

Comparing Alternate Theories of Moral Influence on Political Outcomes

A Research Report from the Measuring Morality Project

Project Website: <http://kenan.ethics.duke.edu/attitudes/resources/measuring-morality/>



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Report Abstract

Debates about the American “culture wars” have spurred research on the role of morality in shaping political attitudes and behavior, and have led to the development of several theories of morality and politics. However, these theories have not been systematically compared. This study uses new nationally representative data to compare the power of 29 moral constructs in predicting 15 political outcomes. Results indicate that morality explains a sizable proportion of variation in political outcomes net of demographic controls, but that no one theory provides a fully adequate explanation of this phenomenon. Instead, political attitudes and behaviors are best predicted by selected moral constructs taken from multiple research traditions. In particular, political outcomes are tied to attitudes towards family life, views on morality authority and moral relativism, sexual morality, and universalism concerns. Future work should investigate how these disparate moral constructs can be synthesized to create a more comprehensive theory of morality and politics.

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Not long ago James Davison Hunter, originator of the famous “culture war” hypothesis, posed a series of crucial questions for scholars interested in political behavior. Primary among these was the basic query: does a culture war even exist? Answers on both sides of the question have been given, but ironically these depend more on how a culture war is defined than on debates about political trends in the United States. Indeed, both Hunter and his opponent Alan Wolfe have agreed that the strong divisions of political opinion are largely the province of elites, and that most Americans are far more moderate in their views (c.f., DiMaggio, Evans, and Bryson 1996; Fiorina, Abrams, and Pope 2006; Hunter 2006; Wolfe 2006).

Debates about “culture wars,” however, are fundamentally arguments about the sources of variation in political outcomes – albeit clothed in more vivid language – and these have existed for years. Even without a “war” at the popular level, differences in political opinions and actions abound. People vote for one candidate or another, support some causes but not others, and consider themselves more or less liberal or conservative. Failures to find a society-wide cultural divide highlight the complexity of the problem, and (regrettably) warn us away from a simple bipolar solution. Yet sociologists continue to care deeply about political heterogeneity, not least because it intersects with issues of stratification, race, and others that are central concerns of the discipline. Consequently, sociologists continue to search for the unifying logic behind political cleavages. To quote Hunter, we are still groping to understand “the nature and meaning of the differences involved” (Hunter 2006, 11).

Sociologists have attributed variation in political outcomes to class, demographic characteristics, interpersonal processes, cultural change, community context, and experiences during adolescence, to name a few (Baldassarri and Bearman 2007; Davis and Robinson 1996; Hunter 2006; Mathias 2013; McFarland and Thomas 2006; Weeden and Grusky 2012; Wright and Boudet 2012). While these efforts have been informative, they have not addressed Hunter’s fundamental claim, which was that *moral* differences translate into political diversity. To be sure, sociologists have explored the question of *whether* the United States is embroiled in a culture war – thus interrogating Hunter’s conclusion – but have not fully investigated the theoretical assertion that undergirds it. Does the absence of a culture war at the popular level mean that moral differences play little role in explaining political variation? Or does morality still matter for politics, though perhaps not in the way originally proposed by the culture wars thesis?

Several theories suggest that morality does matter, but scholars do not agree on *which* moral differences matter most. Some point to relativism and religion, others to primordial family metaphors, and still others to notions of authority and purity (Hunter 1991; Koleva et al. 2012; Lakoff 2002). Each approach has prompted research, and each has empirical evidence to support its claims. However, much of this research suffers from lack of attention to alternative explanations. That is, studies most often investigate their own hypotheses without comparing them to other, equally plausible hypotheses, and seldom investigate the possibility that the measures used in each tradition are actually tapping the same underlying moral constructs. These studies thus provide less insight than they could into the true moral sources of political variation. Additionally, they highlight some aspects of morality at the expense of others, raising the question of whether the elided dimensions of morality might also play a role in predicting political outcomes.

This paper advances the study of morality and politics by directly addressing these challenges. Using new, nationally-representative data, it investigates the links between morality and political outcomes to determine a) if morality significantly and substantively predicts political variation, net of demographic controls, and if so b) which moral constructs play the most important roles. Moral constructs are chosen to represent several prominent theories of morality and politics, as well as several other theories of morality that may offer additional insights.

Does Morality Matter for Politics?

The fundamental question underlying our discussion is how much moral differences actually matter for politics. Certainly scholars and political elites have latched onto moral concerns as if they are key to political decisions, but does the evidence support this characterization? Research to date provides a mixed picture. On the one hand most scholars agree that only 10-15% of the American population occupy “opposing moral and ideological universes” (Hunter 2006, 25), suggesting that moral concerns might play little role in political decision making for the general citizenship. On the other hand, emerging evidence indicates that morality is deeply implicated in political behavior for non-elites as well – one recent study found that moral orientations explained more variance than age, gender, religious attendance, or interest in politics (Koleva et al. 2012). Clearly we need further consideration of this question.

Several scholars have offered theoretical tools that can help us link morality to politics. Writing nearly a decade ago, Hechter (2004) argued that class politics in the United States are increasingly being replaced by politics based on cultural divisions. Rather than uniting with others of similar economic standing, Americans are forming ties based on “ethnicity, religion, nationalism, gender, and sexual orientation” (404). These groups form boundaries along non-monetary lines, allowing group-specific experiences and cultures to play more of a role. Often, group cultures contain strong normative elements that take on a moral tone – ethnicity can be bound up with the cultural expectations and sanctions of a home country, for instance, while belonging to a religious community often requires allegiance to a particular moral code. Thus culture-based politics leads naturally to the introduction of moral concerns into the political landscape.

Similarly, a number of scholars have proposed that humans are fundamentally moral beings. Smith (2003) argued that humans are motivated both by internal moral commitments, and to maintain the moral orders that invariably define their external social environments. Hitlin (2003, 2008) offered a similar argument, and provided evidence that values – defined as conceptions of the desirable – are important components of personal identities. Finally, Haidt and Joseph (2004) argued that evolutionary process have endowed humans with innate impulses towards goals that most consider to be moral, such as fairness and caring for others. If people are fundamentally morally-attuned, as these scholars suggest, then it seems that morality does – even must – play an important part in shaping their thoughts, feelings, and behavior both politically and in general. Indeed, substantial work – though not focusing on politics – suggests that morality is deeply implicated in many aspects of people’s lives, including their cultural orientations (Bellah et al. 1996 [1985]), evaluations and judgments of others (Lamont and Molnár 2002; Lamont 1992, 2012), experiences of solidarity (Vaisey 2007), and behaviors (Stets and Carter 2012;

Vaisey 2009; Wikström 2010). The extent of moral influence on political outcomes, however, remains unclear.

Given the theoretical plausibility of moral/political linkages and the limited evidence that supports them, we turn now to an exploration of which facets of morality are likely to matter. We first examine three theories that have explicitly forged moral/political links, and then explore three other traditions in the study of morality that might provide additional insights.

Using Morality to Explain Political Differences

Theories of Morality and Politics

Hunter's *Culture Wars* (1991) is probably the best known of the theories that links political differences to moral concerns. According to Hunter (1991, 2006), differences in political orientation are rooted in differing views of moral authority. On one hand are the traditionalists who see ultimate reality as tied to a transcendent authority that provides fixed standards for social life. Traditionalists reject moral relativism, or the notion that what is right and wrong depends on context and can vary from person to person.¹ Opposite them are progressivists, those who regard human experience as the ultimate reality, and hence expect society to adapt as humankind learns, grows, or otherwise changes. In contrast to traditionalists, progressivists tend to embrace moral relativism. These differing visions of moral authority translate to differing political orientations, with traditionalist looking to the past for solutions to current problems, while progressivists view the past as more malleable, as a source of both fruitful ideas and warnings for the future. Not surprisingly, traditionalists tend to congregate on the right side of the political spectrum, while progressivists are more apt to gather on the left.

George Lakoff takes a different view in his *Moral Politics* (Lakoff 2002). He argues that people metaphorically view the nation as a family, and hence differences in politics are largely attributable to differences in beliefs about family life, and the moral worldviews they produce. On one side are those endorsing a "strict father" morality, which prizes self-discipline, responsibility, and self-reliance and sees punishment as the primary mechanism for enforcing moral order. On the other side are those who believe in a "nurturant parent" morality that promotes empathy, self-fulfillment, and active concern for others. Lakoff argues that major differences between political conservatives and liberals are rooted in these moral metaphors, with conservatives supporting a legal system based on strict father morality while liberals prefer a government that employs nurturant parent morality.

Recent work using Jonathan Haidt's moral foundations theory (MFT) offers yet another perspective. Koleva and colleagues (2012) argued that political differences could best be explained by attention to five innate psychological systems (or "foundations") centered on harm/care, fairness/reciprocity, ingroup/loyalty, authority/respect, and purity/sanctity. Although these systems are present in all individuals, different cultures emphasize different foundations, leading to a wide variety of moral systems. These

¹ Curiously, Hunter himself does not discuss moral relativism, though his description of the traditionalist and progressivist positions make it clear that relativism is a key dividing difference (Baker 2005).

systems, in turn, shape political views, with liberals primarily emphasizing harm and fairness, but conservatives valuing all five foundations more equally (Graham, Haidt, and Nosek 2009). Using a large convenience sample, Koleva et al. (2012) found that different moral foundations predicted positions on a variety of divisive issues, but that concerns with purity in particular were powerful indicators of political views.

Additional Theories of Morality

The work of Hunter, Lakoff, and MFT scholars are the most direct attempts to provide morality-based explanations for political attitudes and behavior. However, they do not exhaust the approaches to morality present in the literature. We must therefore ask ourselves: if morality truly plays a role in politics, might these other conceptions of morality provide additional insight into political differences, perhaps even *better* explanations? Below we briefly review three other approaches to morality, and note their potential for explaining political differences.

Jensen's cultural-development approach to moral psychology posits that moral concerns are tied to stages in human development (Jensen 2008, 2011). It partitions morality into ethics of Autonomy, Community, and Divinity, divisions taken from anthropologist Richard Shweder's work on morality in India and the United States (e.g., Shweder, 1990). Autonomy encompasses issues involving the personal freedoms and rights of the self and others, and so captures issues of harm and justice. The Ethic of Community is based on human sociality, and therefore captures matters of interpersonal conduct and concern for the welfare of the collective. The Ethic of Divinity focuses on the spiritual strivings of individuals, whether for union with a divine entity or for purity as defined by their cultures. Limited evidence to date indicates that these ethics predict political ideologies, with conservatives emphasizing divinity and liberals emphasizing autonomy (Jensen 2011).

Another approach examines the extent to which people moralize the common activities of daily life. Using a new scale, Lovett, Jordan, and Wiltermuth (2012) found six factors underlying everyday morality: deception, social norm violation that harm others, laziness, failure to do good, bodily violations, and performing disgusting behaviors. These factors seem to tap moral constructs absent from other theories, such as laziness and disgusting behaviors. Wider coverage might translate into additional predictive ability in the political realm. Additionally, it seems plausible that those who are prone to moralize everyday behaviors are also more likely to view political contests in moral terms. If this is the case, then this approach can potentially capture both moral content and intensity of moral application, both of which may influence political activities.

Finally, scholars have studied human conceptions of the desirable – or values – a concept that has implications for the prescriptive (vs. proscriptive) aspects of morality. The most prominent theory of values was given by Schwartz (1992), who argued that 10 value dimensions are present in every culture worldwide: security, conformity, tradition, benevolence, universalism, self-direction, stimulation, hedonism, achievement, and power. People vary in which values they hold most closely, and this variation has been shown to predict a variety of outcomes, including political outcomes. For example, universalism, security, and tradition strongly predicted participation in environmental, peace, and/or animal rights organizations across Europe (Schwartz 2010), while universalism,

benevolence, and self-direction predicted leftist voting in the 2001 and 2006 Italian elections (Caprara et al. 2006; Schwartz, Caprara, and Vecchione 2010). Although value theory has a strong record of explaining political variation, much of this research has been performed using European populations. Additional research is needed to demonstrate its utility for explaining political differences in the United States.

Having touched on several approaches to morality, let us now step back to reconsider our overarching question. What accounts for the political differences in American politics? Hunter, Lakoff, and Koleva and colleagues draw on different theories to explain these differences, but typically do not compare their claims to alternate theories that might provide a better – or at the very least additional – understanding. If we take their central claim seriously – that is, if we believe that morality is essential to explaining political differences – then a number of additional theories and measures warrant examination. Ultimately, a head-to-head comparison of multiple measures of moral constructs is the only way to adjudicate between the different theories to determine which is most useful, or whether they all have unique contributions to make.

Methods

Data

Data come from the Measuring Morality study, a new, nationally-representative survey of adults in the United States. Questions include scales designed to tap various facets of morality as well as demographic and political information about respondents. Morality scales were chosen through the collaborative effort of scholars from psychology, sociology, and linguistics.² To maximize the number of moral constructs included on the survey, contributing scholars were asked to shorten their measures – this means that the measures used in this study represent short-form versions of the scales appearing in previous studies. Data were collected by Knowledge Networks (KN), and demographic and political data taken from the profile data collected at the time respondents were first recruited into the KN survey panel. KN originally sampled 2,492 respondents for this study, and received 1,519 completed surveys (61% response rate), but the sample drops to 1,484 after deletion of cases missing data on any of the morality variables. Analyses using demographic variables (described below) lose an additional 14 cases, for a final sample size of 1470.

Measures

This study is necessarily data intensive. To facilitate the flow of the argument, all measures are described briefly below, with full coding information located in Appendix A.

Political Outcomes. Fifteen political outcomes were chosen for their ability to distinguish between conservative and liberal ideologies and include a mixture of attitudes and behaviors. These include self-rated levels of conservatism, attitudes towards foreign influence, attitudes towards Barack Obama, whether or not respondents voted for Obama

² Names and information of these collaborators can be found on the project website: <http://kenan.ethics.duke.edu/attitudes/resources/measuring-morality/>.

in the 2008 election, and affiliation with political parties and politically-oriented causes (Tea Party, environment, women's rights, racial equality, Right to Life, peace/anti-war, LGBT). Clearly these do not span the range of all possible measures that differentiate between the political left and right, but they nonetheless provide multiple and diverse windows into the underlying conservative-liberal continuum that is the focus of this study.

Morality Measures. Three measures were used to represent Hunter's theory. *Personal relativism* and the Ethics Position Questionnaire (*EPQ*, $\alpha = 0.83$) tap moral relativism, while the third measures perceptions of divine authority ($\alpha = 0.85$). This last measure represents a religious base of moral authority. While this is narrower than Hunter's focus on "transcendent authority," it is a common and influential sub-type (e.g., Davis and Robinson 2006) – so common, in fact, that for many traditionalists transcendent authority and God are synonymous (c.f., Baker 2005, chapter 3). Lakoff's theory was operationalized using recently developed measures of Strict Father ($\alpha = 0.78$) and Nurturant Parent ($\alpha = 0.48$) morality (Wehling et al. n.d.). Measures for MFT were taken from a shortened version of the recently developed Moral Foundations Sacredness Scale (MFSS), an instrument that assesses how sacred principles related to the five moral foundations are to a person, and returns one measure each for harm ($\alpha = 0.68$), fairness ($\alpha = 0.72$), loyalty to the ingroup ($\alpha = 0.64$), authority ($\alpha = 0.64$), and purity ($\alpha = 0.44$; Graham and Haidt 2012).

We also measured several moral constructs that fall outside the three theories listed above. Ethics of Autonomy, Community, and Divinity were measured using the Ethical Values Assessment (EVA), which returned subscales for autonomy ($\alpha = 0.79$), community ($\alpha = 0.70$), and divinity ($\alpha = 0.95$). Moralization of common activities was captured with the Moralization of Everyday Life Scale (MELS), which produces six subscales measuring deception ($\alpha = 0.70$), norm violations ($\alpha = 0.52$), laziness ($\alpha = 0.86$), failure to do good ($\alpha = 0.90$), bodily violations ($\alpha = 0.67$), and disgust ($\alpha = 0.83$). Finally, we used Schwartz's Portrait Values Questionnaire (PVQ) to measure values. The PVQ returns 10 subscales, each tapping a value domain. These are conformity ($\alpha = 0.66$), tradition ($\alpha = 0.47$), benevolence ($\alpha = 0.66$), universalism ($\alpha = 0.66$), self-direction ($\alpha = 0.54$), stimulation ($\alpha = 0.72$), hedonism ($\alpha = 0.73$), achievement ($\alpha = 0.76$), power ($\alpha = 0.57$), and security ($\alpha = 0.56$).

Demographic Variables. Demographic variables included measures of gender, race (black, Hispanic, other, with white as the reference category), marital status, education, and age, and residence in the Southern census region. Three variables tapped religious affiliations likely to correlate with political views. These were dichotomous indicators for conservative Christians (Pentecostal, Mormon, Baptist), self-identified "other Christians," and those professing no religious faith.

Analyses

Analyses proceed in two phases. First we pose the general question of whether moral concerns make a substantial contribution to our understanding of political differences in the general adult population of the United States. To answer this question, we regressed each political outcome on all morality variables, retaining those that contributed to model fit based on the Bayesian Information Criteria (BIC) (procedure explained below), and then calculated the total variance explained by the model. We then averaged over all outcomes to obtain an estimate of the mean amount of explained

variance. We compared these results to analyses performed using only demographic variables as predictors to give a sense of the magnitude of the findings.

The second phase addresses the theoretical question: “What are political differences really about?” In statistical terms, this corresponds to the question: “How much does each measure of morality *uniquely* contribute to predicting political outcomes?” To answer this, we examined the fully standardized coefficients of the models estimated in the first phase, which represent the relationship between each morality variable and the political outcomes after adjusting for all other outcome-relevant moral constructs. That is, the coefficients represent the unique contributions of each moral construct to the political outcomes. For each morality predictor, we added the absolute values of its standardized coefficients across models to provide a summary statistic representing its total influence on political outcomes. This approach rewards both breadth of influence (i.e., predicting many political outcomes) and strength of influence (i.e., large coefficients for one or more outcomes). We refer to these summed coefficients as “influence scores,” and denote them with β_{Σ} . As before, we compare these scores to the influence of demographic variables on political outcomes, and additionally determine whether controlling for these variables in the morality models alters the substantive findings.

Technical Details

Outcome variables that are dichotomous were analyzed using logistic regression, while ordinal measures used ordered logistic regression.

Explained variance is typically captured using R^2 statistics. Logit models, of course, do not have an exact analog to the OLS R^2 , and scholars have proposed various pseudo- R^2 's to try and fill a similar purpose. Of these, the McKelvey-Zavoina (MZ) pseudo- R^2 provides the closest analogue to the OLS R^2 . This is because the MZ pseudo- R^2 estimates the variance of the latent variable underlying a dichotomous or ordinal outcome, then assesses how much of this variance is explained by the model. In mathematical notation, the MZ pseudo- R^2 can be written as

$$R_{MZ}^2 = \frac{V(\sum b_k x_k)}{V(\sum b_k x_k) + V(e)} \quad (1)$$

where the numerator represents the variance of the linear predictor, and $V(e)$ represents the variance of the error term, which in logit models is assumed to be fixed at $\pi^2/3$ (Long 1997). Further, past simulation work suggests that the MZ pseudo- R^2 provides the least biased estimate of the R^2 of the underlying latent variable (DeMaris 2002; Veall and Zimmermann 1992). Our own simulation work indicates MZ also performs well when binary outcomes are rare, as is the case for most of our dichotomous outcomes.

However, our simulations also suggest that the MZ pseudo- R^2 is not robust to the inclusion of extraneous, non-predictive independent variables – these invariably inflate its

estimate, particularly for logit models with rare outcomes.³ This means that non-predictive variables must be removed from a model to accurately calculate its pseudo- R^2 .

Determining which variables make substantive contributions to predicting outcomes always relies to some degree on the subjective decisions of the analyst, but use of established model-fit indices can reduce the influence of these decisions on final results. We use the Bayesian Information Criteria (BIC), which imposes a strong penalty on predictors that have little predictive power. While this may incline our models to overly parsimonious solutions, it also guards against overstating the importance of morality for political variability.

Given that our analyses consist of multiple regressions using up to 29 morality variables and 9 demographic variables on each of 16 outcomes, parsing models by hand using BIC would be tedious, and prone to error. We automated the processes using the stepAIC procedure from the MASS package in R, with $k=\log(n)$ to produce the BIC, where n is the sample size (Venables and Ripley 2002). This procedure examines the difference in BIC for a full model and models that subtract each predictor one at a time, removes the predictor that most improves the model fit, and passes the improved model to the next step. To guard against ordering effects, each step also examines changes in model fit produced by adding removed variables back into the model one at a time. The process is repeated iteratively until no changes improve model fit, and a final model returned. For our analyses, we use this procedure to obtain best-fitting models for calculating the MZ pseudo- R^2 .

Results

Table 1 presents weighted descriptive statistics for the sample. About half the respondents are female, 11% Black, 15% Hispanic, and 7% of another non-White racial category. On average, respondents are 47 years old, have completed high school and some college, and make between \$40,000 and \$50,000 a year. About 55% are married and 37% live in the South. Religiously, 23% belong to a conservative Christian denomination, 12% report being an “other” Christian, and 16% report no religious affiliation.

No real pattern emerges in terms of respondents’ views: they self-rate as slightly above the midpoint on the conservative measure and below the midpoint on measures of liking and approving of Obama, but they are somewhat open to foreign influence on America and favor a nurturing vs. strict government, which Lakoff associates with liberal ideology. Respondents’ affiliations and behaviors lean liberal: they are slightly above the midpoint on self-rated affiliation with the Democrat (vs. Republican) party, and 55% reported voting for Obama in the 2008 election. The modest standard deviations suggest that in most cases respondents are concentrated towards the middle of the distributions, away from ideological extremes. Active participation in political movements is quite low, with only 2% of the sample involved in LGBT, racial equality, women’s rights, or peace-oriented movements, and 3% involved in Right to Life or the Tea Party movement. Altogether, 10% of the sample is involved in some type of political movement, and 3.2% of the sample participates in more than one movement (calculations not shown).

³ Similar inflation occurs for likelihood-based pseudo- R^2 ’s such as the Cragg-Uhler or McFadden’s pseudo- R^2 .

Table 1: Weighted Sample Description

Political Variables	Mean	SD	N	Morality Variables	Mean	SD	N
Conservative	4.17	1.47	1468	SV – conformity	0.04	0.94	1484
Restrict foreign	2.98	1.07	1476	SV – tradition	0.15	0.88	1484
Welcome foreign	3.46	0.91	1479	SV – benevolence	0.64	0.71	1484
Cooperate foreign	2.85	0.99	1474	SV – universalism	0.46	0.71	1484
Like Obama	2.98	1.57	1466	SV – self-direction	0.38	0.75	1484
Approve Obama	2.81	1.35	1469	SV – stimulation	-0.47	0.90	1484
Party	4.15	2.11	1479	SV – hedonism	-0.40	0.90	1484
Voted Obama	0.55	---	1079	SV – achievement	-0.41	0.91	1484
Tea Party	0.03	---	1470	SV – power	-0.91	0.92	1484
Environment	0.02	---	1470	SV – security	0.30	0.84	1484
Women's rights	0.02	---	1470	EVA – autonomy	4.19	0.63	1484
Racial equality	0.02	---	1470	EVA – community	3.69	0.72	1484
Right to Life	0.03	---	1470	EVA – divinity	3.31	1.33	1484
Peace	0.02	---	1470	Divine authority	3.34	1.80	1484
LGBT	0.02	---	1470	Personal relativism	4.23	1.84	1484
Morality Variables				EPQ	4.09	1.51	1484
Lakoff – NP	5.28	0.87	1484	Demographics			
Lakoff – SF	5.21	1.06	1484	Female	0.52	---	1484
MELS – deception	6.08	1.07	1484	Black	0.11	---	1484
MELS – norm violations	5.25	1.47	1484	Hispanic	0.15	---	1484
MELS – laziness	2.16	1.61	1484	Other race	0.07	---	1484
MELS – failure to do good	4.67	1.57	1484	Education	2.86	1.18	1484
MELS – bodily violations	4.39	1.85	1484	Income	11.75	4.42	1484
MELS – disgust	3.83	2.16	1484	Age	46.87	17.04	1484
MFSS – harm	0.98	1.23	1484	Married	0.55	---	1484
MFSS – fairness	0.67	1.28	1484	South	0.37	---	1484
MFSS – ingroup	0.66	1.25	1484	Conservative Christian	0.23	---	1470
MFSS – authority	-0.01	1.44	1484	Other Christian	0.12	---	1470
MFSS – purity	0.20	1.40	1484	No religion	0.16	---	1470

Table 2 presents the best-fitting models for each political outcome. Each outcome was regressed on all morality variables, and predictors were narrowed down based on the

Table 2: Best-Fitting Logit/Ordered Logit Models of Political Outcomes on Morality Variables

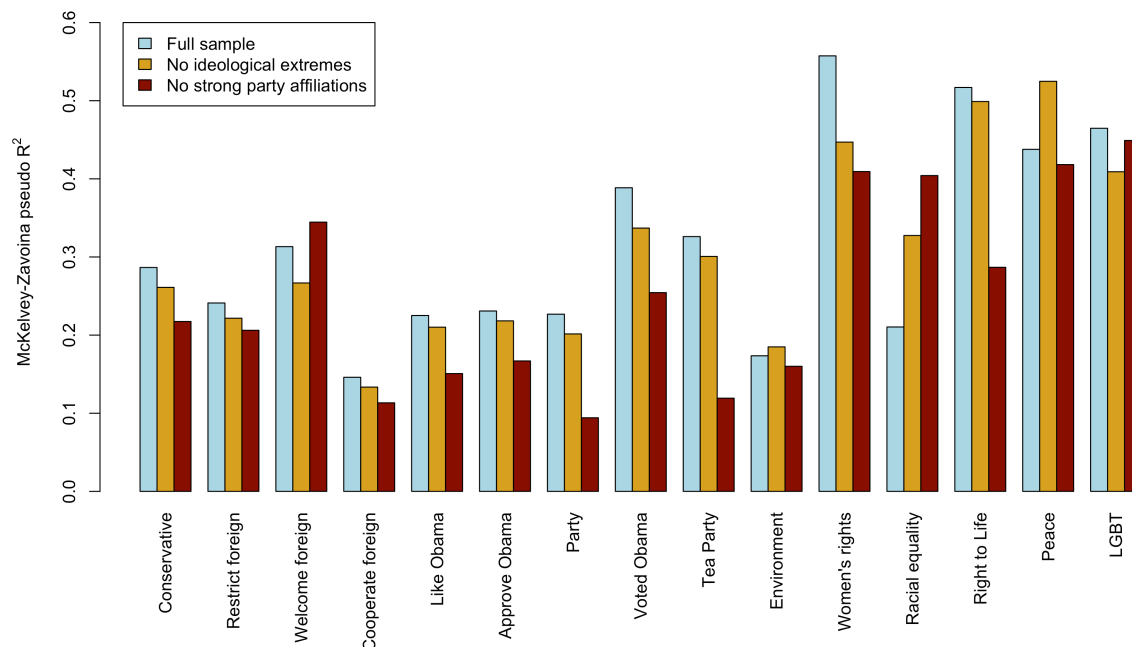
	Conservative	Restrict foreign	Welcome foreign	Cooperate foreign	Like Obama	Approve Obama	Party	Tea Party	Voted Obama	Environment	Women's rights	Racial equality	Right to Life	Peace	LGBT
Divine authority	-0.18	-0.24		-0.10	0.22	0.22	0.12	0.19	-0.44				-0.45		
Personal relativism	0.11				-0.09		-0.09	-0.11							
EPQ	-0.11	0.10		0.08	0.11	0.17	0.09	0.13	-0.24		-0.28		-0.37		
Nurturant Parent	-0.10	-0.14	0.22	-0.13	0.12	0.13	0.09	0.11				0.34		0.46	
Strict Father		0.10	-0.10										-0.23	-0.19	
Harm							0.09	0.17							
Fairness		-0.08	0.12												
Ingroup	0.08		-0.09		-0.14	-0.11	-0.17	-0.29	0.26						
Authority					0.15	0.18			-0.23						
Purity		0.08									-0.27			-0.22	-0.20
Autonomy			0.11					-0.12							
Community			0.10		0.08	0.11		0.17			0.26				
Divinity			-0.17												
Deception															
Norm violations								0.09							
Laziness	-0.11				0.14	0.13	0.12	0.13				0.38			
Good failure			-0.08												
Bodily violations	0.17				-0.12	-0.13	-0.16	-0.16			-0.36		0.26	-0.31	-0.41
Disgust		0.09	-0.09				0.10				0.28			0.40	
Conformity	0.07		-0.07	0.24						-0.31				-0.18	
Tradition	0.10			0.19											
Benevolence				0.15							0.26				0.22
Universalism	-0.17	-0.14	0.21		0.17	0.19	0.26	0.28		0.26	0.45				0.33
Self-direction				0.24											
Stimulation				0.15											0.21
Hedonism				0.26		0.09	0.08	0.07							
Achievement			0.09	0.21			0.08	0.08			0.32				
Power				0.25											0.28
Security		0.10	-0.07	0.19		0.09	0.11								
MZ Pseudo R ²	0.29	0.24	0.31	0.15	0.23	0.23	0.23	0.33	0.39	0.17	0.56	0.21	0.52	0.44	0.46

Note: All coefficients are fully standardized.

BIC-based selection procedure described above. All coefficients have been fully standardized (Long 1997). Alternating gray and white bands indicate groups of predictors that belong to the same scale, or test the same theory. Table 2 contains a great deal of information relevant to both phases 1 and 2 of our analyses; to avoid missing the overarching patterns we avoid discussing table 2 directly and instead present key findings using figures below. However, interested readers are encouraged to study the table more carefully.

How much does morality matter for politics? Figure 1 displays the MZ pseudo- R^2 for the 15 outcomes. (While technically the MZ pseudo- R^2 estimates the explained variance of the *latent* variable underlying outcomes rather than the variance of the *observed* variable, for expository simplicity we simply refer to this statistic as the “variance explained.”) On average, morality measures accounted for 32% of the variance in political differences, with actual percentages ranging from 15% to 56% depending on the outcome (see Table 2).

Figure 1: McKelvey-Zavoina Pseudo- R^2 for Regressions of Political Outcomes on Best-Fitting Morality Variables

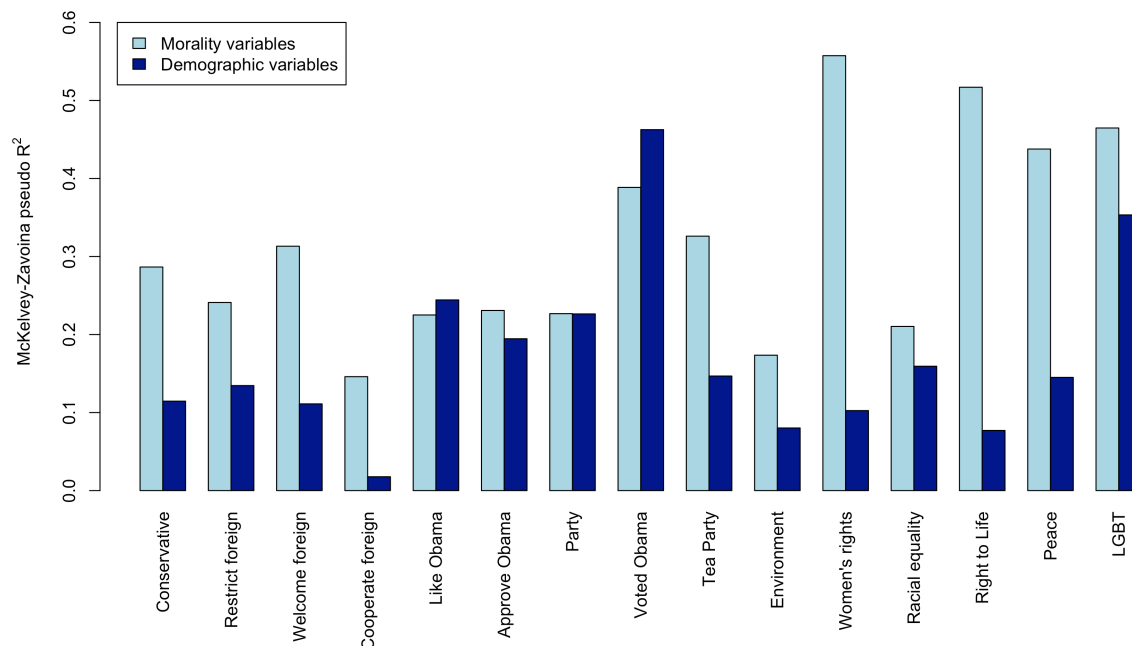


How does this explanatory power compare to the predictive power of key demographic variables? On average, gender, race, education, income, marital status, religiosity, interest in politics, and residence in the South explained 17% of the variance in political outcomes. Figure 2 examines political outcomes individually, and compares the variance explained by best-fitting morality models and best-fitting models using only demographic variables.⁴ Generally, morality variables exhibited greater predictive power

⁴ Several models returned artificially large coefficients due to 0 cell counts in the cross-classification of predictors and outcomes. In these cases, we removed the problematic predictors and re-estimated the models, using a stepwise BIC-based selection method as

than demographic variables. The four major exceptions are for liking and approving of Obama, party self-identification, and self-reported voting for Obama. Supplementary analyses (available upon request) revealed that the majority of the demographic effect for these four outcomes is due to the *Black* variable, which due to highly uneven distributions of responses across levels of the four outcomes – with Blacks overwhelmingly favoring Obama and the Democratic party – greatly inflates *Black*'s coefficient estimates. Removing *Black* from the analyses reduces the MZ pseudo R^2 's to $R^2_{MZ, \text{Like Obama}} = .07$, $R^2_{MZ, \text{Approve Obama}} = .04$, $R^2_{MZ, \text{Party}} = .07$, and $R^2_{MZ, \text{Voted Obama}} = .13$. Although *Black* inflates the estimates of the variance explained for these four outcomes, we opted to present results that included this variable in Figure 2 because a) it clearly is a strong predictor of these four outcomes, which provides a theoretical rationale for its inclusion and b) the variance explained by morality compares favorably for the four outcomes even with its inclusion. Taken as a whole, Figure 2 indicates that morality constructs typically predict political outcomes better than basic demographic variables.

Figure 2: Comparison of McKelvey-Zavoina Pseudo- R^2 's for Regressions of Political Outcomes on Best-Fitting Morality and Demographic Variables



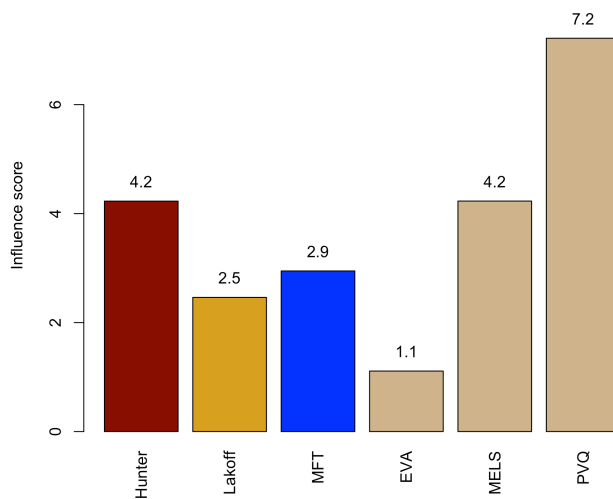
But are these results being driven by those on the extreme ends of the political spectrum? To test this, we re-estimated these models after excluding the 97 individuals who self-reported being “extremely liberal” or “extremely conservative” (see Figure 1). On average, we found that morality variables predicted 30% of the outcome variance, with actual percentages running from 13% to 52%. We obtained similar results when repeating

before. Specifically, we removed *Black* from the Tea Party model, *No religion* from the Right to Life model, and *Conservative Christian* from the LGBT model.

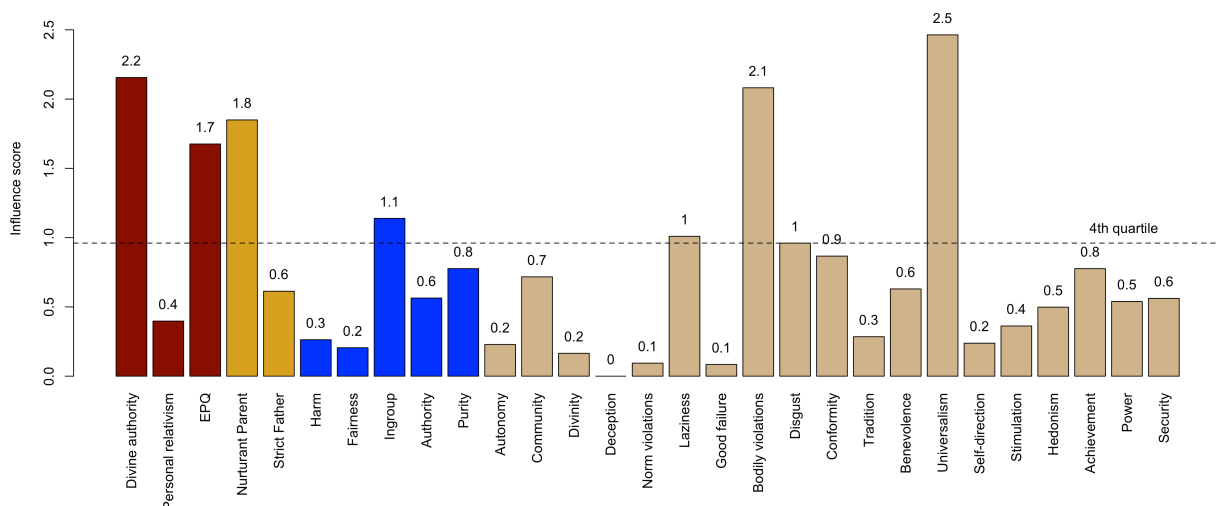
the analysis after dropping respondents who declared themselves a “strong Republican” or “strong Democrat” – morality variables explained an average of 25% of the variance in political attitudes and behaviors, with actual percentages ranging from 9% to 45%. These

Figure 3: Total Influence of Moral Constructs on Political Outcomes, by Theoretical Tradition

Panel A



Panel B



the least influential ($\beta_{\Sigma} = 1.1$). The predominance of PVQ is unsurprising given that this instrument contains more subscales than the others. Dividing each influence score by the number of items per group adjusts for this inequality, and provides adjusted influence scores of $\beta_{\Sigma, \text{Hunter}} = 1.4$; $\beta_{\Sigma, \text{Lakoff}} = 1.3$; $\beta_{\Sigma, \text{PVQ}} = 0.7$, $\beta_{\Sigma, \text{MELS}} = 0.7$, $\beta_{\Sigma, \text{MFT}} = 0.6$; and $\beta_{\Sigma, \text{EVA}} = 0.4$.

results indicate that moral concerns are important determinants of political attitudes and behaviors not just among extreme partisans, but also among the more moderate population.

Panels A and B of Figure 3 present the results from the second phase of the analysis. In panel A, bars represent the total influence of each group of variables on political outcomes (calculated by summing the absolute values of all fully standardized coefficients in a given group – see Table 2), where groups represent tests of different theories. As can be seen, the PVQ has the largest influence on political outcomes ($\beta_{\Sigma} = 7.2$), followed by MELS ($\beta_{\Sigma} = 4.2$) and the Hunter variables ($\beta_{\Sigma} = 4.2$). The MFT subscales are slightly more influential than the variables tapping Lakoff’s theory ($\beta_{\Sigma} = 2.9$, 2.5 respectively), and the EVA is

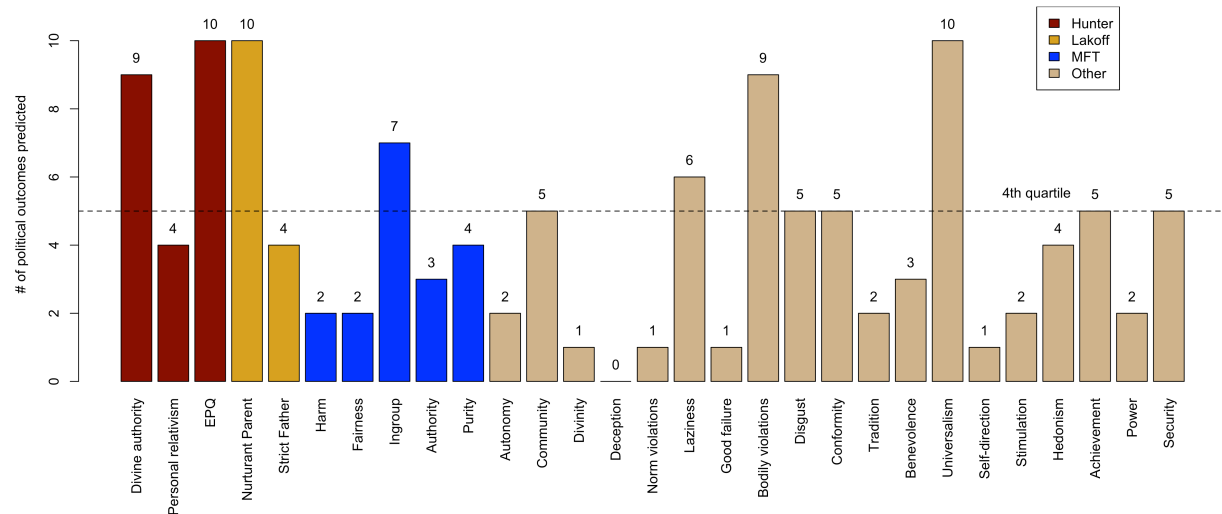
These adjusted scores can be interpreted as the average influence of each scale item on political outcomes.

Of course, each morality scale is composed of multiple items that typically represent conceptually distinct constructs, so averaging across them tells us little of substantive value. Understanding the substantive ideas underlying political differences therefore requires us to examine the relationships between these constructs and political outcomes separately. Influence scores for each morality subscale or measure are displayed in panel B of Figure 3. The dotted line represents the 4th quartile of all influence scores, and is added as a reference point for the reader. This refined view indicates that the two major contributors to political variation are *Universalism* ($\beta_{\Sigma} = 2.5$) and *Divine authority* ($\beta_{\Sigma} = 2.2$), closely followed by *Bodily violations* ($\beta_{\Sigma} = 2.1$), *Nurturant Parent* ($\beta_{\Sigma} = 1.8$), and *EPQ* ($\beta_{\Sigma} = 1.7$). Beyond these measures there is a precipitous drop in influence scores, with most other scales ranging between 0 and 1. Supplemental analyses (not shown) indicate that the influence of *Bodily violations* – which is composed of two items – is due almost entirely to the item addressing sexual behavior, rather than the item addressing excessive alcohol consumption. This indicates that questions of sexuality – and not alcohol – translate into political differences.

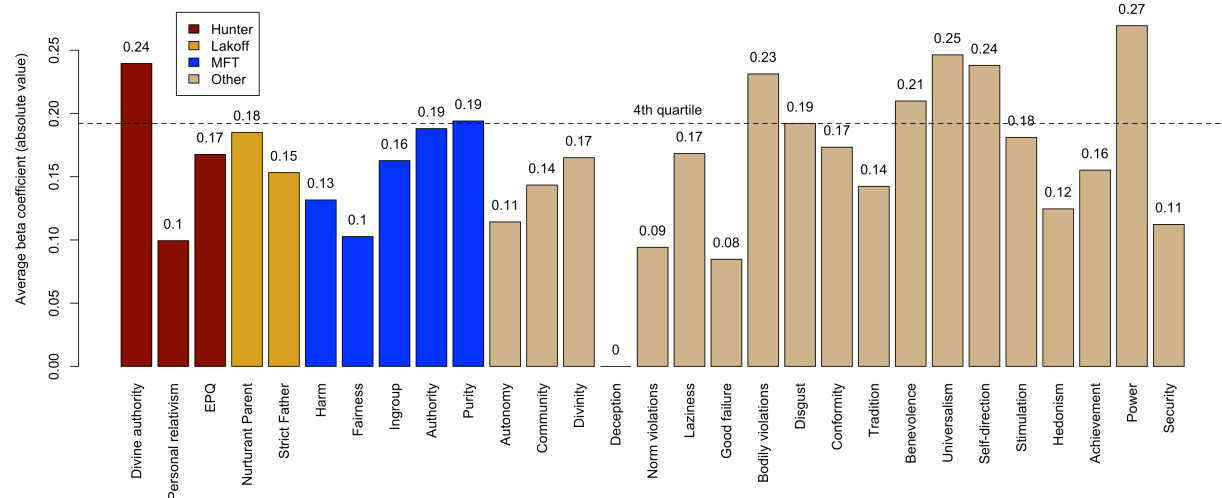
To probe these results further, Figure 4 separates the breadth and magnitude components of the overall influence score for each subscale. In panel A, bars represent the total number of political outcomes predicted by each morality subscale. As can be seen, no measure predicts all 15 outcomes, but *EPQ*, *Nurturant Parent*, and *Universalism* are nonetheless widely predictive, each predicting 10 outcomes. These are closely followed by *Divine authority* and *Bodily violations*, each with 9 outcomes. MFT's *Ingroup* subscale also predicts fairly widely, with 7 outcomes to its credit. Panel B presents the average magnitude of the beta coefficients for each subscale. In this view, the most powerful predictors are *Power* ($\bar{\beta} = .27$), *Universalism* ($\bar{\beta} = .25$), *Divine authority* ($\bar{\beta} = .24$), *Self-direction* ($\bar{\beta} = .24$), and *Bodily violations* ($\bar{\beta} = .23$), with a standard deviation increase in each producing, on average, approximately a quarter of a standard deviation increase in political outcomes. Most other morality variables average beta coefficients in the range of .10 to .20, including both measures testing Lakoff's theory and all five measures testing MFT. Panel B suggests that, for the outcomes to which they are relevant, variables from most scales perform relatively well, and in magnitudes comparable to one another. However, total influence requires both breadth and magnitude in prediction – multiplying the magnitude scores by their breadth gives the total influence scores presented in Figure 2, panel B.

Figure 4: Breadth (A) and Magnitude (B) of Prediction of Political Outcomes by Morality Variables, by Theoretical Tradition

Panel A



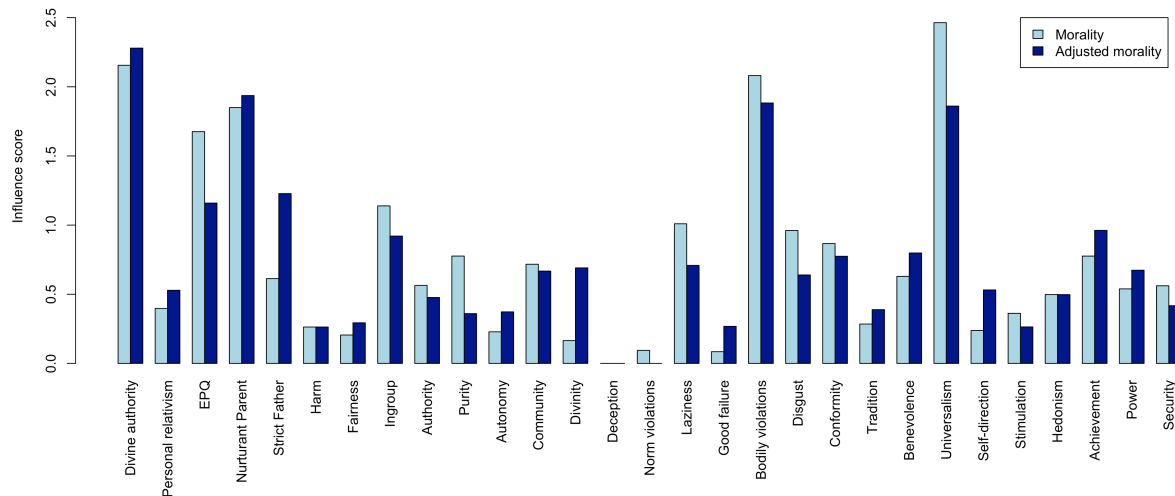
Panel B



How does moral influence fare when controls for demographic variables are added? Figure 5 displays the influence scores from best-fitting models that include only morality variables, and models including both morality and demographic variables. No pattern appears evident in the results. The influence of some morality measures decreases in the presence of demographic controls, while others increase. *Divine authority*, *Nurturant Parent*, *Bodily violations*, and *Universalism* continue to have the highest influence scores, but the influence of *EPQ* diminishes and that of *Strict Father* increases until the two are roughly equivalent. These analyses do not allow us to determine if these changes occur because morality variables are mediating demographic effects, or if their interrelations are

the result of mutual dependence on unmeasured variables. Even still, what is most striking about Figure 5 is how relatively independent the effects of morality and demographic variables seem to be. Except in rare cases, controls do little to alter the substantive magnitude of their influence on political outcomes, and in most cases the relative ordering of effects is preserved.

Figure 5: Total Influence of Moral Constructs on Political Outcomes, Before and After Demographic Adjustments



Note: Adjusted morality refers to morality influence scores from best-fitting models that included both moral and demographic predictors

Sensitivity Analysis – Re-examining Moral Foundations Theory

Before concluding, we present an important caveat concerning the results for MFT. The rather mediocre performance of MFT variables in this study seems jarringly at odds with past work using the theory. This is particularly evident for purity concerns, which Koleva and colleagues (2012) suggest is a key point of division between liberals and conservatives. While this may be because other morality variables absorb the explanatory power of MFT predictors in the multivariate models, it may also be attributable to the fact that this study relies on the newer MFSS rather than the Moral Foundations Questionnaire (MFQ) used in past work.

To test this possibility, we draw on a different nationally-representative sample (N=865 after listwise deletion of missing data) that contains the 20-question version of the MFQ (coding in appendix A), and use it to predict both strength of party identification (1=strong Republican, 7=strong Democrat) and political conservatism (1=extremely liberal, 7=extremely conservative). Because the MFSS and MFQ are measured using different samples, direct comparisons are impossible. Instead, we compare the variance explained and standardized coefficients (influence scores) for equivalent models in each sample.

Results indicate that the MFQ performs significantly better than the MFSS. Whereas best fitting models using the MFSS alone explain just 4% of the variance in party

identification and 5% in conservatism, for the MFQ those numbers jump to 15% and 25%, respectively. Similarly, summing standardized coefficients across both outcomes returns total influence scores of 0.9 for the MFSS, and 1.9 for the MFQ. By subscale, MFSS returns scores of 0.3 for harm, 0.5 for ingroup, and 0.1 for authority. For MFQ, subscale influence scores are 0.5 for harm, 0.4 for fairness, 0.4 for authority, 0.5 for purity. These results suggest that the low predictive power of MFT in the main analyses may be due to the instrument used rather than deficiency in the theory.

Discussion

Let us return to the question that motivated this project: What are political differences really about? A number of scholars have argued that political differences can be traced to moral concerns, and our analyses support this claim. We found that, on average, moral variables accounted for roughly one third of the variance in political outcomes, more than accounted for by basic demographic predictors. Further, this result was not driven by those on the extreme ends of the political spectrum. This suggests that even if claims about a “culture war” are overstated, moral differences are still deeply implicated in political attitudes and behavior, even among those who are more moderately politicized.

But which moral differences matter most? Three prominent theories provide different answers. Hunter argues that the differences run along lines of moral authority and relativism, while Lakoff traces political differences to moral schemas developed from contrasting family types. Koleva and other MFT scholars argue that the key aspect is the patterns of emphasis on differing moral intuitions, particularly purity. Our results provide the strongest support for Hunter’s theory, which had an influence score of 4.5 compared to the 3.1 and 2.9 of Lakoff’s and MFT measures, respectively. Examination of subscales showed that views on divine authority and moral relativism in particular had high influence on political outcomes. The key to this influence was that these measures predicted both widely (i.e., many outcomes), and powerfully (i.e., high coefficient magnitude). Lakoff’s theory received partial support; while nurturant parent attitudes often explained political differences, predicting both widely and with modest power, strict father attitudes rarely did. The MFT approach received limited support: MFT variables typically did not predict many outcomes, though when they did they returned beta coefficients of modest size. However, sensitivity analyses suggest that this may be attributable to the instrument used. In fact, if we can assume that the proportional increase in predictive power observed in the sensitivity analyses would carry over to all political variables, then the influence of MFT measures would double, making MFT the most predictive of the three theories. This suggests a clear need for further testing.

Political outcomes also varied according to moral constructs that fall outside the scope of these three theories. Notably absent from Hunter’s and Lakoff’s theories are items dealing with sexuality, which the present findings indicate is a matter that consistently distinguishes between liberal and conservative political behavior. In fact, views on bodily violations were among the most influential predictors of political variables, a finding that is largely driven by the single question dealing with sexual abstinence. MFT theorizes sexuality under the purity foundation, but neither the MFSS nor the 20 item MFQ used here tap it directly, though one item on the MFQ asks about “standards of purity” which some

may interpret as referring to sexual purity.⁵ Perhaps the most intriguing result, however, is that the most influential morality construct was the universalism value, which is not addressed by any of the three theories. Importantly, this general pattern of results persisted in the face of demographic controls, suggesting that moral worldviews are not simply serving as proxies for politically-relevant demographic differences.

Several general points can be made in light of these findings. First, results indicate that moral concerns matter a great deal for politics. Second, in terms of adjudicating between the three theories that motivated this investigation, our results most clearly favor Hunter's theory, though sensitivity analyses suggest that MFT deserves further examination. Focusing on this fact exclusively, however, leads one to overlook the important contributions made by other moral constructs, such as Lakoff's nurturant parent attitudes. Third and most importantly, this study indicates that a more comprehensive theory of morality and politics will require crossing established theoretical boundaries and engaging in the work of theory synthesis and refinement. Determining how to find a unifying framework for disparate predictors such as attitudes towards family life, moral authority, and moral relativism will be a key task for this undertaking. Similarly, this new theory will need to provide a rationale for the predictive power of sexuality and universalism concerns. Although the final shape of such a theory remains to be worked out, it seems apparent that political differences do not revolve on one moral axis, but vary based on several distinct moral dimensions.

This study is limited in a number of ways, which suggest fruitful avenues for future research. First, available measures captured only some of the many possible points of political division, and thereby might miss unique patterns of variation. For instance, substantial research suggests that religious traditionalists (in Hunter's sense) are surprisingly "liberal" on economic issues like government aid to the poor, while maintaining strong conservative stances on cultural issues such as abortion and sexuality (Davis and Robinson 2006; Starks and Robinson 2009). Future work should expand the suite of political outcomes used to better capture these (and any other) counter-intuitive trends. Second, the data are cross-sectional, and therefore cannot speak to questions of causality. Future work could examine changes in values and political behavior over time to gain a better sense of reciprocal effects. Data over time would also allow researchers to determine if the role of moral concerns is a temporally bounded phenomenon (e.g., just in the current political climate), or if it pervades political attitudes and behavior across time periods. Regarding technical issues, the MZ pseudo R^2 's used are, at best, approximations of the variance explained by our predictors. While they represent the best measure available for logit and ordered logit models, they nonetheless rest on the assumption that the latent variables underlying response categories are normally distributed, which might not be accurate in practice. Finally, this paper adjudicated between existing theories and measures of morality, but only considered a few non-moral sources of variation in political outcomes. To better understand the role of moral concerns in politics, future work should systematically test the key morality variables identified here in relation to alternative

⁵ The 30-item version of the MFQ also asks for agreement/disagreement with the statement: "Chastity is an important and valuable virtue," suggesting it may perform even better than the version used here. All versions of the MFQ are available at www.yourmorals.org.

theories of political behavior to determine how they relate, and the relative contributions of different constructs. Productive comparisons could be made to work on identity and implicit influences on political behavior (Ben-Bassat and Dahan 2012; Friese, Bluemke, and Wänke 2007), civic engagement and social integration experiences during adolescence (McFarland and Thomas 2006; Settle, Bond, and Levitt 2011), and work on the possible biological bases of social (including political) phenomenon (Narvaez 2008; Oxley et al. 2008), to name a few. So doing, researchers will be able to gain a better understanding of the role morality plays in shaping political attitudes and behavior.

Current theorizing suggests that moral concerns are important predictors of political attitudes and action. Our results are consistent with this claim, and highlight the facets of morality that seem to best differentiate between outcomes. While it is certainly true that much more work needs to be done on the moral roots of political attitudes and behaviors, the present study provides a compelling reason for sociologists and other scholars interested in the political outcomes to consider the moral concerns of both the small, dedicated core populating the ideological extremes and the more moderate masses that fill out the middle of the political spectrum.

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Appendix A: Variable Coding

Political Variables

Political attitudes and beliefs. *Conservative* is a self-reported item based on the question “In general, do you think of yourself as ...” with response options ranging from 1=Extremely liberal to 7=Extremely conservative. Three questions probe attitudes about foreign influences, with response options ranging from 1=Strongly disagree to 5=Strongly agree (after reverse coding). *Restrict foreign* measures agreement with statement “More needs to be done to restrict foreign influences on American culture,” *Welcome foreign* with the statement “The USA should welcome ideas from foreign cultures,” and *Cooperate foreign* with the statement “The USA should cooperate with other countries only when in its own interests.” Two measures tap views on Barack Obama. *Like Obama* is based on the question: “Please rate your feelings towards Barack Obama. Is your overall impression of him...,” with responses ranging from 1=unfavorable to 5=favorable (after reverse coding). *Approve Obama* assesses approval of “the way [he] is handling his job as president,” with responses ranging from “1=Strongly disapprove” to “5=Strongly approve” (after reverse coding).

Political behaviors and affiliations. *Party* records political party affiliation and runs from 1=Strong Republican to 7=Strong Democrat, with the midpoint 4=Undecided/Independent/Other. *Voted Obama* is a dichotomous variable that reports whether respondents voted for Barack Obama in the 2008 presidential election, with voting for John McCain the reference category (all others were coded as missing). A series of dichotomous variables records active participation in a number of political movements including the Tea Party movement (*Tea Party*), the environmental rights movement (*Environment*), the women’s rights movement (*Women’s rights*), the racial equality movement (*Racial equality*), the Right to Life movement (*Right to Life*), peace or anti-war movements (*Peace*), and the LGBT rights movement (*LGBT*).

Morality Variables

Divine authority is a two-item scale ($\alpha = 0.85$) based on agreement with the following statements (1=Strongly disagree, 7=Strongly agree, reversed): “Right and wrong should be based on God’s law;” “American children should be raised to believe in God.” This measures taps a religious base of moral authority – while this is narrower than Hunter’s focus on “transcendent authority,” it expresses a closely related concept. Further, for most traditionalists, transcendent authority and God are synonymous. Two measures capture the closely related construct of moral relativism. *Personal relativism* is based on agreement (1=Strongly disagree, 7=Strongly agree, reversed) with the question: “What is right and wrong is up to each person to decide.” *EPQ* is a 3-item scale ($\alpha = 0.83$) composed of statements taken from the relativism scale of the Ethics Position Questionnaire (Forsyth 1980): “Moral standards should be seen as individualistic: what one person considers to be moral may be judged as immoral by another person;” “Question of what is ethical for everyone can never be resolved because what is moral or immoral is up to the individual to decide;” “Moral standards are simply personal rules that indicate how a person should

behave, and should not be used when making judgments of others." All items were rated on a 7-point agree/disagree scale (1=Strongly disagree, 7=Strongly agree, reversed).

Strict Father is a 4-item scale ($\alpha = 0.78$) based on agreement with the following statements: "I will not have my child talk back to me;" "Children need to be disciplined in order to build character;" "'Tough love' is required to raise a child right;" "Obedience must be instilled in children." *Nurturant Parent* is a 4-item scale ($\alpha = 0.48$) based on agreement with the following statements: "Parents should empower children as much as possible so that they may follow their dreams;" "Children must learn to see the world through other people's eyes;" "In order to truly nurture children, one needs to be empathic;" "Children shouldn't feel obligated to care about the well-being of people they do not know" (reverse coded). All items were rated on a 7-point agree/disagree scale (1=Strongly disagree, 7=Strongly agree).

In the MFSS, sacredness is operationalized as a lack of willingness to violate one's principles for money.⁶ All respondents were instructed to "imagine *actually doing* the following things, and indicate how much money someone would have to pay you, (anonymously and secretly) to be willing to do each thing. For each action, assume that nothing bad would happen to you afterwards. Also assume that you cannot use the money to make up for your action." Response options were 1=\$0 (I'd do it for free), 2=\$10, 3=\$100, 4=\$1,000, 5=\$10,000, 6=\$100,000, 7=\$1 million dollars or more, and 8=never for any amount of money. All five subscales are composed of three items, as follows: *Harm* ($\alpha = 0.68$) – "Kick a dog in the head, hard;" "Make cruel remarks to an overweight person about his or her appearance;" "Stick a pin into the palm of a child you don't know;" *Fairness* ($\alpha = 0.72$) – "Cheat in a game of cards played for money with some people you don't know well;" "Throw out a box of ballots, during an election, to help your favored candidate win;" "Sign a secret-but-binding pledge to only hire people of your race in your company;" *Ingroup* ($\alpha = 0.64$) – "Say something bad about your nation (which you don't believe to be true) while calling in, anonymously, to a talk-radio show in a foreign nation;" "Break off all communications with your immediate and extended family for 1 year;" "Burn your country's flag, in private (nobody else sees you);" *Authority* ($\alpha = 0.64$) – "Curse your parents, to their face. (You can apologize and explain one year later);" "Make a disrespectful hand gesture to your boss, teacher, or professor;" "Throw a rotten tomato at a political leader you dislike. (remember, you will not get caught);" *Purity* ($\alpha = 0.44$) – "Sign a piece of paper that says 'I hereby sell my soul, after my death, to whoever has this piece of paper';" "Get a blood transfusion of one pint of disease-free, compatible blood from a convicted child molester;" "Attend a performance art piece in which all participants (including you) have to act like animals for 30 minutes, including crawling around naked and urinating on stage." The low alphas are consistent with prior work (Graham et al. 2009), and represent an effort by the scale creators to capture theoretical breadth rather than increased precision of narrower concepts. All subscales were adjusted for individuals' willingness to do things for money by subtracting out the mean of three scale items addressing non-moral activities (Sit in a bathtub full of ice water for 10 minutes; Wear a sign on your back for one month that says, in large letters, "I am an idiot;" Experience a severe headache for two weeks).

⁶ See the explanation that appears when you take the survey labeled "Sacredness Survey: What Would You Do for a Million Dollars?" on www.yourmorals.org.

The Ethics of Autonomy, Community, and Divinity were measured using the Ethical Values Assessment (EVA). Respondents were asked: "What moral values do you think are important to how you should live **at this time in your life?**" They read twelve statements of the form "I should..." and marked a response ranging from 1=Not at all important to 5=completely important. Each of the three ethics is measured by a scale formed from with 4 of these items, as follows: "I should..." *Autonomy* ($\alpha = 0.79$) – "take responsibility for myself;" "be fair to other individuals;" respect other individuals' rights;" "try to achieve my personal goals;" *Community* ($\alpha = 0.70$) – "take care of my family;" "be cooperative;" "strive for social harmony;" "know my place or role in a group;" *Divinity* ($\alpha = 0.95$) – "aim for spiritual salvation;" "aim to live a holy life;" "follow God's law;" "strive for spiritual purity."

Moralization of common activities was captured with the Moralization of Everyday Life Scale (MELS), which consists of six subscales of two items each. Respondents were asked to read various situations and use a 7-point scale to indicate "the degree to which [they] judge the behavior to be wrong (if at all)," where 1="Not at all wrong; has nothing to do with morality" and 7="Very wrong, an extremely immoral action." Subscale items are as follows: *Deception* ($\alpha = 0.70$) – "Lying about a test score when reporting performance to a teacher;" "Faking an injury to collect on insurance;" *Norm violations* ($\alpha = 0.52$) – "Parking in a handicapped parking spot when not handicapped;" "Using someone else's toothbrush without his or her permission;" *Laziness* ($\alpha = 0.86$) – "Packing for a trip at the last minute;" "Choosing to wake up late, despite having a busy day ahead;" *Good failure* ($\alpha = 0.90$) – "Ignoring a woman struggling to carry bags of groceries;" "Ignoring a driver whose car is stuck in the snow;" *Bodily violations* ($\alpha = 0.67$) – "An 18-year-old girl breaking an abstinence vow to have premarital sex;" "Drinking 10 beers at a party and vomiting several times;" *Disgust* ($\alpha = 0.83$) – "Defecating, not washing one's hands, and then preparing dinner for oneself;" "Wearing a pair of pants for three weeks without washing them."

We used Schwartz's Portrait Values Questionnaire (PVQ) to measure values. The PVQ asks respondents to read a list of statements and consider how much each "sounds like you." Response options ranged from 1= Not like me at all to 6= Very much like me (reversed). Items were used to form scales representing the 10 values as follows: *Conformity* ($\alpha = 0.66$) – "I believe that people should do what they're told. I think people should follow rules at all times, even when no-one is watching;" "It is important to me to always behave properly. I avoid doing anything people would say is wrong;" *Tradition* ($\alpha = 0.47$) – "It's important to me to be humble and modest and not to draw attention to myself;" "Tradition is important to me. I try to follow the customs handed down by my religion and family;" *Benevolence* ($\alpha = 0.66$) – "It's very important to me to help the people around me. I want to care for their well-being;" "It is important to me to be loyal to my friends. I want to devote myself to people close to me;" *Universalism* ($\alpha = 0.66$) – "I think it is important that every person in the world be treated equally. I believe everyone should have equal opportunities in life;" "It is important to me to listen to people who are different from me. Even when I disagree with them, I still want to understand them;" "I strongly believe that people should care for nature. Looking after the environment is important to me;" *Self-direction* ($\alpha = 0.54$) – "Thinking up new ideas and being creative is important to me. I like to do things in my own original way;" "It is important to me to make my own decisions about what I do. I like to be free and not depend on others;" *Stimulation* ($\alpha = 0.72$) – "I think it is important to do lots of different things in life. I always look for new things to try;" "I look for adventure and like to take risks. I want to have an exciting life;"

Hedonism ($\alpha = 0.73$) – “Having a good time is important to me. I like to “spoil” myself;” “I seek every chance I can to have fun. It is important to me to do things that give me pleasure;” *Achievement* ($\alpha = 0.76$) – “It’s very important to me to show my abilities. I want people to admire what I do;” “Being very successful is important to me. I hope people will recognize my achievements;” *Power* ($\alpha = 0.57$) – “It is important to me to be rich. I want to have a lot of money and expensive things;” “It is important to me to get respect from others. I want people to do what I say;” *Security* ($\alpha = 0.56$) – “It is important to me to live in secure surroundings. I avoid anything that might endanger my safety;” “It is very important to me that the government ensures my safety against all threats. I want the state to be strong so it can defend its citizens.” As is standard with the PVQ, all value sub-scales were adjusted for response tendencies by subtracting the overall mean of all 21 items.

Demographic Variables

Female, *Black*, *Hispanic*, and *Married* are dichotomous indicators where those self-reporting the named characteristics were coded as 1, and all others 0. *Other race* is a dichotomous indicator indicating which respondents self-reported a racial category that was not White, Black, or Hispanic (and includes those reporting 2 or more non-Hispanic racial categories). *Education* is a 5-point ordinal scale with values 1=less than high school, 2=high school, 3=some college, 4=college degree, and 5=professional/graduate degree. *Income* is a 19-point ordinal scale ranging from 1=less than \$5,000 to 19=\$175,000 or more.⁷ *Age* records respondents’ ages in years – analyses using demographic variables also included a squared term to capture curvilinear trends. *South* is a dichotomous variable coded 1 if respondents lived in the Southern census region, and 0 otherwise. Three dichotomous variables tapped religious affiliation, and were chosen to identify traditions likely to correlate with political views. *Conservative Christian* records those who self-identified as Pentecostal, Mormon, or Baptist, while *No religion* codes those who reported having no religion as 1, and others 0. *Other Christian* records respondents who self-identified as “other Christian,” as was included to control for the unknown political tendencies of this group.

Moral Foundations Questionnaire (for Sensitivity Analyses)

The version of the Moral Foundations Questionnaire we used has 20 items (MFQ20). The questionnaire produces five subscales created by summing scores across 4 items each. The first two ask for agreement with the following statements, on a scale of 0=Strongly disagree to 5=Strongly agree: **Harm**: “Compassion for those who are suffering is the most crucial virtue;” “It can never be right to kill a human being;” **Fairness**: “When the government makes laws, the number one principle should be ensuring that everyone is treated fairly;” “Justice, fairness and equality are the most important requirements for a society;” **Ingroup**: “People should be loyal to their family members, even when they have done something wrong;” “It is more important to be a team player than to express oneself;”

⁷ Income was only reported using the 19 categories in the data. Visual analysis shows no gaps in the distribution, and so we opted to retain the 19 categories to maximize the information used in analyses.

Authority: “Respect for authority is something all children need to learn;” “If I were a soldier and disagreed with my commanding officer’s orders, I would obey anyway because that is my duty;” **Purity:** “People should not do things that are disgusting, even if no one is harmed;” “I would call some acts wrong on the grounds that they are unnatural.”

The final two items for each sub-scale ask respondents to decide whether certain considerations are relevant when deciding whether something is right and wrong, with response options ranging from 0=‘Not at all relevant – has nothing to do with my judgments of right and wrong’ to 5=‘Extremely relevant – is one of the most important factors when I judge right and wrong.’ These are: **Harm:** “Whether or not someone suffered emotionally;” “Whether or not someone was harmed;” **Fairness:** “Whether or not some people were treated differently than others;” “Whether or not someone acted unfairly;” **Ingroup:** “Whether or not someone did something to betray his or her group;” “Whether or not someone’s action showed love for his or her country;” **Authority:** “Whether or not someone showed a lack of respect for authority;” “Whether or not someone failed to fulfill the duties of his or her role;” **Purity:** “Whether or not someone violated standards of purity and decency;” “Whether or not someone did something disgusting.” Respondents were also asked to rate the morality of believing in astrology. This was included as a “catch” question, and consistent with recommended practice, those scoring in the top three categories (i.e., saying that astrology was somewhat, very, or extremely relevant to their judgments of morality) were coded as missing. Cronbach’s alphas for the final subscales were: $\alpha_{\text{harm}} = 0.51$, $\alpha_{\text{fairness}} = 0.71$, $\alpha_{\text{ingroup}} = 0.51$, $\alpha_{\text{authority}} = 0.65$, $\alpha_{\text{purity}} = 0.74$.