## Polarization and the Ideological Mapping of Core Beliefs and Values<sup>\*</sup>

Christopher Hare Department of Political Science, University of Georgia chare@uga.edu

August 26, 2014

#### Abstract

Scholars have long suggested that core values and beliefs serve as a means by which citizens can approximate ideological thinking. However, we remain far less certain about how value divides map onto ideological space. This paper uses respondents' survey responses to scale their locations in latent policy space. The recovered dimensions are then used to examine how different values map onto ideological space, and how these mappings have changed over time. The results suggest that orientations towards economic egalitarianism and moral traditionalism potently divide citizens along the liberal-conservative ideological dimension, although this has only recently become the case with moral traditionalism. Polarization also appears to have boosted the correlation between core values among the politically sophisticated and further constrained the policy attitudes of the value-consistent along the liberal-conservative dimension.

<sup>\*</sup>Thanks to Bill Jacoby, Jamie Monogan and Keith T. Poole for their helpful comments and suggestions.

## 1 Introduction

In his seminal piece "The Nature of Belief Systems in Mass Publics", Converse (1964) put forth a dim view on the ideological capabilities of the American electorate. His empirical findings suggested that most citizens possess neither stable nor coherently structured political attitudes. However, research over the half-century since the publication of Converse's essay has called the "non-attitudes" thesis into question. In particular, the analysis of measurement error has shown that it a prevalent source of response instability and a major culprit for the lack of structure found in mass political attitudes (Achen, 1975; Ansolabehere, Rodden and Snyder, 2008). Given that the public remains politically unknowledgeable (Delli Carpini and Keeter, 1996) yet appears to exhibit greater ideological constraint than conventionally believed, public opinion scholars are now charged with reconciling these seemingly contradictory findings.

One solution is articulated by Converse (1964, p. 211) himself, who argued that broad value postures could serve to constrain political attitudes:

Often such constraint is quasi-logically argued on the basis of an appeal to some superordinate value or posture toward man and society, involving premises about the nature of social justice, social change, "natural law," and the like. Thus a few crowning postures - like premises about survival of the fittest in the spirit of social Darwinism - serve as a sort of of glue to bind together many more specific attitudes and beliefs, and these postures are of prime centrality in the belief system as a whole.

Certainly, core beliefs and values represent one of the most promising routes to answering the puzzle of how an uninformed electorate can reason about politics. Values and moral orientations are universally possessed and readily accessible because they lie at the core of human behavior (Rokeach, 1973; Smith, 2003). Indeed, an impressive array of scholarship has shown that citizens—the politically sophisticated and unsophisticated alike—use core beliefs and values to inform their political attitudes and approximate ideological thinking (Feldman, 1988; Jacoby, 2006; Goren, 2004, 2013). Given both sets of findings, it appears inaccurate to characterize citizens as "ideologically innocent" (Feldman and Zaller, 1992, p. 269). And, to the extent that citizens' attitudes exhibit ideological structure, value orientations are a likely factor.

However, we are less certain of how values influence political attitude *structures*, or how value cleavages map onto and structure ideological space (Feldman, 2003, p. 503). For instance, which value divides correspond—and which are orthogonal—to ideological divides? Does value consistency promote ideological consistency and/or extremity? And, given a respondent's position on a left-right dimension, how well can we predict their value predispositions? Also unclear is how the relationship between core values and policy attitudes responds to changes in the political environment; primarily, the role of elite-level partisan polarization. Over recent decades, the Republican and Democratic parties have moved apart on both economic (McCarty, Poole and Rosenthal, 2006) and social (Layman, 2001) issues. As the parties have more clearly signaled their policy stances to the electorate (Hetherington, 2001), they presumably have also more closely tied themselves to the competing sides of political value cleavages. And, just as citizens have responded to elite polarization by bringing their partisanship and ideological positions into alignment (Abramowitz and Saunders, 1998; Levendusky, 2009), so too would polarization seem to facilitate partian sorting based on core beliefs and values. Certainly, it appears that mass partial have diverged on general value commitments (Jacoby, 2012), with the Pew Research Center concluding that "values and basic beliefs are more polarized along partial lines that at any point in the past 25 years" (Pew Research Center for the People and the Press, 2012, p. 1).

This paper continues the research agenda on the nature of value divides in the contemporary electorate with a focus on how value orientations correspond to the ideological organization of political attitudes in the mass public, and how polarization has influenced this process. More specifically, I examine how two prominent value divides - economic egalitarianism and moral traditionalism - map onto citizens' policy preferences in 1988 and 2004. An over-time analysis is needed to determine how changes in ideological structure relate to the mapping of value cleavages. This analysis, then, addresses the relationship between values and ideology, generally, and how this relationship has changed over a polarizing period. To scale mass political attitudes, I use Poole's (2000; 2005) Optimal Classification (OC) method. OC is a nonparametric unfolding method that maximizes the classification of binary ("Yea"/"Nay") choices. In Section 4, I detail why OC is a preferable means for use public opinion survey data.

The results suggest that "value sorting" has taken place. Conflict extension - how it relates to values. How has ideology become so important? Part of the story is values. These findings indicate that deep value contrasts have come to divide Republicans and Democrats, and conservatives and liberals.

## 2 Values and Political Attitudes

Scholars have identified a number of broad predispositions and core values that are important determinants of political attitudes—particularly domain-specific attitudes (Goren, 2004). For instance, individualism and humanitarianism guide preferences on social welfare issues, and moral traditionalism and moral judgment influence social issue attitudes (Feldman, 1988; Feldman and Steenbergen, 2001; Weisberg, 2005). Value orientations are also strong predictors of partisanship and vote choice in presidential and congressional elections (Layman and Carmines, 1997; McCann, 1997; Knuckey, 2005; Goren, 2013).

Why are core beliefs and values so central to an understanding of public opinion? First, work from the fields of psychology and sociology illuminates the fact that personal values lie at the center of human behavior. Individuals are driven to conceive and pursue the "good;" as Smith (2003, p. 8) contends: "One of the central and fundamental motivations for human action is to act out and sustain moral order, which helps constitute, directs, and makes significant human life itself." Research on the role of core values in human behavior, generally, confirms that values are universally possessed, accessible and hierarchically structured (Rokeach, 1973; Schwartz, 1992). These findings that have been supported in studies of the specific influence of values on political attitudes (Peffley and Hurwitz, 1985; Feldman, 1988; Jacoby, 2006; Goren, 2013). Indeed, work by Leimgruber (2011) suggests that personal and political value predispositions are closely connected, with personal values constraining political values, which in turn shape political behavior. Since values are highly accessible, political sophistication is a mostly inconsequential conditioner of the relationship between core values and political preferences (Goren, 2004, 2013).

Second, value orientations serve as the foundation of political attitudes—what Tetlock (2000, p. 247) terms the "back stops" of political belief systems. According to Tetlock (2000), political preferences ultimately rest on self-justifying values that identify which public policies are desirable and which are not. For instance, respect for the sanctity of human life underpins pro-life attitudes, and the protection of women's rights underpins pro-choice attitudes. Since public policy choices often involve adjudication between different values, value hierarchies—individuals' ordering of the relative importance of multiple values—are particularly important foundational sources of political attitudes (Jacoby, 2006).

Finally, core values are closely related to political ideologies. Both political ideology and value structures are comprehensive conceptions of the "good" in public life (Hinich and Munger, 1994). Values, like ideology, also reduce the complexity of the political world. The number of issues and choices that citizens are called to decide upon are large—certainly larger than the number of core values or ideological dimensions (Feldman, 2003). Both values and ideology guide citizens through the labyrinth of political choices. Political ideologies package issue positions together, but overarching core values are the "glue" that make ideological packages coherent, if only in the eyes of the beholder (Hinich and Munger, 1994).

As Jost, Federico and Napier (2009) discuss, citizens can achieve ideological constraint through two routes. The first include "top down" processes: the adoption of ideological packages of issue positions by political elites. The second encompass "bottom up" processes: psychological factors that make a given ideological belief system more or less attractive. Certainly, "top down" processes—which has received more attention from political scientists promote the use of a single, liberal-conservative dimension to organize political attitudes. Core values are also a promising source of attitude structure. As discussed, there is ample evidence that core values most relevant to a given policy dimension (e.g., moral traditionalism and social issues) constrain attitudes along that dimension (Goren, 2004). And this helps explain how citizens' policy preferences within issue domains become well-structured (Ansolabehere, Rodden and Snyder, 2008).

But what is less known is how abstract value orientations relate to the central liberalconservative ideological dimension of American politics. That is, do certain values promote constraint *between* the economic and social issue dimensions? This is an especially pertinent question given that a single, liberal-conservative dimension appears to provide a good model of mass political attitudes on most issues (Stimson, 2004; Jessee, 2009; but see Treier and Hillygus, 2009).<sup>1</sup> "Top down" or elite-centered accounts of mass ideological constraint have proven to be useful (e.g., Levendusky, 2009), but is there also a value-based ("bottom up") explanation as to why the bundling of economic and social liberalism or conservatism is coherent to political elites and most voters?

Theoretical work by Sowell (2007) represents one of the most sophisticated approaches to this question. For Sowell, the abstract principle which divides liberals and conservatives concerns rival understandings of human nature. Conservatives adhere to the "constrained vision", which emphasizes humanity's limited understanding of the challenges presented by a complex world and the importance of social institutions that have evolved to meet those challenges. Conversely, liberals, who adopt the "unconstrained vision," are more optimistic about human nature and humanity's ability to comprehend and solve societal problems. These differences correspond to both economic and social values in a manner consistent with

<sup>&</sup>lt;sup>1</sup>However, Treier and Hillygus (2009), who make a forceful case that a two-dimensional model of ideology is needed to explain citizens' policy preferences, nonetheless find that a majority of voters are consistent liberals or conservatives on both of the economic and social dimensions. Specifically, 65% of self-identified liberals and 62% of self-identified conservatives are ideologically consistent; while 57% of moderates and 53%of don't knows are consistent liberals or conservatives.

liberal-conservative divides. That is, adherents of the "constrained vision" are more hesitant to tinker with economic institutions (even when inequality is present) or challenge traditional moral values, while those with an "unconstrained vision" believe that economic activity can be regulated to produce more desirable (i.e., egalitarian) outcomes and that social mores are often unnecessary vestiges of a confining past. In both instances, adherents are hypothesized to be consistent conservatives or liberals.

Some empirical work also supports the idea that differences in core values coincide with ideological divides. Most notably, Jacoby (2012) shows that individuals' value choices from among a set of seven values align in predictable ways with partisan and ideological categories.<sup>2</sup> Conservatives and Republicans rank the values of morality, patriotism, and social order as more important, while liberals and Democrats more highly rank the values of economic security and equality. Jacoby (2012, p. 24) powerfully concludes that: "In the past, values were regarded as an alternative to ideology, providing organizational parsimony for political attitudes among people who did not conceptualize the world in abstract terms (Feldman 1988). In contrast, the present findings suggest that value orientations actually reinforce ideological distinctions."

Other scholars agree that value orientations have increasingly come to undergird partisan divisions in the contemporary American electorate, though there is debate over the precise nature of the dividing values. Hetherington and Weiler (2009) contend that the Republican and Democratic parties have diverged over authoritarian and non-authoritarian predispositions. Stemming from the work of Hunter (1991), proponents of the "culture wars" thesis emphasize the role of conflict over the proper role of religion in public life between religious traditionalists and modernists that has come to acutely divide Republicans and Democrats at both the elite and mass levels (Layman, 2001). But is is unclear if these value divisions are separating partisans along ideological lines. Indeed, there is some evidence (e.g., (Layman and Green, 2006) that the influence of religiosity on political attitudes is mostly limited to

<sup>&</sup>lt;sup>2</sup>The values are freedom, equality, economic security, morality, individualism, social order, and patriotism.

social issues.

Finally, elite influence is probably not absent from the relationship between core values and ideology. In particular, political elites have a role in connecting core values to policy attitudes, particularly in cases involving "hard" or technical issues (Pollock, Lilie and Vittes, 1993). And, to the extent that elites clearly signal the relevance of specific values to given policy issues, citizens will be better equipped to use their value predispositions to guide their preferences on those issues (Zaller, 1992, p. 24). Research has shown that parties are effective communicators of their value stances (Doherty, 2008), and elite partisan discourse over values has presumably polarized as the parties have moved apart in policy space (McCarty, Poole and Rosenthal, 2006).

## 3 Hypotheses

This paper tests test two hypotheses using data from the years 1988 and 2004. The first concerns the extent to which values promote ideological structure, and the role of contemporary political polarization in conditioning this effect:

 $H_1$ : Core value divides will closely align with the relevant policy dimensions in both years. However, core values will more closely align with a single liberal-conservative dimension in 2004 than in 1988.

Note that *alignment* involves two components: direction and classification rate. Core values may be related to the ideological dimension (direction), but only poorly (classification). The first part of  $H_1$  is based on the well-established result that values influence domain-specific attitudes (Goren, 2013). For instance, moral traditionalism is strongly predictive of social issue attitudes. The second part of  $H_1$  draws on a number of findings in the polarization literature that collectively indicate that the parties have moved apart across policy dimensions (McCarty, Poole and Rosenthal, 2006; Layman et al., 2010), elite-level political discourse now occurs over a single liberal-conservative dimension (Poole and Rosenthal,

2007), and partisans in the mass electorate have become ideologically sorted (Abramowitz and Saunders, 1998; Levendusky, 2009) and divided over at least some core values (Layman and Carmines, 1997; Hetherington and Weiler, 2009; Pew Research Center for the People and the Press, 2012).

As the parties have simultaneously more forcefully signaled their policy positions and their value orientations, they have also connected core values to the liberal-conservative dimension (and both ideology and values to the parties themselves). In particular, elite discourse tends to fuse core values in an ideologically consistent manner. For example, the Republican Party frames big government as a threat not only the free market, but also traditional religious and community institutions, as well. The Democratic Party's historical emphasis on equality has come to often be framed in cultural terms, with a focus on rights and opportunities for minority and underprivileged groups (Gerring, 1998). Moral traditionalism, especially, has become a more prominent component of liberal-conservative conflict and the identities of the contemporary Democratic and Republican parties (Layman, 2001).

We have a better understanding of the consequences of partial polarization on mass political behavior; namely, that citizens have undergone partial sorting. Value divisions have also become more strongly related to partial divisions at both the mass and elite levels. It seems reasonable to expect that value predispositions and ideological position have become more intertwined as citizens have become better equipped to connect the two.

As with partian sorting, there are likely several processes at work. In some cases, partial partial partial (Goren, 2005) or electoral choices (McCann, 1997) may induce value change. In other cases, deeply held core values that were once mostly politically irrelevant may have become hotly-contested components of partial and ideological discourse in American politics. In this instance, citizens would be more likely to change their policy attitudes and partial partial their value predispositions (Carsey and Layman, 2006; Goren, 2013). This leads to the second hypothesis, which involves the types of citizens most likely to be affected by the change hypothesized in  $H_1$ :  $H_2$ : The value-consistent will be more ideologically constrained than the valueconflicted. This disparity will be greater in 2004 than in 1988.

The focus of  $H_2$  is on the attitude structure of the value-consistent relative to the valueconflicted. By value-consistent I mean holding core values which are ideologically consistent with one another (e.g., economic egalitarianism [economically liberal] and moral nontraditionalism [socially liberal]). Conversely, value-conflicted citizens are cross-pressured between the values most relevant to the economic and social policy domains. For these reasons, we should expect that a single, liberal-conservative dimension provides a better model of the policy attitudes of the value-consistent than the value-conflicted. However, this disparity has likely grown given that polarization has made it more difficult for the value-consistent to ignore the disparity between their core values and their policy preferences. Hence,  $H_2$  states that the dimensionality of the latent ideological space will be greater for the value-conflicted than the value-consistent, particularly in 2004.

### 4 Data and Methods

In order to test the relationship between core values and political attitudes over time, the data are drawn from the 1988 and 2004 American National Election Studies (ANES). The 1988 ANES was the first Time Series study that included a values battery measuring respondents' predispositions towards economic egalitarianism and moral traditionalism. I use these two core values to allow for continuity between the 1988 and 2004 studies, and because they are directly relevant to economic and social issue attitudes. In both surveys, moral traditionalism is measured with four questions, and economic egalitarianism with six questions (details provided in Apendix A.1). I perform principal factors factor analysis on the polychoric correlation matrix of the items for each value (since responses are measured ordinarily) to construct the moral traditionalism and economic egalitarianism scales.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup>I also use varimax rotation to rotate the solution.

I estimate respondents' locations in ideological space from their responses to survey items measuring policy attitudes. These include eighteen policy questions in the 1988 ANES and seventeen policy questions in the 2004 ANES. These include nine economic issue questions in both years and nine social issue questions in 1988 and eight social issue questions in 2004 (details provided in Appendix A.2). To scale respondents' policy attitudes, I use Poole's (2000; 2005) Optimal Classification method. Optimal Classification (OC) is a nonparametric unfolding procedure that maximizes the correct classification of binary choice data. Because it is nonparametric, OC does not impose a particular functional form on the respondents' utility functions or the error term. This is a desirable feature given the idiosyncracies of public opinion data. Based on level of political sophistication, risk aversion, and other factors, we should expect that citizens will vary in the utility functions they employ and in their propensity to commit spatial voting "errors." For instance, the risk averse will be more likely to use quadratic utility (Alvarez, 1997), while legislators' utility functions are best modeled with the normal (Gaussian) form (Carroll et al., 2012).

Because OC analyzes binary choice data (i.e., "Yea"/"Nay" votes in the context of legislative voting), I collapse responses to each policy question into two categories that are as balanced as possible. For instance, responses to a questions with a four-point (strongly/somewhat agree or disagree) scale are recoded into two categories so that the number of respondents in each category are as equal as possible. This might divide "agree" and "disagree" respondents, or group "somewhat agree" respondents with "strongly/somewhat disagree" respondents. Finally, to include value divides in the analysis, I create a binary measure of whether respondents fall above or below the median score on the economic egalitarianism and moral traditionalism scales.

Aggregating survey responses in this manner reduces measurement error and provides a more accurate representation of the latent dimensional structure of mass political attitudes (Ansolabehere, Rodden and Snyder, 2008). This allows for an improved analysis of the relationship between core values and ideology, since most previous studies have examined the influence of values on individual issue attitudes.

OC conducts an iterative search to find a configuration of cutting lines (that divide predicted "Yeas" from predicted "Nays" on each choice) that maximize the correct classification of choices (or, alternatively, minimize the number of voting "errors" or misclassifications) in a latent space of specified dimensionality. The normal vectors are orthogonal to the cutting lines, and specify the direction in which each issue maps onto ideological space. For instance, if the first dimension represents the liberal-conservative ideological continuum, then an issue which divides liberals and conservatives (perhaps taxes) will have a normal vector that aligns with the first dimension.

OC also provides fit statistics that measure the contribution of each dimension to the overall correct classification choices and how well each choice is classified in the space. The percentage of choices correctly classified is one measure, but a more sophisticated statistic is the PRE (proportional reduction in error), which measures the improvement in classification from the baseline of the modal category. For instance, if 70% of respondents are in favor of some choice, then a 75% correct classification rate would be less impressive than it would for a choice in which respondents split evenly (50-50). The differences in the PRE values in the first (0.167) and second (0.500) scenarios reflect this. Higher PRE values, then, indicate better fit in ideological space.

### 5 Results

I begin by assessing how well mass policy attitudes map onto low-dimensional ideological space. Table 1 provides the Optimal Classification fit statistics of the one- and twodimensional models in 1988 and 2004. Based on the percentage of choices correctly classified and PRE values, citizens exhibit a considerable amount of ideological constraint in both years. A two-dimensional ideological model, for instance, correctly classifies 82% of respondents' policy and value choices in 1988 and 83% of choices in 2004. For the one-dimensional model, respondents' positions on a latent liberal-conservative dimension is also highly predictive of political preferences, correctly classifying about 75% of choices in both years. All of the fit statistics are higher in 2004 than 1988—suggesting a constraining influence of elite polarization—but the increase is minimal.

To examine the substantive meaning of the recovered dimensions and the relation of the core values (economic egalitarianism and moral traditionalism) to them, Figures 1-2 show the cutting lines of the policy attitudes and values in both years (1988 in the top plots and 2004 in the bottom plots). Figure 1 plots the cutting lines of economic issue attitudes in the left panels and and the cutting lines and normal vectors of economic egalitarianism in the right panels; Figure 2 plots the cutting lines of social issue attitudes in the left panels and and the cutting lines and normal vectors of moral traditionalism in the right panels. Cutting lines divide the predicted "yeas" from the predicted "nays," and are orthogonal to the dimension which explains the most variation in choices on the issue.

In Figure 1, the economic issue cutting lines are mostly vertical in both 1988 and 2004, indicating they align with the dominant first dimension, which likely indicates the familiar liberal-conservative dimension of conflict in American politics. The cutting line for economic egalitarianism also aligns with the economic issue cutting lines and the liberal-conservative dimension in both years. The PRE value for economic egalitarianism is also high and virtually identical in both years (0.622 in 1988 and 0.627 in 2004). This indicates that orientation towards economic egalitarianism maps well onto ideological space, and that this is not an immediately recent phenomenon. Economic issue attitudes as well as liberal-conservative position appears to be highly structured by egalitarian predisposition.

Figure 2 suggests that there has been more change in the ideological structure of social issue attitudes and moral traditionalism orientation between 1988 and 2004. In 1988, respondents' attitudes on social issues align mostly with the second dimension. That is, economic and social issue attitudes appear to be more separable in this period. Moral traditionalism is highly predictive of social issue attitudes in both years, but more sore in 2004 (PRE

values of 0.601 in 1988 and 0.711 in 2004). More importantly, though, the alignment of moral traditionalism and social issue attitudes rotates from the second dimension to the first dimension during this period. In 2004, then, both economic and social issue attitudes and economic egalitarianism and moral traditionalism overlap considerably with one another and align primarily with the first (liberal-conservative) dimension. This follows the reduction of conflict over economic and social issues to a single dimension by political elites (McCarty, Poole and Rosenthal, 2006).

Tables 2 and 3 provide further support for the claim that economic egalitarianism has remained aligned—but moral traditionalism has only recently aligned—with the primary, liberal-conservative dimension. Table 2 provides the fit statistics (PRE values) of the core value cleavages in one and two-dimensional space. Using a one-dimensional model constrains the dimension to represent the liberal-conservative continuum. The one-dimensional fit of economic egalitarianism is about the same in 1988 and 2004, with the PRE value actually decreasing slightly from 0.587 to 0.575. However, the PRE value of moral traditionalism in the one-dimensional model increases considerably between 1988 (0.477) and 2004 (0.614), putting its fit on par with that of economic egalitarianism. Of course, this does not mean that orientation towards moral traditionalism was irrelevant to the ideological structure of respondents' policy attitudes in 1988, but rather that it also loaded onto the second dimension during this period. This is evidenced by moral traditionalism's two-dimensional PRE value of 0.601 in 1988, which is about equal to its one-dimensional PRE of 0.614 in 2004.

Table 3 reports the OLS estimates of regressing respondents' ranks (liberal-conservative position) recovered from a one-dimensional model onto their moral traditionalism and economic egalitarianism scores in 1988 and 2004.<sup>4</sup> This allows for an assessment of the combined and relative influence of these two core values on ideological position.<sup>5</sup> Readily apparent is that core values are more predictive of respondents' liberal-conservative rank in 2004 than

<sup>&</sup>lt;sup>4</sup>In one dimension, Optimal Classification recovers only ranks or ordinal-level positions, not metriclevel information. However, because the number of categories is so high, I use OLS rather than ordered probit/logit.

<sup>&</sup>lt;sup>5</sup>Core value scores are standardized to allow for cross-comparisons.

1988, with an increase in  $R^2$  of 0.14 to 0.32. The partial effect of moral traditionalism also increases significantly in this period, so much so that its influence exceeds that of economic egalitarianism in 2004.

Taken together, these results suggest that both core values—economic egalitarianism and moral traditionalism—are closely related to domain-specific policy attitudes and promote ideological structure, but that what has changed in the contemporary period is the growing alignment of moral traditionalism and social issue concerns with the primary liberalconservative dimension. These findings provide qualified support for  $H_1$ : that core values will align with the relevant policy dimensions in both years, but will more closely align with a single liberal-conservative dimension in 2004 than in 1988. Orientation towards economic egalitarianism maps well onto the liberal-conservative dimension in both years, but with little change from 1988 and 2004. Conversely, moral traditionalism is only moderately related to liberal-conservative position in 1988, but becomes the more strongly aligned of the two values by 2004.

To analyze the micro-level dynamics of the relationship between ideology and core values, I next examine differences in the attitude structure of the value-consistent and the value-conflicted. The value-consistent hold values that are ideologically consistent: proegalitarian and anti-moral traditionalism (for liberals) and anti-egalitarian and pro-moral traditionalism (for conservatives). The value-conflicted hold ideologically mismatched values: anti-egalitarian and anti-moral traditionalism (for libertarians) and pro-egalitarian and pro-moral traditionalism (for communitarians).

Table 4 provides the percentages of respondents who are value-consistent and valueconflicted in 1988 and 2004. As can be seen, the distribution is nearly identical in both years: nearly 60% of respondents are value-consistent in both years. However, the relationship between economic egalitarianism and moral traditionalism has strengthened between 1988 and 2004, overall and among the politically sophisticated. Table 5 reports the Pearson correlations between economic egalitarianism and moral traditionalism by level of political sophisticate in 1988 and 2004. I use a simple criteria to measure political sophistication: respondents are coded as politically sophisticated if they rank that year's Democratic presidential candidate as more liberal than the Republican presidential candidate (Palfrey and Poole, 1987). Using this standard, 58% of respondents qualify as politically sophisticated in the 1988 ANES and 69% are sophisticated in the 2004 ANES.

Despite the fact that the high political sophistication group includes a larger percentage of respondents in 2004 than 1988, the correlation between core values rises from 0.27 to 0.40. For low sophistication respondents, the correlation actually decreases from 0.13 to 0.05. Of course, the behavior of the sophisticated are more politically consequential, not only because it is larger but also because it is more engaged in all facets of political life (Palfrey and Poole, 1987). This group has become more likely to perceive an association between economic egalitarianism and moral traditionalism, which would seem to be a likely consequence of unidimensional ideological and value conflict among increasingly polarized political elites.

I close the analysis of the ideological consistency of the value-consistent and the valueconflicted by running OC in one and two dimensions on each of the groups and examining the fit statistics, which are reported in Table 6. The differences in the correct classification rate and the PRE values between the value-consistent and value-conflicted are not substantial in either year, but the policy attitudes of the value-consistent are better ideologically structured than those of the value-conflicted in all cases. Moreover, the disparities have grown. The difference in one-dimensional PRE values of the value-consistent and the value-conflicted doubles from 1988 to 2004 (from 0.051 to 0.102), and nearly doubles in the two-dimensional models (from 0.046 in 1988 to 0.080 in 2004). Hence, the results support  $H_2$ : the valueconsistent exhibit greater ideological constraint than the value-conflicted, and the difference grew over the period between 1988 and 2004. However, the substantive differences between the two groups are not great.

## 6 Discussion

This paper represents an attempt to gain a better understanding of the relationship between core values and the ideological structure of citizens' political attitudes. More specifically, though, it tries to account for the presence of liberal-conservative constraint—to the extent that it exists—in the mass electorate. Why do so many citizens (indeed, a majority) accept a bundling of economic and social liberalism/conservatism? Even if this is an artificial grouping of policy positions by political elites, is there an underlying connection between economic and social values that makes this ideological packaging salient? Hence, this story is essentially one of ideological constraint and its origins.

The results presented indicate, first, that there is ideological structure to citizens' attitudes. In particular, a single, liberal-conservative ideological dimension underlies mass political attitudes in both 1988 and 2004, although the fit is better in 2004. Second, core values are closely related not only to domain-specific attitudes (Feldman, 1988; Goren, 2004), but are also closely intertwined with the liberal-conservative dimension. Specifically, economic egalitarianism maps well onto one-dimensional ideological space in both years, but the mapping of moral traditionalism onto the liberal-conservative continuum has expanded the most in the period between 1988 and 2004. This finding supports the argument that cultural concerns have become more salient and closely associated with the liberal-conservative dimension of conflict in American politics (Layman and Carmines, 1997; Layman, 2001).

Finally, the correlation between economic egalitarianism and moral traditionalism has strengthened among the politically sophisticated between 1988 and 2004, helping to explain the growing alignment of the two value divides over ideological space during this period. Consistent with expectations, the policy attitudes of the value-consistent (i.e., possessing ideologically consistent core values) are better structured along a single ideological (liberalconservative) dimension than those of the value-conflicted. Moreover, the disparity between the two groups has grown over time, suggesting another consequence of mass "sorting" produced by elite-level partisan polarization (Levendusky, 2009).

This paper grapples with big questions with complex dynamics, and represents only an early effort to understand the mapping of core values onto ideological space in the contemporary American electorate. The biggest hole in this paper concerns the specific mechanisms by which core values have influenced changes in the ideological structure of mass attitudes. It could be the case that the parties, by broadcasting a more ideologically-consistent set of economic and moral values, have led directly to value-based partial sorting or, more subtly, exposed a latent connection between moral and economic liberalism/conservatism. Clearly, then, more work is needed to progress this research agenda. Some ideas include the use of panel data to isolate the individual-level dynamics between core values and policy attitudes. For instance, have citizens been more likely to change their policy positions to fit their core values, or vice versa? Similar studies involving values and partial partial (Goren, 2005) and partisanship and policy attitudes (Carsey and Layman, 2006) have shown that these dynamics can be quite murky. In addition, political elites and elite-level polarization have been supposed to have a role in this relationship. This is a reasonable expectation, but their specific role remains unclear. Likely, more data is needed to assess citizens' perceptions of the parties and presidential candidates along core value dimensions.

## A Appendix

## A.1 Survey Items Used from the 1988 and 2004 American National Election Studies (Time Series): Values

Code	Variable (1988)	Variable (2004)
Moral Traditionalism		
Should adjust moral views	V880951 (1-5)	V045189 (1-5)
Should be more tolerant different moral views	V880952 (1-5)	V045191 (1-5)
Should be more emphasis on traditional family ties	V880953 (1-5)	V045192 (1-5)
Newer lifestyles causing breakdown	V880954 (1-5)	V045190 (1-5)
Egalitarianism		
Make sure everyone has equal opportunity	V880924 (1-5)	V045212 (1-5)
Gone too far pushing equality	V880925 (1-5)	V045213 (1-5)
Better if we worried less about equality	V880926 (1-5)	V045215 (1-5)
Not a problem if some people have fewer chances	V880927 (1-5)	V045216 (1-5)
Fewer problems if people treated more equally	V880928 (1-5)	V045217 (1-5)
Big problem if we don't give equal chances	V880929 (1-5)	V045214 (1-5)

A.2 Survey Items Used from the 1988 and 2004 American National Election Studies (Time Series): Policy Attitudes

Code	Variable (1988)	Variable (2004)
Economic Issue Attitudes		
Government spending and services	V880302 (1-7)	V043136 (1-7)
Government health insurance	V880318 (1-7)	V043150 (1-7)
Government jobs and standard of living	V880323 (1-7)	V043152 (1-7)
Social Security spending	V880348 (1-4)	V043165 (1-4)
Food stamps spending	V880349 (1-4)	
Trade import limits	V880376 (1-2)	
Environmental spending	V880377 (1-4)	
Student financial aid spending	V880378 (1-4)	
Unemployment spending	V880379 (1-4)	
Environment-jobs tradeoff		V043182 (1-7)
Bush tax cuts		V043149 (1-4)
Welfare spending		V043169 (1-4)
Aid to poor		V043172 (1-4)
School vouchers		V045144a (1-4)
Social Issue Attitudes	<i>,</i> ,	
Women's role	V880387 (1-7)	V043196 (1-7)
Abortion	V880395(1-4)	V045132(1-4)
Death penalty	V880855 (1-5)	V043187 (1-4)
School prayer	V880866 (1-4)	
Feeling thermometer: Feminists	V880605 (0-100)	
Feeling thermometer: Evangelical groups	V880614 (0-100)	
Feeling thermometer: Anti-abortionists	V880624 (0-100)	
Feeling thermometer: Homosexuals	V880627 (0-100)	
Feeling thermometer: Christian fundamentalists	V880629 (0-100)	
Gay marriage		V043120 (1-3)
Gay adoption		V045158 (1-2)
Government funding of abortions		V043179 (1-4)
Partial-birth abortion		V043181 (1-4)
Gun control		V043189 (1-5)

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	One Dimension		Two Dimensions	
	% Correctly	PRE	% Correctly	PRE
	Classified		Classified	
1988	74.6	0.399	82.1	0.577
2004	75.9	0.459	82.8	0.614

 Table 1: Optimal Classification Fit Statistics

Table 2: Fit Stat	tistics (PRE Values	) of Core Values in	n One and Two-Din	iensional
Ideological Spac	e			

	Economic Egalitarianism		Moral Traditionalism	
	One	Two	One	Two
	Dimension	Dimensions	Dimension	Dimensions
1988	0.587	0.622	0.477	0.601
2004	0.575	0.627	0.614	0.711

1988	2004
$0.07^{*}$	$0.43^{*}$
(0.02)	(0.03)
$0.35^{*}$	$0.26^{*}$
(0.02)	(0.03)
0.00	0.01
(0.02)	(0.03)
1625	1006
0.14	0.32
0.14	0.32
0.92	0.83
	$\begin{array}{r} 1988 \\ \hline 0.07^* \\ (0.02) \\ 0.35^* \\ (0.02) \\ 0.00 \\ (0.02) \\ 1625 \\ 0.14 \\ 0.14 \\ 0.92 \end{array}$

Table 3: Effects of Core Values on Ideological (Liberal-Conservative) Position

Entries are standardized OLS regression coefficients. Standard errors in parentheses.

\* Significant at p < 0.05.

#### Table 4: Percentage of Value-Consistent and Value-Conflicted Individuals

	Value-Consistent	Value Conflicted
1988	57.8(970)	42.2(707)
2004	58.1(609)	41.9(439)

Number of respondents in parentheses.

# Table 5: Correlation between Economic Egalitarianism and Moral TraditionalismScores by Level of Political Sophistication

	Low Political	High Political
	Sophistication	Sophistication
1988	0.13~(676)	0.27 (949)
2004	0.05~(310)	0.40~(696)

Entries are Pearson correlation coefficients. Number of respondents in parentheses.

 Table 6: Optimal Classification Fit Statistics for Value-Consistent and Value-Conflicted

	One Dimension		Two Dimensions	
	% Correctly	PRE	% Correctly	PRE
	Classified		Classified	
1988				
Value-Consistent	76.6	0.448	83.8	0.617
Value-Conflicted	74.6	0.397	81.9	0.571
2004				
Value-Consistent	79.0	0.528	85.6	0.675
Value-Conflicted	74.6	0.426	82.1	0.595



### Figure 1: Ideological Mapping of Egalitarianism: 1988 and 2004

Source: ANES 1988 and 2004 Time Series Studies. Notes: Cutting lines shown as solid lines; normal vectors shown as dotted lines.



### Figure 2: Ideological Mapping of Moral Traditionalism: 1988 and 2004

Source: ANES 1988 and 2004 Time Series Studies. Notes: Cutting lines shown as solid lines; normal vectors shown as dotted lines.