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## A Unified Theory of Value-Based Reasoning and U.S. Public Opinion

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Public opinion research shows that American citizens utilize domain-specific political values to guide opinion formation in the key issue areas that comprise the American political agenda. One set of political values operates on economic welfare opinions, a different set of values applies to cultural issue positions, a third set shapes foreign policy preferences, and so on in other policy domains. Drawing on Shalom Schwartz's theory of basic human values, this paper argues that two socially focused values—self-transcendence and conservation—guide opinion formation across all major policy domains. By contrast, the personally-focused values of self-enhancement and openness-to-change should play a more limited role in preference formation. These hypotheses are tested using data from a novel 2011 national survey and the 2012 General Social Survey. The statistical results affirm expectations. We show that self-transcendence and conservation values predict scores on symbolic ideology, economic conservatism, racial conservatism, cultural conservatism, civil liberties, and foreign policy opinions. Self-enhancement and openness-to-change values play a modest role in shaping preferences.

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How do American voters decide where they stand on the issues of the day? Most voters do not hold crystallized attitudes on political controversies. Instead people construct positions from broader political predispositions. Foremost among these are domain-specific core values, which let people make fast and frugal decisions that comport with abstract political beliefs. In the economic welfare domain, beliefs about equality, humanitarianism, self-reliance, government, autonomy, capitalism, and democracy guide evaluations of issues such as aid to the poor, tax policy, and so on (Feldman and Zaller 1992; McClosky and Zaller 1984). For cultural issues such as abortion and gay rights, beliefs about authority, conformity, tradition, tolerance, religion, and equality carry weight (Layman 2001; McCann 1997). In foreign affairs, beliefs about warfare, ethnocentrism, patriotism, social intolerance, conformity, militant and cooperative internationalism, isolationism, and retributive justice shape opinion (Chittick et al. 1995; Hurwitz and Peffley 1987, 1990; Liberman 2006). In short, at least 20 domain specific values are posited to drive opinion in the economic welfare, cultural issues and foreign policy domains.

Note the paradox. The proliferation of core political values violates the premise on which these theories rest. The whole point of the enterprise is that “a small number of general values” allow citizens to “respond to a large number of political issues” (Sniderman et al. 1991: 270). Yet as our summation reveals, distinct sets of political values operate in different policy domains. If innate cognitive and motivational constraints foster reliance on a small number of domain specific values, how do unmotivated cognitive misers become so adept at applying so many values to so many issues across so many policy domains?

To address this puzzle, we develop and test an elegant theory of value-based reasoning in the context of U.S. public opinion. Following the lead of scholars in the field of comparative political psychology (Beckers et al. 2012; Caprara et al. 2006; Datler et al. 2013; Piurko et al. 2011; Schwartz et al. 2010), we draw upon Shalom Schwartz’s (1992, 1994) theory of basic human values to propose

that two crowning values shape opinion in the key issue areas that comprise the American political agenda. Human values function as transsituational guides that motivate attitude expression, judgment, and behavior in all walks of life. Given this flexibility, general human values seem a good bet to facilitate political decision making (Rokeach 1973). But, we argue, not all values are equally consequential for the derivation of political opinion. Self-transcendence values prioritize acceptance of and concern for other people, different groups, and the world at large. Conservation values emphasize deference to social convention, resistance to social change, and social stability. These inter-personal goals focus on how individuals relate to other people and to society writ large. As such, self-transcendence and conservation values should constrain opinions about the role government plays in the *public* life of the nation. By contrast, self-enhancement values elevate the pursuit of personal gain, success, and dominance at the expense of others, while openness-to-change values stress individual feeling, thought, action, and stimulation. These are egocentric concerns that emphasize what is best for the individual in her *private* life. Self-enhancement and openness-to-change values have less clear cut implications about what is best for national life. Therefore, these orientations should play a smaller role in shaping opinion about the role of government in American public life.

We test these hypotheses using data from a 2011 national survey we designed and the 2012 General Social Survey (GSS). We find that the socially-oriented values of self-transcendence and conservation constrain opinions on economic issues, racial issues, cultural issues, civil liberties, foreign policy issues, and symbolic ideology. By contrast, the privately-oriented values of self-enhancement and openness-to-change wield less influence over political preferences. Put simply, we do not need an ever-expanding array of domain specific values to explain public opinion within and across different issue areas. Instead, the positions people take on public policy are rooted in two bedrock human values that transcend politics.

## THEORETICAL FRAMEWORK

Social scientists have devoted a great deal of attention to the values construct.<sup>1</sup> To begin with the most widely accepted view in social psychology, Schwartz (1994: 20) builds on the classic work of Rokeach (1973) to define values as (1) abstract beliefs about (2) desirable end states or behaviors that (3) transcend specific situations, (4) guide evaluation and behavior, and are (5) ranked in terms of personal importance. Basic values reflect inter- and intra-personal goals. These goals are more abstract compared to political attitudes.

The Schwartz perspective holds that clusters of values expressing similar goals reduce to higher-order value types (much like discrete personality traits reduce to the “Big 5”). To illustrate, the discrete values of “respect for religion” and “devout”, in conjunction with values such as “humility” and “detachment from worldly concerns”, are captured by the broader “tradition” value type. When the structure underlying all discrete values is analyzed, 10 broader value types emerge: universalism, benevolence, conformity, tradition, security, power, achievement, hedonism, stimulation, and self-direction (Schwartz 1992). Each value type reflects an abstract goal that serves individual or social needs. Table 1 defines the 10 value types in terms of the goals they express.

[Table 1 and Figure 1 here]

Figure 1 arrays the 10 value types along a motivational circumplex whereby adjacent categories have more in common with one another than with value types at the opposite side of the circle. For instance, power values, which emphasize social standing and prestige, are compatible with achievement values that prize personal success and advancement. The power and achievement value types emphasize individual gains and rewards, which of necessity come at the expense of weaker individuals and groups in society. Contrariwise, the benevolence and universalism value types

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<sup>1</sup> Our “Theoretical Framework” section draws heavily on Goren (2013: 161-168) and Rathbun et al. (2016: 126-128).

emphasize care and concern for the well-being of others, be they in-group members in the case of benevolence or the broader society or even the world at large in the case of universalism. These value types share a common, pro-social desire to help others.

When the broader goals that underlie all 10 value types are examined, four superordinate dimensions emerge: (1) self-transcendence values that foster acceptance of and concern for other individuals and groups (comprised of the universalism and benevolence value types); (2) conservation values that prioritize adherence to social convention, social stability, and resistance to social change (including the security, conformity and tradition value types); (3) self-enhancement values, which call for the pursuit of one's self-interest, success, and dominance over others (including hedonism, achievement and power); and (4) openness-to-change values that elevate independent feeling, thought, and action above all else (comprised of self-direction, stimulation and hedonism) (Schwartz 1992, 1994). Note that self-transcendence and conservation values prioritize how the individual relates to the broader society. As such, this pair can be seen as inter-personal or socially-oriented goals. Self-enhancement and openness values prioritize what is best for the individual in her private life, and thus, can be seen as intra-personal or self-centered goals (Rokeach 1973; Schwartz 2012). These four super-ordinate values serve as the key explanatory constructs in all that follows.

An obvious question is whether basic human values differ from domain-specific political values in theoretically consequential ways. We argue that they do. The first difference lies in the degree to which the concepts are defined as explicit political orientations. This becomes clear when we compare the political science and social psychology conceptualizations. In political science McCann (1997: 565) equates core values with “overarching normative principles and belief assumptions about government, citizenship, and American society.” Goren (2001: 160-161) writes “[c]ore values are evaluative standards citizens use to judge alternative social and political

arrangements.” These definitions highlight beliefs about “government”, “citizenship”, and “political arrangements” rather than personal goals and priorities that govern daily living as in the social psychological conceptualization. Put otherwise, political values are inherently political predispositions.

To take two examples, people that endorse the value of limited government oppose government efforts to ensure that everyone has a job and a good standard of living (Feldman and Zaller 1992). Other research reveals that people who view war as immoral oppose the use of military force to settle international disputes (Hurwitz and Peffley 1987). None of this is terribly surprising. In each case the political value in question (i.e., limited government, morality of warfare) lies in close proximity to the policy opinion it purports to explain (i.e., government supported jobs, the use of military power). We do not mean to imply that political values and issues are the same: they are not. Instead, our point is that basic human values, which are defined as abstract inter- and intra-personal goals, lie further removed from issue opinions than political values do.

The second key theoretical difference between basic human values and domain-specific political values is that political scientists typically isolate one or two values presumed to influence opinion in a narrowly defined issue area, and thus, neglect broader value systems. In their groundbreaking study of foreign policy opinion Hurwitz and Peffley (1987) identify “ethnocentrism” and “morality of war” as core values that influence beliefs about national security. Likewise, Feldman’s seminal work (1988) examines how equal opportunity and economic individualism constrain social welfare opinion. If the purpose of the research is to provide a fine grained analysis of key factors shaping opinion in a single issue area, this approach makes sense. If the goal of the research is to examine how value systems shape public opinion *across* the key issue areas in American politics, the usual line of attack will not do. By taking a domain specific approach that privileges one or two values in a given policy domain, this strategy elides the broader question of how value

systems systematically affect opinion across policy domains (Feldman 2003). Our paper seeks to remedy to this oversight.

Having defined basic human values and distinguished them from domain-specific political values, we now develop our theory of value-based reasoning by addressing three key questions that any such theory must consider. First, why should human values guide issue opinions? Second, which human values should structure opinion? Third, should some values matter more than others and, if so, why? To begin, basic human values are transsituational standards that motivate perception, judgment, and behavior in all walks of life. Substantial research shows that values influence lifestyle choices, consumer purchases, food preferences, social contact, academic interests, teamwork, organizational behavior, and so on (Fisher and Smith 2004; Homer and Kahle 1988; Maio and Olson 1995; Verplanken and Holland 2002). This is precisely how transsituational beliefs are supposed to function. The contrast here between human values and political values is instructive. It is hard to imagine how political beliefs about the morality of warfare or limited government might shape consumer purchases, academic interests, or food preferences.

How do human values impinge upon political attitudes? We posit that values serve cognitive and motivational needs in a way that facilitates political judgment. In terms of cognitive functions, values are transsituational guides that let people make quick decisions on scores of political issues in a fairly (not perfectly) reliable manner. Rather than evaluating every piece of information that matters for a choice, people fall back on diagnostic cues that perform as acceptable substitutes for complete information. The rule of thumb is to deduce preferences on a specific issue consistent with the relevant values (Jacoby 2006; Sniderman et al. 1991). In this way, people can make reasonably accurate decisions without taxing their limited cognitive resources.

In terms of motivational functions, values allow individuals to strike a balance between competing goals. People can achieve these goals through the attitudes they express, the choices they



make, and the behaviors they undertake in all domains of life. So far as politics is a symbolic domain centering on community and the country as a whole, the expression of human values through political opinions lets people signal what they view as important in public life (Schwartz 1994). Value expression also serves motivational needs such as identity maintenance and image enhancement (Roccas 2003). Value expression provides a means for people to declare to themselves and others what kind of person they take themselves to be. In short, human values serve important cognitive and motivational functions when expressed through political attitudes.

This brings us to the question of which values matter for issue judgments. This is where the distinction between socially-centered values and self-centered values comes into play. Schwartz (2012: 13) argues that self-transcendence and conservation values regulate “how one relates socially to others and affects them” whereas openness to change and self-enhancement values regulate “how one expresses personal interests and characteristics.” A review of the value descriptions in Table 1 indicates why this is a reasonable way to think about the deep motives underlying the broad value dimensions. For example, conformity and tradition values stress deference to and respect for external or socially constructed sources of authority such as culture or religion, whereas stimulation values prioritize excitement and novelty in one’s private life. To us, it seems clear that conformity and tradition values are anchored more firmly in concerns about social relations, while stimulation goals reflect private interests and pursuits.

This distinction between socially and personally focused values matters politically because a significant body of research shows that people (1) construct issue positions based on perceptions about what is best for society rather than on what is best for them as individuals (e.g., Sears and Funk 1991) and (2) make electoral choices informed by their perceptions of the state of the national economy rather than the state of their personal finances (e.g., Kinder and Kiewiet 1981).

Consider how most issues are framed. Political issues pose tradeoffs over what is best for large swaths of American society—often the “American people”—rather than what is best for the atomized individual. Domestic political debate centers on the role the federal government should play in national life. Should the government do more to help the poor? Cut taxes on the middle class? Let unpopular groups speak? On every issue the answer has implications for major segments of the American public. In foreign policy, discourse centers on how to safeguard national security and advance the national interest abroad. Are military armaments or the tools of statecraft better suited to serve American interests? Should the U.S. work through the UN or go it alone in international affairs? To answer questions like these, people will, we suspect, turn more readily to their beliefs about what is best for society than their beliefs about what is best for them as individuals. Put simply, given the sociotropic nature of political issues, values that prioritize socially-focused goals should be expressed more readily through policy opinions than egocentric values that prioritize self-advancement and self-gratification.

A clarification: we do not mean to imply that self-centered values are irrelevant. What government does often affects someone’s ability to obtain what she values in her private life, which in turn can motivate self-interested political choice. For instance, Campbell (2002) demonstrates that self-interest shapes the participatory behavior of low income seniors that depend heavily on Social Security. Given this, there are compelling theoretical grounds for positing that self-enhancement and openness values may shape public opinion on policy issues for some people under some conditions. While we are sympathetic to this general proposition, we suspect that the impact egocentric values have on opinion may not generalize to the public at large. By testing whether personally focused values shape public opinion in the entire sample, our approach cannot detect subsets of the electorate that rely more heavily on self-enhancement and openness values. We view this as a

promising avenue for future research once the baseline effects of human values have been established.

To reiterate, the socially-focused values of self-transcendence and conservation should translate more readily into policy opinions than the egocentric values of self-enhancement and openness to change, because the former map more directly onto public debates about social and political life.

## **HYPOTHESES**

We now predict how self-transcendence and conservation values shape public opinion across the key issue areas in American politics, starting with symbolic ideology, which reflects symbolic and ideational attachments to liberal or conservative labels. Given the distinctive symbols and ideas associated with each label (McClosky and Zaller 1984), we expect self-transcendence, which emphasizes equality and social justice, will be inversely related to symbolic conservatism ( $H_1$ ). Conservation values, which stress commitments to security, stability, conformity, and tradition, should motivate conservative self-categorization ( $H_2$ ).

Moving on, we hypothesize that self-transcendence values undermine support for conservative economic policies such as limited government, lower taxes, and opposition to social welfare programs ( $H_3$ ). The self-transcendence dimension prioritizes understanding, protection, and concern for the interests and well-being of everyone. People can express these goals by endorsing government efforts to insulate vulnerable subsets of the public from the whims of the market. We further predict that conservation values facilitate support for economic conservatism ( $H_4$ ). Because idleness and dependency are seen as violations of American cultural norms, conformity and tradition values should motivate adoption of small government views consistent with this cultural ethos. Similarly, we expect both values to impact racial conservatism, by which we mean opposition to

government efforts to help racial minorities. That is, self-transcendence should inhibit racial conservatism ( $H_5$ ) while conservation heightens it ( $H_6$ ).

We equate cultural conservatism with support for morally orthodox positions on controversies such as abortion, gay rights, school prayer, and the like. People solicitous of the needs and well-being of others should resist claims that government must impose a singular conception of morality on everyone; therefore, self-transcendence values should be negatively related to cultural conservatism ( $H_7$ ). Conservation values, which stress preservation of tradition and adherence to time-tested customs, can be expressed politically by taking orthodox positions on the aforementioned issues. Hence, conservation values should translate into right-wing positions on cultural issues ( $H_8$ ). Both values should influence support for civil liberties as well, which reflect the extent to which someone is willing to guarantee basic freedoms (e.g., the right to make a public speech) to politically controversial groups (e.g., radical Muslims). Self-transcendence should promote support for civil liberties ( $H_9$ ) while conservation undermines support ( $H_{10}$ ).

Lastly, we examine hawk-dove issues, which we define in terms of favoring military power or the tools of diplomacy, and unilateralism, which denotes support for U.S. efforts to go it alone in the international arena. We expect self-transcendence to generate resistance to a militaristic foreign policy ( $H_{11}$ ) because this value implies an inclination toward peaceful coexistence with those who differ. We also anticipate that conservation values will augment support for a hawkish foreign policy ( $H_{12}$ ). Citizens committed to the preservation of social convention, order, and stability should find the prospect of American military power more reassuring than those who care less about conservation. Following these rationales, we think that foreign policy unilateralism will be negatively related to self-transcendence ( $H_{13}$ ) and positively related to conservation ( $H_{14}$ ).

## **DATA AND MEASURES**

For the past three decades batteries of value items have been administered to hundreds of convenience samples and dozens of nationally representative surveys in Europe and elsewhere (Caprara et al. 2006; Davidov and Meuleman 2012; Kuntz et al. 2015; Schwartz 1994). The same cannot be said for research conducted with nationally representative U.S. samples. Given the lack of secondary data, we devised a survey and commissioned YouGov to administer it online to 1,200 voting age adults in the continental U.S. during February 2011. Serendipitously, the GSS included a Schwartz values' battery on the merged cross-section and panel component of the 2012 survey, which gives us a chance to see if we can replicate our YouGov results.

We rely on 19 items to construct multiple-indicator measures of self-transcendence, conservation, self-enhancement, and openness values in both surveys. The items cover 9 of the 10 value types listed in Table 1.<sup>2</sup> For each item respondents read about an abstract goal described as important to a hypothetical person and then indicated how similar he or she was to that person. To take an example from our YouGov survey, we measured self-transcendence values with four statements: (1) "She thinks it is important that every person in the world should be treated equally. She believes everyone should have equal opportunities in life"; (2) "She wants everyone to be treated justly, even people she doesn't know. It is important to protect the weak in society"; (3) "It is important to her to be loyal to her friends. She wants to devote herself to people close to her"; and (4) "It is important to her to respond to the needs of others. She tries to support those she knows." The response options are "very much like me", "like me", "somewhat like me", "a little like me", "not like me", and "not like me at all." We used standard Schwartz items to tap conservation, self-enhancement, and openness-to-change values (see online appendices A1 and A2 for question

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<sup>2</sup> We drop the hedonism value type because it lies in both the self-enhancement and openness-to-change domains (Schwartz 1992).

wording and descriptions of the YouGov and GSS samples). In what follows, we recode all Schwartz value measures from their given metrics to a new 0-1 scale.

Several features of the items deserve emphasis. First, every statement portrays another person's goals in a way that evokes a value implicitly rather than asking about it directly. Doing so minimizes social desirability pressures; reflects the types of interpersonal comparisons individuals make in their daily lives; and avoids asking respondents to think about what is important to them, something they have less experience with than person-to-person comparisons (Davidov et al. 2008; Schwartz 2012).

Second, question wording does not allude to government action or public policy. As statements about personally focused or socially focused goals, the Schwartz items stand farther removed from politics than the measures typically used to tap core political values. Consider this standard NES egalitarianism item: "We have gone too far in pushing equal rights in this country." Some respondents may interpret the phrase "equal rights" to mean civil rights for African Americans or marriage equality for same sex couples. If this equality item inadvertently taps support for federal efforts to ensure equal rights for blacks or legalize gay marriage, any correlation between it and preferences on these issues will be artificially inflated. Similar problems compromise other measures in other surveys. Take this GSS equality item: "It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes." Because the question blends abstract ideas about equality with government policy, a finding that it predicts support for aid to the poor is not a powerful demonstration that egalitarianism influences policy opinion.

Third, for nearly 30 years Schwartz and other value researchers have collected data from hundreds of independent samples in scores of countries. The posited values model has been confirmed empirically in repeated tests. That is, researchers often (but far from always) find that the

empirical patterns in the data fit the hypothesized value structure reasonably well (Davidov et al. 2008; Schwartz 1992; Spini 2003). Given the large number of independent samples and the fact that they are from diverse cultures, linguistic traditions, age groupings, probability and non-probability samples, and different points in time, it seems reasonable to conclude that this model of value content and structures rests on a powerful empirical foundation. To conclude, the Schwartz items are more abstract than political value measures, and thus, less vulnerable to the criticism that they are too close semantically to the dependent variables they are supposed to explain.

We turn now to the dependent variable measures. First, the seven-point liberal-conservative scale serves as our indicator of symbolic ideology. Second, we capture economic issues with items about government spending on multiple social welfare programs, the size and scope of government, federal responsibility for economic security, and so on (the Cronbach  $\alpha$  reliability coefficient equals .80 in our YouGov survey and .73 in the GSS). For racial issues we use questions about government efforts to combat illegal immigration in our YouGov survey (single item) and about federal spending on blacks, federal aid to blacks, affirmative action, and related items in the GSS ( $\alpha$  = .72). Fourth, we assess opinion on cultural issues via queries on abortion, gay rights, pornography laws and similar items (YouGov  $\alpha$  = .72; GSS  $\alpha$  = .71). Fifth, for civil liberties we use the standard GSS battery that asks respondents whether controversial groups such as atheists, racists, communists, and radical Muslims should be allowed to give a public speech, teach college students, and have a book in a public library ( $\alpha$  = .79). To get at hawk-dove issues we rely upon items about the relative merits and demerits of hard versus soft power and military spending (YouGov  $\alpha$  = .66; GSS single item). Seventh, we use a single item on working with the UN to gauge unilateralism in our YouGov poll. All dependent variables have been rescaled from the original metrics to lie on a 0-1 range and are keyed so that higher scores denote conservative responses.

Following Kinder and Sanders (1996) and Barker and Tinnick (2006), we control for party id (measured using the standard seven-point scale with higher scores denoting GOP ties, recoded to a 0-1 range); black (1 = black, 0 other); Hispanic (1 = Latino/Latina, 0 other); female (1 = female, 0 = male); age (measured in years); education (1 = college graduate, 0 = other); and an income dummy (1 = high income, 0 = other income). We expect age and (GOP) partisanship to predict symbolic and policy conservatism; Black, Hispanic, and female to inhibit conservatism (excepting Black and Hispanic for cultural issues); education to covary positively with economic and racial conservatism, and negatively with cultural conservatism, civil liberties, and foreign policy preferences; and, lastly, higher income to predict symbolic and economic conservatism.

## **ANALYSIS AND FINDINGS**

### *The Measurement of Basic Human Values*

To begin, we use confirmatory factor analysis (CFA) to test whether the four-dimensional model posited above fits the data. Because the observed items are ordinal-level measures, we use the robust weighted least-squares estimator implemented in MPlus 6. Table 2 reports the standardized factor loadings and global fit statistics for our YouGov data. Table 3 does the same for the GSS.<sup>3</sup>

[Table 2 and 3 about here]

We start with the YouGov estimates in Table 2. The key results confirm our expectations. Note first that the item-factor correlations range from .53 to .84 with a mean correlation of .66, which suggests that the items measure the values they are supposed to measure. Second, the global fit measures indicate that the four-factor model does a very good job reproducing the observed covariance matrix. To be sure, the robust weighted least-squares  $\chi^2$  is statistically significant.

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<sup>3</sup>The models also contain correlated measurement errors that pick up method factor covariance. To preserve space, we do not report these estimates in the tables.



However, the CFI (comparative fit index) and RMSEA (root mean square error of approximation) indicate good fit according to conventional standards.

Moving on to Table 3, we find that the four-factor model fits the GSS data nearly as well. The item-factor correlations are solid, albeit a tad lower (mean loading = .57), and the CFI and RMSEA meet the conventional standards for good fit. Finally, note that we tested some rival two-factor and one-factor models to see if a more parsimonious specification fit the data better. In every case model fit worsened relative to our four-factor specification (see appendices B1-B3). To sum up, the estimates support the four-factor model of value structure. In light of this, we create a simple additive scale for each dimension using the items that loaded on each factor. The Cronbach  $\alpha$  reliability coefficient varies from .67 to .84 in the YouGov sample and from .62 to .73 in the GSS.

#### *Statistical and Substantive Results*

We focus on the Schwartz value dimensions and set aside the controls in what follows. Recall that we recoded all variables from their original metrics to lie on a 0-1 scale, with higher scores indicating greater importance attached to a value. We predict that the socially focused values of self-transcendence and conservation will affect symbolic ideology and public opinion in the economic welfare, racial, cultural, civil liberties, and foreign policy domains. Given the coding of the variables, self-transcendence should be inversely related to all dependent variables, conservation positively related. Self-enhancement and openness to change may also correlate with opinion, but because their focus is egocentric rather than sociotropic we think the relationships will be weaker than the corresponding relationships with socially-focused values.

The YouGov ordinary least squares (OLS) unstandardized and standardized parameter estimates appear in Table 4. Table 5 assesses the substantive magnitude by simulating policy opinion for respondents at the 5<sup>th</sup> and 95<sup>th</sup> percentile on each human value in the YouGov data. Table 6 reports the OLS estimates for the 2012 GSS data and Table 7 follows up with the predicted scores.

To preserve space, we report only the regression coefficients and predicted scores for the four value dimensions (the full set of estimates appear in appendix C1 for our YouGov data and appendix C2 for the GSS data). To make it easier to read the results, statistically significant effects ( $p < .05$ , two-tailed) are shaded in Tables 4-7. For example, by reading across the first row in Table 4 one can see that self-transcendence reaches significance across all six models.

[Tables 4-7 about here]

To start with symbolic ideology, bedrock social values predict symbolic conservatism in both samples. Self-transcendence values render individuals more likely to place themselves in the liberal end of the left-right continuum in 2011 (Table 4, column 2  $t = -6.63$ ) and 2012 (Table 6, column 2  $t = -3.10$ ). Conservation values exhibit the opposite effect. Respondents that rate conformity, security, and tradition values as highly important adopt more conservative self-identities than subjects who rate these values as less important (Table 4  $t = 9.02$ ; Table 6  $t = 6.84$ ). To convey the substantive significance of the results, Table 5 shows that respondents at the 95<sup>th</sup> percentile on self-transcendence are 16 percent less symbolically conservative than respondents at the 5<sup>th</sup> percentile in the YouGov sample, *ceteris paribus*. The first difference in the GSS sample equals 9 percent (see Table 7, column 2). Similarly, across both samples those who prioritize conservation are 21-23 percent more symbolically conservative than those who do not.

For symbolic ideology, neither self-enhancement nor openness to change reaches conventional levels of significance in the YouGov sample (see Table 4, column 2). In the GSS the self-enhancement coefficient is negative and significant (Table 6, column 2  $t = -2.87$ ), indicating that those who prioritize self-enhancement find the conservative label less appealing than respondents who de-emphasize personal enhancement. However, openness to change falls well short of significance in the GSS.

We now take up the economic welfare estimates. First, the more importance one places on transcending parochial concerns to aid others, the lower the score on economic conservatism (2011  $t = -9.53$ ; 2012  $t = -2.94$ ). Speaking practically, we find that going from the 5<sup>th</sup> to the 95<sup>th</sup> percentile on self-transcendence predicts 10-20 percent declines in economic conservatism (Tables 5 and 7). Next, Table 4 reveals that persons who prioritize conservation values are more likely to adopt right-wing economic views ( $t = 4.04$ ). Here, movement from low to high value importance corresponds to a simulated 9 percent increase in economic conservatism (Table 5). However, our hypothesis is not borne out by the GSS data in Table 6 ( $t = -0.29$ ). Also contrary to expectations, we find that openness to change covaries with economic conservatism (Table 4  $t = 2.01$ ,  $p < .05$ ; Table 6  $t = 1.96$ ,  $p < .06$ ). Yet the simulated impact proves modest at 4-6 percent (see Tables 5 and 7). Lastly, self-enhancement values make no difference in either sample.

When it comes to racial conservatism, self-transcendence renders voters less conservative statistically (Table 4  $t = -4.53$ , Table 6  $t = -2.14$ ) and substantively by 14 percent in 2011 (Table 5) and 8 percent in 2012 (Table 7). Conservation values prove significant as well (Table 4  $t = 6.55$  and Table 6  $t = 3.97$ ) and exhibit large simulated differences on racial conservatism (YouGov 24 percent; GSS: 16 percent). Self-enhancement and openness-to-change values matter little (all non-significant).

Turning to cultural issues, self-transcendence (Table 4  $t = -7.36$ ) and conservation ( $t = 13.24$ ) predict policy views in the YouGov study. Per Table 5, movement up the self-transcendence scale produces a 19 percent shift away from cultural conservatism. Comparable movement along the conservation scales produces a 37 percent rise in cultural conservatism. The 2012 GSS data yields no evidence of a systematic self-transcendence effect (Table 6  $t = 0.36$ ) but a sizeable effect for conservation values ( $t = 4.39$ ). The predicted values reported in Table 7 show that movement from the 5<sup>th</sup> to the 95<sup>th</sup> percentile on conservation leads to 26 percent rise in cultural conservatism. Openness values appear to be independent of cultural conservatism in the YouGov data ( $t = 0.13$ )

but not the GSS data ( $t = -2.45$ ). The Table 7 estimates reveal that movement up the openness scale is associated with 13 percent less conservatism on culture war issues. No evidence indicates that self-enhancement values impact these issues in either sample.

The 2012 GSS data let us tests whether basic human values covary with support for civil liberties for unpopular groups (e.g., atheists, racists, etc). Table 6 shows that conservation values matter a lot ( $t = 5.55$ ). As Table 7 reveals, movement from the 5<sup>th</sup> to the 95<sup>th</sup> percentile renders respondents 30 percent less tolerant. Self-transcendence values matter as well ( $t = -1.96$ ). Strong supporters of self-transcendence values score 10 percent more tolerant than tepid supporters. However, neither openness nor self-enhancement matter. Once again, the role of values is confined to the socially-oriented dimensions of conservation and self-transcendence.

Moving on to hawk-dove issues, we find that self-transcendence ( $t = -8.42$  in Table 4 and  $t = -2.67$  in Table 6) and conservation ( $t = 7.09$  and  $t = 3.90$ ) predict opinion. Self-transcendence values render citizens less hawkish, while conservation values are associated with greater belligerence. The simulated substantive effects average about 16 percent for self-transcendence and 19 percent for conservation across the surveys. Self-enhancement leaves voters somewhat more inclined to endorse the use of military force ( $t = 2.19$ ) in the YouGov survey but not in the GSS. Similarly, openness values positively affect hawk-dove issues in the former sample but not the latter. While significant, the 2011 effects of self-enhancement and openness on hawk-dove positions are modest at about 6 percent, far smaller than the 16-19 percent effect sizes for self-transcendence and conservation values.

We conclude with the foreign policy unilateralism item in our YouGov survey. Similar to the hawk-dove results, self-transcendence values are inversely related to unilateralism ( $t = -5.92$ ). Respondents that prioritize moving beyond the self in their everyday lives score 17 percent lower on unilateralism than their counterparts who place less stock in this cognitive goal. Conservation values

render citizens more favorably disposed to American unilateralism in international politics ( $t = 4.10$ ). Substantively, this translates into a 14 percent opinion difference. In line with expectations, the self-centered values do not reliably predict unilateralism.

To tally up the results, the estimates generally corroborate our theory of human values and public opinion. As anticipated, the socially-focused dimensions of self-transcendence and conservation predict opinion on symbolic ideology, economic welfare issues, racial issues, cultural issues, civil liberties, and foreign policy. Scanning across the shaded entries in Tables 4 and 6, we see that self-transcendence values prove significant in 11 of 12 models. From Tables 5 and 7 we calculate that respondents who rate self-transcendence as highly important (95<sup>th</sup> percentile) score 13 percent more liberal on political opinion versus respondents who attach far less importance to these values (5<sup>th</sup> percentile). Conservation values also manifest robust predictive effects. Statistically, conservation values are significant in 11 of 12 equations. Substantively, people who prioritize conservation in their day-to-day lives score 20 percent higher on average on symbolic and policy conservatism as against respondents who do not prioritize conservation.

The personally focused dimensions of self-enhancement and openness-to-change prove less relevant to judgments about what is best for the collective polity. The openness variable reaches significance in three models while falling short in the remaining nine. Self-enhancement reaches significance in only two of 12 models. Moreover, the substantive effects for these values prove trivial. In short, when it comes to public opinion, self-transcendence and conservation values matter a great deal, self-enhancement and openness values matter less (see appendix D for a series of tests which show that the weak performance of the personally-focused values is not due to excessive multicollinearity).

### *Qualifications*

For the most part the evidence affirms our value-based model of political judgment, but we need to qualify these preliminary results on a number of points. First, we have presumed that values shape opinion for most people. Given that well educated and politically sophisticated respondents are more adept at linking liberal-conservative orientations to policy opinions than their less educated and less sophisticated counterparts (Sniderman et al. 1991), one might posit that sophistication-related variables moderate the relationship between values and policy opinions. To assess the robustness of our results we re-estimated the models for college graduates and people without a college degree. As indicated in appendices E1 and E2, self-transcendence and conservation manifest statistically significant effects on many dependent variables for low and high education people in our YouGov sample and, to a somewhat lesser extent, in our GSS sample. We note further that, consistent with the sophistication interaction model of opinion, the substantive effects of values on opinion are sometimes stronger among the college educated. Nevertheless, the takeaway point is that the value effects generally hold for both groups.

Second, readers may note that a handful of the Schwartz items resemble other items that appear on national omnibus surveys. For instance, the Schwartz self-transcendence/equality item mimics two of the six NES egalitarianism items known to predict political opinion (e.g., Feldman 1988).<sup>4</sup> Given this, a critic might wonder if the egalitarianism item in the self-transcendence scale drives the results reported above. We can test this as follows. The GSS contains three measures of the universalism dimension of self-transcendence. When we drop the equality item and re-estimate the models in Table 6, self-transcendence remains significant in four of the six models and

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<sup>4</sup> The Schwartz item reads: “She thinks it is important that every person in the world should be treated equally. She believes everyone should have equal opportunities in life.” The NES items read: “(1) “Our society should do whatever is necessary to make sure that everyone has an equal opportunity to succeed.” (2) “If people were treated more equally in this country, we would have many fewer problems.”

approaches significance in a fifth (see appendix F). The effect size drops in these models, but this is neither surprising nor damaging to our cause because removal of the equality item from the self-transcendence scale degrades the measure's reliability and validity. The takeaway point is that the self-transcendence results are not driven by an item that has been widely deployed in prior research.<sup>5</sup>

Third, readers may wonder whether the predictive effect of the Schwartz conservation values diminishes or vanishes when we control for the child-rearing values that scholars use to tap authoritarianism (Barker and Tinnick 2006; Hetherington and Weiler 2009). Such a result would call into question the novelty of our contribution. Once again, the GSS data permit such a test. We constructed a measure of authoritarianism using a pair of items that asked respondents to rank how important it is for children to learn to obey and to think for themselves to prepare them for life.<sup>6</sup> We subtracted the “think for” score from the “obey” score to construct an 8-point authoritarianism scale, keyed so higher scores correspond to increasing authoritarianism. We then added this variable to the models in Table 6 to see whether the conservation effects held. They did. As indicated in appendix G, the conservation effect does not change when compared to our results in Table 6. Note finally that our key results hold when we add symbolic ideology as a predictor to the policy opinion models (see appendices H1-H2). In conjunction, these robustness checks reinforce our claim that basic human values play an important role in shaping public opinion in the contemporary United States.

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<sup>5</sup> We did not replicate this check for the YouGov data because we have only two universalism items versus the three available in the GSS survey. As such, the measurement cost in scale reliability and validity would, in our estimation, be too steep.

<sup>6</sup> Question wording: “If you had to choose, which thing on this list would you pick as the most important for a child to learn to prepare him or her for life?” We used the (1) “To Obey” and the (2) “To think for himself or herself” items.

## CONCLUSIONS AND IMPLICATIONS

Political scientists have searched for evidence that Americans ground their issue preferences in abstract beliefs about virtue and the good society. Scholars have followed two main approaches in this pursuit, the first centered on liberal-conservative principles, the second focused on political values. The liberal-conservative continuum helps explain how a sophisticated subset of the public evaluates issues, but it cannot explain what the less sophisticated bulk of the public does (Feldman 2003). Domain specific theories itemize an extensive list of political values that guide opinion construction across policy domains, and thus seem to offer a solution to the puzzle of how people innocent of ideology reason about issues. But in so doing, this approach constructs a paradox from which it cannot escape. This approach has identified over 20 distinct “core” values that impact issue positions within multiple domains that would seem to tax the very cognitive and motivational constraints values are supposed to overcome.

To solve this conundrum we have followed the lead of psychologists who have applied the Schwartz framework to the study of political behavior in a variety of non-U.S. contexts (Caprara et al. 2006; Davidov et al. 2008; Piurko et al. 2011; Schwartz et al. 2010). Consistent with some of these works, we have shown that self-transcendence and conservation values shape opinion broadly construed. First, the more importance people attach to transcending self-interest on behalf of others, the stronger their preferences for the liberal label, a generous welfare state, ameliorative racial policies, cultural progressivism, political tolerance, and dovish foreign policy. Second, the more individuals prioritize respect for tradition, deference to convention, and social order, the stronger their preferences for the conservative label, smaller government, racial self-help, culturally conservative policies, political intolerance, military power, and foreign policy unilateralism. Third, the egocentric values of self-enhancement and openness to change play a small role in generating support for or opposition to ideological labels or policy positions.



We believe our application of the Schwartz model provides a more plausible and parsimonious account of public opinion than the domain specific values framework. By placing two overarching human values at the center of mass belief systems, we overcome the problem of the never-ending proliferation of core political values. And by positing that self-transcendence and conservation guide opinion formation across the leading issue areas in American politics, we dispense with the need for separate domain specific theories of opinion that apply to each and every policy domain. In sum, the marriage of Schwartz's model of basic human values to the study of U.S. public opinion provides an elegant solution to the problem of how citizens deduce their preferences on major issues.

To conclude, social scientists have long seen basic values as prime candidates for shaping public opinion on key issues. Our paper confirms that basic human values drive opinion formation, but with the critical qualification that not all values are consequential. Self-transcendence and conservation values stand apart from self-enhancement and openness-to-change values as drivers of public opinion. Public opinion in the United States depends on beliefs about the good and just society to a much greater extent than beliefs about the virtue of private gain.

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**Table 4: OLS Estimates of the Effects of Human Values on Symbolic Ideology and Policy Opinions, 2011 YouGov**

|                         | Symbolic ideology                | Economic welfare issues          | Racial issues                    | Cultural issues                  | Hawk-dove issues                 | Unilateralism                    |
|-------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Self-transcendence      | -0.28<br><i>-0.17</i><br>(-6.63) | -0.36<br><i>-0.28</i><br>(-9.53) | -0.26<br><i>-0.14</i><br>(-4.53) | -0.35<br><i>-0.22</i><br>(-7.36) | -0.30<br><i>-0.28</i><br>(-8.42) | -0.31<br><i>-0.18</i><br>(-5.92) |
| Conservation            | 0.37<br><i>0.24</i><br>(9.02)    | 0.14<br><i>0.11</i><br>(4.04)    | 0.38<br><i>0.21</i><br>(6.55)    | 0.58<br><i>0.39</i><br>(13.24)   | 0.25<br><i>0.24</i><br>(7.09)    | 0.23<br><i>0.14</i><br>(4.10)    |
| Self-enhancement        | -0.04<br><i>-0.03</i><br>(-1.22) | 0.05<br><i>0.05</i><br>(1.68)    | 0.03<br><i>0.02</i><br>(0.59)    | 0.01<br><i>0.00</i><br>(0.13)    | 0.07<br><i>0.08</i><br>(2.19)    | 0.02<br><i>0.01</i><br>(0.38)    |
| Openness-to-change      | -0.02<br><i>-0.02</i><br>(-0.52) | 0.07<br><i>0.06</i><br>(2.01)    | 0.05<br><i>0.03</i><br>(0.79)    | 0.01<br><i>0.00</i><br>(0.13)    | 0.12<br><i>0.12</i><br>(3.48)    | 0.06<br><i>0.04</i><br>(1.01)    |
| Adjusted R <sup>2</sup> | .52                              | .44                              | .23                              | .41                              | .33                              | .22                              |
| Number of cases         | 1102                             | 1104                             | 1094                             | 1104                             | 1103                             | 1089                             |

Notes: All estimates are from OLS regressions. Unstandardized estimates appear in the top row. The standardized coefficients are italicized in the second row. The  $t$  values appear in the parentheses in the third row. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are reported in Appendix C1. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables.

**Table 5: Predicted Change in Symbolic and Policy Conservatism given Movement from 5<sup>th</sup> to 95<sup>th</sup> Percentile Score on Values, 2011 YouGov**

|                    | Symbolic ideology | Economic welfare issues | Racial Issues | Cultural issues | Hawk-dove issues | Unilateralism |
|--------------------|-------------------|-------------------------|---------------|-----------------|------------------|---------------|
| Self-transcendence | -0.16             | -0.20                   | -0.14         | -0.19           | -0.17            | -0.17         |
| Conservation       | 0.23              | 0.09                    | 0.24          | 0.37            | 0.16             | 0.14          |
| Self-enhancement   | -0.03             | 0.04                    | 0.02          | 0.00            | 0.05             | 0.01          |
| Openness-to-change | -0.01             | 0.04                    | 0.03          | 0.00            | 0.07             | 0.04          |

Notes: The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables. Source: Table 4 estimates.

**Table 6: OLS Estimates of the Effects of Human Values on Symbolic Ideology and Policy Opinions, 2012 GSS**

|                         | Symbolic<br>ideology             | Economic<br>welfare issues       | Racial<br>issues                 | Cultural<br>issues               | Civil<br>liberties               | Hawk-dove<br>issues              |
|-------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Self-transcendence      | -0.19<br><i>-0.10</i><br>(-3.10) | -0.21<br><i>-0.13</i><br>(-2.94) | -0.17<br><i>-0.09</i><br>(-2.14) | 0.04<br><i>0.02</i><br>(0.36)    | -0.21<br><i>-0.10</i><br>(-1.96) | -0.31<br><i>-0.11</i><br>(-2.67) |
| Conservation            | 0.32<br><i>0.23</i><br>(6.84)    | -0.02<br><i>-0.01</i><br>(-0.29) | 0.24<br><i>0.17</i><br>(3.97)    | 0.38<br><i>0.20</i><br>(4.39)    | 0.45<br><i>0.26</i><br>(5.55)    | 0.33<br><i>0.15</i><br>(3.90)    |
| Self-enhancement        | -0.12<br><i>-0.10</i><br>(-2.87) | -0.05<br><i>-0.04</i><br>(-1.17) | -0.01<br><i>-0.01</i><br>(-0.18) | -0.07<br><i>-0.04</i><br>(-0.98) | -0.02<br><i>-0.01</i><br>(-0.25) | -0.01<br><i>-0.00</i><br>(-0.13) |
| Openness-to-change      | -0.02<br><i>-0.01</i><br>(-0.44) | 0.09<br><i>0.07</i><br>(1.96)    | 0.02<br><i>0.02</i><br>(0.36)    | -0.20<br><i>-0.11</i><br>(-2.45) | 0.04<br><i>0.02</i><br>(0.52)    | 0.07<br><i>0.03</i><br>(0.76)    |
| Adjusted R <sup>2</sup> | .34                              | .31                              | .26                              | .24                              | .18                              | .12                              |
| Number of cases         | 1202                             | 817                              | 749                              | 770                              | 821                              | 1202                             |

Notes: All estimates are from OLS regressions. Unstandardized estimates appear in the top row. The standardized coefficients are italicized in the second row. The  $t$  values appear in the parentheses in the third row. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are reported in Appendix C2. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables.

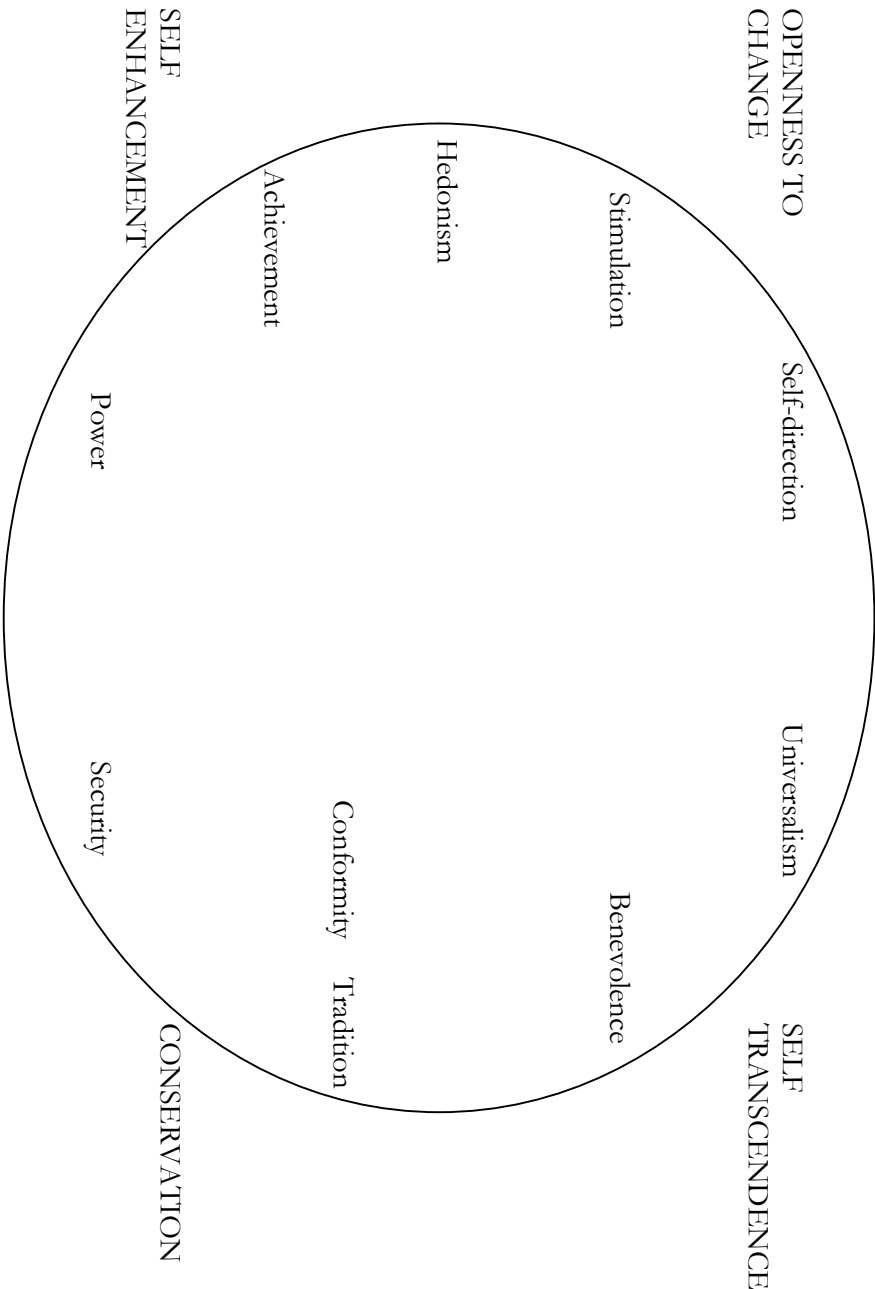


**Table 7: Predicted Change in Symbolic and Policy Conservatism given Movement from 5<sup>th</sup> to 95<sup>th</sup> Percentile Score on Values, 2012 GSS**

|                    | Symbolic ideology | Economic welfare issues | Racial issues | Cultural issues | Civil liberties | Hawk-dove issues |
|--------------------|-------------------|-------------------------|---------------|-----------------|-----------------|------------------|
| Self-transcendence | -.09              | -.10                    | -.08          | .02             | -.10            | -.14             |
| Conservation       | .21               | -.01                    | .16           | .26             | .30             | .22              |
| Self-enhancement   | -.09              | -.04                    | -.01          | -.06            | -.01            | -.01             |
| Openness-to-change | -.01              | .06                     | .01           | -.13            | .03             | .04              |

Notes: The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables. Source: Table 6 estimates.

Figure 1: The Schwartz Model of Value Relations among the 10 Motivational Domains



Source: Adapted from Schwartz (1994: 24).

**Table 1: Schwartz Value Types**

1. Universalism values – understanding, appreciation, tolerance, and protection for the well-being of everyone and nature
2. Benevolence values – preserving and enhancing the welfare of those with whom one is in frequent personal contact
3. Conformity values – restraint of actions, inclinations, and impulses that are likely to upset or harm others and break social expectations or norms
4. Tradition values – respect for, commitment to, and acceptance of the customs and ideas embodied by one’s culture or religious standards
5. Security values – safety, harmony, and stability of the self, personal relationships, and society
6. Power values – social status and prestige, control of or dominance over people and resources
7. Achievements values – personal success acquired by demonstrating competence according to social standards
8. Hedonism values – pleasure or sensuous gratification for oneself
9. Stimulation values – excitement, novelty, and challenges in life
10. Self-direction values – independent thought and action, choosing creating, exploring

Source: Adapted from Schwartz (1994: 22).

**Table 2: Confirmatory Factor Analysis of Basic Human Values, 2011 YouGov**

|                                  | Self-transcendence | Conservation | Self-enhancement | Openness-to-change |
|----------------------------------|--------------------|--------------|------------------|--------------------|
| □ <sub>1</sub> Universalism 1    | .57                |              |                  |                    |
| □ <sub>2</sub> Universalism 2    | .56                |              |                  |                    |
| □ <sub>3</sub> Benevolence 1     | .78                |              |                  |                    |
| □ <sub>4</sub> Benevolence 2     | .78                |              |                  |                    |
| □ <sub>5</sub> Security 1        |                    | .59          |                  |                    |
| □ <sub>6</sub> Security 2        |                    | .71          |                  |                    |
| □ <sub>7</sub> Conformity 1      |                    | .61          |                  |                    |
| □ <sub>8</sub> Conformity 2      |                    | .84          |                  |                    |
| □ <sub>9</sub> Tradition 1       |                    | .53          |                  |                    |
| □ <sub>10</sub> Tradition 2      |                    | .64          |                  |                    |
| □ <sub>11</sub> Achievement 1    |                    |              | .84              |                    |
| □ <sub>12</sub> Achievement 2    |                    |              | .80              |                    |
| □ <sub>13</sub> Achievement 3    |                    |              | .80              |                    |
| □ <sub>14</sub> Power 1          |                    |              | .59              |                    |
| □ <sub>15</sub> Power 2          |                    |              | .61              |                    |
| □ <sub>16</sub> Self-direction 1 |                    |              |                  | .53                |
| □ <sub>17</sub> Self-direction 2 |                    |              |                  | .59                |
| □ <sub>18</sub> Stimulation 1    |                    |              |                  | .57                |
| □ <sub>19</sub> Stimulation 2    |                    |              |                  | .61                |
| Cronbach's $\alpha$              | .77                | .77          | .84              | .67                |
| Model fit:                       |                    |              |                  |                    |
| Robust WLS $\chi^2$              |                    | 729.13       |                  |                    |
| Degrees of freedom               |                    | 125          |                  |                    |
| p-value                          |                    | < .01        |                  |                    |
| CFI                              |                    | .95          |                  |                    |
| RMSEA                            |                    | .06          |                  |                    |

Notes: Estimates based on raw data. Standardized loadings reported. All loadings are significant at  $p < .01$ . WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1199.

**Table 3: Confirmatory Factor Analysis of Basic Human Values, 2012 GSS**

|                                  | Self-transcendence | Conservation | Self-enhancement | Openness-to-change |
|----------------------------------|--------------------|--------------|------------------|--------------------|
| □ <sub>1</sub> Universalism 1    | .51                |              |                  |                    |
| □ <sub>2</sub> Universalism 2    | .60                |              |                  |                    |
| □ <sub>3</sub> Universalism 3    | .44                |              |                  |                    |
| □ <sub>4</sub> Benevolence 1     | .71                |              |                  |                    |
| □ <sub>5</sub> Benevolence 2     | .63                |              |                  |                    |
| □ <sub>6</sub> Security 1        |                    | .59          |                  |                    |
| □ <sub>7</sub> Security 2        |                    | .73          |                  |                    |
| □ <sub>8</sub> Conformity 1      |                    | .48          |                  |                    |
| □ <sub>9</sub> Conformity 2      |                    | .59          |                  |                    |
| □ <sub>10</sub> Tradition 1      |                    | .61          |                  |                    |
| □ <sub>11</sub> Tradition 2      |                    | .46          |                  |                    |
| □ <sub>12</sub> Achievement 1    |                    |              | .74              |                    |
| □ <sub>13</sub> Achievement 2    |                    |              | .78              |                    |
| □ <sub>14</sub> Power 1          |                    |              | .19              |                    |
| □ <sub>15</sub> Power 2          |                    |              | .54              |                    |
| □ <sub>16</sub> Self-direction 1 |                    |              |                  | .45                |
| □ <sub>17</sub> Self-direction 2 |                    |              |                  | .65                |
| □ <sub>18</sub> Stimulation 1    |                    |              |                  | .68                |
| □ <sub>19</sub> Stimulation 2    |                    |              |                  | .40                |
| Cronbach's $\alpha$              | .65                | .73          | .70              | .62                |
| Model fit:                       |                    |              |                  |                    |
| Robust WLS $\chi^2$              |                    | 443.23       |                  |                    |
| Degrees of freedom               |                    | 123          |                  |                    |
| p-value                          |                    | < .01        |                  |                    |
| CFI                              |                    | .95          |                  |                    |
| RMSEA                            |                    | .05          |                  |                    |

Notes: Estimates based on raw data. Standardized loadings reported. All loadings are significant at  $p < .01$ . WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1289.

**Table 4: OLS Estimates of the Effects of Human Values on Symbolic Ideology and Policy Opinions, 2011 YouGov**

|                         | Symbolic ideology                | Economic welfare issues          | Racial issues                    | Cultural issues                  | Hawk-dove issues                 | Unilateralism                    |
|-------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Self-transcendence      | -0.28<br><i>-0.17</i><br>(-6.63) | -0.36<br><i>-0.28</i><br>(-9.53) | -0.26<br><i>-0.14</i><br>(-4.53) | -0.35<br><i>-0.22</i><br>(-7.36) | -0.30<br><i>-0.28</i><br>(-8.42) | -0.31<br><i>-0.18</i><br>(-5.92) |
| Conservation            | 0.37<br><i>0.24</i><br>(9.02)    | 0.14<br><i>0.11</i><br>(4.04)    | 0.38<br><i>0.21</i><br>(6.55)    | 0.58<br><i>0.39</i><br>(13.24)   | 0.25<br><i>0.24</i><br>(7.09)    | 0.23<br><i>0.14</i><br>(4.10)    |
| Self-enhancement        | -0.04<br><i>-0.03</i><br>(-1.22) | 0.05<br><i>0.05</i><br>(1.68)    | 0.03<br><i>0.02</i><br>(0.59)    | 0.01<br><i>0.00</i><br>(0.13)    | 0.07<br><i>0.08</i><br>(2.19)    | 0.02<br><i>0.01</i><br>(0.38)    |
| Openness-to-change      | -0.02<br><i>-0.02</i><br>(-0.52) | 0.07<br><i>0.06</i><br>(2.01)    | 0.05<br><i>0.03</i><br>(0.79)    | 0.01<br><i>0.00</i><br>(0.13)    | 0.12<br><i>0.12</i><br>(3.48)    | 0.06<br><i>0.04</i><br>(1.01)    |
| Adjusted R <sup>2</sup> | .52                              | .44                              | .23                              | .41                              | .33                              | .22                              |
| Number of cases         | 1102                             | 1104                             | 1094                             | 1104                             | 1103                             | 1089                             |

Notes: All estimates are from OLS regressions. Unstandardized estimates appear in the top row. The standardized coefficients are italicized in the second row. The  $t$  values appear in the parentheses in the third row. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are reported in Appendix C1. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables.

**Table 5: Predicted Change in Symbolic and Policy Conservatism given Movement from 5<sup>th</sup> to 95<sup>th</sup> Percentile Score on Values, 2011 YouGov**

|                    | Symbolic ideology | Economic welfare issues | Racial Issues | Cultural issues | Hawk-dove issues | Unilateralism |
|--------------------|-------------------|-------------------------|---------------|-----------------|------------------|---------------|
| Self-transcendence | -0.16             | -0.20                   | -0.14         | -0.19           | -0.17            | -0.17         |
| Conservation       | 0.23              | 0.09                    | 0.24          | 0.37            | 0.16             | 0.14          |
| Self-enhancement   | -0.03             | 0.04                    | 0.02          | 0.00            | 0.05             | 0.01          |
| Openness-to-change | -0.01             | 0.04                    | 0.03          | 0.00            | 0.07             | 0.04          |

Notes: The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables. Source: Table 4 estimates.

**Table 6: OLS Estimates of the Effects of Human Values on Symbolic Ideology and Policy Opinions, 2012 GSS**

|                         | Symbolic<br>ideology             | Economic<br>welfare issues       | Racial<br>issues                 | Cultural<br>issues               | Civil<br>liberties               | Hawk-dove<br>issues              |
|-------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Self-transcendence      | -0.19<br><i>-0.10</i><br>(-3.10) | -0.21<br><i>-0.13</i><br>(-2.94) | -0.17<br><i>-0.09</i><br>(-2.14) | 0.04<br><i>0.02</i><br>(0.36)    | -0.21<br><i>-0.10</i><br>(-1.96) | -0.31<br><i>-0.11</i><br>(-2.67) |
| Conservation            | 0.32<br><i>0.23</i><br>(6.84)    | -0.02<br><i>-0.01</i><br>(-0.29) | 0.24<br><i>0.17</i><br>(3.97)    | 0.38<br><i>0.20</i><br>(4.39)    | 0.45<br><i>0.26</i><br>(5.55)    | 0.33<br><i>0.15</i><br>(3.90)    |
| Self-enhancement        | -0.12<br><i>-0.10</i><br>(-2.87) | -0.05<br><i>-0.04</i><br>(-1.17) | -0.01<br><i>-0.01</i><br>(-0.18) | -0.07<br><i>-0.04</i><br>(-0.98) | -0.02<br><i>-0.01</i><br>(-0.25) | -0.01<br><i>-0.00</i><br>(-0.13) |
| Openness-to-change      | -0.02<br><i>-0.01</i><br>(-0.44) | 0.09<br><i>0.07</i><br>(1.96)    | 0.02<br><i>0.02</i><br>(0.36)    | -0.20<br><i>-0.11</i><br>(-2.45) | 0.04<br><i>0.02</i><br>(0.52)    | 0.07<br><i>0.03</i><br>(0.76)    |
| Adjusted R <sup>2</sup> | .34                              | .31                              | .26                              | .24                              | .18                              | .12                              |
| Number of cases         | 1202                             | 817                              | 749                              | 770                              | 821                              | 1202                             |

Notes: All estimates are from OLS regressions. Unstandardized estimates appear in the top row. The standardized coefficients are italicized in the second row. The  $t$  values appear in the parentheses in the third row. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are reported in Appendix C2. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables.



**Table 7: Predicted Change in Symbolic and Policy Conservatism given Movement from 5<sup>th</sup> to 95<sup>th</sup> Percentile Score on Values, 2012 GSS**

|                    | Symbolic ideology | Economic welfare issues | Racial issues | Cultural issues | Civil liberties | Hawk-dove issues |
|--------------------|-------------------|-------------------------|---------------|-----------------|-----------------|------------------|
| Self-transcendence | -.09              | -.10                    | -.08          | .02             | -.10            | -.14             |
| Conservation       | .21               | -.01                    | .16           | .26             | .30             | .22              |
| Self-enhancement   | -.09              | -.04                    | -.01          | -.06            | -.01            | -.01             |
| Openness-to-change | -.01              | .06                     | .01           | -.13            | .03             | .04              |

Notes: The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness to change should not systematically affect the dependent variables. Source: Table 6 estimates.

## Supplemental Materials

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## Appendix A1: Question Wording for Basic Human Values and Dependent Variables

### YouGov Data (2011)

#### Dependent Variables

*Symbolic conservatism* (rescaled 0-1 and coded so that higher values reflect more conservative preferences): Here is a seven point scale on which the political views that people might hold are arranged from very liberal to very conservative. Where would you place yourself on this scale?

- Very liberal
- Liberal
- Slightly liberal
- Moderate, middle of the road
- Slightly conservative
- Conservative
- Very conservative

*Economic issues* (alpha = .80, all items rescaled 0-1 and coded so that higher values reflect more conservative preferences)

- a. Limited government: “We need a strong government to handle today’s economic problems.” Seven point Likert scale ranging from “Strongly agree” (0) to “Strongly disagree” (1).
- b. Health care: 6 point scale with endpoints “Health care is a right and should be provided to all citizens regardless of their ability to pay” (0) and “Health care should be a privilege for those who can pay for it” (1)
- c. Income inequality: 6 point scale with endpoints “The government should get out of the business of trying to promote income equality” (1) and “The government should do more to reduce income inequality” (0)
- d. Government regulation: 6 point scale with endpoints “Government regulations unfairly hurt business” (1) and “Government regulations protect society” (0)
- e. Welfare spending: “If you had a say in making up the federal budget this year, for which of the following programs would you like to see spending DECREASED and for which would you like to see spending INCREASED? How about federal spending on people on welfare.” Five point scale ranging from “Increased a lot” (0) to “Decreased a lot” (1).

*Cultural issues* (alpha = .72, all items rescaled 0-1 and coded so that higher values reflect more conservative preferences)

- a. Moral traditionalism 1: “Everyone should have their own lifestyle, religious beliefs and sexual preference, even if it makes them different from everyone else.” Seven point Likert scale ranging from “Strongly agree” (0) to “Strongly disagree” (1).
- b. Moral traditionalism 2: “New lifestyles are contributing to the breakdown of our society.” Seven point Likert scale ranging from “Strongly agree” (1) to “Strongly disagree” (0).
- c. Gay marriage: 6 point scale with endpoints “Recognize marriage only as a union between a man and a woman” (1) and “Recognize marriage between gay and lesbian couples” (0)
- d. Marijuana legalization: 6 point scale with endpoints “Keep marijuana illegal, as it is today” (1) and “Legalize marijuana” (0)

*Racial issues* (single item rescaled 0-1 and coded so that higher values reflect more conservative preferences)

- a. Immigration: 6 point scale with endpoints “The government should get out of the business of trying to promote income equality” (1) and “The government should do more to reduce income inequality” (0)

*Security issues* (alpha = .72, all items rescaled 0-1 and coded so that higher values reflect more hawkish/conservative preferences)

- a. Flexible vs. Tough: “Some people think that in dealing with other nations our government should be strong and tough. Suppose these people are at one end of this scale – at point number 1. Others think that our government should be understanding and flexible. Suppose these people are at the other end – at point 7. And, of course, other people have opinions somewhere in between at points 2, 3, 4, 5, or 6. Where would you place yourself on this scale?”
- b. Diplomacy vs. Force: “Some people believe the United States should solve international problems by using diplomacy and other forms of international pressure and use military force only if absolutely necessary. Suppose we put such people at "1" on this scale. Others believe diplomacy and pressure often fail and the US must be ready to use military force. Suppose we put them at number 7. Where would you place yourself on this scale?”
- c. Foreign policy restraint: “The United States should take all steps including the use of force to prevent aggression by any expansionist power.” (7 point Likert scale ranging from “Strongly agree” to “Strongly disagree”)
- d. Force causes problems: “The use or threat of force sometimes creates more problems than it solves by creating hostility or fear on the part of the opposing side.” (7 point Likert scale ranging from “Strongly agree” to “Strongly disagree”)
- e. Defense spending: “If you had a say in making up the federal budget this year, for which of the following programs would you like to see spending DECREASED and for which would you like to see spending INCREASED? How about federal spending on national defense” (5 point scale ranging from “Increased a lot” to “Decreased a lot”)

## Independent Variables

### *Self-transcendence*

(alpha = .77, all items scaled 0-1 from the following scale “Not like me at all” [0], “Not like me”, “A little like me”, “Somewhat like me”, “Like me”, “Very much like me” [1]. All items use pronouns that match sex of the respondent, e.g. “he” for male respondents, “she” for female respondents.)

- a. Universalism 1: “She thinks it is important that every person in the world should be treated equally. She believes everyone should have equal opportunities in life.”
- b. Universalism 2: “She wants everyone to be treated justly, even people she doesn’t know. It is important to her to protect the weak in society.”
- c. Benevolence 1: “It is important to her to be loyal to her friends. She wants to devote himself to people close to her.”
- d. Benevolence 2: “It is important to her to respond to the needs of others. She tries to support those she knows.”

### *Openness to change*

(alpha = .67, all items scaled 0-1 from the following scale “Not like me at all” [0], “Not like me”, “A little like me”, “Somewhat like me”, “Like me”, “Very much like me” [1]. All items use pronouns that match sex of the respondent, e.g. “he” for male respondents, “she” for female respondents.)

- a. Self-direction 1: “It is important to her to make his own decisions about what she does. She likes to be free and not depend on others.”

- b. Self-direction 2: "Thinking up new ideas and being creative is important to her. She likes to do things in her own original way."
- c. Stimulation 1: "She likes to take risks. She is always looking for adventures."
- d. Stimulation 2: "She likes surprises. It is important to her to have an exciting life."

*Self-enhancement*

(alpha = .84, all items scaled 0-1 from the following scale "Not like me at all" [0], "Not like me", "A little like me", "Somewhat like me", "Like me", "Very much like me" [1]. All items use pronouns that match sex of the respondent, e.g. "he" for male respondents, "she" for female respondents.)

- a. Achievement 1: "She thinks it is important to be ambitious. She wants to show how capable she is."
- b. Achievement 2: "Getting ahead in life is important to her. She strives to do better than others."
- c. Achievement 3: "Being very successful is important to her. She hopes people will recognize her achievements."
- d. Power 1: "It is important to her to get respect from others. She wants people to do what she says."
- e. Power 2: "It is important to her to be in charge and tell others what to do. She likes to be the leader."

*Conservation*

(alpha = .77, all items scaled 0-1 from the following scale "Not like me at all" [0], "Not like me", "A little like me", "Somewhat like me", "Like me", "Very much like me" [1]. All items use pronouns that match sex of the respondent, e.g. "he" for male respondents, "she" for female respondents.)

- a. Security 1: "It is important to her to live in secure surroundings. She avoids anything that might endanger her safety."
- b. Security 2: "Having a stable society is important to her. She is concerned that the social order be protected."
- c. Conformity 1: "She believes that people should do what they're told. She thinks people should follow rules at all times, even when no one is watching."
- d. Conformity 2: "It is important to her to be obedient. She believes she should always show respect to her parents and to older people."
- e. Tradition 1: "It is important to her to be humble and modest. She tries not to draw attention to herself."
- f. Tradition 2: "Tradition is important to her. She tries to follow the customs handed down by her religion or her family."

*High education:*

- 0 = less than four years of college
- 1 = four years college degree or more

*Low income*

- 0 = more than \$10,000 per year
- 1 = less \$10,000 per year or don't know

*High income*

- 0 = Not more than \$25,000 per year
- 1 = More than \$25,000 per year

### *Party identification*

- Strong Democrat (0)
- Not very strong Democrat
- Lean Democrat
- Independent
- Lean Republican
- Not very strong Republican
- Strong Republican (1)

### *Black*

- 0 = Non-Black respondents
- 1 = Black respondents

### *Hispanic*

- 0 = Non-Hispanic respondents
- 1 = Hispanic respondents

### *Female*

- 0 = Male respondents
- 1 = Female respondents

## **General Social Survey Data (2012)**

### **Dependent Variables**

*Symbolic conservatism* (single item rescaled 0-1 and coded so that higher values reflect more conservative preferences)

- a. “We hear a lot of talk these days about liberals and conservatives. I'm going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal--point 1--to extremely conservative--point 7. Where would you place yourself on this scale?”

*Economic conservatism* (alpha = .78, all items rescaled 0-1 and coded so that higher values reflect more conservative preferences. GSS variable name in all caps.)

- a. HELPSICK: "Please look at the hand card. In general, some people think that it is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills. Others think that these matters are not the responsibility of the federal government and that people should take care of these things themselves. Where would you place yourself on this scale, or haven't you made up your mind on this?" "I STRONGLY AGREE IT IS THE RESPONSIBILITY OF THE GOVERNMENT TO HELP" (0), "I AGREE WITH BOTH ANSWERS", "I STRONGLY AGREE THAT PEOPLE SHOULD TAKE CARE OF THEMSELVES" (1)
- b. HELPNOT: "Please look at the hand card. Some people think that the government in Washington is trying to do too many things that should be left to individuals and private businesses. Others disagree and think that the government should do even more to solve our country's problems. Still others have opinions somewhere in between. Where would you place yourself on this scale, or haven't you made up your mind on this?" "I STRONGLY AGREE THAT THE GOVERNMENT SHOULD DO MORE" (0), "I

- AGREE WITH BOTH ANSWERS", "I STRONGLY AGREE THAT THE GOVERNMENT IS DOING TOO MUCH" (1)
- c. HELPPoor: "I'd like to talk with you about issues some people tell us are important. Please look at the hand card. Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans; they are at Point 1 on this card. Other people think it is not the government's responsibility, and that each person should take care of himself; they are at Point 5." "I STRONGLY AGREE THE GOVERNMENT SHOULD IMPROVE LIVING STANDARDS" (0), "I AGREE WITH BOTH ANSWERS", "I STRONGLY AGREE THAT PEOPLE SHOULD TAKE CARE OF THEMSELVES" (1)
  - d. EQWLTH: "Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. Here is a card with a scale from 1 to 7. Think of a score of 1 as meaning that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government should not concern itself with reducing income differences. What score between 1 and 7 comes closest to the way you feel?" "Government should do something to reduce income differences between rich and poor" (0) "Government should not concern itself with income differences" (1)
  - e. NATCHLD: "I would like to talk with you about some things people think about today. We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance for childcare?" Three point scale "Too little" (0), "About right", and "Too much" (1).
  - f. NATEDUC: "Are we spending too much, too little, or about the right amount on education?" Three point scale "Too little" (0), "About right", and "Too much" (1). Some respondents received "Improving the nation's education system" instead of "education."

*Cultural conservatism* (alpha = .69, all items rescaled 0-1 and coded so that higher values reflect more conservative preferences. GSS variable name in all caps.)

- a. ABNOMORE: [In what circumstances should abortion be permitted] "If she is married and does not want any more children?" "Yes" "No"
- b. ABRAPE: [In what circumstances should abortion be permitted] "If she is married and does not want any more children?" "Yes" "No"
- c. HOMOSEX: "What about sexual relations between two adults of the same sex-- do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?"
- d. PORNLOW: "Which of these statements comes closest to your feelings about pornography laws? 1. There should be laws against the distribution of pornography, whatever the age, or 2. There should be laws against the distribution of pornography to persons under 18, or 3. There should be no laws forbidding the distribution of pornography"

*Political Tolerance* (alpha = 0.79, all items rescaled 0-1 and coded so that higher values reflect more conservative preferences. GSS variable name in all caps.)

- a. SPKATH: "There are always some people whose ideas are considered bad or dangerous by other people. For instance, somebody who is against all churches and religion. If such a

- person wanted to make a speech in your (city/town/community) against churches and religion, should he be allowed to speak, or not?" "Yes, allowed" (0) "Not allowed" (1)
- b. SPKRAC: "Or, consider a person who believes that Blacks are genetically inferior. If such a person wanted to make a speech in your community claiming that Blacks are inferior, should he be allowed to speak, or not?" "Yes, allowed" "Not allowed"
  - c. SPKCOM: "Now, I would like to ask you some questions about a man who admits he is a Communist. Suppose this admitted Communist wanted to make a speech in your community. Should he be allowed to speak, or not?" "Yes, allowed" "Not allowed"
  - d. SPKMIL: "Consider a person who advocates doing away with elections and letting the military run the country. If such a person wanted to make a speech in your community, should he be allowed to speak, or not?" "Yes, allowed" "Not allowed"
  - e. SPKHOMO: "And what about a man who admits that he is homosexual. Suppose this admitted homosexual wanted to make a speech in your community. Should he be allowed to speak, or not?" "Yes, allowed" "Not allowed"

*Racial Conservatism* (alpha = .72, all items rescaled 0-1 and coded so that higher values reflect more conservative preferences. GSS variable name in all caps.)

- a. NATRACEY/NATRACE: "Are we spending too much, too little, or about the right amount on assistance to Blacks?" (Three point scale "Too little", "About right", and "Too much"). Some respondents received "Improving the conditions of Blacks" instead of "assistance to blacks."
- b. AFIRM1: "Some people say that because of past discrimination, Blacks should be given preference in hiring and promotion. Others say that such preference in hiring and promotion of Blacks is wrong because it discriminates against Whites. What about your opinion -- are you for or against preferential hiring and promotion of Blacks?" [Branching follow-up 1 (if "for" preferences) "Do you favor preferences in hiring and promotion strongly or not strongly?" [Branching follow-up 2 if "against" preferences] "Do you oppose preferences in hiring and promotion strongly or not strongly?"]
- c. WRKWYUP: "Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly with the following statement. Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without special favors."
- d. HLPBLK: "Please look at the hand card. Some people think that (Blacks/African-Americans) have been discriminated against for so long that the government has a special obligation to help improve their living standards. Others believe that the government should not be giving special treatment to (Blacks/African-Americans). Where would you place yourself on this scale, or haven't you made up your mind on this?" "I STRONGLY AGREE THE GOVERNMENT IS OBLIGATED TO HELP BLACKS" (0), "I AGREE WITH BOTH ANSWERS", "I STRONGLY AGREE THAT PEOPLE SHOULD TAKE CARE OF THEMSELVES" (1)

*Hawk-Dove*

- a. NATARMSY/NATARMS: "Are we spending too much, too little, or about the right amount on national defense?" (Three point scale "Too little", "About right", and "Too much"). Some respondents received "the military, armaments and defense" instead of "national defense."

## Independent Variables



*Self-transcendence* (alpha = .65, all items scaled 0-1 from the following scale “Not like me at all” [0], “Not like me”, “A little like me”, “Somewhat like me”, “Like me”, “Very much like me” [1]. All items use pronouns that match sex of the respondent, e.g. “he” for male respondents, “she” for female respondents. GSS variable name is in all caps in parentheses.)

- a. Universalism 1 (VALEQL): “She thinks it is important that every person in the world should be treated equally. She believes everyone should have equal opportunities in life.”
- b. Universalism 2 (VALLIST): “It is important to her to listen to people who are different from her. Even when she disagrees with them, she still wants to understand them.”
- c. Universalism 3 (VALECO): “She strongly believes that people should care for nature. Looking after the environment is important to her.”
- d. Benevolence 1 (VALCARE): “It's very important to her to help the people around her. She wants to care for their well-being.”
- e. Benevolence 2 (VALDVOT): “It is important to her to be loyal to her friends. She wants to devote herself to people close to her.”

*Openness to change* (alpha = .62, all items scaled 0-1 from the following scale “Not like me at all” [0], “Not like me”, “A little like me”, “Somewhat like me”, “Like me”, “Very much like me” [1]. All items use pronouns that match sex of the respondent, e.g. “he” for male respondents, “she” for female respondents. GSS variable name is in all caps in parentheses.)

- a. Self-direction 1 (VALORIG): “It is important to her to make her own decisions about what she does. She likes to be free and not depend on others.”
- b. Self-direction 2 (VALFREE): “It is important to her to make her own decisions about what she does. She likes to be free and not depend on others.”
- c. Stimulation 1 (VALDIFF): “She likes surprises and is always looking for new things to do. She thinks it is important to do lots of different things in life.”
- d. Stimulation 2 (VALRISK): “She looks for adventures and likes to take risks. She wants to have an exciting life.”

*Self-enhancement* (alpha = .70, all items scaled 0-1 from the following scale “Not like me at all” [0], “Not like me”, “A little like me”, “Somewhat like me”, “Like me”, “Very much like me” [1]. All items use pronouns that match sex of the respondent, e.g. “he” for male respondents, “she” for female respondents. GSS variable name is in all caps in parentheses.)

- a. Power 1 (VALRICH): “It is important to her to be rich. She wants to have a lot of money and expensive things.”
- b. Power 2 (VALRSPT): “It is important to her to get respect from others. She wants people to do what she says.”
- c. Achievement 1 (VALABLE): “It's important to her to show her abilities. She wants people to admire what she does.”
- d. Achievement 2 (VALACHV): “Being very successful is important to her. She hopes people will recognize her achievements.”

*Conservation* (alpha = .73, all items scaled 0-1 from the following scale “Not like me at all” [0], “Not like me”, “A little like me”, “Somewhat like me”, “Like me”, “Very much like me” [1]. All items use pronouns that match sex of the respondent, e.g. “he” for male respondents, “she” for female respondents. GSS variable name is in all in parentheses.)

- a. Security 1 (VALSAFE): “It is important to her to live in secure surroundings. She avoids anything that might endanger her safety.”
- b. Security2 (VALDFND): “It is important to her that the government ensures her safety

- against all threats. She wants the state to be strong so it can defend its citizens.”
- c. Conformity 1 (VALRULE): “She believes that people should do what they're told. She thinks people should follow rules at all times, even when no-one is watching.”
  - d. Conformity 2 (VALPRPR): “It is important to her always to behave properly. She wants to avoid doing anything people would say is wrong.”
  - e. Tradition 1 (VALMOD): “It is important to her to be humble and modest. She tries not to draw attention to herself.”
  - f. Tradition 2: (VALTRDN): Tradition is important to her. She tries to follow the customs handed down by her religion or her family.

*High education:*

- 0 = less than four years of college
- 1 = four years college degree or more

*Low income*

- 0 = more than \$10,000 per year
- 1 = less \$10,000 per year or don't know

*High income*

- 0 = Not more than \$25,000 per year
- 1 = More than \$25,000 per year

*Party identification*

- Strong Democrat (0)
- Not very strong Democrat
- Lean Democrat
- Independent
- Lean Republican
- Not very strong Republican
- Strong Republican (1)

*Black*

- 0 = Non-Black respondents
- 1 = Black respondents

*Hispanic*

- 0 = Non-Hispanic respondents
- 1 = Hispanic respondents

*Female*

- 0 = Male respondents
- 1 = Female respondents

## **Appendix A2: Description of Sampling Procedures and Treatment of Missing Data**

### **YouGov 2011 Data**

As part of the YouGov panel, respondents are surveyed on a variety of topics, mostly to aid corporate clients in market research on popular products. The text utilized to introduce potential respondents to the survey in our study is similar to text respondents receive when they answer surveys for the organization's corporate clients. Respondents are notified initially via e-mail that there is a survey waiting for them. A link takes them to a page where they are notified of whether the survey compensates them with entries into a "prize draw" or points that can be traded for cash when they complete enough surveys. The topic of the survey is not revealed before the respondent clicks the arrow to begin the survey.

Respondents to the YouGov survey are drawn via matched quota sampling from a non-probability sample of over one million volunteer panelists. YouGov obtained a representative sample via a multistage process: first drawing a target sample from a high quality probability survey—in this instance the 2006 American Community Survey (ACS)—and then matching YouGov panelists to this target sample based upon marginal demographic and political characteristics obtained on the ACS. Over representation of certain subgroups and underrepresentation of others required 1,301 completed interviews to be "matched down" to the 1,200 that formed our dataset. The variables utilized in the matching procedure include gender, age, race, education, party identification, and political interest. The methodology for YouGov's procedures is described in Vavreck and Rivers (2008). Ansolabehere and Schaffner (N.d.) report the high comparability of estimates utilizing this method to those obtained utilizing standard nationally representative RDD telephone interviewing.

Regarding missing data we note that nonresponse was rare, not exceeding 5% of those interviewed for any of the items in the Schwartz battery or in any of the policy scales we created. For the confirmatory factor analyses, the "pairwise present" method of recovering missing observations, as implemented in Mplus v.7.3 for the WLSMV estimator, is employed. Over 95% of each element of the asymptotic variance-covariance matrix for each group is observed. For the multivariate analyses utilizing the indices, the mean of the items the respondent answered is computed, provided the respondent answered half or more of the questions contained on the scale. Where this did not occur, the case is dropped. As indicated in Table 4, in all multivariate analyses employing YouGov data, more than 90% of the cases were retained via this practice.

### **GSS 2012 Data**

The GSS has recently changed over from a repeating, cross-section design to a combined repeating cross-section and panel-component design. The file we utilize incorporates this rolling panel design, with the 2008 GSS as the first in the panel. A sub-set of 2,000 respondents were selected for 2010 and 2012 re-interviews. In addition, new cross-sectional respondents were added in 2010 and 2012. We use the sample of 1,295 respondents interviewed in 2008 and re-interviewed in 2010 and 2012. Because the Schwartz items that appeared on the 2012 wave were administered only to these 1,295 respondents, we do not include any of the new cross-section respondents added after 2008. The AAPOR RR5 response rate for the 2012 cross-section is 71.4% and is similar to the RR5 of 70.4% obtained in 2008 and 70.3% obtained in 2010. Different subsamples randomly received the policy items employed in the estimates reported in Tables 6 and 7. This further reduced the available sample for these analyses. Once again, item nonresponse was rare, not exceeding 5% of those interviewed for any of the items in the Schwartz battery or in any of the policy scales we created.

## Appendix B1: CFA Models for 4 Factor Structure vs. 2 Factor “Liberal” and “Conservative” Structure

We tested whether our preferred four-factor solution fits the data better than a more parsimonious two-factor solution whereby all of the self-transcendence and openness-to-change items listed in Tables 2-3 are constrained to load on a latent “liberal” factor and the self-enhancement and conservation values are constrained to load onto a latent “conservative” factor. The model fit statistics appear below. A comparison of the four-factor and two-factor solutions reveals that our preferred four-factor model yields superior fit on every measure of model fit in both samples. A formal chi-square difference test reveals the same in both samples ( $p < .001$ ).

### *2011 YouGov survey*

|                     | 4 factors<br>Schwartz values<br>model | 2 factors<br>Liberal & conservation values<br>model |
|---------------------|---------------------------------------|---|
| Robust WLS $\chi^2$ | 729.13                                | 2929.97   |
| Degrees of freedom  | 125                                   | 130   |
| p-value             | < .01                                 | < .01   |
| CFI                 | .95                                   | .78   |
| RMSEA               | .06                                   | .13   |

Notes: Estimates based on raw data. WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1199.

### *2012 GSS survey*

|                     | 4 factors<br>Schwartz values<br>model | 2 factors<br>Liberal & conservation values<br>model |
|---------------------|---------------------------------------|---|
| Robust WLS $\chi^2$ | 443.23                                | 1283.66   |
| Degrees of freedom  | 123                                   | 128   |
| p-value             | < .01                                 | < .01   |
| CFI                 | .95                                   | .81   |
| RMSEA               | .05                                   | .08   |

Notes: WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1289.

## Appendix B2: CFA Models for 2 Factor “Self-transcendence” & “Conservation” Structure vs. 1 Factor Structure

Next, we estimated CFA models using only the self-transcendence and conservation items. We wanted to assess whether a two-factor specification based on Schwartz’s theory fit the data better than a one-factor model in which all items would be dependent on a single latent factor. We found that the two factor model provides superior fit to the one-factor alternative. A formal chi-square difference test reveals the same in both the YouGov and GSS samples ( $p < .001$ ).

### *2011 YouGov survey*

|                     | 2 factor self-transcendence &<br>conservation<br>model | 1<br>factor<br>model |
|---------------------|--|----------------------|
| Robust WLS $\chi^2$ | 166.6  | 605.5                |
| Degrees of freedom  | 27   | 28                   |
| p-value             | < .01  | < .01                |
| CFI                 | .98  | .91                  |
| RMSEA               | .07  | .13                  |

Notes: Estimates based on raw data. WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1199.

### *2012 GSS survey*

|                     | 2 factor self-transcendence &<br>conservation<br>model | 1<br>factor<br>model |
|---------------------|--|----------------------|
| Robust WLS $\chi^2$ | 139.33   | 346.35               |
| Degrees of freedom  | 36   | 37                   |
| p-value             | < .01  | < .01                |
| CFI                 | 0.97   | 0.92                 |
| RMSEA               | .05  | .07                  |

Notes: Estimates based on raw data. WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1289.

### Appendix B3: CFA Models for 4 Factor Structure vs. 2 Factor “Self-transcendence / Self-enhancement” & “Conservation / Openness” Structure

Here we test whether our preferred four-factor solution fits the data better than a more parsimonious two-factor solution whereby all of the self-transcendence and self-enhancement items listed in Tables 2-3 are constrained to load on one latent factor while the openness and conservation values are constrained to load onto a second latent factor. We report the model fit statistics below. A comparison of the four-factor and two-factor solutions reveals that our preferred four-factor model yields superior fit on every measure of model fit in both samples. A formal chi-square difference test reveals the same in both samples ( $p < .001$ ).

#### *2011 YouGov survey*

|                     | 4 factor<br>model | 2 factor<br>model |
|---------------------|-------------------|-------------------|
| Robust WLS $\chi^2$ | 729.13            | 3074.27           |
| Degrees of freedom  | 125               | 132               |
| p-value             | < .01             | < 0.01            |
| CFI                 | .95               | 0.76              |
| RMSEA               | .06               | 0.14              |

Notes: Estimates based on raw data. WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1199.

#### *2012 GSS survey*

|                     | 4 factor<br>model | 2 factor<br>model |
|---------------------|-------------------|-------------------|
| Robust WLS $\chi^2$ | 443.23            | 1283.65           |
| Degrees of freedom  | 123               | 128               |
| p-value             | < .01             | < .01             |
| CFI                 | .95               | 0.81              |
| RMSEA               | .05               | 0.08              |

Notes: Estimates based on raw data. WLS = weighted least squares. CFI = comparative fit index. RMSEA = root mean square error of approximation. Number of observations = 1289.

**Appendix C1: Full Model Estimates of the Impact of Basic Human Values on Symbolic Ideology and Policy Opinions, 2011 YouGov Survey**

|                        | Symbolic ideology | Economic welfare  | Racial issues     | Cultural issues   | Hawk-dove issues  | Uni-lateralism    |
|------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Constant               | 0.23*<br>(5.29)   | 0.42*<br>(12.42)  | 0.40*<br>(6.28)   | 0.09*<br>(2.01)   | 0.32*<br>(9.76)   | 0.36*<br>(6.76)   |
| Black                  | 0.07*<br>(2.99)   | -0.01<br>(-0.50)  | -0.06<br>(-1.91)  | 0.14*<br>(6.28)   | -0.00<br>(-0.05)  | 0.02<br>(0.74)    |
| Hispanic               | 0.01<br>(0.46)    | -0.04*<br>(-2.42) | -0.18*<br>(-5.29) | 0.04<br>(1.70)    | -0.01<br>(-0.87)  | -0.04<br>(-1.67)  |
| Female                 | -0.02<br>(-1.79)  | -0.02<br>(-1.81)  | 0.01<br>(0.77)    | -0.01<br>(-1.13)  | -0.01<br>(-1.31)  | -0.04*<br>(-2.13) |
| Age (in years)         | 0.002*<br>(4.82)  | 0.001*<br>(2.88)  | 0.004*<br>(5.89)  | 0.003*<br>(6.21)  | 0.002*<br>(4.68)  | 0.003*<br>(4.51)  |
| High education         | -0.02<br>(-1.41)  | -0.02<br>(-1.73)  | -0.09*<br>(-4.54) | -0.04*<br>(-2.58) | -0.03*<br>(-3.07) | -0.02<br>(-0.99)  |
| Low income             | 0.01<br>(0.44)    | -0.03<br>(-1.70)  | 0.03<br>(0.52)    | -0.00<br>(-0.15)  | -0.02<br>(-1.08)  | -0.05<br>(-1.62)  |
| High income            | 0.02<br>(1.73)    | 0.01<br>(0.78)    | -0.01<br>(-0.45)  | -0.01<br>(-0.78)  | 0.01<br>(0.54)    | 0.01<br>(0.68)    |
| Party identification   | 0.47*<br>(24.25)  | 0.32*<br>(19.79)  | 0.21*<br>(7.71)   | 0.30*<br>(15.09)  | 0.19*<br>(12.61)  | 0.27*<br>(11.12)  |
| Self-transcendence     | -0.28*<br>(-6.63) | -0.36*<br>(-9.53) | -0.26*<br>(-4.53) | -0.35*<br>(-7.36) | -0.30*<br>(-8.42) | -0.31*<br>(-5.92) |
| Conservation           | 0.37*<br>(9.02)   | 0.14*<br>(4.04)   | 0.38*<br>(6.55)   | 0.58*<br>(13.24)  | 0.25*<br>(7.09)   | 0.22*<br>(4.10)   |
| Self-enhancement       | -0.04<br>(-1.22)  | 0.05<br>(1.68)    | 0.03<br>(0.59)    | 0.01<br>(0.13)    | 0.07*<br>(2.19)   | 0.02<br>(0.38)    |
| Openness-to-change     | -0.02<br>(-0.52)  | 0.07*<br>(2.01)   | 0.05<br>(0.79)    | 0.01<br>(0.13)    | 0.12*<br>(3.48)   | 0.06<br>(1.01)    |
| Adj. R <sup>2</sup>    | .52               | .44               | .23               | .41               | .33               | .22               |
| Root mean square error | .20               | .17               | .28               | .21               | .16               | .26               |
| $F_{k, n-k-1}$         | 115.92            | 86.92             | 32.04             | 81.17             | 44.85             | 28.02             |
| $F$ $p$ value          | < .001            | < .001            | < .001            | < .001            | < .001            | < .001            |
| Number of cases        | 1102              | 1104              | 1094              | 1104              | 1103              | 1089              |

\*  $p < .05$  (two-tailed).

Notes: Ordinary least squares regression estimates. Unstandardized coefficients reported with  $t$  statistics in parentheses. All variables lie on a 0-1 range.

**Appendix C2: Full Model Estimates of the Impact of Basic Human Values on Symbolic Ideology and Policy Opinions, 2012 GSS**

|                        | Symbolic ideology | Economic issues   | Racial issues     | Cultural issues   | Civil liberty issues | Hawk-dove issues  |
|------------------------|-------------------|-------------------|-------------------|-------------------|----------------------|-------------------|
| Constant               | 0.34*<br>(6.50)   | 0.30*<br>(5.18)   | 0.55*<br>(7.89)   | 0.21*<br>(2.15)   | 0.14<br>(1.38)       | 0.16<br>(1.50)    |
| Black                  | 0.08*<br>(3.51)   | -0.04<br>(-1.75)  | -0.25*<br>(-8.98) | 0.11*<br>(2.84)   | -0.02<br>(-0.54)     | 0.07<br>(1.67)    |
| Hispanic               | 0.03<br>(0.53)    | -0.03<br>(-0.83)  | -0.03<br>(-0.53)  | 0.21*<br>(3.52)   | 0.06<br>(0.78)       | -0.05<br>(-0.75)  |
| Female                 | 0.01<br>(0.58)    | -0.01<br>(-0.70)  | -0.05*<br>(-2.50) | -0.01<br>(-0.36)  | 0.03<br>(1.32)       | 0.04<br>(1.72)    |
| Age (in years)         | 0.001<br>(1.93)   | 0.002*<br>(4.43)  | 0.001<br>(1.58)   | 0.002*<br>(2.17)  | 0.001<br>(1.18)      | 0.002*<br>(3.16)  |
| High education         | -0.00<br>(-0.26)  | 0.03<br>(1.72)    | -0.04*<br>(-2.05) | -0.10*<br>(-3.46) | -0.09*<br>(-4.71)    | -0.08<br>(-2.94)* |
| Low income             | -0.05<br>(-1.79)  | -0.01<br>(-0.41)  | 0.01<br>(0.24)    | -0.05<br>(-1.13)  | 0.02<br>(0.34)       | 0.01<br>(0.30)    |
| High income            | -0.03<br>(-1.47)  | 0.03<br>(1.18)    | 0.02<br>(0.80)    | -0.13*<br>(-3.54) | -0.14*<br>(-3.01)    | 0.02<br>(0.65)    |
| Party identification   | 0.37*<br>(16.83)  | 0.29*<br>(13.14)  | 0.16*<br>(5.54)   | 0.31*<br>(7.62)   | -0.03<br>(-0.83)     | 0.31*<br>(8.04)   |
| Self-transcendence     | -0.19*<br>(-3.10) | -0.21*<br>(-2.94) | -0.17*<br>(-2.14) | 0.04<br>(0.36)    | -0.21*<br>(-1.96)    | -0.31*<br>(-2.67) |
| Conservation           | 0.32*<br>(6.84)   | -0.02<br>(-0.29)  | 0.24*<br>(3.97)   | 0.38*<br>(4.39)   | 0.45*<br>(5.55)      | 0.33*<br>(3.90)   |
| Self-enhancement       | -0.12*<br>(-2.87) | -0.05<br>(-1.17)  | -0.01<br>(-0.18)  | -0.07<br>(-0.98)  | -0.02<br>(-0.25)     | -0.01<br>(-0.13)  |
| Openness-to-change     | -0.02<br>(-0.44)  | 0.09<br>(1.96)    | 0.02<br>(0.36)    | -0.20*<br>(-2.45) | 0.04<br>(0.52)       | 0.07<br>(0.76)    |
| Adj. R <sup>2</sup>    | .34               | .31               | .26               | .24               | .18                  | .12               |
| Root mean square error | .19               | .18               | .21               | .29               | .27                  | .36               |
| $F_{k, n-k-1}$         | 45.57             | 25.22             | 19.21             | 24.93             | 11.10                | 14.84             |
| Number of cases        | 1202              | 817               | 749               | 770               | 821                  | 1202              |

\* p < .05 (two-tailed)

Notes: Ordinary least squares regression estimates for all models. Unstandardized coefficients reported with *t* statistics in parentheses. All variables lie on a 0-1 range.

Source: 2012 GSS.



## Appendix D: Is it really the Case that Personally-Focused Values do Not Matter?

We have argued that socially-focused values (i.e., self-transcendence and conservation) drive public opinion to a much greater extent than personally-focused values (i.e., self-enhancement and openness). The OLS estimates reported in Tables 4 and 6 support this view. Across the 12 models, self-transcendence significantly affects the dependent variable 11 times with a mean coefficient of -0.24; conservation is significant in 11 of 12 models with a mean coefficient of .30; self-enhancement is significant in 2 of 12 models with a mean coefficient of -0.01; and openness is significant in 3 of 12 models with a mean coefficient of .02. We have interpreted these results as evidence that the personally-focused values do not systematically impact symbolic ideology and policy positions on a range of disparate issues. An alternative explanation for this pattern of results is that high multicollinearity among the four value scales prevents self-enhancement and openness from reaching statistical significance in the models. To establish that multicollinearity is not responsible for the results we obtained, we report the variance-inflation-factors for each value variable in each model in the table below. Some scholars indicate that a VIF > 5.00 represents cause for concern (Menard 1995: 66); others say a VIF > 10.00 represents high multicollinearity (Kennedy 2008: 199). As the VIF values indicate, multicollinearity among the values measures falls well below the typical rule-of-thumb thresholds. We also point out that the average magnitude of the personally-focused values (self-enhancement = -0.01 and openness-to-change = .02) are substantively trivial. Hence, even if multicollinearity augments the size of the standard errors to some degree, the effects of the two personally-focused values on public opinion are sufficiently small to conclude that they do not have much substantive impact.

### Variance-inflation-factor (VIF) for Each Value Predictor in Each Model

|                          | Symbolic ideology | Economic welfare | Racial issues | Cultural issues | Hawk-dove issues | Unilateralism    | Mean VIF |
|--------------------------|-------------------|------------------|---------------|-----------------|------------------|------------------|----------|
| <i>2011 YouGov Data:</i> |                   |                  |               |                 |                  |                  |          |
| Self-transcendence       | 1.45              | 1.45             | 1.44          | 1.45            | 1.45             | 1.45             | 1.45     |
| Conservation             | 1.45              | 1.45             | 1.45          | 1.45            | 1.45             | 1.45             | 1.45     |
| Self-enhancement         | 1.68              | 1.68             | 1.67          | 1.67            | 1.68             | 1.68             | 1.68     |
| Openness-to-change       | 1.54              | 1.54             | 1.54          | 1.54            | 1.54             | 1.55             | 1.54     |
|                          | Symbolic ideology | Economic welfare | Racial issues | Cultural issues | Civil liberties  | Hawk-dove issues | Mean VIF |
| <i>2012 GSS Data:</i>    |                   |                  |               |                 |                  |                  |          |
| Self-transcendence       | 1.53              | 1.50             | 1.57          | 1.50            | 1.53             | 1.53             | 1.53     |
| Conservation             | 1.47              | 1.45             | 1.51          | 1.51            | 1.52             | 1.50             | 1.49     |
| Self-enhancement         | 1.36              | 1.32             | 1.34          | 1.50            | 1.46             | 1.35             | 1.39     |
| Openness-to-change       | 1.43              | 1.39             | 1.47          | 1.49            | 1.48             | 1.43             | 1.45     |

To further underscore the limited influence of the personally-focused value, we estimated a series of models that included the self-enhancement and openness-to-change predictors of public opinion, but dropped self-transcendence and conservation. If the self-enhancement and openness value dimensions matter for public opinion, each predictor should manifest consistent effects across the models. However, as we see in the OLS tables below, neither variable performs well under this favorable model specification. The first table reports the YouGov results, while the second contains the GSS estimates. The self-enhancement variable is significant in 4 of 12 models with a mean OLS coefficient of 0.06. Hence, self-enhancement does better as compared to the models that include the sociotropic value scales (see Tables 4 and 6 in the text), in which it was significant in 2 of 12 tests and had a mean coefficient of -0.01. Nevertheless, the 0.06 coefficient is substantively small in absolute terms and compared to the mean effect sizes of self-transcendence (-0.24) and conservation (0.30) as reported in the fully specified models in Tables 4 and 6. Turning to openness values, we see that it performs even worse. In models lacking the two socially-focused values, openness attains significance in 3 of 12 tests and manifests an average coefficient of -0.05. This level of performance differs little from what we observed in the fully specified models in Tables 4 and 6 where openness reaches significance in 3 of 12 models with an average coefficient of 0.02.

**OLS Estimates of the Effects of Human Values on Symbolic Conservatism and Policy Opinions when Socially-focused Values are excluded from the Model, 2011 YouGov Survey**

|                         | Symbolic ideology | Economic welfare issues | Racial issues    | Cultural issues  | Hawk-dove issues | Unilateralism    |
|-------------------------|-------------------|-------------------------|------------------|------------------|------------------|------------------|
| Self-enhancement        | 0.05<br>(1.42)    | 0.08<br>(2.39)          | 0.13<br>(2.57)   | 0.17<br>(4.15)   | 0.13<br>(4.50)   | 0.07<br>(1.45)   |
| Openness-to-change      | -0.11<br>(-2.37)  | -0.03<br>(-0.72)        | -0.03<br>(-0.53) | -0.10<br>(-2.16) | 0.03<br>(0.96)   | -0.02<br>(-0.39) |
| Adjusted R <sup>2</sup> | .48               | .39                     | .20              | .31              | .26              | .20              |
| RMSE                    | .20               | .17                     | .29              | .23              | .16              | .27              |
| Number of cases         | 1115              | 1116                    | 1106             | 1117             | 1116             | 1102             |

Notes: All estimates are from OLS regressions. The *t* values appear in the parentheses. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates include the party, demographic, and socioeconomic controls. We exclude these to save space. RMSE = root mean square error.

**OLS Estimates of the Effects of Human Values on Symbolic Conservatism and Policy Opinions when Socially-focused Values are excluded from the Model, 2012 GSS Survey**

|                         | Symbolic ideology | Economic welfare issues | Racial issues    | Cultural issues  | Civil liberties  | Hawk-dove issues |
|-------------------------|-------------------|-------------------------|------------------|------------------|------------------|------------------|
| Self-enhancement        | -0.05<br>(-1.31)  | -0.05<br>(-1.34)        | 0.03<br>(0.63)   | 0.02<br>(0.24)   | 0.08<br>(1.14)   | 0.05<br>(0.78)   |
| Openness-to-change      | -0.07<br>(-1.84)  | 0.03<br>(0.64)          | -0.02<br>(-0.43) | -0.19<br>(-2.73) | -0.03<br>(-0.45) | -0.02<br>(-0.29) |
| Adjusted R <sup>2</sup> | .31               | .30                     | .24              | .21              | .13              | .10              |
| RMSE                    | .20               | .18                     | .21              | .29              | .28              | .36              |
| Number of cases         | 1202              | 817                     | 749              | 770              | 821              | 1202             |

Notes: All estimates are from OLS regressions. The *t* values appear in the parentheses. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates include the party, demographic, and socioeconomic controls. We exclude these to save space. RMSE = root mean square error.

As a final test, we follow the centering procedure that Schwartz sometimes recommends by standardizing the value items. We calculated the mean rating across all value items for each subject individually, and then calculated individual-specific mean-deviations for all value items. In other words, we take each respondents score on a given value item and subtract their mean value score across all the value items from it to get a “centered” measure. Next, we regressed each issue variable on the centered value scales and the controls. We found that the self-transcendence values continue to perform as predicted, reaching significance in 7 of 12 models and approaching significance in 3 additional models. Next, conservation reaches significance in 4 of 12 models and approaches significance in an additional model. Finally, self-enhancement and openness continue to perform poorly: Self-enhancement reaches significance in a single model and Openness fails to do so in any of the twelve re-estimations. The null findings suggest, once again, that the personally-focused values may not have much influence on public opinion. The weaker conservation results are a bit troubling as well, but we think the reason the conservation variable turns in a subpar performance is because of severe multicollinearity. Averaging across all 12 models, the mean variance-inflation-factor (VIF) for conservation equals 13.56 in the YouGov data and 5.35 in the GSS data, (recall that econometricians view  $VIF > 5.00$  or  $> 10.00$  as problematic). Moreover, the VIFs are high for our other centered-values measures (ranging from 2.70 to 12.07). For this reason, we favor the estimates for the un-centered values measures, which suffer from relatively little multicollinearity (as indicated above, the VIF range from 1.32 to 1.68).

**Appendix E1: Model Estimates of the Impact of Basic Human Values on Symbolic Ideology and Policy Opinions, 2011 YouGov Survey**

**Low education respondents (non-college degree)**

|                         | Symbolic ideology | Economic welfare issues | Racial issues    | Cultural issues  | Hawk-dove issues | Unilateralism    |
|-------------------------|-------------------|-------------------------|------------------|------------------|------------------|------------------|
| Self-transcendence      | -0.22<br>(-4.53)  | -0.32<br>(-7.38)        | -0.23<br>(-3.52) | -0.33<br>(-6.03) | -0.27<br>(-6.55) | -0.26<br>(-4.26) |
| Conservation            | 0.36<br>(6.91)    | 0.10<br>(2.43)          | 0.30<br>(4.12)   | 0.57<br>(10.28)  | 0.20<br>(4.70)   | 0.16<br>(2.28)   |
| Self-enhancement        | -0.06<br>(-1.33)  | 0.05<br>(1.41)          | 0.03<br>(0.54)   | -0.02<br>(-0.48) | 0.08<br>(2.18)   | 0.00<br>(0.03)   |
| Openness-to-change      | -0.06<br>(-1.08)  | 0.09<br>(1.84)          | 0.06<br>(0.78)   | 0.04<br>(0.73)   | 0.13<br>(3.15)   | 0.14<br>(1.99)   |
| Adjusted R <sup>2</sup> | .48               | .38                     | .18              | .35              | .26              | .17              |
| Number of cases         | 803               | 805                     | 795              | 805              | 805              | 790              |

Notes: All estimates are from OLS regressions. The *t* values appear in the parentheses. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are omitted to preserve clarity. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness-to-change should not systematically affect the dependent variables.

**High education respondents (college degree)**

|                         | Symbolic ideology | Economic welfare issues | Racial issues    | Cultural Issues  | Hawk-dove issues | Unilateralism    |
|-------------------------|-------------------|-------------------------|------------------|------------------|------------------|------------------|
| Self-transcendence      | -0.50<br>(-5.98)  | -0.44<br>(-6.56)        | -0.29<br>(-2.56) | -0.43<br>(-4.41) | -0.39<br>(-5.26) | -0.46<br>(-4.82) |
| Conservation            | 0.34<br>(5.54)    | 0.13<br>(2.21)          | 0.47<br>(4.98)   | 0.53<br>(7.58)   | 0.30<br>(4.68)   | 0.32<br>(3.39)   |
| Self-enhancement        | -0.01<br>(-0.22)  | 0.04<br>(0.77)          | 0.03<br>(0.29)   | 0.04<br>(0.66)   | 0.02<br>(0.33)   | 0.02<br>(0.25)   |
| Openness-to-change      | 0.11<br>(1.45)    | 0.07<br>(1.18)          | 0.08<br>(0.75)   | -0.06<br>(-0.63) | 0.12<br>(1.95)   | -0.13<br>(-1.29) |
| Adjusted R <sup>2</sup> | .66               | .62                     | .34              | .53              | .48              | .40              |
| Number of cases         | 299               | 299                     | 299              | 299              | 298              | 299              |

Notes: All estimates are from OLS regressions. The *t* values appear in the parentheses. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are omitted to preserve clarity. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness-to-change should not systematically affect the dependent variables.

**Appendix E2: Model Estimates of the Impact of Basic Human Values on Symbolic Ideology and Policy Opinions, 2012 GSS Survey**

**Low education respondents (non-college degree)**

|                         | Symbolic ideology | Economic welfare issues | Racial issues    | Cultural issues  | Civil liberties  | Hawk-dove issues |
|-------------------------|-------------------|-------------------------|------------------|------------------|------------------|------------------|
| Self-transcendence      | -0.19<br>(-2.55)  | -0.13<br>(-1.37)        | -0.02<br>(-0.24) | 0.02<br>(0.15)   | -0.31<br>(-2.06) | -0.38<br>(-2.61) |
| Conservation            | 0.30<br>(5.43)    | -0.09<br>(-1.22)        | 0.07<br>(0.91)   | 0.44<br>(3.48)   | 0.51<br>(4.51)   | 0.29<br>(2.58)   |
| Self-enhancement        | -0.11<br>(-2.31)  | -0.04<br>(-0.86)        | 0.02<br>(0.41)   | 0.02<br>(0.20)   | -0.00<br>(-0.02) | 0.07<br>(0.85)   |
| Openness-to-change      | 0.02<br>(0.40)    | 0.11<br>(2.04)          | -0.04<br>(-0.51) | -0.23<br>(-2.10) | 0.02<br>(0.17)   | 0.03<br>(0.29)   |
| Adjusted R <sup>2</sup> | .23               | .26                     | .22              | .16              | .13              | .07              |
| Number of cases         | 818               | 548                     | 529              | 513              | 554              | 821              |

Notes: All estimates are from OLS regressions. The *t* values appear in the parentheses. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are omitted to preserve clarity. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness-to-change should not systematically affect the dependent variables.

**High education respondents (college degree)**

|                         | Symbolic ideology | Economic welfare issues | Racial issues    | Cultural issues  | Civil liberties  | Hawk-dove issues |
|-------------------------|-------------------|-------------------------|------------------|------------------|------------------|------------------|
| Self-transcendence      | -0.10<br>(-1.11)  | -0.32<br>(-3.10)        | -0.44<br>(-2.88) | 0.04<br>(0.21)   | -0.03<br>(-0.28) | -0.08<br>(-0.42) |
| Conservation            | 0.25<br>(3.21)    | 0.06<br>(0.77)          | 0.53<br>(5.70)   | 0.24<br>(2.02)   | 0.38<br>(4.50)   | 0.39<br>(2.99)   |
| Self-enhancement        | -0.14<br>(-1.88)  | -0.06<br>(-0.89)        | -0.18<br>(-2.13) | -0.26<br>(-2.07) | -0.04<br>(-0.58) | -0.20<br>(-1.57) |
| Openness-to-change      | -0.11<br>(-1.67)  | 0.07<br>(0.78)          | 0.21<br>(1.97)   | -0.18<br>(-1.58) | 0.11<br>(1.26)   | 0.16<br>(1.20)   |
| Adjusted R <sup>2</sup> | .55               | .43                     | .41              | .31              | .11              | .21              |
| Number of cases         | 384               | 269                     | 220              | 257              | 267              | 381              |

Notes: All estimates are from OLS regressions. The *t* values appear in the parentheses. The third rows include the standardized regression coefficients. The shaded areas are statistically significant at  $p < .05$  (two-tailed test). Full model estimates with the party, demographic, and socioeconomic controls are omitted to preserve clarity. Self-transcendence should be negatively related to the dependent variables. Conservation values should be positively related to the dependent variables. Self-enhancement and openness-to-change should not systematically affect the dependent variables.

**Appendix F: Full Model Estimates of the Impact of Basic Human Values on Symbolic Ideology and Policy Opinions (self-transcendence without “equal opportunities” item), 2012 GSS**

|                        | Symbolic ideology | Economic issues   | Racial issues     | Cultural issues   | Civ Liberty issues | Hawk-dove issues  |
|------------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| Constant               | 0.31*<br>(6.23)   | 0.26*<br>(4.69)   | 0.52*<br>(7.82)   | 0.22*<br>(2.37)   | 0.12<br>(1.22)     | 0.11<br>(1.09)    |
| Black                  | 0.08*<br>(3.53)   | -0.04<br>(-1.62)  | -0.25*<br>(-8.91) | 0.11*<br>(2.81)   | -0.02<br>(-0.57)   | 0.07<br>(1.67)    |
| Hispanic               | 0.03<br>(0.63)    | -0.02<br>(-0.60)  | -0.03<br>(-0.51)  | 0.21*<br>(3.49)   | 0.07<br>(0.83)     | -0.04<br>(-0.64)  |
| Female                 | 0.01<br>(0.53)    | -0.01<br>(-0.79)  | -0.05*<br>(-2.50) | -0.01<br>(-0.37)  | 0.03<br>(1.38)     | 0.04<br>(1.71)    |
| Age (in years)         | 0.001*<br>(1.97)  | 0.002*<br>(4.43)  | 0.001<br>(1.60)   | 0.002*<br>(2.14)  | 0.001<br>(1.30)    | 0.003*<br>(3.27)  |
| High education         | -0.00<br>(-0.34)  | 0.03<br>(1.65)    | -0.04*<br>(-2.15) | -0.09*<br>(-3.43) | -0.09*<br>(-4.76)  | -0.08*<br>(-3.02) |
| Low income             | -0.05<br>(-1.73)  | -0.01<br>(-0.34)  | 0.01<br>(0.25)    | -0.05<br>(-1.14)  | 0.02<br>(0.37)     | 0.02<br>(0.34)    |
| High income            | -0.03<br>(-1.47)  | 0.03<br>(1.19)    | 0.02<br>(0.77)    | -0.13*<br>(-3.53) | -0.13*<br>(-3.03)  | 0.02<br>(0.65)    |
| Party identification   | 0.37*<br>(17.02)  | 0.30*<br>(13.53)  | 0.17*<br>(5.63)   | 0.31*<br>(7.67)   | -0.03<br>(-0.74)   | 0.31*<br>(8.28)   |
| Self-transcendence     | -0.11*<br>(-2.52) | -0.11*<br>(-2.39) | -0.09<br>(-1.50)  | 0.01<br>(0.11)    | -0.16*<br>(-2.05)  | -0.19*<br>(-2.16) |
| Conservation           | 0.31*<br>(6.70)   | -0.04<br>(-0.69)  | 0.22*<br>(3.72)   | 0.39*<br>(4.55)   | 0.44*<br>(5.81)    | 0.31*<br>(3.66)   |
| Self-enhancement       | -0.11*<br>(-2.73) | -0.04<br>(-0.96)  | -0.00<br>(-0.06)  | -0.07<br>(-1.02)  | -0.02<br>(-0.21)   | -0.00<br>(0.00)   |
| Openness-to-change     | -0.03<br>(-0.77)  | 0.07<br>(1.52)    | 0.00<br>(0.08)    | -0.19*<br>(-2.37) | 0.04<br>(0.53)     | 0.05<br>(0.57)    |
| Adj. R <sup>2</sup>    | .34               | .31               | .25               | .24               | .18                | .12               |
| Root mean square error | .19               | .18               | .21               | .29               | .27                | .36               |
| $F_{k, n-k-1}$         | 44.43             | 23.52             | 19.19             | 24.85             | 11.31              | 14.37             |
| $F p$ value            | < .001            | < .001            | < .001            | < .001            | < .001             | < .001            |
| Number of cases        | 1201              | 816               | 749               | 769               | 820                | 1201              |

\* p < .05 (two-tailed)

Notes: Ordinary least squares regression estimates. Unstandardized coefficients reported with *t* statistics in parentheses. All variables lie on a 0-1 range.

Source: 2012 GSS survey.



**Appendix G: Full Model Estimates of the Impact of Basic Human Values on Symbolic Ideology and Policy Opinions (controlling for authoritarianism), 2012 GSS**

|                        | Symbolic ideology | Economic issues   | Racial issues     | Cultural issues   | Civ Liberty issues | Hawk-dove issues  |
|------------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| Constant               | 0.37*<br>(6.44)   | 0.32*<br>(5.36)   | 0.64*<br>(6.70)   | 0.18*<br>(1.41)   | 0.04<br>(0.27)     | 0.33*<br>(2.70)   |
| Black                  | 0.08*<br>(3.00)   | -0.03<br>(-1.54)  | -0.23*<br>(-5.04) | 0.07<br>(1.50)    | -0.01<br>(-0.20)   | 0.05<br>(0.95)    |
| Hispanic               | -0.01<br>(-0.30)  | -0.03<br>(-0.68)  | -0.03<br>(-0.44)  | 0.15*<br>(1.98)   | -0.01<br>(-0.08)   | -0.05<br>(-0.57)  |
| Female                 | -0.01<br>(-0.34)  | -0.01<br>(-0.68)  | -0.03<br>(-1.29)  | 0.01<br>(0.44)    | 0.03<br>(1.11)     | 0.03<br>(0.96)    |
| Age (in years)         | 0.001*<br>(2.32)  | 0.002*<br>(4.36)  | 0.001<br>(1.65)   | 0.003*<br>(2.87)  | 0.002<br>(1.53)    | 0.002*<br>(2.23)  |
| High education         | 0.02<br>(1.13)    | 0.02<br>(1.47)    | 0.00<br>(0.17)    | -0.04<br>(-1.33)  | -0.07*<br>(-2.32)  | -0.07*<br>(-2.09) |
| Low income             | -0.04<br>(-1.19)  | -0.02<br>(-0.55)  | -0.01<br>(-0.17)  | -0.04<br>(-0.72)  | 0.10<br>(1.52)     | -0.00<br>(-0.03)  |
| High income            | -0.02<br>(-0.83)  | 0.02<br>(1.04)    | 0.00<br>(0.14)    | -0.10*<br>(-2.35) | -0.08<br>(-1.57)   | 0.01<br>(0.27)    |
| Party identification   | 0.36*<br>(14.50)  | 0.30*<br>(13.26)  | 0.19*<br>(4.87)   | 0.20*<br>(4.62)   | -0.05<br>(-1.13)   | 0.29*<br>(6.51)   |
| Authoritarianism       | 0.07*<br>(2.16)   | -0.04<br>(-1.25)  | -0.06<br>(-1.21)  | 0.30*<br>(5.37)   | 0.21*<br>(3.31)    | 0.04<br>(0.61)    |
| Self-transcendence     | -0.19*<br>(-2.80) | -0.21*<br>(-2.92) | -0.25*<br>(-2.24) | -0.13<br>(-1.10)  | -0.09<br>(-1.11)   | -0.37*<br>(-2.58) |
| Conservation           | 0.23*<br>(4.32)   | -0.01<br>(-0.16)  | 0.18*<br>(1.87)   | 0.36*<br>(3.72)   | 0.53*<br>(5.72)    | 0.36*<br>(3.46)   |
| Self-enhancement       | -0.09*<br>(-2.07) | -0.04<br>(-1.07)  | -0.02<br>(-0.25)  | -0.17*<br>(-2.31) | -0.09<br>(-1.11)   | -0.12<br>(-1.51)  |
| Openness-to-change     | -0.05<br>(-1.14)  | 0.07<br>(1.65)    | 0.02<br>(0.19)    | -0.02<br>(-0.18)  | 0.15<br>(1.65)     | -0.01<br>(-0.13)  |
| Adj. R <sup>2</sup>    | .34               | .31               | .25               | .30               | .24                | .12               |
| Root mean square error | .19               | .18               | .20               | .25               | .26                | .36               |
| $F_{k, n-k-1}$         | 27.06             | 23.08             | 7.70              | 18.08             | 11.20              | 10.62             |
| $F p$ value            | < .001            | < .001            | < .001            | < .001            | < .001             | < .001            |
| Number of cases        | 805               | 808               | 392               | 412               | 420                | 796               |

\* p < .05 (two-tailed)

Notes: Ordinary least squares regression estimates. Unstandardized coefficients reported with *t* statistics in parentheses. All variables lie on a 0-1 range.

Source: 2012 GSS survey.

**Appendix H1: Full Model Estimates of the Impact of Basic Human Values and Symbolic Ideology on Policy Opinions, 2011 YouGov Survey**

|                        | Economic issues   | Cultural issues   | Racial issues     | Hawk-dove issues  | Unilateralism     |
|------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Constant               | 0.46*<br>(11.61)  | 0.01<br>(0.20)    | 0.34*<br>(5.32)   | 0.27*<br>(8.43)   | 0.30*<br>(5.67)   |
| Black                  | -0.03<br>(-1.75)  | 0.11*<br>(5.47)   | -0.08*<br>(-2.37) | -0.01<br>(-0.97)  | -0.00<br>(-0.05)  |
| Hispanic               | -0.05*<br>(-2.94) | 0.03<br>(1.48)    | -0.18*<br>(-5.32) | -0.01<br>(-0.86)  | -0.05<br>(-1.89)  |
| Female                 | -0.02<br>(-1.34)  | -0.01<br>(-0.53)  | 0.02<br>(1.05)    | -0.01<br>(-0.79)  | -0.03*<br>(-1.69) |
| Age (in years)         | 0.0005<br>(1.34)  | 0.002*<br>(4.89)  | 0.003*<br>(5.17)  | 0.001*<br>(3.54)  | 0.002*<br>(3.41)  |
| High education         | -0.01<br>(-1.34)  | -0.03*<br>(-2.31) | -0.08*<br>(-4.38) | -0.03*<br>(-2.91) | -0.01<br>(-0.70)  |
| Low income             | -0.04*<br>(-1.97) | -0.00<br>(-0.06)  | 0.02<br>(0.48)    | -0.03<br>(-1.32)  | -0.06<br>(-1.85)  |
| High income            | 0.0002<br>(0.02)  | -0.02<br>(-1.62)  | -0.01<br>(-0.65)  | 0.00<br>(0.12)    | 0.00<br>(0.26)    |
| Party identification   | 0.18*<br>(10.32)  | 0.13*<br>(5.67)   | 0.10*<br>(2.78)   | 0.10*<br>(5.42)   | 0.14*<br>(4.45)   |
| Self-transcendence     | -0.28*<br>(-7.74) | -0.25*<br>(-5.39) | -0.20*<br>(-3.39) | -0.25*<br>(-6.95) | -0.23*<br>(-4.45) |
| Openness-to-change     | 0.08*<br>(2.47)   | 0.02<br>(0.36)    | 0.05<br>(0.87)    | 0.13*<br>(3.62)   | 0.07<br>(1.15)    |
| Self-enhancement       | 0.06*<br>(2.15)   | 0.02<br>(0.63)    | 0.04<br>(0.82)    | 0.08*<br>(2.63)   | 0.03<br>(0.67)    |
| Conservation           | 0.03<br>(0.95)    | 0.45*<br>(10.27)  | 0.29*<br>(4.96)   | 0.18*<br>(5.42)   | 0.13*<br>(2.23)   |
| Symbolic ideology      | 0.28*<br>(10.64)  | 0.36*<br>(11.07)  | 0.23*<br>(4.60)   | 0.19*<br>(7.50)   | 0.29*<br>(6.55)   |
| Adj. R <sup>2</sup>    | .50               | .48               | .22               | .36               | .26               |
| Root mean square error | .16               | .20               | .28               | .15               | .26               |
| $F_{k, n-k-1}$         | 91.89             | 104.36            | 27.13             | 49.60             | 31.06             |
| $F$ p value            | < .001            | < .001            | < .001            | < .001            | < .001            |
| Number of observations | 1099              | 1099              | 1094              | 1098              | 1089              |

\* p < .05 (two-tailed).

Notes: Ordinary least squares regression estimates. Unstandardized coefficients reported with *t* statistics in parentheses. All variables lie on a 0-1 range.

Source: 2011 YouGov survey.

**Appendix H2: Full Model Estimates of the Impact of Basic Human Values and Symbolic Ideology on Policy Opinions, 2012 GSS**

|                        | Economic<br>issues | Racial<br>Issues  | Cultural<br>issues | Civil liberties<br>issues | Hawk-dove<br>issues |
|------------------------|--------------------|-------------------|--------------------|---------------------------|---------------------|
| Constant               | 0.19*<br>(3.42)    | 0.47*<br>(7.02)   | 0.08<br>(0.76)     | 0.13<br>(1.26)            | 0.07<br>(0.65)      |
| Black                  | -0.06*<br>(-2.59)  | -0.26*<br>(-9.37) | 0.09*<br>(2.19)    | -0.02<br>(-0.53)          | 0.06<br>(1.29)      |
| Hispanic               | -0.03<br>(-0.90)   | -0.04<br>(-0.70)  | 0.22*<br>(3.31)    | 0.07<br>(0.85)            | -0.06<br>(-0.87)    |
| Female                 | -0.01<br>(-0.45)   | -0.04*<br>(-2.42) | -0.02<br>(-0.74)   | 0.03<br>(1.25)            | 0.04<br>(1.67)      |
| Age (in years)         | 0.002*<br>(4.24)   | 0.001<br>(1.15)   | 0.001<br>(1.85)    | 0.001<br>(1.36)           | 0.002*<br>(2.80)    |
| High education         | 0.03<br>(1.75)     | -0.04*<br>(-2.01) | -0.08*<br>(-2.93)  | -0.09*<br>(-4.54)         | -0.08*<br>(-2.80)   |
| Low income             | -0.01<br>(-0.43)   | 0.02<br>(0.47)    | -0.05<br>(-1.07)   | 0.00<br>(0.04)            | 0.02<br>(0.53)      |
| High income            | 0.03<br>(1.47)     | 0.04<br>(1.48)    | -0.12*<br>(-3.00)  | -0.15*<br>(-3.05)         | 0.03<br>(0.83)      |
| Party identification   | 0.19*<br>(7.52)    | 0.07*<br>(2.38)   | 0.18*<br>(3.79)    | -0.04<br>(-0.71)          | 0.21*<br>(4.43)     |
| Self-transcendence     | -0.16*<br>(-2.27)  | -0.12<br>(-1.62)  | 0.08<br>(0.66)     | -0.24*<br>(-2.22)         | -0.25*<br>(-2.11)   |
| Openness-to-change     | 0.10*<br>(2.44)    | 0.01<br>(0.24)    | -0.16*<br>(-2.05)  | 0.06<br>(0.83)            | 0.06<br>(0.69)      |
| Self-enhancement       | -0.03<br>(-0.76)   | 0.00<br>(0.07)    | -0.01<br>(-0.16)   | 0.01<br>(0.07)            | 0.02<br>(0.23)      |
| Conservation           | -0.08<br>(-1.54)   | 0.17*<br>(2.66)   | 0.28*<br>(3.07)    | 0.43*<br>(5.55)           | 0.24*<br>(2.72)     |
| Symbolic ideology      | 0.28*<br>(8.19)    | 0.24*<br>(5.14)   | 0.36*<br>(5.62)    | 0.03<br>(0.50)            | 0.27*<br>(4.13)     |
| Adj. R <sup>2</sup>    | .38                | .29               | .28                | .17                       | .14                 |
| Root mean square error | .17                | .20               | .28                | .27                       | .36                 |
| $F_{k, n-k-1}$         | 30.97              | 20.76             | 25.96              | 9.62                      | 17.54               |
| $F$ p value            | < .001             | < .001            | < .001             | < .001                    | < .001              |
| Number of observations | 800                | 731               | 753                | 800                       | 1174                |

\* p < .05 (two-tailed).

Notes: Ordinary least squares regression estimates. Unstandardized coefficients reported with *t* statistics in parentheses. All variables lie on a 0-1 range.

Source: 2012 GSS.

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