

Static Stability and Evolving Constraint: Attitude Stability, Constraint, and Impact in the American Electorate

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ABSTRACT

In this article, we contribute to a growing body of research showing that concerns about public attitude instability and incoherence are either overstated, outdated, or incorrect. Applying a multi-trait multi-method (MTMM) confirmatory factor analysis to panel surveys in the 1970s and 1990s, we show that individuals' issue attitudes are both stable and ideologically constrained. The MTMM method enables us to simultaneously examine the stability and constraint of attitudes in a holistic manner while controlling for potential panel-level measurement error – even when attitudes are measured with a single item on each wave. In addition, we show that, while attitude constraint has long existed, it has become more widespread and amplified over time and that attitude stability and constraint are not limited to politically sophisticated respondents. Finally, we provide evidence suggesting that, when individual attitudes are correctly measured, they are related to vote choice above and beyond partisanship and ideology.

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1. INTRODUCTION

Traditional conceptualizations of democratic representation contend that voters hold elected officials accountable for the policies they advocate during elections and the laws they enact while in office (Key 1966; Canes-Wrone, Brady and Cogan 2002). This basic concept of accountability undergirds over a century of democratic theory and is the central assumption of spatial models of elections (Downs 1957). Both our normative and positive theories of politics hold that voters have preferences on policy and apply them when evaluating candidates and office holders.

Yet, decades of survey research focused on the American electorate undermine the empirical basis for this foundational assumption of democracy in action. While far from unchallenged, there still exists a general consensus that voters' issue preferences are unstable, unstructured, and relatively unimportant in determining vote choice. The most damning, and widely cited, criticism of voter competence is Converse (1964). In his classic book chapter, Converse ignited a long-lasting debate about the stability and interrelatedness of issue attitudes, ideology, partisanship, and vote choice. Building on earlier work in *The American Voter* (Campbell et al. 1960), he argued that voter preferences exhibited neither over time stability nor ideological constraint across issues. Although this view of American voter preferences has been repeatedly refined and revised, it remains the canonical textbook vision of American public opinion (c.f., Ansolabehere, Rodden and Snyder 2008).

This article contributes to a growing body of research which argues that concerns about instability and lack of issue constraint are either overstated, outdated, or just plain false once researchers have taken steps to adjust for measurement error (c.f., Achen 1975). We conduct a multi-trait multi-method (MTMM) confirmatory factor analysis of single-item attitude measures on the 1972-74-76 and 1992-94-96 American National Election Studies (ANES). The advantage of MTMM analysis is that we can simultaneously test for over time attitude stability while also exploring the degree of inter-attitude correlation, often termed constraint, in the context of potential correlated measurement error arising from panel-wave or time-period effects.

Our analysis show that, contrary to received wisdom, the issue attitudes of American voters are stable and constrained. Indeed, some issue attitudes approach the level of stability of the party identification – the much vaunted “unmoved mover” of public opinion scholarship (Campbell et al. 1960; Green, Palmquist and Schickler 2002; Goren 2005). Moreover, we show that this constraint and stability does not exist solely amongst political sophisticates.

Further, although there has long existed a significant level of constraint in American public opinion, our analysis demonstrates that this ideological thinking has increased in its magnitude and in its pervasiveness over time. Issue attitudes, partisanship, and ideology became generally more aligned over this time period. In addition, issues that were less related to partisanship and ideology in the 1970s (e.g., abortion) were significantly correlated with them just two decades later. Finally, we show that when issue attitudes are measured appropriately, they are significantly related to vote choice above and beyond partisanship and ideology.

The rest of this article proceeds as follows. In Section 2, we briefly review the empirical and theoretical debate regarding issue stability and constraint in the public opinion literature. In Section 3, we provide the details of the MTMM model and discuss its advantages

for simultaneously evaluating attitude stability and attitude constraint in the context of potential correlated measurement error resulting from panel-wave or time-period effects.

In Section 4, we then analyze the 1970s and 1990s ANES panels to answer four questions: Are there really stable issue attitudes to measure? Are these attitudes related to each other in a sensible manner? To the extent public attitudes are stable and constrained, does this extend beyond the more politically sophisticated portions of the population? Do issue attitudes affect vote choice independent of party identification and ideology? The results provide an affirmative answer to all four of these questions and cast further doubt on the notion that the public’s issue attitudes are easily shifted, non-ideological, and unimportant.

2. ATTITUDE STABILITY, CONSTRAINT, AND MEASUREMENT ERROR

Micro and macro policy preferences: A central focus of many of the most prominent theories of public opinion to emerge in the last decades is explaining the seeming contradiction between the stability and coherence of public opinion at the micro and macro level (c.f., Zaller 1992; Lupia and McCubbins 1998; Erikson, MacKuen and Stimson 2002; Green, Palmquist and Schickler 2002).¹ At the micro level, scholars have brought to light a significant amount of evidence to suggest that public opinion is volatile, inconsistent, and unstructured. Among the findings from this literature are that (i) voter opinions are not consistent over time, (ii) seemingly arbitrary differences in question wording and question ordering affects response, (iii) opinions are inconsistent from issue to issue and do not reflect broader ideological groupings, and (iv) voters rely on partisan cues and personality traits rather than policy stances in evaluating candidates.

However, at the macro level scholars have shown that, when measured in the aggregate, public opinion is stable and quite coherent (Carmines and Stimson 1980; MacKuen, Erikson and Stimson 1992; Erikson, MacKuen and Stimson 2002; Stimson 2002, 2004). Moreover, attitudes respond in predictable ways to the actions and statements of elites (Zaller 1992; Stimson, MacKuen and Erikson 1995; Erikson, MacKuen and Stimson 2002).

One explanation for this apparent paradox is that survey responses are rife with error. That is, the contradictory findings “are easily reconciled with a model in which there is a high degree of measurement error and a high degree of stability in preferences” (Ansolabehere, Rodden and Snyder 2008, p 216). One of the earliest proponents of this idea was Achen (1975; 1983), who argued that Converse’s conclusions about the instability and inconsistency of mass public opinion were driven by unmodeled measurement error. Subsequent work has echoed this finding (e.g., Erikson 1979; Judd and Milburn 1980; Jackson 1983; Norpoth and Lodge 1985; Krosnick 1991; Jennings 1992; Heath, Evans and Martin 1994), although it is still far from the dominant view.

A powerful demonstration of how accounting for measurement error can explain the differences between macro- and micro-level public opinion is Ansolabehere, Rodden and Snyder

¹In addition to those discussed in the main text, an incomplete list of works relevant to the study of issue stability and constraint would include Stimson (1975); Converse (1976); Sullivan, Piereson and Marcus (1978); Erikson (1979); Markus and Converse (1979); Green and Palmquist (1990); Heath, Evans and Martin (1994); Green and Citrin (1994); Green and Palmquist (1994); Green, Palmquist and Schickler (1998); Erikson and Tedin (2005) and Carsey and Layman (2006).

(2008), which takes multiple question items from the ANES to estimate broad latent attitude dimensions such as “moral issues”, “economic issues”, and “racial issues.” Ansolabehere, Rodden and Snyder (2008) shows that these broader attitudes are stable over time and important in determining voter behavior.

In this article, we provide additional evidence in favor of the hypothesis that the apparent lack of stability and constraint in public opinion is largely a function of measurement error. In particular, we build on the existing literature in three ways. First, our approach does not require the use of multiple question items aimed at measuring some broader latent attitude.² Creating these multi-item constructs is not necessary, as we show that responses to individual questions are themselves quite stable over time once we have adequately accounted for measurement error.

Using a MTMM approach, we are able to show attitude stability and constraint even when attitudes are measured by *single-item* batteries of partisanship, ideology, and policy attitudes. Thus, we are not imposing any ideological structure on voters or claiming that there are broader latent traits and attitudes that drive survey response. Indeed, we impose no structure at all on the data other than to allow that responses to the same question across time periods *may* be correlated and, where they are not, that errors across survey items on the same panel wave *may* be correlated.

Second, the MTMM modeling approach provides simultaneous estimates of the over-time stability and interrelationships of multiple attitudes across domains. We do not simply focus on how attitudes are consistent within broader issue domains, but explore the degree of ideological constraint across domains such as abortion policy and government backed health insurance. We believe that this is more in line with Converse’s original conception of constraint, and certainly allows us to speak more strongly to the degree of ideological thinking in the public where issues in nearly all domains are expected to be correlated.

Finally, by fitting this same measurement model in two distinct time periods, our approach demonstrates considerable change in the structure and consistency of public opinion from the 1970s to the 1990s (Abramowitz and Saunders 1998). While there is no strong evidence to suggest that attitude stability has changed, the results below show there has been an increase in constraint.

Approaches to modeling measurement error in public opinion surveys: Before describing our method of measurement, it is worth stepping back to consider its relative placement in the broader literature on issue stability and constraint. There are, after all, well-known adverse consequences for ignoring measurement error in public opinion surveys. Random error reduces the reliability of measures and biases estimated correlations downward. More seriously, the use of measures tainted with correlated non-random error can produce incorrect inferences.

Nonetheless, the most common approach to handling measurement error on surveys is to ignore it. To be fair, measurement issues often go unaddressed as a result of fundamental limitations of available survey data itself. Due to time constraints, survey scales purported to

²The wider literature seems to place a heavy emphasis on combining multiple questions to create broader scales. Ansolabehere, Rodden and Snyder (2008), for instance, state that conclusions about the instability of attitude preferences are “driven largely by measurement error associated with the analysis of individual survey items” (p 215).

measure a given attitude often include few question items or even just one. In many instances, such as the analysis of surveys administered in the past, researchers cannot choose items needed to measure a hypothesized attitude of interest. In most cases, survey researchers must make the most of what is available, despite the random and non-random errors introduced by sampling, interviewer effects, response options, and the like. As Achen (1975, p. 1231) notes, “If a researcher has no idea of the size of these errors, as is often the case, he has little choice but to assume that they are small and then proceed, treating the observed response as direct measures of the underlying attitudes.”

The next most frequent approach to handling measurement error is to estimate unobserved latent traits using multiple observed indicators in some measurement model. Common choices include confirmatory factor analysis (e.g., Ansolabehere, Rodden and Snyder 2008), hierarchical models (e.g., Gelman and Hill 2006), classical structural equation models (Carsey and Layman 2006), item response models (e.g. Treier and Hillygus 2009), Wiley-Wiley estimators (Green and Palmquist 1990), or Kalman smoothing (Green, Gerber and DeBoef 1999).

We argue that these approaches are insufficient for fully addressing concerns about issue constraint and stability for at least two reasons. First, in many cases (e.g., party identification), scholars only have a single indicator or are uncomfortable with assumption that multiple indicators necessarily load on a single latent dimension. Indeed, few issue questions available in historic surveys such as the ANES were designed *a priori* as a multi-item measurement scale and even those that were too often fail to cohere (e.g., Acock, Clarke and Stewart 1985). Thus, while it is possible to combine multiple indicators to measure broader policy preferences, an advantage of our approach is that we can establish the stability of single-item responses themselves without creating or validating broader scales.

Second, although these methods are all capable of dealing with random or systematic errors within a single scale, none can isolate correlated panel-wave and/or time-period effects that influence survey response across multiple items. Concerns about correlated measurement error resulting from panel-wave effects hamper our ability to appropriately assess correlations between multiple attitudes. Survey responses may appear highly correlated across domains (i.e., constrained) as an artifact of the fact that they all appeared on the same survey and were asked at the same moment in time. Likewise, individual attitudes may appear unstable due to these same wave-dependent phenomenon. In contrast, MTMM models are specifically designed to generate unbiased estimates of latent traits and inter-trait correlations in the presence of correlated error – even when traits are measured by only a single indicator.

We view MTMM models as an intuitive and flexible method for simultaneously evaluating attitude stability and inter-attitude constraint in the presence of potential correlated measurement error introduced in panel surveys.³ While MTMM analysis is more common in psychology (e.g., Krosnick et al. 1993; Mitte and Kampfe 2008), sociology (e.g., Bollen and Paxton 1998), education (e.g., Wu and Chen 2010; Dennis 2007), and consumer research (e.g., Bagozzi and Yi 1993), it is relatively rare in published political science research and may be unfamiliar to many readers (but see Sullivan and Feldman 1979; Andrews 1984; Saris and Sniderman 2004; Bakker 2009). Before moving onto our results, therefore, we briefly outline

³See van der Veld and Saris (2005) for a somewhat similar argument.

our model and discuss how it facilitates the simultaneous estimation of over-time stability and inter-trait correlations in the context of (potential) correlated panel-wave effects.

3. MODELING STRATEGY

Campbell and Fiske (1959) first propose the multitrait-multimethod (MTMM) approach as a way to evaluate the convergent and discriminant validity of multiple constructs in the context of correlated measurement error.⁴ The MTMM approach assumes we have measured the same latent constructs via multiple “methods.” In our analyses, we assume that the same traits have been measured across multiple waves of a panel survey.

The advantage of using MTMM models is that they allow for the simultaneous unbiased estimation of latent traits, correlated panel/time-period error, and item-level random error all within the same measurement model. Moreover, we can do so using only single question-items to measure these traits and attitudes.

Panel surveys are an ideal setting for applying MTMM models. One reason MTMM analyses are rare is that they require more observations,⁵ more methods of measurement, and more traits per method than are available in, for example, standard political psychology datasets. Public opinion researchers, however, have relatively large sample sizes and surveys often include more latent concepts in any given instrument than is the case in other settings such as expert codings (Bollen and Paxton 1998; Bakker 2009). Finally, we can simply use the panel design, which measures the same trait on several panel waves, as the relevant method.

While not strictly necessary, allowing each panel or time period to have an independent effect on measures addresses the possibility that that responses to multiple questions may be biased by (a) systematic differences in attitudes in distinct time periods or (b) the structure of the surveys themselves. There are many reasons why responses to identically worded scale items might be systematically biased as a result of their administration on different waves. For instance, changes in social and political contexts may alter what considerations are salient and available to individuals when they provide responses to survey questions. Thus, saliency effects resulting from idiosyncratic current events may systematically shape survey responses (Zaller 1992). In addition, panel waves may not be administered in a completely identical manner. While similar questions may be repeated across waves, it is possible that the interviewer, order of the questions, or even the mode (e.g. telephone, face-to-face, etc.) of questioning have changed and, in turn, introduced bias into survey responses.

Mathematical details: We focus here on one MTMM model commonly referred to as the correlated traits correlated uniqueness (CTCU) model (Kenny 1979; Marsh 1989).⁶ The advantage of CTCU variant of MTMM is that it makes no assumptions about the rela-

⁴We certainly not the first to suggest using MTMM techniques on survey data (c.f Andrews 1984; Saris and Van Meurs 1990). For a recent review of MTMM techniques on public opinion surveys, see Scherpenzeel and Saris (2007).

⁵Some suggest a minimum of four traits and three methods and a sample size greater than 250 (Marsh and Grayson 1995; Nussbeck, Eid and Lischetzke 2006). Saris (1990) argues for a sample size of at least 400.

⁶For excellent overviews of MTMM models, see Kenny and Kashy (1992), Marsh and Grayson (1995), and Brown (2006).

tionship between various panel-wave effects nor does it assume that the panel waves have an identical effect across all items and traits. In addition, the CTCU model has been shown to be far less likely to converge on an improper solution with more limited data than its alternatives.⁷

Assume we have p total indicators. We denote individuals with subscript $i \in [1, n]$, traits with subscript $j \in [1, J]$, panel waves with subscript $k \in [1, K]$, and items with $m \in [1, p]$ where $m = i + (j - 1)p$. We can then specify the model as:

$$x_{ijk} = \lambda_{mj}\xi_{ij} + \delta_{ijk} \quad (1)$$

$$\mathbf{X} = \mathbf{\Lambda}\xi + \delta, \quad (2)$$

where \mathbf{X} is the $p \times n$ matrix of observed indicators, λ_{mj} is the loading for item m on trait factor ξ_j , and δ_{ijk} is the independent random error.

We assume that $E(\xi_j\delta_{jk}) = E(\delta_{jk}) = 0$, which allows us to estimate the covariance matrix:

$$\begin{aligned} \Sigma = E(\mathbf{X}\mathbf{X}') &= E\left((\mathbf{\Lambda}\xi + \delta)(\xi'\mathbf{\Lambda}' + \delta')\right) \\ &= \mathbf{\Lambda}E(\xi\xi')\mathbf{\Lambda}' + E(\delta\delta') \\ &= \mathbf{\Lambda}\Phi\mathbf{\Lambda}' + \Theta, \end{aligned} \quad (3)$$

where only the off-diagonal and elements corresponding to items measured on the same panel take on non-zero values in Θ .⁸

4. ANALYSIS AND RESULTS

We analyze the 1972-1974-1976 and the 1990-1992-1996 panels of the American National Election Studies. We chose these surveys partly due to the presence of identically worded policy questions both within each panel and, in many cases, across the two panels.⁹ Including both panels provides a robustness check and allows us to explore the extent to which attitude stability and constraint may have changed over time.

We selected a set of six distinct, but potentially related, attitudes that were measured in

⁷One alternative modeling approach would be dynamic factor analysis or latent growth models which would allow latent traits to differ across time periods. We have chosen to avoid this approach for two reasons. First, this model would not be identified when the latent trait in each time period is measured by a single indicator without strong additional assumptions (e.g., that panel-wave effects are constant across traits). Second, our aim is not to model the time varying elements of these traits, but rather to evaluate attitude stability. Thus, we felt that the CTCU model is a more theoretically appropriate model for this analysis.

⁸In the examples below, the diagonal elements of Φ are assumed to be one for identification purposes. An alternative identification strategy is to assume that the trait loadings (λ_{mj}) are equal to one for at least one indicator associated with each latent trait.

⁹Our focus on items asked consistently across the two panels results in a set of issue attitudes that are relatively central to political party platforms and the general public discourse. This may someone limit the generalizability of our findings. However, if all citizens' attitudes are truly unstable and unconstrained as the Converse (1964) contingent implies, even attitudes regarding salient and core issues should be unstable and unconstrained.

multiple waves on both panel studies. The question wording for these six attitudes are shown in Figure 1. Note that we included items spanning multiple domains including attitudes about the degree of government involvement in job creation, government health insurance, aid to minorities, abortion, the place of women in society, and ideology.¹⁰ In addition, we include the traditional 7-point measure of party identification.

We conducted a CTCU MTMM analysis for both the 1970s and the 1990s panels. In these models, we allow items repeated over waves to load on a single underlying factor (e.g., abortion). The standardized trait-factor loadings indicate the degree of temporal stability associated with each trait with complete stability represented by numbers approaching unity.¹¹ We also allowed each of the seven latent traits to be correlated, with larger numbers indicating greater constraint. Finally, the residuals for all items within a panel wave were allowed to be correlated to account for potential measurement error associated with each panel wave.¹² All of the models converged with acceptable goodness-of-fit measures (see Table A.3 in the Appendix).

4.1. *Over-time attitude stability*

We begin by exploring attitude stability over the course of the panels. To provide a baseline for comparison, we also include the standard measure of party identification, which is widely viewed as being among the most stable attitudes (Green, Palmquist and Schickler 2002). Figure 2 provides the trait-factor loadings and 95% confidence intervals for both the 1970s and 1990 panels. The top panel shows the estimates from a model which pools the entire sample, while the bottom panels, discussed below, display the estimates from a model that differentiates subpopulations based on political sophistication.¹³

In general, the results in Figure 2 indicate that stable attitudes do exist. Even when asked their opinion years apart, responses tend to load strongly on each attitudes' specific trait factor. This suggests that the underlying attitudes – independent of measurement error – are stable. For all but one case (Health Insurance) the factor loadings are greater than 0.6, and in most domains the factor loadings are, on average, above 0.7.

Yet, the stability of the attitudes varies by issue-domain. Partisan identification has extremely high factor loadings relative to the less engrained issue positions. For instance, loadings in the 1970s range from 0.852 to 0.910 for partisan identification and from 0.668 to 0.724 for the beliefs about the government's role in creating jobs. However, it is notable that some issue positions are nearly as stable as partisanship. For instance, in the 1990s panel, the factor loadings for the abortion issue range from 0.870 to 0.902.

¹⁰The abortion and health insurance items were not asked in 1974.

¹¹In the multiple-group analysis, it is possible for these numbers to rise above one. However, larger numbers still indicate greater temporal stability.

¹²In addition, we made appropriate corrections for missing data and the ordinal nature of the data. Because of the categorical response option of the variables used in our analyses, all of the models are estimated using robust weighted least squares (WLSMV) in MPLUS (version 6.12).

¹³Full results for factor loadings are provided in Tables A.1 and A.2 in the Appendix.

Figure 1: Issue attitude question wording

Ideology : We hear a lot of talk these days about liberals and conservatives. Here is a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale, or haven't you thought much about this?

Jobs: Some people feel the government in Washington should see to it that every person has a job and a good standard of living. Others think the government should just let each person get ahead on their own. Where would you place yourself on this scale, or haven't you thought much about this?

Insurance: There is much concern about the rapid rise in medical and hospital costs. Some people feel there should be a government insurance plan which would cover all medical and hospital expenses for everyone. Others feel that all medical expenses should be paid by individuals, and through private insurance plans like Blue Cross (1992,94,96: or other company paid plans). Where would you place yourself on this scale, or haven't you thought much about this?

Minority Aid: Some people feel that the government in Washington should make every effort to improve the social and economic position of blacks (1972,74,76: and other minority groups). Others feel that the government should not make any special effort to help blacks (1972,74,76: minorities) because they should help themselves. Where would you place yourself on this scale, or haven't you thought much about this?

Abortion: There has been some discussion about abortion during recent years (1972,76: Still on the subject of women's rights, there has been some discussion about abortion during recent years.). Which one of the opinions on this page best agrees with your view? By law, abortion should never be permitted. The law should permit abortion only in case of rape, incest or when the woman's life is in danger. The law should permit abortion for reasons other than rape, incest or danger to the woman's life, but only after the need for abortion has been clearly established. By law, a woman should always be able to obtain an abortion as a matter of personal choice.

Women's Place: Recently there has been a lot of talk about women's rights. Some people feel that women should have an equal role with men in running business, industry, and government. Others feel that women's place is in the home. Where would you place yourself on this scale, or haven't you thought much about this?

Figure 2: Over time attitude stability (combined and multiple-group models)

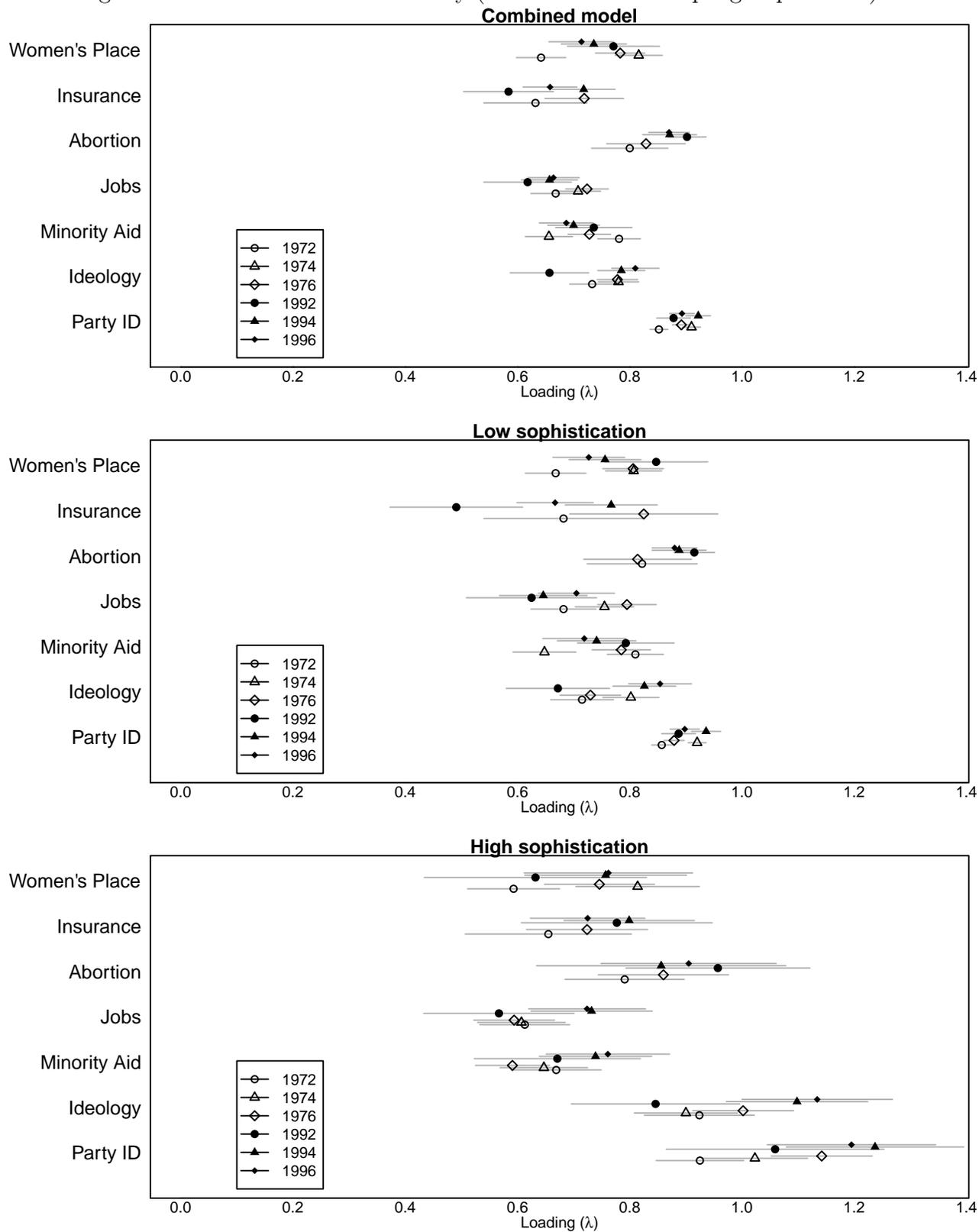


Table 1: Combined Model Between Factor Loadings: 1972-74-76 and 1990-92-96

	Party ID	Ideology	Jobs	Insurance	Minority Aid	Abortion	Women
1972-74-76 Panel							
Party ID	1.00						
Ideology	0.525	1.00					
Jobs	0.372	0.644	1.00				
Insurance	0.409	0.563	0.643	1.00			
Minority Aid	0.253	0.619	0.737	0.521	1.00		
Abortion	-0.099	0.218	-0.003†	0.132	0.108†	1.00	
Women	0.091	0.446	0.170	0.200	0.374	0.437	1.00
1990-92-96 Panel							
Party ID	1.00						
Ideology	0.756	1.00					
Jobs	0.565	0.601	1.00				
Insurance	0.586	0.632	0.747	1.00			
Minority Aid	0.441	0.576	0.720	0.556	1.00		
Abortion	0.220	0.555	0.158	0.279	0.177	1.00	
Women	0.234	0.557	0.267	0.326	0.226	0.574	1.00

†Indicates correlation parameters are insignificant ($p > 0.05$).

4.2. Issue constraint

Next, we ask whether attitudes are constrained in a manner consistent with ideological thinking. The correlations between partisanship, ideology, and issue positions are shown in Table 1 for the entire sample. If attitudes are constrained, we would expect moderate to high correlation between the partisanship, ideology, and issue position traits. In general, this is precisely what we find, although there are some important caveats. For all respondents, irrespective of time period, the correlation between party identification, ideology, and jobs, and health insurance are moderately to highly correlated ($r > 0.37$ in all cases).

Notably, this constraint is not constant across attitude domains. For instance, attitudes about abortion and women’s role in society are almost entirely uncorrelated with the other traits in the 72-74-76 panel. The 72-74-76 correlations in Table 1 show abortion is only weak related to ideology (0.218), and it appears to have an incorrectly signed relationship with

partisanship (-0.099).

Table 1 also shows how patterns of constraint have changed substantially over this period.¹⁴ Comparing the inter-trait correlations between the 72-74-76 and 92-94-96 panels, we see that there has been an increased level of constraint. For instance, the correlation between party identification and ideology jumps from $r = 0.525$ in the 1970s to $r = 0.756$ in the 1990s. This sharp increase in constraint is particularly evident in the area of abortion. In the 72-74-76 panel, abortion correlates with ideology at $r = 0.218$, but in the 92-94-96 panel, the correlation between abortion and ideology increases to $r = 0.555$.

4.3. *Differences across levels of sophistication*

One alternative explanation for the above findings is that the apparent stability and coherence of public attitudes exist in only a sub-population. This idea was proposed by Converse himself (1964), but refined and advanced by Feldman and Zaller (Feldman 1988; Zaller and Feldman 1992; Zaller 1992, 1994) among others (c.f., Luskin 1987; Sniderman, Brody and Tetlock 1991; Delli Carpini and Keeter 1993; Goren 2001, 2004). In essence, this idea suggests that over-time attitude stability and inter-attitude constraint exist only (or at least to a much greater extent) among sophisticated members of the public. Low-sophisticates, on the other hand, rely more heavily on non-ideological heuristics (e.g., party, groups, or “nature of the times”).

To test whether attitude structures are stable and constrained across levels of political sophistication, we estimate a series of nested models to explore whether the structure and stability of attitudes differs by level of political sophistication. Political sophistication is defined as possessing a political belief system that is composed of numerous elements that cover a wide range of political concepts and are connected in a constrained and organized manner (Luskin 1987). Numerous measures of sophistication exist in the literature, but we follow (Luskin 1987, p. 885) and use the external interviewer’s evaluation of the respondent’s level of political information.¹⁵ Respondents who were rated by the interviewer in 1976 or 1996 as having a fairly high or very high level of information about politics and public affairs are coded as political sophisticates while all other respondents are placed in the low-sophistication group. If no rating was provided in the 1976 or 1996 wave, we used the most recent sophistication rating. Details about the size of each sub-population are reported in Table A.3 in the Appendix.

To compare the structure of attitudes across groups, we first estimate a combined (what we term “fully constrained”) model in which all estimated parameters are constrained to be equal across sophistication groups.¹⁶ So, for instance, this model assumes that relationship between party identification and ideology will be identical for both high- and low-sophistication sub-groups. Next, we allow correlated uniquenesses to vary across the two groups. That is, the sophisticated and unsophisticated elements of the population are al-

¹⁴Some caution is needed in comparing the results across the two waves. See Footnote 19.

¹⁵Among other advantages, this measure is included for both ANES panels.

¹⁶For recent work using multiple group analysis, see Carsey and Layman (2006); Perez (2009); Aldrich, Montgomery and Wood (2011); DeSante and Smith (2012); and DeSante (2012).

lowed to have different within-panel correlated errors in their attitudes.¹⁷ Third, inter-trait correlations across sophistication groups are allowed to vary, which indicates different degrees of attitude constraint across the two groups. Finally, in the fully unconstrained model, the factor loadings for the underlying traits are allowed to differ across groups, which suggests differing levels of attitude stability.

As these are each nested models, we can perform a χ^2 test to see if model fit is improved by adding constraints. The model fit comparison test results are shown in the Appendix. In every case, the *least* constrained model provides a better fit to the data. That is, political sophisticates do indeed differ in the degree of attitude stability and constraint.¹⁸ Factor loadings for both groups are shown the bottom panels of Figure 2. The inter-trait correlations for the sophistication subpopulations are displayed in Table 2 (1970s panel) and Table 3 (1990s panel).

The results in Figure 2 indicate that respondents who are politically sophisticated do *not* have uniformly greater attitude stability. While the factor loadings differ across groups, there is no pervasive pattern of greater stability amongst sophisticates. High-sophisticates have more stable responses to questions about partisanship and ideology, but this pattern does not hold for questions about specific policy areas. For example, attitudes about government aid to minorities is actually more stable among non-sophisticates. Indeed, most differences are small relative to the measures of uncertainty, as shown by the error bars associated with each estimate. We are left to conclude that while there are some differences in attitude stability across groups, the evidence suggests that the larger differences are inconsequential once we have accounted appropriately for measurement error (see also Goren 2004).

On the other hand, Tables 2 and 3 show that there are systematic differences in attitude constraint between groups. The inter-trait correlations are, with only a few exceptions, higher for the high-sophisticated group. For instance, the correlation between partisanship and ideology in the 1990s was only 0.537 for low-sophisticates, while it is 0.799 for politically sophisticated respondents. Although not all of these differences are individually statistically significant, the model comparison tests in the Appendix show that, in combination, there are important and statistically significant differences between the structure of attitudes of these groups.

Yet, the patterns of correlations in Tables 2 and 3 do not suggest that individuals in the low sophistication group have **no** constraint, but rather that constraint operates differently. For instance, the association between issue positions and party identification is dramatically lower among low-sophisticates in the 1970s panel (although these differences diminish in the 1990s panels). On the other hand, the evident constraint between individual issues (e.g., Jobs and Insurance or Abortion and Women’s Role) are nearly equivalent across sophistication groups.

Finally, we would be remiss if we did not comment on the seemingly dramatic increase in constraint across time periods – especially amongst low sophisticates.¹⁹ There are two

¹⁷The correlated errors matrices are available from the authors upon request.

¹⁸It would also be possible to allow the threshold parameters needed to correctly handle the ordered categorical indicators to vary between groups. However, we had no theoretical expectations for allowing these parameters to differ and we do not believe that such differences would have any interpretable meaning. Therefore, we do not present such an analysis here.

¹⁹Caution is needed in comparing the results in Tables 2 and 3. To identify these models, we set the trait

Table 2: Multiple Group Analysis Between Factor Loadings: 1972-74-76

	Party ID	Ideology	Jobs	Insurance	Minority Aid	Abortion	Women
Unsophisticated Sophisticated	Party ID 1.00						
Unsophisticated Sophisticated	0.418 0.593	Ideology 1.00					
Unsophisticated Sophisticated	0.272 0.472	0.520 0.722	Jobs 1.00				
Unsophisticated Sophisticated	0.260 0.497	0.437 0.622	0.534 0.722	Insurance 1.00			
Unsophisticated Sophisticated	0.169 0.335	0.550 0.660	0.714 0.762	0.377 0.596	Minority Aid 1.00		
Unsophisticated Sophisticated	-0.125 -0.061†	0.167 0.262	-0.140 0.148	0.001† 0.239	0.063† 0.158	Abortion 1.00	
Unsophisticated Sophisticated	0.073† 0.115	0.418 0.469	0.100 0.237	0.170† 0.219	0.340 0.402	0.419 0.456	Women 1.00

†Indicates correlation parameters are insignificant ($p > 0.10$).

Table 3: Multiple Group Analysis Between Factor Loadings: 1992-94-96

	Party ID	Ideology	Jobs	Insurance	Minority Aid	Abortion	Women
Unsophisticated Sophisticated	Party ID	1.00					
Unsophisticated Sophisticated	Ideology	0.493 0.809	1.00				
Unsophisticated Sophisticated	Jobs	0.477 0.626	0.391 0.676	1.00			
Unsophisticated Sophisticated	Insurance	0.493 0.629	0.468 0.677	0.720 0.755	1.00		
Unsophisticated Sophisticated	Minority Aid	0.327 0.513	0.366 0.652	0.599 0.789	0.450 0.603	1.00	
Unsophisticated Sophisticated	Abortion	0.008 [†] 0.391	0.529 0.560	0.006 [†] 0.274	0.133 0.362	0.012 [†] 0.293	1.00
Unsophisticated Sophisticated	Women	0.111 0.330	0.564 0.546	0.166 0.349	0.197 0.403	0.117 [†] 0.310	0.468 0.655

[†]Indicates correlation parameters are insignificant ($p > 0.10$).

differences between these tables that call for particular attention. First, it is evident that the differences in the level of constraint between sophisticates and non-sophisticates has narrowed over time, particularly when it comes to the correlation of issue attitudes and partisanship. For instance, in the 1970s the correlation between support for health insurance and partisanship among low sophisticates was $r=0.260$, while it was $r=0.497$ for high-sophisticates. By the 1990s the numbers were $r=0.493$ and $r=0.639$ respectively.

Second, a number of issues that were once less associated with ideology and partisanship have become associated over time – especially amongst highly sophisticated voters. We have already noted the changing position of abortion attitudes in the constellation of public attitudes. Another example, however, is attitudes towards women’s role in society. In the 1970s panel, these attitudes are correlated with partisanship at $r=0.115$ amongst high-sophisticates, but we cannot reject the null hypothesis of zero correlation between these attitudes and partisanship for low-sophisticates. By the 1990s, however, the correlation between partisanship and attitudes towards women was $r=0.111$ for low-sophisticates and $r=0.333$ for high-sophisticates.

In all, these findings speak to the literature on the changing levels of polarization and constraint in the mass electorate (Abramowitz and Saunders 1998; Fiorina 2005; Levendusky 2009). Specifically, while our results cannot speak to whether the level of polarization in public attitudes has increased, they do provide a stark demonstration of the degree to which ideological thinking has spread in both its scope and significance. The difference in ideological thinking has shrunk between sophisticates and non-sophisticates, and an increasing number of issue domains have become increasingly constrained.

4.4. *The role of issue attitudes in affecting vote choice*

A final concern in the literature on issue attitude stability is that, once we have controlled for broader attitudes like partisanship and ideology, specific policy attitudes do not influence vote choice, or at least these attitudes only matter amongst more sophisticated citizens (Knight 1985; Jacoby 1986; Delli Carpini and Keeter 1996; Lavine and Gschwend 2007). It is worth briefly emphasizing, therefore, that taking additional steps to remove measurement error increases the apparent role of individual policy attitudes on vote choice.

Figure 3 shows the coefficient estimates and 95% confidence intervals for simple regressions predicting vote choice in the 1976 and 1996 elections. The coefficients for the raw response to the questions asked for the relevant year are shown as triangles, while the coefficients for the factor scores are shown as circles. All variables are standardized to make the coefficients comparable and each model applies the respective year’s cross-sectional probability weights.

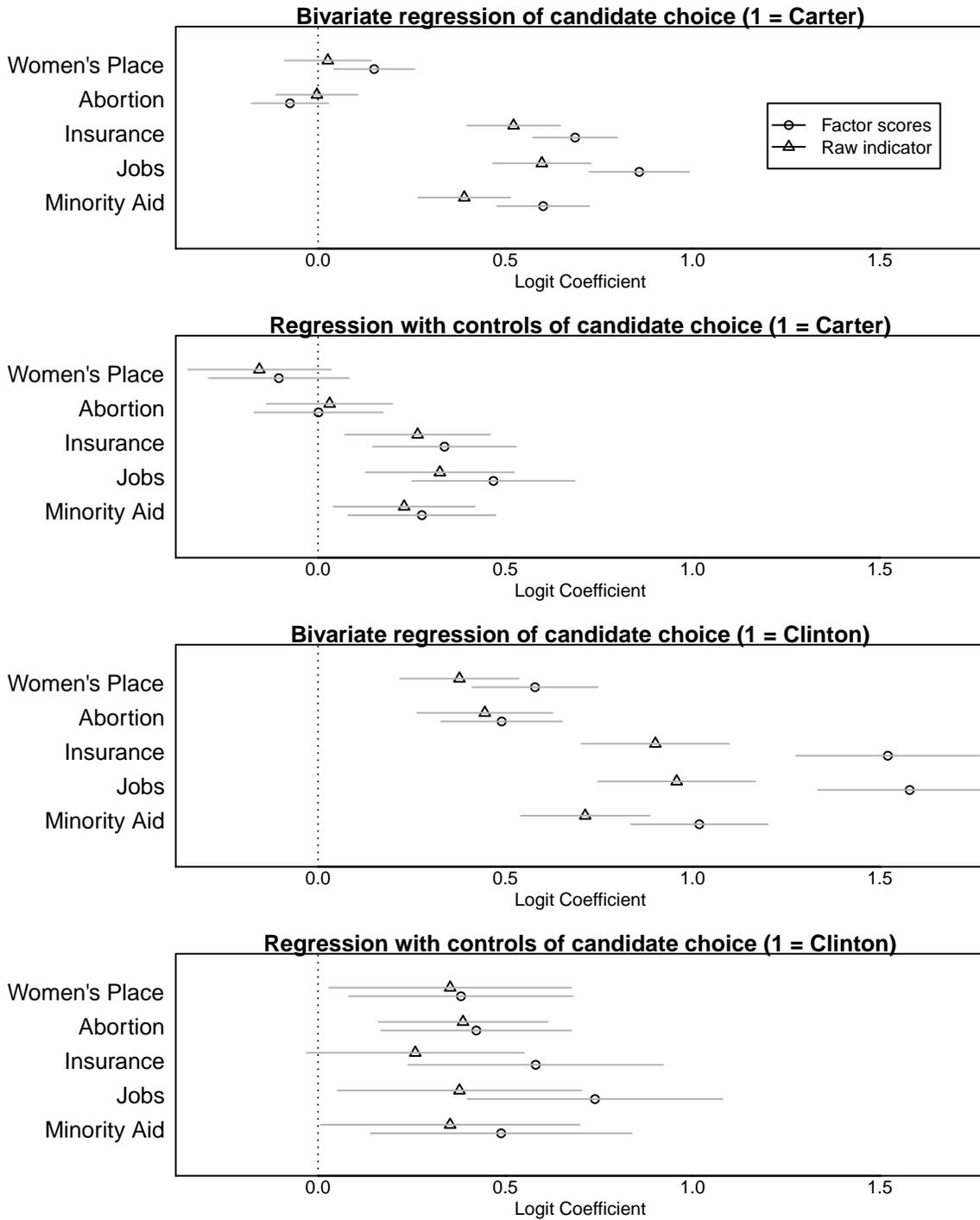
The dependent variable in all of these regressions indicates voting for the Democratic candidate for president. The bivariate regressions are of the form

$$y_i = \text{logit}^{-1}(\beta_0 + \beta_1 \times \text{Issue}).$$

The regressions with the control are of the form

variance to unity. Thus, the parameter estimates in the two models are not strictly comparable.

Figure 3: Comparing the predictive power of raw attitude responses and factor scores in predicting candidate choice in the 1976 and 1996 presidential elections



Should include an explanation here of the figure (including the 95% CI bars) and something about the n-sizes for the different regressions.

$$y_i = \text{logit}^{-1}(\beta_0 + \beta_1 \times \text{Issue} + \beta_2 \times \text{PartyID} + \beta_3 \times \text{Ideology}).$$

The coefficients plotted in Figure 3 show that, in almost all cases, the coefficient for the factor scores are larger. Likewise, the confidence intervals are less likely to overlap with zero.²⁰ In the bottom panel, for instance, we see that only two out of five regression coefficients are statistically distinguishable from zero using the raw response data, while all five the issue traits are significant when using the error-corrected factor scores.

Considering all of the evidence shown in Figure 3, we conclude that correctly accounting for measurement error significantly increases the level of correlation between policy preferences and vote choice. While this does not by itself establish that voters are capable of living up to the high standards of the normatively “good” citizen,²¹ it does suggest that concerns about the competency of citizens may be exaggerated.

5. CONCLUSION

At the heart of democratic governance lies the assumption of a public with issue preferences that are relatively stable and organized. These attitudes serve as a basis for the public’s evaluations of candidates and elected officials and also structure elite discourse. Without issue attitude stability and constraint, electoral and political institutions that purport to link the public with elite actions have little or no substance. For representation and accountability to exist, a degree of systematic organization and persistence is required of mass preferences and attitudes.

A vigorous debate regarding the existence and degree of attitude stability and constraint continues to refine the conventional wisdom about the structure and dynamics of mass attitudes. In this article, we contributed to this debate by providing additional evidence that a caricature of chaotic and randomly fluctuating public opinion is outdated and incorrect. Using a multi-trait multi-method (MTMM) confirmatory factor analysis model, we were able to examine the broad structure of issue attitudes while simultaneously accounting for many forms of measurement error. When random and systematic error are removed from measures of issue preferences, we showed that attitudes are stable – at times comparable to the stability of party identifications. In addition, the public’s attitudes are clearly organized in a meaningful fashion, although that organization has changed somewhat over time and differs by level of political sophistication.

Methodologically, our use of a MTMM model to examine attitude stability and constraint has two clear advantages over previous methods. First, when applied to panel data, it is extremely flexible as it can account for both random error and correlated time-dependent errors – even when a trait is measured by a single item. Second, the MTMM models allow for simultaneous unbiased estimates of correlated error within a panel wave, stability over time, and item-level random error in one model. This coherent method allows us to understand

²⁰The few cases where the raw scores have larger coefficients are all surrounding the abortion issue and women’s role in society for the 1970s regressions. However, in these cases, the coefficients themselves are non-significant.

²¹This analysis does not, for instance, establish that voters are aware of the policy stances of the candidates (but see Erikson and Tedin 2005).

the overall temporal and spatial nature of items with greater clarity and ease.

By applying MTMM methods to panel survey data, our overall results provide additional evidence against the received wisdom that mass attitudes are chaotic and unorganized. When attitudes are estimated using an appropriate measurement model, order and stability emerge. Moreover, this order is not caused by a small contingent of informed and sophisticated citizens. Instead, people who are both low and high on levels of information about politics and public affairs maintain relatively similar levels of attitude stability. Furthermore, we find that both sub-populations maintain constrained attitudes, although its nature differs. In addition, we showed that, over time, individuals at all levels of sophistication have become more constrained. Finally, we showed that opinions on specific policy areas are related to vote choice above and beyond partisanship and ideology. In total, therefore, we found clear evidence that the general public does hold attitudes that are sufficiently structured and stable to provide a meaningful foundation for democracy and accountability.

REFERENCES

- Abramowitz, Alan I. and Kyle L. Saunders. 1998. "Ideological Realignment in the U.S. Electorate." *Journal of Politics* 60(3):634–652.
- Achen, Christopher H. 1975. "Mass Political Attitudes and the Survey Response." *American Political Science Review* 69(4):1218–1231.
- Achen, Christopher H. 1983. Toward Theories of Data: The State of Political Methodology. In *Political Science: The State of the Discipline*, ed. Ada W. Finifter. Washington: American Political Science Association pp. 69–93.
- Acock, Alan, Harold D. Clarke and Marianne C. Stewart. 1985. "A New Model for Old Measures: A Covariance Structure Analysis of Political Efficacy." *Journal of Politics* 47(4):1062–1084.
- Aldrich, John H., Jacob M. Montgomery and Wendy Wood. 2011. "Turnout as a Habit." *Political Behavior* 33(4):535–563.
- Andrews, Frank M. 1984. "Construct Validity and Error of Survey Measures: A Structural Modeling Approach." *Public Opinion Quarterly* 48(2):409–442.
- Ansolabehere, Stephen, Jonathan Rodden and James M. Snyder. 2008. "The Strength of Issues: Using Multiple Measures to Gauge Preference Stability, Ideological Constraint, and Issue Voting." *American Political Science Review* 102(2):215.
- Bagozzi, Richard P. and Yougae Yi. 1993. "Multitrait–Multimethod Matrices in Consumer Research: Critique and New Developments." *Journal of Consumer Psychology* 2(2):143–170.
- Bakker, Ryan. 2009. "Re-Measuring Left-Right: A Comparison of SEM and Bayesian Measurement Models for Extracting Left-Right Party Placements." *Electoral Studies* 28(3):413–421.
- Bollen, Kenneth A. and Pamela Paxton. 1998. "Detection and Determinants of Bias in Subjective Measures." *American Sociological Review* 63(3):465–478.
- Brown, T.A. 2006. *Confirmatory Factor Analysis for Applied Research*. New York: The Guilford Press.
- Campbell, Angus, Philip E. Converse, Warren E. Miller and Donald E. Stokes. 1960. *The American Voter*. New York: Wiley.
- Campbell, Donald T. and Donald W. Fiske. 1959. "Convergent and Discriminant Validation by the Multitrait–Multimethod Matrix." *Psychological Bulletin* 56(2):81–105.
- Canes-Wrone, Brandice, David W. Brady and John F. Cogan. 2002. "Out of Step, Out of Office: Electoral Accountability and House Members' Voting." *The American Political Science Review* 96(1):127–140.
- Carmines, Edward G. and James A. Stimson. 1980. "The Two Faces of Issue Voting." *American Political Science Review* 74(1):78–91.
- Carsey, Thomas M. and Geoffrey C. Layman. 2006. "Changing Sides or Changing Minds? Party Conversion, Issue Conversion, and Partisan Change on the Abortion Issue." *American Journal of Political Science* 50(2):464–77.

- Converse, Philip E. 1964. The Nature of Belief Systems in Mass Publics. In *Ideology and Discontent*, ed. David E. Apter. New York: Free Press pp. 206–261.
- Converse, Philip E. 1976. *The Dynamics of Party Support: Cohort-Analyzing Party Identification*. Beverly Hills: Sage Publications.
- Delli Carpini, Michael X. and Scott Keeter. 1993. “Measuring Political Knowledge: Putting First Things First.” *American Journal of Political Science* 37(4):1179–1206.
- Delli Carpini, Michael X. and Scott Keeter. 1996. *What Americans Know About Politics and Why it Matters*. New Haven: Yale University Press.
- Dennis, Ian. 2007. “Halo Effects in Grading Student Projects.” *Journal of Applied Psychology* 92(4):1169–1176.
- DeSante, Christopher D. 2012. “Are White Americans Becoming Less Racist? Evidence from Longitudinal Multiple Groups CFA.” *Annual Meeting of The Society for Political Methodology* .
- DeSante, Christopher D. and Candis Watts Smith. 2012. “New Attitudes or Old Measures? Determining the Level, Structure and Role of Racial Attitudes among the Millennial Generation.” *Annual Meeting of The Midwest Political Science Association* .
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.
- Erikson, Robert S. 1979. “The SRC Panel Data and Mass Political Attitudes.” *British Journal of Political Science* 9(1):89–114.
- Erikson, Robert S. and Kent L. Tedin. 2005. *American Public Opinion: Its Origins, Content, and Impact*. 7th ed. New York: Pearson/Longman.
- Erikson, Robert S., Michael B. MacKuen and James A. Stimson. 2002. *The Macro Polity*. New York: Cambridge University Press.
- Feldman, Stanley. 1988. “Structure and Consistency in Public Opinion: The Role of Core Beliefs and Values.” *American Journal of Political Science* 32(2):416–440.
- Fiorina, Morris P. 2005. *Culture War? The Myth of a Polarized America*. New York: Pearson Longman.
- Gelman, Andrew and Jennifer Hill. 2006. *Data Analysis Using Regression and Multi-level/Hierarchical Models*. New York: Cambridge University Press.
- Goren, Paul. 2001. “Core Principles and Policy reasoning in Mass Publics: A Test of Two Theories.” *British Journal of Political Science* 31(1):159–177.
- Goren, Paul. 2004. “Political Sophistication and Policy Reasoning: A Reconsideration.” *American Journal of Political Science* 48(3):462–478.
- Goren, Paul. 2005. “Party Identification and Core Political Values.” *American Journal of Political Science* 49(4):881–896.
- Green, Donald Philip and Bradley Palmquist. 1990. “Of Artifacts and Partisan Instability.” *American Journal of Political Science* 34(3):872–902.

- Green, Donald Philip and Bradley Palmquist. 1994. "How Stable is Party Identification?" *Political Behavior* 16(4):437–466.
- Green, Donald Philip and Jack Citrin. 1994. "Measurement Error and the Structure of Attitudes: Are Positive and Negative Judgments Opposite?" *American Journal of Political Science* 38(1):256–281.
- Green, Donald Phillip, Alan S. Gerber and Suzanne L. DeBoef. 1999. "Tracking Opinion over Time: A Method for Reducing Sampling Error." *Public Opinion Quarterly* 63(2):178.
- Green, Donald Phillip, Bradley Palmquist and Eric Schickler. 1998. "Macropartisanship: A Replication and Critique." *American Political Science Review* 92(4):883–899.
- Green, Donald Phillip, Bradley Palmquist and Eric Schickler. 2002. *Partisan Hearts and Minds*. New Haven: Yale University Press.
- Heath, Anthony, Geoffrey Evans and Jean Martin. 1994. "The Measurement of Core Beliefs and Values: The Development of Balanced Socialist/Laissez Fair and Libertarian/Authoritarian Scales." *British Journal of Political Science* 24(1):115–132.
- Jackson, John E. 1983. "The Systematic Beliefs of the Mass Public: Estimating Policy Preferences with Survey Data." *The Journal of Politics* 45(4):840–865.
- Jacoby, William G. 1986. "Levels of Conceptualization and Reliance on the Liberal-Conservative Continuum." *Journal of Politics* 48(2):423–32.
- Jennings, M. Kent. 1992. "Ideological Thinking Among Mass Publics and Political Elites." *Public Opinion Quarterly* 56(4):419–441.
- Judd, Charles.M. and Michael A. Milburn. 1980. "The Structure of Attitude Systems in the General Public: Comparisons of a Structural Equation Model." *American Sociological Review* 45(4):627–643.
- Kenny, David A. 1979. *Correlation and Causality*. New York: Wiley.
- Kenny, David A. and Deborah A. Kashy. 1992. "Analysis of the Multitrait-Multimethod Matrix by Confirmatory Factor Analysis." *Psychological Bulletin* 112(1):165–172.
- Key, V.O. 1966. *The Responsible Electorate*. Cambridge: Harvard University Press.
- Knight, Kathleen. 1985. "Ideology in the 1980 Election: Ideological Sophistication Does Matter." *Journal of Politics* 47(3):828–853.
- Krosnick, Jon A. 1991. "The Stability of Political Preferences: Comparisons of Symbolic and Nonsymbolic Attitudes." *American Journal of Political Science* 35(3):547–576.
- Krosnick, Jon A., David S. Boninger, Yao C. Chuang, Matthew K. Berent and Catherine G. Carnot. 1993. "Attitude Strength: One Construct or Many Related Constructs?" *Journal of Personality and Social Psychology* 65(6):1132–1151.
- Lavine, Howard and Thomas Gschwend. 2007. "Issues, Party and Character: The Moderating Role of Ideological Thinking on Candidate Evaluation." *British Journal of Political Science* 37(1):139–163.

- Levendusky, Matthew. 2009. *The Partisan Sort: How Liberals Became Democrats and Conservatives Became Republicans*. Chicago: University Of Chicago Press.
- Lupia, Arthur and Mathew D. McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What They Need to Know?* New York: Cabridge University Press.
- Luskin, Robert C. 1987. "Measuring Political Sophistication." *American Journal of Political Science* 31(4):856–899.
- MacKuen, Michael B., Robert S. Erikson and James A. Stimson. 1992. "Peasants or Bankers: The American Electorate and the U.S. Economy." *American Political Science Review* 86(3):597–611.
- Markus, Gregory B. and Philip E. Converse. 1979. "A Dynamic Simultaneous Equation Model of Electoral Choice." *American Political Science Review* 73(4):1055–1070.
- Marsh, Herbert W. 1989. "Confirmatory Factor Analyses of Multitrait-Multimethod Data: Many Problems and a Few Solutions." *Applied Psychological Measurement* 13(4):335.
- Marsh, Herbert W. and David Grayson. 1995. Latent Variable Models of Multitrait-Multimethod Data. In *Structural Equation Modeling: Concepts, Issues, and Applications*, ed. Rick H. Hoyle. Thousand Oaks: Sage pp. 177–198.
- Mitte, Kristin and Nicole Kampfe. 2008. "Personality and the Four Faces of Positive Affect: A Multitrait-Multimethod Analysis using Self- and Peer-Report." *Journal of Research in Personality* 42(5):1370–1375.
- Norpoth, Helmut and Milton Lodge. 1985. "The Difference Between Attitudes and Nonattitudes in the Mass Public: Just Measurements." *American Journal of Political Science* 29(2):291–307.
- Nussbeck, Fridtjof W., Michael Eid and Tanja Lischetzke. 2006. "Analysing Multitrait-Multimethod Data with Structural Equation Models for Ordinal Variables Applying the WLSMV Estimator: What Sample Size is Needed for Valid Results?" *British Journal of Mathematical and Statistical Psychology* 59(1):195–213.
- Perez, Efren O. 2009. "Lost in Translation? Item Validity in Bilingual Political Surveys." *Journal of Politics* 71(4):1530–1548.
- Saris, W.E. 1990. The Choice of a Research Design for MTMM Studies. In *Evaluation of Measurement Instruments by Meta-analysis of Multitrait-Multimethod Studies*, ed. W.E. Saris and A. van Meurs. Budapest: Eotvos University Press pp. 160–167.
- Saris, Willem E. and A. Van Meurs. 1990. *Evaluation of Measurement Instruments by Meta-analysis of Multitrait Multi-Method Studies*. Budapest: Eotvos University Press.
- Saris, Willem E. and Paul M. Sniderman. 2004. *Studies in Public Opinion: Attitudes, Nonattitudes, Measurement Error, and Change*. Princeton: Princeton University Press.
- Scherpenzeel, Anette and Wiliem E. Saris. 2007. Longitudinal models in the Behavioral and Related Sciences. In *Multitrait-Multimethod Models for Longitudinal Research*, ed. Kees van Montfort, Johan Oud and Albert Satorra. Mahwah, New Jersey: Lawrence Erlbaum pp. 381–402.

- Sniderman, Paul M., Richard A. Brody and Philip E. Tetlock. 1991. *Reasoning and Choice: Explorations in Political Psychology*. New York: Cambridge University Press.
- Stimson, James A. 1975. "Belief Systems: Constraint, Complexity, and the 1972 Election." *American Journal of Political Science* 19(3):393–417.
- Stimson, James A. 2002. The Micro Foundations of Mood. In *Thinking about Political Psychology*, ed. James H. Kuklinski. United Kingdom: Cambridge University Press chapter 8, pp. 253–280.
- Stimson, James A. 2004. *Tides of Consent: How Public Opinion Shapes American Politics*. New York: Cambridge University Press.
- Stimson, James A., Michael B. MacKuen and Robert S. Erikson. 1995. "Dynamic Representation." *American Political Science Review* 89(3):543–565.
- Sullivan, John L., James Piereson and George E. Marcus. 1978. "Ideological Constraint in the Mass Public: A Methodological Critique and Some New Findings." *American Journal of Political Science* 22(2):223–249.
- Sullivan, John L. and Stanley Feldman. 1979. *Multiple Indicators: An Introduction*. Beverly Hills: Sage Publications.
- Treier, Shawn and D. Sunshine Hillygus. 2009. "The Nature of Political Ideology in the Contemporary Electorate." *Public Opinion Quarterly* 73(4):679–703.
- van der Veld, William M. and Willem E. Saris. 2005. "A Unified Model for the Survey Response Process." Paper presented at the European Association for Survey Research, Barcelona.
- Wu, Chia-Huei and Lung Hung Chen. 2010. "Examining Dual Meanings of Items in 2 x 2 Achievement Goal Questionnaires Through MTMM Modeling and MDS Approach." *Educational and Psychological Measurement* 70(2):305–322.
- Zaller, John. 1994. "Positive Constructs of Public Opinion." *Critical Studies in Mass Communication* 11(3):276–287.
- Zaller, John R. 1992. *The Nature and Origins of Mass Opinion*. New York: Cambridge University Press.
- Zaller, John and Stanley Feldman. 1992. "A Simple Theory of the Survey Response: Answering Questions and Revealing Preferences." *American Journal of Political Science* 36(3):579–616.

A. SUPPLEMENTAL STATISTICAL TABLES

The tables in this appendix present the coefficients and standard errors displayed visually in Figure 2. Table 6 shows the comparative fit indices and nested hypothesis tests for the multiple group analysis.

Table A.1: Total Population Factor Loadings for Partisanship, Ideology, and Issue Positions on 1972-76 and 1992-96 Panels

	1972	1974	1976	1992	1994	1996
Party ID	0.852 (0.008)	0.910 (0.008)	0.892 (0.008)	0.878 (0.015)	0.922 (0.011)	0.893 (0.011)
Ideology	0.733 (0.020)	0.780 (0.018)	0.778 (0.018)	0.657 (0.035)	0.785 (0.021)	0.810 (0.021)
Minority Aid	0.781 (0.019)	0.656 (0.021)	0.728 (0.019)	0.736 (0.034)	0.700 (0.023)	0.687 (0.024)
Jobs	0.668 (0.022)	0.708 (0.020)	0.724 (0.019)	0.618 (0.039)	0.657 (0.025)	0.664 (0.023)
Abortion	0.800 (0.034)		0.829 (0.035)	0.902 (0.017)	0.871 (0.024)	0.870 (0.018)
Health Insurance	0.632 (0.046)		0.719 (0.035)	0.584 (0.040)	0.718 (0.028)	0.658 (0.024)
Women's Place	0.642 (0.022)	0.816 (0.021)	0.783 (0.022)	0.771 (0.041)	0.736 (0.029)	0.714 (0.029)

All loadings are significant ($p < 0.05$); Models are estimated with WLSMV estimators.

Table A.2: Multiple Group Analysis Loadings for Partisanship, Ideology, and Issue Positions on 1972-76 and 1992-96 Panels

	1972	1974	1976	1992	1994	1996
Unsophisticated						
Party ID	0.857 (0.009)	0.920 (0.008)	0.879 (0.009)	0.887 (0.015)	0.936 (0.013)	0.898 (0.013)
Ideology	0.715 (0.028)	0.802 (0.025)	0.730 (0.027)	0.672 (0.046)	0.826 (0.028)	0.854 (0.028)
Minority Aid	0.810 (0.025)	0.648 (0.028)	0.785 (0.026)	0.793 (0.043)	0.741 (0.035)	0.719 (0.037)
Jobs	0.682 (0.029)	0.755 (0.026)	0.795 (0.026)	0.625 (0.058)	0.646 (0.039)	0.705 (0.034)
Abortion	0.822 (0.049)		0.814 (0.048)	0.915 (0.018)	0.888 (0.024)	0.880 (0.020)
Health Insurance	0.682 (0.071)		0.825 (0.066)	0.491 (0.059)	0.767 (0.041)	0.667 (0.034)
Women's Place	0.668 (0.027)	0.807 (0.025)	0.806 (0.027)	0.847 (0.046)	0.756 (0.032)	0.727 (0.032)
Sophisticated						
Party ID	0.925 (0.039)	1.023 (0.047)	1.142 (0.045)	1.059 (0.097)	1.237 (0.079)	1.195 (0.075)
Ideology	0.924 (0.049)	0.900 (0.046)	1.002 (0.045)	0.846 (0.075)	1.098 (0.063)	1.134 (0.067)
Minority Aid	0.669 (0.040)	0.647 (0.039)	0.591 (0.033)	0.671 (0.074)	0.739 (0.050)	0.761 (0.055)
Jobs	0.613 (0.040)	0.607 (0.039)	0.594 (0.036)	0.567 (0.067)	0.732 (0.054)	0.724 (0.052)
Abortion	0.791 (0.053)		0.860 (0.058)	0.957 (0.082)	0.856 (0.111)	0.905 (0.078)
Health Insurance	0.655 (0.074)		0.724 (0.054)	0.777 (0.085)	0.799 (0.058)	0.725 (0.051)
Women's Place	0.593 (0.041)	0.814 (0.055)	0.746 (0.049)	0.632 (0.099)	0.757 (0.072)	0.762 (0.075)

†All loadings are significant ($p < 0.05$); Models are estimated with WLSMV estimators.

Table A.3: Multiple Group Analysis: Model Fit Comparison

	CFI	RMSEA	Chi-Square Test for Difference	P-Value
1972-74-76 models*				
Fully Constrained	0.987	0.028	171.450 (df=52)	0.000
Constrain Cross-Factor Correlations	0.989	0.029	92.245 (df=21)	0.000
Constrain Factor Loadings	0.990	0.028	150.401 (df=19)	0.000
Fully Unconstrained	0.995	0.021	–	–
1992-94-96 models**				
Fully Constrained	0.982	0.050	278.171 (df=66)	0.000
Constrain Cross-Factor Correlations***	0.985	0.050	198.497 (df=15)	0.000
Constrain Factor Loadings	0.994	0.033	86.377 (df=26)	0.000
Fully Unconstrained	0.997	0.025	–	–

*N(Sophisticated = 1) = 1435, = 0) = 3013; **N(Sophisticated = 1) = 496, N(Sophisticated = 0) = 662. *** Because the constrained cross-factor correlations model had problems converging, the model results may not be valid.