Cultural Values and Contemporary Welfare Provision

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Abstract

The ongoing cultural resurgence in contemporary sociology points to a tension between the types of culture as explanations of social action. In macro-sociology, a key issue is whether the drivers of social dynamics reflect global culture that is procedural in nature, or resemble local nation-based culture that is evaluative and indicative of norms and values. One area where such tensions are inherently problematic is in explanations of social welfare expenditure. While global culture emphasizes and demonstrates similarity of structure and process across countries, welfare expenditure shows wide country variation. Although local culture is an obvious possible source of such variation, there has been no systematic comparative studies of its relevance with credible causal inference. Constructing a unique dataset and using an innovative methodology, this study operationalizes aspects of local culture in terms of values that are defined by trust, gender equality, and familism, which are held up against a measure of global culture. We examine their impact on welfare expenditure for the period 1960 to 2010 by circumventing problems of endogeneity and reverse causality. Our research contributes to the study of culture and values, social welfare differences across countries, and the origins and operations of contemporary nation-state systems.

Introduction

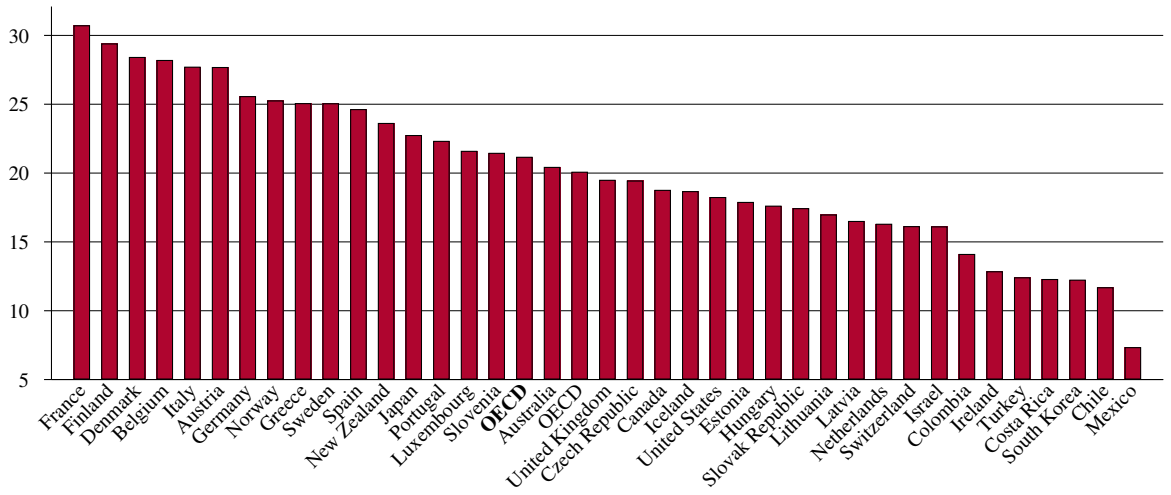
Recent years have seen a resurgence of interest in culture as a determinant of social action (Joas, 2000; Hitlin & Piliavin, 2004; Martin & Lembo, 2020; Miles, 2015; Schwartz, 1977). While much of this work focuses on individual differences in behavior and experience, culture is equally important for macro-social explanation. Here, work juxtaposes "realist" with "phenomenological" perspectives that differentiate variation in material conditions (e.g. demographic and economic imperatives) from "ideas" about how things should operate and what types of institutional forms are most appropriate for achieving this (Meyer et al., 1997). Still, while the importance of culture in the operation of nation-states is largely agreed upon, there is no consensus about exactly *what* culture matters. Indeed, dominant frameworks typically emphasize the *procedural* aspects of culture, those aspects that specify how social institutions should look and how they, at least formally, should operate (Meyer et al., 1997). Less developed or investigated is the *evaluative* aspects of culture, what many call norms and values. While such aspects of culture are not ignored by global culture scholars, they are typically treated as secondary and viewed as a residual reflection of local or national character. At the same time, methodological complexities have made it extraordinarily difficult to measure and model indicators of local culture that are not endogenous to the things that they are trying to explain (Algan & Cahuc, 2010; Fernández & Fogli, 2009). And with an absence of convincing empirics, cultural accounts in macro-sociology are ultimately underdeveloped and potentially misleading. As Polavieja (2015) notes, cultural explanation in macro-sociology continues to struggle with the content of culture, its location, and its effects .

One important area of research is cross-national variation in the provision of social welfare. The expansion of nationhood in the post-war period was intrinsically tied to ideas about how government might better provide for its people (Midgley, 1995, 1997). Variation in ideas about welfare framed much of political discourse in the post-war period and was a, if not the, key principle of political organization (Esping-Andersen, 1990; George & Wilding, 2013; Lipset, 1959). Equally important, billions of people are dependent upon some form of welfare, be it for a minimum income, unemployment insurance, pension support, or health care. Variation in welfare is a defining feature of modern nation states and a key metric by which people evaluate ideas

around self and society and citizenship and the state.

Debates around culture and social explanation have particular relevance for issues of welfare expenditure. On the one hand, there is no question of a global discourse favoring social welfare as a feature of nation-state activity. This is exemplified by the United Nations Sustainable Development Goals (SDG), which articulate broad expectations for how countries provide support for citizens (see SDG targets 1.3 and 3.8 at https://sustainabledevelopment.un.org/sdgs). So, from the perspective of global culture and world society, welfare provision is central to models of good societies and is indicative of the values of modern nation states. At the same time, such perspectives tell us little about why countries differ with respect to social welfare. Figure 1 shows welfare expenditure as a percentage of GDP *per capita* in 2019 for a group of countries with more advanced economies – a group already constrained in terms of economic development, cultural similarity, and political structuration. Although issues of similarity or difference are always in the eye of the beholder, it seems difficult not to conclude that welfare expenditure is highly variable.Even if one assumed a non-linearity with respect to the level of economic development, the correlation between expenditure and gross domestic product (GDP) *per capita* is only .25. An important question is why.

Figure 1. Cumulative social expenditure as percent of gross domestic product in 2019



Note: OECD Social Expenditure Database (accessed 31/05/2023)

Whereas prominent explanations have pointed to partisanship, political and state structure (Huber & Stephens, 2001; Iversen & Soskice, 2006; Korpi & Palme, 1998; Orloff & Skocpol,

1984), this research examines the cultural sources of cross-national variation in social welfare expenditure. First, we juxtapose ideas around *global* and *local* culture and outline both the content of culture and its implications for welfare expenditure within each perspective. The unique contribution of our work is delineating an empirically grounded framework of collective values that, we argue, shape social welfare expenditure across countries. The approach we take reflects the Weberian-Parsonian tradition of culture as comprised of beliefs, norms, orientations, preferences, and values that guide how people see themselves, see society, and see the connection between the two (see discussion in Hitlin and Piliavin, 2004). As there are innumerable dimensions, an immediate challenge is to focus on aspects of culture that should be particularly salient for explaining welfare: we focus on generalized *trust* as a reflection of collectivist orientations, orientations in favor of *gender equality*, and *familist* sentiments. As social welfare has always reflected a tripartite tension between individuals versus the collective, government versus the market, and the state versus the family on issues of personal and social well-being, the three values provide a reasonably comprehensive lens on the local cultural conditions conducive to more or less expenditure.

Second, we outline an epidemiological approach that allows us to capture values as an exogenous determinant of welfare expenditure. The methodological challenge is the simple fact that the values characteristic of a society at any given time are likely influenced by a host of unmeasured factors that themselves influence welfare expenditure (i.e., endogeneity), as well as being influenced by welfare expenditure itself (i.e., reverse causality). Our approach makes use of migratory streams to the US to capture inherited values among people who were never directly exposed to the nation state that defines their ethnic heritage. Third, we construct a unique dataset and conduct novel analyses that rigorously examine the impact of culture on welfare expenditure. These analyses juxtapose local culture with an indicator of ties to world society that operationalizes global cultural influences (see discussion in Boli and Thomas, 1997). Our models also control for time-stable attributes of countries via fixed effects estimation, as well as incorporating controls other aspects of social, economic, and political development. Collectively, the work produces important theoretical extensions to efforts to explain variation in welfare expenditure, the broader operations of nation states, and the role of culture in macro-social dynamics.

Culture and Nation-State Activities

Efforts to understand variation in social welfare provisions have to recognize two cultural dynamics. First, recent work in the tradition of mapping global society have emphasized the importance of supra-national culture and institutions. In probably the most authoritative statement on the topic, Meyer and colleagues (1997) emphasize the role of *global culture* and associational processes in shaping and structuring nation states and their policies. The nature of global culture is deliberately broad and organized around cognitive and normative models and rules. Culture of this type is deliberately rationalist (rather than expressive) and is directed towards the construction of institutions and actions. This refers to the schema that determine what social institutions look like in a given society. Although evidence is more diverse, claims to a strong role of supra-national culture are made regarding the adoption of universalistic welfare, although the emphasis is typically on discourse and institutionalization rather than extent of investment in welfare provision (Abbott & DeViney, 1992; Collier & Messick, 1975; Strang & Chang, 1993). Extent of isomorphism is seen as *prima facie* evidence of the importance of global culture.

World cultural accounts are however limited in scope and ultimately incomplete. First, accounts are largely focused on the procedural aspects of culture. Here, world society offers models for institutional development, idealized practices, and desired outcomes (Meyer et al., 1997). Yet, in the realm of social welfare, one could expect *evaluative culture* that reflects which norms, values, preferences, and orientations (Patterson, 2014) to be particularly important. Welfare provision on a mass scale intrinsically invokes a generalized other who may or may not have social or demographic affinities in heterogeneous societies. Second, world culture accounts do much better at explaining similarity than they do at difference. As we noted above, there is significant variation in welfare expenditure that complicates explanations that emphasize the universal desirability of welfare. Third, evidence of institutional isomorphism may tell us very little about what organizations actually do. In the realm of social welfare, countries might have identical structuration in fiscal organization that has no direct bearing on taxes and spending independent of ideas that govern their activities. It is here that values and preferences complement existing cultural frameworks: societal values might explain what governments choose

to spend revenues on. Finally, the world society model proposes that supra-national culture is imported into a given society that then is used as a guide for institutional development. The problem is that local culture predates the world society culture that was largely a creation of the post-World War II era. Given this, the institutional development that occurred over the latter half of the 20th century at best involved a mix of national and supra-national culture or would require that supra-national culture supplant that which came before. How, or if, this happens is again not clear. To us, such issues motivate greater attention to local, nation-based aspects of culture.

Culture and welfare: from the Global to the Local

Although culture is a notoriously difficult concept with articulations that incorporate a range of constitutive elements (Miles, 2015; Polavieja, 2015), most agree that constitutive elements include both "models" and "values" or "procedure" versus "evaluations" to use the language of Patterson (2014:Figure 1). While the former has broad currency in macro-phenomenological accounts and refers to templates for the structuration of society (Meyer et al., 1997), the latter, including norms, orientations, preferences, and values is much less developed (Hitlin & Piliavin, 2004). As Miles (2015:700) notes, values may be an important point of explanation in that "values can enhance our understanding but reaping this benefit will require elaborating how values can be integrated into existing sociological theories of political processes and social change."

Welfare expenditure sits at the heart of these issues and provides an important avenue of inquiry. Yet, theoretical and empirical challenges remain. In the former case, a shift in focus from global culture to local culture requires conceptualization of what specific aspects of culture are relevant. Second, methodological challenges, particularly the endogenous nature of culture (Kaufman, 2004), undermine empirical efforts to evaluate associations between country-level culture and nation state activities. There is clear variation in the ways in which societies are organized and governments operate. Although all governments extract revenues from their citizens through some mechanism of taxation, how much a given government extracts and how the government chooses to spend its money is enormously variable. The role of culture and the different types of culture in such processes is unknown.

Values reflect an evaluation of how desirable or preferable, for a person or group, the means and ends of action are (Kluckhohn, 1951; Rokeach, 1973). Importantly, the central feature of values in almost any conceptual framework is that they are evaluative across a range of social phenomena and provide a means by which preferences for courses of action are determined (Hitlin & Piliavin, 2004; Inglehart & Welzel, 2005; Schwartz, 1994). Values tend towards the general, are multiple in form, and transcend specific circumstances or situations (Miles, 2015). Cognate terms used across the social sciences to index local culture include attitudes, beliefs, norms, orientations and preferences. While there are subtle, yet important differences, in meaning, the important feature for us is that they capture some evaluative element of culture that reflects the perceived relationship between an individual and others in society.

Yet what aspects of local culture should matter for welfare expenditure? Building upon work in economics, political science, and sociology, we argue for three key aspects: generalized trust, belief in gender equality, and familism. All are important as they share a core reference point of the "social," generalized others, and perhaps out-groups in the abstract. Other traits may of course matter, but the three that we emphasize are measurable given our empirical objectives and tap into key aspects of social organization that should underpin the organization of social welfare expenditure.

Generalized Trust

Trust involves an orientation towards generalized others. It captures beliefs in the benevolence or at least lack of malice in people to which one has no or little pre-existing relationship (Gambetta, 1988; Sztompka, 1999; Tilly, 2004). Trust is inherently reciprocal in that higher levels of trust "free" people to engage in activities that put things at risk – typically resources – with people they do not know (Ermisch et al., 2009). The relevance of trust to economic and institutional outcomes has been highlighted in several seminal studies with important pro-social effects seen for both micro- (Ermisch et al., 2009; Putnam, Leonardi, & Nanetti, 1993) and macro-processes (Dearmon & Grier, 2009; Tabellini, 2010).

Consistent with this, welfare programs can be regarded as complexes of transactions whose

actors do not necessarily know each other and where positive orientations towards others helps in overcoming coordination failures. The sustainability of generous welfare requires an efficient provision by transparent institutions and public endorsement. Indeed, countries historically characterized by high trust have higher welfare spending. Generalized trust, in these cases, reduces the inefficiency invoked by monitoring activities (Bjørnskov & Svendsen, 2013); reduces demand for government regulation (Aghion et al., 2010); and alleviates taxpayers' concerns of welfare free riding (Nannestad, 2008). Higher levels of trust may also ameliorate inter-group differences that often underlie and undermine welfare orientations. As such, individuals who report that they trust most people strongly support the welfare state and show strong preferences for government redistribution (Algan, Cahuc, & Sangnier, 2016). This yields a first hypothesis:

> **Hypothesis 1**: *Countries that have higher generalized trust are likely to have larger social welfare expenditure.*

Gender Equality

A second dimension of culture is orientations towards gender equality. The historical origins of welfare provision largely reflect a tension in beliefs as to the role of the state versus the family as primarily responsible for the wellbeing of individuals, particularly those outside of paid labor – mothers, children, and the elderly (Briggs, 1961; Hay, 1975). While the traditional role(s) of women in the family have been documented and theorized for over six decades (e.g., Blood and Wolfe, 1960; Brines, 1994; Huber, 1991), the study of the implications for state and social welfare are much more recent. Much interest is traced to the pathbreaking work of Orloff (1993) who highlighted the varied ways in which gender relations organize the provision of social welfare both within- and across- nation states. Bussemaker and Van Kersbergen (1999) build upon such ideas in arguing that assumptions about gender underlie the institutional characteristics of a welfare state regime.

The role of values supportive of gender equality sit at the heart of explanations of both women's labor force participation and stronger welfare support for women and families. Fernández, 2007 show that more positive attitudes towards women are associated with higher female labor force participation. Korpi (2000) further distinguishes between welfare models of general family support, dual-earner support and market-oriented policiesand concludes that attitudes

towards female employment are, on average, consistent with the kind of increased public expenditure reflective of each model. For example, public investment in childcare facilities become necessary with increases in women's labor force participation. In the same vein, more widespread and inclusive pension schemes would let the elderly be more independent and less reliant on younger women's care provision. In the end, the stronger attitudes towards gender equality, the lower the acceptance of division in gender roles and the less the family will rely on women working at home to provide welfare internally. Given this, we offer the following hypothesis:

> **Hypothesis 2**: *Countries with more positive orientations towards gender egalitarianism will have greater social welfare expenditure.*

Familism

A third aspect of culture with implications for welfare expenditure is familism. The family represents the most ancient social institution and various family systems flourished within and outside Europe (Goody, 1983). Yet, societies differ in terms of the centrality of family as a social institution with strong or weak family ties reflecting variation in values around the importance of family (Banfield, 1958; Putnam, 2000). Importantly, the family has historically been the primary source of social provision for needy and vulnerable members of the society (Reher, 1998) and hence has a direct role in supporting or undermining the structure and operations of modern welfare regimes (Esping-Andersen, 1990). While the organization of current welfare systems still mirrors long-standing cultural patterns related to the role of the family in society, the dominant trend, particularly in the northern hemisphere and among advanced economies is a de-familization of welfare responsibilities (Esping-Andersen, 1999; Kalmijn & Saraceno, 2008; Leitner, 2010).

Empirical work on the topic has largely focused on the social, political, and economic implications of variation in the strength of family relationships. Implicit in such work is strong cultural underpinnings that reflect ideas about the importance of family in social life. Strong family ties are found to be associated with lower civil engagement, lower political participation and lower generalized trust (Alesina & Giuliano, 2011a), Strong family ties can thus be associated with lower demand for government intervention, with causality going from old or persistent family culture to more recent welfare state typologies (Alesina & Giuliano, 2011b). Looking at

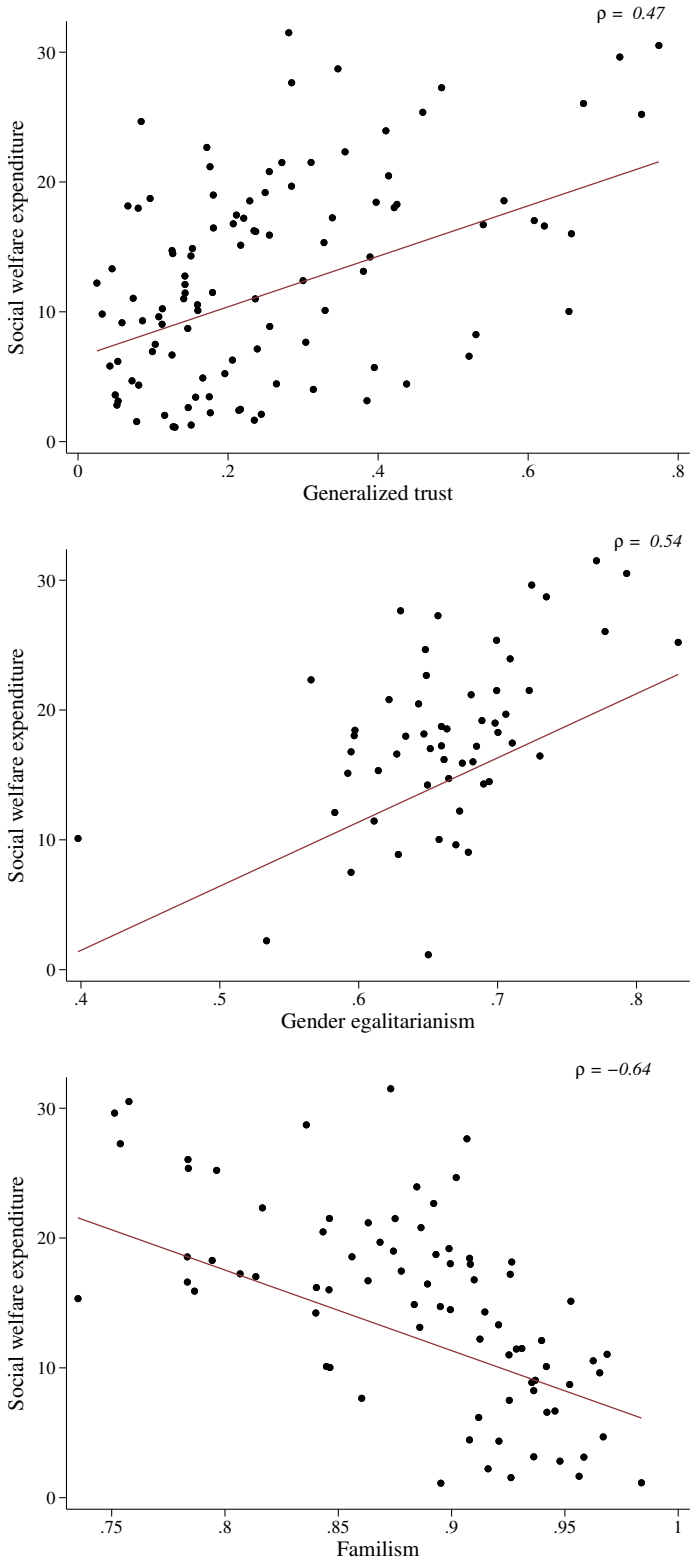
pension schemes, Galasso and Profeta (2018) find that countries which have been historically characterized by egalitarian inheritance rules, whose families are more strongly tied, adopted pension schemes later in time. Extrapolating from such work yields the following hypothesis:

> **Hypothesis 3**: *Countries with stronger familial values will have smaller social welfare expenditure.*

Untangling the values–welfare link

The hypotheses put forward can be explored with data on social welfare expenditure and values as measured through cross-country surveys. We run this exercise on a large sample of world countries by collecting welfare expenditure expressed in percentage of GDP in 2017 and country-averaged measures for the three values of our interest (see Supplementary Materials for details). Figure 2 plots the bivariate correlation between values and social welfare expenditure: while countries characterized by higher generalized trust and gender egalitarianism spend more on welfare, stronger family values relate with smaller social expenditure.

Figure 2. Cross-country correlation between social welfare expenditure and values



Note: Social welfare expenditure expressed in percentage of GDP in 2017 (sources: OECD, ILO, Eurostat, IMF). Measures of values averaged at the country-level in 2017 or closest previous year taken from the Integrated Values Study.

Though suggestive, this analysis does not provide a reliable test to our hypotheses. Establishing the culture–welfare relationship requires moving beyond contemporaneity in the measurement of values and social expenditure. A viable approach consist of measuring values in a previous generation compared to the one exposed to the contemporary welfare provision and observe whether the hypothesized relationships hold. At the same time, measuring previous generations' values over more periods would let us disentangle empirically the influence of unobserved confounding forces on relationships. While this strategy overcomes major estimation challenges, it still poses empirical problems. In fact, there is a lack of information on values for earlier time periods that is both standardized and available for a sufficient number of countries.

Rather than observing previous generations directly, one solution to these problems focuses on how values are formed. The values of current generations are largely inherited from the previous (Hitlin & Piliavin, 2004; Bisin & Verdier, 2018; Cavalli-Sforza & Feldman, 1973). On top of this, by measuring values of today's people with different national origins in a common environment, the contemporaneous relationship with their origin countries' welfare systems is not a concern. Therefore, an approach consisting in studying migrants' descendants in a single destination country, gives us a unique opportunity to understand the kind of values their forebears possessed. By exploiting the intergenerational transmission of values we are able to differentiate values from environmental influence (Algan & Cahuc, 2010).

We proceed in two steps. First, we proxy the inherited values for people living in country c using complimentary values that descendants of US immigrants have inherited from their ancestors coming from country c. Specifically, we measure inherited values by the country-of-origin fixed effect in regression equations predicting the contemporaneous values of US descendants of immigrants. This yields an estimate which we use, secondly, as a proxy for inherited values in models predicting social welfare expenditure. Importantly, the coefficient linking the proxy for inherited values to social welfare expenditure can be interpreted as a causal effect if the two measures are not co-determined by a common factor. We deal with this via two strategies. First, we control for other differences in economic, political, and social environments. Second, we implement robustness tests that restrict the sample in critical ways.

Measuring Values

Cross-national value differences are drawn from the US General Social Survey (GSS). The cumulative GSS file spans 1972 to 2018 and includes information on specific values and attitudes, as well as country of origin of respondent's "ancestors." There are a sufficient number of respondents for 27 geographic areas corresponding to 45 current countries.

Our value measures capitalize on the path of cultural transmission across immigration cohorts. Questions in the GSS allows us to identify different waves of immigration: fourth generation Americans ($\geq$ two grandparents and both parents born in the US), third generation Americans ($\geq$ two foreign grandparents and both parents born in the US), second generation Americans ($\geq$ one parent born outside the US). We ignore first-generation Americans as their values will have been exposed to the welfare context in the country of origin. We assume a lag of 25 years between different generations. To further ensure that the measure of values is not driven by direct exposure to the welfare of the origin state, we measure values at least 25 years prior to the measurement of country-level social expenditure. This approach dictates that we measure values of: i) second generation Americans born before $T - 25$, ii) third generation Americans born before T, and iii) fourth generation Americans born before $T + 25$. For the subsequent analyses, we estimate values for two distant periods, 1960 and 2010, to ensure that the evolution of values over time is substantive and not related to measurement errors. We assume that all people alive contribute, weighted differentially, to "average values" for a given period and hence influence welfare expenditure. Accordingly, values for 1960 (2010) are measured as that of the second-generation Americans born before (after) 1935, the third-generation Americans born before (after) 1960, and fourth-generation American born before (after) 1985. For the empirical challenges at hand, these samples index inherited values associated with a given country that are captured by individuals who have no direct exposure to that country and have no clear mechanism of influencing the political-economic orientations of that country. The distribution of the GSS sample is shown in Table 1. In some instances, the number of cases buttressing estimates of values is small (< 10), but sensitivity analyses indicate that altering the sample does not change the conclusion. The full list of GSS questions used to operationalize values is provided in the Supplementary Materials.

Table 1. Number of respondents by origin country and inherited value in 1960 and 2010

	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
Austria	78	13	38	3	83	14
Belgium	30	4	12	1	37	3
Canada	292	58	130	16	276	58
Switzerland	97	4	29	1	90	3
Czechoslovakia	235	42	98	16	227	41
Germany	3,660	323	1,459	72	3,412	299
Denmark	130	18	58	5	142	14
Spain	141	42	49	7	114	34
Finland	78	14	23	4	86	15
France	406	53	184	11	393	44
United Kingdom	3,631	190	1,459	45	3,438	152
Greece	47	39	17	11	46	34
Hungary	81	24	34	5	80	22
Ireland	2,729	237	1,026	52	2,516	230
Italy	916	348	373	83	882	309
Japan	29	15	7	3	23	16
Lithuania	42	13	18	2	49	8
Mexico	286	341	111	74	246	328
Netherlands	290	33	128	11	264	38
Norway	360	32	174	5	350	32
Poland	474	118	220	32	481	114
Portugal	48	21	11	3	41	19
Romania	15	10	7	3	16	6
Russia (USSR)	191	47	89	14	203	44
Sweden	346	34	135	9	333	34
United States	584	39	153	2	553	34
Yugoslavia	56	21	31	5	71	21

Note: Authors' calculation from the US General Social Survey (1972–2016). The sample includes immigrants of second, third and fourth generation.

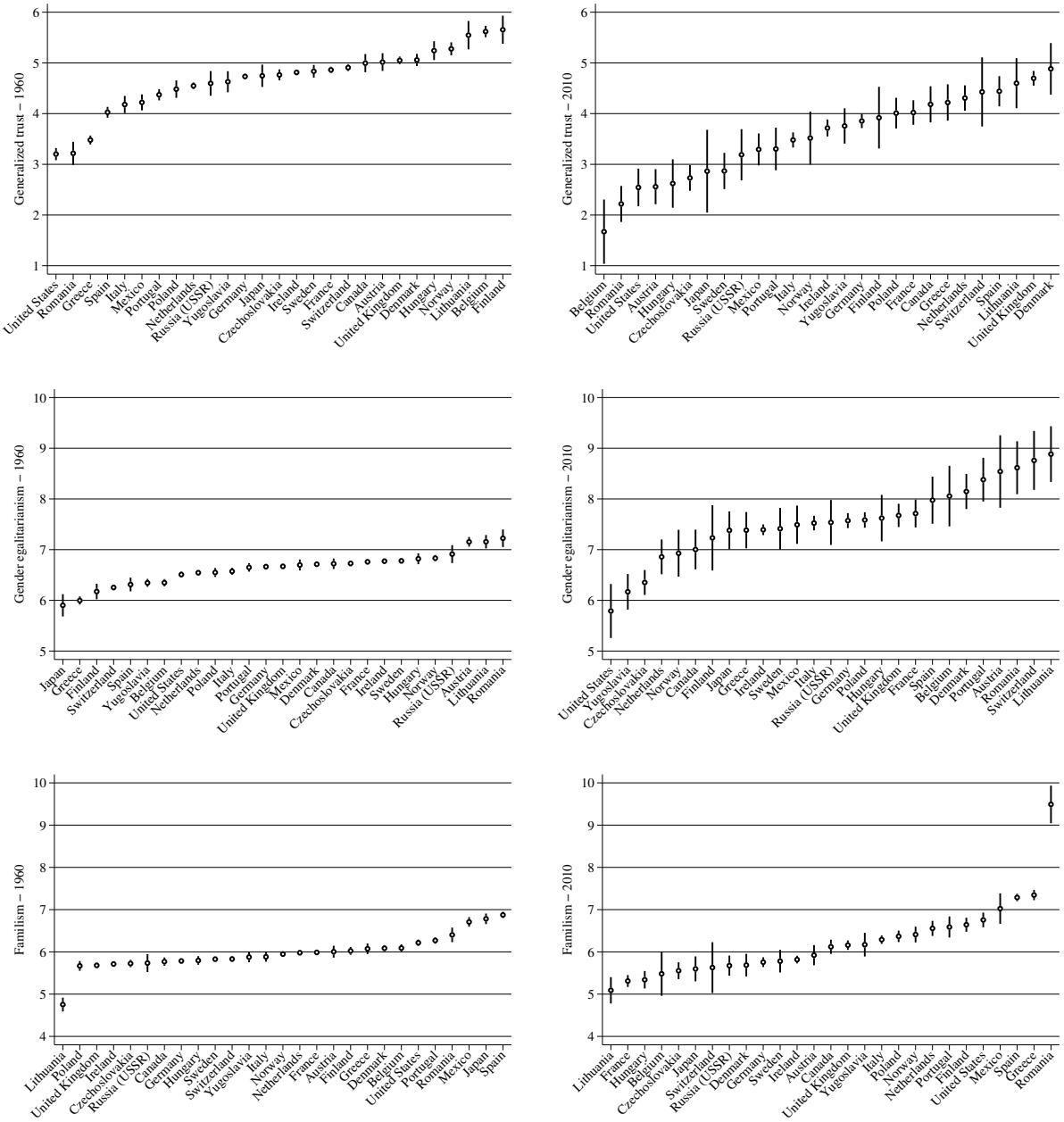
Equation 1 describes the first stage estimation equation to measure inherited values:

$$V_i = \alpha_0 + \alpha_1 D_c + \alpha_2 \mathbf{X}_i + \varepsilon_i \tag{1}$$

where the value measure V for respondent i is regressed on a set of dummy variables indicative of the origin country of the respondent's family, D_c, and on several socio-demographic characteristics such as: age group; sex; educational attainment; real family income (linear and squared); employment status; religion; region of interview; generation of immigration; and GSS wave fixed effects. Table SM2 shows descriptive statistics for the individual level models. The coefficients for the country-of-origin dummy variables, α_1, capture the inherited component of culture and are used at the country level as predictors of social welfare expenditure. The model is estimated in the two periods of our interest according to the procedure sketched above, and is identified by omitting one country dummy, Denmark (thus the coefficients index the difference in the average level of some inherited values relative to Denmark).

Figure 3 plots for country averages with confidence intervals for the three value measures for both 1960 and 2010 with coefficients shown in Table SM2. Evidence of cross-national variation in values is huge.Although creating averages from individual data can underestimate cross-national variation, our analytic strategy produces large, statistically significant variation in values across countries. A validity check on the micro-foundations of welfare support is presented in Supplementary Materials.

Figure 3. Country-level variation in inherited values for 1960 and 2010



Country-level Data and Methods

The macro-level data come from 45 countries and characterize welfare expenditure in 1960 and 2010. Indicators of the level of social welfare expenditure by national governments is measured as a percentage of GDP. Although one should have some caution over the use of *social welfare expenditure* we view our measures as indicative of general welfare efforts in as much as the measure encompasses its institutional, economic and social context, and disaggregates the

overall social budget in its constituent branches of welfare (Siegel, 2007). Total expenditure is further decomposed into expenditure on specific social programs, such as *other welfare programs*, *pensions*, *unemployment*, and *health* (a detailed explanation of the variables can be found in Supplementary Materials).

The country-level models also include a number of control variables. *GDP per capita* removes effects due to differences in economic development across countries. We also control for the *extent of democracy* as the more democratic a country the more is spent in social transfers (Persson & Tabellini, 2003), although this basic relationship has been recently questioned (Ansell & Samuels, 2014). *Income inequality* (as summarized by the Gini index), the *share of population aged 65 or more*, the *unemployment rate*, and *life expectancy* are measures of social needs also included as explanatory variables for expenditure on specific welfare programs. They proxy, in different ways, demand for welfare expenditure. Descriptive statistics for all measures are shown in Table SM3.

Combining the value measures with the macro-level measures, our second stage estimation has the form indicated by Equation 2:

$$SWE_{ct} = \beta_1 \widehat{\alpha}_{1,ct} + \beta_2 \mathbf{X}_{ct} + \eta_{ct} \tag{2}$$

Where SWE_{ct} is social welfare expenditure in county c at period t, $\widehat{\alpha}_{1,ct}$ is the average level of a given value estimated at the individual level, the $\mathbf{X}$ are observed time-varying social, economic and institutional covariates, and η_{ct} is an error term. With measures of values that are credibly exogenous to welfare expenditure and appropriate time-varying controls, the latter models provide causal leverage on the role of culture in the production of social welfare.

Results

Our analyses are organized to successively add more rigor to the estimates. We begin with Table 2 which shows coefficients for nine models predicting overall social expenditure in 1960 and 2010. For each value trait, the first model is the bivariate association, the second model includes country fixed effects, and the third model includes time–varying covariates. For purposes

of description, we first focus on the fixed effects estimates (models 2, 5, and 8). In the case of generalized trust, a unit increase in trust increases social expenditure on GDP by approximately 6.4 percentage points. The standardized coefficient indicate a large effect ($\beta^* = .721$). There is a similarly positive effect for greater gender egalitarian values with a unit change increasing expenditure by 8.4 points. Again, the standardized coefficient indicates a large effect ($\beta^* = .823$). Stronger familism has the opposite effect, reducing social expenditure by almost 7 percentage points. This effect is also large with a standardized beta of $-.632$.

Models 3, 6, and 9 include time-varying controls for ties to world society, GDP *per capita*, extent of democracy, and income inequality. Conclusions are not changed in the face of such controls. It is noteworthy that estimated effects are robust to the inclusion of either country fixed effects or time-varying controls, even though unmeasured and measured country factors clearly have a large impact upon the extent of social expenditure (e.g., R^2s increase by 30 to 88 percent with their inclusion). The set of time-varying controls includes ties to world society as an indicator of the salience of world culture. The measure is statistically significant in two of the three models with unit increases indicating increases in social expenditure slightly above .11 percentage points. Corresponding standardized effects are simultaneously moderate to large, between .292 to .419.

The next set of analyses focus on different types of social expenditure. Beginning with welfare expenditure (see Table 3), the coefficients have the expected sign and are statistically significant. Here, a unit change in generalized trust is associated with a .98 percentage-point increase in welfare expenditure. A similar change in gender egalitarism increases welfare expenditure by .78 points. At the same time, greater familism is negatively associated with welfare expenditure with a unit increase reducing welfare expenditure by .98 points approximately. Standardized coefficients for generalized trust, gender egalitarism and familism indicate moderate to large effects ($\beta^* = .372$, .263, and $-.315$, respectively). Our indicator of global culture, ties to world society, has consistent and comparatively large effects (β^*s range from .630 to .677). Welfare expenditure is also associated with lower democratic scores.

Pension expenditure also shows a response to local value differences (see Table 4). Increases

Table 2. Overall social expenditure regressed on collective values with country fixed effects and time-varying controls

	Social welfare expenditure								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Generalized trust	7.067***	6.417***	3.889***						
	(.549)	(.911)	(.888)						
	[.794]	[.721]	[.437]						
Gender egalitarianism				8.544***	8.459***	5.341***			
				(1.092)	(1.200)	(1.472)			
				[.831]	[.823]	[.519]			
Familism							–5.082**	–6.984***	–5.757***
							(1.685)	(1.847)	(1.603)
							[–.460]	[–.632]	[–.521]
Ties to world society			.168*			.117			.168*
			(.062)			(.070)			(.066)
			[.419]			[.292]			[.419]
Log GDP			4.266*			5.421**			7.511***
			(1.659)			(1.715)			(1.787)
			[.382]			[.485]			[.672]
Democracy score			–.296**			–.214†			–.267*
			(.096)			(.118)			(.110)
			[–.336]			[–.243]			[–.304]
Income inequality			.127			.137			.179
			(.109)			(.115)			(.114)
			[.123]			[.133]			[.174]
Country fixed effects	×	✓	✓	×	✓	✓	×	✓	✓
Observations	90	90	90	90	90	90	90	90	90
R^2	.650	.855	.917	.407	.855	.907	.093	.768	.907

Note: OLS regressions. Standard errors in parentheses. Standardized coefficients in brackets.
† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

Table 3. Other welfare expenditure regressed on collective values with country fixed effects and time-varying controls

	Other welfare expenditure		
	(1)	(2)	(3)
Generalized trust	.979***		
	(.239)		
	[.372]		
Gender egalitarianism		.781†	
		(.430)	
		[.263]	
Familism			–.982†
			(.515)
			[–.315]
Ties to world society	.087***	.083**	.089***
	(.020)	(.024)	(.023)
	[.665]	[.630]	[.677]
Log GDP	–1.347†	–1.485	–.517
	(.760)	(.897)	(1.017)
	[–.347]	[–.383]	[–.133]
Democracy score	–.130***	–.140***	–.148***
	(.028)	(.038)	(.035)
	[–.445]	[–.479]	[–.506]
Income inequality	.047	.048	.067
	(.037)	(.044)	(.043)
	[.152]	[.155]	[.215]
Country fixed effects	✓	✓	✓
Observations	70	70	70
R^2	.956	.938	.939

Note: OLS regressions. Standard errors in parentheses. Standardized coefficients in brackets.
† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

in gender egalitarianism increases pension expenditure by 2.2 percentage points ($\beta = 2.194$, $p < .01$). In contrast, increases in familism reduce pension expenditure by just over two point ($\beta = 2.054$, $p < .05$). Standardized coefficients similarly indicate moderate to large effects with β^*s of .507 and $-.452$ for gender egalitarianism and familism, respectively. The positive effect of generalized trust on pension expenditure barely fails to reach commonly accepted levels of significance. Ties to world society is not significant and hence the cultural drivers of pension expenditure is entirely seen at the local level. Finally, the control variables show that extent of democracy is really the only political-economic factor that shows any significant association, although demand in the form of the percentage of the population aged 65 or older is also consequential.

The next expenditure under study is that related to unemployment (see Table 5). Again, generalized trust, gender egalitarianism, and familism have significant associations. In the former case, a unit increase in trust increases expenditure by .252 percentage points with a corresponding standardized effect being a moderate .255. In the case of gender egalitarianism, expenditure increases by half a point for each unit change. The corresponding standardized effect is large – .463. The strongest effect however is seen with respect to familism. Here, a unit increase decreases expenditure by .612 points with a correspondingly large standardized effect ($-.512$). In contrast, the coefficients capturing associations for ties to world society are mostly not significant even although the standardized effects are moderate in size.

The final expenditure relates to health (see Table 6) and results can be described succinctly. None of the culture indicators, local or global, show a significant association and the only political-economic measure that matters is extent of democracy. A rich set of robustness checks and the dynamic results on the relationship between values and welfare are presented in Supplmentary Materials.

Conclusion

Within sociology there is general agreement that culture matters for the structure of government, but the emphasis has been uneven and at times contradictory. On the one hand,

Table 4. Pension expenditure regressed on collective values with country fixed effects and time-varying controls

	Pension expenditure		
	(1)	(2)	(3)
Generalized trust	.908		
	(.539)		
	[.236]		
Gender egalitarianism		2.194**	
		(.790)	
		[.507]	
Familism			–2.054*
			(.966)
			[–.452]
Ties to world society	.012	–.018	.006
	(.045)	(.043)	(.044)
	[.062]	[–.093]	[.029]
Log GDP	1.529	1.615	3.433†
	(1.762)	(1.645)	(1.952)
	[.270]	[.285]	[.607]
Democracy score	–.178*	–.096	–.153*
	(.067)	(.073)	(.068)
	[–.416]	[–.225]	[–.359]
Income inequality	.096	.066	.116
	(.083)	(.079)	(.080)
	[.211]	[.146]	[.256]
% Population ≥ 65	.509*	.360†	.483*
	(.211)	(.203)	(.206)
	[.461]	[.326]	[.437]
Country fixed effects	✓	✓	✓
Observations	70	70	70
R^2	.809	.833	.818

Note: OLS regressions. Standard errors in parentheses. Standardized coefficients in brackets.
† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

Table 5. Unemployment expenditure regressed on collective values with country fixed effects and time-varying controls

	Unemployment expenditure		
	(1)	(2)	(3)
Generalized trust	.252†		
	(.144)		
	[.255]		
Gender egalitarianism		.514*	
		(.209)	
		[.463]	
Familism			–.612*
			(.252)
			[–.512]
Ties to world society	.020	.014	.019
	(.012)	(.012)	(.011)
	[.404]	[.286]	[.379]
Log GDP	.036	.019	.673
	(.499)	(.477)	(.542)
	[.025]	[.013]	[.459]
Democracy score	–.056†	–.045	–.056*
	(.028)	(.027)	(.026)
	[–.499]	[–.405]	[–.506]
Income inequality	.003	–.003	.011
	(.023)	(.022)	(.022)
	[.020]	[–.026]	[.085]
Country fixed effects	✓	✓	✓
Observations	68	68	68
R^2	.809	.826	.825

Note: OLS regressions. Standard errors in parentheses. Standardized coefficients in brackets.
† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

Table 6. Health expenditure regressed on collective values with country fixed effects and time-varying controls

	Health expenditure		
	(1)	(2)	(3)
Generalized trust	.160		
	(.247)		
	[.093]		
Gender egalitarianism		.056	
		(.379)	
		[.029]	
Familism			–.568
			(.433)
			[–.276]
Ties to world society	.003	.003	.001
	(.023)	(.024)	(.022)
	[.040]	[.032]	[.017]
Log GDP	.936	.972	1.346†
	(.694)	(.696)	(.736)
	[.391]	[.406]	[.563]
Democracy score	–.089**	–.094**	–.075*
	(.029)	(.033)	(.031)
	[–.490]	[–.518]	[–.411]
Income inequality	.023	.025	.025
	(.036)	(.037)	(.035)
	[.116]	[.126]	[.127]
Life expectancy at birth	.086	.079	.083
	(.089)	(.089)	(.087)
	[.265]	[.244]	[.255]
Country fixed effects	✓	✓	✓
Observations	76	76	76
R^2	.777	.775	.786

Note: OLS regressions. Standard errors in parentheses. Standardized coefficients in brackets.
† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

macro-phenomenology emphasizes the *procedural* aspects of culture and focuses on the structuration of institutions of schooling, labor, health, and agenda setting (e.g., Meyer et al., 1997). On the other hand, the *evaluative* component of culture emphasizes the normative orientations people have towards government and how government actions should operate given value judgements on their role in providing welfare. Indeed, the role of evaluative culture exists largely in the realm of international relations (e.g., Reus-Smit, 1999), with many non-cultural sociologists remaining wary, often claiming that it is of little importance (Patterson, 2014). The lack of clear conceptual frames sits alongside complex measurement issues and the challenge of developing sound empirical strategies. Theoretically, our research fills these gaps by articulating three value domains that reflect, in different ways, how collectives think about the relationships between citizens and between citizens and the state. These include issues of trust, attitudes towards gender inequality, and priorities around family life. We meld this with an innovative and rigorous empirical strategy where plausibly exogenous measures of cultural values are derived from samples of immigrants to the United States and then evaluated as to their influence on differences in welfare expenditure across countries. The structure of the analyses is such that it allows for stronger claims of causal influences (Algan & Cahuc, 2010).

Our results show that social trust, attitudes towards gender equality, and familism are strong predictors of welfare expenditure. In the case of trust, it is associated with greater social expenditure in general, greater welfare, pension, and unemployment expenditure. Orientations towards gender equality are equally important with positive associations with overall social expenditure, pension and unemployment expenditure. In contrast, stronger orientations towards family are negatively associated with social expenditure, welfare and pension expenditure. The breadth of significant associations attests to the power of local, evaluative cultureand the magnitudes of the effects, as indicated by the standardized coefficients, are large by conventional standards. The results are robust to several tests and echo analyses that affirm the micro-foundations of welfare support. In the end, this is compelling evidence for the importance of values in welfare state expenditure.

Evidence of the importance of values matters for sociological explanations of welfare expenditure. Much of the current discussion is organized around the idea of American "exceptionalism"

(Prasad, 2016). In contrast, study of European variations in social welfare and social welfare institutions focus heavily on decommodification (e.g., Esping-Andersen, 1990). Introducing values into explanations serves two functions. First, it opens up the door for the further study of the value origins of social welfare strategies to better understand why public-private partnerships are more dominant in some countries rather than others and how this may reflect value orientations towards the role of government. Second, it suggests the need for the broader conceptualization of values and the ways in which value sets interact. Miles (2015), for example, uses the Schwartz value index and European Social Survey data to show widespread influences of attitudes and forms of behavior. The Schwartz inventory and others like it capture a broader domain of values and hence provides opportunities for further research. The universe of values is vast and our work only scratches the surface.

Read in concert with our work, Miles (2015) offers other insights about how country-level value difference may influence social policy and government practice. Here, he highlights variation across countries in terms of the salience of values. This is captured by the difference in the proportion of forms of behavior predicted by value orientations. In the context of our work, the variable salience of values is an important avenue of research and further efforts using broader panels would allow for within-country estimates that could be compared and contrasted. There is additional evidence that different types of behavior have different cross-national strengths. With a focus on social expenditure, our research anticipates such variation by examining different types of welfare expenditure (e.g., pensions versus health care). But, at the same time, we only scratch the surface of macro-level expressions of culture and values and can envision a host of other domains of study. Importantly, the effects of culture on social expenditure is contingent upon the type of expenditure under consideration.

Our research also has implications for how we think about government and variation across governments in their form and function and why such variation does (or does not) exist. As we noted earlier, four decades worth of research has built a compelling case for homogeneity in form and perhaps function and explanation in the form of supra-national schema (Meyer et al., 1997). The evidence comes from detailed cross-national comparisons that both track developmental trajectories within and across institutional fields and that show patterns of similarity.

Importantly and perhaps reflecting methodological complexities, evidence of supra-national culture is *inferred* rather than measured and modelled. The main limitation of this approach is that it never really challenges the idea that local culture matters in the operation of nation states. Such perspectives assert the superiority of explanation without ever engaging with alternatives. This is problematic on two fronts. First, local culture came first. Research on the origins of nation states is almost by definition historical and track the variable paths by which countries became what they are today (e.g., Esping-Andersen, 1990).In general, one should think more concretely about local culture as shaping the adoption of supra-national scripts in ways that are not necessarily captured by "decoupling." Second and related, there is no reason to assume that culture does not operate at both levels and the intersections of global and local values would seem a particularly interesting avenue of research. Indeed, Martin and Lembo's (2020) emphasis on values as "interests" highlights how orientations between actors and objects is defined at multiple levels with varying degrees of connection. At the very least, a theoretical and empirical consideration of local values and local culture should extend understandings of the forms and functioning of government in important and innovative ways.

Finally, our work contributes to the on-going renaissance of values in contemporary sociology. Patterson (2014:3) elegantly captures the traditional orthodoxy noting that "most non-cultural sociologists are still wary of culture and either shun any exploration of its role in their explanatory models or go out of their way to point out its lack of importance or relevance." More recently, Miles (2015:700) argues that "values have shed their functionalist trappings and operate in cognitively plausible ways to influence behaviors that occur in many domains... Armed with new theories and evidence, sociologists can re-engage the study of values to enhance our understanding of action and yield insight into important social processes". With both theoretical (Martin & Lembo, 2020; Vaisey, 2009) and empirical (Miles, 2015; Bardi & Schwartz, 2003) developments, values are returning to center stage in explanations of human affairs. Our work builds upon and extends such work with a focus on macro-level processes and connections between collective value orientations – what is often called "culture" across the social sciences – and the fundamental operations of nation states. Obviously, our steps are preliminary but they do signal new directions for research and new opportunities for theoretical development.

Data Availability

GSS microdata are publicly available at https://gss.norc.org. The sources of macro-level data used in this study are either online public data repositories or institutional reports summarized in Supplementary Materials.

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Supplementary materials

1 Additional Tables

Table SM1. Descriptive statistics – Individual level

	Obs.	Mean	St.Dev.	Min	Max
Dependent variables					
Generalized trust	17,405	4.61	4.89	0	10
Gender egalitarianism	6,568	6.74	2.07	0	10
Familism	16,418	5.86	2.59	0	10
Covariates					
Sex					
Man	25,221	.46	.50	0	1
Age					
18–29	25,221	.19	.40	0	1
30–39	25,221	.21	.41	0	1
40–49	25,221	.18	.39	0	1
50–59	25,221	.16	.36	0	1
60–69	25,221	.13	.34	0	1
70–79	25,221	.08	.28	0	1
80–89	25,221	.04	.19	0	1
Generation of immigration					
Second	25,221	.09	.29	0	1
Third	25,221	.22	.42	0	1
Fourth	25,221	.69	.46	0	1
Education					
Less than high school	25,221	.13	.34	0	1
High school	25,221	.53	.50	0	1
Junior college	25,221	.07	.25	0	1
Bachelor	25,221	.18	.39	0	1
Graduate	25,221	.09	.28	0	1

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	Obs.	Mean	St.Dev.	Min	Max
Labour force status					
Employed	25,221	.66	.48	0	1
Unemployed	25,221	.03	.17	0	1
Inactive	25,221	.32	.47	0	1
Family income					
Income (constant $1,000)	25,221	34.95	31.05	0	163
Religion					
Protestant	25,221	.55	.50	0	1
Catholic	25,221	.27	.45	0	1
Other religion	25,221	.05	.22	0	1
No religion	25,221	.12	.33	0	1
Region of interview					
New England	25,221	.06	.23	0	1
Middle Atlantic	25,221	.13	.34	0	1
East North Central	25,221	.20	.40	0	1
West North Central	25,221	.09	.28	0	1
South Atlantic	25,221	.16	.37	0	1
East South Central	25,221	.05	.22	0	1
West South Central	25,221	.09	.29	0	1
Mountain	25,221	.08	.27	0	1
Pacific	25,221	.13	.34	0	1

Table SM2. Individual-level regressions of values on socio-demographics and country of ancestry dummies

	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
Man	.151†	.645*	–.587***	–.916***	–.433***	–.400**
	(.081)	(.243)	(.038)	(.139)	(.035)	(.125)
Age: 30–39	.310**	.421	–.211***	–.228	–.506***	–.436*
	(.106)	(.248)	(.057)	(.191)	(.063)	(.163)
Age: 40–49	.985***	.842†	–.472***	–.569*	–.758***	–.890***
	(.104)	(.425)	(.065)	(.264)	(.068)	(.154)
Age: 50–59	1.021***	1.193*	–.775***	–.577	–.656***	–1.053*
	(.115)	(.493)	(.052)	(.360)	(.073)	(.391)
Age: 60–69	1.456***	1.712*	–1.217***	–1.032	–.766***	–.454
	(.127)	(.775)	(.115)	(1.047)	(.079)	(.406)
Age: 70–79	1.788***	2.294†	–1.492***		–.852***	–1.758***
	(.141)	(1.166)	(.090)		(.104)	(.392)
Age: 80–89	1.845***	.395	–1.867***		–1.144***	.131
	(.248)	(2.001)	(.113)		(.132)	(1.647)
Third generation	.341†	.028	.368***	.104	–.197	–.007

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	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
	(.187)	(.240)	(.094)	(.180)	(.145)	(.269)
Fourth generation	.159	.184	.275*		−.147	.245
	(.281)	(.314)	(.103)		(.135)	(.354)
High school	1.184***	.488	.619***	.442	−.102†	−.492*
	(.116)	(.391)	(.085)	(.277)	(.051)	(.185)
Junior college	1.530***	.535	.872***	.280	−.301**	−.209
	(.133)	(.594)	(.100)	(.366)	(.108)	(.237)
Bachelor	2.816***	2.130***	1.015***	.694**	−.487***	−.682*
	(.118)	(.430)	(.042)	(.233)	(.062)	(.250)
Graduate	3.435***	2.574**	1.429***	1.033*	−.676***	−.990*
	(.303)	(.701)	(.151)	(.408)	(.080)	(.373)
Employed	.093	−.143	.459***	.557*	.074†	.085
	(.109)	(.321)	(.060)	(.270)	(.042)	(.124)
Unemployed	−.133	−1.337*	.619***	−.354	.109	.885***
	(.231)	(.527)	(.119)	(.527)	(.135)	(.218)

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	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
Income (constant $1,000)	.034***	.029**	.011***	–.004	.009***	.020***
	(.003)	(.010)	(.003)	(.007)	(.002)	(.005)
Income^2	–.000***	–.000	–.000**	.000	–.000***	–.000**
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Protestant	–.009	–.514**	–.670***	–.680***	.592***	.538**
	(.125)	(.177)	(.073)	(.172)	(.056)	(.161)
Catholic	–.076	–.852*	–.512***	–.516**	.681***	.550**
	(.250)	(.340)	(.092)	(.152)	(.109)	(.154)
Other religion	–.182	–.304	–.182	–.276	.388†	.175
	(.240)	(.317)	(.156)	(.410)	(.193)	(.198)
Middle Atlantic	–.501***	–.303	–.190	–.079	.052	.148
	(.124)	(.410)	(.146)	(.310)	(.077)	(.219)
East North Central	–.279†	.004	–.252†	–.399	.051	.202
	(.153)	(.412)	(.135)	(.249)	(.091)	(.224)
West North Central	.030	.071	–.164	–.180	–.301*	–.269

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	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
	(.177)	(.579)	(.179)	(.488)	(.111)	(.331)
South Atlantic	−1.084***	−.279	−.419*	−.375	−.140	−.151
	(.185)	(.588)	(.162)	(.352)	(.104)	(.246)
East South Central	−1.330***	−1.300*	−.625**	.407	.338**	−.210
	(.173)	(.528)	(.193)	(.764)	(.117)	(.321)
West South Central	−1.129***	−.533	−.446*	−1.400*	−.052	.088
	(.242)	(.552)	(.193)	(.573)	(.096)	(.288)
Mountain	−.191	.561	−.359†	−.293	−.568***	−.236
	(.236)	(.542)	(.181)	(.372)	(.137)	(.266)
Pacific	−.404*	.255	−.212	−.032	−.513***	−.430*
	(.166)	(.511)	(.136)	(.335)	(.122)	(.190)
Austria	−.041	−2.325***	.442***	.394	−.082	.236
	(.105)	(.263)	(.050)	(.411)	(.077)	(.184)
Belgium	.561***	−3.211***	−.364***	−.090	.004	−.205
	(.082)	(.394)	(.037)	(.315)	(.055)	(.308)

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	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
Canada	−.062	−.700*	.010	−1.143***	−.318***	.435**
	(.135)	(.337)	(.056)	(.282)	(.071)	(.133)
Switzerland	−.149***	−.455	−.459***	.613†	−.255***	−.057
	(.038)	(.366)	(.027)	(.338)	(.020)	(.369)
Czechoslovakia	−.294***	−2.151***	.016	−1.794***	−.362***	−.132
	(.066)	(.316)	(.029)	(.260)	(.061)	(.185)
Germany	−.325***	−1.028***	−.047†	−.574***	−.302***	.070
	(.060)	(.265)	(.024)	(.138)	(.033)	(.137)
Spain	−1.031***	−.442†	−.400***	−.171	.788***	1.601***
	(.092)	(.257)	(.079)	(.277)	(.044)	(.125)
Finland	.597***	−.963**	−.538***	−.914*	−.063	.956***
	(.093)	(.311)	(.069)	(.395)	(.047)	(.121)
France	−.196*	−.861**	.048	−.434*	−.099*	−.376*
	(.074)	(.259)	(.028)	(.168)	(.042)	(.148)
United Kingdom	−.008	−.187	−.042	−.471*	−.406***	.473***

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	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
	(.054)	(.201)	(.029)	(.211)	(.036)	(.118)
Greece	–1.578***	–.663†	–.714***	–.763*	–.012	1.659***
	(.078)	(.375)	(.039)	(.284)	(.085)	(.157)
Hungary	.185†	–2.261***	.108†	–.524	–.290***	–.346*
	(.095)	(.270)	(.054)	(.347)	(.073)	(.128)
Ireland	–.245**	–1.166***	.061†	–.754***	–.373***	.132
	(.079)	(.308)	(.032)	(.189)	(.039)	(.146)
Italy	–.879***	–1.402***	–.140**	–.623**	–.203*	.604**
	(.118)	(.295)	(.039)	(.182)	(.077)	(.165)
Japan	–.311*	–2.019***	–.810***	–.766***	.696***	–.089
	(.113)	(.241)	(.100)	(.198)	(.064)	(.194)
Lithuania	.490***	–.284	.444***	.737*	–1.333***	–.596***
	(.126)	(.274)	(.061)	(.309)	(.101)	(.160)
Mexico	–.836***	–1.590***	–.015	–.655*	.622***	1.339***
	(.098)	(.238)	(.067)	(.241)	(.074)	(.203)

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	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
Netherlands	–.510***	–.576*	–.167***	–1.288***	–.107**	.870***
	(.061)	(.280)	(.035)	(.231)	(.036)	(.169)
Norway	.220***	–1.365***	.119***	–1.218***	–.139***	.725***
	(.041)	(.164)	(.022)	(.216)	(.020)	(.122)
Poland	–.575***	–.874*	–.162**	–.561**	–.418***	.682***
	(.114)	(.381)	(.044)	(.183)	(.076)	(.169)
Portugal	–.686***	–1.580***	–.062	.234	.184***	.903***
	(.092)	(.419)	(.051)	(.183)	(.047)	(.165)
Romania	–1.840***	–2.665***	.512***	.469	.316**	3.804***
	(.121)	(.357)	(.084)	(.399)	(.099)	(.291)
Russia (USSR)	–.462**	–1.694***	.199*	–.610†	–.351**	–.011
	(.128)	(.359)	(.090)	(.334)	(.124)	(.198)
Sweden	–.223***	–2.014***	.066**	–.733**	–.258***	.095
	(.038)	(.229)	(.021)	(.206)	(.016)	(.203)
United States	–1.856***	2.339***	–.203***	–2.357***	.130*	1.070***

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	Generalized trust		Gender egalitarianism		Familism	
	1960	2010	1960	2010	1960	2010
	(.088)	(.231)	(.047)	(.263)	(.060)	(.118)
Yugoslavia	–.429***	–1.126**	–.368***	–1.977***	–.210**	.485*
	(.112)	(.309)	(.040)	(.283)	(.071)	(.201)
Constant	2.339***	5.849***	5.654***	6.940***	6.557***	6.042***
	(.313)	(.869)	(.184)	(.979)	(.194)	(.502)
GGS wave fixed effects	✓	✓	✓	✓	✓	✓
Observations	15,272	2,133	6,073	495	14,452	1,966
R^2	.102	.141	.299	.328	.051	.117

Note: OLS regressions. Robust standard errors in parentheses, clustered by country of ancestry.

† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

Table SM3. Descriptive statistics - Country level

	Obs.	Mean	St.Dev.	Min	Max
Value measures					
2^{nd}, 3^{rd}, 4^{th} generation immigrants					
Generalized trust	90	−0.92	0.78	−3.21	0.60
Gender egalitarianism	90	−0.41	0.67	−2.36	0.74
Familism	90	0.09	0.63	−1.33	3.80
2^{nd}, 3^{rd} generation immigrants					
Generalized trust	90	−1.76	0.78	−5.02	0.19
Gender egalitarianism	90	−0.44	0.68	−2.36	0.74
Familism	90	−0.12	0.77	−1.82	3.75
Dependent variables and covariates					
Total social expenditure	90	−7.94	6.93	−26.67	5.83
Other welfare expenditure	70	−2.94	2.14	−6.89	2.17
Unemployment expenditure	68	−0.64	0.81	−2.12	1.41
Pension expenditure	70	−2.35	3.12	−13.22	5.18
Health expenditure	76	−0.97	1.37	−4.87	1.62
Ties to world society	90	−19.08	17.26	−52.00	29.00
Log GDP	90	−0.71	0.62	−2.67	0.60
Democracy score	90	−6.83	7.88	−19.00	0.00
Income inequality	90	7.37	6.74	−3.60	24.60
% Population ≥ 65	90	−2.41	3.58	−13.37	5.83
Unemployment rate	88	0.99	5.25	−4.25	24.27
Life expectancy at birth	90	−4.19	4.96	−21.56	3.74

Note: Country level variables are measured as deviations from Denmark in the respective period.

2 Micro-foundations of welfare state support

As the main question in this paper concerns the relevance of cultural values in explaining welfare outcomes, this validation check considers whether individual-level differences in values correlate with individual-level support for social welfare. Although not necessary for empirical coherence (Robinson, 1950), influential models of social action anticipate logical consistency across the micro-macro divide (e.g., Coleman, 1986). In different disciplines, this is described as the identification of the micro-foundations of macro-processes. We conduct a test of this, albeit rudimentary, using the GSS data. Specifically, we model individual preferences for welfare expenditure as a function of inherited values. Specifically, a question in the GSS asks:

> *"We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much, too little, or about the right amount on welfare?".*

We recode the variable so that larger values are associated to larger welfare demand. Alternative versions of the same question replace "welfare" with "assistance to the poor" and "caring for the poor". While we prefer to stick with the version of the question quoted above, results increase in magnitude and significance if data with alternative versions are pooled together. Table SM4 reports a series of ordered probit regressions of preferences for welfare spending on cultural traits, estimated on the sample of immigrants' descendants of the second, third and fourth generation. All regressions control for individual characteristics listed in Equation 1 in the main body of the paper.

The results are very clear and consistent with our expectations. For each value measure, there is a statistically significant effect on attitudes towards welfare in the expected direction. In the case of generalized trust, the probability of preferring more welfare spending increases by slightly more than 1 percentage point for each standard deviation increase. The effect is somewhat smaller for more favorable attitudes towards gender equality with favorable welfare attitudes increasing by about 2 points. Finally, greater orientation towards familism is negatively

Table SM4. Value determinants of individual preferences for welfare spending

	Preferences for welfare spending		
	(1)	(2)	(3)
Generalized trust	.009***		
	(.002)		
Gender egalitarianism		.052***	
		(.014)	
Familism			–.008*
			(.004)
Individual controls	✓	✓	✓
Observations	9,095	3,469	9,530
Pseudo–R^2	.041	.053	.043

Note: Ordered probit regressions. Individual controls include: sex; age class; educational attainment; employment status; linear and squared income; religion; generation of immigration; country of ancestry; region of interview; year of interview. Robust standard errors in parentheses, clustered by region of interview.
† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

associated with preferences for welfare by half a point. In sum, the results provide further evidence for the role of values in the micro-foundations for welfare support, acting as antecedent of country-level differences in welfare expenditure.

3 Operationalization of values in the GSS

Orientations toward the collective is based on a measure of generalized trust captured through answers to the question: *"Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"*. Following Rosenberg (1956), this question has been extensively used to assess individuals' trust and to derive estimates of trust at the country level, once aggregated. Answering *"Most people can be trusted"* corresponds to high generalized trust; answering *"Can't be too careful"* reflects low trust.

Attitudes towards gender equality incorporates the degree of agreement with eight statements regarding the role of women in the house, in the job market and in politics: *"A working mother can establish just as warm and secure a relationship with her children as a mother who does not work"*; *"It is more important for a wife to help her husband's career than to have one herself"*; *"A preschool child is likely to suffer if his or her mother works"*; *"It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family"*; *"Women should take care of running their homes and leave running the country up to men"*; *"Do you approve or disapprove of a married woman earning money in business or industry if she has a husband capable of supporting her?"*; *"If your party nominated a woman for President, would you vote for her if she were qualified for the job?"*; *"Most men are better suited emotionally for politics than are most women"*. Principal component analysis is used to construct a composite index, which retains 43% of total variation generated by its eight constituent items (each strongly correlated with the indicator, suggesting that each item is relevant to the latent construct of gender equality) and has a reliability coefficient of 0.78Similar statements have been employed in related literature (Alesina, Giuliano, & Nunn, 2013; Giavazzi, Petkov, & Schiantarelli, 2019).

Finally, the strength of family ties is measured through reported frequency of social contacts with family. In particular, GSS respondents are asked *"How often do you spend a social evening with relatives?"*. They provide answers on a seven-point scale from *"Never"* to *"Almost every day"*. We rescale the three variables measuring cultural traits between 0 and 10 at the individual level so as to make their coefficients comparable in macro-level regressions. The same measure

was used by Alesina and Giuliano (2015) and Giavazzi, Petkov, and Schiantarelli (2019) to measure the importance of family. Although others have used alternative measures, such as individuals' subjective assessment of how important the family is to them (also see below for measures available in the World Value Survey), such measures can be noisy and do not necessarily clearly identify the strength of family ties. Our current measure incorporates family ties in that it captures geographic proximity which is an important part of the concept of family ties (Albertini, Kohli, & Vogel, 2007).

4 Robustness checks

We assess robustness of our results by using alternative measures and samples. Results are shown in Table SM5, panels A through E. Coefficients shown come from models that include both country fixed effects and time-varying covariates. The first test restricts the GSS sample for the measurement of local values to second and third generation immigrants (see Panel A). Essentially, this polishes our value measures from the exposure of later descendants to the US environment while retaining the core inherited component of culture that characterizes the generations closest to migrants. Despite smaller individual-level samples and the resulting weakened effects, there are still robust increases in overall expenditure for generalized trust and gender egalitarianism and significant decreases in expenditure where familism is stronger.

Coefficients shown in Panel B come from models where the underlying sample excludes the US. There is considerable discussion over "American Exceptionalism" in attitudes towards welfare and government spending (Alesina, Glaeser, & Sacerdote, 2001; Hooks & McQueen, 2010; Prasad, 2016; Quadagno, 1999). Full discussion of this issue is beyond the scope of this paper, but the US may indeed be an outlier. There is also greater concern over endogeneity in that cultural traits of Americans with only American forebearers might have been influenced by pre-existing levels of social spending, even if considered with a lag of one generation. Given this, we simply remove the US from the sample and re-estimate the models. Evidence of undue influence is small at best. In the case of generalized trust, the coefficient is slightly smaller than previously seen . The association with gender egalitarianism is hardly changed, as is that of familism. Standardized coefficients remain moderate to large.

A third test removes all countries that split over time (e.g., Yugoslavia) and hence have potential validity and reliability issues with expenditure measures (see Panel C). Again, findings are largely robust even though the sample of country-years is almost halved. The coefficient for generalized trust is reduced substantially, while those for gender egalitarianism and familism are less effected. Coefficients in Panel D come from the most conservative models. These models are based on the sample of countries where the number of first stage respondents is greater than 10 in both 1960 and 2010 for the respective cultural value (n ranging between 25 and 43). Given

this, improved precision of measurement reduces generalizability but also raises the bar on the criteria for statistical significance as statistical power is reduced. Even with these qualifications, the results are largely consistent. The coefficient for generalized trust is larger than in baseline model 3 in Table 3, as well as the standardized effect. The coefficient for gender egalitarianism is much larger than previously seen, while that for familism is largely unchanged.

The final test includes data from 1930 for the sample of countries. This test is particularly important as it is a quasi-placebo test. The sample providing value data includes immigrants who came to the US prior to 1905 when there was really no public discourse around social expenditure and when expenditure itself was either very low or non-existent. Given this, we would expect estimated effects to be lower than those seen for the post WWII data. Expectations are largely borne out (see Panel E). In the case of generalized trust, the unstandardized effects are reduced by 47 percent. Similar decreases in effect size are seen for familism. Here, the coefficient decreasesby approximately 54 percent. Although still consistent with expectations, the effect for gender egalitarianism is reduced to a much smaller extent, only 17 percent. Importantly, conclusions still support the significance of local values: all three measures continue to show statistically significant associations with standardized effects that are moderate to large in magnitude.

Table SM5. Overall social expenditure regressed on collective values – Robustness checks using different measures of values and/or different samples

	(1)	(2)	(3)
A. 2nd and 3rd generation respondents			
Generalized trust	1.920*		
	(.927)		
	[.216]		
Gender egalitarianism		4.605**	
		(1.391)	
		[.455]	
Familism			–5.268***
			(1.307)
			[–.583]
Observations	90	90	90
R^2	.889	.903	.912
B. Removing the US			
Generalized trust	3.873***		
	(.897)		
	[.425]		
Gender egalitarianism		5.993***	
		(1.617)	
		[.556]	
Familism			–5.791**
			(1.656)

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	(1)	(2)	(3)
			[–.519]
Observations	88	88	88
R^2	.915	.908	.905

C. Removing countries that split overtime

Generalized trust	1.667†		
	(.929)		
	[.269]		
Gender egalitarianism		3.917*	
		(1.546)	
		[.405]	
Familism			–4.415**
			(1.535)
			[–.627]
Observations	48	48	48
R^2	.893	.906	.912

D. Countries with first stage respondents > 10

Generalized trust	5.173***	
	(.930)	
	[.546]	
Gender egalitarianism		11.249***

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	(1)	(2)	(3)
		(2.134)	
		[.701]	
Familism			–6.119*
			(2.347)
			[–.414]
Observations	86	50	82
R^2	.932	.952	.903

E. Adding 1930 data

Generalized trust	2.064**		
	(.580)		
	[.353]		
Gender egalitarianism		4.499***	
		(1.010)	
		[.467]	
Familism			–2.663**
			(1.289)
			[–.253]
Observations	135	135	135
R^2	.657	.680	.626

Note: OLS regressions. All regressions include country fixed effects and time-varying controls. Standard errors in parentheses. Standardized coefficients in brackets.

† $p<.1$; * $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed test).

5 The Dynamic Evolution of Values and Welfare

We have established that local values shape welfare state expenditure during the post-World War II period until today. Consideration of two distant periods affirms an overall positive (generalized trust, gender egalitarianism) or negative (familism) effect on welfare originating from values. But as we have discussed, the institutional and economic integration between a previously disconnected world, developed at an increasing rate over the second half the 20^{th} century. Processes of institutional convergence and economic integration contributed to the world society culture that may have attenuated or even displaced local cultures gradually. In other words, the estimated relationships may not have been the same over this time period.

To explore this empirically requires observing inherited values more frequently. The "$T-25$" approach illustrated in the previous section is adopted also here but implemented by relaxing one of the underlying assumptions. Previously the samples of immigrants' descendants used to measure inherited values in 1960 as opposed to 2010 were indeed different (see Table 1). This is not feasible when using year-by-year samples since sample sizes become small and we lose precision in the correspondence between resulting annual variation in measured values and welfare expenditure. Thus, in order to demonstrate time trends in the effects, we are forced to introduce some overlap between estimation samples by including the same individuals in close cultural cohorts within a period of 25 years. Inherited values are estimated as in Equation 1 for each year between 1960 and 2014. The time-varying effect of values on welfare are evaluated through Equation 3:

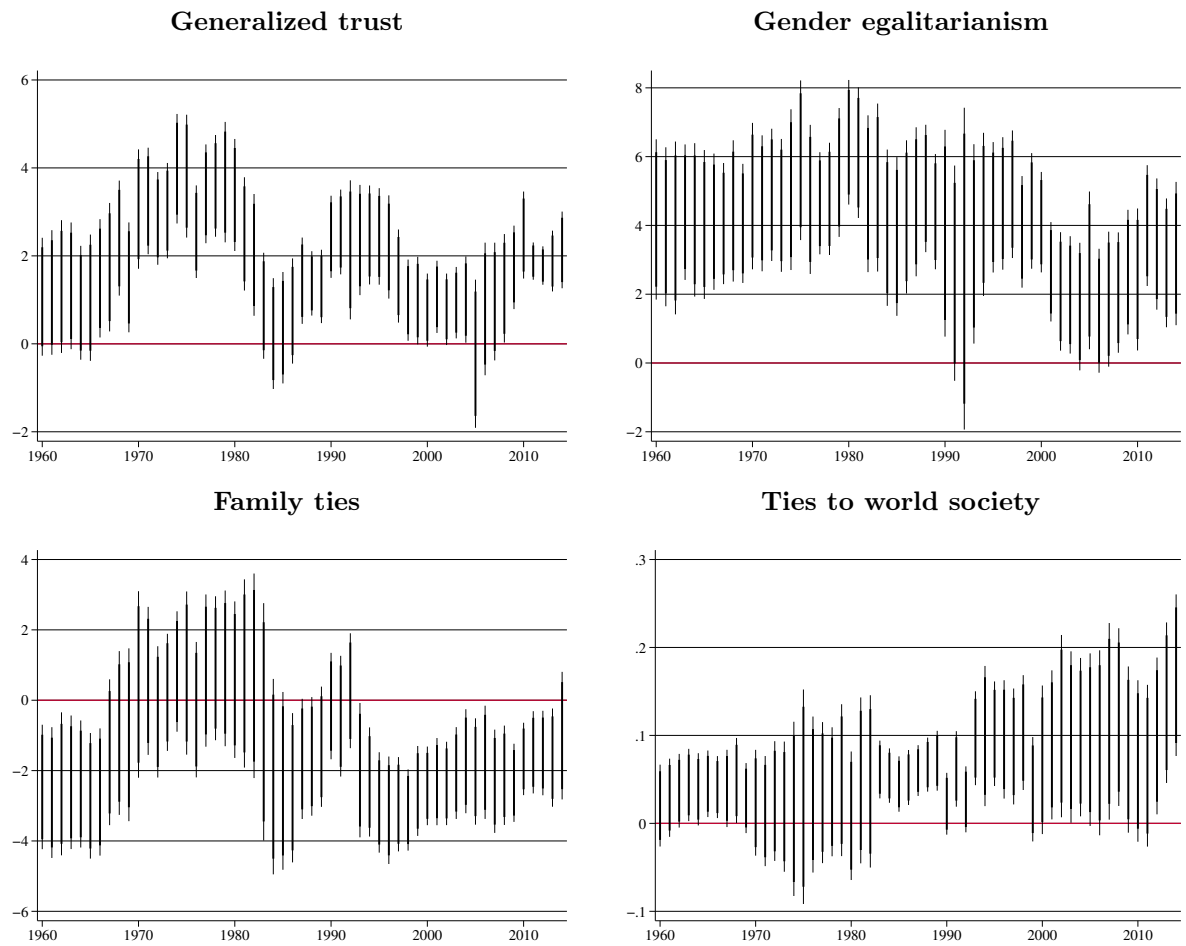
$$SWE_{ct} = \beta_1 \widehat{\alpha}_{1,ct} \times Year_t + \beta_2 Country_c + \eta_{ct} \tag{3}$$

Where the estimated inherited values $\widehat{\alpha}_{1,ct}$ are interacted with the year dummies $Year_t$, and $Country_c$ are country fixed effects.

Figure SM1 shows estimated effects for each of the cultural measures or proxies – the three local value estimates and the one of global culture – for each year from 1960 to 2015. For two of the three local culture measures that were significant in previous models, there is a general decline in influence from the mid 1970s to the mid 2010s. For example the effect for generalized

trust is approximately 3.5 in the mid to late 1970s and this declines to approximately 1 between 2000 and 2010. Likewise, the effects for gender egalitarianism were approximately 6 during the 1970s but declined to approximately 3 through the early 2000s. Although the pattern of change is similar for familism, interpretation is different. In this case, the effect is insignificant for the first part of the time window. It is close to zero during the 1970s and early 1980s, but becomes negative during the 1990s and early 2000s to the point that it approximates -2. It is here interesting to see the effect of global culture. It clearly became stronger over time. The effects approximate zero through the 1960 and 1970s but then increase to approximately 1 through the 1990s and early 2000s. One interpretation of this is that the ascendancy of global culture during the post Bretton Woods era of global integration has supplanted or lessened the influence of local culture. Still, both types of culture are significant determinants of social expenditure in the current period.

Figure SM1. Dynamics of the relationship between inherited values and social welfare expenditure



Note: The coefficients plotted are interactions of inherited values and years in regressions of total social expenditure including country fixed effects. Thin (thick) vertical lines correspond to 90% (95%) confidence intervals estimated with standard errors robust to heteroskedasticity.

6 Macro-level data

Social welfare expenditure

A chronology of data on social expenditure spanning the period 1960–2017 for our sample of countries has been compiled by relying on institutional sources. All countries show a break in series occurring between 1980 and the early 1990s which calls for an integration of different sources in order to create a longer comprehensive series. We select all countries that appear as ancestral origin places in the GSS and for which separate social expenditure figures are available. Since three GSS countries of origin dissolved over time, this implies that we select:

- Czech Republic and Slovak Republic in place of Czechoslovakia;
- Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia, Serbia, and Slovenia in place of Yugoslavia;
- Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Moldova, Russia, Tajikistan, Ukraine, and Uzbekistan in place of Russia (USSR).

Organisation for Economic Co-operation and Development (OECD, 1985) provides a list of social expenditure figures, along with gross domestic product (GDP) figures, for nineteen countries over the period 1960-1981, articulated by spending category: education; health; pensions; unemployment compensation; other social expenditure (defined as expenditure on sickness, maternity or temporary disablement benefits, family and child allowances, other social assistance and welfare affairs and services). We consider the series up to 1979 for all countries present in our sample (Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, the Netherlands, Norway, Sweden, Switzerland, the UK, and the US). We rely on the entries provided in Lindert (1994) to fill a few blank cases in OECD (1985).

Data for Czechoslovakia, Hungary, Mexico, Poland, Portugal, Romania, Spain, the USSR, and Yugoslavia is derived from various editions of ILO's *The Cost of Social Security* (International Labour Organization [ILO], 1952, 1953, 1954, 1958, 1961, 1964, 1967, 1972, 1976a, 1976b, 1978a, 1978b, 1981a, 1981b, 1985a, 1985b, 1988, 1992, 1990, 1996, 1995, 2021a), an inquiry launched in 1952 which gathers information on receipts and expenditures of social security

schemes in a large set of world countries from the early 1940s to 1996. We sort each scheme into its respective spending categories, and expenditure figures are related to GDP data either provided in the same inquiries or retrieved from complimentary sources (Mitchell, 2013; World Bank, 1993; Jackson, 1985). When available we prefer data from original documentation as reported in *The Cost of Social Security (1949-1993)*, a project aimed at harmonizing further the same ILO data (International Labour Organization–Eurodata [ILO-Eurodata], 2001). In case of former planned economies lacking GDP data before 1990 we consider Net Material Product (NMP, a measure of national product which does not account for provision of services, but for the production of goods only) and deflate expenditure shares by applying conversion factors provided in (Krelle, 1989) .

The *Social Expenditure Database* (OECD, 2021) provides figures for OECD countries starting from 1980. For all 28 OECD countries in our sample we consider total public expenditure as percentage of GDP on these social policy areas: old age; survivors; incapacity; health; family; active labour market policies; unemployment, housing, and other policy areas. Following a change in the accounting practice for Denmark, the OECD classifies unemployment compensation among voluntary private rather than public benefits. In order to preserve comparability of the figures across countries – all countries present positive unemployment expenditure in 2010 – and over time – Denmark's unemployment expenditure is sizeable in all years covered in OECD (1985) – unemployment expenditure for Denmark is taken from Eurostat (2021) from 1990 onward (the source of primary data is the same in both series). Consistent with the older series, the first three areas are added up into the *pensions* category. In the same vein, *other welfare expenditure* results from the sum of expenditure on family, active labour market policies, and housing to expenditure on other policy areas.

Social expenditure as percentage of GDP for non–OECD countries is sourced from complimentary databases from the early 1990s onward. As for Bosnia and Herzegovina, Croatia, North Macedonia, Montenegro, Romania, and Serbia we retrieve data from Eurostat (2021). Starting in 1990, this database classifies social benefits by functions that can be sorted into our four categories similarly to OECD data: sickness/healthcare, disability, old age, survivors, family/children, unemployment, housing, and social exclusion which is not elsewhere classified.

International Monetary Fund (IMF, 2021) provides expenditure data by function of government divided in: health, sickness and disability, old age, survivors, family and children, unemployment, housing, social exclusion n.e.c., social protection R&D, social protection n.e.c. We resort on the IMF series for Armenia, Azerbaijan, Croatia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Moldova, Russia, and Ukraine. Finally, additional sources by the ILO are used to collect total expenditure data for Belarus, Tajikistan, Uzbekistan and, in years with otherwise missing figures, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, and Ukraine. These sources consist of various editions of the *World Social Protection Report* (ILO, 2010, 2014, 2017, 2021d), the *Social Security Expenditure Database* (ILO, 2021b), and the *World Social Protection Data Dashboards* (ILO, 2021c).

In case of data still missing upon combining the sources listed above we fill gaps by linear imputation between preceding and following years.

Data on social expenditure in the pre-WWII era comes from Lindert (2004), who relies on ILO sources to derive five kinds of government social spending (welfare and unemployment, pensions, health, housing) in 30 countries around 1930. We build on Lindert's figures and refer to ILO (1936a, 1936b, 1936c) in order to disentangle unemployment spending from welfare spending. The sum of welfare spending and housing spending corresponds to spending in other policy areas, so as to match the categorization of social expenditure adopted by OECD in the post-WWII era and to let us analyze the data in a panel format.

Gross Domestic Product

The whole data series on per capita income comes from the *Maddison Project Database* (Bolt & van Zanden, 2020). We use figures on real GDP *per capita* in the observed year expressed in 2011 US dollars.

Institutionalized democracy/autocracy

To measure the prevalent characteristics in the political and institutional environment we consider the revised combined Polity Score from the *Polity 5 Project* (Marshall & Gurr, 2020). The summary score indicates where countries are located on the autocracy-democracy spectrum,

depending on the qualities of their governing institutions along the following dimensions: (i) competitiveness and openness of executive recruitment, (ii) constraint on chief executive, and (iii) regulation and competitiveness of political participation.

Inequality

Income inequality is measured through the Gini index. Since several projects have provided cross-country Gini series covering different time periods (e.g. the *Luxembourg Income Study*, World Bank's *World Development Indicators* and *PovcalNet*, OECD's *CLIO Infra*, the *Chartbook of Economic Inequality*), the Gapminder Foundation has combined data from a variety of sources in order to disseminate historical Gini series (http://gapm.io/ddgini), which we include in our analysis.

Linkages to world society

We operationalize the strength of world cultural influences through national-level memberships in Inter-Governmental Organizations (IGOs). In particular, our indicator counts how many conventional international bodies each country is a member of at each time point. These IGOs include federations of international organizations, universal membership organizations, intercontinental membership organizations, and regionally oriented membership organizations. Data is derived from various editions of the *Yearbook of International Organizations* by the Union of International Associations (UIA).

Demographic structure

The share of population aged 65 and above provided in World Bank (2021b) is considered as a measure of the age composition of the population.

Unemployment

World Bank (2021c) provides data starting from 1991. We select unemployment rates for all persons aged 15 and above.

Levels of unemployment in the previous period are extensively documented in the yearbooks published by the ILO. Unemployment rates in 1960 are taken from ILO (1970a, 1970b). We

derive estimates for Czechoslovakia, Hungary and Romania by aggregating data on economically active population and employed population. Data for Czechoslovakia and Poland refer to 1961, while for Romania to 1966. Data for France, Greece, Portugal and Spain in 1960 come from OECD (1999). As for the USSR we consider the average between two estimates of unemployment rates taken from Wiles (1972), which refer to 1962–1963.

Because the Mexican labour force series starts only in the 1980s, Mexico observations are missing in the unemployment regressions.

Life expectancy

Data on average life expectancy at birth for total population come from World Bank (2021a).

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