse to  $E$ -information, by treating the conditional densities appearing in (4) as the basis for ordinary likelihoods.

Substituting (4) into (3), we have:

$$(5) \quad p(A_i = A|Y_i = \mathbf{r}) = \frac{p(Y_i = \mathbf{r}|A)p(A)}{\sum_j p(Y_i = \mathbf{r}|A_j)p(A_j)} = \frac{p(Y_{ci} = \mathbf{r}_c|C)p(Y_{ei} = \mathbf{r}_e|E)p(C, E)}{\sum_j p(Y_i = \mathbf{r}|\{C, E\}_j)p(\{C, E\}_j)}$$

To implement this, we need a specification of  $p(C, E)$ . One approach would be to specify a flexible parametric representation that permits the marginal distribution of  $C$  and  $E$  to be uniformly distributed as we have already assumed. Another, which we choose here, is to construct a nonparametric estimator that similarly obeys the restrictions imposed by uniform marginals. (Our results below turn out not to depend substantively on the choice of estimator.)

Our nonparametric estimator of  $p(C, E)$  is constructed as follows. After estimating  $p(Y_{ci} = \mathbf{r}_c|C)$  and  $p(Y_{ei} = \mathbf{r}_e|E)$  from the cultural and economic item responses separately, we have a posterior distribution via application of (3) that estimates the location of each respondent for each dimension separately. For each respondent, compute

$$(6) \quad \hat{p}_i(C_j, E_k) = \hat{p}_i(C_j)\hat{p}_i(E_k)$$

for each point  $(C_j, E_k)$  on the grid covering the unit square, and estimate the joint probability at  $(C_j, E_k)$  by averaging over respondents:

$$(7) \quad \hat{p}(C_j, E_k) = \frac{1}{n} \sum_{i=1}^n \hat{p}_i(C_j, E_k)$$

Since each of the right-hand side components of (7) obeys the marginality restrictions imposed by uniformity, the estimate does also. Under regularity conditions, this estimate converges to the truth.

Notice that (6) does not give our estimate of the probability of respondent  $i$  inhabiting position  $(C_j, E_k)$ ; this is calculated from (5) using the estimate of  $p(C, E)$  derived from (7). The difference can be seen from imagining what happens when  $C$  and  $E$  are tightly estimated for each respondent and are highly correlated in the population: each respondent's contribution to the right-hand side of (7) has (nearly) circular contours, but the average across the population generates elliptical contours with a diagonal orientation around the 45° line.

Armed with an estimate of  $p(C, E)$  obtained from (7), a respondent's position in attitude space is characterized as a density computed from (5). To estimate the probability of a binary event as a function of position in  $(C, E)$  space we take a weighted average of the outcomes in the sample, where the weights are each respondent's probability of inhabiting the particular point in  $(C, E)$  space, divided by the sum of all such probabilities. Thus, denoting the binary outcome for respondent  $i$  by  $Y_i$ , which takes the value 1 if the event occurs and 0 otherwise, the estimate of the probability of  $Y$  occurring for those inhabiting point  $(C_j, E_k)$  is given by

$$(8) \quad \hat{p}(Y|C_j, E_k) = \frac{\sum_{i=1}^n \hat{p}_i(C_j, E_k) Y_i}{\sum_{i=1}^n \hat{p}_i(C_j, E_k)}$$

The probabilities of more complex events are computed in an analogous fashion, as are probabilities that condition on  $C$  or  $E$  only.

To estimate the item response models  $p(Y_{ci} = \mathbf{r}_c|C)$  and  $p(Y_{ei} = \mathbf{r}_e|E)$  we use ordered logit. In particular, for an individual item depending on scalar attitude  $A$  only, we specify that respondent  $i$  has a latent continuous response  $Y_i^*$  given by

$$(9) \quad Y_i^* = \mu(A_i) + u_i$$

and that the observed response  $Y_i$  falls in category 1 if  $Y_i^*$  is less than  $c_1$ , in category 2 if  $Y_i^*$  is between  $c_1$  and  $c_2$ , etc., with  $c_1 < c_2 < \dots$ . In (9)  $u_i$  is assumed to be logistically distributed (with mean 0 and scale 1), identically and independently across individuals and independently across item responses for any individual; it is also independent of  $A$ . The constants  $c$  and the function  $\mu(\cdot)$  are to be estimated, where  $\mu(\cdot)$  is strictly increasing. Thus if there are ...ve items in the calibration set for the  $C$  scale, there are ...ve ordered logit models



to be simultaneously estimated, with the likelihood of respondent  $i$ 's response given by the product of the ...ve probabilities from (2) as specialized to this context:

(10)

$$\ell(Y_i = \mathbf{r}; \theta) = \sum_{j=1}^J \{p(Y_i[1] = r_i[1]|A[j]; \theta)p(Y_i[2] = r_i[2]|A[j]; \theta) \dots p(Y_i[5] = r_i[5]|A[j]; \theta)\} p(A[j])$$

where  $Y_i[h]$  is  $i$ 's response to item  $h$  and  $A$  takes on a ...nite number of possible values evenly spaced between 0 and 1, denoted by  $A[j]$ . The estimation can be carried out by directly maximizing the log-likelihood or by a variant of the EM algorithm.

The monotonicity of  $\mu(\cdot)$  is achieved by specifying:

$$(11) \quad \mu(A[H]) = \log \left\{ \sum_{h=1}^H e^{\phi(A[h])} \right\},$$

where  $\phi(\cdot)$  is a polynomial in  $A$ . Thus  $\exp(\mu(A[H]))$  is the sum of  $H$  positive values, which guarantees that  $\mu(A[H+1]) > \mu(A[H])$ .

#### 4. The Data.

The presidential election of 1984 has several distinct advantages for introducing this method of analysis. The 1984 election was a pure two-party vote, so that what was gained on economics or culture by one nominee was lost on that same dimension by the other, and so that the positional densities of those voting Republican or Democratic were effectively the reverse of each other. Moreover, the outcome in 1984 featured substantial partisan defections, so that there was more to the aggregate result than some simple affirmation of existing commitments – though these commitments still show through clearly, as we shall see. (Pomper 1985, Ranney 1985) This outcome can then be complemented by that of 1992, when the vote was not a simple two-party tally, when the defections came largely from the opposite party, and when the ultimate result was different, with a Democratic rather than a Republican win. (Ceaser and Busch 1993, Nelson 1993) That is enough difference to make the issue context of each election intriguing in its own right, while giving the differences and similarities between them some additional theoretical possibilities.

As above, the ...rst set of data are taken from a Times-Mirror/Gallup survey of 4,244 adults conducted face-to-face between late April and early May, 1987. Spot checks indicate agreement with national proportions for background demographics (race, sex, religion, education) and for vote outcome, in what is a recalled presidential vote. There is a re-weighting scheme, principally to reflect the difficulty in ...nding certain types of respondents at home, but we do not use it here. For a preliminary trial of our methods, we follow Shafer and Claggett 1995 rather closely. We thus distinguish two major attitudinal dimensions, each reflected in ...ve questions.

For the 1984 election, the cultural dimension is derived from four-category responses – agree strongly, agree, disagree, disagree strongly – to:

1. Changing the laws to make it more difficult for a woman to get an abortion.
2. A Constitutional amendment to permit prayer in the public schools.
3. School boards ought to have the right to ...re teachers who are known homosexuals.
4. Books that contain dangerous ideas should be banned from public school libraries.
5. The government ought to be able to censor news stories that it feels threaten the national security.

The economic dimension is similarly determined, with the exception of one spending item, from four-category responses to:

1. Government spending on programs to assist blacks and other minorities (decrease/stay same/increase).
2. It is the responsibility of the government to take care of people who can't take care of themselves.
3. The government should help more needy people even if it means going deeper into debt.
4. The government should guarantee every citizen enough to eat and a place to sleep.
5. We should make every possible effort to improve the position of blacks and other minorities, even if it means giving them preferential treatment.

These items were chosen partly because other or additional items would have shrunk the sample size unacceptably; the items correlate highly with a fuller initial factor analysis. The items are scored in this analysis so that higher numbers are more liberal responses. Accordingly, for 1984, disagreement with the cultural items as written, and agreement with the economic items, is the liberal response. Correspondingly, the attitudes C and E are scaled from 0 to 1, with 1 being the most liberal position.

The second set of data are taken from a Pew Trust/Gallup survey of 4,200 adults conducted by telephone between late June and early July, 1994. Again, spot checks indicate basic agreement with background demographics, and with recalled vote outcome, a somewhat more challenging test for the 1992 presidential election. The survey included a small oversample of black Americans (200 cases), which we do include. William Claggett provided a subsequent analysis of these data, seeking measures as close as possible to those generated in Shafer and Claggett 1995, and we use this to distinguish the same two dimensions. All items feature four-category responses, though some are in the previous format while some are now in a forced-choice format, followed by "feel strongly" or "do not feel strongly" about the choice.

For the 1992 election, then, the cultural dimension is determined from responses to:

1. The best way to ensure peace is through military strength.
  - OR: Good diplomacy is the best way to ensure peace.
2. Allowing government Medicare bene...ts to help pay for abortions for low-income women.

3. A Constitutional amendment to permit prayer in the public schools.
4. Homosexuality is a way of life that should be accepted by society.
  - OR: Homosexuality is a way of life that should be discouraged by society.
5. Books that contain dangerous ideas should be banned from public school libraries.
  - OR: Public school libraries should be allowed to carry any books they want.

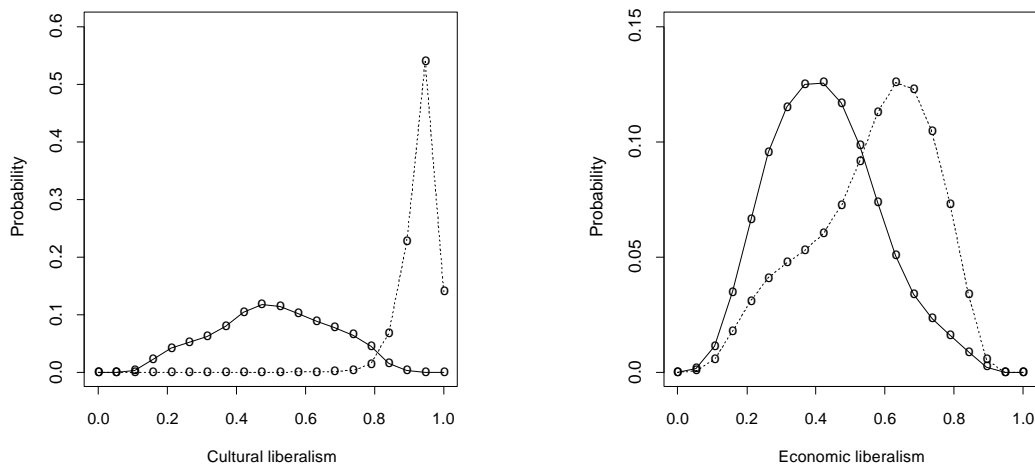
The economic dimension is likewise derived from responses to:

1. Poor people today have it easy because they can get government bene...ts without doing anything in return.
  - OR: Poor people have hard lives because government bene...ts don't go far enough to help them live decently
2. Racial discrimination is the main reason why many black people can't get ahead these days.
  - OR: Blacks who can't get ahead in this country are mostly responsible for their own condition
3. New federal spending to provide education and job training for American workers whose jobs have been eliminated.
4. A two-year limit on how long someone can receive welfare bene...ts.
5. The government should help more needy people even if it means going deeper into debt.

To give some intuition for how our methods work, we consider in some detail the analysis of two respondents to the 1984 survey. Respondent 1, a Reagan voter, answered 2,3,1,3,2 to the ...ve cultural items, respectively, whereas the second respondent, a Mondale voter, answered 3,3,4,4,4. Thus Respondent 2 is more liberal on every cultural item except item 2, where there is a tie. On economics, the answers are 2,3,2,4,1 and 3,3,3,2,2, so that Respondent 2 is again (ostensibly) more liberal, but there is a tie on item 2 (government is responsible to help those unable to help themselves) and a sharp reversal on item 4 (government should guarantee food and shelter). As a result, the comparison on this dimension is less clear.

[Figure 1 here.]

As one might expect from a simple inspection of these answers, Respondent 2 can be very precisely estimated to be in the second highest 5% of the population in cultural liberalism, with almost no probability of falling in the lowest 80%. In contrast, Respondent 1 is unlikely to be at either extreme culturally, and there is a degree of uncertainty as to whether Respondent 2 is actually more liberal on the economics scale than Respondent 1. To illustrate our methods further, notice that if we were to use only these two voters to predict the relation between the attitudes and the vote, the 50-50 point would be where the two lines cross. Thus the vote would be estimated to split 50-50 at about the 80th percentile culturally, and between the 55th and 60th percentile economically.



**Figure 1.** Posterior attitude probabilities for a Reagan voter (solid lines) and a Mondale voter (dotted lines.) There are 20 distinct and evenly spaced groups, each with .05 of the population, as indicated by the points; lines are added for clarity. Notice that the vertical scale of the cultural diagram is much different than the economics scale, in order to accommodate the precise estimate of the cultural location of the Mondale voter.

After applying equation (5), we can compute for each respondent a probability distribution of their joint position in  $(C, E)$  space. This estimate uses the separate scale responses and the estimate of the joint distribution of  $(C, E)$  in the population to compute a 20 by 20 grid of probabilities of inhabiting each point in  $(C, E)$  space. These estimates are presented in Figure 2.

## 5. Policy Preferences and Presidential Ballots, 1984

With these preliminaries, we can now turn to vote probabilities. That is, we can now 'predict' the vote on the basis of  $C$  or  $E$  alone, or of  $(C, E)$ . For 1984, the distribution of presidential votes by economic score – by economic liberalism or conservatism – shows a very straightforward pattern. (Figure 3A) As one moves conservatively along the ideological spectrum, the share of the vote for the Republican candidate, Ronald Reagan, increases. As one moves liberally, the share for the Democratic candidate, Walter Mondale, increases instead. There is a very modest additional tendency for non-voting to increase as one moves liberal, but it remains modest. The Reagan-Mondale vote was certainly an economic one, for society as a whole.

[Figure 3 here.]

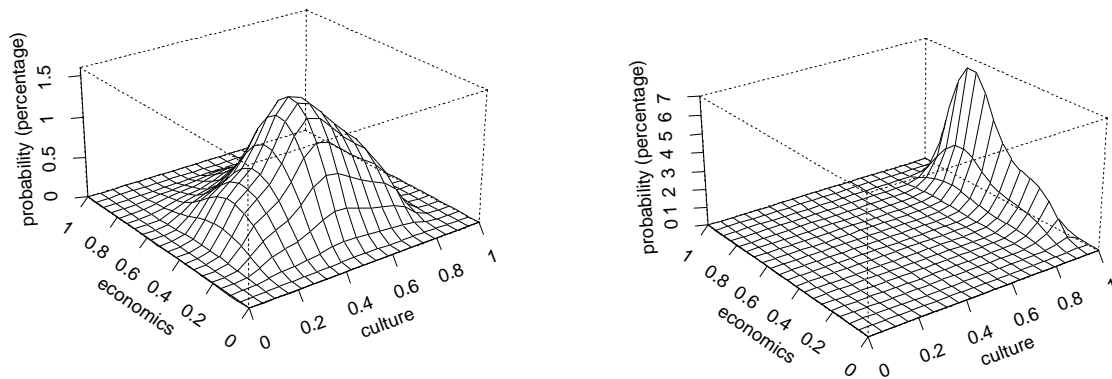


Figure 2. Estimates of the positions in  $(C, E)$  space of the two respondents. Note that the probability scales are unequal, due again to the precise estimate of the location of the Mondale voter on the cultural scale.

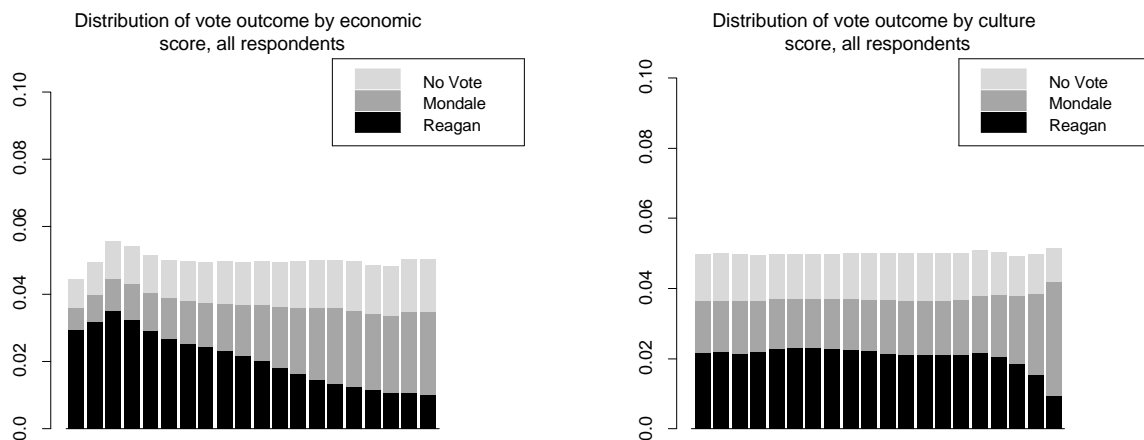


Figure 3. Distribution of vote outcome by policy preferences, 1984.

The story of cultural preferences in that year – liberalism or conservatism in cultural scores – is very different. (Figure 3B) Across roughly 80% of society, cultural preference generated no difference in the aggregate vote. That is, the candidate line was essentially flat, such that 60% of all those from strong cultural conservatives through moderate cultural liberals voted for Ronald Reagan, 40% for Walter Mondale. The Democratic candidate, however, received a sharply increasing share of the vote in the most culturally liberal fifth of the nation. And this time, the same modest turnout differential benefited him: non-voting is modestly lower in this most-liberal fifth, adding a small further increment to Democratic support.

[Figure 4 here.]

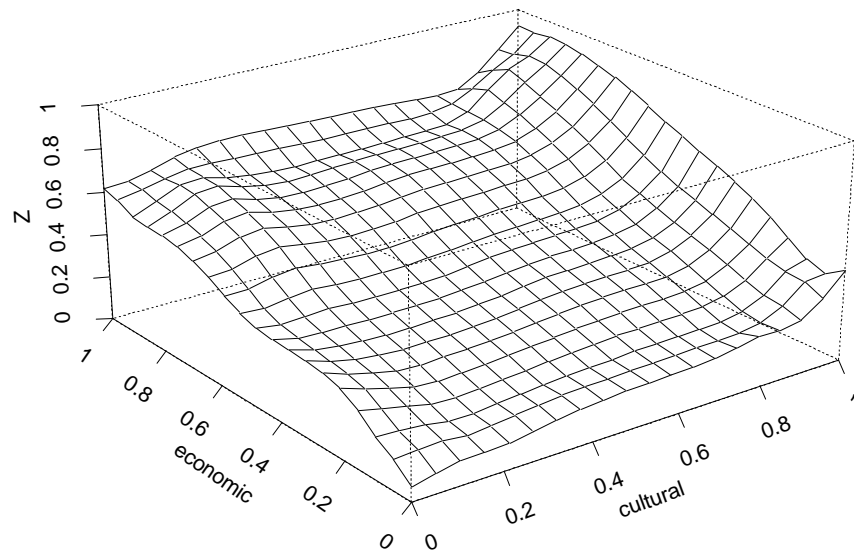


Figure 4. Probability of voting for Mondale, by economic and cultural attitude, all voters.

When the two dimensions are put back together, a gradient results, of the tendency to vote for either Mondale or Reagan. (Figure 4) Moreover, this gradient retains the major aspects of both sets of relationships, to economic and to cultural preferences. Economics is clearly the dominant axis for the gradient, with more economically liberal voters more likely to vote for Democrat Mondale and more economically conservative voters more likely to vote for Republican Reagan. Yet there remains that distinct cultural range among the most liberal fifth of American society, such that at every level of economic liberalism or conservatism, this most culturally liberal sector is much more likely to vote for the Democrat, Mondale. On the other hand, for 1984 at least, this latter increment was not nearly sufficient. This cultural range did not yield nearly enough Democratic voters, and the gradient as a whole crossed the 50% threshold far too rarely elsewhere; the Republican, Reagan, was comfortably re-elected.

In this regard, the presidential election of 1984 was obviously not some standard rallying of the partisans: the candidate of the smaller party, the Republican, won the election, and very handily. On the other hand, a description of policy preference and voting behavior even for 1984 does sound much like the long-term relationship between policy preferences and party attachment – more so, in some ways, than the election of 1992. At a minimum, the New Deal party system, that ever-weakening but still-continuing framework for American electoral politics, was forged on the anvil of economic issues. Cultural issues were just as notably irrelevant to it, at least on the explicit level. (Sundquist 1973, Ladd 1975) And

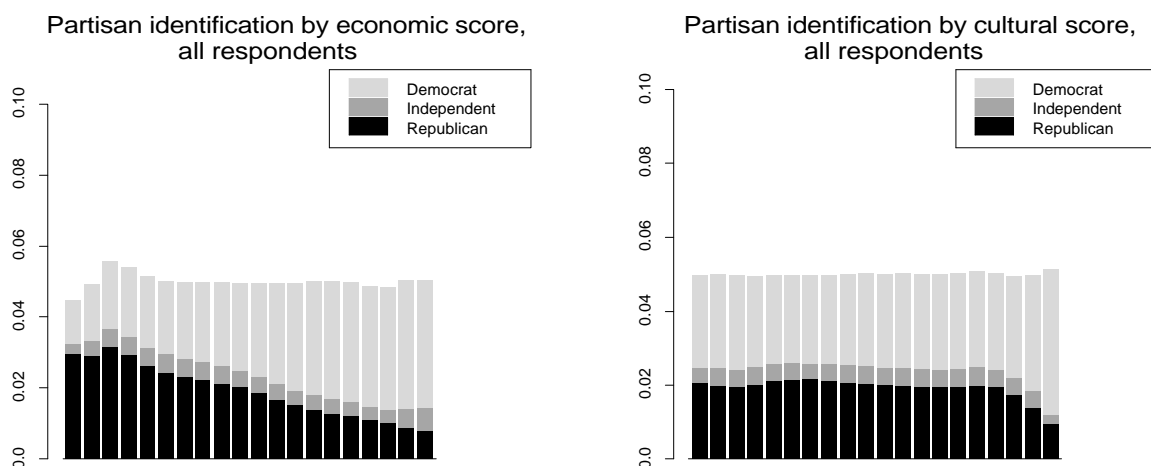


Figure 5. Partisan identification by policy preference, 1984.

that same situation appears to remain the case, sixty-plus years later, with one small but consequential twist.

[Figure 5 here]

In 1984, economics remained strongly related to partisanship. (Figure 5A) Economically conservative Americans tended to be Republicans; economically liberal Americans tended to be Democrats. And in 1984, culture remained essentially unrelated to partisanship, with the same key twist. (Figure 5B) Across the bulk of American society, the same share of cultural liberals and cultural conservatives identified themselves as Democrats and Republicans. The exception was that culturally most-liberal fifth, where the Democratic margin grew substantially. Finally, where the concrete outcome of 1984 was good news for Republicans, these partisan pictures remained better news for Democrats. Republicans were the majority in some sectors when stratified by economic preference, but the simple fact is that there were not enough of these to constitute a majority of American society. Moreover, Democrats were the majority (and Republicans the minority) in every sector of that society when stratified by cultural preference instead.

[Figure 6 here.]

Accordingly, policy preference and partisan attachment became parallel (and presumably reinforcing) influences on the presidential vote of 1984. Yet the combined influence of these factors on the vote was not quite as straightforward as this might suggest. Among Democrats, those who were both very conservative on economics and very conservative on culture were indeed extremely likely to defect to Reagan, but there were few of them. (Figure 6A) More important, across the vast majority of American society, was economic policy preference by itself: the more economically conservative the Democrat, the more likely to defect to Reagan; the more economically liberal the Democrat, the more likely to stay with

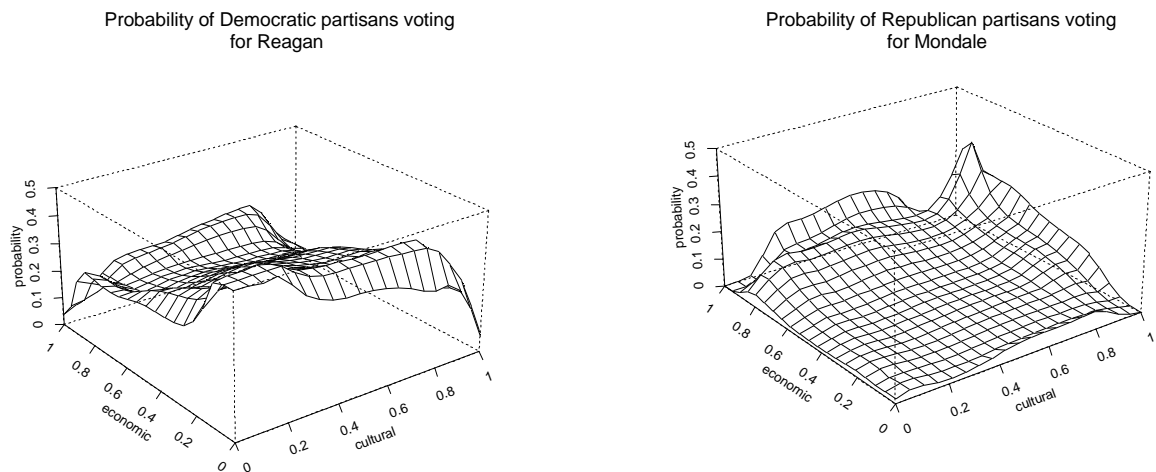


Figure 6. Probability of partisan defection by economic and cultural attitude, 1984.

Mondale. With the exception, once again, of that most culturally liberal ...fth, where cultural preferences contributed an apparent ...rewall: these individuals were very unlikely to defect to the Republicans, whatever their economic views.

Among Republicans, the situation was of course the reverse. (Figure 6B) In what was a great Republican year presidentially, there was a clear tendency for those who were both economically liberal and culturally liberal to defect to Mondale. Yet this joint defection rate was effectively concentrated at the far left of both dimensions. There was an increased rate of defection among economically liberal Republicans of any sort, but it was still not high – and again, there were few of them. More strikingly, there was a much higher rate of defection in the most culturally liberal ...fth of the party – that same sector which, among Democrats, was the great ...rewall against defections. In other words, the same tendencies for voters of varying economic and cultural preferences to vote Republican or Democratic without attention to partisanship (Figures 3 & 4) were recapitulated within the parties in the same way (Figures 5 & 6), at least in 1984.

To get at the actual substantive 'landscape for politics' in 1984, however, it is necessary not just to plot public preferences on economics versus public preferences on culture. It is necessary to plot the 'density' of their intersection(s), the likelihood that more or fewer individuals will be found at any combined point. Not surprisingly, when this is done, the landscape of policy preferences created by the collective mapping of all Americans offers two distinct policy problems, to go with the two major dimensions of policy conflict. Perhaps more surprisingly, these problems – these strategic challenges – are not themselves parallel, but have different and distinctive characters. In any case, it is necessary to set these out by



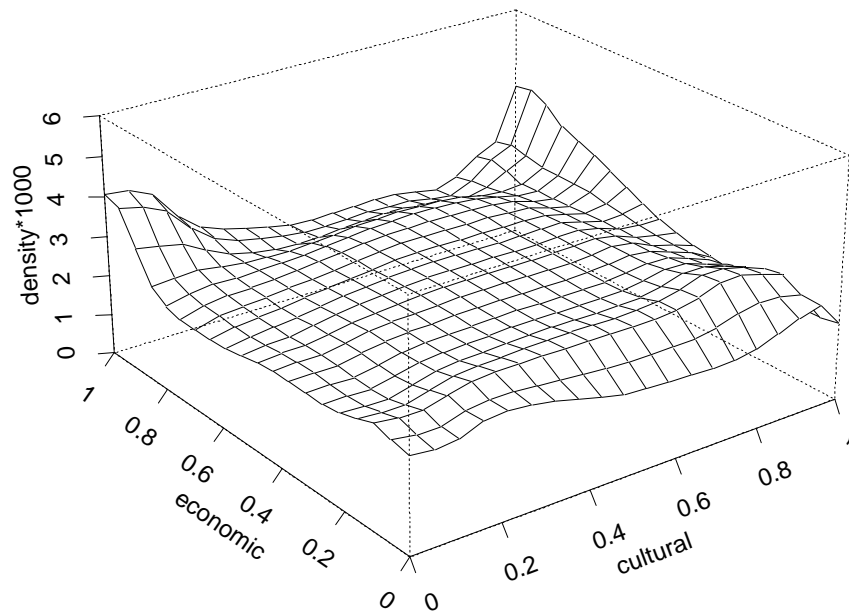


Figure 7. Density of attitudinal scores, 1984.

mass partisan attachment, and then by social factions within these mass parties, before it is possible to make sense of their real strategic imperatives, and dilemmas.

[Figure7 here.]

The ...rst of these strategic challenges is created by underlying preferences on economics. (Figure 7) And if economics is more straightforward than culture in its physical portrait, it may be more intractable in its strategic implications, in part for that very reason. In this portrait, there is a broad rise in the number of Americans around the center-left on this dimension, declining gradually until reaching the far right, where there is a sharp uptick. This immediately suggests a strategic asset for the more liberal party on economics, and a detriment to the more conservative. At a minimum, there does appear to be a clear winning position on this dimension. Worse, the more liberal candidate, invariably the Democrat for economics, is more likely to be situated within this economically moderate-liberal peak of the distribution, while the Republican candidate is more likely to have to move there. Worse yet, the more economically conservative candidate, invariably the Republican, must be tempted (and is certainly encouraged) to move toward the other major node, that economically conservative range, despite the fact that majority preferences are elsewhere. (A general context ...rst explored in McClosky, Ho◊man, and O'Hara 1960, and McClosky 1964)

The strategic challenge created by underlying preferences on cultural issues is then more complex and dramatic, but also more open-ended. (Figure 7) In its portrait for 1984, there is a broad cultural middle, covering most of American society, along with three obvious

nodes. Two of these occur among the most economically liberal Americans, who divide strikingly, into strong liberals and strong conservatives on culture. And the third is among the most economically conservative, where there is a clear but unilateral uptick of cultural liberalism. Two major strategic facts follow directly from such a distribution. First, the distribution implies that cultural preferences can be either antidote or reinforcement to economic dilemmas, since they are distributed very differently from economic preferences. And second, it suggests that each party, this time, has an incipient problem.

For the more economically liberal party, the Democrats, the problem is simply stated. A Democratic party with this distribution of preferences will have great difficulty in finding any resolution at all on cultural issues, being split into such sharply divergent wings. For the more economically conservative party, the Republicans, the problem is more ironic. While culture is the issue realm that must bring some relief from economic disadvantages, the distribution of internal preferences encourages the party either to ape its more liberal opposition on this dimension, since such an approach should be attractive to its numerous economically conservative members, or else to alienate these very members by making a culturally conservative pitch.

## 6. Strategic Choices in the Modern Issue Context, 1984

As it develops, however, these dilemmas are not as they initially seem. Or at least, disaggregation of this national picture suggests that they should be considerably modified in operation. Partly, this is because the relevant practical applications begin inside the two main political parties, and these each have a density of preferences different from national totals (and the national mix). Even more consequentially, it is because those totals (and these parties) are comprised of subgroups – social factions – which not only have different policy preferences on these two dimensions, but relate them differently to the vote. To see all of this in action, it is necessary to turn to these social factions first, and then to return to the two parties as strategic contexts in their own right. And to do this, it is simplest just to plot the Democratic share of each quantile on each of the two dimensions for the nation as a whole, and then for certain key subgroups.

[Figure 8 here.]

The overall national picture for 1984 is still the one introduced at Figure 3. Portrayed this way instead, it still shows Democratic propensities rising reliably as one moves from the most economically conservative to the most economically liberal sectors of society. (Figure 8A) Just as it still shows Democratic and Republican propensities essentially flat across the vast cultural bulk of American society, while rising sharply for Democrats (and falling sharply for Republicans) in the most culturally liberal fifth. It is important to realize, however, that distinctive subgroups – social factions – put these two dimensions together differently, so that it is the composite of these group preferences that actually produces a national picture.

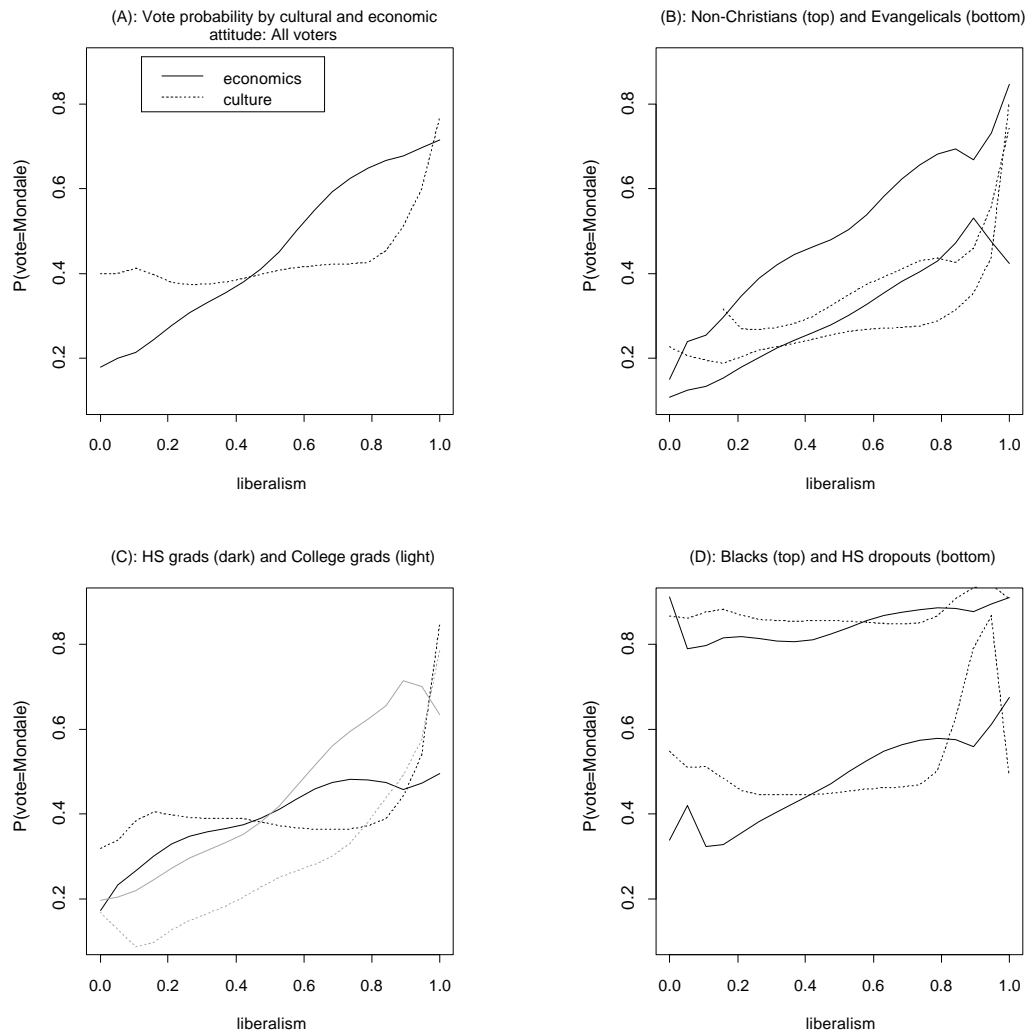


Figure 8. Vote probabilities conditioned on a single attitude, 1984. (Economic attitudes solid, cultural attitudes dashed.)

Some of this subsurface difference results merely from being 'anchored' at different places, that is, from different ideological locations for various subgroups. For example, white evangelical protestants show basically the same relationship to the vote as the national average would suggest. (Figure 8B) They are simply more conservative, on both dimensions and at every point in the distribution. Likewise, white non-Christians show basically the same relationship to the vote as does the national average. (Figure 8B) But they are reliably more liberal, on both dimensions and at every point in the distribution.

On the other hand, some of the disaggregated difference from national results comes from groups which, while mirroring the national pattern, alter the slope of these relationships – strengthen or weaken them – in distinctive ways. For example, white college graduates have

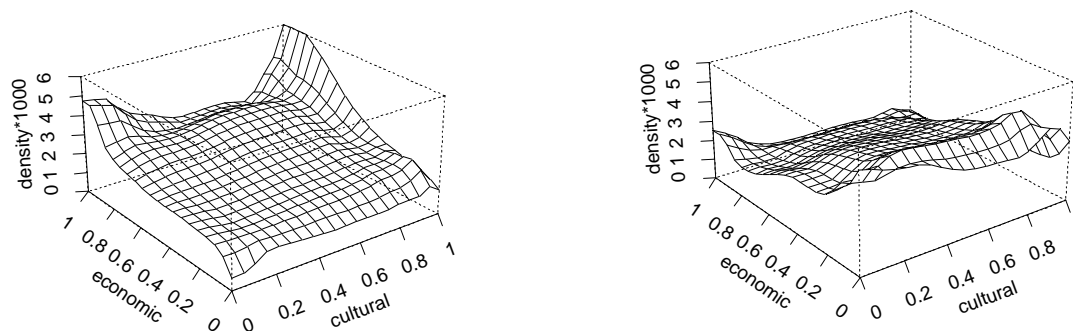


Figure 9. Joint distribution of cultural and economic attitudes by partisan identification, 1984.

a strong relationship between policy preferences and voting Democratic (or Republican) on both dimensions. (Figure 8C) The economic dimension remains the stronger, but the cultural dimension now acquires a growing Democratic priority as one moves from right to left. Conversely, white high-school graduates show a parallel but considerably weaker relationship to the national average, again on both dimensions. (Figure 8C) Their economic line has a lesser slope; the flatness of their cultural line extends even farther.

Finally, some groups cannot be well understood by comparison to the national pattern at all. White high-school drop-outs, those with the lowest educational attainment in American society, show the very closest relationship between liberal or conservative economic preferences and voting Democratic or Republican. (Figure 8D) Yet the relationship of their vote to cultural preferences is curvilinear, being high at both the liberal and the conservative end of the distribution. By contrast, black Americans simply show no relationship between policy preferences and the vote: they vote Democratic, full stop. (Figure 8D) They may be overwhelmingly liberal on economics, but they vote Democratic with liberal or with conservative economic preferences. They may be more conservative than the national average on culture, but they vote Democratic with either conservative or liberal preferences here too.

[Figure 9 here.]

These social distinctions could be absolutely crucial in any subnational district where evangelical protestants, or high-school graduates, or blacks were disproportionately present. Yet they are more than crucially informative in their own right. For they inevitably shape the national issue context of 1984 – the strategic landscape – for both the Democratic and Republican parties. At first blush, the density of policy preferences for Democratic partisans looks merely like a less extreme version of the national picture. (Figure 9A) Now, that node of economic conservatives but cultural liberals has been removed, suggesting that

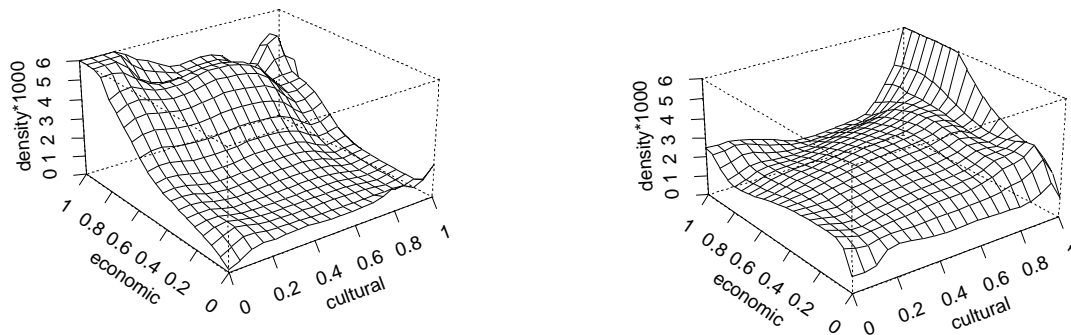


Figure 10. Joint distribution of attitudes for subgroups of Democratic partisans.

these individuals must be (as indeed they are) Republicans. Likewise, that division between cultural conservatives and cultural liberals, especially among the most economically liberal, has been clarified. One result is that the party is now clearly tilted to the left on economics; indeed, this is the heavily dominant axis to a purely Democratic gradient. Another result is that cultural conservatives are reduced and cultural liberals augmented, so that the outcome of their putative conflict becomes increasingly obvious. Apparently then, the Democrats should face little internal policy conflict on economics. And if they do still face a cultural conflict, it now has an apparent winner.

[Figure 10 here.]

Nevertheless, a further look inside this composite Democratic party suggests that both conclusions are premature, and that actual, operative, Democratic conflicts should be rather different. Take that apparently reduced but still noteworthy cultural division. Here, there are two social factions which still create one of the two remaining (and superlatively critical) nodes, the one comprised of economic liberals but cultural conservatives. They are black Democrats, a very major party faction, plus high-school drop-out whites. (Figure 10A) In turn, the vast remainder of the party – white Democrats with a high-school education or more – looks very different, not just from the nation but from their own partisan average. (Figure 10B) For them, there is only a very modest increase in partisan density from right to left on economics, plus a very modest increase from right to left on culture, until that culturally most liberal point where density increases sharply.

On the other hand, the two factions apparently sustaining one end of this cultural divide are actually the two whose cultural conservatives were the most unlikely to vote Republican, regardless. (Figure 8D) In other words, the apparent indifference of black and low-education Democrats to cultural issues should facilitate a leftward move on cultural issues by the party as a whole. So much so that practical tensions within the party on cultural issues are in the

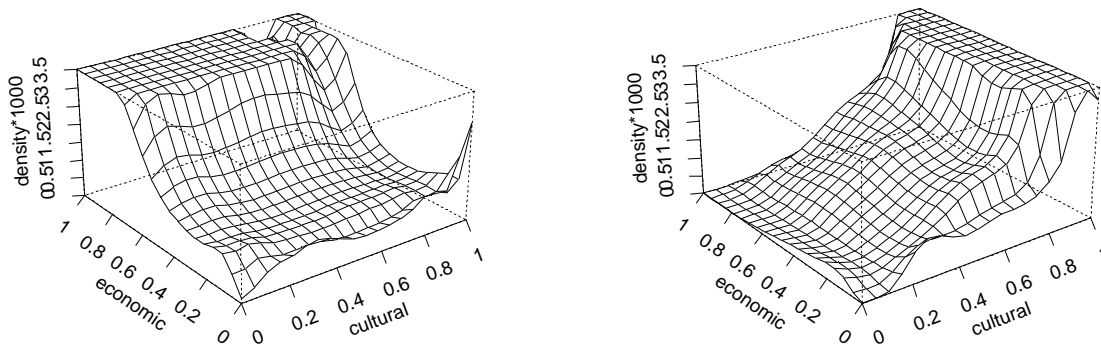


Figure 11. Joint distribution of attitudes for key Mondale voters. (The depiction of the density has been truncated at .0035 in order to show detail.)

end likely to be found elsewhere. Which is to say: precisely because the party should have an easy time pleasing the most culturally liberal ...fth of American society, it runs the risk of alienating the other four-...fths. And that means that its candidates, who must win at least acquiescence among the latter, will often be in tension with their own party identi...ers on culture. Regardless of the resolution, however, this situation also potentially reopens policy conflict on economics within the party.

Or at least, if the realm of cultural policy is now effectively ceded to its cultural liberals, the national Democratic party still needs an economic position, and this can effectively be developed in two ways. One solution is for the coalition that is likely to be victorious on cultural policy to capitalize on this success and go on to claim economic policy as well – either by offering a very moderate economic program or just by de-emphasizing this realm. But a more likely option, having awarded cultural policy to this wing of the party, is to turn and award economic policy to black and low-education Democrats, plus any liberal economic allies elsewhere. This is an easier resolution than it might seem, since, for example, the black vote for Walter Mondale in 1984 was overwhelmingly contributed by those with liberal economic preferences (Figure 11A), whereas the college-graduate vote for Mondale was contributed by those with liberal cultural preferences instead. (Figure 11B).

[Figure 11 here.]

The situation for Republicans, inside their party, is very different. (Figure 9B) Mostly, there is just that clear policy gradient on economics, rising from left to right and rising even more sharply among the most conservative. And there is still that further, lone, major twist among those strong economic conservatives who couple economic conservatism with cultural liberalism. Yet here too, this particular node is contributed almost entirely by two partisan

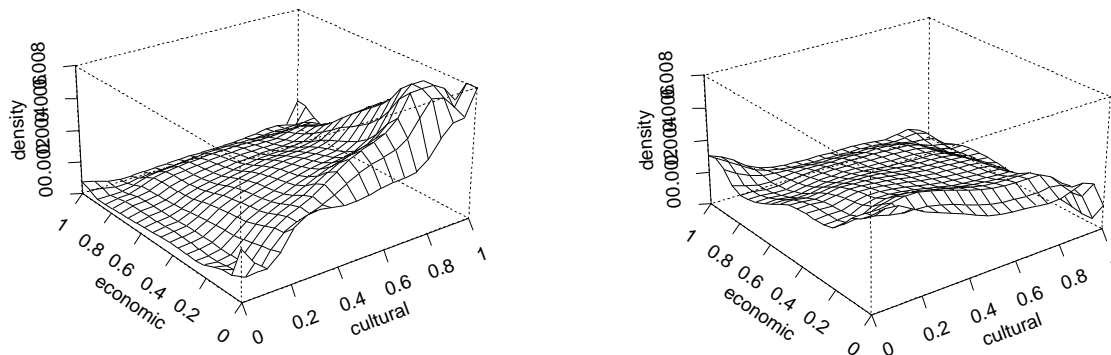


Figure 12. Distribution of attitudes for subgroups of Republican partisans.

subgroups. And here too, disaggregating those groups and comparing them to the rest of the party in their absence changes the nature of intraparty conflict.

[Figure 12 here.]

The two subgroups in question, this time, are college graduates and non-Christians. (Figure 12A) Isolating them makes it instantly clear that college-graduate Republicans, as forced by non-Christian Republicans, are entirely responsible for contributing a culturally liberal node among economically conservative party identifiers. Without them, the party looks radically different. (Figure 12B) There are still very few economic liberals of any sort, and the college graduates and non-Christians actually have fewer economic moderates and liberals than the party as a whole. But the difference is not large enough to suggest internal economic conflict. Yet among economic conservatives, there is now a very sharp division on culture. Indeed, the party rises to the left for college graduates and non-Christians; it rises to the right for everyone else.

In other words, the Republican situation in 1984 is in some ways opposite to that of the Democrats in that same year. For Republicans, there is a forced choice on cultural preferences inside the party, between strong conservatives and strong liberals. And there is otherwise just a conservative preponderance on economic preferences. The Democrats, conversely, face little real choice on cultural matters, sharing a liberal preponderance once those who will not vote their cultural preferences (the black and high-school drop-out identifiers) are thereby neutralized. But the party then has to decide whether to go with the cultural winners or the culturally uninterested on economics, where the outcome constitutes a significant policy difference.

## 7. Policy Preferences and Presidential Ballots, 1992

The overall contours of the relationship between policy preferences and voting choices present in the 1984 election can still be recognized in 1992, along with some of their specifics. On the other hand, both substantive concerns and group preferences did move on, so that the underlying story of an issue context is hardly just the same. The obvious superficial element of difference added by the 1992 election campaign, and one modest independent curiosity to its analysis, comes by way of a significant vote for a third candidate, H. Ross Perot. But a potentially more serious analytic difference, both for the election as a whole as well as for each of the major political parties, comes by way of one of the two major dimensions, namely culture. Contemporary analysts preferred to attend to the other underlying dimension, following the oft-quoted injunction of James Carville, Democratic strategist – “It’s the economy, stupid.” These data suggest, however, that it was the relationship to culture, more than that to economics, which had evolved further by 1992, demanding some further attention. Said differently, economic success for the Democrats appeared to be underpinned crucially – if perhaps also limited – by adaptation on culture as well.

[Figure 13 here.]

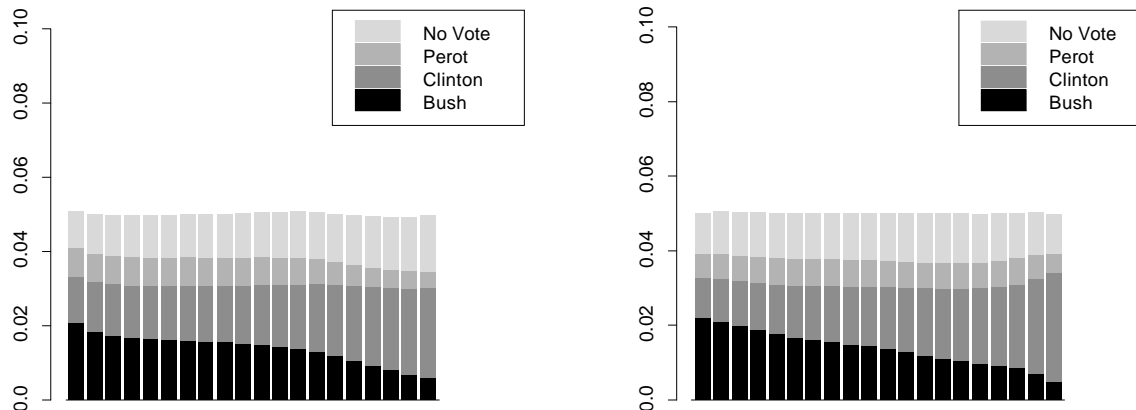


Figure 13. Distribution of the vote by policy preferences, 1992.

The economic dimension of 1992 – that is, the relationship of economic preferences to vote choice – was very much like that of 1984. (Figure 13A) The more economically conservative the voter, the more Republican the vote; the more economically liberal the voter, the more Democratic the vote. In an idiosyncratic secondary effect, Perot too derived a modest increment from economic conservatism: the more economically conservative the voter, the more Perotista the vote. Conversely, the more economically liberal the voter, the more likely not to vote at all. Both these secondary effects, however, were truly modest. Overall and



once again, there was mainly just that Republican increment as economic preferences moved right, that Democratic increment as economic preferences moved left.

The cultural dimension in 1992, by contrast – the relationship of cultural preferences to vote choice – showed some further evolution. (Figure 13B) From one side, this was still evolution in ways that remained interpretable through patterns in the same relationship from 1984. From the other side, if this change proved lasting, it had the greatest potential for further (and different) impact. In 1992, in any case, there was a clear and strong relationship, like that with economics, between vote choice and cultural preference. The Perot vote showed no evident relationship to cultural issues. Nor did the propensity to turn out. But for the Democratic and Republican candidates, cultural preferences now achieved an influence all across society. Which is to say: the more culturally conservative the voter, the more likely to vote for the Republican, George Bush; the more culturally liberal the voter, the more likely to vote for the Democrat, Bill Clinton, instead.

[Figure 14 here.]

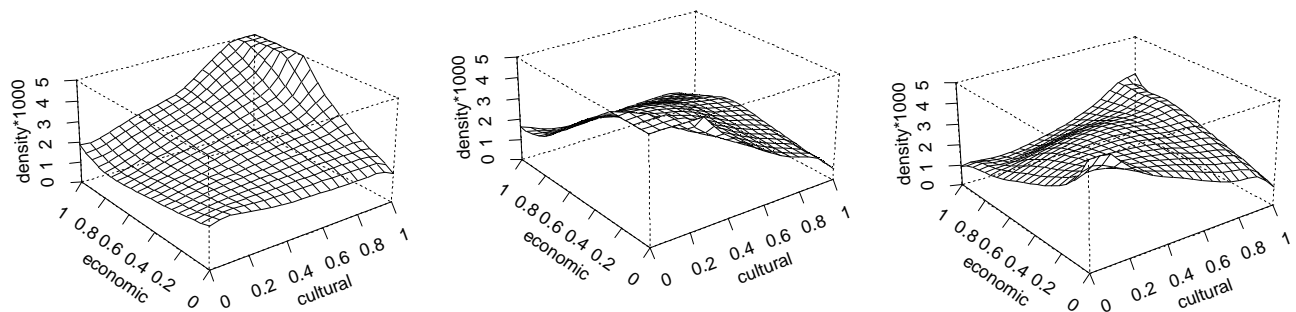


Figure 14. Joint distribution of attitudes among voters, 1992.

As with 1984, these two voting dimensions can be put back together to create a gradient of results. Or rather, this time, three gradients. For in 1992, it was no longer possible to assume that the resulting Democratic gradient was opposite to that of the Republican, thanks to the 19% of the vote which went to neither. In practice, nevertheless, this remained pretty much the case. Now, the Clinton vote rose neatly, from economic conservative to economic liberal and from cultural conservative to cultural liberal. (Figure 14A) Now, the Bush vote was the reverse, rising from economic liberal to economic conservative and from cultural liberal to cultural conservative too. (Figure 14C) The Perot vote, drawing nearly evenly across policy preferences for the nation as a whole, naturally followed what would have been the composite pattern for the Clinton and Bush vote put together. (Figure 14B) That is, it rose at both ideological extremes, the economically and culturally conservative

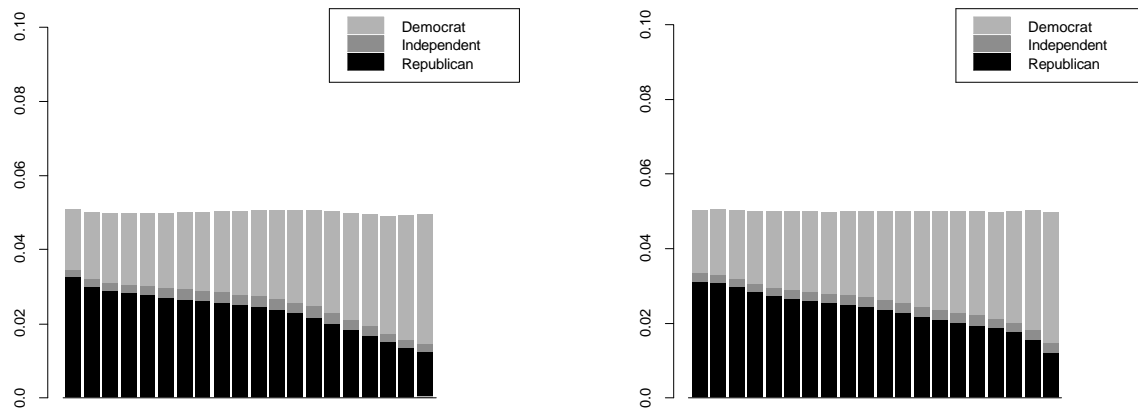


Figure 15. Partisan identification by attitudinal score, 1992.

plus the economically and culturally liberal, though as we shall see, this initial appearance is quite misleading.

[Figure 15 here.]

The 1992 vote, as much as that of 1984, was not some simple translation of partisan identifications: that 19% for Perot, who had no established partisan connection, really guaranteed this. Yet much of its policy connection did have roots in the partisan identifications of individual voters, though again, the specifics of the cultural connection required some fresh attention. (For the generic problem, Carmines, Renton, and Stimson 1984; Franklin 1984; Jacoby 1988) Once more, in a relationship stretching not just to 1984 but probably back to 1932 if we had comparable data, economic policy preference was strongly related to individual partisan attachment. (Figure 15A) The more conservative, the more Republican; the more liberal, the more Democratic. Yet for 1992, what had in 1984 been a flat cultural line with a liberal cultural uptick – presumably itself an evolution from the days when cultural liberalism was inversely related to partisanship (Ladd 1976-77) – now looked parallel to economics. (Figure 15B) Which is to say: the more culturally conservative, the more Republican; the more culturally liberal, the more Democratic.

Moreover, by comparison to 1984, 1992 presented a neatly parallel irony. In 1984, the relationship of policy preferences to the vote had been good news for Republicans, while the relationship of policy preferences to partisan attachment had been consolation for Democrats. In 1992, the real vote was kind to the Democrats instead, and neither economic nor cultural policy undermined this result. Yet now, it was not just that both economics and culture had come into alignment with partisanship. Now, the two parties were effectively competitive on both dimensions, in terms of underlying partisan attachments. No longer could the

Democrats claim a large generic advantage on either dimension, much less both. Now, it was the Republicans who could take growing consolation from underlying partisan connections.

[Figure 16 here.]

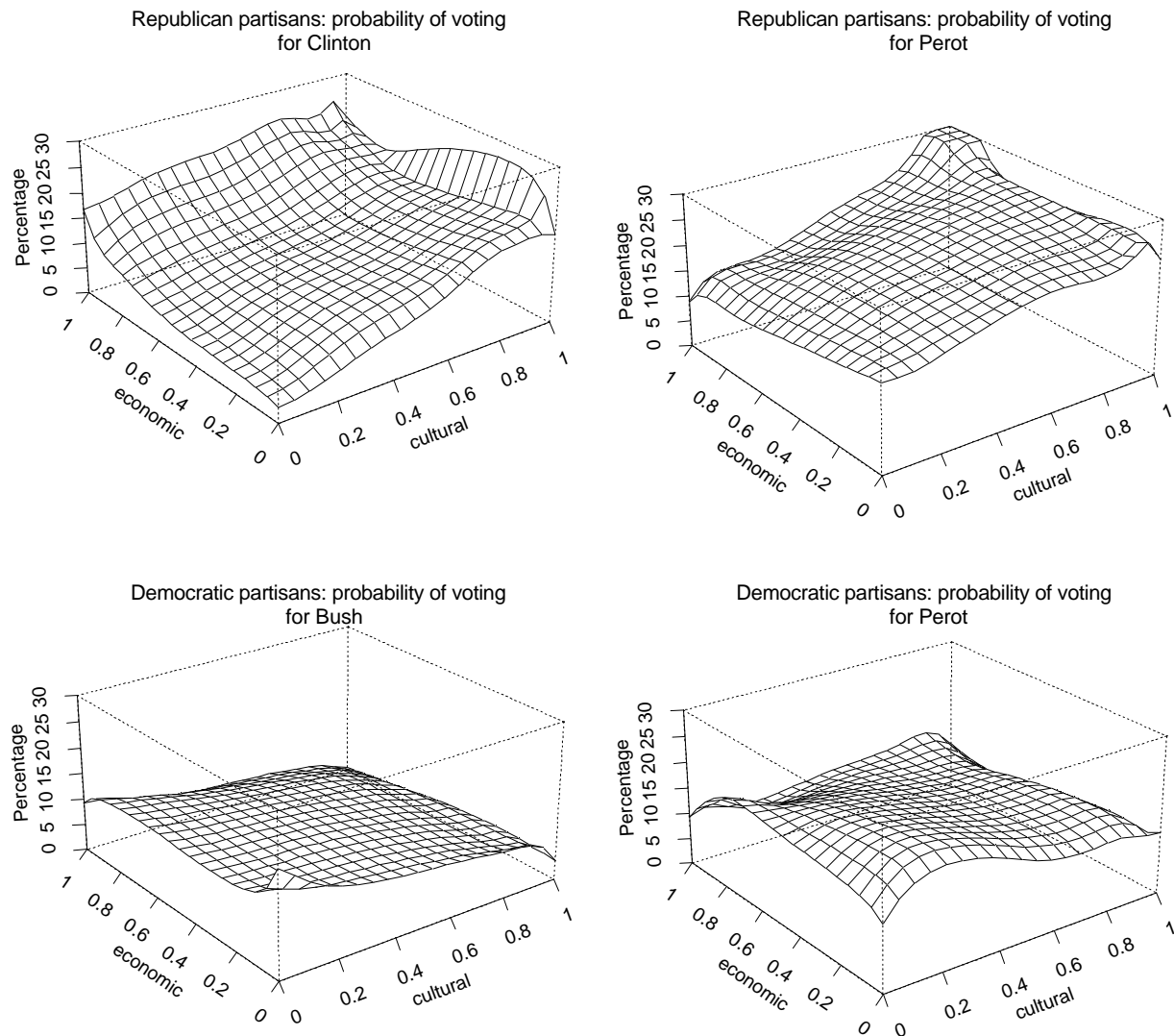


Figure 16. Probability of partisan defections by economic and cultural attitude, 1992.

This pattern of policy preferences and partisan attachments suggested a pattern for partisan loyalty and partisan defection as well. And that suggestion was to be borne out, with one curious twist. Once more, the differences from 1984 looked larger when these two policy dimensions were put back together than they did when treated sequentially. Seen this way, Republican partisans who defected to Clinton looked much like all those other Americans who voted for him. (Figure 16A) Thus the more economically liberal the Republican, the

more likely to defect to Clinton. The more culturally liberal the Republican, the more likely to defect to Clinton as well, with an extra little ...lip from the culturally most liberal. Seen this way, Democratic partisans who defected to Bush were roughly the reverse. (Figure 16C) The more economically conservative the Democrat, the more likely to defect to Bush. Yet culture was an even stronger influence here; the more culturally conservative, the more likely to defect to Bush all along the line.

The twist came with the Perot vote. (Figures 16B & 16D) As it turns out, the propensity for Perot support to have its greatest probability at the two ideological extremes – liberal/liberal or conservative/conservative on economics and culture – was an additive result of two very different partisan phenomena. Which is to say: the strongest uptick of Republicans who defected to Perot came from those who were both economically and culturally liberal. Yet the strongest uptick of Democratic defectors came from those who were more economically and culturally conservative instead!

[Figure 17 here.]

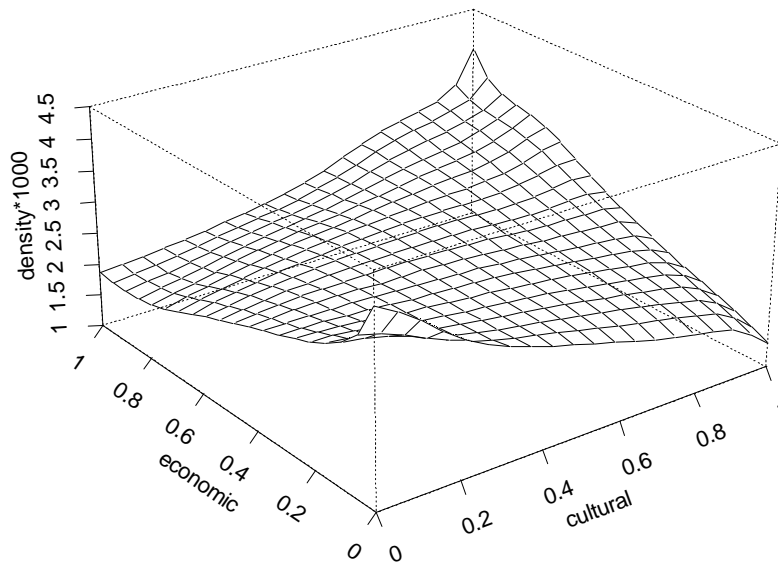


Figure 17. Joint distribution of attitudes for the nation as a whole, 1992.

To get at the actual 'landscape for politics' within this issue context, it is still necessary not just to plot public preferences on economics versus culture, and then to assess voting probabilities at various points on the plot. It is also necessary to plot the density of their interaction, so as to be able to judge whether more or fewer voters can be found at any combined point. Unlike 1984, however, when this national density plot immediately suggested major but separate policy problems, one to go with each of the two main dimensions of policy conflict, the plot for 1992 appears to roll them into one. Because voting behavior is

now aligned not just with economic preference across the whole of society but with cultural preference as well, and because ideological positions on the two are related – liberalism on one going with liberalism on the other in the general public, and vice versa – the national preference plot, that strategic policy landscape, has a simple and straightforward character. (Figure 17)

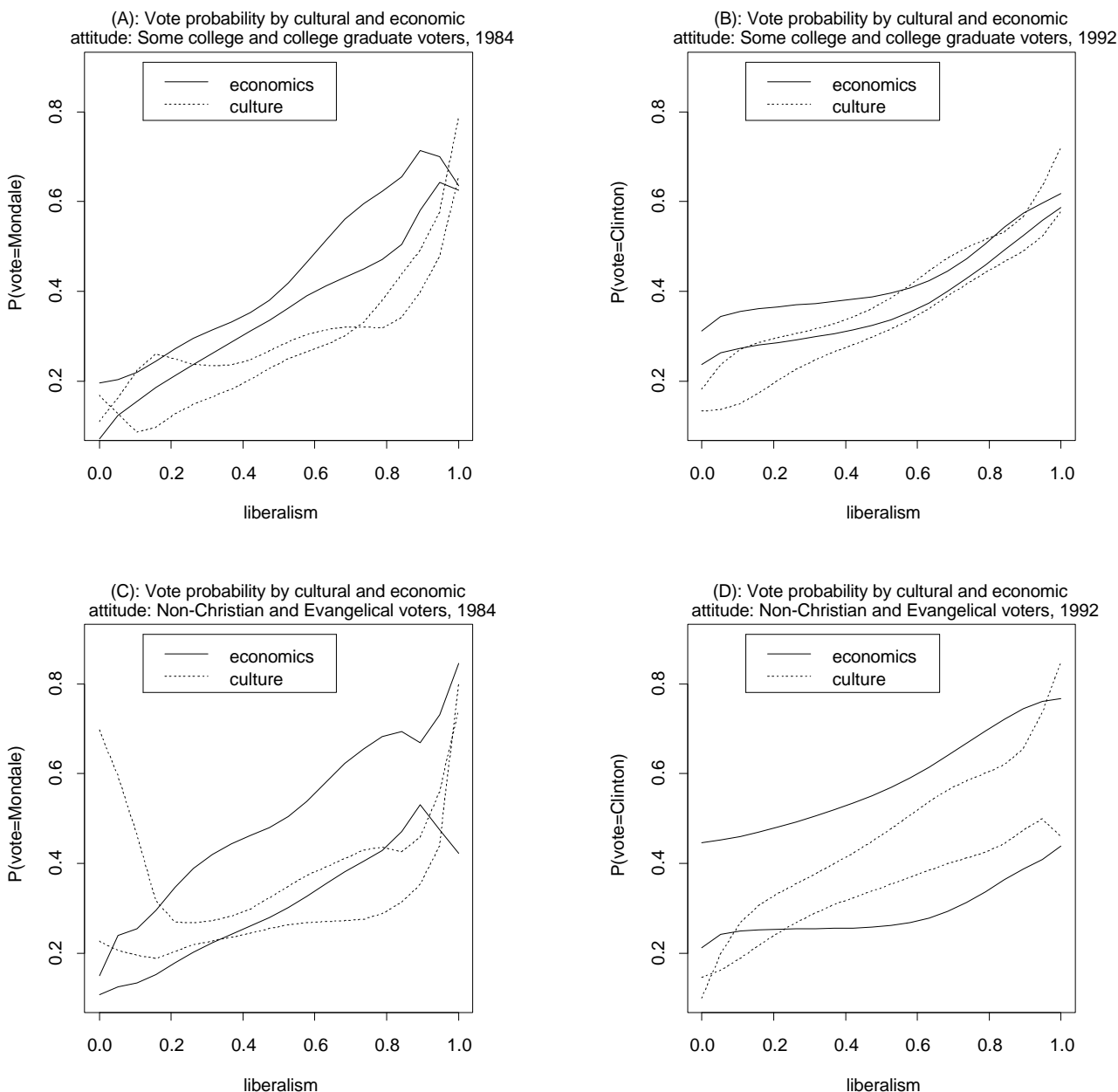
This gradient still retains the main characteristics of both dimensions which go to constitute it; their interaction is not so strong as to do away with major effects from either. But in 1992, unlike 1984, the resulting gradient is simply described. It rises toward the combination of economic and cultural liberalism, and toward the combination of economic and cultural conservatism; it falls away in roughly regular fashion in-between. This distribution does retain traces of its counterpart from 1984, when culture had been a more uniform influence across most of society with a sharply liberal tinge in the most extreme north; there is still a modest additional increment among economic conservatives who are cultural liberals in 1992. Nevertheless, here, it is the neatness and symmetry of the policy combination in 1992 which is by far the more important, and striking.

## 8. Strategic Choices in a Modern Issue Context, 1992

Can anything be said about the sources of change from 1984 to 1992? As with 1984, an answer, if any, has to come from disaggregating candidate choices among voters and policy preferences among citizens – into the two mass political parties of course, but also into the seven social factions that go to constitute these parties. (We rely again on Shafer and Claggett 1995 for the latter, though the method certainly permits more, different, or, especially, finer-grained alternatives; one stimulating contender is Petrocik 1981.) In 1984, in any case, six of these seven subgroups actually showed an evident and roughly linear relationship between economic preference and voting behavior, with black Americans the lone exception. Yet only two, the college graduates and those with 'some college', showed an extended and roughly linear relationship to cultural preference too. In 1992, as it turns out, this is what was fundamentally different.

For 1992, most social factions again show a clear relationship between economic preference and the vote, though this is now reduced in most groups and becomes much weaker among the protestant evangelicals. Yet the relationship is at least parallel to that of 1984. But in 1992, two more groups join the college graduates and some-colleges in showing a clear and extended relationship to cultural preference. These are the protestant evangelicals and the non-Christians, and it is these groups who thus contribute the largest single part of the change in the relationship to cultural preferences more generally. Moreover, the high-school graduates, that 'social group in the middle' whose vote is positively but only ever weakly aligned with either dimension, show a greater alignment with culture than with economics in 1992—the reverse of their situation in 1984.

[Figure 18 here.]



**Figure 18.** Probability of voting Democratic conditioned on a single attitude.  
(Economic attitudes solid; cultural attitudes dashed.)

To see the voting behavior of two groups who used their policy preferences similarly in both years, compare the college graduates and some-colleges of 1984 with the college graduates and some-colleges of 1992. (Figures 18A & 18B) Essentially, both groups show strong relationships to both dimensions in both years. Then, to see the voting behavior of

two groups who come into alignment on a second dimension – culture –during this second election, compare the protestant evangelicals and non-Christians of 1984 with the same two social groups in 1992. (Figures 18C & 18D) Here, clear and linear relationships to economics persist across both years for both groups. But negligible relationships to culture in 1984, outside that extreme liberal ...fth, have been converted into strong relationships extending all across the cultural spectrum eight years later. Figure 16 is constructed to show these relationships with the vote for Democratic candidates Walter Mondale and Bill Clinton. But the vote for Republican candidates Ronald Reagan and George Bush would provide exactly the same picture, merely running in the opposite (ideological) direction.

In 1984, disaggregation of the national picture according to social factions within political parties was crucial to understanding internal party politics, and hence to understanding the creation of options for the general election. Blacks and lower-education whites were particularly critical to this interpretation within the Democratic party, as college graduates and non-Christians were critical among Republicans. What this division of each party into policy preferences by social faction did, in effect, was potentially to suppress conflict on one dimension – culture for the Democrats, economics for the Republicans – and potentially to augment it on the other. And if that was the substantive electoral story of 1984, it was presumably also the issue context for what followed.

[Figure 19 here.]

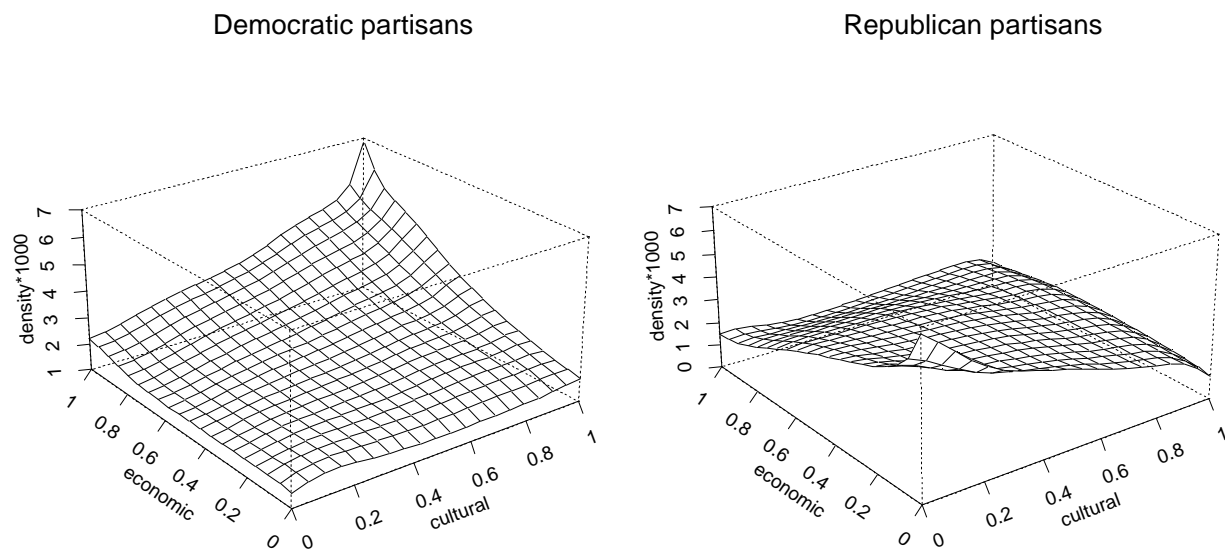


Figure 19. Joint distribution of economic and cultural attitudes by partisan identification, 1992.

At first blush, 1992 no longer looks like this world. Each party now has a neat policy gradient on each major dimension, causing Democratic identifiers to increase toward the

liberal/liberal pole on economics and culture, and Republican identifiers to increase toward the conservative/conservative opposite. (Figure 19A & 19B) There are numerous indications that this change is the product, in its largest part, of an ongoing evolution in the role of what we have called cultural issues, although as it turns out, this can be overstated. The same social coalitions still divide the two parties in the same way in 1992, just more modestly; accordingly, their division still requires attention. Yet the very modestness of this effect not only emphasizes the importance of the new, parallel, issue gradient. It also upgrades a second tension only incipient in 1984, between national candidates and many of their own putative partisans.

[Figure 20 here.]

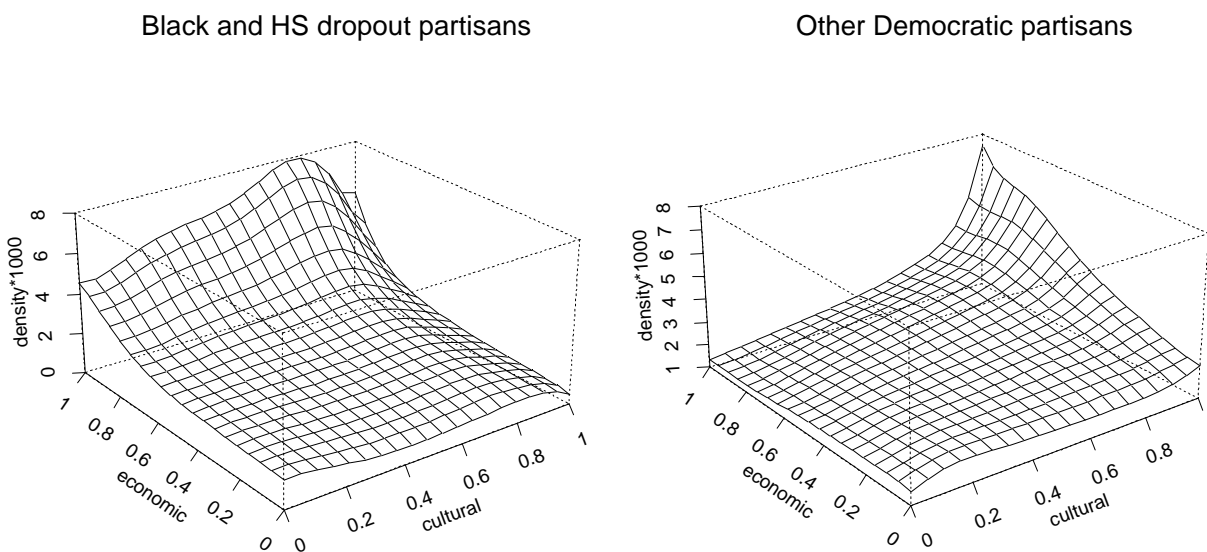


Figure 20. Joint distribution of economic and cultural attitudes for subgroups of Democratic partisans, 1992.

At first blush, the Democrats do look neatly and consistently liberal, with perhaps an added increment toward both the economic and the cultural left. (Figure 19A) Yet when the party is redivided socially, into the same factional coalitions as in 1984, what surfaces is an evolution of both potential policy conflicts from that year. In 1992, there remains a modest surface conflict over culture, eased by the increasing moderation of black and less-educated white Democrats on this dimension, so that it is now an incipient tension only between the left (Figure 20A) and the far left (Figure 20B). Yet the two most conservative social factions within the Democratic party continue not to vote on this basis, so that it would now presumably require a truly extreme cultural issue to divide the party seriously. On the other hand, incipient divisions on economics have become an incipient gulf. In 1984, blacks and less-educated whites were extremely liberal on this dimension, no matter what



their cultural preference, and in 1992, they still are. (Figures 20A) Yet the rest of the party is now hardly liberal at all. (Figure 20B)

Two possibilities for a resolution, and one further strategic dilemma, follow from such a picture. One possible resolution merely affirms the rough consensus on cultural liberalism, and then lets an internal struggle determine economic policy. The other averts this conflict by combining cultural and economic liberalism, an outcome made more likely by the fact that extreme cultural liberals in the more-educated part of the party are also extreme economic liberals. What results, in any case, is a kind of second-order strategic dilemma, not rooted directly in divisions among social factions. It comes instead from the main division which either resolution, but especially the second, would create subsequently: between a candidate seeking a national majority and the dominant faction(s) of the Democratic party. Put most pungently, a Democratic candidate rooted in solidly liberal positions on both of these dimensions is a candidate guaranteed a solid voting bloc in the general election – and a credible defeat. (Figure 15)

[Figure 21 here.]

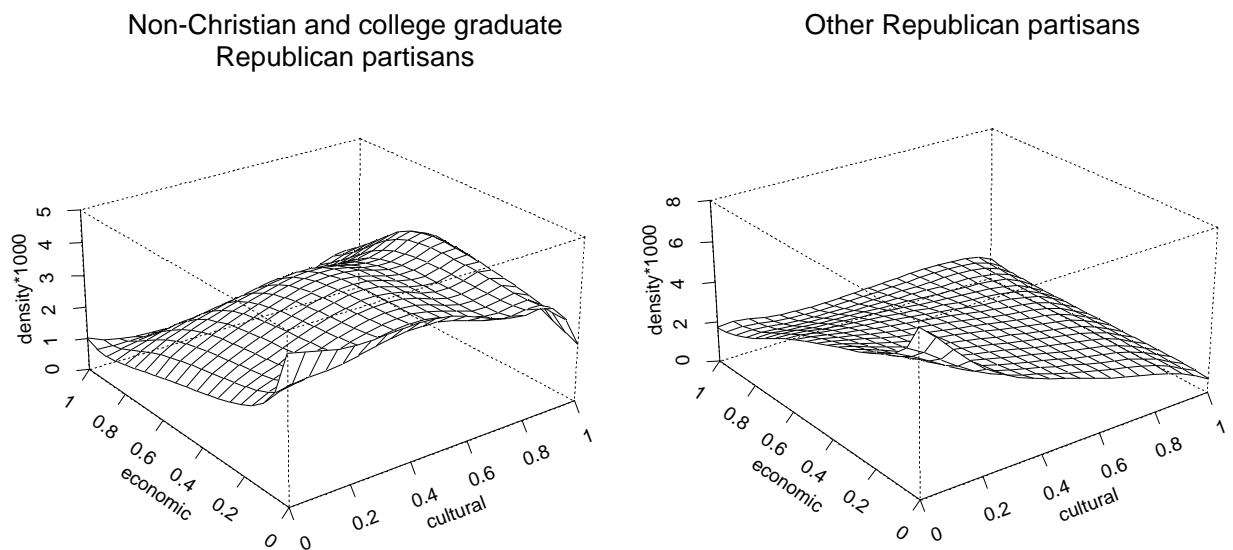


Figure 21

The Republicans, as it turns out, have their own version of the same story. For them too, the mass party looks neatly and consistently conservative, rising strongly toward both the economic and the cultural right, and this is the dominant fact of an internal Republican issue context for 1992. (Figure 19B) Yet when the party is disaggregated socially, old divisions still show below the surface – indeed, such that while one is reduced, the other is exaggerated. The cultural division of 1984, as it develops, is still present underneath the national picture. College-graduate and non-Christian Republicans still rise toward the cultural left, the rest of

the party toward the cultural right; it is just that the former rise has become more moderate. (Figures 21A & 21B) On the other hand, and unlike the Democrats, the Republicans do not get a break from policy indifference on the part of their culturally dissident factions. Not only is strong cultural liberalism common, and strong cultural conservatism very uncommon, among Republican college-graduates and non-Christians. At least for 1992, the defection rate among college-graduate and non-Christian Republicans, the share voting for Clinton or for Perot, also rose as their cultural liberalism increased. (Figures 22A & 22B; note that while this defection rate may also rise with economic conservatism among these groups, this is because many economic conservatives are nevertheless very liberal on culture.)

[Figure 22 here.]

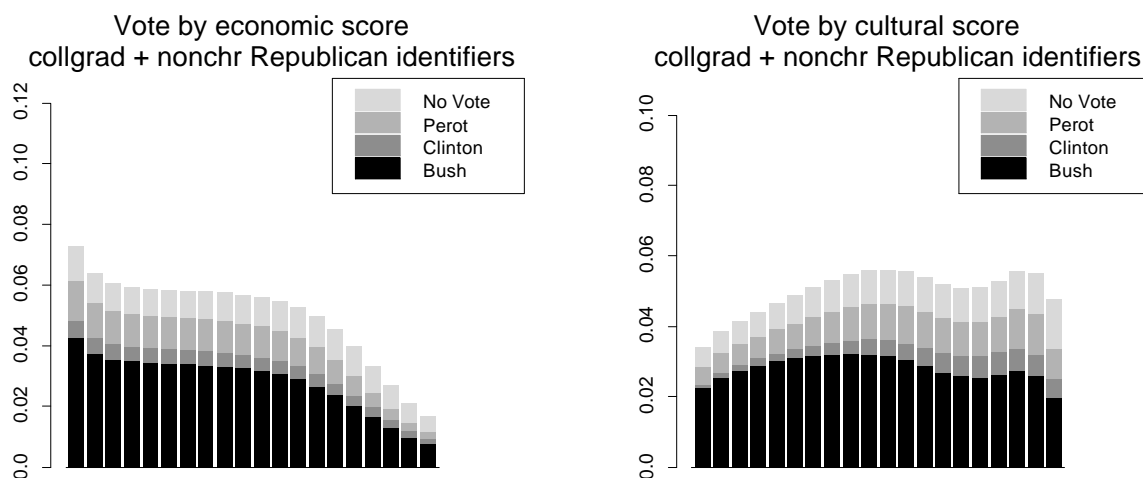


Figure 22. Vote outcomes for college graduate and non-Christian Republican identifiers, 1992.

That was the larger internal division among Republicans. But the economic fault line was still present as well, and this fact makes internal compromises on a policy program even more potentially difficult. (Figures 20A and 20B) The party can hardly pitch its policy promises to cultural and economic moderate-liberals; there are too few of them to make this a viable alternative. Nor can it easily avoid the cultural combat implicit in these numbers, since the college graduates and non-Christians are not just aligned on these issues, but show every evidence of caring about them. Yet if the party settled for moderate conservatism on both dimensions, hoping that economic conservatism would compensate these culturally liberal, dissident Republicans – as it might, since they are very conservative economically – it ends up facing its candidate with the same dilemma as that of the Democrat. Which is to say: a Republican candidate rooted in the uniformly conservative position on economics

and culture also has a guaranteed, if smaller, base for the general election. But it is even more a base sufficient principally for a credible defeat.

## 9. Conclusions

From one side, the ultimate value of any methodological approach lies in the substantive contributions it can make. From the other, both the character and the quality of those contributions are dependent on their methodology. In this latter regard, there are a number of simple but intrinsic advantages to the method used here, even when judged solely on its own terms. This method respects the inherently ordinal character of attitudinal data. At the same time, it requires no assumption about the relationship of voting behavior to the underlying attitudes – although if such a specification is made, it can be used to increase the efficiency of the estimates. Regardless, a properly specified model will have posterior probabilities for these attitudes, at least in large samples, that are close to the prior (in this case, uniform) probabilities. While we have not done so here, missing data – informative non-response – could be added in naturally, by modelling such non-response as a function of attitudes and/or other variables.

In trying to set out the major contours of two modern issue contexts using this method, we have necessarily ignored many of the detailed substantive findings available even in just the two elections examined here. For example, it would be possible to focus instead on the practical history, the voting behavior and its evolution, of any selected social group. As we have seen, even that most apparently ‘median’ group, the white high-school graduates, shifted in distinguishable (and consequential) ways in its political role between these two elections. Alternatively, it would be possible to take these subgroup profiles for 1992 alone – both the vote probability at any given position within the group and the density of the group at that position – and ask about differences in voting for Clinton, Bush, or Perot. This might even alter the usual understanding of the latter. For while two social factions among Perot voters, his handful of black and non-Christian Perotistas, did have a profile looking very much like black and non-Christian voters for Bill Clinton, the other five social groups used here each contributed a larger Perot vote – and each had a profile which looked much like that of the group’s voters for George Bush.

Such elaborations on the basic findings are nearly limitless. So perhaps it is best to close by reconnecting the aggregate events of the 1984 and 1992 elections with the basic individual-level findings here. The orthodox journalistic story of the 1984 campaign is that the Republican President, Ronald Reagan, ran for re-election by emphasizing general recovery on the economic dimension – “Morning in America” – plus some newly invigorated conservative positions on the cultural dimension – anti-crime, pro-life. In response, his Democratic opponent, Walter Mondale, dismissed the economic recovery as bogus, indeed as requiring a subsequent tax rise, while offering his own opposite cultural gambits, most

especially with the first woman candidate for Vice President. (Germond and Witcover 1985; Goldman et al. 1985)

The substantive portraits and group profiles presented here – the alleged issue context of 1984 – do not suggest that economics became any sort of reliable asset to the Republicans. Its generic relationship to partisanship remained adverse, even in the midst of this re-election triumph. What they suggest instead is that the combination of economic recovery plus unattractive Democratic options was sufficient to move the economic voting line – the point of voting majorities – into Republican territory. By contrast, while culture too did not become a generic Republican asset – every quantile of society remained Democratic in terms of its partisan identification – its mix was also clearly sufficient not to harm Republicans. Said differently: the Democratic strategy worked among the most liberal fifth of society. But the combination of Democratic and Republican options was obviously not sufficient elsewhere, since majorities at every other cultural level went Republican.

Such a result introduces ongoing strategic dilemmas for both Republicans and Democrats after 1984, dilemmas which were still to be actively on display in 1992. The question for the Republicans after 1984 was whether they would be able to deal with the ongoing alignment between economics and partisanship when the party did not have the advantage of economic growth. And the question for the Democrats was how to move cultural policy far enough away from the preferences of their most liberal fifth to allow the rest of society to return to Democratic support. The election of 1992 contributed some further impacts of its own, in the presence of a major third candidate for President and in the coming of a broader alignment around cultural concerns. Nevertheless, one clearly successful and one strikingly unsuccessful answer to these strategic dilemmas from 1984 were also inescapably in evidence.

On the record, the Republicans clearly failed to find an alternative economic solution when the economy was in recession. Economics remained strongly related to the vote. Nevertheless, Republicans had actually made some headway in its relationship to partisan identification; fewer quantiles by economic preference showed a generic Democratic advantage. But the economic voting line, this time, fell short even of Republican pluralities in too many sectors to permit a Republican victory. By contrast, Bill Clinton worked hard to cauterize any ongoing cultural wound; both he and his Vice President were ostensible “New Democrats,” emphasizing personal responsibility, welfare reform, a strong defense, and free trade. As a result, the coming of a stronger cultural alignment with voting behaviour did not constitute a serious threat to a Clinton win. (Germond and Witcover 1993; Goldman et al. 1993)

In the aftermath of 1992, then, each party retained its own particular social and substantive divisions, giving rise to its own particular strategic difficulties. The Democrats actually showed less of an internal cultural division than they had previously. But ironically, this made them even more prone to stake their policy in an area where there was only a minority of voters. And they continued to have a major implicit division, right down the middle of the

party, on matters economic. On one side of this divide, the party risked failing to mobilize the non-cultural part of its coalition, by being insufficiently liberal. On the other side, it risked unsettling the large part of its coalition with the potential to defect, by being too liberal.

With the benefit of hindsight, it is clear that the Republicans faced equal difficulties. Their internal cultural divide was still very much present, and still had no easy resolution. Established cultural liberals like the college graduates were at risk of defection on cultural matters. But incoming cultural conservatives like the protestant evangelicals were also a growing sector of Republicanism, and the party as a whole was additionally comprised of the culturally conservative. Worse yet, the party had an economic division running in the other direction, such that economics exacerbated its cultural problems. Economic conservatism with cultural liberalism was especially abhorrent to the protestant evangelicals; economic liberalism with cultural conservatism was especially unattractive to college graduates; and economic conservatism with cultural conservatism was not a program with any national majority behind it. But that was a story for 1996.

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## 10. Appendix: Goodness of Fit and Related Issues

In this appendix we compare our estimates with those obtained by conventional methods, with particular attention to goodness-of-fit issues. For each of the elections, we reduce the respondents' probability distributions over  $C$  and  $E$  to a single summary measure for each dimension, and then fit conventional logit models for the vote. This permits comparison of a structured response model to the nonparametric models in the main analysis. We also fit logit models directly to various combinations of item responses and social group, so that the information reduction that occurs in taking ten items to two scales can be assessed. For each parametric or nonparametric model we calculate the log-likelihood function and the number of votes that are correctly predicted. A vote is counted as 'correctly predicted' if the estimated probability of the vote as reported by the respondent is greater than any other outcome. In the 1984 election this reduces to the familiar criterion that the estimated probability of the actual outcome exceed .5.

There are two natural ways to reduce a respondent's posterior distribution over an attitudinal scale to a single location measure. Since the prior is a uniform distribution, the maximum likelihood point estimate of the respondent's location is the mode of the posterior distribution. Since we have approximated the underlying uniform by 20 equal groups, using the posterior mode has the effect of forcing the respondents into 20 groups for this purpose. A second approach is to use the mean of the posterior distribution. This produces a different measure for each response pattern. In what follows, we have found that the second approach always provides better results, and it is these results that we report.

Nonparametric likelihoods are derived from the cell probabilities of voting outcomes calculated from equation (8) or similar expressions. Letting  $A$  once again denote an attitude with possible values  $A_j$ ,  $j = 1, \dots, J$  (where  $J$  is either 20 or 400 depending upon whether we are conditioning on one or two attitudes), the probability of respondent  $i$  casting vote  $V$  is

$$(12) \quad p(V_i = V) = \sum_{j=1}^J p(V|A_j)p_i(A_j),$$

where  $p_i(A_j)$  is the posterior probability of  $i$  having attitude  $j$ .

10.1. The 1984 Election. For 1984 there are 3,006 respondents, of whom 987 voted for Mondale and 1253 voted for Reagan. We analyze the voting population only. The log-likelihood (LLF) of no explanatory power is obtained by predicting that everyone votes for Mondale with probability  $987/(1253 + 987) = .4406$ ; this gives an LLF of  $-1536.819$  and the number of correct predictions ( $nc$ ) is of course 1253. If we condition on  $E$  only, the nonparametric LLF is  $-1347.980$  and  $nc = 1555$ , while conditioning on  $C$  only gives an LLF  $-1485.191$  and  $nc = 1361$ . The single attitude  $E$  is evidently a much better predictor of the vote than  $C$ .  $C$  and  $E$  together have an LLF of  $-1303.443$  and  $nc = 1558$ , so that in



LLF terms the improvement of adding  $C$  to the  $E$ -only model is nearly as great as what is obtained by adding it to the null model.

A simple linear logit model on the posterior means of  $C$  and  $E$  for each respondent (denoted  $E(C)$  and  $E(E)$ ) has an LLF = -1314.376 with  $nc = 1565$ , whereas linear logit on the original 10 items has LLF = -1258.216,  $nc = 1608$ . There is not a dramatic difference between the ...t of the nonparametric and parametric versions of the simple two variable model, but there does seem to be a loss of information in going from 10 items to 2 scales. The ...t of the linear logit model with 10 items can of course be improved further by including our 7 social groups: the LLF improves to -1181.707 with  $nc = 1663$ . Using the 7 social groups and a low-order polynomial in  $E(C)$  and  $E(E)$  does about as well, with LLF = -1185.370 and  $nc = 1659$  for the second-degree polynomial that includes  $E(C)$ ,  $E(E)$ ,  $E(C)^2$ ,  $E(C) * E(E)$ , and  $E(E)^2$ . Thus, when the effects of the 7 social groups are taken into account, and the model is made more flexible, the loss of information in going from 10 items to two scales is apparently very much diminished. This is presumably even more true in the nonparametric context, though a complete assessment of the problem would require a detailed study.

In the models with 7 social groups, only the coefficients on black and high-school dropouts are significant. A simple logit model that captures most of the explanatory power of the more complicated models is

$$y^* = - \frac{2.85}{(0.16)} + \frac{2.22}{(0.18)} \text{black} + \frac{.69}{(.21)} \text{dropout} + \frac{1.77}{(0.20)} E(C) + \frac{2.74}{(0.20)} E(E),$$

where  $y^*$  is the latent logistic variable giving the propensity to vote for Mondale. The LLF for this model is -1209.087 and  $nc = 1648$ . (The ...gures in parentheses below each coefficient are the specification-robust or 'sandwich' estimates of the standard errors.)

**10.2. The 1992 Election.** The analysis of the 1992 election is more awkward because it is a three-way race. Of 3218 respondents, 2429 voted, with 889 for Bush (36.6%), 1100 for Clinton (45.3%), and 440 for Perot (18.1%). Thus the null model that takes every person to have probabilities (.366, .453, .181) of voting for Bush, Clinton, and Perot respectively has  $nc = 1100$  and an LLF of -2516.676. Unlike 1984, social group effects are important across most social groups; this seems an artifact of the three-way race. Consequently, a somewhat ...ner analysis by social group is useful, so to make the groups exhaustive and homogeneous we discard the 54 voting respondents whose social group membership is not observed. This leaves us with 2375 voting respondents, of whom 868, 1086, and 421, voted for Bush, Clinton, and Perot respectively, giving proportions (.365, .457, .177) with an LLF for the null model of -2451.866 and  $nc = 1086$ . The nonparametric LLF for conditioning on  $C$  only is -2334.484,  $nc = 1255$ ,  $E$  only is -2369.294,  $nc = 1186$ , and  $C$  and  $E$  together is -2272.972 with  $nc = 1314$ . Unlike the 1984 election,  $C$  is a better single indicator of voting propensity, but again using both factors gives a significant improvement.

A linear multinomial logit model using  $E(C)$  and  $E(E)$  has an LLF of  $-2265.659$  and  $nc = 1299$ . While this parametric formulation has a higher likelihood, the nonparametric formulation is competitive considering that it does not attempt to maximize the likelihood; it also has a higher number of correct predictions. The naive omnibus multinomial logit model with 7 social groups and 10 items yields an LLF of  $-2075.116$  and  $nc = 1452$ . Our nonparametric specifications applied to each group separately—that is, estimating the vote probability as illustrated in the main body of the paper group by group using posterior estimates of attitude positions (these being estimated from a single model that applies to all respondents)—gives for models conditioning on  $C$ ,  $E$ , and  $C$  and  $E$  together, LLF's of  $-2141.700$ ,  $-2210.988$ , and  $-2104.965$  with  $nc = 1397$ ,  $1337$ ,  $1413$ , respectively. The performance of the nonparametric  $(C, E)$  model is a little disappointing compared to the naive omnibus model: unlike the 1984 results, there is a definite gap. However, because 1992 is a three-way race, the number of parameters in the omnibus model has doubled from 17 (7 social groups + 10 items) to 34, because now there are two latent variables relative to the standardized alternative (in both elections taken to be the Republican, a normalization with no effect on the interpretation of estimates or LLF)—one each for Clinton and Perot. A multinomial logit model using 7 social groups and  $E(C)$  and  $E(E)$  has an LLF of  $-2132.527$  and  $nc = 1404$ , with estimates given by:

$$\begin{aligned}
 y_{Clinton}^* = & \frac{0.26}{(0.27)} \textit{black} - \frac{2.35}{(0.17)} \textit{evangelical} - \frac{1.85}{(0.24)} \textit{non-Christian} - \frac{1.52}{(0.32)} \textit{dropout} \\
 & - \frac{1.75}{(0.20)} \textit{HSgrad} - \frac{2.19}{(0.20)} \textit{somecoll} - \frac{2.64}{(0.20)} \textit{collgrad} + \frac{3.09}{(0.24)} E(C) + \frac{1.32}{(0.20)} E(E), \\
 y_{Perot}^* = & \frac{-0.98}{(0.34)} \textit{black} - \frac{1.78}{(0.18)} \textit{evangelical} - \frac{1.42}{(0.28)} \textit{non-Christian} - \frac{1.20}{(0.37)} \textit{dropout} \\
 & - \frac{0.93}{(0.21)} \textit{HSgrad} - \frac{1.58}{(0.23)} \textit{somecoll} - \frac{1.72}{(0.23)} \textit{collgrad} + \frac{1.56}{(0.28)} E(C) + \frac{0.22}{(0.28)} E(E)
 \end{aligned}$$

As in the nonparametric models exposited in the main body of the paper, these results indicate cultural attitudes have a stronger effect than economic attitudes. As one moves in the liberal direction on either dimension, Clinton unambiguously gains votes and Bush unambiguously loses; the effect on Perot's share is ambiguous, and the effect of economic attitudes on Perot's share is particularly weak.

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