Humanity's Attitudes About Democracy and Political Leaders: Patterns and Trends

Christopher J. Anderson
(LSE)

Damien Bol
(King's College London)

Aurelia Ananda
(King's College London)

Abstract

For decades, researchers have examined people's beliefs across countries and time using national samples of citizens. In an era when geographic boundaries have become less powerful markers of differences across people and nation-states may no longer be the only relevant units of analysis for understanding politics, we seek to develop tools and insights that transcend national and regional boundaries. What do humans think about democracy and political leaders? How much do they disagree, and have their preferences changed over time? Existing research designs cannot answer these questions with precision because of uneven sampling of countries, regions, and years. Starting with the world as the unit of analysis and humans as the relevant population, we develop a new way to gauge public opinion on a global scale. Using surveys collected since 1994, we measure and then explore patterns and trends in human preferences for democratic government and political leaders.

Acknowledgements: Earlier versions of this paper were presented at the annual meetings of the Midwest Political Science Association (MPSA), European Political Science Association (EPSA), Elections, Public Opinion and Parties (EPOP), as well as the Seminar of the Chair for the Study of Democracy at Leuphana University and the Conference on Political Methodology of the Political Studies Association. We are particularly grateful to Andrew Philips, Kathrin Ackerman, Christian Welzel, and Jack Blumenau for their helpful comments on earlier drafts.

Scholars of comparative politics and political behavior have long been interested in average citizens. Using data collected by national and international survey projects, researchers for many decades have examined differences in people's opinions within and across countries as well as over time. What the average citizen thinks matters: "[u]seful, and therefore consequential, opinion is aggregate. Politicians care about the views of states, districts, areas, cities, what-have-you [...]" (Stimson 1991: 12). While, for virtually all of modern political history, the relevant aggregates have been the populations of nation-states, we have come to live in a world where politics is made on a global scale or has global implications – policies to fight climate change or accommodate migration come to mind. As a consequence, it has become increasingly important for political decision makers to understand what the average human being thinks about political issues. Put simply, because the world has shrunk, humanity as a whole has grown to become a more relevant unit of reference.

For example, when deciding whether to take measures to protect human rights, free and fair elections or advance gender equality, policymakers at global institutions like the UN, WTO, or the World Bank may wish to know whether the average person on the planet supports democracy or how they view the role of women in society. Global opinion may matter to average citizens as well; in fact, there is growing evidence that they judge their own country's institutions and outcomes with an eye toward outside benchmarks (Kayser and Peress 2012). In an age when information spreads from one end of the planet to the other in the blink of an eye and even the remotest villages have access to global information via mobile phones, one such benchmark may be how people the world over feel about key issues of our time. Measuring human preferences – if conceptualized as a constraint on political action – also establishes what the global zone of acquiescence might be and thus the limits to what is acceptable.

Below, we argue that the traditional approach toward public opinion for understanding politics butts up against politics in a globalized world. As such, the nation-state may no longer be the only relevant unit of analysis for understanding what or how people think about democracy or political leaders, for instance. Instead, it may be just as important to develop an understanding of what people globally and as a species think about the key issues of our time. Do humans – rather than Americans, Belgians, or Indonesians – actually like democracy, or do they prefer having a strong leader who does not have to bother with democratic processes? Do they think men make better political leaders than women? Equally importantly, have these changes evolve over time?

While these questions sound simple, existing research designs and available data sources are not readily equipped to answer them with precision because of imperfect, limited, and uneven sampling of people and countries around the world. Below, we therefore start with the world as the unit of analysis and humans as the relevant population in order to develop a novel way of analyzing existing surveys to gauge public opinion on a global scale. Using data from the World Values Survey (WVS) and other sources, we develop an original estimation technique similar to Multiple Regression with Poststratification (MRP), which has been used to estimate public opinion in subnational units like regions or states when the survey sample is national and not representative of populations at the subnational level. We apply this framework to estimate public opinion globally and conduct a series of tests to validate our new measures of human preferences for democracy and types of political leaders. While aimed at measuring public opinion at a global level, our approach does not assume human beings' views on these issues to be homogeneous or that country-specific variables are irrelevant as determinants of people's opinions. Quite the contrary: a key contribution of our analysis is that we use information about countries' structural conditions and population characteristics to

predict global public opinion and identify the nature and degree of (dis)agreement among human beings on preferences for democracy and type of leaders.

Our analyses thus establish a baseline of beliefs. They show that, over the past twenty-five years, humanity consistently has had a strong preference for democratic government. There is little disagreement over its rightfulness, regardless of world region. Moreover, while the baseline of support for undemocratic leadership is low, too, the average human has become more comfortable with leaders not subject to the usual democratic constraints and continues to express a preference for male over female leaders. Finally, we find that humanity's preferences are shaped less by individual differences than by geography: there is substantial geographic heterogeneity in humanity's taste for strong leaders and the idea that 'men make better leaders than women', depending on world region. In contrast, differences based on demographic characteristics are much smaller, with differences among age groups or genders in preferences for democracy and types of political leaders outweighed by differences due to where individuals live.

We begin by placing our question in the broader context of global political developments and the potential relevance of a global public, followed by a discussion of the history of research on comparative and international public opinion and political behavior. We then develop a new way to estimate global public opinion and the average human response to a variety of questions about democracy and types of political leaders. Next we present and discuss the results of these responses for humanity as a whole, as well as for subgroups of the human population, by world region and demographics. A final section concludes.

Going Global: From National Publics to Global Public?

How people think about and engage with politics are long-standing questions in political science. Over the past three centuries, the role of "the public" in political life has

undergone a dramatic evolution around the world, with individual members of the public ceasing to be mere subjects and transforming into participants with the agency to be legitimate critics of the state (Luhmann 1997, 2018). Perhaps not coincidentally, this transformation dovetails Marshall's description of the progression of citizenship in the 18th and 19th century (Marshall 1950), with the modern conception of the public now representing a changed relationship with authority – the state or state institutions. In the process, "public" increasingly became synonymous with "population" or "citizenry". Because politics most commonly has been conceptualized as the politics of nation-states since the emergence of the international state system, members of the national community became the population of interest to political scientists. As a result, understanding and analyzing the population of territorially defined nation-states became the essential building block of research on political behavior and public opinion.

While this remained the case for much of the 20th and into the 21st century, trends toward regional integration, regionalized world politics, and globalization have begun to create a politics beyond the nation-state. Thus, scholars have begun to ask whether there is, for example, a European Demos or to entertain the idea that a global public sphere may be emerging (Habermas 1991). Yet, exactly what such a Demos might look like or how we would detect and understand it is far from clear, and there is a lively debate over the feasibility and desirability of a global body politic (List and Koenig-Archibugi 2010). More fundamentally, these ideas lay bare questions of what should be the relevant population of interest and, importantly, how it might behave. In a world where supra-national, trans-national, and global governance mechanisms and institutions have been developing for many years, where pressing policy problems traverse national boundaries with ease, and where communication networks allow citizens to be increasingly connected without regard to the limits imposed by the nation-

state, one logical next step would be to measure the opinions of all people on the planet rather than exclusively the members of specific (territorial) political communities.

Although we do not contend that there is a global public or a global "public sphere,"[1] we agree that "the state can no longer be seen as a pre-given political unit" (Beck 2006: 51). In the space where politics is made beyond the nation-state, international, co-national, and supranational political institutions enact formal and informal processes of global governance (Nye and Donahue 2000; Keohane 2002). Yet, this does not mean that nation-states disappear; instead, different kinds of supra-national governance emerge from networks of states or alliances of states and international organizations. This process creates legitimacy problems, however:

> "The increasing capacity of international governance regimes to generate law and regulations binding all citizens has come to conflict with this problem of democratic legitimacy. The idea of democratic legitimacy is that the citizens decide for themselves the content of the laws that organize and regulate their political association. Separating the process of rule-making from politically accountable institutions, global governance is argued to suffer a massive 'democratic deficit'" (Nanz and Steffek 2004: 314).

Put simply, in the absence of a global demos that monitors global institutions, global governance fails basic democratic tests (Dahl 1999; Stein 2001).

While these debates are important, they lack a systematic account of what the global public actually says. Thus, in contrast to theoretical scholarship on a global public, our modest aspiration is to find ways of measuring all people's views on matters important for understanding the human experience on a fundamental level, involve politics beyond the nation state, or can be thought of as representing a global public view. Thus, as a purely empirical

[1] This idea is contested, with some arguing it is impossible and others contending that it is both desirable and emerging. Conceptualized variously as global civil society, transnational publics, or global public ("Weltöffentlichkeit") (Nanz and Steffek 2004), scholars have grappled with ways of integrating notions of "the public" into an emerging system of global governance. In the digital era, communication and technology are central to these ideas, as the public contestation of ideas is no longer tied to a physical space (Castells 2008) or sovereign power (Volkmer 2003; Guidry, Kennedy, and Zald 2000). Take for example, the global spread of democracy and democratic knowledge, which was facilitated by linkages with democratic systems and populations (Levitsky and Way 2006).

matter, we want to know what humans globally think about key matters of governance, not because these preferences are globalized in some traceable way but because policies and politics are, and because we do not know to what extent humans actually agree on basic aspects of governance. Seen from a perspective of global public opinion, then, this means establishing a worldwide baseline regarding the level and variation in humanity's opinions about politics.

To do so, we focus on people's views about democracy and political leaders, and for several reasons. As a practical matter, questions about democracy and political leaders have been asked across most of the WVS conducted to date. As such, they provide the necessary database for developing and testing our new method for devising a useful blueprint for studying people's views on a global scale. On conceptual and empirical grounds, questions about people's preferences for democracy and equality continue to be of global importance. The spread of democracy and message of its relative success have increased familiarity with the concept, penetrating even the most closed societies (Kirsch and Welzel 2019). However, while it seemed that democracy had "won" the war of ideologies in the aftermath of the Cold War, there have been prominent and much-debated signs of democratic "backsliding" or "democratic recession" in recent years, with electoral dictatorship either becoming more popular or replacing democratic rule outright (Bermeo 2016; Brunkert et al. 2018; Diamond 2015; Levitsky and Ziblatt 2018). One empirical question is whether there is evidence that humanity currently is or has become less enamored of democracy and democratic institutions.

Relatedly, the emergence of populist leaders and global trends toward greater gender equality raise important questions about equality, human rights, and the kinds of political leaders people prefer. Thus, we also investigate whether support for democracy as a form of government coexists with preferences for particular types of political leadership. There is reason to assume that people's preferences for democracy as a form of government are consistent with political values that Inglehart and collaborators have termed "emancipative"

(Inglehart and Norris 2003; Inglehart and Welzel 2005). Thus, on one hand, valuing democracy should be connected to preferences for equality – for example, for all adults, rather than just men, to have access to political leadership positions. If this is the case, the preference for democracy should be incompatible with a strong preference for male leaders for instance.

At the same time, while people generally have been found to like democracy, they have different and sometimes inconsistent ideas about what it means (Kirsch and Welzel 2018; Kruse et al. 2019). Thus, average citizens commonly perceive democracy as working badly because it seems chaotic and disorderly (Hibbing and Theiss-Morse 2002) – a "flaw" that people may believe can be "fixed" with the help of leaders who are seen as "strong." Unsurprisingly, too, political leadership traits are gendered, such that maleness is often associated with strength, order, and competency, especially in times of uncertainty (Huddy and Terkildsen 1993; Holman et al. 2016). As a result, a preference for democracy could feasibly coexist with a preference for male leaders. Thus, to measure people's preferences for political leadership, we also examine support for so-called "strong leaders."[2]

Analyzing What (All) People Want: International Public Opinion Research

For many decades, the mass survey has been the principal technology used to discover what people think about politics, most commonly based on a random sample of adults or eligible voters in a nation of interest. Following pioneering efforts in the early decades of the 20th century, improvements in computing technology and survey research methods helped produce a behavioral revolution in political science following World War II. Exported from American election studies to all corners of the globe, the ideas and technology of that revolution spawned a global network of research scientists and ongoing, well-funded programs that helped

[2] We bracket the important question of the meaning of democracy in non-democratic countries (see, e.g., Kirsch and Welzel 2018). Unfortunately, detailed questions about people's interpretations of democracy were only recently introduced into the WVS.

establish the dominant approach to measuring and understanding mass politics (Kittilson 2007).

Despite the international diffusion of survey research, for much of the post-WWII period researchers focused on understanding variation in people's opinions and behaviors within countries and studies based on explicitly cross-national surveys containing comparable measures collected at similar points in time were rare. This began to change as scholars moved from a dominant focus on micro-level processes to focus instead on systematic comparisons of attitudes and behaviors across countries with the goal of unearthing their macro-level, cross-national causes, and consequences (Anderson 2009).[3]

In subsequent years, the emergence of several collaborative cross-national survey projects allowed researchers to study political behavior in many countries around the world. These included the path-breaking Eurobarometer Surveys, European Social Surveys, Latin America Public Opinion Project, WVS, or International Social Survey Project, among others (Kittilson 2007; Norris 2009). This movement toward the coordination of data collection and systematic comparison across countries coincided with the rapid increase of electoral democracies around the world in the 1980s and 1990s, the expansion and deepening of the European Union, and a growing focus on institutional questions in comparative politics and contextual theories in the study of political behavior (Zuckerman 2005). Thus, just as countries' economies, polities, and communication flows became increasingly integrated and globalized, so too did the world of survey research.

We aim to take the next logical step. By developing a simple way to measure global opinions, we seek to overcome the geographical limitations of population samples still "stuck"

[3] The most notable exception included Almond and Verba's (1963) explicit move to compare the political cultures of several countries (Norris 2009: 527). Other notable comparative projects like Barnes et al.'s (1979) Political Action study or Inglehart's work on value change, for example, followed, alongside a plethora of national election studies.

at the level of the nation-state by piggybacking onto them. In particular, we take advantage of the growth of international survey research by using data from the World Values Survey – "the only academic global public opinion survey with a standard instrument administered in countries in all world regions, including growing geographic coverage of societies in the Middle East, Asia, and Africa" (Norris 2009: 528-29) – to construct measures of the average opinion in the world. Our initial goal is to produce a human baseline – an average aggregate preference – in order to ascertain the global opinion climate, how much it varies, and how it may have shifted over time. While we are richer in global survey data than we have ever been in the history of humankind, we are not quite rich enough to rely on surveys alone, however, and are unlikely to be so for some time. The next section therefore explains how we can use an existing set of extensive but incomplete surveys that have broad geographic coverage to produce a more complete picture of what humans think and want.

Analysis: Data, Representativeness, and Coverage

Our estimation of what humanity thinks about democracy and political leaders relies on the 'All-Rounds-Country-Pooled Dataset' from the WVS, the largest set of cross-country surveys ever assembled (Inglehart et al. 2014). For over three decades, the WVS has organized seven waves of surveys of adult populations in countries around the globe.[4] The WVS has several important constraints: despite its name, it does not cover all countries in the world, it does not sample world regions evenly, nor does it cover the same countries across all years. Thus, even with a greatly expanded set of cross-nationally comparative surveys, the sampling of human respondents is imperfect. While researchers typically have ignored these limitations and analyzed whatever data are available for any set of countries in any given year or survey

[4] For information on survey construction, sampling, and fieldwork, see http://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=FieldworkSampling.

wave, scholars recently have sought to tackle the issue of missing data by imputing values for country cases for missing years for countries covered by the WVS (Claassen 2019; Dahlum and Knutsen 2017).

Our approach is similar in spirit but goes beyond a "country by country approach" in two important ways by taking a combined individual and global sampling perspective. Specifically, because we want to measure global opinion, we need to find a way to fill in all of the blanks: that is, instead of purely imputing country averages for countries already part of the WVS but for which years are missing, we also need to find a way to estimate the opinions of people in countries not included in any one set of surveys. Thus, our estimation consists of combining actual responses to existing surveys with simulations of how people from non-covered countries and years would have responded to these questions had they been asked. Combined, this allows us to estimate what human respondents globally (rather than the average country) think about democracy and political leaders. Moreover, because we take an individual-level approach that does not exclusively rely on countries' (aggregate) averages, we are able to measure the degree of agreement/disagreement between human beings on earth, providing us with information about central tendencies and distributions of opinions.[5]

To achieve this, we use the WVS in tandem with the so-called Quality of Government (QOG) dataset that provides a wide range of information for all the countries and territories of the world since 1946. The 'Time Series Standard Dataset' from the QOG project is a "meta" dataset, which gathers information about countries' political, economic, and social characteristics from multiple sources and datasets (e.g., the United Nations, the World Bank, etc.) into one (Teorell et al. 2019).

[5] Hale and Koenig-Archibugi (2019) also attempt to ascertain disagreement across the globe but follow a different approach by taking existing global surveys and comparing the distributions within and across countries in order to establish whether polarization of opinions is greater across or within political communities. While interesting, their approach, too, is not designed to systematically sample the entire human population.

The survey questions we investigate below have two desirable properties: first, they address universal questions that have been studied for many years; second, they have been asked regularly over decades as part of the WVS and thus provide extensive coverage across many countries. These include support for a democratic political system, support for the idea that the political system should be governed by a strong leader who does not have to bother with parliament and elections, and agreement with the statement that men make better political leaders than women.[6] These questions have been asked in about 200 surveys across countries and years of a total of about 250,000 respondents (the question wording can be found in Appendix A).[7]

To see if the survey data satisfy key requirements for creating a global dataset, we conducted two initial tests: One to establish how representative the survey samples are of countries' populations; and another to check the international coverage of countries sampled. Because our estimation makes use of the distributions of demographic variables per country-year, which we then extrapolate to the country-years not covered in the WVS, representativeness – i.e., each sample accurately reflecting the characteristics of the underlying population – is a key assumption. Results reported in the Online Appendix A show that the country-year-level correlations between WVS and corresponding official statistics from QOG

[6] This means that we opt for broad country coverage to maximize our ability to produce a global result. However, this may imply a trade-off with reliability – that is, over producing a more reliable measure of fewer countries using many measures of similar concepts (for this approach, see e.g., Claassen 2019). Please note that some surveys were excluded due to documented translation problems (Kurzman 2014).

[7] Our analyses are meaningful to the extent that the survey instruments are reliable and valid – perhaps most importantly, that there is reasonable equivalence in the meaning of terms across countries, cultures, and languages (Stegmueller 2011). One way of testing the validity of the survey questions is to see whether answers are correlated with phenomena they should be related to (so-called predictive validity). Indeed, this is what Claassen's (2020) study of the link between support for democracy and democratization and democratic stability does. He finds that support for democracy predicts democratic stability (though not the emergence of democracy). Thus, even though people's and societies' definitions and understandings of the concept of democracy differ (Davidov et al. 2014), survey responses have the power to predict real world phenomena. We bracket other potential validity problems, including potential over- or underreporting of true preferences (e.g., because of a fear of repression, social desirability bias, or misunderstanding the survey question) (e.g., Ananda and Bol 2020; Kruse, Ravlik, and Welzel 2019; Panel 2019). These are not issues we can address with the available data.

for key demographic groups are high and that the WVS samples are representative of the populations they aim to study.

Second, to ensure that the WVS covers a sufficient portion of the world's population in order for us to draw inferences about the portions it overlooks, we calculated its global coverage in two ways. First, we examined coverage by comparing the number of countries included in the WVS (in each wave) with the official number of countries in the world (defined by membership in the UN).[8] Second, we compared the WVS's coverage of the world's population (the total population of all the countries included in the WVS) with the world's population according to the non-governmental organization Worldometers.[9]

As Table 1 shows, since the questions first began to be included in 1994, the proportion of countries covered has ranged from 18 to 30 percent. This relatively low level of coverage reflects the fact that most of the world's smallest countries (e.g., Andorra, Luxembourg, Lesotho, etc.) were not surveyed by the WVS. The survey's coverage of the world's population, rather than just the number of countries, is significantly bigger, ranging from 28% to 74% per wave.

[8] Since the WVS waves cover periods of 4 to 6 years, we use the average number of UN countries during the period (between 167 and 193).

[9] http://www.worldometers.info/world-population/world-population-by-year/. We proceeded by WVS wave, and so used the average world's population over the period (between 4.5 and 7.3 billion).

Table 1. Global Coverage of the WVS Questions

WVS wave	Period	Country Coverage (in %)	Population Coverage (in %)
Support for strong leader			
1	1981-1984	0	0
2	1989-1993	0	0
3	1994-1998	23	28
4	1999-2004	18	47
5	2005-2009	26	55
6	2010-2014	27	52
Support for democracy			
1	1981-1984	0	0
2	1989-1993	0	0
3	1994-1998	24	45
4	1999-2004	21	69
5	2005-2009	27	74
6	2010-2014	29	72
Support for male leader			
1	1981-1984	0	0
2	1989-1993	0	0
3	1994-1998	21	67
4	1999-2004	25	69
5	2005-2009	28	72
6	2010-2014	30	74

Note: Entries are percentages.

Analysis: Estimating What Humanity Thinks

Our analysis is similar in logic to simulations obtained via a method known as Multiple Regression with Poststratification (MRP), originally designed to estimate public opinion at a subnational level with the help of data collected at the national level (Gelman and Little 1997; Leeman and Wasserfallen 2017).[10] In a nutshell, our analysis proceeds in two steps. We first create a "humanity dataset" – a sampling frame in which each line represents one (adult) human being. To do so, we first calculate the joint distributions of key demographic characteristics per country-year in the WVS dataset and add them to the QOG dataset. In other words, we add variables to the QOG dataset that capture averages and standard deviations of demographic

[10] This method has been used to gauge both local public opinion (e.g., Lax and Phillips 2009; Tausanovitch and Warshaw 2014) and local vote intention polls (e.g., Lauderdale et al. 2020).

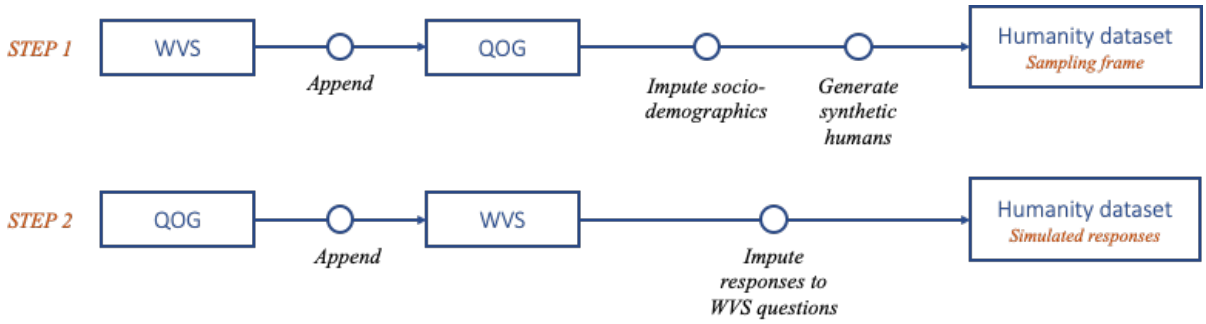
variables, as well as correlations between them. We then estimate a series of regressions at the country level to predict the parameters of the joint distributions of the countries and years not covered by the WVS dataset.[11] Finally, using the predicted parameters, we generate synthetic respondents that exactly fit these parameters in all countries of the world proportional to the countries' (adult) populations.[12]

In a second step, we simulate support for democracy and preference for political leaders for the synthetic respondents in the humanity dataset by reversing the first step: we add the country-level variables from the QOG dataset to the WVS data and then estimate a series of multi-level regressions with a mixture of country-level and individual-level covariates to predict WVS respondents' preferences for democracy and political leaders. We then apply the parameters from this regression to the synthetic respondents of the humanity dataset to impute their responses to these survey questions had they been asked. Figure 1 presents a schematic representation of the two steps of our analysis.

Figure 1. Schematic Representation of the Analysis

[11] Our estimation relies on the assumption that the pattern of missing values in the data can be accurately captured by the covariates in the regression, akin to assumptions made by studies that impute missing values based on a set of covariates (e.g., King et al. 2001). Accuracy checks of the regression's predictions serve as tests of this assumption.

[12] Studies that use MRP usually skip this first step and create a dataset with synthetic citizens that reflect the demographics of the geographic unit of interest as they appear in official statistics. Although simpler, we decided against this strategy to account for correlations among demographic characteristics. It is especially important to account for correlations among these when working with data from developing countries where there are often strong correlations between demographic variables (e.g., between sex and education level). We therefore use individual-level data from the WVS to construct our humanity dataset. In Online Appendix B, we show that (1) there are strong correlations between socio demographics in some countries, and (2) that our simulation leads to very similar results than official statistics when it comes to proportions


STEP 1
WVS
Append
QOG
Impute socio-demographics
Generate synthetic humans
Humanity dataset
Sampling frame
STEP 2
QOG
Append
WVS
Impute responses to WVS questions
Humanity dataset
Simulated responses

Step 1: Creating a Humanity Dataset

In the first step, we create a humanity dataset where each line represents one human being. The core operation consists of generating synthetic respondents based on five key demographic characteristics: sex, education, age, urbanization, and income. However, instead of naively assuming these characteristics to be distributed randomly across all human beings, we simulate joint distributions of each of these by calculating their means and standard deviations at the country-year-level and the intercorrelations between them in the WVS dataset. In total, this produces 20 parameters (five means, five standard deviations, and ten correlations) that we add to the QOG dataset to estimate a series of OLS regressions of the following specification:

$$Y_{c,t} = \ + \delta \, \boldsymbol{Z}_{c,t} + \gamma \, T_c + e_{c,t} \qquad (1)$$

Y is the outcome variable. It represents each of the 20 parameters of the joint distributions of the five demographic variables for country *c* in year *t*. $\boldsymbol{Z}$ is a vector of covariates of socio-economic and political variables available in the QOG that consists of variables likely to affect attitudes towards democracy and political leaders, including indicators of countries' demographics (e.g., population size, age, education, religion), socio-economic conditions (e.g., GDP, degree of urbanization, access to telephone land lines), and political conditions (e.g., corruption, democratic quality). These indicators capture underlying long-term and structural conditions (e.g., population size or religion) and the performance of political and economic systems and institutions (the full list of these variables including descriptive statistics are shown in Appendix B).

We limit the number of covariates for two reasons. First, although the QOG dataset includes more variables, many of them have missing values as they do not cover small countries

or they do not cover each year during the 1994-2014 period. To maximize coverage, we therefore needed to rely only on those QOG variables that cover at least 90% of the world's population. Second, because there is a trade-off between in-sample and out-of-sample validity, an over-fitted regression that uses too many variables tends to be too specific to accurately predict the outcome value of new observations. While in-sample validity (or "model fit") becomes more accurate as the number of independent variables increases, this can come at the expense of out-of-sample validity.[13] Further in Equation 1, T_c is a time trend that captures the year, and $e_{c,t}$ is the error term.

We then use the results from these regressions to derive the predicted values of the parameters for the countries and years not covered by the WVS. Finally, in a new dataset, we generate synthetic respondents and samples for each country so that their number is proportional to the country's population; in attributing to them values for the five demographic parameters we impose that, for each country-year, their joint distributions exactly fit the parameters predicted by the OLS regressions.[14] In total, we thus have a dataset with billions of lines, as it contains one line per human being per year, for 20 years.[15]

[13] In the literature on machine learning, this is often referred to as a "bias-variance trade-off" that is especially important for our analysis, as our goal is to undertake out-of-sample predictions – that is, predictions for countries not covered in the WVS. Note that using an a-theoretical method to select the set of independent variables that maximizes the parameters of this trade-off, like Lasso regression, would not change the results (Broniecky et al., Forthcoming). As results below show, the regressions make excellent in-sample and out-of-sample predictions that could be hardly better.

[14] To see how this works in practice, an example may help fix ideas: Imagine a country with a population of 50,000,000, where our regression predicts that the income distribution of this country has a mean of 5 and a standard deviation of 2. We then generate 50,000,000 synthetic observations where the mean of the income variable is 5 with a standard deviation of 2. Further, imagine that our regression predicts that education in our imaginary country has a mean of 4 and a standard deviation of 3, and correlates with income at 0.8. We then generate the variable education so that the mean is 4, standard deviation is 3, and the correlation between the two generated variables income and education is 0.8. We do this for all countries of the world, for each year between 1994 and 2014, and for all five socio-demographic characteristics.

[15] In our humanity dataset, each line actually represents 10,000 individuals. We are limited by a lack of computing power but believe this granularity is sufficiently precise, considering that no country in the QOG dataset has a population smaller than 10,000. Note however that it would be easy for a researcher with access to a more powerful computer to adapt our code to increase the granularity. Similarly, this person would also be able to calculate multiple imputation that will give a measure of uncertainty around point estimate (King et al. 2001).

The full regression results are reported in Online Appendix B, alongside the details of tests aimed at validating the accuracy of the humanity dataset globally and in specific countries. Most importantly, these include a series of out-of-sample tests. For these, we focus on the countries included in the WVS and for which we have both the covariates and outcome variables. We remove 30 country-years (i.e., around 20% of the total number of observations) and estimate the OLS regressions on the reduced sample. We then show that the predictions of the regressions allow us to recover the values of the 30 randomly removed country-years. Further, Online Appendix B includes a qualitative assessment of the distributions of demographics in developing and developed countries. We observe that our humanity dataset fits the conventional wisdom – for example that women have limited access to education in developing democracies.[16] Taken together, the results all provide support for the quality of the humanity dataset, and especially the quality of the synthetic samples relative to those covered by the WVS.

Step 2: Simulating What Humanity Thinks About Democracy and Political Leaders

Having created the humanity dataset, the second step of the analysis consists of simulating the missing responses of our synthetic humans to survey questions about democracy and political leaders. To do so, we use the WVS dataset to estimate a series of multi-level OLS regressions to predict responses with the following specification:

$$Y_{i,c,t} = \ +\theta\, \boldsymbol{X}_{i,c,t} + \ \delta\, \boldsymbol{Z}_{c,t} + \gamma\, T_{i,c} + e_{i,c,t} \qquad (2)$$

[16] This is shown using correlations of sociodemographic elements between developing and developed countries. For example, developed countries would have more equal levels of educational attainment between genders, and therefore lower correlation.

Y is the outcome variable. It represents responses to the three survey questions of interest for each respondent *i* in country *c* at year *t*. $\boldsymbol{X}$ is a vector capturing the five demographic variables of the humanity dataset (sex, education, age, urbanization, and income). $\boldsymbol{Z}$ is a vector of covariates of socio-economic and political variables available in the QOG (see Appendix B for the QOG variables used in the analysis). $T_{i,c}$ is a time trend that captures the year. $e_{i,c,t}$ is the error term that we clustered by country-year.[17] We subsequently use the results from these regressions to simulate what would have been the answers of synthetic respondents in countries not covered in the WVS.

The full regression results are described in Online Appendix C, which also includes a series of validation tests including a series out-of-sample tests (including randomly removing 30 country-years of the WVS dataset – that is, around 35,000 respondents – to evaluate whether the OLS regressions presented above can recover their response to the three survey questions of interest). In addition, we systematically compare our predictions for countries *not* covered in the WVS (that is, the responses of our synthetic respondents) with survey data about democracy from other sources available for these countries. The two are strikingly similar. Finally, we also show the difference between our estimates and the raw estimates from the WVS to show evidence of the usefulness of our approach.

Results

We present our substantive results in two steps. First, we inspect the overall distributions and trends in human preferences for democracy and political leaders by examining how positive or negative opinions are as well as how unanimous or spread out they are across all of humanity. Moreover, we examine whether these preferences have changed over time.

[17] Note that we cannot include country fixed effects as this would defeat the purpose of the analysis. The objective is indeed to impute values of the outcomes variables for countries not included in the WVS, and then not in the dataset. For the same reason, we cannot include lagged covariates or lagged outcome variables.

Second, we investigate differences in opinions by demographic characteristics to see whether there are meaningful discrepancies as a function of people's individual-level characteristics. Finally, we evaluate how much these preferences vary, depending on the region of the world people live in.

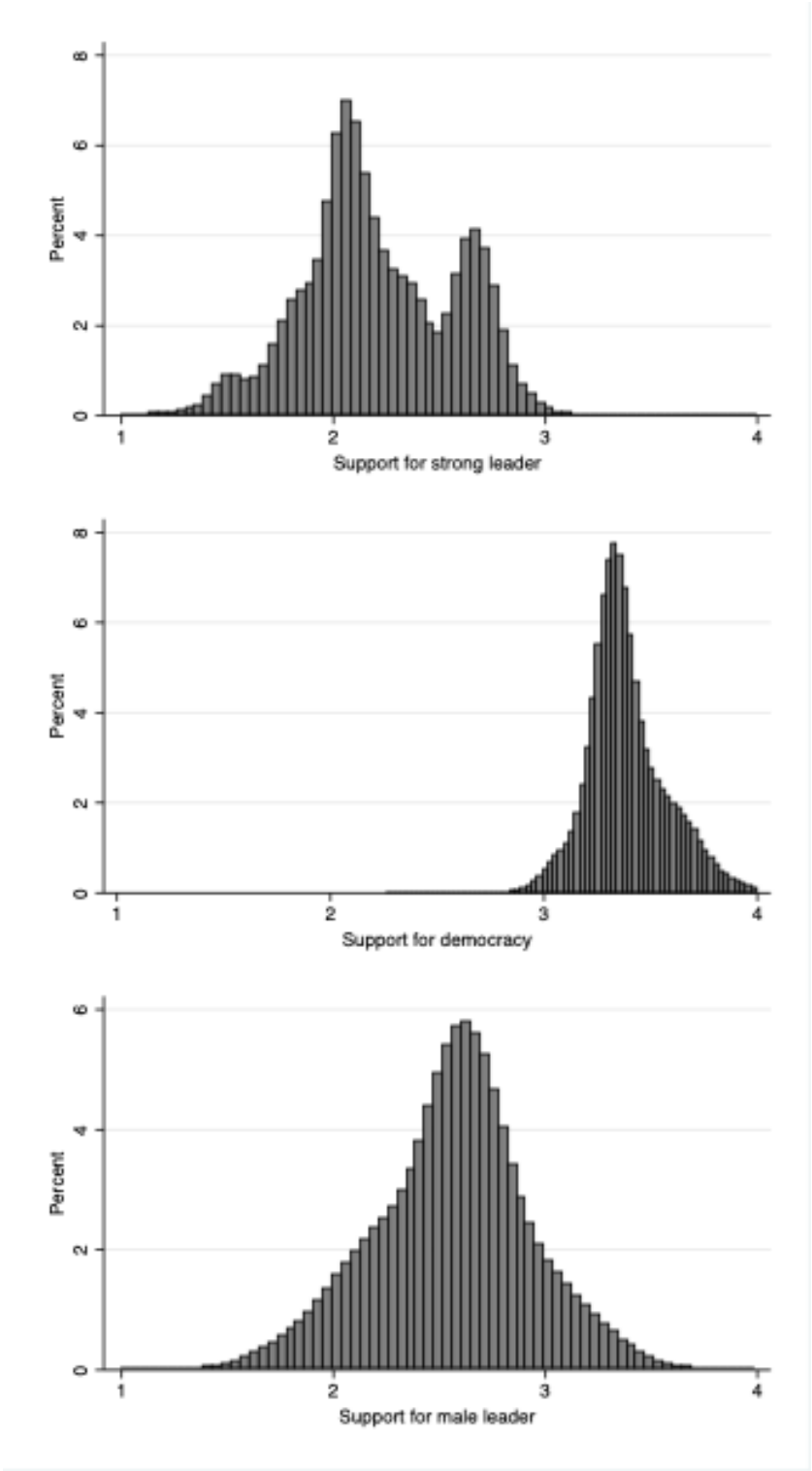
What Humans Want and How Much They Agree

Figure 4 shows the overall distributions of responses on the 4-point scales. The overall means indicate that humanity is very much in favor of democracy (3.39; sd=0.18), prefers men over women as political leaders (2.56; sd=0.37)[18], and is skeptical about having a strong leader who doesn't have to bother with parliament or elections (2.22; sd=0.38). However, the graph also reveals that there is significant variation around these mean preferences – that is, they are not universally shared. Humanity is most unanimous when it comes to viewing democracy as the best form of government, with a spread that is half of what we see around the other survey items.

Moreover, results show that the distributions around support for strong leaders or male leaders are more dispersed than support for democracy; they also are notably different from one another. While the distribution around the idea that men make better political leaders than women is single-peaked, the distribution around the idea that a strong (undemocratic) leader is a good thing has two conspicuous peaks: one around the answer category of "fairly bad" and one closer to "fairly good". Thus, while a preponderance of humanity thinks that having undemocratic leaders is a bad thing, there is a visible cluster of people who disagree.

[18] The question asks whether respondents agree with the statement that men make better political leaders. Given that only a response of "strongly disagree" (coded 1) indicates that respondents do not believe men to be better leaders, any values greater than 1 indicate a preference for male leadership or implies that gendered view of political leadership is acceptable in some circumstances.

Figure 4. Humanity's Preference for Democracy and Political Leaders

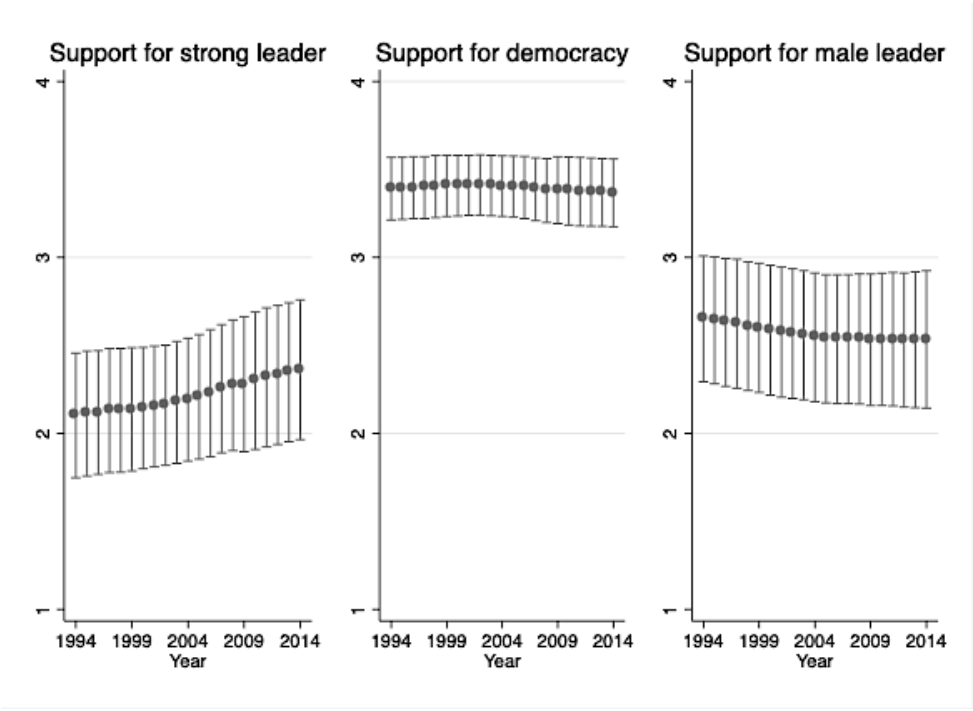


Trends in Human Beliefs

We also examined whether these preferences have remained stable over the past two and a half decades. Figure 5 shows the results by year, where the dots represent the average human's response and the bars represent +1 and -1 standard deviations around the means.[19] Several things stand out. First, the preference for democracy is extremely stable over time; democracy seems to be the default governance option, and there is no sign that humanity is moving away from it. The two other survey questions show slight but noticeable trends since the early 1990s. While there is a small decrease in the average human's willingness to say that men make better leaders, there also is a modest but noticeable increase in support for the idea that having a political system led by a strong, undemocratic leader is a good thing. Clearly, even if humanity says that democracy is the best system, a greater proportion of humans alive today are comfortable with strongman (or -woman) leadership than was true two and a half decades ago.

Figure 5. Trends in Preferences

[19] Given our extremely large N, reports of standard errors and statistical significance would not be very informative. Moreover, given that the estimates are for all of humanity rather than a sample of it, the concept of statistical significance has little relevance.



Note: Dots: means; lines +1 / -1 standard deviations around the means.

Demographic Patterns: A Common Humanity?

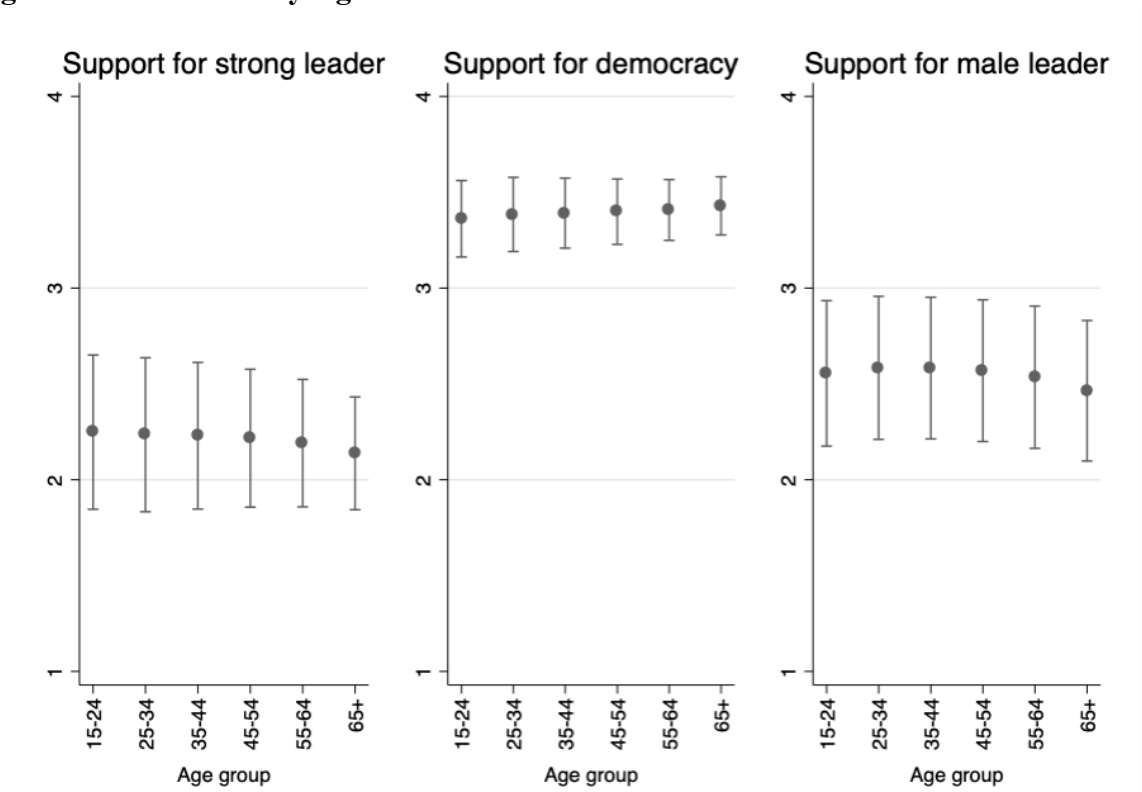
To see if there are meaningful differences in people's preferences, depending on who they are or where they live, we also calculated survey responses across several demographic groups and world regions. Figures 6, 7, and 8 show patterns of attitudes broken by age group, sex, and place of residence – among the most obvious and widely-studied individual differences between human beings on the planet aside from ethnicity.[20] Perhaps the most interesting result is what we do *not* observe in these graphs: there are only small differences in preferences for political institutions and leaders across the generations, between men and women, or between people living in small towns and big cities. The only apparent, though small, differences are in the views that rural and urban residents, as well as men and women have about the gender of political leaders, with urban residents and women slightly more likely to disagree with the statement that men make better political leaders. Thus, when humanity as

[20] We do not present the results broken down by education, income, and urbanization because the three variables are not perfectly comparable across countries, and hence less interesting from a global perspective. For example, living in a city of more than 500,000 people does not have the same meaning in China as in Belgium. Similarly, education vary globally, including in terms of access and structure of education system. For an illustration of challenges in creating a standardized education measurement, see Mattes and Mughogho (2009).

a whole, rather than individual countries, is the relevant sampling frame for our analysis, there are few differences between people with different demographic characteristics.[21]

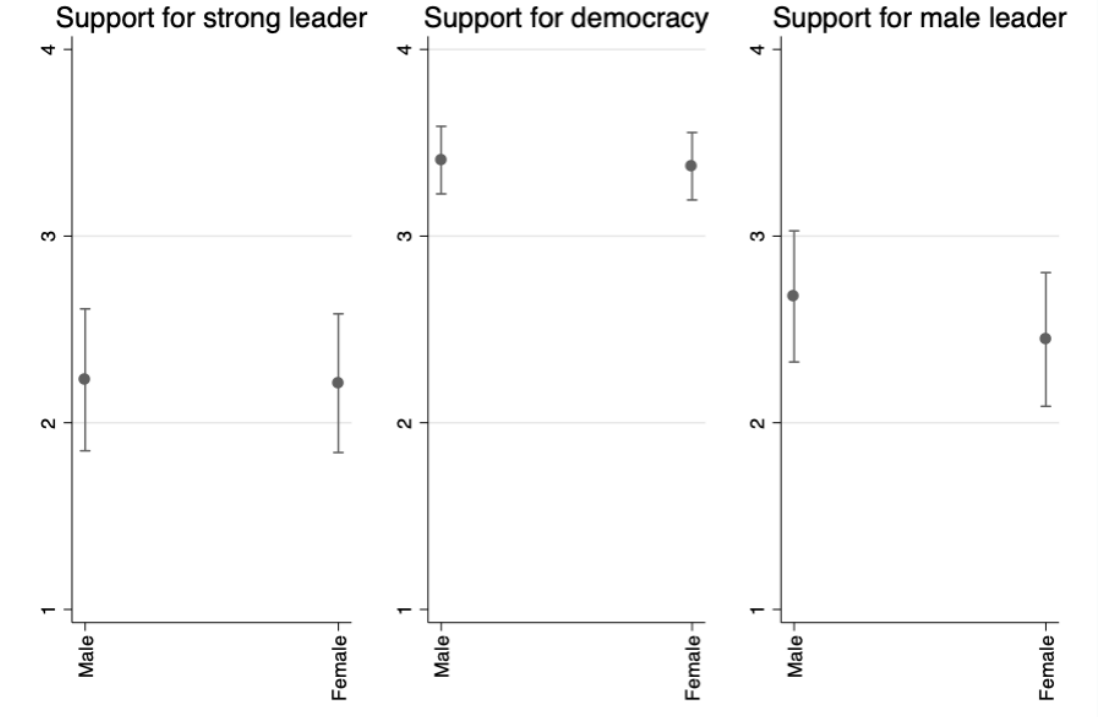
[21] This lack of differences across demographic groups dovetails results from our multi-level regressions predicting attitudes using the raw WVS data (those we use to construct our estimates). These results, too, show that demographic variables are only weakly associated with responses to these questions. Specifically, while the coefficients are often statistically significant because the N is very large, their substantive impact is small to non-existent (around 0.01, 0.02). Similarly, the multi-level regressions produce the largest coefficient for gender and support for male leaders (~0.30), consistent with our estimates using the humanity dataset. Thus, we find the largest difference in socio-demographics for gender and support for male leader, regardless of data or estimation method.

Figure 6. Preferences by Age Cohort



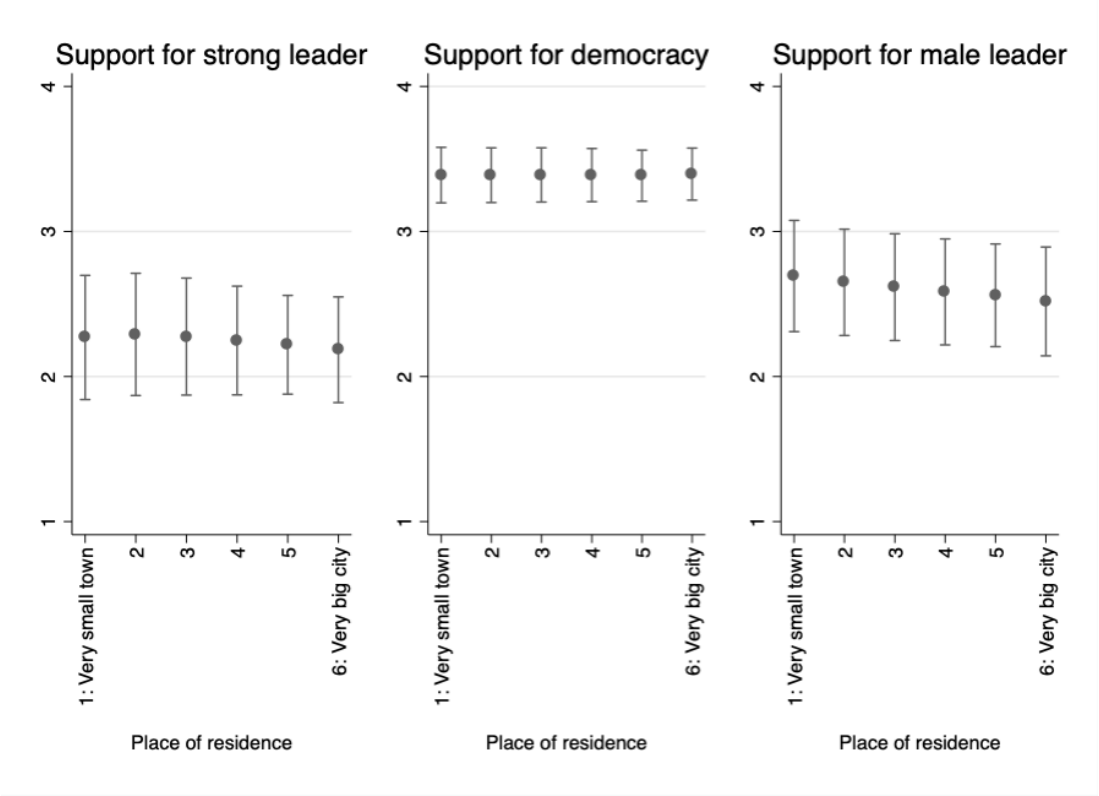
Note: Dots: means; lines +1 / -1 standard deviations around the means.

Figure 7. Preferences by Sex



Note: Dots: means; lines +1 / -1 standard deviations around the means.

Figure 8. Preferences by Place of Residence



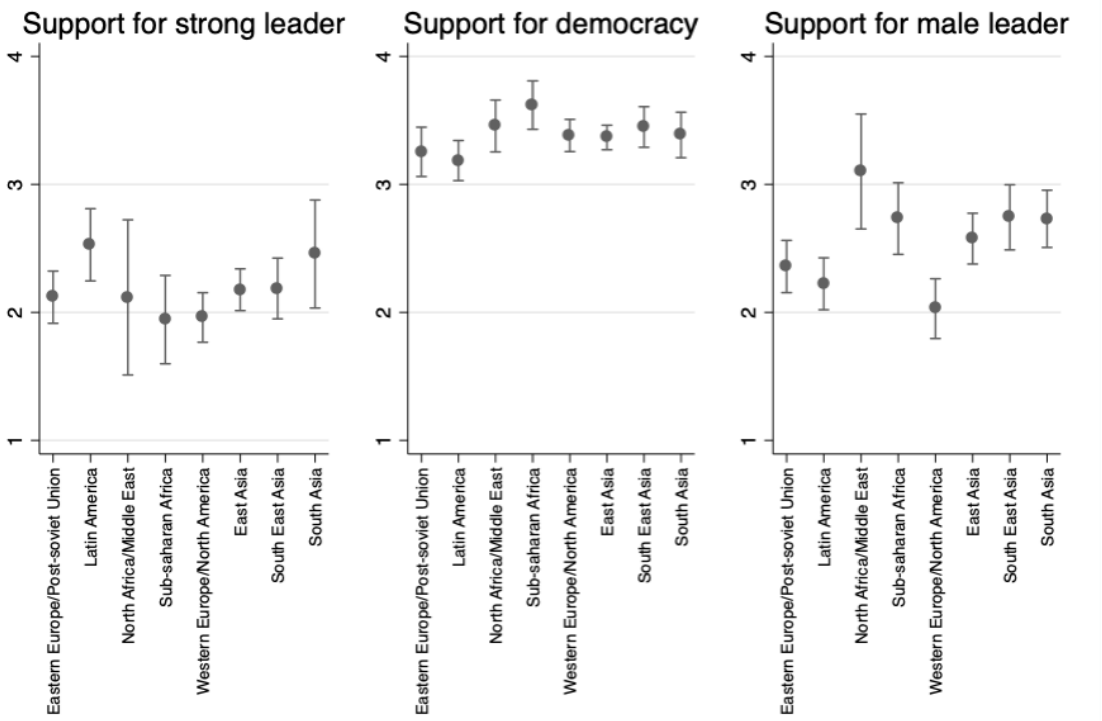
Note: Dots: means; lines +1 / -1 standard deviations around the means.

Humanity's Preferences: Location, Location, Location?

While globalizing tendencies have led some to argue that a world polity has been emerging, others have pointed to the strengthening of regional cooperation across the major world regions (Beckfield 2010). Thus, regional organizations like the EU, ASEAN, and the African Union reflect an expansion in structure and policymaking capacity to accommodate greater cross-national integration and cooperation, facilitated by common interests, but also shared political, economic, and social legacies. To see if these legacies leave a lasting impact

and shape people's preferences for democracy and leaders, we also calculated results by world region; these are shown in Figure 9.[22]

Figure 9. Preferences by World Region



Note: Dots: means; lines +1 / -1 standard deviations around the means.

The results reveal meaningful variation in political preferences across world regions, but primarily with regard to the question of the preferred kind of political leadership. The middle panel in Figure 6 shows that support for democracy is high across the board – we see some differences between Latin America at the low end and sub-Saharan Africa at the high end, but these are small, as is the variation around the means. In contrast, we see notable

[22] The variable "region of the world" is taken from the QOG dataset using the classification of Hadenius and Teorell (2007). Note that we excluded the category "Pacific" and "Caribbean" because it contains very few observations compared to the other regions and is therefore very sensitive to outliers.

differences across and variations within world regions when it comes to the other two questions. Most notably, there is greater support for the idea that men make better political leaders in North Africa and the Middle East than anywhere else in the world, and this difference is most pronounced compared to Western Europe where the average respondent is more likely to disagree. Interestingly, variation is also greatest across North Africa and the Middle East compared to the other regions.

Interestingly, Latin American respondents are also more likely to disagree with the notion that men make better political leaders, perhaps bolstered by the demonstration effect of having a number of women serve as presidents of various and big Latin American countries over the years (Argentina, Brazil, Chile, etc.). Finally, support for having a strong leader is highest in Latin America, too, alongside South Asia. Again, we speculate that this may be a function of these regions' political legacies, though there is clearly a chicken and egg issue with regard to whether these preferences are culturally embedded – exogenous – or endogenous to political developments and path-dependent.

Conclusion

What do humans think about democracy and political leaders? Moreover, does humanity agree or is it divided when it comes to these fundamental issues of governance? While these questions are both simple and important, they currently do not have solid empirical answers. In this paper, we therefore attempted to address them by developing a new empirical approach that can be used with existing data from around the world to fill in the terra incognita previously not charted by cross-national surveys and generate the average human's response to various questions about politics and democracy.

We find that humans almost universally prefer democracy as a system of government, but there are also growing signs that they are becoming more accepting of government by

strong leaders unencumbered by democratic institutions and processes. These signs are especially notable and growing in regions of the world where democracy is in danger of backsliding or hasn't fully taken hold. Citizens in many third wave democracies, for example, still face challenges from authoritarian elements. Thus, depending on their success in fending off these threats, they would hold divergent perceptions or even skepticism of democratic and liberal values.

Interestingly, attitudes about democracy, strong leaders, or the gender of political leaders vary less across people's demographic characteristics than the region of the world where respondents live. The fact that there are relatively small differences based on individual characteristics of course does not preclude the possibility that bigger differences exist across other individual characteristics or are more or less consequential within certain countries or regions. But it does suggest that, once we strip away macro-level or cultural differences, people are similar in what they believe. There seems to be a common set of beliefs about governance that divides humanity primarily by structural conditions or world region rather than differences across old and young or men and women.

A positive piece of news from our study is the confirmation of existing research that support for democracy is almost universal. Moreover, despite talk of democratic recession, it is holding steady globally and has for well over two decades. This means that democratic backsliding in specific countries has taken place within a broader context of stable global preferences for democratic government. At the same time, our results suggest that, as international politics becomes regionalized, there are distinct regional clusters of democratic preferences.

For those who advocate greater equality in politics, our findings contain both bad and good news – bad, because the data show that humans tend to lean toward the belief that men make better leaders, and this is consistent with the pattern of actual office holders we see in the

world. While there is a suggestion that the human preference regarding the gender of political leaders is changing over the past two decades, with a steady downward tick in people's expressed views that men make better political leaders, people's revealed preference for political leaders is still heavily skewed toward men.

Finally, we hope our study serves as a blueprint for future studies. On an empirical and methodological level, our approach can easily be replicated to examine other questions or specific regions of the world (including within-nation differences) where survey data may be available but are currently incomplete. It will allow researchers to fill in a number of blank spots, perhaps most obviously when specific world regions or continents are the subject of investigation. We hasten to add that this does not mean we no longer need to collect survey data; after all, our approach requires good cross-national coverage of countries and regions. Moreover, none of our computations are designed to predict future survey responses and of course cannot account for the impact of exogenous events (e.g., war, natural disasters, or regime change).

Second and on substantive grounds, while our results make no assumptions about the existence of a "global public", we can think of them as establishing a *baseline of beliefs* that members of our species hold. By providing information about how all people feel about public matters, we hope to contribute to the measurement of the human condition. Of course, one important normative question is whether thinking about people as equals – where each person has equal weight – is the right way to think about the global population in the context of an emerging global demos, or whether we should think of this global public as constituted of many national and unequal publics.

Appendix A. Wording of WVS Questions

The survey data and documentation are available at: worldvaluessurvey.org. The question wording of the specific survey questions used in the analysis is as follows:

Support for a democratic political system: "I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is: (1) very bad, (2) fairly bad, (3) fairly good, or (4) very good way of governing this country? … Having a democratic political system"

Support for strong leader: "I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is (1) very bad, (2) fairly bad, (3) fairly good, or (4) very good way of governing this country? Having a strong leader who does not have to bother with parliament and elections"

Support for male leader: "For each of the following statements, can you tell me how strongly you agree or disagree with each. Do you (1) strongly disagree, (2) disagree, (3) agree, or (4) strongly sagree? On the whole, men make better political leaders than women do"

Gender: [respondent's sex coded by observation: *male* or *female*]

Education: At what age did you (or will you) complete your full-time education, either at school or at an institution of higher education? Please exclude apprenticeships. [*NOTE: If respondent indicates to be a student, code highest level s/he expects to complete.]*
_____ (*write in age in two digits*)

Income: On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in.
(Code one number): (Lowest group) 1 2 3 4 5 6 7 8 9 10 (Highest group)

Age: This means you are _____ years old (*write in age in two digits*)

Urbanization: (*Code size of town*):
1) Under 2,000
2) 2,000 – 5,000
3) 5 – 10,000
4) 10 - 20,000
5) 20 - 50,000
6) 50 - 100,000
7) 100 - 500,000
8) 500,000 and more

Appendix B. QOG Variables Used in the Analysis (1994-2014)

Variable	N	Mean	Std. Dev.	Min	Max
Population					
Total population	7,370	3.00E+07	1.13E+08	6,237	1.36E+09
% population female	7,027	50.00	2.45	23.93	54.21
% population <14	7,027	34.88	10.45	13.06	51.62
% population >65	7,027	6.25	4.41	0.75	25.35
Highest educational attainment per age group					
Female 15-24	6,081	7.51	3.58	0.48	15.96
Female 25-34	6,081	7.20	4.00	0.21	15.57
Female 35-44	6,081	6.31	4.05	0.11	15.49
Female 45-54	6,081	5.30	3.97	0.05	15.02
Female 55-64	6,081	4.32	3.72	0.03	14.61
Female over 65	6,081	3.36	3.29	0.01	13.80
Male 15-24	6,081	7.73	2.97	1.15	15.09
Male 25-34	6,081	7.91	3.28	0.90	15.26
Male 35-44	6,081	7.35	3.40	0.57	15.23
Male 45-54	6,081	6.55	3.48	0.28	14.92
Male 55-64	6,081	5.56	3.50	0.12	14.80
Male over 65	6,081	4.47	3.34	0.05	14.16
Country development profile					
Democracy index	6,063	5.80	3.44	0.00	10.00
Corruption index	7,892	0.49	0.30	0.01	0.98
GDP per capita	3,776	13356.68	16644.16	180.41	129349.90
% pop. with telephone	5,589	15.68	18.54	0.00	132.72
% arable land	7,106	14.40	13.68	0.04	73.27
Latitude (absolute)	9,420	0.26	0.18	0.00	0.72
% rural population	7,374	50.57	24.94	0.00	97.81
% urban population	7,374	49.43	24.94	2.19	100.00
% Catholic population	9,240	34.00	36.67	0.00	99.10
% Muslim population	9,240	22.59	35.50	0.00	99.90
% Protestant population	9,240	13.05	21.08	0.00	97.80

References

Almond, Gabriel A., and Sidney Verba. 1963. *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Princeton: Princeton University Press.

Ananda, Aurelia and Damien Bol. 2020. "Does Knowing Democracy Affect Answers to Democratic Support Questions? A Survey Experiment in Indonesia." *International Journal of Public Opinion Research*, forthcoming.

Anderson, Christopher J. 2009. "Nested Citizens: Macropolitics and Microbehavior in Comparative Politics." In *Comparative Politics: Rationality, Culture, and Structure*, ed. Mark I. Lichbach and Alan S. Zuckerman. New York: Cambridge University Press.

Barnes, Samuel H., Max Kaase, et al. 1979. *Political Action: Mass Participation in Five Western Democracies*. Beverly Hills, CA: Sage.

Beck, Ulrich. 2006. *Power in the Global Age*. Cambridge, UK: Polity Press.

Beckfield, Jason. 2010. "The Social Structure of the World Polity." *American Journal of Sociology* 115 (4): 1018-68.

Bermeo, Nancy. 2016. "On Democratic Backsliding." *Journal of Democracy* 2016 (1): 5-19.

Broniecky, Philipp C., Lucas Leeman, and Reto Wuest. 2020. "Improved multilevel regression with post-stratification through machine learning (autoMrP)." *Journal of Politics*, Forthcoming.

Brunkert, Lennart, Stefan Kruse, and Christian Welzel. 2019. "A Tale of Culture-Bound Regime Evolution: The Centennial Democratic Trend and Its Recent Reversal." *Democratization* 26 (3): 422-443.

Castells, Manuel. 2008. "The New Public Sphere: Global Civil Society, Communication Networks, and Global Governance." *The Annals of the American Academy of Political and Social Science* 616 (1): 78–93.

Claassen, Christopher. 2019. "Estimating Smooth Country/year Panels of Public Opinion." *Political Analysis* 27 (1): 1-20.

Claassen, Christopher. 2020. "Does Public Support Help Democracy Survive?" *American Journal of Political Science* 64 (1): 118-34.

Dahl, Robert A. 1999. "Can International Organizations Be Democratic? A Skeptic's View", in *Democracy's Edges*, ed. Ian Shapiro and C. Hacker-Cordon. New York: Cambridge University Press.

Dahlum, Sirianne, and Carl Henrik Knutsen. 2017. "Democracy By Demand? Reinvestigating the Effect of Self-Expression Values on Political Regime Type." *British Journal of Political Science* 47 (2): 437-461.

Davidov, Eldad, Bart Meuleman, Jan Cieciuch, Peter Schmidt, and Jaak Billiet. 2014. "Measurement Equivalence in Cross-National Research." *Annual Review of Sociology* 40: 55-75.

Diamond, Larry. 2015. "Facing Up to the Democratic Recession." *Journal of Democracy* 26 (1): 147-155.

Gelman, Andrew, and Thomas C. Little. 1997. "Poststratification Into Many Categories Using Hierarchical Logistic Regression." *Survey Methodology* 23 (2): 127-35.

Guidry, John A., Michael D. Kennedy, and Mayer N. Zald. 2000. *Globalizations and Social Movements: Culture, Power, and the Transnational Public Sphere.* Ann Arbor: University of Michigan Press.

Habermas, Jürgen. 1991. *The Structural Transformation of the Public Sphere: An Inquiry Into a Category of Bourgeois Society*. Trans. Thomas Burger with Frederick Lawrence. Cambridge, MA: MIT Press.

Hale, Thomas, and Mathias Koenig-Archibugi. 2019. "Could Global Democracy Satisfy Diverse Policy Values? An Empirical Analysis." *Journal of Politics* 81 (1): 112-26.

Hibbing, John R., and Elizabeth Theiss-Morse. 2002. *Stealth Democracy: Americans' Beliefs About How Government Should Work.* New York: Cambridge University Press.

Holman, Mirya R., Jennifer L. Merolla, and Elizabeth J. Zechmeister. 2016. "Terrorist Threat, Male Stereotypes, and Candidate Evaluations." *Political Research Quarterly* 69 (1): 134-47.

Huddy, Leonie, and Nadya Terkildsen. 1993. "Gender Stereotypes and the Perception of Male and Female Candidates." *American Journal of Political Science* 37 (1): 119-147.

Inglehart, Ronald, and Pippa Norris. 2003. *Rising Tide: Gender Equality and Cultural Change Around the World*. New York: Cambridge University Press.

Inglehart, Ronald, and Christian Welzel. 2005. *Modernization, Cultural Change, And Democracy: The Human Development Sequence.* New York: Cambridge University Press.

Inglehart, Ronald. 2018. *Cultural Evolution: People's Motivations Are Changing, and Reshaping the World*. New York: Cambridge University Press.

Inglehart, Ronald, Christian Haerpfer, Alejandro Moreno, Christian Welzel, Kseniya Kizilova, Jaime Diez-Medrano, Marta Lagos, Pippa Norris, Eduard Ponarin, Bi Puranen et al. (eds.). 2014. World Values Survey: All Rounds - Country-Pooled Datafile Version: http://www.worldvaluessurvey.org/WVSDocumentationWVL.jsp. Madrid: JD Systems Institute.

Kayser, Mark Andreas, and Michael Peress. 2012. "Benchmarking Across Borders: Electoral Accountability and the Necessity Of Comparison." *American Political Science Review* 106 (3): 661-684.

Keohane, Robert O. 2002. *Power and Governance in a Partially Globalized World*. London: Routledge.

King, Gary, James Honaker, Anne Joseph, and Kenneth Scheve. 2001. "Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation." *American Political Science Review* 95 (1): 45-69.

Kirsch, Helen, and Christian Welzel. 2018. "Democracy Misunderstood: Authoritarian Notions of Democracy around the Globe." *Social Forces* https://doi.org/10.1093/sf/soy114

Kittilson, Miki Caul. 2009. "Research Resources in Comparative Political Behavior." In *The Oxford Handbook of Political Behavior,* eds. Russell J. Dalton and Hans-Dieter Klingemann. Oxford: Oxford University Press.

Kruse, Stefan, Maria Ravlik, and Christian Welzel. 2019. "Democracy Confused: When People Mistake the Absence of Democracy for Its Presence." *Journal of Cross-Cultural Psychology* 50 (3): 315-335.

Kurzman, Charles. 2014. "World Values Lost in Translation." Washington Post. September 2, online only. https://www.washingtonpost.com/news/monkey-cage/wp/2014/09/02/world-values-lost-in-translation/.

Lauderdale, Benjamin E., Delia Bailey, Jack Blumenau, Douglas Rivers. 2020. "Model-Based Pre-Election Polling for National and Sub-National Outcomes in the US and UK." *International Journal of Forecasting*. Forthcoming. Available at: https://www.jackblumenau.com/papers/mrp_polling.pdf.

Lax, Jeffrey R., and Justin H. Phillips. 2009. "How Should We Estimate Public Opinion in the States?" *American Journal of Political Science* 53 (1): 107-121.

Leeman, Lucas, and Fabio Wasserfallen. 2017. "Extending the Use and Prediction Precision of Subnational Public Opinion Estimation." *American Journal of Political Science* 61 (4): 1003-1022.

Levitsky, Steven, and Daniel Ziblatt. 2018. *How Democracies Die.* New York: Crown.

List, Christian, and Mathias Koenig-Archibugi. 2010. "Can There Be a Global Demos? An Agency-Based Approach." *Philosophy & Public Affairs* 38 (1): 76-110.

Luhmann, Niklas. 1997. *Die Gesellschaft der Gesellschaft*. Frankfurt: Suhrkamp.

Luhmann, Niklas. 2018. *Organization and Decision.* New York: Cambridge University Press.

Marshall, T.H. 1950. *Citizenship and Social Class: And Other Essays*. Cambridge: Cambridge University Press.

Mattes, R. and Mughogho, D., 2009. The limited impacts of formal education on democratic citizenship in Africa. *CSSR Democracy in Africa Research Unit Working Paper No. 255.*

Norris, Pippa. 2009. “The Globalization of Comparative Public Opinion Research.” In *The Sage Handbook of Comparative Politics*, eds. Landman, Todd and Robinson, Neil. Los Angeles: Sage Publications.

Nanz, Patrizia, and Jens Steffek. 2004. “Global Governance, Participation and the Public Sphere.” *Government and Opposition* 39 (2): 314-335.

Nye, Joseph S., and John D. Donahue, eds. 2000. *Governance in a Globalizing World.* Washington, DC: Brookings Institution Press.

Stegmueller, Daniel. 2011. “Apples and Oranges? The Problem of Equivalence in Comparative Research.” *Political Analysis* 19 (4): 471-87.

Stein, Eric. 2001. “International Integration and Democracy: No Love at First Sight.” *American Journal of International Law* 95 (3): 489-534.

Tausanovitch, Chris, and Christopher Warshaw. 2014. “Representation in Municipal Government.” *American Political Science Review* 108 (3): 605-641.

Teorell, Jan, Stefan Dahlberg, Sören Holmberg, Bo Rothstein, Natalia Alvarado Pachon, and Richard Svensson. 2019. “The Quality of Government Standard Dataset, version Jan19.” University of Gothenburg: The Quality of Government Institute. Available at: http://www.qog.pol.gu.se doi:10.18157/qogstdjan19

Volkmer, Ingrid. 2003. “The Global Network Society and the Global Public Sphere.” *Journal of Development* 46 (4): 9-16.

Zuckerman, Alan, ed. 2005. *The Social Logic of Politics*. Philadelphia: Temple University Press.

Humanity's Attitudes About Democracy and Political Leaders

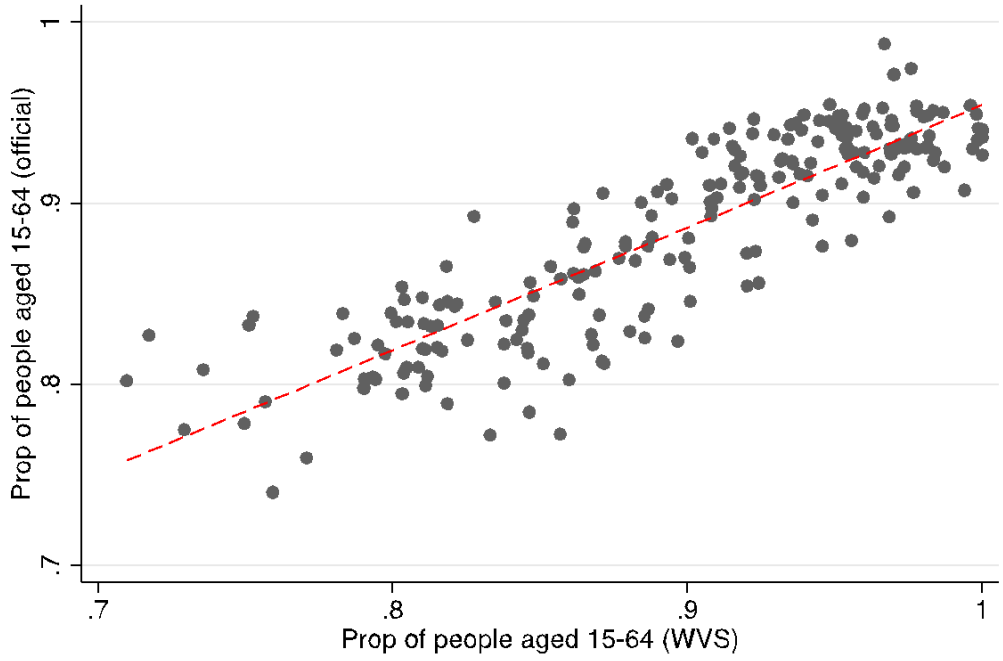
Supplementary Information

The Supplementary Information document contains estimations of the representativeness of the World Values Survey (WVS) samples (SI. A), the details of the first step (SI. B) and of the second step of our analysis (SI. C).

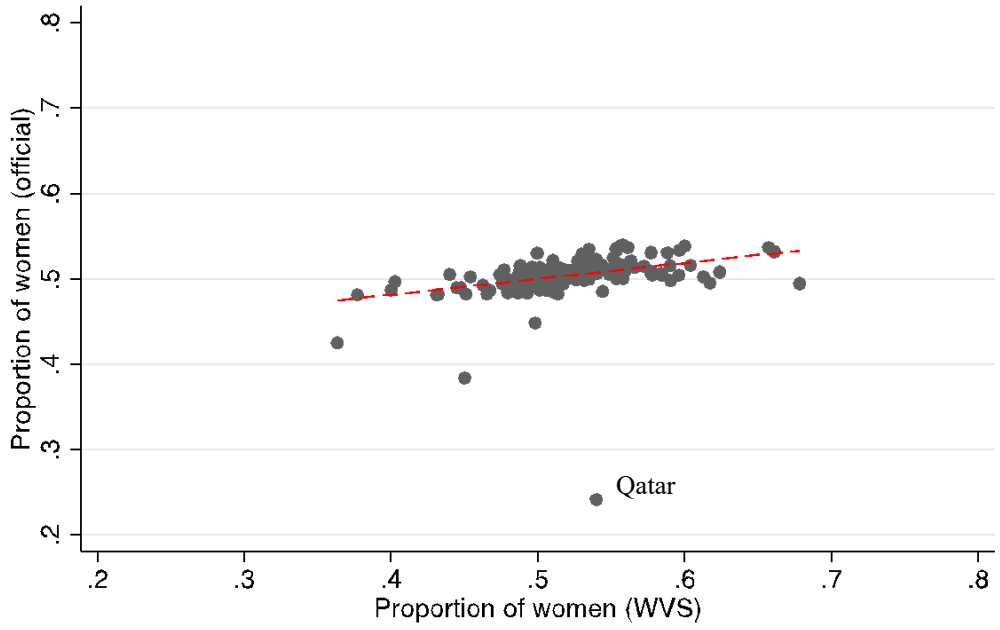
SI. A. Representativeness of WVS Samples

To establish the representativeness of the WVS samples, we examine the country and year-level correlations for key demographic categories, including age, education, and sex in the surveys (at the country/year level) on one hand and official statistics included in the QOG on the other for all countries and years for which we have data from both data sources (Figure SI.A1). The correlation for age is very high (0.87); and while the correlations are somewhat lower for sex and education, they are always in the expected direction, greater than 0.33, and commonly as high as 0.80 or above. To put these results in context, recall that the WVS and QOG measure education in a slightly different way. While the WVS measures respondents' levels of education by school-leaving age (or anticipated school-leaving age if still studying), the QOG measures the number of years spent as a student. Moreover, we find the lowest correlations for gender; these appear to be the result of very obvious inaccuracies in countries' official statistics regarding the distribution of sex in the population. According to the QOG, the proportion of females living in a country is sometimes as low as 24% (as reported in Qatar in 2010). If we remove this obvious outlier, the correlation becomes 0.52. The proportion of females as per the WVS looks much more accurate, varying between 40 and 60%.

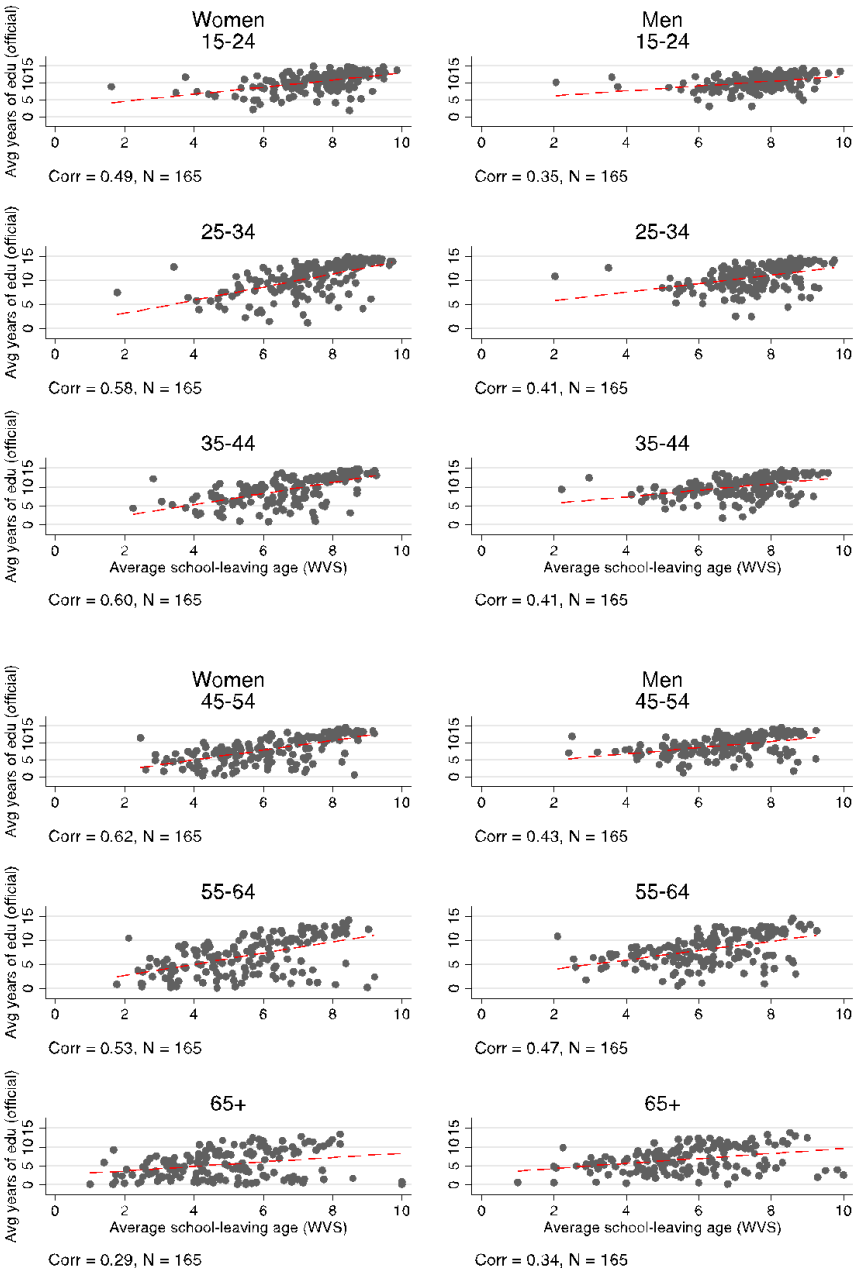
Figure SI.A1. Correlations Between WVS and Official Statistics



Corr = 0.87, N = 213



Corr = 0.33, 0.53 without Qatar
N = 216


Women
15-24
Men
15-24
25-34
25-34
35-44
35-44
45-54
Men
45-54
55-64
55-64
65+
65+
Avg years of edu (official)
Average school-leaving age (WVS)
Corr = 0.49, N = 165
Corr = 0.35, N = 165
Corr = 0.58, N = 165
Corr = 0.41, N = 165
Corr = 0.60, N = 165
Corr = 0.41, N = 165
Corr = 0.62, N = 165
Corr = 0.43, N = 165
Corr = 0.53, N = 165
Corr = 0.47, N = 165
Corr = 0.29, N = 165
Corr = 0.34, N = 165

SI. B. Details of Step 1

Table SI.B1 shows the full results of the OLS regressions presented in the main text for each of the 25 parameters of the joint distributions of the demographic characteristics (mean, standard deviations, and each combination of correlations). The most important result is that these distributions are predictable: most regressions have R^2 values greater than 0.30.

Table SI.B1a. OLS Regressions Predicting Means and Standard Deviations of Socio-Demographics

	Female		Education		Age		Urban		Income	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Total pop. (log)	-0.00**	-0.00*	-0.00	0.00	0.00**	0.00	0.00	0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Prop. pop. female	-0.00	-0.00	-0.03	0.06	0.01	0.01	-0.67***	0.16	-0.05	-0.07*
	(0.00)	(0.00)	(0.09)	(0.04)	(0.02)	(0.01)	(0.20)	(0.12)	(0.06)	(0.03)
Prop. pop. <14	-0.00	0.00	0.05	-0.03	-0.02***	-0.00	0.07*	0.01	-0.02	0.01
	(0.00)	(0.00)	(0.03)	(0.02)	(0.01)	(0.00)	(0.04)	(0.02)	(0.02)	(0.01)
Prop. pop. >65	-0.00	0.00	0.02	-0.03	0.04***	0.01	0.26**	0.00	-0.04	0.01
	(0.00)	(0.00)	(0.06)	(0.03)	(0.01)	(0.01)	(0.08)	(0.05)	(0.04)	(0.02)
Educational attainment										
Female 15-24	0.01	0.00	1.75**	-0.48	-0.22*	-0.06	1.13*	-0.38	0.42	-0.08
	(0.02)	(0.00)	(0.56)	(0.27)	(0.10)	(0.05)	(0.54)	(0.34)	(0.38)	(0.18)
Female 25-34	-0.01	-0.00	-3.65***	0.67	0.27	0.09	-2.50**	-0.11	-0.33	-0.01
	(0.02)	(0.00)	(0.82)	(0.40)	(0.14)	(0.07)	(0.93)	(0.58)	(0.58)	(0.28)
Female 35-44	-0.02	0.00	2.45*	-0.24	-0.02	-0.04	1.55	0.81	-0.85	0.22
	(0.03)	(0.00)	(1.17)	(0.56)	(0.19)	(0.10)	(1.26)	(0.78)	(0.77)	(0.37)
Female 45-54	0.05	-0.00	0.82	-0.07	-0.18	0.06	0.63	-0.81	1.51	-0.31
	(0.04)	(0.00)	(1.37)	(0.66)	(0.22)	(0.11)	(1.37)	(0.84)	(0.92)	(0.44)
Female 55-64	-0.04	0.00	-1.24	0.04	0.06	-0.05	-0.59	0.61	-0.84	-0.01
	(0.03)	(0.00)	(1.01)	(0.49)	(0.17)	(0.09)	(1.05)	(0.65)	(0.72)	(0.34)
Female over 65	0.02	-0.00*	0.24	-0.07	0.07	0.04	0.68	-0.10	0.40	0.18
	(0.01)	(0.00)	(0.45)	(0.22)	(0.08)	(0.04)	(0.51)	(0.32)	(0.33)	(0.16)
Male 15-24	-0.02	-0.00	-1.87**	0.60*	0.25*	0.04	-1.35*	0.50	-0.24	0.16
	(0.02)	(0.00)	(0.56)	(0.27)	(0.10)	(0.05)	(0.56)	(0.34)	(0.39)	(0.19)
Male 25-34	0.01	-0.00	2.34**	-0.57	-0.36*	-0.03	1.15	-0.44	-0.08	-0.04
	(0.02)	(0.00)	(0.79)	(0.38)	(0.14)	(0.07)	(0.82)	(0.51)	(0.56)	(0.27)
Male 35-44	0.05	0.00	-0.17	-0.29	0.20	0.04	1.74	0.13	0.70	-0.17
	(0.03)	(0.00)	(1.07)	(0.52)	(0.18)	(0.09)	(1.08)	(0.67)	(0.72)	(0.35)
Male 45-54	-0.09**	0.00	-1.00	0.26	-0.33	-0.17	-2.31	0.30	-0.55	0.16
	(0.03)	(0.00)	(1.08)	(0.52)	(0.19)	(0.10)	(1.23)	(0.76)	(0.77)	(0.37)
Male 55-64	0.06*	-0.01*	-0.25	0.06	0.43*	0.16	0.30	-0.16	0.33	0.02
	(0.03)	(0.00)	(0.98)	(0.48)	(0.17)	(0.09)	(1.07)	(0.66)	(0.71)	(0.34)
Male over 65	-0.02	0.01**	0.73	-0.08	-0.12	-0.08	-0.31	-0.37	-0.35	-0.06
	(0.02)	(0.00)	(0.57)	(0.27)	(0.10)	(0.05)	(0.59)	(0.36)	(0.39)	(0.19)
Democracy index	-0.00	-0.00	0.08	0.02	0.01	0.01	-0.24***	0.08	-0.01	0.01

	(0.00)	(0.00)	(0.07)	(0.03)	(0.01)	(0.01)	(0.07)	(0.04)	(0.05)	(0.02)
Corruption index	0.01	-0.00	1.20	-0.15	-0.02	-0.10	-1.19	1.31**	0.18	0.23
	(0.02)	(0.00)	(0.68)	(0.33)	(0.12)	(0.06)	(0.66)	(0.41)	(0.48)	(0.23)
GDP per capita	-0.00*	-0.00	0.00	0.00	0.00	-0.00	-0.00	0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% pop. with telephone	0.00	-0.00	0.00	-0.00	-0.01**	-0.00*	-0.02	0.02*	0.01	0.00
	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
% arable land	-0.00	0.00	-0.00	-0.00	-0.01**	-0.00	0.00	0.01	0.00	-0.00
	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
Latitude (absolute)	0.02	-0.00	-0.83	0.57	0.19	0.18	-3.35*	0.79	-1.00	-0.03
	(0.03)	(0.00)	(1.22)	(0.59)	(0.21)	(0.11)	(1.34)	(0.83)	(0.87)	(0.41)
% urban pop.	0.00	0.00	-0.00	-0.00	-0.00	0.00	0.02*	-0.01	-0.00	0.01
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
% Catholic pop.	-0.00	0.00	0.00	0.00	-0.00	0.00	0.01	0.00	-0.01	-0.00
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)
% Muslim pop.	-0.00	0.00	0.01	-0.00	0.00	0.00	0.01	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
% Protestant pop.	-0.00	0.00	0.01	-0.00	-0.00	-0.00	0.00	-0.01	0.00	0.00
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
Year	0.00*	-0.00	0.01	0.01	0.01	0.00	-0.03	-0.01	0.01	-0.01
	(0.00)	(0.00)	(0.02)	(0.01)	(0.00)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)
Constant	-2.01	0.53***	-16.41	-9.37	-7.36	-1.90	89.48*	14.40	-8.19	17.91
	(1.09)	(0.13)	(42.75)	(20.63)	(6.74)	(3.41)	(39.91)	(24.64)	(27.74)	(13.27)
Observations	166	166	140	140	166	166	115	115	163	163
R-squared	0.41	0.19	0.44	0.42	0.86	0.68	0.60	0.38	0.30	0.31

Note: Entries are coefficient estimates from OLS regressions. Standard errors are in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

Table SI.B1b. OLS Regressions Predicting Correlations of Socio-Demographics

	Female x Education	Female x Age	Female x Urban	Female x Income	Education x Age	Education x Urban	Education x Income	Age x Urban	Age x Income	Urban x Income
Total pop. (log)	0.00*	-0.00	-0.00	-0.00	0.00**	0.00	-0.00**	0.00**	0.00***	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Prop. pop. female	-0.01	0.00	-0.01	0.00	-0.01	-0.01	-0.01	0.02	0.01*	-0.03
	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)
Prop. pop. <14	0.00	-0.00	-0.00	-0.00***	0.01**	0.00	-0.00	0.00	0.01*	-0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Prop. pop. >65	0.01	-0.00	-0.00	-0.00	0.01	0.02*	0.00	0.00	-0.00	0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
Educational attainment										
Female 15-24	0.00	-0.07**	-0.01	-0.03	0.02	-0.10	-0.11*	0.05	0.05	-0.07
	(0.03)	(0.02)	(0.02)	(0.02)	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.07)
Female 25-34	0.09	0.04	-0.02	-0.01	0.05	0.02	-0.09	-0.02	0.03	0.01
	(0.05)	(0.04)	(0.03)	(0.03)	(0.08)	(0.10)	(0.07)	(0.06)	(0.05)	(0.12)
Female 35-44	-0.04	0.02	0.07	0.01	-0.15	0.18	0.21*	-0.01	-0.09	-0.04
	(0.06)	(0.05)	(0.04)	(0.04)	(0.10)	(0.13)	(0.10)	(0.09)	(0.07)	(0.16)
Female 45-54	0.02	-0.03	-0.09	-0.00	0.03	-0.24	-0.14	0.08	0.11	-0.02
	(0.08)	(0.06)	(0.05)	(0.05)	(0.13)	(0.14)	(0.12)	(0.09)	(0.09)	(0.18)
Female 55-64	-0.02	0.01	0.10**	0.03	0.08	0.15	0.04	-0.03	-0.08	0.09
	(0.06)	(0.04)	(0.04)	(0.04)	(0.09)	(0.11)	(0.09)	(0.07)	(0.07)	(0.13)
Female over 65	0.01	0.00	-0.05**	-0.02	0.00	-0.04	0.02	-0.03	0.02	-0.03
	(0.02)	(0.02)	(0.02)	(0.02)	(0.04)	(0.05)	(0.04)	(0.03)	(0.03)	(0.06)
Male 15-24	0.00	0.06*	0.00	0.03	-0.08	0.11	0.12*	-0.07	-0.09*	0.08
	(0.03)	(0.02)	(0.02)	(0.02)	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.08)
Male 25-34	-0.08	-0.01	0.03	0.01	-0.03	-0.20*	-0.02	0.07	0.12*	-0.13
	(0.05)	(0.04)	(0.03)	(0.03)	(0.08)	(0.09)	(0.07)	(0.06)	(0.06)	(0.11)
Male 35-44	0.04	0.00	-0.07	0.02	0.03	0.19	-0.01	-0.09	-0.11	0.28
	(0.06)	(0.05)	(0.04)	(0.04)	(0.10)	(0.11)	(0.09)	(0.07)	(0.07)	(0.15)
Male 45-54	-0.02	-0.04	0.08	-0.06	0.21*	-0.01	-0.08	0.11	0.03	-0.21
	(0.06)	(0.05)	(0.04)	(0.04)	(0.10)	(0.13)	(0.10)	(0.08)	(0.08)	(0.17)
Male 55-64	-0.02	0.05	-0.04	0.02	-0.18	-0.11	0.12	-0.10	0.01	0.06
	(0.06)	(0.04)	(0.04)	(0.04)	(0.09)	(0.13)	(0.09)	(0.07)	(0.07)	(0.14)
Male over 65	0.03	-0.04	0.00	-0.01	0.01	0.05	-0.07	0.04	-0.02	-0.01

	(0.03)	(0.02)	(0.02)	(0.02)	(0.05)	(0.07)	(0.05)	(0.04)	(0.04)	(0.08)
Democracy index	0.00	-0.00	-0.00	-0.00	-0.01	0.02*	-0.00	-0.00	0.00	0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)
Corruption index	-0.01	-0.01	-0.02	-0.03	0.02	0.22**	-0.02	-0.07	0.05	0.16
	(0.04)	(0.03)	(0.02)	(0.03)	(0.06)	(0.08)	(0.06)	(0.05)	(0.05)	(0.09)
GDP per capita	-0.00	0.00	0.00	-0.00	0.00	-0.00	-0.00	0.00**	0.00**	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% pop. with telephone	-0.00	-0.00*	-0.00	-0.00**	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% arable land	0.00	0.00	-0.00	-0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Latitude (absolute)	-0.06	0.04	0.05	-0.03	-0.24*	-0.09	0.21	-0.14	-0.02	-0.06
	(0.07)	(0.05)	(0.05)	(0.05)	(0.11)	(0.15)	(0.11)	(0.09)	(0.09)	(0.18)
% urban pop.	0.00	0.00***	-0.00	0.00	-0.00	-0.00	0.00	-0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% Catholic pop.	0.00	-0.00	0.00	-0.00	-0.00	0.00	0.00	0.00	-0.00*	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% Muslim pop.	0.00*	-0.00**	0.00	0.00	0.00	0.00	-0.00	0.00*	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% Protestant pop.	0.00**	0.00	-0.00	0.00	0.00	0.00	-0.00**	-0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Year	0.00	0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	-1.73	-2.22	2.93*	0.81	-5.76	2.33	6.30	1.60	-0.22	1.90
	(2.48)	(1.70)	(1.36)	(1.58)	(4.11)	(5.08)	(3.91)	(2.67)	(2.76)	(5.37)
Observations	124	166	108	148	124	81	112	108	148	96
R-squared	0.47	0.43	0.46	0.46	0.70	0.59	0.54	0.44	0.50	0.38

Note: Entries are coefficient estimates from OLS regressions. Standard errors are in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

Next, we conduct a series of out-of-sample tests to verify the assumption that the OLS regressions can accurately predict the parameters of the joint distributions for countries and years *not* included in the regression. To do so, we randomly select a subset of countries among countries included in the WVS. We call this subset the test sample (N = 30 countries). We then examine whether the regression is capable of retrieving the right value of the parameters (that we have because these countries are included in the WVS). To minimize the probability that the results are due to chance, we run a Monte Carlo simulation that reproduced the same out-of-sample exercise 20 times on 20 different and randomly generated test samples. Table SI.B2 presents the results of these 20 tests. It shows the average difference between the prediction and the actual values in the test samples for each of the 20 parameters of the joint distributions is very small. For means and standard deviations, that are in percentage, it is never larger than half of a percent. For correlations, that vary between -1 and 1, it is rarely larger than 0.03 in absolute values. This means that the OLS regressions are able to recollect the value of parameters even for countries not included in the regression.

Table SI.B2. Results of the out-of-sample tests (humanity dataset)

Parameters	Average difference over 20 simulations
Female (mean)	0.01 (0.02)
Female (standard deviation)	<0.01 (<0.01)
Education (mean)	-0.29 (0.81)
Education (standard deviation)	0.04 (0.16)
Age (mean)	-0.01 (0.10)
Age (standard deviation)	0.02 (0.04)
Urbanization (mean)	0.48 (0.99)
Urbanization (standard deviation)	-0.14 (0.27)
Income (mean)	0.19 (0.23)
Income (standard deviation)	-0.03 (0.16)
Female x Education (correlation)	0.02 (0.02)
Female x Age (correlation)	0.02 (0.02)
Female x Urbanization (correlation)	0.08 (0.08)
Female x Income (correlation)	0.01 (0.01)
Education x Age (correlation)	0.10 (0.14)
Education x Urbanization (correlation)	0.03 (0.06)
Education x Income (correlation)	0.06 (0.06)
Age x Urbanization (correlation)	0.06 (<0.01)
Age x Income (correlation)	<0.01 (0.02)
Urbanization x Income (correlation)	-0.01 (0.03)

Note: Entries are means. Standard deviations are in parentheses.

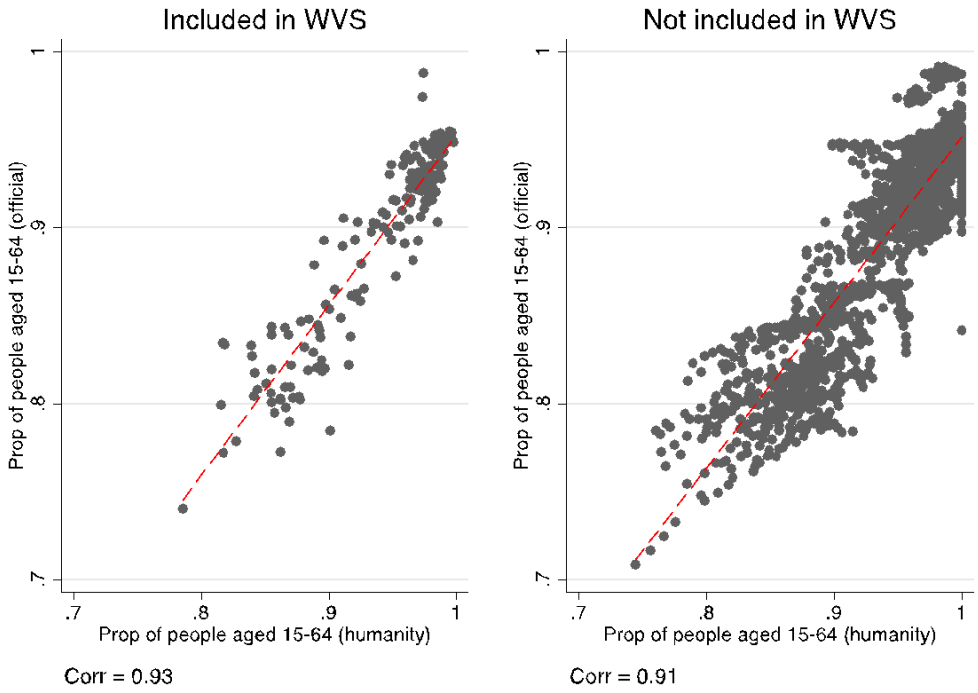
To further test the reliability of the humanity dataset, we examine the correlations between the proportion of age categories, sex, and education level (by sex and age cohort at the country/year level) in the humanity dataset on one hand and official statistics included in the QOG dataset on the other (Table SI.B3). We compare official statistics with the humanity dataset, separating countries covered by the WVS (and are thus used to estimate the regressions used to create the humanity dataset) and those that are not. For illustration, we show the full scatter plot for one of these correlations in Figure SI.B1. Overall, the correlations for the different age categories are very high, both for country/years included in the WVS and for those that are not (between 0.91 and 0.93). In addition and perhaps more importantly, the correlations are virtually identical for countries covered and not covered by the WVS.

Table SI.B3. Correlation Between Humanity Dataset and Official Statistics

	Countries and Years Included in the WVS	Countries and Years Not included in the WVS
Proportion of females	0.29	0.22
Educational attainment		
Female 15-24	0.65	0.41
Female 25-34	0.62	0.32
Female 35-44	0.56	0.27
Female 45-54	0.43	0.15
Female 55-64	0.35	0.07
Female over 65	0.32	0.00
Male 15-24	0.58	0.28
Male 25-34	0.53	0.20
Male 35-44	0.43	0.11
Male 45-54	0.38	0.00
Male 55-64	0.27	-0.04
Male over 65	0.08	-0.11

Note: Entries are coefficients of correlation.

Figure SI.B1. Correlations Between Humanity Dataset and Official Statistics (Illustrations)



Note: Left panel includes countries and years covered by the WVS. Right panel includes countries and years not covered by the WVS.

As a final and perhaps more intuitive example of evidence for the quality of our humanity dataset, we report key correlations between socio-demographic variables from four selected countries: Mozambique, Nigeria, Belgium and the Netherlands (Table SI.B4). The first two share low UN Human Development Index scores, whereas the latter two score highly on the index. Also, note that one country in each group is covered by the WVS (Nigeria and Netherlands), whereas the other is not (Mozambique and Belgium). We can thus compare them to evaluate how good the simulation of the humanity dataset is.

We show correlations that relate to the state of equal opportunities since we have strong priors regarding the differences between low and high human development-countries. The results, shown in Table SI.B4, show that opportunities are more equal in Belgium and the Netherlands than in Mozambique and Nigeria, with education negatively correlated with female in the former (between -0.10 and -0.12) and zero in the former (-0.04). Similarly, the correlations between urban residence and income are much stronger in the low development countries (between 0.17 and 0.18) than in the others (between 0.04 and 0.07). Note however, that the correlation between education and income is similar across all four countries (between 0.24 and 0.33). Overall, these analyses provide support for the quality of the humanity dataset, and especially the quality of the synthetic samples relative to those covered by the WVS.

Table SI.B4. Correlations in Humanity Dataset for Selected Countries

	Mozambique (Not in WVS)	**Nigeria** (WVS)	**Belgium** (Not in WVS)	**Netherlands** (WVS)
Female and Education	-0.12	-0.10	-0.04	-0.04
Income and Education	0.24	0.25	0.33	0.27
Urban and Income	0.18	0.17	0.07	0.04

Note: Entries are coefficients of correlations.

To conclude, Table SI.B5 describes the humanity dataset. It shows the mean and standard deviation (sd) of the five socio-demographic characteristics, as well as their correlations. Given that there are around 4.25 billion human beings over the age of 15 in the countries covered in the analysis (~90% of the world's population), and given that each line in our dataset represents 10,000 individuals and that we cover 20 years, the number of observations is around 8.5 million. The table reveals some important patterns in the correlations between the socio-demographic characteristics. First and unsurprisingly, the strongest correlations are between education and age (-0.16), and education and income (0.25). Second, urban residence is positively correlated with levels of education and income (0.13 and 0.12, respectively). Finally, female is not correlated with any of the other variables except for education (-0.05). The lack of a correlation between the variables "female" and "income" is likely due to the fact that income is measured at the level of households rather than individuals. Overall, the descriptive statistics of humanity confirm conventional wisdom regarding the distribution of socio-demographics in the world. This is the first piece of evidence of the validity of our simulation.

Table SI.B5. Summary of Socio-Demographic Variables in the Humanity Dataset

	Female	**Education**	**Age**	**Urban**	**Income**
Female (0-1) Mean=0.49, sd=0.50	1.00				
Education (1-10) Mean=6.20, sd=2.68	-0.05	1.00			
Age (1-6) Mean=3.12, sd=1.39	-0.02	-0.16	1.00		
Urban (1-6) Mean=4.66, sd=1.56	0.01	0.12	0.02	1.00	
Income (1-10) Mean=4.58, sd=2.04	-0.01	0.25	-0.03	0.11	1.00

Note: Entries are correlation coefficients.

SI. C. Generating Responses of Synthetic Sample Respondents

Table SI.C1 presents the results of the multi-level OLS regressions presented in the main text. Note that in order to reduce the influence of outliers, we used the logarithmic transformation for the two variables that are not strictly bounded and that have extreme values (population and GDP). Note also that we excluded 'don't know' responses. As expected, a number of covariates achieve statistical significance. These include, for instance, a country's level of democracy and transparency, both of which are positively associated with support for democracy. While most coefficients are not statistically different from zero, we draw two inferences from these regressions. First, the coefficients that are significant are in the expected direction. Second, and most importantly, perhaps, recall that the aim of the regressions is not to look for significant coefficients but to see if we can use information about countries and respondents to predict opinions both in the countries and years for which we have survey data and those for which we do not.

Thus, while some covariates fail to achieve statistical significance, this does not mean that they should be removed from the model. Many covariates are correlated with one another (most correlations are stronger than 0.30). For example, the covariates that measure education, by sex and cohort (average years of education for females between 15-24, females between 25-34, and so on) are expected to be correlated, as schooling patterns in the same country tend to be similar from one cohort to the other. The same is true for other covariates that are related to human development (GDP, access to telephone land lines, corruption, and so on). Because of multicollinearity, standard errors are large, and this prevents coefficients from achieving significance (the variance inflated index of all covariates with the exception of year and the individual socio-demographics is larger than 2). However, since we do not seek to draw inferential conclusion from the coefficients – coefficients are only useful here to make prediction about the dependent variable – the model includes all covariates.

Table SI.C1. Multilevel OLS Regressions Predicting Responses to Survey Questions

	Strong Leader	Democracy	Male Leaders
Total pop. (log)	0.05*	-0.06***	0.04*
	(0.02)	(0.01)	(0.02)
% pop. female	-0.12*	0.01	0.11***
	(0.06)	(0.03)	(0.02)
% pop. <14	-0.00	0.01*	0.01
	(0.01)	(0.00)	(0.01)
% pop. >65	-0.03*	0.04***	-0.03**
	(0.02)	(0.01)	(0.01)
Educational attainment			
Female 15-24	-0.55**	0.14*	0.01
	(0.18)	(0.07)	(0.09)
Female 25-34	0.48*	-0.09	-0.17
	(0.24)	(0.09)	(0.15)
Female 35-44	0.06	-0.28	0.21
	(0.48)	(0.14)	(0.20)
Female 45-54	-0.06	0.36*	-0.27
	(0.54)	(0.15)	(0.19)
Female 55-64	0.26	-0.23	0.33
	(0.33)	(0.13)	(0.17)
Female over 65	-0.20	0.08	-0.20*
	(0.12)	(0.06)	(0.09)
Male 15-24	0.25	-0.05	-0.08
	(0.17)	(0.06)	(0.10)
Male 25-34	0.03	0.04	0.42**

	(0.18)	(0.08)	(0.13)
Male 35-44	-0.31	0.14	-0.31
	(0.36)	(0.14)	(0.18)
Male 45-54	0.35	-0.30	0.09
	(0.32)	(0.17)	(0.23)
Male 55-64	-0.57*	0.34*	0.03
	(0.24)	(0.14)	(0.21)
Male over 65	0.21	-0.15*	0.02
	(0.13)	(0.06)	(0.14)
Democracy index	-0.02	0.02*	-0.02
	(0.02)	(0.01)	(0.01)
Corruption index	-0.31	0.20	0.01
	(0.17)	(0.11)	(0.12)
GDP per capita	0.13	-0.06	0.01
	(0.11)	(0.05)	(0.07)
% pop. with telephone	-0.01	0.01**	-0.01**
	(0.00)	(0.00)	(0.00)
% arable land	0.01*	-0.00	0.00
	(0.00)	(0.00)	(0.00)
Latitude (absolute)	-0.73*	-0.17	-0.21
	(0.30)	(0.15)	(0.23)
% urban pop.	0.01**	-0.00*	0.00
	(0.00)	(0.00)	(0.00)
% Catholic pop.	-0.00**	-0.00	-0.00**
	(0.00)	(0.00)	(0.00)
% Muslim pop.	-0.01**	0.00	0.01***
	(0.00)	(0.00)	(0.00)
% Protestant pop.	-0.01***	0.00	-0.00*
	(0.00)	(0.00)	(0.00)
Year	0.01**	0.00	-0.01**
	(0.00)	(0.00)	(0.00)
Female	-0.01	-0.03***	-0.28***
	(0.01)	(0.01)	(0.01)
Education	-0.02***	0.02***	-0.02***
	(0.00)	(0.00)	(0.00)
Age	-0.02***	0.03***	0.02***
	(0.00)	(0.00)	(0.00)
Urban	-0.01	0.01	-0.00
	(0.00)	(0.00)	(0.00)
Income	-0.01	0.01**	-0.02***
	(0.01)	(0.00)	(0.00)
Constant	-18.31*	2.23	15.23*
	(9.10)	(5.57)	(6.65)
Observations	89,913	100,221	104,384
R-squared	0.11	0.07	0.23

Note: Entries are coefficient estimates from OLS regressions. Standard errors clustered by country/year are in parentheses. *p<0.1, **p<0.05, p<0.01.

We perform three sets of checks of the accuracy of the simulation. We examine the capacity of the regression model to predict the correct answers, first for the sample of countries and respondents included in the regression (in-sample prediction test), and second for a sample of countries and respondents *not* included in the regression (out-of-sample prediction test). For this latter step, we randomly select a subset of countries. We call this subset the test sample (N = 30 countries, representing around 35,000 respondents). We examine whether the regression is capable of retrieving the right answers of the respondents of the test sample. To minimize

the probability that the results are simply due to chance, we ran a Monte Carlo simulation that reproduced the same out-of-sample exercise 20 times on 20 different and randomly generated test samples. Each time, we compared the results to the results of an empty regression (i.e. without covariates, nor time trend), which served as a benchmark. The empty regression model is a relevant benchmark because it produces predictions for countries and years not covered by the WVS that are exactly the same as the average of the covered countries and years. Hence, it is akin to the researcher simply looking at the average support for democracy and preference for political leadership in the WVS dataset, and inferring that this represents what humanity thinks. Third, we examine the correlations between our predictions at the country level and estimates of support from democracy and strong leaders in other data.

Table SI.C2 presents the in-sample prediction. For both the full and empty model (the full model is the multilevel OLS regression with the covariates presented above), we report the actual and predicted values of the respondents for all WVS respondents. The mechanics of the OLS regression produce an average prediction that is always the same as the average value in the sample, even for the empty model. However, the standard deviation contains important variation since the standard deviation of the predicted values of the empty model is 0 by definition. We see that the standard deviation is larger and closer to the actual one in the full model, suggesting that these predictions are more accurate.

Table SI.C2 also shows the difference between the actual and predicted values by respondent. This can be seen as an indicator of the performance of the models. Again, the mechanics of the OLS regression produce an average difference that is always 0. However, because the standard deviation is smaller for the full model than for the empty one, we can conclude that the full model is substantially better at in-sample prediction. This is true for all three WVS questions we examine.

Table SI.C2. In-Sample Prediction Test

	Strong Leader	Democracy	Male Leader
Actual values	2.14 (1.00)	3.40 (0.73)	2.48 (0.98)
Predicted values (full model)	2.14 (0.33)	3.40 (0.19)	2.48 (0.47)
Predicted values (empty model)	2.14 (0.00)	3.40 (0.00)	2.48 (0.00)
Difference actual and predicted values (full)	0.00 (0.94)	0.00 (0.86)	0.00 (0.70)
Difference actual and predicted values (empty)	0.00 (1.00)	0.00 (0.98)	0.00 (0.73)

Note: Entries are means. Standard deviations are in parentheses.

While in-sample validation is important, out-of-sample validation is the key criterion for the purpose of this analysis. Table SI.C3 reports the same statistics for one of the Monte Carlo out-of-sample simulations. For illustration, we show the results of simulation n°12. In this simulation, both the full and empty models are good at predicting answers in the test sample. The predicted values are generally very close to the actual values, although the standard deviation is always smaller. The difference at the individual level is also very small: smaller than 0.10 on average, with a standard deviation smaller than 1.00. In this particular test (simulation n°12), the full model performs substantially better than the empty one for two out of three WVS questions (support for strong leader and support for male leader). The difference at the individual level is negligible with regard to the former, and larger with regard to the latter (though still very small).

Table SI.C3. Out-Of-Sample Prediction Test (Simulation n°12)

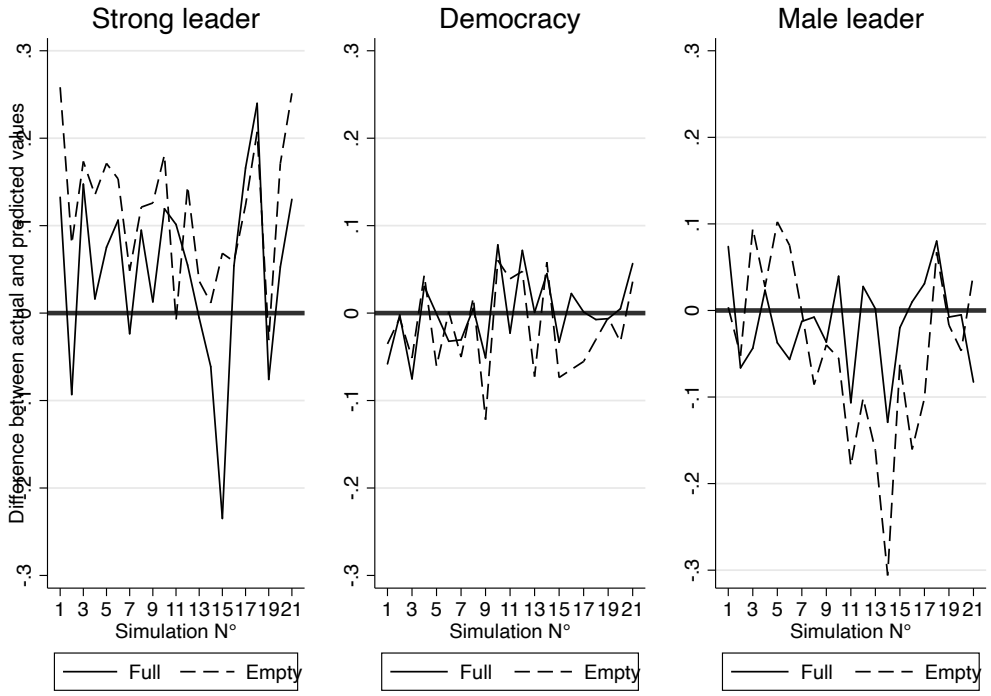
	Strong leader	Democracy	Male leader
Actual values	2.24 (0.99)	3.44 (0.70)	2.41 (0.96)
Predicted values (full model)	2.18 (0.42)	3.37 (0.23)	2.39 (0.43)
Predicted values (empty model)	2.09 (0.00)	3.38 (0.00)	2.52 (0.00)
Difference actual and predicted values (full)	0.05 (0.99)	0.05 (0.70)	0.03 (0.91)
Difference actual and predicted values (empty)	0.15 (0.90)	0.07 (0.68)	-0.10 (0.96)

Note: Entries are means. Standard deviations are in parentheses.

We present the comprehensive results of all of our out-of-sample predictions tests in Figure SI.C1. For each WVS question, there are two lines: a solid line for the full model and a dashed line for the empty one. Each represents the average individual level difference between actual and predicted values, averaged across all 20 Monte Carlo simulations. Three patterns stand out. First, the dashed lines are further away from 0 than the solid lines, indicating that the full model performs better than the empty model for all three WVS questions. While this difference varies between negligible and substantial, it is noticeable and consistent.

Second, there are a few exceptions to this pattern: the empty model occasionally performs better than the full one. However, in these rare instances, the difference is extremely small. Third, the full model is always the safest choice: its predictions are very close to the actual values and systematically so, whereas the empty model sometimes provides good predictions, but occasionally goes very wrong. Hence, using the full model is clearly the best strategy for deriving accurate out-of-sample predictions.

Figure SI.C1. Out-Of-Sample Prediction Tests, All 20 Simulations



The out-of-sample tests randomly exclude 30 countries to form the test sample. Because this exclusion is random, the covariates are necessarily balanced between the training and test samples. In particular, they have similar means and standard deviations. We already know that the full model performs well in this situation, but not whether it would perform well if the

covariates were imbalanced. Predictions on extreme counterfactuals (i.e., observations for which the value of covariates is very different from those in the sample) is always hazardous and not especially accurate (King and Zeng 2006). In Table SI.C4, we report difference tests in mean and standard deviation of the QOG variables of the full model. Each time, we compare the countries covered in the WVS (at least once) and those not covered for the period 1994-2014. Results show that the difference is often very small when we consider the full range of the variable.

Table SI.C4. Differences in Means and Standard Deviations For Countries Included and Not Included in the WVS

	Strong Leader			Democracy			Male Leader				
	Not included	Included	Diff.	Not included	Included	Diff.	Not included	Included	Diff.	Min.	Max.
Total pop. (log)	14.43	16.56	-2.13	14.32	16.62	-2.30	14.30	16.59	-2.29	9.13	21.03
	(2.21)	(1.57)	(0.64)	(2.11)	(1.62)	(0.49)	(2.11)	(1.63)	(0.48)		
% pop. female	49.55	50.51	-0.96	49.57	50.47	-0.90	49.84	50.19	-0.35	23.93	54.21
	(3.29)	(1.89)	(1.40)	(3.32)	(1.89)	(1.43)	(2.57)	(2.90)	(-0.33)		
% pop. <14	35.71	26.99	8.72	35.80	29.09	8.70	35.98	27.10	8.88	13.06	50.68
	(9.45)	(10.18)	(-0.73)	(9.50)	(10.12)	(-0.62)	(9.43)	(10.09)	(-0.66)		
% pop. >65	5.27	9.07	-3.80	5.29	8.97	-3.69	5.36	8.82	-3.46	0.75	25.35
	(3.78)	(5.28)	(-1.50)	(3.82)	(5.26)	(-1.44)	(3.83)	(5.30)	(-1.47)		
Female 15-24	7.79	9.84	-2.05	7.89	9.80	-2.01	7.76	9.79	-2.03	1.07	15.96
	(3.36)	(2.92)	(0.44)	(3.38)	(2.92)	(0.46)	(3.40)	(2.90)	(0.50)		
Female 25-34	7.22	9.96	-2.74	7.24	9.88	-2.64	7.21	9.84	-2.63	0.48	15.57
	(3.69)	(3.53)	(0.16)	(3.71)	(3.55)	(0.16)	(3.75)	(3.52)	(0.23)		
Female 35-44	6.17	9.10	-2.93	6.21	9.00	-2.79	6.21	8.94	-2.74	0.35	15.49
	(3.72)	(3.81)	(-0.09)	(3.74)	(3.83)	(-0.09)	(3.77)	(3.82)	(-0.05)		
Female 45-54	5.02	7.97	-2.95	5.07	7.85	-2.78	5.08	7.78	-2.71	0.16	15.02
	(3.68)	(3.95)	(-0.27)	(3.70)	(3.99)	(-0.29)	(3.72)	(3.99)	(-0.27)		
Female 55-64	3.99	6.65	-2.66	4.05	6.53	-2.49	4.07	6.46	-2.39	0.06	14.61
	(3.50)	(3.89)	(-0.39)	(3.52)	(3.93)	(-0.41)	(3.54)	(3.93)	(-0.39)		
Female over 65	3.07	5.16	-2.09	3.12	5.07	-1.95	3.17	4.98	-1.82	0.02	13.80
	(3.16)	(3.59)	(-0.43)	(3.18)	(3.61)	(-0.43)	(3.19)	(3.62)	(-0.43)		
Male 15-24	7.98	9.75	-1.77	7.96	9.73	-1.77	7.94	9.72	-1.77	2.16	15.09
	(2.61)	(2.40)	(0.21)	(2.62)	(2.39)	(0.23)	(2.63)	(2.38)	(0.25)		
Male 25-34	8.03	10.26	-2.23	8.02	10.22	-2.19	9.80	10.19	-2.20	1.72	15.26
	(2.77)	(2.77)	(0.00)	(2.79)	(2.76)	(0.03)	(2.80)	(2.75)	(0.05)		
Male 35-44	7.42	9.79	-2.37	7.42	9.73	-2.30	7.40	9.70	-2.30	1.12	15.23
	(2.90)	(3.00)	(-0.09)	(2.93)	(3.00)	(-0.07)	(2.95)	(2.98)	(-0.03)		
Male 45-54	6.50	9.02	-2.51	6.52	8.94	-2.42	6.51	8.90	-2.39	0.59	14.92
	(3.03)	(3.23)	(-0.20)	(3.06)	(3.23)	(-0.17)	(3.09)	(3.21)	(-0.12)		
Male 55-64	5.37	7.92	-2.56	5.40	7.84	-2.44	5.39	7.79	-2.40	0.25	14.80
	(3.17)	(3.40)	(-0.23)	(3.20)	(3.41)	(-0.21)	(3.22)	(3.39)	(-0.17)		
Male over 65	4.21	6.51	-2.31	4.24	6.43	-2.19	4.25	6.37	-2.11	0.10	14.16

	(3.12)	(3.41)	(-0.29)	(3.15)	(3.42)	(-0.27)	(3.18)	(3.41)	(-0.23)		
Democracy index	6.24	6.80	-0.56	6.25	6.77	-0.51	6.37	6.63	-0.26	0	10
	(3.31)	(2.99)	(0.33)	(3.31)	(2.99)	(0.32)	(3.24)	(3.10)	(0.14)		
Corruption index	0.58	0.49	0.09	0.58	0.50	0.09	0.59	0.50	0.09	0.01	0.98
	(0.29)	(0.31)	(-0.08)	(0.29)	(0.30)	(-0.01)	(0.29)	(0.30)	(-0.01)		
GDP per capita	8.51	9.12	-0.61	8.50	9.11	-0.60	8.46	9.14	0.69	5.20	11.77
	(1.32)	(1.09)	(0.22)	(1.33)	(1.09)	(0.24)	(1.29)	(1.11)	(0.18)		
% pop. with telephone	14.99	22.55	-7.55	15.03	22.34	-7.32	14.96	22.25	-7.30	0	132.72
	(19.92)	(18.37)	(1.55)	(20.03)	(18.32)	(1.71)	(20.22)	(18.14)	(2.08)		
% arable land	11.92	17.40	-5.48	11.51	17.72	-6.21	11.73	17.37	-5.64	0.04	64.95
	(12.29)	(14.29)	(-2.00)	(11.65)	(14.65)	(-3.00)	(11.68)	(14.69)	(-3.01)		
Latitude (absolute)	0.22	0.31	-0.09	0.22	0.31	-0.09	0.22	0.31	-0.09	0	0.72
	(0.17)	(0.19)	(-0.02)	(0.17)	(0.18)	(-0.01)	(0.17)	(0.18)	(-0.01)		
% urban pop.	48.10	61.79	-13.69	48.10	61.48	-13.37	47.27	62.07	-14.81	7.01	100
	(23.80)	(20.74)	(3.06)	(23.89)	(20.80)	(3.09)	(23.37)	(21.00)	(2.37)		
% Catholic pop.	34.18	33.75	0.43	34.96	32.78	2.18	35.78	31.86	3.91	0	99.10
	(36.10)	(37.44)	(-1.34)	(36.15)	(37.30)	(-1.15)	(36.18)	(37.16)	(-0.98)		
% Muslim pop.	21.38	24.21	-2.83	20.60	25.10	-4.50	18.81	27.12	-8.30	0	99.9
	(34.62)	(36.61)	(-1.20)	(34.00)	(37.18)	(-3.18)	(32.35)	(38.49)	(-6.14)		
% Protestant pop.	14.19	11.53	2.66	14.51	11.20	3.30	14.84	10.90	3.94	0	97.8
	(21.38)	(20.60)	(0.78)	(21.52)	(20.38)	(1.14)	(21.67)	(20.16)	(1.51)		

Note: Entries are means. Standard deviations in parentheses.

We also test the accuracy of the predictions by comparing them to survey data from other sources. To do so, we rely on data from the Global Barometer (2018), an international survey project similar to the WVS but with much more limited coverage (it covers Africa, and Asia, and Latin America and only for the period from 2005 to 2013). To validate our estimates of what humanity thinks about democracy, we examine average levels of support for democracy and a strong, undemocratic leader in our humanity dataset and the Global Barometer (2018). Table SI.C5 shows the mean levels of support across the two data sources for the countries included in both. The results show that, although the data come from two completely different datasets, average support for strong leader and democracy are remarkably similar. The country-by-country difference is very small, especially in the case of support for democracy (on average 0.06, with a standard deviation of 0.20).[23]

Table SI.C5. Comparing Support: Humanity Dataset and Global Barometer Surveys

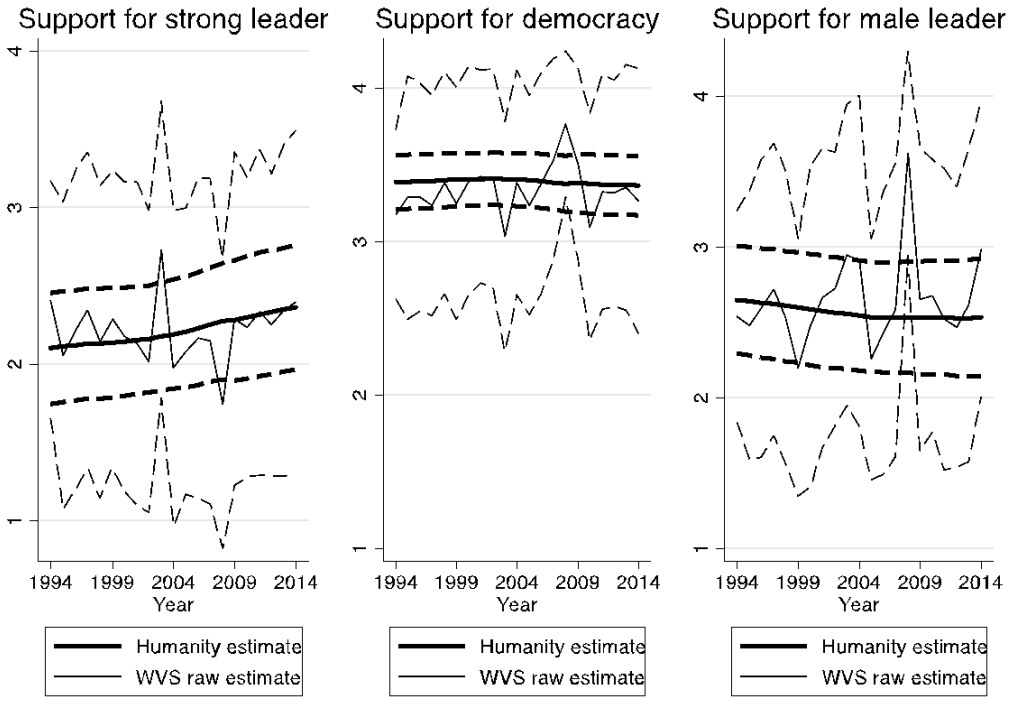
	Strong leader	**Democracy**
Humanity dataset	2.19 (0.40)	3.50 (0.17)
Global Barometer	1.99 (0.55)	3.45 (0.20)
Difference between humanity and Global Barometer	0.20 (0.76)	0.06 (0.27)

Note: Entries are averages at the country/year level. Standard deviation is in parentheses. N = 26 (strong leader), 16 (democracy).

Finally, to better understand how much our estimate of global public opinion deviates from or is consistent with imperfectly sampled responses from WVS surveys, we provide a comparison of the humanity dataset estimates and a raw estimate from the WVS data (Figure SI.C2). This graph shows the means and standard deviations of the humanity dataset response and the average response from the WVS for any given year. It shows that, although the estimates are not radically different, they often differ substantially, both for earlier years where country coverage was less extensive and for the variables "support for strong leader", and "support for male leader".

Figure SI.C2. Comparing Humanity Dataset and WVS Raw Estimates

[23] The question wording for the Global Barometer questions is as follows. "There are many ways to govern a country. Would you disapprove or approve of the following alternatives:
- Elections and parliaments are abolished so that the president can decide everything.
- A democratic political system.
  Strongly disapprove, Disapprove, Approve, Strongly approve.



Note: Solid lines are means. Dashed lines are +1 and -1 standard deviation around the means.

References

Global Barometer Survey. 2018. Wave 1 & 2 Pooled Datafile, Taipei: Hu Fu Center for East Asia Democratic Studies, NTU [distributor]. https://www.globalbarometer.net/.

King, Gary, and Langche Zeng. 2006. "The Dangers of Extreme Counterfactuals." *Political Analysis* 14 (2): 131-159.