

Article

The paradox of inequality: income inequality and belief in meritocracy go hand in hand

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Abstract

Inequality is on the rise: gains have been concentrated with a small elite, while most have seen their fortunes stagnate or fall. Despite what scholars and journalists consider a worrying trend, there is no evidence of growing popular concern about inequality. In fact, research suggests that citizens in unequal societies are less concerned than those in more egalitarian societies. How to make sense of this paradox? I argue that citizens' consent to inequality is explained by their growing conviction that societal success is reflective of a meritocratic process. Drawing on 25 years of International Social Survey Program data, I show that rising inequality is legitimated by the popular belief that the income gap is meritocratically deserved: the more unequal a society, the more likely its citizens are to explain success in meritocratic terms, and the less important they deem nonmeritocratic factors such as a person's family wealth and connections.

Key words: income, inequality, political attitudes, theory, meritocracy

JEL classification: Z13 social and economic stratification, D63 equity, justice, inequality, and other normative criteria and measurement, H public economics

1. Introduction

Inequality is on the rise. An impressive body of research describes the dramatic increase in income inequality in the West, in historical and comparative perspective, and offers explanations for this trend (Morris and Western, 1999; Piketty and Saez, 2003; Neckerman and Torche, 2007; McCall and Percheski, 2010; Atkinson *et al.*, 2011). Despite the reality of increasing inequalities, however, the trend has not been accompanied by growing popular concern (Alesina and Glaeser, 2004; Lübker, 2007; Kenworthy and McCall, 2007; Brooks and

Manza, 2013; McCall, 2013; Kuziemko *et al.*, 2015; Larsen, 2016). Neither do citizens in more unequal societies express more concern about inequality than those in more egalitarian societies (Paskov and Dewilde, 2012; McCall, 2013; Bucca, 2016; Wietzke, 2016; for a review, see Janmaat, 2013). How to make sense of this paradox?

Scholars have offered various explanations for citizens' lack of concern for the growing gap between the rich and poor. First, people are often misinformed about the actual state of inequality in their society. Specifically, evidence suggests that citizens greatly underestimate just how unequal a society they live in (Osberg and Smeeding, 2006; Kenworthy and McCall, 2007; Norton and Ariely, 2011; Cruces *et al.*, 2013; McCall, 2013; Gimpelson and Treisman, 2018). In other words, citizens may be unconcerned simply because they are unaware of the extent of inequality in their country. A second line of scholarship suggests that living in an unequal society may actually make people more tolerant of inequality, as they get used to it and develop successful coping mechanisms (Jost *et al.*, 2004; Bénabou and Tirole, 2006; Trump, 2017). In this article, I draw on these insights to develop an alternative explanation for people's growing tolerance of inequality and their resistance to redistributing income and wealth: I argue that people increasingly believe that inequality is the outcome of a fair, meritocratic, process where societal success simply reflects talent, ambition and hard work.

Figure 1 shows the trend in meritocratic beliefs in different countries in the 1987–2012 period for which we have comparative attitudinal data (see also Mijs, 2018a). Indicated, for each country and time point, is the average score that citizens attributed to hard work in determining who gets ahead in society. A first thing to note is how strongly citizens, across the board, think success depends on hard work. With the exception of communist pre-1989 Poland, a majority in each country and time period believes theirs is a meritocracy society. A second thing to note is that the percentage of people who do has gone up in almost every country since the late 1980s. The West is marked by a striking convergence in citizens' views of success: in the most recent surveys, at least two-thirds of citizens in all countries—and as much as 95% of Americans—attribute success to meritocratic factors.

In what follows, I explore the relationship between country-level income inequality and citizens' concerns and beliefs about inequality, drawing on pooled data from the International Social Survey Program (ISSP), covering 49 383 citizens in 23 countries, over a 25-year period (from 1987 to 2012). In the first step of the analysis, I draw on between-country differences and changes within countries over time to describe how citizens in more unequal societies are more likely to explain success in terms of meritocratic factors and less likely to believe in structural inequality. This relationship is driven mainly by between-country differences, but I also find evidence that long-term changes in inequality are accompanied by a stronger belief in meritocracy, while belief in structural inequality remains stable. I confirm the impact of over-time changes in inequality by means of a cohort analysis. Comparing present-day inequality with the level of inequality when a person reached adulthood, I find that citizens who grew up with rising levels of inequality believe more strongly in meritocracy.

In the second step of the analysis, I show that there is no statistical relationship between country-level income inequality and citizens' concerns about inequality. What explains people's concerns are their beliefs about the causes of inequality. I show that citizen's (individual-level) beliefs and popular (country-level) beliefs about inequality explain a large part of their concerns: people who believe inequality reflects hard work are much less concerned



Figure 1 Belief in meritocracy across countries over time.
Note. Indicated on the vertical axis is the approximate percentage of citizens, for each country and period, who believes that who gets ahead in society is decided by hard work
Source. Author’s calculations from International Social Survey Program (2014).

about inequality than citizens who see inequality as driven by structural forces such as a person’s family wealth and connections.

In sum, income inequality is accompanied by popular beliefs that dampen citizens’ concerns by legitimating the growing income gap as meritocratically deserved. I conclude by discussing implications for theory and research.

2. Theoretical background

Research documents a trend of growing inequality across the West: over the last three decades, income gains have been concentrated among a small group of citizens, while many have seen their economic position stagnate or fall (Morris and Western, 1999; Neckerman and Torche, 2007; McCall and Percheski, 2010; Atkinson *et al.*, 2011; OECD, 2015).¹ Today the top 10% of households take home 25% of all earnings and own more than half of all wealth (OECD, 2015, pp. 34, 35). Despite what scholars, journalists and some politicians consider to be a worrying trend, there is no evidence that people have grown increasingly concerned about inequality (Alesina and Glaeser, 2004; Lübker, 2007; Kenworthy and McCall, 2007; McCall, 2013; Kuziemko *et al.*, 2015). The USA is the embodiment of this phenomenon: while it is one of the most unequal and least socially mobile society in the West (Corak, 2004; Breen and Jonsson, 2005; Smeeding, 2005; Alesina *et al.*, 2018), its citizens are the most resistant to redistributing income and wealth (Hochschild, 1996; Brooks

1 The focus here and throughout this article is on developed countries in the West as defined by membership in the Organisation for Economic Co-operation and Development (OECD). A full list of countries that make up the sample of the empirical analyses presented here is given in Table 1.

and Manza, 2013). Scholars suggest that citizens' consent to rising levels of inequality could have its source in cognition, morality or experience.²

2.1 Underestimating inequality: the role of cognition

On a cognitive level, it may be that people are not well-informed about the trend characterizing their changing societies; they do not know the full extent of it. There is considerable evidence to suggest that people indeed underestimate the degree of inequality in their society—something that is true for Americans as well as citizens of European and Latin American societies (Osberg and Smeeding, 2006; Norton and Ariely, 2011; Cruces *et al.*, 2013; Bucca, 2016). News media may play a part here: McCall (2013) shows that print media in the USA devoted considerable attention to inequality and related themes such as poverty and job insecurity, but that the trend in reporting between 1980 and 2010 did not in any way correspond to actual trends in inequality; if anything, reporting declined since the 1980s while inequality went up.

The importance of information is underlined by survey experiments indicating that presenting people with facts about the actual state of inequality generally leads them to update their beliefs although exactly how they do is contested. Nair (2018) finds, in a representative US survey, that correcting people's perception of their rank in the global income distribution makes them more willing to support foreign aid and donate to charities. Kuziemko *et al.* (2015) find that providing American citizens with information about real levels of inequality in their society increases their concerns about inequality, but leaves their policy preferences largely unaffected. Alesina *et al.* (2018) replicate the first finding for representative samples of US, British, French, Italian and Swedish citizens. In line with the second finding, Kuklinski *et al.* (2000) find that correcting misperceptions about the number of people on welfare and the size of government spending does not change people's preferences. In contrast, Cruces *et al.* (2013) find that poor people underestimate how much other people make, and learning about their place in the income distribution increases their support for income redistribution. Last, Trump (2017) finds that experiences of inequality may change people's beliefs about the legitimacy of inequality, but in a counterintuitive direction. She designed an experiment where Swedish and American participants are asked to estimate income inequality. Participants in the treatment group are informed about actual income inequality in their society, whereas participants in the control group are not. As a result of the treatment, participants reported a preference for a higher ratio of high-to-low income inequality, by as much as 50%. In other words, they upwardly adjusted their tolerance of inequality.

- 2 The question of citizens' concerns about or consent to inequality is related, but both conceptually and empirically distinct from citizens' preferences regarding income redistribution and how inequality ought to be addressed by government, which have been subject to rigorous research (Dallinger, 2010; Jæger, 2013; Schmidt-Catran, 2016). These matters are likely to depend to a greater extent on citizens' political values, trust in government and other policy preferences, which may mediate the relationship between experiences of inequality, perceptions thereof and citizens' concerns (McCarty and Pontusson, 2011 cf.; Alesina *et al.*, 2018). This means that this study is in conversation with research on citizens' preferences regarding income and wealth redistribution, but my analyses are of citizens' beliefs and perceptions rather than political attitudes, and should not be taken as directly comparable.

Taken together, whereas these studies suggest that people's beliefs about inequality are based on information, they also indicate that people may respond differently to (new) information about inequality. Consequently, it is unclear how to explain people's consent to inequality through a purely cognitive process.

2.2 Meritocracy legitimates inequality: the role of morality

Trump's finding suggests that part of the explanation for citizens' consent to inequality may be that people adjust their ideals in accordance with their perceptions of reality. In fact, research describes how people in more unequal societies grow more tolerant of inequality (Gijbels, 2002; Schröder, 2017), echoing Marx's claim that the ideological superstructure will follow society's material base. These findings fit with a long line of social psychological research on the legitimization of inequality. The 'belief in a just world' perspective posits a universal tendency to believe that inequalities reflect a meritocratic process, this allows people to maintain their belief that they live in a fair world rather than having to address inequities (Lerner, 1980; Jost *et al.*, 2004; Bénabou and Tirole, 2006).

In addition to this general psychological tendency, sociologists have described how powerful societal groups in particular may have an interest in maintaining their advantages through self-justification (Kluegel and Smith, 1986; Mijs, 2016) or a more dynamic cultural process of boundary making, whereby people in positions of advantage develop beliefs that legitimate closure between them and those below (Lamont, 1992; Lamont *et al.*, 2014). We can think of the American Dream as such a cultural narrative, or repertoire, that elites draw from and reproduce in order to justify their privileges—a cultural solution or coping mechanism for the exceptionally high levels of inequality characterizing the USA (Hochschild, 1996; Kelly and Enns, 2010). Neoliberal policies, rolled out throughout the West since the 1980s, have arguably reinforced the notion that success and setbacks in the free market are reflective of individuals' talents, efforts or lack thereof (Somers and Block, 2005; Hall and Lamont, 2013; Mijs *et al.*, 2016). Research indeed suggests that the public increasingly blames the poor for their misfortune and praises the successes of the 'meritocratic' rich (MacLeod *et al.*, 1999; Weaver *et al.*, 1995; Hills, 2005).³

Rather than think of the role of cognition and morality (meritocracy) as competing explanations for the lack of popular concern about inequality, the two may in fact be connected. To see how, consider the role of people's own experiences. Despite all the news on inequality, for many people the world as presented in the media, or depicted by politicians, may not correspond to their lived experience (Edmiston, 2018; Gimpelson and Treisman, 2018; Irwin, 2018). Similarly, the meritocratic narrative, while dominant in most Western societies, may ring more true to some than to others. New research suggests that what grounds people's beliefs about inequality is their exposure to and interactions with other people across economic fault lines.

2.3 Unequal societies and meritocracy beliefs: the role of experiences

Studies describe how people living among others of the same income level tend to hold meritocratic beliefs, while those living in more economically heterogeneous areas are more likely to think that success is determined by forces outside their control (Merolla *et al.*, 2011;

3 But see Svallfors (2011) for the contradicting case of Sweden.

Newman *et al.*, 2015; Wu and Chou, 2017). The latter can see what the former cannot: how life outcomes are shaped by money and resources.

Edmiston (2018, p. 11) reports how in the absence of contact, his affluent interviewees displayed a 'poor sociological imagination', whereas '[those] who had sustained interaction with, or experience of, structural constraints were much more likely to recognize the factors that might mitigate an individual's responsibility for their situation or actions'. This finding may not be limited to people living in affluence. Research suggests that poor people tend to underestimate the extent of their poverty (Cruces *et al.*, 2013) and sometimes blame themselves for their circumstances (Newman, 1999; McCoy and Major, 2007). Shedd (2015) argues that such beliefs are situated in people's social environments. In her study of Chicago public school students, she finds that '[their] perceptions of the world are indelibly shaped by their place in that world. (...) Youth of color attending segregated schools experience structural discrimination on a daily basis, but they lack the opportunity to make between-race comparisons on a daily basis. Students who cross boundaries, in other words, are more likely to see discrimination than those who do not make these journeys' (Shedd, 2015, p. 58).

These studies continue a line of research originating in the 1950s and 1960s, which describes how people's understanding of society draws on social comparison processes that are both limited and biased by their social context; people's perceptions and beliefs are 'bounded by the private orbits in which they live' (Mills, 1959, p. 3). When making comparisons, people draw on a restrictive range of reference groups, namely their coworkers, family and friends who tend to be socioeconomically similar to them (Lockwood, 1966; Runciman, 1966; Dawtry *et al.*, 2015; Irwin, 2018; Minkoff and Lyons, 2018). As Irwin (2018, p. 204) puts it, 'people read the world from their own situated position and extrapolate from their own experience'. As a consequence, people underestimate social inequality (Mijs, 2018b).

Growing levels of income inequality mean that experiences and interactions with people across income, wealth and racial fault lines are becoming more seldom. Research suggests that income inequality creates greater spatial and social distance between the wealthy and the poor, as they live their lives in different institutions: children grow up in poor or wealthy neighborhoods, attend different (public or private) schools, find friends and romantic partners in their own circles, and come to work in increasingly polarized labor markets (Musterd, 2005; Neckerman and Torche, 2007; Kalleberg, 2009; Reardon and Bischoff, 2011; Massey and Tannen, 2016; Owens, 2016; Tammaru *et al.*, 2016). Consequently, I argue, people on either side of the income divide are unable to see the breadth of the gap that separates their lives from those of others: as the gap grows larger, other people's lives fade out of view. Hence, large inequality paradoxically leads to insulate people from seeing the full extent of it. People underestimate the structural forces that make for inequality because they are increasingly unable to see it from their (isolated) position at the bottom or top of their (segregated) society. Without direct experiences, news reporting and statistics about (growing) inequality are not likely to change people's perspectives, nor lead them to develop empathy for the plight of unseen others living across the income divide (Tropp and Pettigrew, 2005; Newman, 2014; Roth and Wohlfart, 2017; Edmiston, 2018).

In sum, I hypothesize that citizens' consent to inequality can be explained by their belief that inequalities reflect the legitimate accomplishments of hard work rather than the operation of ('unfair') structural forces beyond their control. Moreover, I posit that inequality creates the social conditions for its legitimation. The statistic of income inequality becomes

economic reality when it affects affluent and poor people's wages and employment. It becomes social reality when it impacts the social and spatial environment in which the rich and poor lead their lives. Unequal societies are marked by greater social distance, such that the rich and poor develop an understanding of society and their own place in it from a position of socioeconomic insulation. As a result, people in more unequal societies underestimate the extent of inequality and the role of structural advantages or barriers that help or hurt them.

The following hypotheses follow from the preceding discussion.

Hypothesis 1: With greater income inequality, citizens are more likely to understand inequality in meritocratic terms (H1a), and less likely to understand inequality in structural terms (H1b).

Hypothesis 2: Belief in meritocracy leads citizens to be consenting of income inequality (H2a), and belief in the structural causes of inequality leads citizens to be concerned about inequality (H2b).

In what follows, I put these hypotheses to the test. The next section describes the data and methods, before discussing my findings.

3. Methodology

3.1 Data

I draw on data from the ISSP, which is a cross-national survey started in the 1980s by a small group of Western nations (Australia, Germany, Great Britain and the USA) and has since grown to span more than two decades and cover dozens of countries. My analyses build on the cumulative Social Inequality module ([ISSP Research Group, 2014](#)), covering three time periods: the first wave, 1987–1988, the repeated survey in 1991–1993, and the most recent data collected in 2008–2012. Data for each country period are based on a representative survey of the adult population.⁴ Since my focus in this article is on Western countries undergoing comparable trends, I exclude non-European, non-Western nations from the sample. Combining data for the three waves and accounting for missing data, I obtain a final sample of 49 383 in 23 countries and 43 country periods. The country panel is unbalanced; some countries participated in all three waves, whereas other countries participated only once or twice. The ISSP surveys are fielded in each country by local research centers. Participation in each wave depends on organizational, logistical and financial factors (for details, see [ISSP Research Group, 2014](#)). See [Table 1](#) for the full list of countries and years, and for country-level averages of key variables discussed in the next section.

3.2 Dependent variables

I measure citizens' concerns about inequality as their response to the following question: 'Income differences in [country] are too high.' Responses fall in one of five categories: strongly agree/agree/neither agree nor disagree/disagree/strongly disagree. For ease of interpretation, I follow [Larsen's \(2016\)](#) strategy to reverse code and multiply the five points to

4 Sampling procedures vary from country to country. For details, see [ISSP Research Group \(2014\)](#).

Table 1 Country period descriptives ($n = 43$)

Country	Year	Code	Gini	GDP	Concern	Merit	Structure
Australia	1987	AU87	40.6	27 817	63.0	83.1	38.0
Australia	1992	AU92	42.0	29 048	64.8	80.2	48.4
Australia	2009	AU09	31.4	41 841	72.8	87.2	44.9
Austria	1987	AT87	23.0	27 471	82.9	65.4	72.6
Austria	2009	AT09	27.8	41 222	82.8	65.1	62.8
Canada	1992	CA92	35.6	29 773	70.0	81.0	37.7
Czech Republic	1992	CZ92	21.0	17 181	71.8	71.9	52.2
Czech Republic	2009	CZ09	25.3	26 885	81.8	76.0	62.6
France	2009	FR09	32.9	35 536	88.8	55.0	24.9
Germany	1987	DE87	35.2	27 383	71.7	59.9	64.5
Germany	1992	DE92	30.8	32 120	80.7	58.4	59.0
Germany	2009	DE09	30.6	38 331	84.2	71.1	69.6
Hungary	1987	HU87	21.0	14 564	75.8	60.8	54.7
Hungary	1992	HU92	27.8	14 148	79.9	54.4	52.0
Hungary	2009	HU09	27.4	21 274	93.6	72.0	65.6
Iceland	2009	IS09	28.5	39 678	83.3	71.1	75.5
Ireland	1987	IR87	35.2	17 327	76.0	83.1	55.2
Italy	1987	IT87	31.8	27 522	81.0	56.5	82.5
Italy	1992	IT92	30.5	30 851	84.7	54.5	78.1
Italy	2009	IT09	32.7	34 320	89.4	63.2	64.2
Japan	2009	JP09	32.1	33 598	77.9	65.1	20.1
Latvia	2009	LV09	36.2	17 906	87.9	75.8	65.4
Netherlands	2009	NL09	28.8	44 207	68.5	53.0	50.9
New Zealand	1992	NZ92	38.2	21 578	72.2	84.0	34.6
Norway	1992	NO92	25.1	42 149	69.3	72.3	36.1
Norway	2009	NO09	26.3	58 368	62.9	81.4	38.3
Poland	1987	PL87	24.3	9 976	78.9	37.6	63.9
Poland	1992	PL92	25.0	9 474	79.9	82.4	74.9
Poland	2009	PL09	34.1	20 296	84.0	85.2	79.2
Portugal	2009	PT09	36.2	26 864	88.8	87.8	56.5
Slovakia	1992	SK92	20.2	11 560	82.3	68.2	64.9
Slovakia	2009	SK09	26.0	23 694	88.0	76.9	74.4
Spain	2009	ES09	30.7	32 124	79.7	68.2	62.5
Sweden	1992	SE92	24.9	28 959	64.7	67.8	43.5
Sweden	2009	SE09	25.5	39 650	73.0	75.8	43.3
Switzerland	1987	CH87	35.7	41 349	68.0	66.2	46.0
Switzerland	2009	CH09	32.3	51 750	79.8	67.9	54.6
UK	1987	UK87	33.2	24 373	72.4	84.3	43.9
UK	1992	UK92	36.8	26 077	77.0	81.7	36.3
UK	2009	UK09	37.5	35 354	75.2	84.0	34.8
USA	1987	US87	42.6	33 898	73.1	89.8	49.3
USA	1992	US92	43.3	36 508	73.1	88.2	45.9
USA	2009	US09	46.8	47 503	69.1	95.5	54.5

Note. Gini is the Gini coefficient of income inequality for that country and year, GDP is the Gross Domestic Product in US Dollars. The next three columns give the country-level average, in that survey year, of citizens' concerns about inequality (Concern), belief in meritocracy (Merit) and their belief in structural inequality (Structure). *Source:* Milanovic (2013), OECD (2017) and author's sample of International Social Survey Program 1987–2009.

get a scale resembling percentages; ranging from 0 (not concerned at all) to 50 (not concerned nor unconcerned) to 100 (very concerned).⁵

In measuring beliefs about inequality, I draw on a set of questions inviting survey participants to evaluate the relative importance of several meritocratic and non-meritocratic factors in determining life outcomes (cf. Kluegel and Smith, 1986; Duru-Bellat and Tenret, 2012; McCall, 2013; Reynolds and Xian, 2014; Larsen, 2016). The question reads as follows: ‘Please tick one box for each of [the following] to show how important you think it is for getting ahead in life...’ (a) hard work, (b) having ambition, (c) having a good education, (d) coming from a wealthy family, (e) knowing the right people, (f) a person’s race, (g) a person’s religion and (h) being born a man or a woman. For each factor, people are asked to indicate, on a five-point scale, whether it is essential/very important/fairly important/not very important/not important at all. As with concerns about inequality, I multiply the five points to get a scale resembling percentages ranging from 0 (not important at all) to 50 (fairly important) to 100 (essential).

In what follows my focus will be on the first factor—hard work (Kluegel and Smith, 1986; McCall, 2013; Reynolds and Xian, 2014; Bucca, 2016). Hard work is arguably the most meritocratic part of Michael Young’s equation, ‘Merit = Intelligence + Effort’, for the simple fact that intelligence itself is conditioned by a nonmeritocratic factor: who your parents happen to be (Mijis, 2016). I prefer to look at the importance people attribute to hard work instead of a person’s education or ambitions for the latter are reflective of that person’s social background and family resources, as has been well-described by social stratification research (Bozick *et al.*, 2010; Halleröd, 2011). Unless otherwise noted, when I discuss meritocracy beliefs, I am referring to citizens’ belief in the importance of hard work relative to structural factors.

My measure of belief in structural inequality is based on responses indicating that a person thinks coming from a wealthy family or knowing the right people (factors d and e, respectively) is ‘very important’ or ‘essential’ for getting ahead in life. I look at these two rather than the full set of structural factors for two reasons. First, the cultural meaning of the other structural factors, referring to a person’s race, religion and gender, is likely to vary considerably over time and between societies. As a result, citizens’ evaluations of these factors may not be strictly comparable. Second, family wealth and connections are the only factors included in all survey waves, whereas the other categories are missing for some countries and years.

3.3 Independent variables

I include two independent variables at the country level, namely the level of income inequality, and the level of economic development. The former is measured by taking the Gini coefficient of income inequality for each country period (cf. Duru-Bellat and Tenret, 2012; Paskov and Dewilde, 2012; Gugushvili, 2016; Schröder, 2017), drawn from Milanovic’s (2013) *All the Ginis* data set. As a measure of economic development, I take Gross Domestic Product (GDP) per capita (cf. Schröder, 2017; VanHeuvelen, 2017), as provided by the Organisation for Economic Co-operation and Development (OECD) Compendium of Productivity Indicators (OECD, 2017). Descriptive statistics for all country periods in my sample are provided in Table 1.

5 This linear transformation does not affect any of the trends or model outcomes I present.

I include individual-level measures of people's position in society as proxies for their experiences with inequality. I consider to what extent people's concern and beliefs about inequality covary with their age, gender, education, employment status, social class and religion (cf. Kluegel and Smith, 1986; Hunt, 2002; Reynolds and Xian, 2014; Bucca, 2016; Minkoff and Lyons, 2018). For religion, I use dummies indicating Catholicism, Protestantism, Islam, Judaism and no religion. For employment status, I use dummy variables indicating whether a person was full-time employed or not, whether they were a student and whether they had retired at the time of data collection. I look at two measures of a person's social background, reflecting both their objective social position as well as a person's perception of their place in society (Bucca, 2016; Gugushvili, 2016). As a first measure, I take a person's class position in three groups, based on their job and income level (cf. Bucca, 2016; Larsen, 2016): lower or working class/lower middle class or middle class/upper middle class or upper class. As a second measure of a person's social background, I take their response to the following question: 'In our society there are groups which tend to be towards the top and groups which tend to be towards the bottom. Below is a scale that runs from top to bottom. Where would you put yourself now on this scale?' Responses are on a 1–10 scale, where 1 indicates the 'bottom or lowest rung' and 10 indicates the 'top or highest rung'. I take the first and last three categories as indicating low and high status, respectively, and consider the four categories in-between as mid-level.

Last, I look at a person's social mobility experience, for research suggests that people's concerns and beliefs about inequality may be informed by people's standing in society relative to their parents (Gugushvili, 2016; Larsen, 2016). Specifically, I draw on an indicator of a respondents' job status as compared with their father's job status when they were a child: 'Please think about your present job (or your last one if you do not have one now). If you compare this job to the job your father had when you were 14–16 years old, would you say that the level of status of your job is (or was):' Response categories are as follows: much higher/higher/about equal/lower/much lower/never had a job/do not know. I drop the last two and combine the remaining categories into a three-point scale indicating downward social mobility, intergenerational stability or upward mobility. Descriptive statistics for all variables are provided in [Supplementary Appendix Table A1](#).

3.4 Analytical approach

To explain variation in citizens' concerns about inequality and their meritocratic and structural beliefs about inequality, I estimate three-level hierarchical linear regression models with random intercepts for country periods and countries to account for the nesting of individuals (Level 1) in country periods (Level 2) and countries (Level 3) (cf. Schmidt-Catran, 2016; and see Schmidt-Catran and Fairbrother, 2016). Following Fairbrother (2014), I code my independent variables so as to distinguish between within-country (over-time) changes, on the one side and between-country differences on the other. To do so, I first calculate the mean value of income inequality, $Gini_M$, and inequality beliefs, $Beliefs_M$, for each country period. I then calculate between-country inequality as the average level of inequality for each country across the different time periods; $Gini_{BW}$ and $Beliefs_{BW}$, respectively. By subtracting the between-country average from the country–year value, I obtain an estimate of the over-time changes within each country: $Gini_M - Gini_{BW} = Gini_{WI}$, and $Beliefs_M - Beliefs_{BW} = Beliefs_{WI}$. To account for general trends over time, I also include period fixed effects in each model (a dummy for each time period). In the first set of analyses, I estimate models of the form

$$\text{Belief}_{itj} = \beta_0 + \beta_1 \text{Gini}_{j\text{BW}} + \beta_2 \text{Gini}_{tj\text{WI}} + \beta_3 \text{time_period}_t + \beta X_{itj} + u_j + u_{tj} + e_{itj} \quad (1)$$

where Belief_{itj} indicates the inequality belief held by person i in country period t in country j ; β_0 is the intercept, β_1 is a coefficient for between-country differences in income inequality, $\text{Gini}_{j\text{BW}}$, for country j ; β_2 is the coefficient for within-country changes in income inequality over time, $\text{Gini}_{tj\text{WI}}$, for country j in time-period t ; β_3 is a coefficient for time_period_t which is a dummy variable indicating the time-period; β is a vector of coefficients for a vector of individual-level control variables, X_{itj} , u_j indicates a random intercept for the country-level, u_{tj} is a random intercept for the country period level and e_{itj} is the individual-level error term.

In the second set of analyses, I estimate models of the form

$$\begin{aligned} \text{Concern}_{itj} = & \beta_0 + \beta_1 \text{Gini}_{j\text{BW}} + \beta_2 \text{Gini}_{tj\text{WI}} + \beta_3 \text{Beliefs}_{j\text{BW}} + \beta_4 \text{Beliefs}_{tj\text{WI}} + \beta_5 \text{time_period}_{tj} \\ & + \beta X_{itj} + u_j + u_{tj} + e_{itj} \end{aligned} \quad (2)$$

where Concern_{itj} indicates concerns about inequality for person i in country period t and country j . The model is otherwise exactly specified as Equation (1), with the exclusion of country-level inequality beliefs.

Estimating random intercept models, instead of country fixed effects, means I treat my sample as randomly drawn from the larger theoretical population of all Western countries at any point in time, rather than just the set of countries and periods that constitute my empirical sample (Snijders and Bosker, 2012; Bryan and Jenkins, 2016). The number of higher level units in my sample (43 country periods) exceeds the minimum number of units (30) required for unbiased estimates of the individual and country-level effects (Bryan and Jenkins, 2016).

4. Results

4.1 Citizens' concerns and beliefs about inequality

Figure 2 shows the bivariate relationship between country-level income inequality and popular concerns about inequality. The figure describes a negative relationship between income inequality and concerns about inequality at the country level: greater inequality is associated with less, not more, concern about inequality ($r = -0.37$; $R^2 = 0.12$). The pattern is driven almost entirely by two countries; removing Australia and the USA from the set of observations renders the relationship null ($r = 0.10$; $R^2 = 0.01$; and see Supplementary Appendix Figure A1).

In Figure 3, I explore the theorized relationship between income inequality and popular beliefs about inequality. Shown is the country-level relationship between popular inequality beliefs (vertical axis) by the Gini coefficient of income inequality (horizontal axis). Popular belief in meritocracy is depicted as gray diamonds; belief in structural inequality is marked by black circles. Income inequality is positively associated with meritocracy beliefs and negatively associated with structuralist beliefs about inequality, meaning that citizens in more unequal societies are more likely than those in more egalitarian countries to believe that societal success is reflective of a meritocratic process. The former relationship is strong ($r = 0.57$) and explains about 33% of the association; the latter relationship is considerably weaker ($r = -0.30$) and explains about 9% of the association.

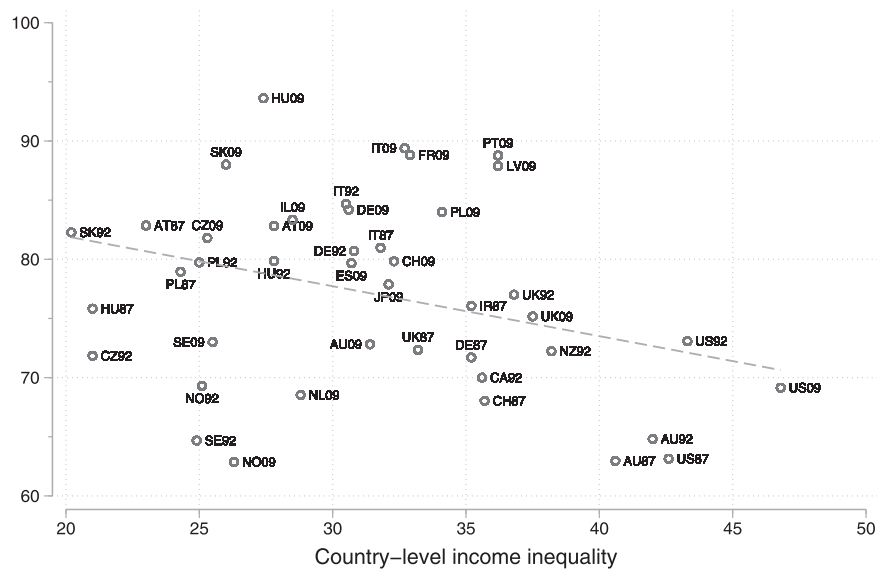


Figure 2. Country-level income inequality and citizens’ concerns about inequality.
Note. Each circle indicates the average level of concerns about inequality for the country and period, as indicated by the two-character country code and two-number year (see Table 1). Concerns are measured on a scale from 0 (not concerned at all) to 100 (very concerned). Indicated on the horizontal axis is country-level inequality, measured as the Gini coefficient of income inequality ranging from 0 (equality) to 100 (maximum inequality).
Source. Author’s calculations from International Social Survey Program (2014) and Milanovic (2013).

Taking the two figures together, gives a first sketch of the spurious relationship between income inequality and citizens’ concerns about inequality, and the importance of beliefs about inequality: if income inequality goes hand in hand with stronger meritocratic beliefs and weaker structuralist beliefs, then that would explain why citizens in unequal countries are not more concerned about inequality. In what follows, I put this explanation to the test, turning first to the relationship between country-level income inequality and individual-level beliefs about inequality, before investigating the determinants of citizens’ concerns about inequality.

4.2 Explaining citizens’ beliefs about inequality

Table 2 presents the results of hierarchical linear models estimating individual citizens’ beliefs about inequality, as explained by the level of inequality in their country. I decompose the country-level inequality into that part of income inequality that is unique to the country (an over-time average) and the part that changed over time. The former allows me to establish the relationship between citizens’ beliefs about inequality and between-country differences in income inequality. The latter is a measure of the within-country changes in income inequality over time. Substantively, it shows whether citizens of those countries that experienced the fastest growth of income inequality, between the first two waves (1987–1992) or

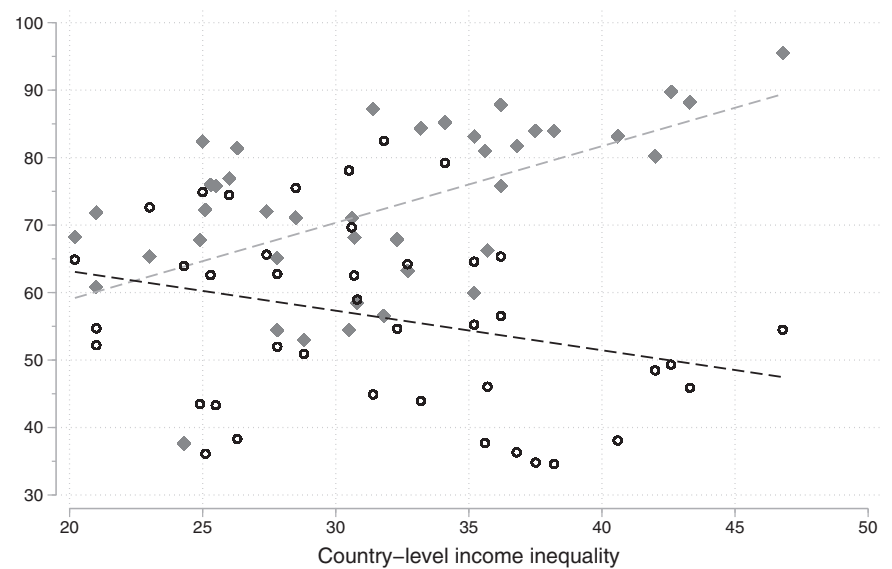


Figure 3. Country-level income inequality and citizens’ inequality beliefs.
Note. Each gray diamond indicates the average belief in meritocracy for citizens in that country and time-period (vertical axis) by country-level inequality (horizontal axis), measure as the Gini coefficient of income inequality ranging from 0 (equality) to 100 (maximum inequality). A circle indicates the corresponding belief in structural inequality, also indicated on the vertical axis.
Source. Author’s calculations from International Social Survey Program (2014) and Milanovic (2013).

between the second and third (1992–2012), also show the largest increase in meritocratic beliefs and the steepest decline in their belief in structural inequality.

Models 1–3 predict citizens’ belief in meritocracy, Models 4–6 predict citizens’ belief in structural inequality. Null Models 1 and 4 estimate that about 73% and 70% of variance in people’s belief in meritocracy and structural inequality, respectively, is due to individual-level factors. About 10% and 9% can be attributed to differences between country periods, and 17% and 21% of variance in the respective beliefs is due to country-level factors.

Model 2 includes country-level measures of income inequality and economic development, and individual-level controls. Both country-level measures are broken down by between-country differences and within-country (over-time) changes. In line with my theoretical expectations, I find a positive and statistically significant (0.58; $P < 0.001$) relationship between income inequality and citizens’ meritocratic beliefs (cf. Hypothesis 1a): all else equal, citizens living in a country with a high level of income inequality like the USA (Gini score of 44) have a stronger belief in meritocracy by about 12 points compared with those living in a more egalitarian society like Austria (Gini score of 23). This relationship is driven by between-country differences; contrary to expectations, changes in societal income inequality between survey waves do not explain differences in citizens’ inequality beliefs. Results further suggest that a person’s subjective social status, social class and level of education are positively associated with believing in meritocracy ($P < 0.001$), as is upward social

Table 2. Hierarchical linear regression predicting citizens' inequality beliefs

Variables	Meritocracy	Meritocracy	Meritocracy	Structural	Structural	Structural
	Model 1	Model 2	Model 3	inequality	inequality	inequality
Individual-level controls		X	X		X	X
Country-level inequality						
Between-countries		0.58*** (0.17)	0.64*** (0.18)		−0.94† (0.51)	−0.75 (0.51)
Within-countries		−0.14 (0.12)	−0.15 (0.14)		0.01 (0.45)	−0.33 (0.47)
Economic development						
Between-countries		−0.11 (0.16)	−0.11 (0.16)		0.54 (0.53)	0.55 (0.53)
Within-countries		−0.07 (0.27)	−0.06 (0.27)		−0.41 (0.28)	−0.41 (0.27)
Social class						
Working class		ref.	ref.		ref.	ref.
Lower middle		0.09 (0.24)	3.79** (1.26)		−3.59*** (0.55)	5.70* (2.86)
Upper middle		1.13** (0.44)	2.04 (2.47)		−4.80*** (0.99)	8.22 (5.62)
Time period						
1991–1993		−1.25 (0.91)	−1.23 (0.92)		−5.08 (3.31)	−4.88 (3.32)
2008–2012		3.62† (1.90)	3.62† (1.92)		−3.92 (6.36)	−3.83 (6.36)
Social class interactions						
Lower middle class × income inequality (b/w)			−0.11** (0.04)			−0.28*** (0.09)
Upper middle class × income inequality (b/w)			−0.03 (0.08)			−0.40* (0.17)
Lower middle class × income inequality (w/i)			0.03 (0.10)			0.47* (0.22)
Upper middle class × income inequality (w/i)			−0.17 (0.17)			0.67† (0.40)
Constant	74.3*** (1.15)	60.4*** (6.53)	58.3*** (6.57)	54.5*** (3.17)	117.4*** (19.0)	111.2*** (19.0)
Var (country)	4.83*** (0.91)	4.17*** (0.71)	4.17*** (0.71)	13.9*** (2.4)	11.7*** (2.1)	11.7*** (2.1)
Var (country-period)	2.76*** (0.51)	1.41*** (0.31)	1.43*** (0.31)	6.08*** (1.1)	5.58*** (1.1)	5.60*** (1.1)
Var (individual)	20.8*** 0(.07)	20.6*** (0.07)	20.6*** (0.07)	47.6*** (0.16)	47.2*** (0.16)	47.3*** (0.16)

Note. The first three models predict citizens' belief in meritocracy; the last three models predict belief in structural inequality. w/i refers to within-country; b/w refers to between-country. *n* = 49 383 individuals in 43 country periods and 23 countries.
****P* < 0.001; ***P* < 0.01; **P* < 0.05; †*P* < 0.10 (two-sided).
Source. Author's sample of International Social Survey Program 1987–2009.

mobility, as compared with downward mobility. Having a full-time job is similarly associated with belief in meritocracy (0.79, $P < 0.01$), whereas unemployment is negatively associated with such beliefs, albeit not significantly (at $P < 0.10$). Nonreligious people are less likely to believe in meritocracy than most religious people (-0.81 , $P < 0.10$), as are Jewish people (-3.09 ; $P < 0.05$), whereas Muslims (2.76; $P < 0.10$) and Protestants (1.37; $P < 0.01$) believe more strongly in meritocracy. Older people are less likely to believe in meritocracy than younger people (-0.11 , $P < .01$), but the effect is curvilinear, diminishing with the years. See [Supplementary Appendix Table A2](#) for full results. The model leads to a reduction in variance of about 1% at the individual level, 49% at the country period level and 14% at the country level.

Model 3 includes an interaction effect between social class and income inequality to assess whether the relationship between income inequality and meritocratic beliefs differs by social class position. I find a negative interaction effect for (lower) middle class people, as compared with working class citizens, indicating that the association between inequality and beliefs is stronger for the latter than the former. Including the interaction term does not lead to a further reduction in the variance components.

Model 5 describes a negative relationship between country-level income inequality and citizens' belief in structural inequality: citizens in more unequal societies are less likely to understand inequality in structural terms (cf. Hypothesis 1b). I do not find a statistically significant relationship between structuralist beliefs and within-country changes in inequality. At the individual level, I find that citizens with higher subjective social status, education and social class are less likely to understand inequality in structural terms, as are people who have experienced upward social mobility. The same is true for retired people, actively employed people and Protestants. Conversely, unemployed citizens and women are more likely to believe in structural inequality. The model reduces the variance components at the individual level by about 1%, by 8% at the country period level and by 16% at the country level.

Model 6 describes two interaction effects: I find that the negative relationship between country-level inequality and structuralist inequality beliefs is stronger for lower and upper middle class people compared with working class citizens; and I find a negative relationship between over-time changes in inequality and structuralist beliefs for working class citizens, but a small positive relationship for lower and upper middle class people. The latter interaction while statistically significant (at the $P < 0.10$ and $P < 0.05$ level) is substantively weak.

To visualize the interaction between country-level inequality and citizens' inequality beliefs by social class, I calculate and plot predictive margins in [Figure 4](#). The upward lines in the left-side graph indicate the positive relationship between country-level income inequality and citizens' belief in meritocracy. The difference in citizens' beliefs, comparing the most egalitarian to the most unequal countries, is about 10 points or half a standard deviation. Whereas there is significant variation in beliefs by citizens' social class, the substantive differences are minimal; citizens across social classes hold strong beliefs in meritocracy. There are larger differences by social class in citizens' structuralist beliefs (right-side graph). Working class citizens are much more likely to believe in structural inequality, and their beliefs are less affected by country-level income inequality. Lower and upper middle class citizens are much less likely to believe in structural inequality when they live in more unequal societies, by as much as 20 points, although it should be noted that the confidence intervals are very large such that we should be careful not to overstate the size of the effect.

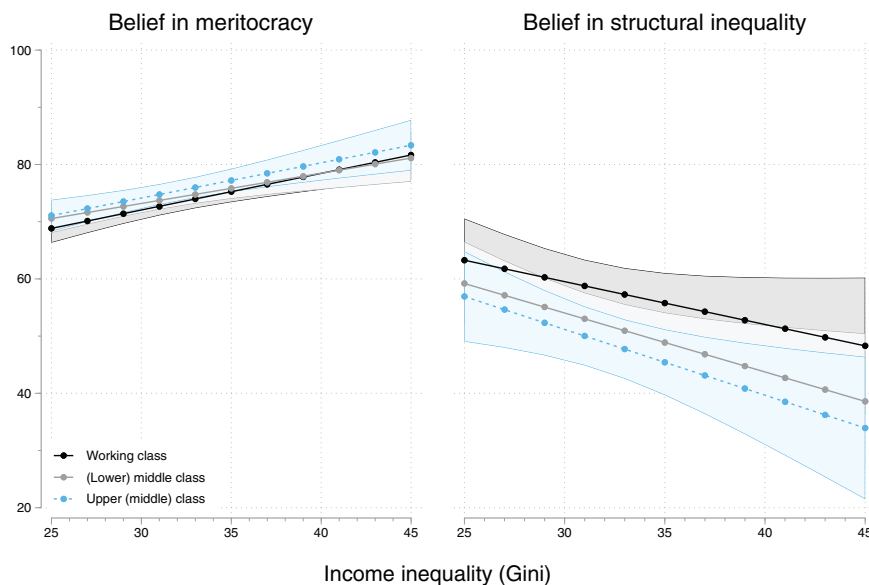


Figure 4. Predictive margins of citizens' inequality beliefs by social class and country-level income inequality.

Note. Displayed are citizens' belief in meritocracy (left) and structural inequality (right), on the vertical axis, predicted by their social class and by the extent of country-level income inequality (horizontal axis). Predictive margins are based on regression estimates reported in Table 2, Models 3 and 6.

Source. Author's calculations from International Social Survey Program (2014).

In sum, citizens in more unequal societies understand income inequality in meritocratic rather than structural terms, while people in more egalitarian countries see structural inequality. Statistically, these associations are driven almost entirely by relatively stable between-country differences rather than over-time changes in income inequality. In other words, knowing the level of income inequality in a country, relative to other countries, gives us purchase on their beliefs about inequality. Knowing how income inequality in a given society has changed between survey waves, however, does not help explain citizens' beliefs.

A difference between the estimates of between and within-country inequality indicates that the estimates are biased. The limited amount of within-country variation in income inequality means I lack the statistical power to estimate their statistical relationship more precisely. Consequently, I urge caution in interpreting the coefficients as describing a causal effect of between-country income inequality on inequality beliefs. Rather, the statistical association indicates a relationship that is consistent with but by no means exclusively explained by Hypotheses 1a and 1b. It could be that the relationship between beliefs and inequality goes in the other direction; perhaps popular beliefs about inequality allow for the (unregulated) growth of income inequality.⁶ The next section addresses this explanation by examining the link between income inequality and concern about inequality.

6 I thank the anonymous reviewers for making this point.

Alternatively, it may be that the over-time relationship is not as direct as implicitly assumed in the statistical models thus far. Rather, there may be a time lag before the social consequences of growing inequality begin to impact people's beliefs. Whereas my data give much insight into between-country differences, the number of repeated observations is limited, as are changes in income inequality between the survey waves. I can, however, explore the long-term within-country changes in inequality for the subset of nine countries included in both the 1987–1988 survey and the 2009–2012 wave: Austria, Australia, Germany, Hungary, Italy, Switzerland, Poland, the UK and the USA.

Looking at the relationship between changes in income inequality over this period and citizens' beliefs about meritocracy and structural inequality, I find no relationship between growing inequality and citizens' belief in structural inequality, but I do find a positive and statistically significant relationship (0.64; $P < 0.05$) for belief in meritocracy, with consistent estimators for between-country and within-country effects: citizens in countries that have grown more unequal over the past 25 years, all else equal, have come to hold a more meritocratic understanding of inequality (full results are provided in [Supplementary Appendix Table A3](#)). Comparing countries that experienced the largest drop in income inequality to those which experienced the largest growth in inequality, I find a difference of about seven points in citizens' belief in meritocracy.

A final way to analyze the impact of changes in income inequality over the long-run is to leverage the fact that individuals surveyed in the 1980s, 1990s and 2000s may have experienced a change in inequality in their lifetime. By comparing the level of income inequality in their country at the time they were interviewed with what it was when they reached adulthood, we have another means to study the potential impact of growing inequality. To do so, I group people in 5-year cohorts defined by the time they reached adulthood (i.e. 18 + survey year – age), and for each cohort, I document the corresponding Gini level of income inequality and country GDP per capita, as I did for each survey year. The range of cohorts is between those reaching adulthood in the 1950s to those who turned 18 in the 2010s. I then run similar regression models as before, but replacing the measures of between-country differences and within-country changes in income inequality by a measure of the difference in income inequality between the year a person reached adulthood, and the year they were surveyed (i.e. inequality now – inequality at age 18), adding a control variable indicating the level of income inequality at the year a person reached adulthood, and specifying a fourth level under which individuals are nested (country cohorts). ([Supplementary Appendix Table A4](#) gives the distribution of respondents by cohort, [Supplementary Appendix Figure A2](#) is a histogram of the changes in income inequality persons have experienced in their lifetime, [Supplementary Appendix Figure A3](#) is a scatter plot of the bivariate relationship between country-level inequality and a person's inequality beliefs, by cohort, and [Supplementary Appendix Table A5](#) provides regression results.)

[Figure 5](#) shows the relationship between citizens' belief in meritocracy and the change in income inequality in their country, between the time they were 18 and the time they were interviewed. A positive number indicates growing inequality; a negative number indicates decreasing inequality. I find a small but nonsignificant relationship between changes in country-level income inequality and citizens' belief in structural inequality (-0.04 ; $P > 0.10$) and a strong and statistically significant association with regard to citizens' belief in meritocracy (0.45 ; $P < 0.05$). Belief in meritocracy is an estimated 6 points higher for those who have witnessed the largest growth in income inequality, compared with those for whom the

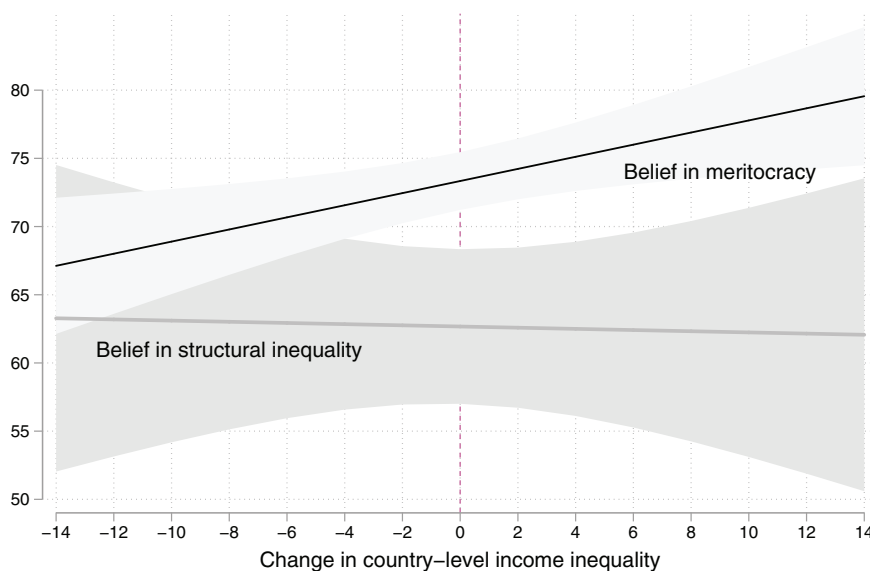


Figure 5. Predictive margins of citizens' inequality beliefs by change in income inequality experienced between age 18 and present-day.

Note. Displayed are citizens' belief in meritocracy (black line) and structural inequality (gray line), on the vertical axis, predicted by the change in country-level income inequality between the year a respondent turned 18 and the year they were surveyed (horizontal axis). A positive number indicates growing inequality, a negative number indicates decreasing inequality, in units of the Gini coefficient of income inequality ranging from 0 (equality) to 100 (maximum inequality). Predictive margins are based on regression estimates reported in [Supplementary Appendix Table A5](#).

Source. Author's calculations from International Social Survey Program (2014).

level of inequality in their society has remained stable, and 12 points higher compared with those who have experienced the sharpest decrease in inequality.

Taken together, I find support for Hypothesis 1a based on the analysis of between-country differences in income inequality and by tracing long-term changes in income inequality within societies, but not for changes between survey waves. The evidence in support of Hypothesis 1b is much weaker and based only on cross-sectional differences in inequality beliefs. In the next section, I consider how differences in inequality beliefs impact citizens' concerns about inequality.

4.3 Explaining concerns about inequality

Having established an association between country-level inequality and beliefs about inequality, this section asks if (popular) beliefs about inequality explain citizens' concerns. [Table 3](#) presents the main results of hierarchical regression models estimating individual citizens' concerns about inequality by country-level income inequality and beliefs about inequality (see [Supplementary Appendix Table A6](#) for full results). Models 2 through 5 assess the theoretical expectation that belief in meritocracy dampens concerns about inequality, while belief in structural inequality heightens people's worries. Model 1 addresses the

Table 3 Hierarchical linear regression predicting citizens’ concerns about inequality

Variables	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5
Individual-level controls		X	X	X	X	X
Country-level inequality						
Between-countries		−0.22 (0.20)	0.03 (0.20)	−0.10 (0.16)	0.04 (0.17)	0.04 (0.17)
Within-countries		−0.28 (0.25)	−0.25 (0.27)	−0.22 (0.23)	−0.20 (0.23)	−0.24 (0.23)
Economic development						
Between-countries		−0.04 (0.25)	−0.09 (0.25)	−0.16 (0.22)	−0.20 (0.22)	−0.20 (0.21)
Within-countries		−0.34** (0.11)	−0.40** (0.10)	−0.23* (0.09)	−0.28** (0.09)	−0.28** (0.09)
Belief in meritocracy						
Individual-level			−0.08*** (0.02)		−0.07** (0.02)	−0.07† (0.04)
Between-countries			−0.48* (0.20)		−0.29† (0.18)	−0.46* (0.18)
Within-countries			0.31 (0.46)		0.31 (0.40)	0.19 (0.41)
Belief in structural inequality						
Individual-level				0.04*** (0.00)	0.04*** (0.00)	0.03*** (0.00)
Between-countries				0.20** (0.07)	0.17* (0.067)	0.02 (0.07)
Within-countries				0.26† (0.14)	0.24† (0.14)	0.19 (0.14)
Social class						
Working class		Ref.	Ref.	Ref.	Ref.	Ref.
Lower middle		−4.00*** (0.26)	−4.00*** (0.26)	−3.87*** (0.26)	−3.86*** (0.26)	−3.17*** (0.43)
Upper middle		−9.56*** (0.47)	−9.54*** (0.47)	−9.35*** (0.47)	−9.33*** (0.47)	−6.61*** (0.74)
Time period						
1991–1993		2.36 (1.78)	2.81 (1.95)	3.37* (1.58)	3.83* (1.71)	3.80* (1.65)
2008–2012		8.21** (2.94)	7.93** (2.76)	8.63*** (2.47)	8.43*** (2.39)	8.66*** (2.31)
Social class interactions						
Lower middle class × belief in meritocracy (individual)						0.01 (0.05)
Upper middle class × belief in meritocracy (individual)						−0.06 (0.09)
Lower middle class × Beliefs in meritocracy (b/w)						0.21*** (0.05)
Upper middle class × Beliefs in meritocracy (b/w)						0.52*** (0.08)

continued

Table 3 Continued

Variables	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5
Lower middle class × beliefs in meritocracy (w/i)						0.19 (0.16)
Upper middle class × beliefs in meritocracy (w/i)						0.38 (0.29)
Lower middle class × belief in structural inequality (individual)						0.12* (0.49)
Upper middle class × belief in structural inequality (individual)						0.01 (0.83)
Lower middle class × beliefs in structural inequality (b/w)						0.20*** (0.02)
Upper middle class × beliefs in structural inequality (b/w)						0.38*** (0.04)
Lower middle class × beliefs in structural inequality (w/i)						0.07 (0.07)
Upper middle class × beliefs in structural inequality (w/i)						−0.16 (0.13)
Constant	77.3*** (1.52)	92.1*** (7.42)	124.5*** (13.7)	68.4*** (8.85)	91.9*** (15.3)	93.4*** (15.1)
Var (country)	5.65*** (1.37)	4.07*** (0.90)	3.11** (1.12)	3.11*** (0.78)	2.66** (0.91)	2.59** (0.88)
Var (country period)	5.47*** (0.86)	3.21*** (0.58)	3.36*** (0.69)	2.83*** (0.51)	2.88*** (0.57)	2.77*** (0.56)
Var (individual)	22.8*** (0.07)	21.9*** (0.08)	21.9*** (0.08)	21.9*** (0.08)	21.9*** (0.08)	21.8*** (0.08)

Note. Included in the models, but not displayed is a squared-terms for individual-level belief in meritocracy. w/i refers to within-country; b/w refers to between-country. *n* = 49 383 individuals in 43 country periods and 23 countries.
***=*P*<0.001; **=*P*<0.01; *=*P*<0.05; †=*P*<0.10 (two-sided).
Source. Author’s sample of International Social Survey Program 1987–2009.

alternative explanation that concerns about inequality are not driven by beliefs, but are a driver of income inequality in their own right. That is, the (unregulated) growth of income inequality could be as much an economic as a political process, driven by a lack of popular concern about inequality. If so, then we would expect to find a strong statistical association between the two.

The null model breaks down the variance in concerns about inequality at the individual, country and country period level: ~67% of variance in citizens’ concerns reflects differences between individuals within countries, 17% is due to country-level factors and about 16% can be attributed to forces that are unique to country periods.

Model 1 shows the relationship between country-level income inequality and individual citizens’ concerns about inequality, net of controls. The estimates indicate a nonsignificant association between citizens’ concerns about inequality and within-country inequality as well as between-country income inequality: citizens’ concerns about inequality do not follow (growing) inequality in their society. This finding confirms the bivariate null relationship

reported in Section 4.1 (once outliers are removed) and provides no support to the alternative explanation that country-level inequality is driven by low popular concern about inequality.

Model 2 adds citizens' meritocratic beliefs and indicators of meritocracy beliefs at the country level as well as within-country changes in beliefs. I find that belief in meritocracy is negatively associated with concerns about inequality beliefs, as hypothesized (H2a). The relationship is driven both by individuals' beliefs (-0.08 ; $P < 0.01$) and by popular belief in meritocracy (-0.48 ; $P < 0.05$) as measured by the between-country difference in beliefs. The former relationship is curvilinear, meaning the estimated negative effect of meritocratic beliefs is less strong at higher levels. I do not find a statistically significant relationship between citizens' concerns about inequality and over-time changes in popular belief in meritocracy. Including measures of meritocracy beliefs at the individual and country level lead to a reduction of about 4% in the individual-level variance, 39% in variance at the country period level and a reduction of 45% in variance at the country level.

In Model 3, I turn to consider the impact of citizens' structuralist beliefs about inequality. In line with my theoretical expectation (H2b), I find a positive association between citizens' concerns about inequality and their belief in the structural nature of inequality, both at the individual-level (0.04 ; $P < 0.001$) and when considering country-level beliefs (0.20 ; $P < 0.01$) and over-time change in beliefs (0.26 ; $P < 0.10$). The model leads to a reduction in variance of about 4% at the individual level, 48% at the country period level and 45% at the country level.

Model 4 includes measures of both inequality beliefs to consider the relationship of each belief on citizens' concerns, controlling for the other. I obtain results that are very similar to the findings described above: citizens' belief in meritocracy, at the individual-level and country-level, is negatively associated with concerns about inequality, whereas structuralist beliefs are positively associated with concerns about inequality.

In Model 5, I consider whether the relationship between citizens' inequality beliefs and their concerns about inequality differs by social class (cf. Roex *et al.*, 2018). I find significant interaction effects for country average beliefs in structural inequality and meritocracy ($P < 0.001$). Country-level beliefs in structural inequality are a stronger predictor of middle class citizens' concerns about inequality, as compared with working class citizens. Conversely, country-level belief in meritocracy is an especially strong predictor of working class citizens' concerns about inequality. I also find a significant interaction effect between citizens' social class and their belief in structural inequality ($P < 0.05$), but no significant effect when considering over-time change in country-level beliefs. The full model reduces the variance components at the individual level by about 4%, at the country period level by 49% and by 54% at the country-level.

I calculate predictive margins from Model 5 to visualize the relationship between beliefs and concerns about inequality by social class in Figure 6. Citizens' concerns about inequality are generally much higher in countries where people believe that inequality reflects structural factors more than meritocratic factors, all else equal. The maximum difference in concerns ranges between 10 and 20 points, for lower and upper middle class citizens. Working class citizens' concerns, however, are unaffected by societal beliefs. Conversely, citizens are generally less concerned in countries where popular beliefs attribute inequality to hard work rather than structural forces. The difference in concerns is especially large for working class

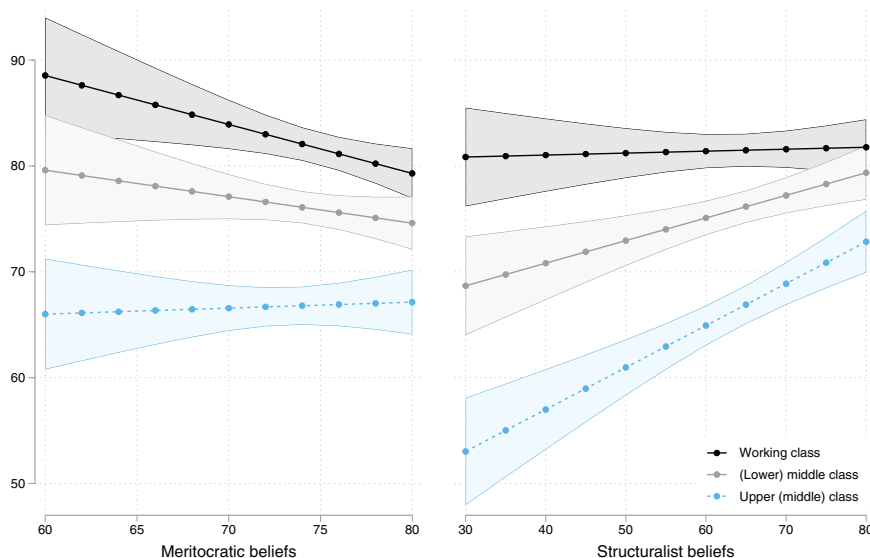


Figure 6. Predictive margins of citizens' concerns about inequality by social class and popular inequality beliefs.

Note. Displayed on the vertical axis are citizens' concerns about inequality by social class, predicted by popular (country-level) beliefs in meritocracy (left) and structural inequality (right), on the horizontal axis. Predictive margins are based on regression estimates reported in Table 3, Model 5.

Source. Author's calculations from International Social Survey Program (2014).

citizens (10 points), smaller for lower middle class citizens (about 5 points) and not significant for people in the upper middle class.

To compare how different inequality beliefs, at the individual and country-level, contribute to citizens' overall concerns about inequality, I standardize effects by the within-individual standard deviation. Variation in beliefs about meritocracy, at the individual (0.13) and country-level (0.27), accounts for a total of 0.4 standard deviations difference in citizens' concerns about inequality across countries and periods. Turning to belief in structural inequality, I find that citizens' varying perspectives account for as much as 0.7 standard deviations difference in concerns about inequality. About half of this association (0.36) is driven by between-country differences in popular belief, and about a quarter each reflects individual beliefs (0.18) and over-time changes in popular beliefs (0.17).

In sum, I have shown that citizens' concerns about inequality are strongly associated with their beliefs about the forces underlying income inequality. What fuels citizens' concerns about inequality is their belief that income inequality reflects structural processes that benefit some people, while putting others at a disadvantage. Conversely, belief in meritocracy dampens citizens' concerns. My findings suggest that concerns are driven both by people's own beliefs about inequality and by popular beliefs in a given country and time period. Evidence for the latter comes mainly from between-country comparisons; I find only partial evidence when considering within-country changes in popular inequality beliefs.

5. Conclusions

Scholars and politicians have been puzzled by the lack of popular concern about the rising level of income inequality across the West. In this article, I provide an explanation by theorizing, and empirically describing, a relationship between actual inequality and beliefs about inequality. I argue that what explains citizens' consent to inequality is their conviction that poverty and wealth are the outcomes of a fair meritocratic process. Citizens' meritocracy beliefs are solidified by the fact that people are unable to see the full extent of inequality in their society, nor develop an awareness of the structural processes shaping unequal life outcomes. The reason for people's inability to see what separates them from their fellow citizens is that the lives of the rich and poor are increasingly divided between separate institutions: people live in neighborhoods, go to schools and pick romantic partners and friends that fit their education and income level (Musterd, 2005; Logan, 2011; Reardon and Bischoff, 2011; Reardon and Owens, 2014; Massey and Tannen, 2016; Tammaru *et al.*, 2016). Housing segregation, school stratification and social homogamy mean that one's chances of getting to know someone from a different socioeconomic background, let alone developing an understanding of another person's privilege or plight, are slim. These then are the processes that produce the paradox we face, where citizens of some of the world's most unequal societies think of their country as the paragon of meritocracy (Whyte, 2011; McCall, 2013; Bucca, 2016).

In this article, I show that citizens across the West have become more convinced that theirs is a meritocratic society. While countries have grown more unequal since the 1980s, nowhere have citizens lost faith in meritocracy. In fact, the empirical record suggests that belief in meritocracy in the Western world has never been as strong as it is today. Analyzing variation between countries, I find that citizens in unequal societies more strongly believe that meritocratic factors are at the root of societal success, while giving less thought to structural, nonmeritocratic, forces. Closely examining the variable pattern of growing inequality across the West does not give me much purchase on citizens' changing beliefs about inequality, but examining the long trend in levels of income inequality over the 1987–2012 period, I find that growing inequality goes together with a strengthening of citizens' meritocratic beliefs (cf. Schröder, 2017). I obtain similar results from a cohort analysis, tracing citizens' beliefs and the trend in inequality they have experienced in their lifetime. Citizens' beliefs about inequality, in turn, explain whether or not they express concern about inequality in their society.

The research presented in this article, however, is not without its limitations. In the empirical analysis, I have estimated the association between country-level inequality and beliefs about inequality by breaking down the within-country and between-country variation. If societal-level inequality drives people's beliefs about inequality, then we would expect to see this reflected both in differences in citizens' beliefs by (stable) patterns of between-country income inequality and in (dynamic) changes in inequality over time. I find consistent statistical evidence for the former. I find no evidence, however, for the theorized effect of within-country changes in income inequality between surveys. This shortcoming is a likely reflection of the relatively small set of countries that can be compared across time, as well as the limited changes in income inequality within this set of countries. Alternatively, it may be that societal inequality impacts citizens' beliefs through a longer process than can be captured by between-survey wave changes, which is consistent with my analysis of changes in income inequality between 1987 and 2012 as well as the cohort analysis comparing the level

of inequality in the year a person was interviewed to that of the year they reached adulthood. Based on the available evidence, I cannot adjudicate between these and other explanations (see below for a discussion).

A further limitation lies in the fact I have taken income inequality as a proxy for its theorized social and spatial consequences. That is, I have assumed, rather than empirically assessed, that country-level income inequality shapes citizens' interactions across socioeconomic lines and conditions their exposure to inequality. This assumption is supported by the evidence from the USA that 'income inequality is a strong and consistent predictor of income segregation', and the (Reardon *et al.*, 2018) and that rising income inequality goes together with increasing residential sorting (Watson, 2009; Reardon and Bischoff, 2011). In practice, however, citizens' social networks and neighborhoods may span across fault lines, even in the most unequal societies. Similarly, living in a relatively egalitarian society is no guarantee for socioeconomically diverse contexts and interactions. In other words, measuring inequality at the country level is a relatively crude way to capture people's day-to-day experiences with inequality. The problem of measuring these experiences is two-fold. Socioeconomic segregation is a social phenomenon typically studied at the neighborhood or regional level, where it impacts families and communities, but rarely as something characterizing either individuals or whole societies. There have been efforts to collect country-level data on (ethnic) segregation across societies (e.g. Musterd, 2005; Haller *et al.*, 2016), but scholars are quick to note the difficulties in making comparisons between countries and over time. Adding to the paucity of available data is a conceptual problem: it is not at all clear what segregation means as a country-level phenomenon, other than a proxy for the typical person's social environment. In the absence of detailed, comparative and longitudinal data on social networks and neighborhoods, scholars must rely on indirect indicators for people's experiences.

Without direct measurement of the theorized process linking income inequality to citizens' beliefs and concerns about inequality, I cannot rule out alternative explanations. Sachweh (2012), for instance, argues that (German) citizens' attitudes toward inequality are best understood as part of a 'moral economy' of shared repertoires that is supportive of, rather than caused by, the level of inequality in society. Other studies similarly suggest that the causal arrow may go the other way: popular consent to inequality may be the cause of (growing) income inequality rather than its consequence (Janmaat, 2013; Schröder, 2017). Such could be the case, for instance, if pro-market governments jointly promote income inequality and meritocratic discourse.⁷ Empirically, however, the link between popular opinion and government economic policy is far from straightforward (Milanovic, 2000; Kenworthy and McCall, 2007; Gilens and Page, 2014; Schmidt-Catran, 2016; Iversen and Goplerud, 2018). In this article, I find no evidence either of a statistical relationship between country-level inequality and citizen's concerns about inequality, as would be the expectation if inequality was the result of popular consent.

These limitations suggest paths for future work, for theory and for the politics of inequality. With regard to theorizing about income inequality, my findings suggest that we may want to pay more attention to the role of experiences in reinforcing inequality (cf. Merolla *et al.*, 2011; Dawtry *et al.*, 2015; Massey and Tannen, 2016; Edmiston, 2018). Looking at politics and policy preferences through an experiential lens helps understand when and why rising inequality

7 I thank the anonymous reviewer for suggesting this alternative mechanism.

does not lead to popular concern. The analysis presented in this article suggests that country-level inequality conditions people's experiences, but future research needs to explore different contexts that matter. A particularly interesting question is how national-level inequality translates into or interacts with inequality at the neighborhood level and in social networks.

A necessary starting point for understanding the politics of inequality is to disentangle the relationship between experiences, beliefs and preferences. Publics in unequal societies may find themselves stuck in a feedback loop, where more inequality paradoxically leads them to experience less of it—and care less about it (Kelly and Enns, 2010; Whyte, 2011; Minkoff and Lyons, 2018). Breaking that loop requires taking seriously people's beliefs and lived experiences, and designing social policy to bring the two in closer alignment. Until then, there is nothing surprising about the fact that people in highly unequal societies approach politics from the highly skewed vantage point of their own experiences.

Supplementary material

[Supplementary material](#) is available at SOCECO online.

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