

# The Moderating Role of Democratic Governance in the Association Between Personal Values and Political Ideologies

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## Abstract

This analysis examined whether commonly assumed associations between personal values and political attitudes varied worldwide by the level of democratic governance within different countries. In less democratic countries, people may have less exposure to or engagement with value expression through political party affiliation and experience less motivation to express values through political attitudes. Therefore, in such countries, the commonly assumed association of personal values typically labeled “conservative” (e.g., tradition) or “liberal” (e.g., universalism) with right- or left-wing political ideologies could be weaker. Furthermore, less democratically governed countries are more likely to have centralized economic control as the norms, and such norms could alter the degree to which right-wing economic attitudes for free markets and private enterprise are associated with conservative values. Responses to the World Value Survey across 60 countries were largely consistent with these moderation effects when operationalizing democratic governance using both more objective, structural and subjective, perceptual metrics. In less democratic countries, conservation-oriented personal values were less positively associated with broad right-wing political identification, and self-transcendence-oriented personal values less positively associated with broad left-wing political identification. However, in less democratic countries, conservation-oriented personal values were more strongly and negatively associated with right-wing economic attitudes.

### Highlights:

- Conclusions from multi-country analyses challenged the universality of the widely assumed associations between personal values and political ideologies. In countries with lower levels of democratic governance, the association between values and ideology were attenuated: broad conservation values (e.g., tradition) were less positively related to rightwing political identification and broad self-transcendence values (e.g., universalism) were less positively related to left-wing political identification.
- In contrast to the results for overall right- or left-wing political identification, lower country-level democratic governance was associated with stronger and more negative relationships between broad conservation values and right-wing economic attitudes.
- The current research emphasized the importance of political context in predicting and inferring personal values from political ideology or *vice versa* and serves as a caution to public opinion researchers and policy makers who rely on such inferences.

In the current discourse, political leaders have increasingly appealed to voters' personal values in attempting to organize cohesive political platforms, frame the competition, and communicate to voters with similar value priorities. Some have argued that such value appeals are particularly effective at uniting party attitudes toward political issues and motivating voters (Lakoff, 2004). However, to truly understand the influence of communicating to voters in terms of values, it is also important to examine just how personal values and political ideologies are connected and how different social contexts could alter this connection.

The present research examines one possible social context that may influence the relationship between personal values and political ideology in terms of the level of democratic governance that citizens experience within a particular country. Specifically, we examine whether varying opportunities for democratic expression of personal values in a political context alter how such values are associated with political ideology.

### **Political Ideology and Personal Values**

Political ideology has been broadly defined as individual belief systems about the ideal societal order and the best ways to achieve it (Erikson & Tedin, 2003). The distinction between "right" and "left" ideologies is widely considered the most parsimonious way to classify the distinct types of belief systems that are observed across the world (e.g., Conover & Feldman, 1981; Feldman, 2003; Jost, 2006). Jost (2009) summarized that the core of this distinction is typically defined by political scientists as two interrelated contrasts in the Western societies: resistance versus openness to social changes and acceptance versus rejection of inequality (see Erikson & Tedin, 2003, p. 65).

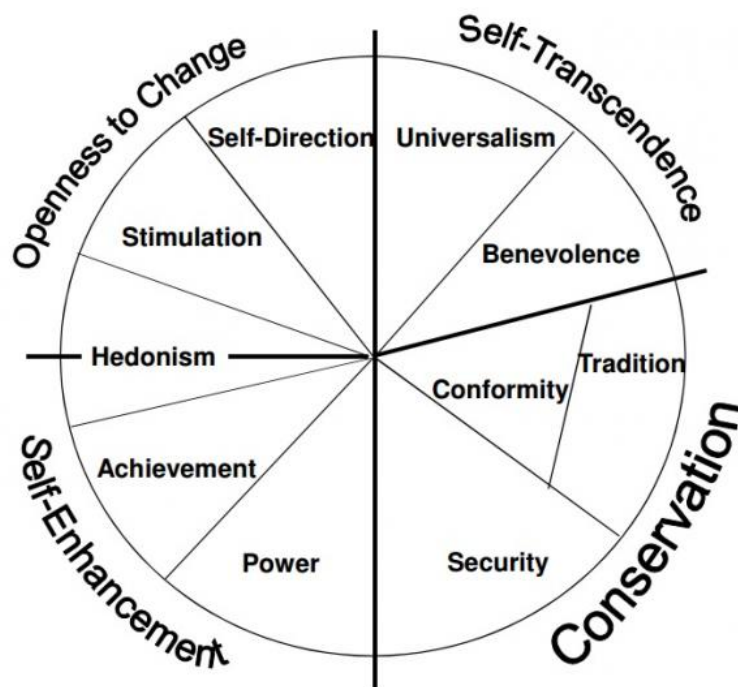
Research has long sought to differentiate the psychological profiles of individuals who endorse right-wing versus left-wing ideologies (e.g., McClosky, 1958; Tetlock, 1983). One prominent approach focuses on politically relevant dispositions, including close-mindedness (Rokeach, 1960) and need for power (Browning & Jacob, 1964). For example, Kruglanski and Webster (1996) theorized that people higher on the *need for cognitive closure* favor right-wing ideologies that prioritize stability of the status quo and certainty versus openness and change. Jost et al. (2003) further developed a unifying motivated social-cognition framework intended to explain individual differences in ideological attitudes. According to the framework, people who embrace right-wing ideology have lower tolerance for uncertainty and anxiety about the unknown and they prefer to avoid change and justify inequality in efforts to reduce such anxiety. In contrast, people who embrace left-wing ideology are more open-minded and accepting of ambiguity and less threatened by efforts to establish equality (e.g., Anderson & Singer 2008; Jost et al., 2006). These proposals were supported by a meta-analysis of data from 16 countries that found stronger psychological reactions to threat were related to greater relative support of right-wing ideology (Jost et al., 2017).

Beyond anxious or open temperaments, another prominent approach to understanding endorsement of right- or left-wing political ideologies has focused on people's stated *personal values* (Feldman, 1988; Rokeach, 1973). Basic personal values are defined as cognitive representations of desirable end-goals that generally guide selections and evaluations of behaviors across a wide range of domains and situations (Schwartz, 1992). Through much cross-cultural research, Schwartz has found support for a universal value structure organized by

conflicts and compatibility between several broad concerns (Figure 1). What he labeled *conservation* values (i.e., tradition, conformity, and security) reflect desires to avoid change and unpredictability and accept current norms, which directly contrast with *openness-to change* values (i.e., self-direction, stimulation, and hedonism) that reflect desires to embrace novelty and autonomous self-expression. What Schwartz (1992) labeled *self-transcendence* values (i.e., universalism and benevolence) reflect desires to support others' welfare, which directly contrast with *self-enhancement* values (i.e., power, achievement, and hedonism) that reflect desires for self-protection through earning admiration from or achieving dominance over others. Endorsement of conservation over openness to change values typically correlates with right-wing political ideology whereas endorsement of self-transcendence over self-enhancement values typically correlates with left-wing political ideology (e.g., Aspelund et al., 2013; Piurko et al., 2011; Thorisdottir et al., 2007). In addition, these same values predict support for right- or left-wing political policies and voting decisions (Caprara et al., 2006; Schwartz et al., 2010).

**Figure 1**

*The Circumplex Model of Basic Values (Schwartz, 2012).*



*Note.* The more closely values are located on the circumplex, the more compatible their motivations, and the more distant values are located the more conflicting their motivations. The openness to change versus conservation and the self-transcendence versus self-enhancement axes represent two broad dimensions of compatibility and conflict.

### **Political Context and the Association between Values and Ideology**

Although they differ somewhat, overall, both the motivated social-cognition and values-based perspectives on understanding differences in political ideology highlight similar underlying motivations that may predispose individuals to endorse right- or left-wing viewpoints. However, one critique that applies to both perspectives is that they do not give much attention to how varying social contexts might moderate the contingency between such motivations and political ideology. For example, some environments may not allow people to experience as much connection between their personal values and their political ideology. Federico and Malka (2018) argued that the relationship between values and ideologies is moderated by the varying social contexts that arise for different individuals around specific issues and the broader political environments in which political positions are “packaged”; both factors may alter how adopting a particular ideology is related to perceptions of expressing, or failing to express, one’s personal values. Thus, the contingency between personal values and political ideology may depend on whether the larger political contexts individuals experience support their perceptions of how endorsing distinct right-wing or left-wing ideologies is relevant to their personal values.

One important example of how differing political environments could alter the association between personal values and political ideologies concerns people’s experiences within governments that are more or less democratic. Compared to individuals in countries with more democratic traditions, those in countries with less democratic traditions may see fewer opportunities to express their personal values in a political context and have less exposure to competing political parties built around distinct ideologies meant to appeal to such values. Even if individuals in less democratic countries feel they can politically express their personal values, they may still be less likely to expect such expressions to be conveyed to political leaders and accurately represented in elections. Therefore, in less democratic countries, people’s own broader conservation or self-transcendence values may not feel as motivationally relevant to support for right-wing or left-wing political ideologies in their local context, reducing the associations between them. Thus, without examining the relationship between values and ideology across a fuller spectrum of political structures across the world, an important component in understanding this contingency may be missing.

Related to this possibility, some previous research has compared the association between values and political ideology in a handful of different countries (e.g., Thorisdottir et al., 2007). However, most of this research includes relatively more democratic countries, most frequently those in Western Europe. Research on countries with distinctly different political traditions, such as those in Asia and Central and South America is scarce but could be necessary to more fully understand how psychological values of conservation and self-transcendence generally relate to right- versus left-wing political ideologies. Indeed, some cross-national survey data across Europe has shown that the typical positive association between conservation values and right-wing political ideology is not only not always present, but is sometimes reversed in the post-communist countries of Eastern Europe (Aspelund et al, 2013; Malka et al., 2014; Thorisdottir et al., 2007). The authors of these analyses have speculated that this is due to the different established political contexts in post-communist countries, such as that economic policies typically considered left-wing (e.g., government-sponsored social welfare programs that advocate equality) are viewed as more “traditional” and are often more associated with right-wing government authority (e.g., Marks et al., 2006) in the political messaging.

The primary goal of the present analysis is therefore to build on preliminary evidence that associations between personal values and political ideology are less universal than often assumed when considering more diverse political contexts. We expand previous studies by utilizing data from beyond Europe to examine this association worldwide. Furthermore, we more systematically examine the role of the traditional political system and governing philosophy on the continuum of democratic and decentralized versus authoritarian and centralized government power in moderating the relationship between conservation versus self-transcendence values and right-wing versus left-wing ideology.

### **Democratic Governance and the Potential Role of Values in Ideology**

The most common type of democracy is representative democracy whereby people elect officials to be their representatives, leading to electoral competition between political parties. In an idealized democratic political environment, civil participation in politics is encouraged and political news media are diverse and independent. Average citizens feel represented and are familiar with engaging in political discourse that includes strategic messages conveyed by political elites, activists, or other public figures and communicated through public outlets. In such contexts, it is also generally understood that political party leaders and media representatives impose structure on political messages by bundling specific combinations of ideas and policies into one ideological package (e.g., Jost et al., 2009; Sniderman & Bullock, 2004). These competing ideological packages are then disseminated by political elites, aligning parties with relatively distinct locations along the left-right political continuum. Thus, in representative democracies, there are clear mechanisms through which individuals with particular personal values might gravitate toward the political ideologies that are most relevant for such values and may even be marketed to appeal to them by competing political parties (e.g., Druckman et al., 2013; Federico, 2015; Federico & Malka, 2018).

However, in less democratic countries where there is less of a real competition between parties, or only a single political party exists, the strategic creation and communication of value-laden ideologies may be less robust. The average citizen may have less exposure to a political discourse directly targeted at creating ideological structures for particular values. Consistent with this exposure mechanism, previous research has shown that, on an individual level, the relations between conservation values and right-wing political ideologies are the strongest among people who are high in political engagement and the most engaged with political discourse (e.g., Malka et al., 2014). Thus, in less democratic countries, the more muted presence of any political discourse with distinctly opposing ideologies created by political parties that are truly in opposition overall could also attenuate the association between the values people personally hold and their political ideology. Furthermore, beyond simply less attention or exposure to value-laden political discourse, average citizens of less democratic countries may generally feel less represented within and connected to the process of government; they may see their political ideology as less relevant a domain for endorsing, expressing, and pursuing their personal values. This too would attenuate any association between these values and the ideologies they endorse.

In summary, we propose that national political environments are an important contributor to how individuals give meaning to the existing right-wing or left-wing political ideologies within that nation and whether that meaning corresponds to their own conservation- or self-transcendence-focused personal values. For the reasons outlined above, in less democratic

countries, political ideologies may not serve the same value-expressive functions or be perceived as relevant to one's values, and this macro-level effect of governance may extend beyond just micro-level differences in individual political engagement that could also exist in such countries. Thus, compared to more democratic countries where conservation values are aligned with support for right-wing ideologies and self-transcendence values are aligned with left-wing ideologies, these relationships could be attenuated in less democratic countries even when controlling for personal engagement in politics.

### **Distinguishing Cultural and Economic Political Ideologies**

Although psychological models of ideology often treat it as one broad construct, important distinctions have also been made between right-wing political ideologies rooted in *cultural attitudes* (i.e., preferences for specific types of cultural traditions) and those rooted in *economic attitudes* (i.e., preferences on government provision of social welfare and economic intervention; see e.g., Feldman & Johnston, 2013). In addition, some have argued that conservation and self-transcendence personal values are more psychologically related to cultural attitudes that revolve more around the prioritization of moral perspectives regarding cultural traditions than any specific economic philosophy (e.g., Feldman & Johnston, 2013). Indeed, research has shown that the relationship between right-wing economic attitudes and psychological conservation values is more mixed than the relationship between right-wing cultural attitudes and these values (e.g., Crowson, 2009; Feldman & Johnston, 2013, Gerber et al., 2010). Furthermore, a recent study surveying 99 nations found that culturally and economically right-wing attitudes were more commonly negatively correlated with each other, suggesting different psychological origins of right-wing and left-wing ideology across these different domains (Malka et al., 2019). This study also found the misalignment between cultural and economic right-wing attitudes to be more common among post-communist, traditional, and low-development nations.

These additional findings thus raise the important possibility that any differences in the association between personal values and political ideology based on democratic governance will be more apparent in measures of cultural rather than economic attitudes related to this ideology. However, there are also reasons why more or less democratic countries could differ in how people's values are tied to their economic attitudes as well. In a democratic political system, decisions about who leads the country are made by a majority of voters in free elections. Such governments are thus usually more transient and frequently changing. As part of this, the economic policies and regulations in these countries are also frequently changing and relatively more decentralized, often placing less emphasis on the role of the government in mobilizing and directing individual economic livelihood and more emphasis on personal self-direction and responsibility. In contrast, in less democratic political systems with more consolidated centralized government control and fewer truly free elections (e.g., hybrid regimes that combine autocratic features with democratic ones or those based on more socialist structures), power is less transient and longer lasting. Thus, economic policies are typically also more stable and centralized, and people living in these countries are more accustomed to government authority for and responsibility in regulating public economic issues.

These differences in norms and expectations in centralized government control of economic activity could also influence how personal values of conservation (i.e., tradition versus

openness to change) versus self-transcendence (i.e., universalism versus self-direction) are associated with what are typically considered right-wing versus left-wing economic attitudes. Because countries with more democratic governments tend to typically support more self-direction and personal responsibility in controlling one's own and, collectively, the country's economic destiny, in these countries, conservation values of tradition and resisting change are thus more compatible with what are labeled right-wing economic ideologies against broad government interference in the economy.

In contrast, because less democratic countries tend to have a stable tradition of the government managing individuals' economic welfare in a centralized manner, in these countries conservation values for tradition and resisting change are less compatible with attitudes against broad government management of the economy, and more likely to coincide with attitudes for the traditions of centralized economic activities. That is, in less democratic countries, individuals' economic attitudes concerning what is defined as "traditional" and conservative may not necessarily be as compatible with what are often labeled right-wing priorities of individual economic liberty. Thus, although the mechanism by which less democratic governance at the national level moderates the association of personal values with cultural attitudes and economic attitudes might vary - in terms of perceived potential for value expression versus stable economic norms and traditions, respectively - such governance still could still moderate the associations between conservation values and right-wing ideology for both types of attitudes.

### **The Present Analysis**

To (a) expand the examination of associations between personal values and political ideology beyond the context of the United States and European countries, and (b) evaluate the impact of varying levels of democratic governance across the world on these associations, we utilized responses to the World Value Survey from the 2010 to 2014 wave across 60 countries. To assess people's personal values and political ideologies we utilized an adapted form of the Schwartz values survey included in this wave, as well as individual survey items that represented people's reports of their overall right-wing or left-wing ideology and their more specific right-wing or left-wing cultural and economic ideology. To assess levels of democratic governance within a country, we examined a variety of possible operationalizations to increase the robustness of our conclusions. One was a multifaceted, structural measure of democratic governance, including country-level features such as the level of political pluralism, the existence of civil liberties for participating in political decisions and actual barriers in doing so, and a political culture that encourages civil participation (Economic Intelligence Unit, 2011). The others were subjective measures of democratic governance that ask people to rate how much their country has a democratic system of government and they believe a democratic system of government is important.

To rule out alternative explanations for any moderation by democratic governance of the association between personal values and political ideology, additional measures of other moderators identified in past research were also included in our analysis. First, the *threat-constraint* model posits that perceived threats attenuate or constrain the relationship between individual dispositions and political ideology; threats are more likely to challenge the worldviews of people higher on openness to new experiences, but they affirm the worldviews of people lower on openness who already perceive the world to be dangerous and threatening



(Sibley et al., 2012). This creates a larger conservative shift in threatening situations among people higher as compared to lower on openness and would attenuate the association of values with political views. Another analysis of the World Values Survey using the *human development index* to assess perceived threat (Malka et al., 2014) supported this model: the positive association between conservation values and right-wing ideology was weakened or even reversed among countries of lower national human development in which perceived threats were assumed to be more prominent.

Low levels of democratic governance historically have had a negative association with general human development, and thus a positive association with systematic threat (Gerring et al., 2012). Therefore, it is important to disentangle the above hypotheses about varying perceptions of opportunities for value expression in more or less democratic countries from these possible associations with threat and development, and additional analyses were performed controlling for the possible moderating effects of the human development index shown in past work.

In addition, as alluded to earlier, some research has indicated that higher levels of exposure to political discourse can strengthen the relationship between values and political ideology. The predominant explanation, articulated above, is that exposure to discourse enhances a person's ability to recognize and differentiate the ideological packages that political parties assemble to advertise the prioritization of particular values (Jost et al., 2009). Accordingly, political engagement has also been found to moderate the relationship between the psychological values of conservation and right-wing ideology (Malka et al., 2014). As noted earlier, low levels of democracy may be associated with lower levels of political engagement, and it is therefore again important to separate hypotheses about perceived opportunities for value expression from such engagement effects. Additional analyses controlling for additional moderating effects of engagement were thus performed as well.

## Method

### Participants and Procedures

The World Values Survey ([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)) is created and administered by a global network of social scientists studying changing values and their impact on social and political lives. The minimum sample size - i.e., the number of completed interviews which are included in the national dataset in most countries is 1200. Samples are collected to be representative of all people aged 18 and older residing within private households in each country, regardless of their nationality, citizenship, or language.

Data were obtained exclusively from the sixth wave of the survey conducted from 2010 to 2014 (Inglehart et al., 2014; total N = 89,565). These data came from 60 countries encompassing a diverse range of political systems and cultural backgrounds, including, Algeria, Argentina, Armenia, Australia, Azerbaijan, Belarus, Brazil, Chile, China, Colombia, Cyprus, Ecuador, Egypt, Estonia, Georgia, Germany, Ghana, Haiti, Hong Kong, India, Iraq, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Libya, Malaysia, Mexico, Morocco, Nigeria, Netherlands, New Zealand, Pakistan, Palestine, Peru, Philippines, Poland, Qatar, Romania, Russia, Rwanda, Singapore, Slovenia, South Africa, South Korea, Spain, Sweden, Taiwan,

Thailand, Trinidad, Tunisia, Turkey, Ukraine, United States, Uruguay, Uzbekistan, Yemen, and Zimbabwe. Thus, the overall sample included 11 countries from the Americas, 14 countries from Europe, 10 countries from the Middle East, nine countries from Africa, and 14 countries from Asia/South Pacific.

## Measures

**Demographic characteristics.** Sex, age, income, and education levels were obtained by the interviewer. Sex was coded by  $-0.50 = \text{male}$ ,  $0.50 = \text{female}$ . The participants reported their income level on a 10-point scale ( $1 = \text{lower step}$ ,  $10 = \text{tenth step}$ ), as well as their highest level of education completed (or expected to complete, if they were currently a student) on a 5-point scale ( $1 = \text{no formal education}$ ,  $2 = \text{some formal education, but did not complete secondary school}$ ,  $3 = \text{completed secondary school, but no university education}$ ,  $4 = \text{some university education, but no university degree}$ ,  $5 = \text{university degree}$ ). Age, income, and education levels were standardized around the grand mean.

**Political ideology.** Different survey items were used to construct three separate political ideology measures: overall right or left *political identification*, right or left *cultural attitudes*, and right or left *economic attitudes*. Political identification was assessed by a single item: “In political matters, people talk of ‘the left’ and ‘the right.’ How would you place your views on this scale, generally speaking?” answered on a scale from  $1 = \text{left}$ ,  $10 = \text{right}$ . This item has been shown to be a valid measure of political identification on the left-right spectrum (e.g., Ingelhart & Klingemann, 1976; Jost, 2006) and has been widely used in similar analyses (e.g., Malka et al., 2014).

Following Malka et al. (2014), five items assessed right- or left-wing cultural attitudes. Three asked whether (a) “homosexuality”, (b) “abortion”, and (c) “divorce” can ever be justified on a scale ranging from  $1 = \text{never justified}$ ,  $10 = \text{always justified}$ . Two assessed agreement with the statements (a) “when jobs are scarce, men should have more right to a job than women”, and (b) “when jobs are scarce, employers should give priority to people of this country over immigrants” on a scale ranging from  $1 = \text{agree}$ ,  $2 = \text{neither}$ ,  $3 = \text{disagree}$ . All items were reverse coded so that higher scores indicated more right-wing cultural attitudes and an overall composite was calculated ( $\alpha = .71$ ) and standardized around the grand mean across countries.

Also, following Malka et al. (2014), three items assessed right- or left-wing economic attitudes. These items asked participants to place their attitudes on scales of (a) income inequality from  $1 = \text{incomes should be made more equal}$  to  $10 = \text{we need larger income differences as incentives for individual effort}$ , (b) public versus private business ownership from  $1 = \text{private ownership of business and industry should increase}$  to  $10 = \text{government ownership of business and industry should increase}$ , reverse coded, and (c) government provision of social welfare from  $1 = \text{the government should take more responsibility to ensure that everyone is provided for}$  to  $10 = \text{people should take more responsibility to provide for themselves}$ . Because the composite of these three items had low reliability ( $\alpha = .15$ ), we report the results for each of the three items individually. These variables were also all standardized around the grand mean across countries.

**Personal values.** Participants completed a shortened version of the Schwartz Values Survey (SVS; Schwartz, 1992) that included 10 items. This questionnaire is designed for people to indicate their values by rating how similar various descriptions of a person are to themselves on a 1 = *very much like me* to 6 = *not at all like me* scale, which we reverse coded in data analysis so higher value indicates higher agreement. Six items assessed the specific values on the conservation versus openness axis (see Figure 1): motivation for security (“Living in secure surroundings is important to this person; to avoid anything that might be dangerous”), tradition (“Tradition is important to this person; to follow the customs handed down by one’s religion or family”), and conformity (“It is important to this person to always behave properly; to avoid doing anything people would say is wrong”), as contrasted with motivations for stimulation (“Adventure and taking risks are important to this person; to have an exciting life”), self-direction (“It is important to this person to think up new ideas and be creative; to do things one’s own way”), and hedonism (“It is important to this person to have a good time; to ‘spoil’ oneself”). Four items assessed the self-transcendence versus self-enhancement axis (see Figure 1): motivation for universalism (“It is important to this person to do something for the good of society”) and benevolence<sup>1</sup> (“It is important to help people living nearby; to care for their needs”), as contrasted with motivations for power (“It is important to this person to be rich; to have a lot of money and expensive things”) and achievement (“Being very successful is important to this person; to have people recognize one’s achievements”).

Following previous practices with measuring values cross-culturally (Malka et al., 2014; Schwartz, 1992), we calculated the mean of each participant’s ratings across all 10 value items and then person-centered each individual value item around this mean to account for individual differences in acquiescent responding. The five items on the conservation versus openness values axis included values for safety, tradition, conformity versus values for stimulation and self-direction. The four items on the self-transcendence versus self-enhancement values axis included values for universalism and benevolence versus power and achievement. Confirmatory factor analyses showed acceptable levels of construct consistency for the conservation axis and the self-transcendence axis (details can be found in the online supplement). As consistent with past research, participants’ endorsement of hedonism values was not included in these analyses or any value composite scores because of its lack of theoretical alignment with both conservation and self-transcendence axes (e.g., Malka et al., 2014). Thus, conservation and self-transcendence values were scored from averaging the person-centered items after reversing the sign of self-direction, stimulation, power and achievement.

**Nation-level democratic governance composite.** We utilized three measures of democratic governance. A structural index of democratic governance was measured with the 2011 democracy index compiled by the Economist Intelligence Unit (Economic Intelligence

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<sup>1</sup> The measure of benevolence value was only available from a subset of 27 countries ( $N = 39,887$ ) including Algeria, Brazil, China, Colombia, Ecuador, Egypt, Georgia, Germany, Haiti, Iraq, Japan, Hongkong, Jordan, Kuwait, Lebanon, Libya, Morocco, Netherlands, Pakistan, Palestine, Rwanda, Singapore, South Africa, Spain, Thailand, Tunisia, Yemen, so any results involving the specific associations of the benevolence value could be less generalizable.

Unit, 2011). Indices from 2011 were used because data from the vast majority of the countries were collected between 2011 and 2014 (57 out of 60). This index is a composite of 60 indicators grouped in five different categories, measuring pluralism, civil liberties, and political culture, on a scale from 0 to 10. The indicator was standardized around the grand mean. The first subjective measure of democratic governance was a single item: “How democratically is this country being governed today”, rated on a 1 = *not at all democratic* to 10 = *completely democratic* scale. To make this index comparable to the structural measure, nation-level means were calculated and then standardized around the grand mean across nations. The second subjective measure of democratic governance was a single item that asked people to rate the “importance of democracy”, on a 1 = *not at all important* to 10 = *absolutely important* scale. Nation-level means were again calculated and then standardized around the grand mean across nations. To calculate an overall composite measure of democratic governance, all three measures were averaged into one single composite scale ( $\alpha = .68$ ), and this overall index was standardized around the grand mean.

**Potential Confounds.** Two potential confounds, political engagement and nation-level human development, were measured. Political engagement was measured by averaging two items ( $\alpha = .69$ ), which were then standardized around the grand mean. The first item asked participants to rate how important politics was in their life on a 1 = *not at all important* to 4 = *very important* scale, and the second item asked participants to rate their level of interest in politics on a 1 = *not at all interested* to 4 = *very interested* scale. Human development was measured with the 2011 United Nations Human Development Index (United Nations Development Programme, 2011). This index is a composite of life expectancy, gross national income per capita, and education, on a scale from 0 to 1. This indicator was standardized around the grand mean.

### Analysis models

Analyses were conducted in R (R Core Team, 2021). Multilevel models assessed how the level of democracy within a respondent’s country moderated the association between their personal values with each of the three measures of political ideology. These models nested individuals at Level 1 within nations at Level 2. The analyses were performed hierarchically, such that all main effects were entered in the first step, followed by interaction terms in a second step.

In the first series of *base models*, political ideology was predicted by (a) the fixed and random effects of Level 1 demographic variables (sex, age, income, education) and value scores, (b) a fixed effect of the Level 2 composite of democratic governance, (c) a term representing the cross-level values x democratic governance interaction, and (d) a random intercept. In the second series of *full-covariate models*, political ideology was predicted by (a) the fixed and random effect of Level 1 demographic variables (sex, age, income, education), value scores, and political engagement, (b) fixed effects of the Level 2 composite index of democratic governance and the human development index, (c) interaction terms representing the Level 1 values x political engagement interaction and the cross-level values x human development, and the values x democratic governance interactions, and (d) a random intercept. Given the scoring of the value ratings and the ideology measures, the hypothesized moderation would be indicated by countries with higher scores on democratic governance showing (a) more positive associations between

value scores representing high conservation and ideology, along with more negative associations between value scores representing low conservation and ideology, and (b) more negative associations between value scores representing high self-transcendence and ideology, along with more positive associations between value scores representing low self-transcendence and ideology.

## Results

The descriptive statistics and intercorrelations for the key variables are presented in Table 1. Table 2 shows the main effect of conservation values and self-transcendence values on political ideology in the base models. Conservation values were positively associated with right-wing political identification and cultural attitudes, but negatively associated with right-wing economic attitudes. This replicates past findings that cultural attitudes and economic attitudes differentially correlate with conservation values (e.g., Malka et al., 2014). It is also congruent with past theorizing that economic issues do not hold as much inherent symbolic meaning as social issues, and people higher on the need for security can be attracted to economic government regulation and protection to minimize risks from free-market capitalism (Federico & Malka, 2018). The main effects for self-transcendence values were less consistent: these values were not associated with right-wing political identification, were positively associated with right-wing cultural attitudes and were negatively associated with two of the three right-wing economic attitudes.

Table 3 shows the interaction between the democratic governance composite and values in predicting political ideology in the base model. This interaction was significant for both conservation and self-transcendence values and for most measures of political identification, cultural attitudes, and economic attitudes. These interactions were always in the hypothesized directions. Table 4 shows these same interactions when controlling for the potential confounds of political engagement and nation-level human development in the full-covariate models. Most of the interactions remained significant, with the exceptions that democratic governance no longer moderated the relationship between conservation values and right-wing cultural attitudes and the relationship between self-transcendence values and one of the three right-wing economic attitudes. The full output of this model can be found in the online supplement.

To further evaluate the nature of these interaction effects, follow-up analyses examined the association between conservation and self-transcendence values and right-or left-wing political identification, cultural attitudes, and economic attitudes at  $\pm 1$  SD from the mean of the nation-level democracy index. The results of these simple-slopes analyses are presented in Table 5, and partially supported the primary hypotheses with some unexpected findings.

As illustrated in Figure 2, consistent with hypotheses, there was a positive relationship between conservation values and right-wing political identification that was stronger in more democratic countries and attenuated in less democratic countries. Similarly, as illustrated in Figure 3 there was the hypothesized negative relationship between self-transcendence values and right-wing political identification in more democratic countries that was also attenuated in less democratic countries. In contrast, as illustrated in Figure 4, in addition to right-wing cultural attitudes being generally more prominent in less democratic countries, the endorsement of self-transcendence values was more positively associated with right-wing cultural attitudes in these

countries and not associated with these attitudes in more democratic countries. Although this fits the hypothesized pattern of more negative associations of these values with right-wing ideology in more versus less democratic countries, the positive associations in the latter countries were unexpected.

As illustrated in Figures 5 and 6, conservation values were negatively associated with right-wing economic attitudes concerning support for private ownership of businesses and opposition to the government providing social welfare in less democratic countries, but not associated or less negatively associated with these attitudes in more democratic countries. Thus, overall, results for economic attitudes diverged from other measures of right-wing ideology as in previous studies (Malka et al., 2019).

Finally, an exploratory series of multilevel analyses examined whether the moderation effects of democratic governance displayed in Tables 4 were further moderated by the different regions of the world in which more or less democratic countries were situated (e.g., Asia/South Pacific versus Europe versus the Americas versus the Middle East versus Africa). These analyses, which are detailed in the online supplement found no significant three-way interactions between values, democratic governance, and world region.

### **Discussion**

The present analysis examined how the broader social context created by different governing traditions might influence how people's personal values can be used to predict their political ideologies. Overall, the results of responses from the World Values survey in 60 countries across all regions of the world indeed revealed that a composite measure of objective and subjective indices of democratic governance predicted less positive relationships between conservation values of tradition and security and right-wing ideology, along with less negative relationships between self-transcendence values of universalism and benevolence toward others and right-wing ideology, in less versus more democratic countries. This is consistent with the proposal that citizens in less democratic countries are less exposed to a competing left-right discourse directly targeted at creating opposing value structures, akin to the effects of individual political engagement shown by Malka et al. (2014). However, in most cases, the moderation by democratic governance remained when controlling for engagement; this suggests other possible mechanisms such as, due to a lesser feeling of representation by and connection to the processes of government, people in less democratic countries do not see as much potential for value expression in a political context and thus show less correspondence between their personal values and political ideology.

These results thus begin to offer a systematic explanation to numerous past findings showing that personal value predicted political orientation more strongly in western European countries and more weakly in post-communist countries that had different histories in how their democratic governing traditions developed (e.g., Piurko et al., 2011). Although the present study does not provide direct evidence for the proposed mechanisms by which democratic governance might moderate associations between values and ideology, as noted, it does rule out several competing mechanisms involving variations in perceived levels of personal threat and individual engagement with politics. Future research should attempt to gather more direct evidence for how

varying social and political contexts alter motivations for value expression and political efficacy, and how this further influences how values are attached to various political ideologies.

Although the moderation effects of democratic governance shown in Tables 3 and 4 were largely consistent, there were discrepancies in the patterns of simple associations between values and political ideology for measures of identification, cultural attitudes, and economic attitudes. Associations of values with right- versus left-wing identification were most consistent with the possible attenuation effects described at the outset; conservation values predicted more right-wing identification and self-transcendence values predicted more left-wing identification in more democratic countries, but these associations were weaker in less democratic countries. However, inconsistent with the possibility that democratic governance might have a larger impact on how values predict cultural attitudes, moderation effects regarding these attitudes only emerged for self-transcendence values and took the form of less positive (but not significantly negative) associations with right-wing cultural attitudes in more democratic countries. This overall pattern of self-transcendence values positively predicting right-wing cultural attitudes in the global sample was unexpected and deserves additional research.

Furthermore, associations of conservation values with some right-wing economic attitudes were more positive in more democratic countries, but this association was negative on the whole and more strongly so in less democratic countries. This is consistent with the possibility raised earlier that, in less democratic countries, what are typically labeled left-wing attitudes about government involvement in economic matters would be seen as more traditional and safe, and thus more in line with conservation values. Despite the somewhat divergent pattern of results across these different indicators of political ideology, overall, the findings reinforce our central argument that it is important to understand how varying social contexts might alter how personal values and specific political ideologies are connected in functional ways and more research on this topic should be a priority (see also Federico & Malka, 2018).

It is important to note that although using the World Values Survey had many advantages, including a wide range of relatively large, representative samples across all regions of the world, there are also important limitations to our analysis. First, our examination of political ideology was constrained by the short, rudimentary measures available in the survey. Although these measures have been utilized and validated by many other studies, it is possible that more elaborate measures of political identification and cultural and economic attitudes would reveal different results. Future studies should examine other operationalizations, particularly given the variance noted in the results for each of these different measures. Another limitation that is present for all cross-cultural research is that participants in different countries could have interpreted the concepts presented in the values and ideology items in systematically different ways. But, again, such differences would further reflect the need for more contextualized accounts of how such concepts are psychologically related.

On the whole, the present research illustrates that the relationship between personal values and political ideology varies based on the different social and political environments in which people live. Future research could benefit from closer examinations of how such differences are reflected in political messaging and the impact this has on political behavior, particularly in less democratic countries. Ultimately, better understanding of these types of questions will be

necessary to more fully understand the psychological functions and consequences of political ideology.

### **Data Accessibility Statement**

The dataset used is publicly available at <https://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>. The analysis R codes will be available at the first author's OSF webpage. This research and analysis plan was not formally preregistered.



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**Table 1***Descriptive Statistics and Intercorrelations for the Key Variables*

Individual level variables	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Right-wing political orientation	68199	5.65	2.36											
2. Right-wing cultural attitudes	89338	5.25	1.73	.10										
3. Supp. income inequality	86680	5.28	2.98	.16	.07									
4. Supp. private ownerships	84267	5.40	2.79	-.04	-.04	-.09								
5. Opp. government provision of social welfare	87312	4.45	2.92	.14	-.09	.25	-.01							
6. Sex	89474	0.02	.50	-.01	-.06	-.02	-.04	-.02						
7. Age	89385	41.94	16.55	.02	-.04	-.07	-.01	.01	.02					
8. Education level	88766	5.65	2.42	-.03	-.19	.07	.06	.08	-.05	-.19				
9. Income level	86311	4.83	2.11	.10	-.05	.14	.03	.16	-.03	-.11	.26			
10. Conservation values	88337	3.16	.77	.03	.13	-.01	-.06	-.09	.12	.21	-.13	-.13		
11. Self-transcendence values	88123	4.61	1.02	-.03	-.07	-.04	-.02	-.01	.07	.19	-.01	-.09	.29	
12. Political engagement	89364	2.37	.86	.07	-.04	.04	.00	.05	-.11	.06	.12	.09	-.08	-.01
Nation level variables														
13. National democracy index	<i>N</i>	<i>M</i>	<i>SD</i>	13	14	15								
13. National democracy index	60	5.76	2.01											
14. Nationally averaged perceived level of democracy	57	5.96	1.08	.50										
15. Nationally averaged perceived importance of democracy	60	8.32	.50	.37	.39									
16. Nation-level human development	59	0.75	.12	.63	.24	.43								

*Note.* Table 1 presents descriptive statistics and intercorrelations for the individual-level variables (in the top) and nation-level variables (in the bottom). The correlations between individual-level variables stronger than .01 and the correlations between country-level variables stronger than .36 was statistically significant ( $p < .05$ ). Sex was coded -.50 male, .50 female. Opp. = opposition to; Supp. = support for.

**Table 2***Main effect of Values on Political Attitudes in the Base Models*

	Right-wing identification	Right-wing cultural attitudes	Supp. income inequality	Supp. private ownership	Opp. government provision of social welfare
	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)
Conservation	.056*** (.010)	.075*** (.007)	.007 (.009)	-.023** (.008)	-.052*** (.008)
Self- transcendence	-.010 (.010)	.019** (.006)	-.010 (.010)	-.023** (.008)	-.031*** (.007)

*Note.* The base model also included main effects of sex, age, income, and education level.

† $p < .10$ , \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 3***Interaction of Values with Democratic Governance in Predicting Political Attitudes in the Base Models*

	Right-wing identification	Right-wing cultural attitudes	Supp. income inequality	Supp. private ownership	Opp. government provision of social welfare
	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)
Conservation	.027** (.009)	.018* (.007)	.005 (.009)	.026** (.008)	.016* (.008)
Self- transcendence	-.037** (.008)	-.019** (.006)	-.032** (.009)	.010 (.008)	-.003 (.007)

*Note.* The base model also included main effects of sex, age, income, and education level.

† $p < .10$ , \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 4**

*Interaction of Values with Democratic Governance in Predicting Political Attitudes in the Full-covariate Models*

	Right-wing identification	Right-wing cultural attitudes	Supp. income inequality	Supp. private ownership	Opp. government provision of social welfare
	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)
Conservation	.023* (.011)	.004 (.009)	.016 (.010)	.030** (.010)	.023* (.009)
Self- transcendence	-.028** (.010)	-.018* (.007)	-.015 (.011)	.011 (.010)	.000 (.009)

*Note.* The full covariate model also included main effects of sex, age, income, education level, political engagement, and country-level human development, along with terms for the political engagement x democracy interaction, and the human development x democracy interaction.

† $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Table 5**

*Simple Slopes of the Association of Values with Political Ideology in the Full-covariate Models at Different Levels of Democratic Governance*

	Right-wing identification	Right-wing cultural attitudes	Supp. income inequality	Supp. private ownership	Opp. government provision of social welfare
	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)
<b>Conservation</b>					
More Democratic (+ 1 SD)	.081*** (.015)	.077*** (.011)	.028* (.013)	.00 (.013)	-.027* (.013)
Mean Democratic	.058*** (.009)	.074*** (.007)	.012 (.008)	-.026** (.008)	-.050*** (.008)
Less Democratic (- 1 SD)	.034* (.015)	.070*** (.011)	-.005 (.013)	-.056*** (.013)	-.074*** (.012)
<b>Self- transcendence</b>					
More Democratic (+ 1 SD)	-.036** (.013)	.000 (.009)	-.024† (.014)	-.013 (.014)	-.032** (.012)
Mean Democratic	-.007 (.009)	.018** (.006)	-.009 (.009)	-.024** (.009)	-.032*** (.007)
Less Democratic (- 1 SD)	.021 (.013)	.036*** (.009)	.006 (.014)	-.036** (.013)	-.032** (.011)

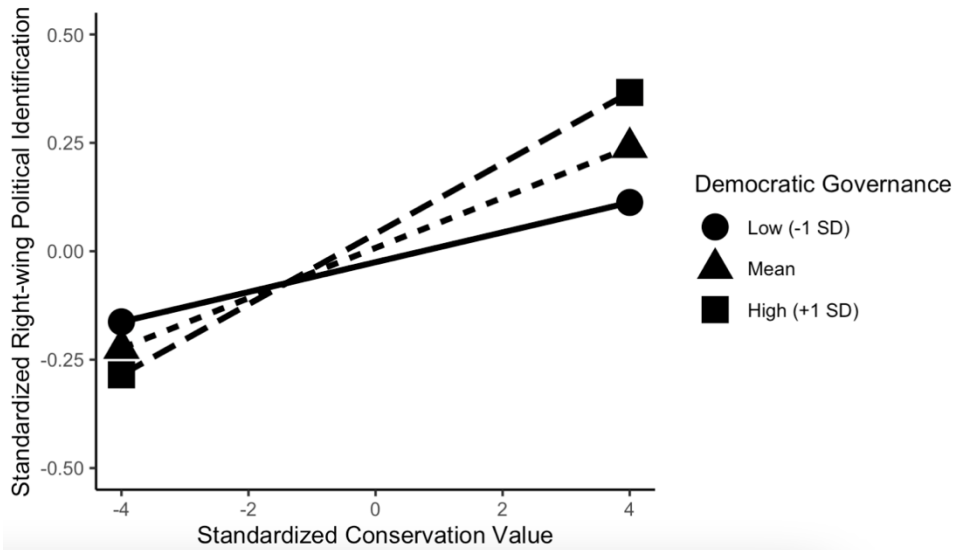
*Note.* The full covariate model also included main effects of sex, age, income, education level, political engagement, and country-level human development, along with terms for the political engagement x democracy interaction, and the human development x democracy interaction.

† $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



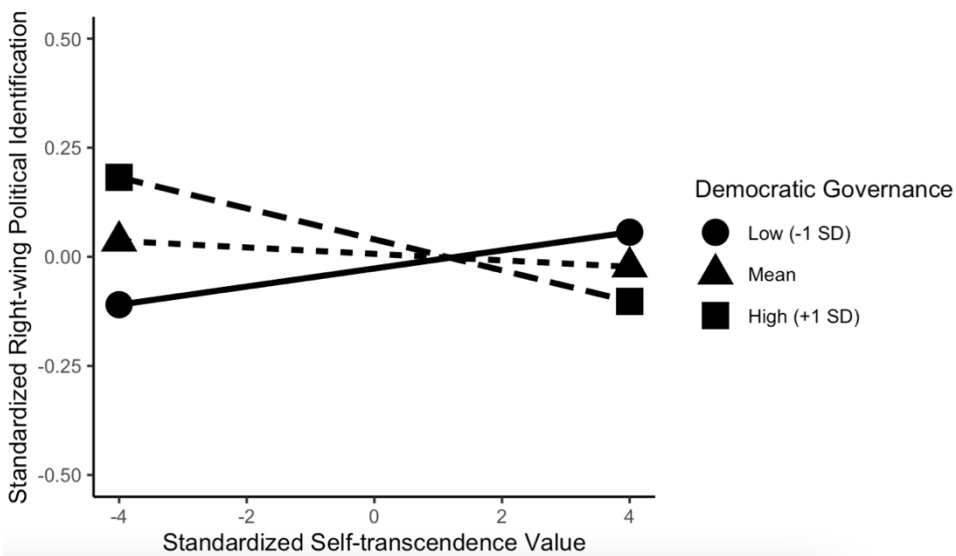
**Figure 2**

*Right-wing Political Identification Predicted by the Interaction between Conservation Values and Democratic Governance in the Full-Covariate Model*



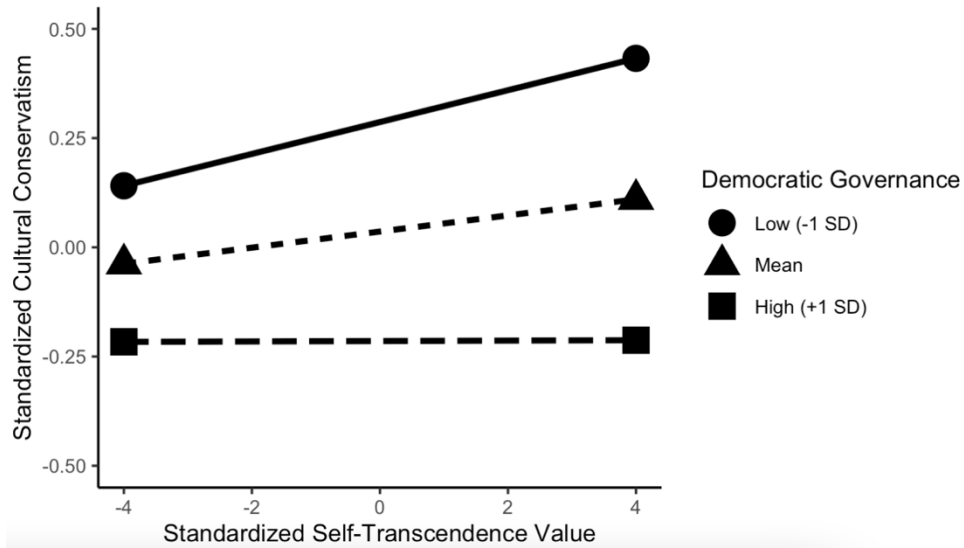
**Figure 3**

*Right-wing Political Identification Predicted by the Interaction between Self-transcendence Values and Democratic Governance in the Full-Covariate Model*



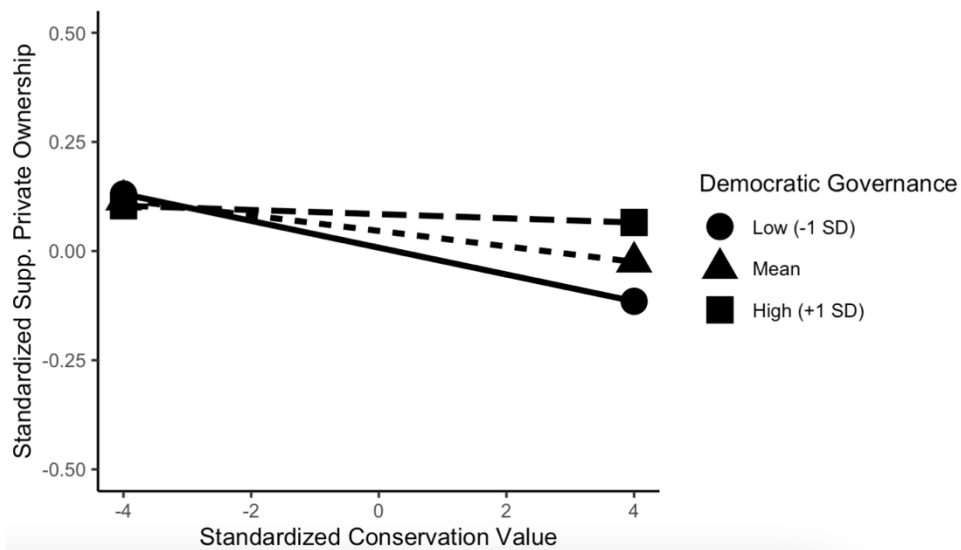
**Figure 4**

*Right-wing Cultural Attitudes Predicted by the Interaction between Self-transcendence Values and Democratic Governance in the Full-Covariate Model*



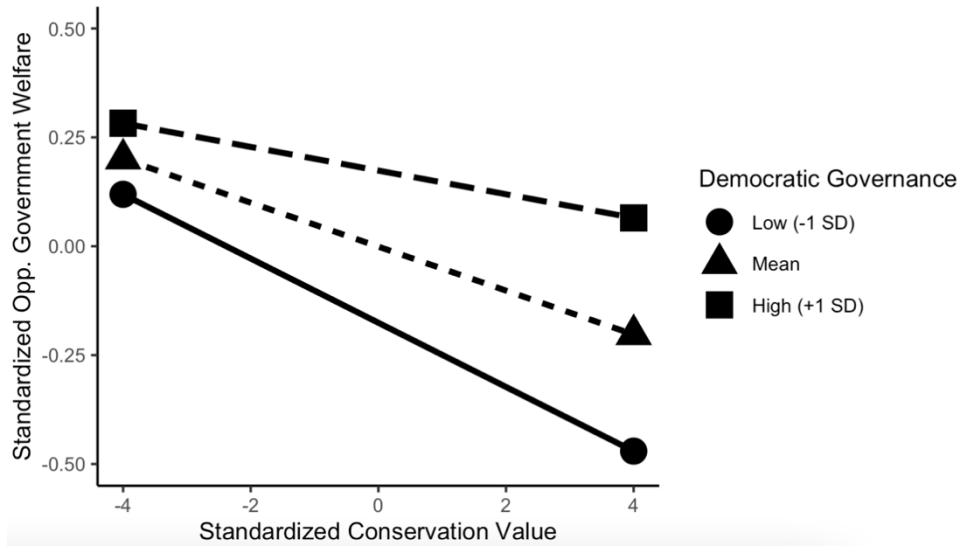
**Figure 5**

*Support for Private Ownership of Business Predicted by the Interaction between Conservation Values and Democratic Governance in the Full-Covariate Model*



**Figure 6**

*Opposition toward Government Provision of Welfare predicted by the Interaction between Conservation Values and Democratic Governance in the Full-Covariate Model*



## Wu & Molden - Supporting information

### Confirmatory factor analysis

To measure the consistency and variability of the personal value composites across countries, confirmatory factor analyses (CFA) tested the metric invariance of the five-item conservatism scale with data from 60 countries or regions. Because within-person centered items have high linear dependencies, rendering them unsuitable for CFA (see Fisher & Milfont, 2010), bifactor models of conservation and acquiescence (the tendency to indicate agreement on any scale) were fitted to the data (Malka et al., 2014). Between-country CFA analyses were then conducted where each target nation was compared to all other nations as the pooled reference group with the following model specification: (a) all items were allowed to load on both factors of conservation (or self-transcendence) and acquiescence, (b) each loading was free to vary, (c) loadings on the acquiescence factor were constrained to be equal across items, (d) the two factors were constrained to be uncorrelated to each other.

The CFA model for the conservation values index fit the data to an acceptable degree: comparative fit index (CFI) had a mean across countries of .950 and the root-mean-square error of approximation (RMSEA) value had a mean across countries of .078. To test the similarity of this index of conservation values across countries, a metric-invariance model constraining the factor loading on conservation to be the same across nation comparisons was also fitted to the data. The model fit was reduced but still in the acceptable range: CFI = .890, mean RMSEA = .082. Although the constrained model had a significantly worse fit than the unconstrained model,  $\chi^2$  difference = 2571, degree of freedom difference = 236,  $p < .001$ , overall, the results illustrated a high construct consistency across nations, even if there was non-negligible between-country variability in the structure of the measure.

Of the four items on the self-transcendence-self-enhancement axis, the universalism item was measured for 58 countries; the benevolence item was measured for 27 countries; the power and achievement items were measured for 60 countries. The CFA model for the self-transcendence values index was applied to the subset of 24 countries that included complete data on all four items on the self-transcendence axis: the CFI had a mean of .996 and the RMSEA values had a mean of .056. A metric-invariance model constraining the loading to be the same across nations was then again fitted to the data. This model fit was also reduced but still in the acceptable range: mean CFI = .958, mean RMSEA = .087. The constrained model once again had a significantly worse fit than the unconstrained model,  $\chi^2$  difference = 782, degree of freedom difference = 69,  $p < .001$ . The results suggested that there was also high construct consistency in the overall measure of self-transcendence values across nations, with some degree of between-country variability in the structure of this measure.

### Multilevel model equations for *base models* and *full-covariate models*

The following are the equations for the *base models* at the first and the second level.

Level 1:

## DEMOCRACY MODERATION IN POLITICAL ATTITUDES

$$Ideology_{ij} = \beta_{0j} + \beta_1 Value_{ij} + \beta_2 Sex_{ij} + \beta_3 Age_{ij} + \beta_4 Income_{ij} + \beta_5 Education_{ij} + r_{ij}$$

where

$Ideology_{ij}$  refers to the political ideology (i.e., right- or left-wing identification, cultural attitudes, or economic attitudes) of individual  $i$  within country  $j$

$Value_{ij}$  refers to the values-composite score of individual  $i$  within country  $j$

$Sex_{ij}$ ,  $Age_{ij}$ ,  $Income_{ij}$ , and  $Education_{ij}$  are the demographics of individual  $i$  within country  $j$

$r_{ij}$  refers to the residual Level 1 error in political ideology

Level 2:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} Democracy_j + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11} Democracy_j + u_{1j}$$

$$\beta_{2j} = \gamma_{20} + u_{2j}$$

$$\beta_{3j} = \gamma_{30} + u_{3j}$$

$$\beta_{4j} = \gamma_{40} + u_{4j}$$

$$\beta_{5j} = \gamma_{50} + u_{5j}$$

where

$Democracy_j$  refers to the composite democratic governance score of country  $j$

$u_{0j} - u_{7j}$  refers to the residual Level 2 error in political ideology

The following are the equations for the *full-covariate models* at the first and the second level.

Level 1:

$$Ideology_{ij} = \beta_{0j} + \beta_1 Value_{ij} + \beta_2 Sex_{ij} + \beta_3 Age_{ij} + \beta_4 Income_{ij} + \beta_5 Education_{ij} + \beta_{6j} Engagement_{ij} + \beta_{7j} Engagement_{ij} : Value_{ij} + r_{ij}$$

where

$Ideology_{ij}$  refers to the political ideology (i.e., right- or left-wing identification, cultural attitudes, or economic attitudes) of individual  $i$  within country  $j$

$Value_{ij}$  refers to the values-composite score of individual  $i$  within country  $j$

$Sex_{ij}$ ,  $Age_{ij}$ ,  $Income_{ij}$ , and  $Education_{ij}$  are the demographics of individual  $i$  within country  $j$

## DEMOCRACY MODERATION IN POLITICAL ATTITUDES

$Engagement_{ij}$  refers to the political-engagement composite score of individual  $i$  within country  $j$

$r_{ij}$  refers to the residual Level 1 error in political ideology

Level 2:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} Democracy_j + \gamma_{02} Development_j + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11} Democracy_j + \gamma_{12} Development_j + u_{1j}$$

$$\beta_{2j} = \gamma_{20} + u_{2j}$$

$$\beta_{3j} = \gamma_{30} + u_{3j}$$

$$\beta_{4j} = \gamma_{40} + u_{4j}$$

$$\beta_{5j} = \gamma_{50} + u_{5j}$$

$$\beta_{6j} = \gamma_{60} + u_{6j}$$

$$\beta_{7j} = \gamma_{70} + u_{7j}$$

where

$Democracy_j$  refers to the composite democratic governance score of country  $j$

$Development_j$  refers to the composite Human Development Index score of country  $j$

$u_{0j} - u_{7j}$  refers to the residual Level 2 error in political ideology

## DEMOCRACY MODERATION IN POLITICAL ATTITUDES

**Table S1**

*Simultaneous Multilevel Regressions with Political Ideology Predicted by Individual-Level Conservation Values and Political Engagement, Country-Level Democratic Governance and Human Development, and Their Interactions*

	Right-wing identification	Cultural attitudes	Supp. income inequality	Supp. private ownership	Opp. government provision of social welfare
	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)
Conservation	.058*** (.010)	.074*** (.008)	-.026** (.008)	-.027** (.009)	-.051*** (.008)
Democracy	.032 (.047)	-.24** (.075)	.042 (.038)	.042 (.038)	.17*** (.044)
Human Development	-.025 (.048)	-.26** (.077)	-.019 (.038)	-.019 (.038)	.010 (.045)
Political Engagement	.050*** (.014)	-.013 † (.008)	-.021* (.008)	-.021* (.008)	.019** (.007)
Conservation X Democracy	.023* (.011)	.004 (.009)	.016 (.010)	.030** (.010)	.023* (.009)
Conservation X Human Development	-.001 (.012)	.022* (.009)	-.021* (.010)	-.006 (.010)	-.010 (.010)
Conservation X Political Engagement	.027*** (.004)	.012*** (.003)	.022*** (.003)	.008* (.004)	.003 (.003)

*Note.* Main effects of conservation values, political engagement, democratic governance, and human development were simultaneously evaluated in a first step of the regression, with the interaction terms entered simultaneously in a second step. The full-covariate model also included

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main effects of sex, age, income, and education level (not depicted) entered simultaneously in the first step of the regression.

† $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Table S2**

*Simultaneous Multilevel Regressions with Political Ideology Predicted by Individual-Level Conservation Values and Political Engagement, Country-Level Democratic Governance and Human Development, and Their Interactions*

	Right-wing identification	Cultural attitudes	Supp. income inequality	Supp. private ownership	Opp. government provision of social welfare
	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)
Self-transcendence	-.010 (.010)	.019** (.006)	-.010 (.010)	-.024** (.008)	-.032*** (.007)
Democracy	.033 (.047)	-.25** (.076)	.037 (.058)	.043 (.038)	.19*** (.044)
Development	-.030 (.048)	-.26** (.078)	-.088 (.059)	-.017 (.039)	.007 (.044)
Engagement	.049*** (.014)	-.018* (.008)	.017* (.008)	-.019* (.008)	.022** (.007)
Self-transcendence X Democracy	-.028** (.010)	-.018* (.007)	-.015 (.011)	.011 (.010)	.000 (.009)
Self-transcendence X Development	-.016 (.011)	.003 (.007)	-.030* (.011)	-.011 (.011)	-.007 (.009)
Self-transcendence X Engagement	-.011** (.004)	-.007** (.003)	-.009** (.003)	-.005 (.004)	-.011** (.003)



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*Note.* Main effects of conservation values, political engagement, democratic governance, and human development were simultaneously evaluated in a first step of the regression, with the interaction terms entered simultaneously in a second step. The model also included main effects of sex, age, income, and education level (not depicted) entered simultaneously in the first step of the regression.

† $p < .10$ , \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Moderation Analyses by World region**

A test of the overall three-way interaction between conservation values, democratic governance and world region (i.e, the Americas, Europe, Africa, the Middle East, and Asia/Pacific Islands) in the full-covariate model was not significant for right-wing identification ( $F = 0.79, p = .53$ ), right-wing cultural attitudes ( $F = 0.21, p = .93$ ), support for income inequality ( $F = 1.07, p = .38$ ), support for private ownership ( $F = 1.11, p = .36$ ), or opposition to government welfare ( $F = 1.27, p = .30$ ). A test of the overall three-way interaction between self-transcendence values, democratic governance and world region in the full-covariate model was not significant for right-wing identification ( $F = 1.57, p = .20$ ), right-wing cultural attitudes ( $F = 1.99, p = .11$ ), support for income inequality ( $F = 0.47, p = .76$ ), support for private ownership ( $F = 0.79, p = .53$ ), or opposition to government welfare ( $F = 0.74, p = .57$ ).

### References

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