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A few people make all the difference – *an international comparison of "fair" pay differentials*

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ABSTRACT

Social inequality has long been an important topic of public debate in almost all societies in the world, but how much do people actually disagree and who is that does? This paper uses all five waves of International Social Survey Programme data (1987 to 2019) to compare attitudes toward "fair" pay ratios in Germany, Italy, Hungary, Norway, Great Britain, the USA, and Russia. Although respondents generally underestimate the actual size of current earnings gaps, in all countries an overwhelming egalitarian majority agrees that "income differences are too large". As well, since the ISSP has also asked respondents how much different occupations "should earn", one can compare the fair pay ratios. In all countries, for all years examined, fair pay ratios are (a) remarkably small and (b) remarkably similar for roughly 80% of the population. Cross-country differences in average attitudes do not occur due to higher general levels of support for income inequality but are rather concentrated in the "inegalitarian few". Our analysis of cross-country differences in attitudes toward inequality, therefore, concentrates on how the inegalitarian few differ from the egalitarian many, to differing degrees in different countries, to better explain the political tensions underlying differences in redistribution in market economies.

Introduction

A voluminous body of evidence[1] has documented the substantial international differences in economic inequality and in the re-distributional impact of the welfare state. An important question is why these cross-country differences might have arisen. One hypothesis (historically popular in Departments of Economics in the United States) is that the provision of equalizing public policies differs across countries because public preferences for equality differ. For example, the "American Exceptionalism" hypothesis[2] has argued that different American values explain the fact that U.S. social policies, taxation, and expenditure decisions have done less to reduce inequality than is commonly done in most European nations. However, many (if not most) nations have internal narratives of their

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uniqueness, and the "National Exceptionalism" approach has to try to explain why globalization has not tended to homogenize cross-national attitudinal differences.[3]

Many sociologists and public opinion pollsters have therefore long favored an alternative hypothesis – that Americans, Europeans, and the citizens of other affluent nations share a general similarity in social preferences for economic equity and the reduction of inequality.[4] In the lingering aftermath of the Great Recession of 2008, the rise of right wing "populism" in many affluent nations has also provoked a narrative common to many national contexts that this rise has been at least partly driven by threats to identity fueled by globalization's destruction of traditional working-class jobs, as well as by rapid demographic, social and cultural change.[5] However, in focusing on cross-national similarities this "Globalist" perspective leaves unexplained the substantial differences in observed welfare state policies which redistribute income. So, the questions still remain – (1) how much do attitudes to inequality actually differ in different countries? (2) whose attitudes to inequality actually influence most the social and economic policies which might reduce (or accentuate) inequality?

This paper argues that most people in the seven industrialized nations we examine, Germany, Great Britain, Hungary, Italy, Norway, Russia, and the United States, have broadly similar and quite egalitarian attitudes to pay differentials and that cross-country differences in attitudes to earnings inequality are concentrated in an inegalitarian few, who differ substantially in their preferences, both from the egalitarian majority within the same country and often from the inegalitarian minorities of other countries. Since cross-country comparisons of average survey responses mingle the majority and the minority, we suggest that such comparisons of average cross-national differences can mislead analyses. We argue that analysis should focus on why the inegalitarian minority are different in their attitudes toward pay differentials and on what determines the extent of their differences from the egalitarian majority.

This article begins by describing the data and presenting evidence on attitudes to inequality in general before focussing on the differentials between what CEOs and unskilled factory workers "should earn". We then suggest a methodology for the summarization of differences in attitudes towards "fair" earnings ratios and document the cross-national similarity of attitudes to pay ratios among the egalitarian 80% and the cross-national dissimilarity of the most inegalitarian 20%. We also ask: Who are the inegalitarian minority? and examine the correlates of within country differences in inegalitarianism. Two final sections discuss our results and draw tentative conclusions.

Data, measures and starting point

Data and country selection

This paper uses data from seven countries which participated in the International Social Survey Programme (ISSP) "Social Inequality" modules 1987, 1992, 1999, 2009 and 2019 (ISSP Research Group 2014, 2022),[6] All country samples are nationally representative samples of the adult populations with a minimum size of 1,000 cases. In our analyses, we either show trends over time or use the large database of the pooled data to examine the inegalitarian minority and put special emphasis on the most recent (2019) data.

Since questions about attitudes toward inequality are always answered in the respondent's own context of experienced social reality, we chose countries to represent different ideal-typical welfare state regimes according to the typology of Esping-Andersen (1990): Norway as an example of the social democratic welfare state model; Germany and Italy for the conservative and Great Britain and the U.S. for the liberal welfare state regime. Additionally, as examples of "socialist[7]" heritages, we include Russia and Hungary. Geographically, this selection of countries covers all regions of Europe and the U.S.

Measures

This paper starts (Figure 1) by summarizing responses to the general ISSP measure of attitudes about income differences [Measure: "Differences in income in (R's country) are too large"] before focusing on attitudes toward actual and desired pay differentials. The response scale in Figure 1 ranges between strong agreement and strong disagreement on a 5-point scale. In a series of questions, respondents across all five ISSP "Social Inequality" modules have also been asked first to estimate what salaries people in a list of jobs actually *do* earn and then asked what people in these jobs *should* earn. [Measures: "We would like to know what you think people in these jobs do/should earn" The list of jobs has varied over the years but in all five survey waves the jobs considered included shop assistant, doctor in general practice, chairman of a large national company, unskilled factory worker and federal cabinet minister. In our analyses, we excluded data on what cabinet ministers "do earn" and "should earn," because these responses might mingle individuals' attitudes toward politicians with attitudes on occupational rewards. Responses are given in national currencies.] Multilevel Logistic Regression Analyses and Logistic Regression Analyses by country are used to examine the "Inegalitarian Few" [dependent variables: self-constructed dummies of "being inegalitarian or not", based on different definition criteria; independent variables: macro level: country/year, micro level: gender (dichotomous); age (continuous); education (harmonized variable with three levels of education: low, middle, high); income (harmonized variable based on income distributions per country sample into three levels: low, middle, high); social class (categorical) lower social class, working class, lower middle class, middle class, and the clustered categories, upper middle and upper class. The reference categories are indicated below the respective tables.

Starting point

A seemingly straightforward way to find out whether people in different countries have different attitudes to inequality is to ask them directly. Figure 1 reports the responses in the ISSP 2019, 2009, 1999, 1992, and 1987 surveys for the seven countries included in our analyses when individuals were asked whether they agreed or disagreed with the statement "Differences in income in (R's country) are too large".[8]

The average percentage, across all countries in 2019 who "Agree" or "Agree Strongly" is 83.1%, which is slightly stronger agreement than the average across all years of 79.5%. In all seven countries, there are extremely few people who "strongly disagree" (on average, 1.3% in 2019 and 1.4% across all years) and only slightly more who
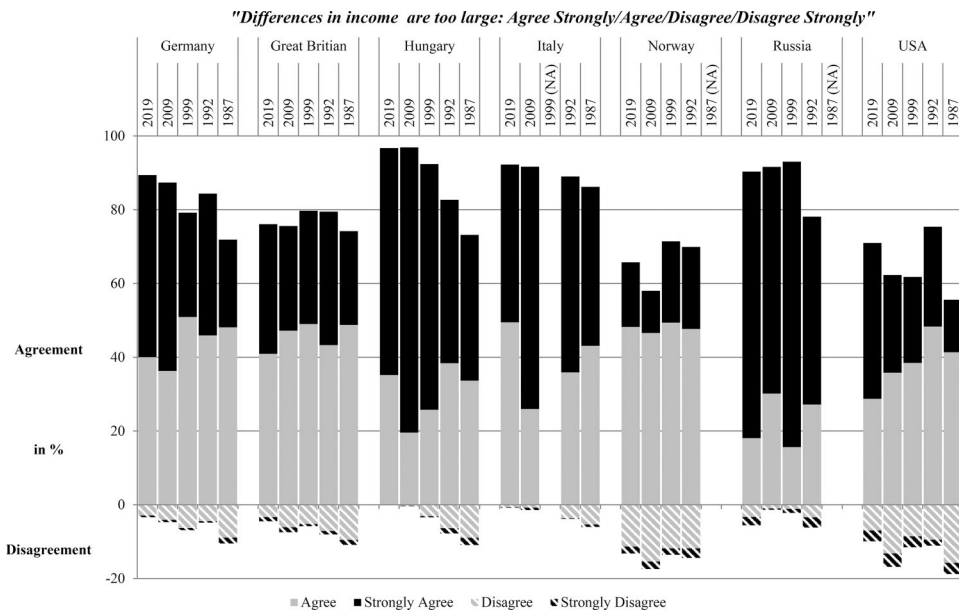
Figure 1. Y-axis shows agreement (positive range) and disagreement (negative range) in %. The variable originally has a 5-point scale; the figure omits those who opted for "neither agree nor disagree".

"disagree" (on average, 4.1% in 2019 and 6.3% across all years). The main message of Figure 1 is therefore the ubiquity of a generalized agreement that income differences are "too large." To put it another way: there are only "a few" who hold inegalitarian attitudes and disagree.

Overall, the trend over the years, with slight fluctuations, is to increasing agreement that income differences are too large. In the U.S., agreement that income differences are too large increased from 2009 to 2019 by 8.7% points while in Hungary, the increase from 1987 to 2019 was even larger at 23.6% points. To highlight value divergences, the bars in Figure 1 omit the fence-sitting "neither agree nor disagree" category and the missing and "can't choose" categories. The length of each total bar graph thus implicitly indicates the "opinionated" percentage of each country's population, which is notably lower in some countries (e.g. Norway and the U.S.), compared to others (e.g. Hungary, Russia). If there were a general trend to greater polarization of attitudes toward inequality, one might expect to see in each country an increase in the percentage expressing an opinion, and among those respondents, an increase in the fraction who "strongly" agrees or disagrees – but Figure 1 provides little indication of such a trend.

However, asking a very general question about attitudes toward "income differences" and allowing a limited range of response categories yields data open to alternative interpretations. In Hungary in 2019 agreement that "income differences are too large" is with 96.7% almost unanimous but both the United States (with 71.0% agreeing or agreeing strongly) and Norway (with 65.8%) are at the low end of the "too large" consensus. However, Norway and the United States differ substantially in their current levels of market income inequality, income tax and social transfers, so there is a different concrete personal meaning to a statement such as: "Income differences are too high" for

Norwegian and American respondents. An American "left-winger" and a Norwegian "right-winger" might both actually want the same level of inequality and redistribution, but that common objective could plausibly motivate the American to respond "too high" and the Norwegian to say "too low" to a question about current inequality in their own country.

A 5-point response about "income differences" obscures both finer gradations in the intensity of individual preferences for greater equality and any differences in the moral evaluation of types of income – labor earnings (from self-employment, salaries, and commissions) or capital income (dividends, royalties, rents, and interest payments) or transfers from government (including old age pensions, unemployment compensation, and social assistance). Greater equality is also sometimes interpreted in terms of the ratio of the average earnings of types of people (e.g. by racial, ethnic, educational, or occupational category) and sometimes in terms of income shares (as summarized by the income share of the top 20%, or bottom 20%, or by calculation of a statistical index of income inequality such as the Gini ratio, Theil index or the coefficient of variation).[9] The fairness of the income-generating process (e.g. whether income comes from inheritances or labor hours) and the income needs of the household are also unexamined.

The focus of this paper on the relative average pay of occupations thus omits a great deal of the complexity of economic inequality and of the range of factors which may underly responses to a general question about whether income differences are "too large". Nevertheless, attitudes about the fairness of relative pay at the top and near the bottom of the wage hierarchy are, we argue, an important part of attitudes toward inequality in general. Beliefs about how much people in highly paid occupations "should earn" relative to poorly paid occupations are likely to be important for the political attitudes and behavior of individuals, which depend on their subjective estimates of income inequality and on their subjective evaluation of this perception relative to their own norms of "fair" income differentials.

A person's general attitude to "income differences" may mingle empirical beliefs as to the size of income ratios, the frequency density of incomes and the processes that determine income of different types, as well as embodying their ethical evaluations of both process and outcomes. Using the "do earn/should earn" question for different occupations holds these confounding issues constant at the respondent level. Each respondent's opinions about what specific occupations "should earn" is shorn of the complex set of issues surrounding the perceived empirical importance and moral evaluation of different income sources, variations in labor supply or unemployment and the complexities of household size, composition or household "need" for income. Hence, they offer the benefit of a focused approach to disentangling one aspect of preferences for equality from other confounding influences (at the cost of disregarding the possible importance of these entangling factors).

To summarize respondents' attitudes about the actual and the ethical degree of inequality among all the occupations whose earnings are observed in the ISSP, we can calculate for each respondent the Gini Index[10] of inequality of "do earn" and "should earn" income they report for four occupations. Each person's perception of "Actual Inequality" can be summarized by GiniA (the Gini index of inequality[11] of estimates of what the respondent thinks jobs "do earn").[12] One can label each respondent's estimate

of "Ethical Inequality" as GiniE (the Gini index of inequality among all occupations of what the respondent thinks each occupation "should earn."). The ratio between GiniE and GiniA is, for each respondent, an indication of how much their personal estimate of the actual degree of inequality in occupational incomes diverges from their own estimate of "equitable" inequality. When GiniE/GiniA is less than 1, ethical inequality is less than actual inequality, while a 1:1 ratio indicates a belief that the earnings distribution is fair – "do earn" inequality is equal to "should earn" inequality.

Table 3 of Osberg and Smeeding (2006) presented the average GiniE, GiniA and GiniE/GiniA by country in 1999 and noted that "In every country, in every year, the average respondent thinks there should be less inequality than he or she thinks actually exists". (2006: 460). This paper's Table 1 presents a similar comparison of average attitudes in 2019. However, our results below suggest that the methodology of comparing average attitudes may be misleading, if most of the cross-country differences in the GiniE/GiniA ratio are in fact concentrated in an inegalitarian few.

Figure 2 presents a plot, for the seven nations included in this study, of the GiniE/GiniA ratio when respondents are ordered from lowest to highest ratio values. (Table A2 in the Appendix presents the data). It shows that in every country, the vast majority of respondents think there should be less inequality than the respondent thinks there actually is. The percentage of persons for whom the ratio between "should earn" inequality (GiniE) and "do earn" inequality (GiniA) is substantially less than 1 right up to the 85th percentile. For all countries, the graphs appear very similar – except at the very top.

To illustrate the differences, Figure A2 in the appendix plots the deviations of each country from the mean of all countries, at each percentile of the distribution of attitudes toward the discrepancy between actual and fair earnings inequality (i.e., GiniE/GiniA). Some countries are fairly consistently above the mean – but although it is remarkable how nearly identical the U.S., Great Britain and Germany are between the 10th and the 90th percentiles, they diverge significantly at the tails of the distribution, among the most egalitarian 10% and the most inegalitarian 10%. Among all countries, for the middle 80% of the distribution of attitudes toward fair earnings inequality, deviations from the mean are very small.

For these seven countries, the average GiniE/GiniA ratio at the 95th percentile is 1.09, while the average 85th percentile is 0.95 and the average 80th percentile is 0.92. We interpret a GiniE/GiniA of 1.09 as indicating the respondents believe pay inequality clearly should be higher than it actually is and a ratio of 0.95 as indicating the

Table 1. Comparison of actual and ethical inequality - Gini coefficients. Data from 2019.

Country	Average Gini index of salaries people "do earn" (Gini (A))			Average Gini index of salaries people "should earn" (Gini (E))			Average ratio of Gini (E)/Gini (A)		
	Whole sample	80% egalitarians	20% inegalitarians	Whole sample	80% egalitarians	20% inegalitarians	Whole sample	80% egalitarians	20% inegalitarians
Germany	0.54	0.49	0.69	0.38	0.32	0.62	0.72	0.66	0.91
Great Britain	0.49	0.45	0.63	0.37	0.32	0.58	0.78	0.74	0.92
Hungary	0.43	0.40	0.56	0.30	0.25	0.51	0.75	0.69	0.95
Italy	0.49	0.46	0.59	0.34	0.29	0.54	0.71	0.66	0.93
Norway	0.34	0.32	0.45	0.23	0.20	0.37	0.70	0.67	0.86
Russia	0.61	0.59	0.69	0.36	0.29	0.61	0.60	0.53	0.90
USA	0.55	0.53	0.66	0.42	0.37	0.64	0.80	0.75	1.04
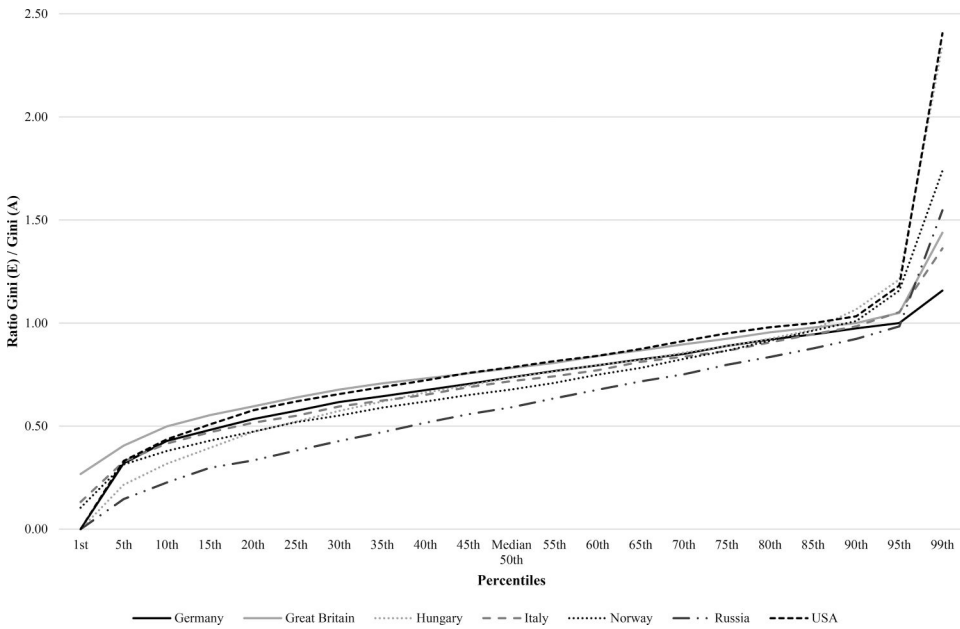
Figure 2. Ratio of Gini (E) and Gini (A) by percentile. Data from 2019.

respondents believe ethical inequality in wages is pretty close to actual inequality. We recognize that distinguishing between "inegalitarians" and "egalitarians" requires drawing a somewhat arbitrary dividing line along a continuum of beliefs, and this paper argues that the continuum of attitudes differs across countries. Nevertheless, comparisons across all seven countries are facilitated if a common dividing line is used and below the 80th percentile respondent beliefs about the GiniE/GiniA ratio are clearly well below one in all countries.

To facilitate cross-country comparisons Table 1 also shows the split of each country's respondents into the more egalitarian 80% and the more inegalitarian 20%. It is notable that in all seven countries the more inegalitarian 20% estimate actual inequality in earnings to be higher than the more egalitarian 80% do – and they are content with that. For the more inegalitarian 20%, the average GiniE/GiniA ratio is (except for Norway) quite close to 1:1 – indeed an average of 1.04 in the U.S. indicates some belief among the most inegalitarian that there is already too much "do earn" equality. However, notwithstanding their belief that there is less actual "do earn" inequality, on average "should earn" inequality among the egalitarian 80% is about half that of the inegalitarian 20%. For egalitarians in Great Britain and the U.S., ethical inequality is on average about three-quarters of actual inequality while Germany, Italy, Hungary, and Norway all put it at two-thirds and for Russians, it is about half.

How much should a CEO earn compared to a factory worker?

Another approach to examining beliefs about pay differentials is to look directly at what respondents think people "should earn" in specific occupations at the top and at the bottom of the hierarchy of wages. Figure 3a, therefore, summarizes the distribution of
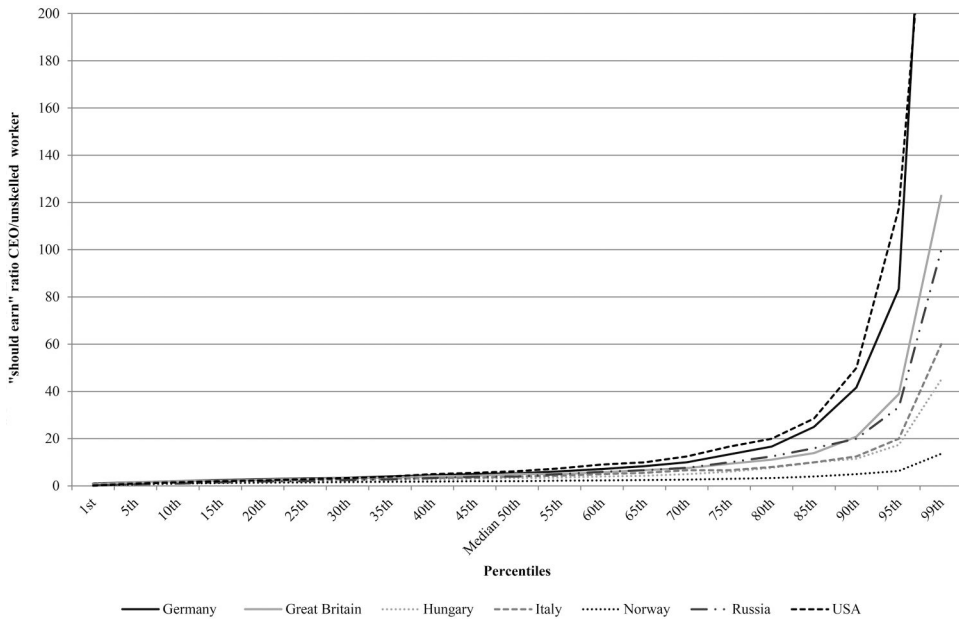
Figure 3a. The "should earn" ratio: CEO/unskilled worker percentiles of distribution of respondents' attitudes. Data from 2019.

attitudes in 2019 about what ISSP respondents thought the Chairman of a Large National Company should earn, expressed as a ratio to what the same respondent thinks an unskilled factory worker should earn.[13,14]

Ranking respondents from most to least egalitarian in their attitudes about CEO/worker pay ratios indicates that a few respondents (notably in Russia and Norway) even think that CEOs should make less than factory workers. Nevertheless, in 2019, as in previous years,[15] the hard core of egalitarians is not large – considerably less than 10% think that the CEO/Worker "should earn" ratio should be about 1:1 (i.e., a CEO and a worker should earn about the same). In general, some earnings inequality is almost always seen as acceptable – well over 90% of respondents agree that a CEO should earn more than an unskilled worker. However, most people everywhere do not think CEOs should make all that much more than workers. In these seven countries, the "should earn" ratio increases quite gradually – on average being 2.14 at the 20th percentile in 2019, 3.07 at the 35th percentile, 4.27 at the median and 7.43 at the 70th percentile.

Although in democratic politics the median voter plus one can produce a narrow win, attitudes at the 70th or 80th percentiles are indicative of overwhelming, 2 to 1 or 4 to 1, majorities. In 2019, on average across all seven countries, 70% of respondents believed the Chairman of a Large National Company should earn no more than 8.8 times what they think an unskilled factory worker should earn. Above the 70th percentile the U.S., and Germany begin to deviate from the mean ratio. But it is the most extreme 10% minority that makes most of the difference. Germany and the U.S. stand out in this last percentile range. At the inegalitarian top end of the attitudinal scale, Figure 3a shows that the 90th percentile attitude in 2019 in Germany accepts a 42:1 ratio and in the U.S. a 50:1 ratio, which is quite different from the 20:1 ratio considered

acceptable at the 90th percentile in Russia or Great Britain or the 12:1 ratio of the 90th percentile acceptable in Hungary or Italy. In six of these seven nations (Norway is the exception) attitudes at the 90th percentile differ strongly from median attitudes – but cross-national differences do not really show up in the data until one gets to the top end of the distribution of inegalitarian attitudes.

As Table A3a-e show, there have been shifts in attitudes over time - in the U.S., for example, the median CEO/Worker "should earn" ratio was 5.0 from 1987 to 1999 but increased to 6.7 in 2009 and then dropped a bit in 2019 data to 6.3. However, in all survey waves differences between countries in the attitudes of most of the population are hard to discern. The U.S. data for the 70th percentile in 1987, 1992 and 1999 averaged 7.9 (implying CEO "should earn" pay of $286,000 if factory workers should make $36,000) but there was a noticeable shift up (to 15.03) in 2009. When a single year's data are out of line with previous years, skepticism may be in order[16] but if one accepts the 2009 data for the U.S., the 70th percentile opinion of "should earn" pay for a CEO ($543,000) is still orders of magnitude less than actual pay.

Figure A3 in the appendix plots, at each percentile of the distribution of attitudes in 2019, each country's percentage deviation from the mean "should earn" ratio at that percentile, to illustrate at which point and how strongly attitudes of the inegalitarian few differ.

Notably, in all countries, even the 90th percentile estimate of an acceptable CEO[17]/ unskilled worker[18] wage ratio is dramatically less than the actual ratio.[19] The 90th percentile "should earn" ratio is at 50:1 in the U.S. and 41.7 in Germany. Those pay ratios would imply a CEO salary of $1.7 Million in the U.S. and 1 Million € in Germany if the comparison is to what an unskilled factory worker made in the U.S ($33,830)[20] and Germany (19,200€),[21] $2.1 to $2.5 Million if the comparison is to the OECD average annual wage of all employees of $50,050 in 2019.[22] In both countries, 90th percentile "should earn" pay attitudes are far below actual CEO salary levels (in the U.S. $14.8 Million and in Germany 6.1 Million €[23]) but they are far above what the median respondent would think is fair. The cross-country average of the median "should earn" pay ratio was 4.3 (implying a CEO salary of about $215,000 if a factory worker should earn the OECD average and $145,000 if the comparison is to actual U.S. factory earnings).

Inegalitarian attitudes are the minority tail of the distributions of attitudes about "should earn" ratios and as such can be described in two ways. In Figure 3b (a zoom extract of Figure 3a), the solid vertical line at 80% demarcates the "most inegalitarian" 20% fraction of each country's population.

A complementary approach is to compare across countries the differing percentages of each country's population that meet or exceed a common criterion of being inegalitarian – as illustrated by the solid horizontal line in Figure 3b, which is drawn at a 10:1 ratio.

Since the egalitarian majority does not differ much in their attitudes, the attitudinal gradient is quite flat for much of its distribution (i.e., among the majority). This means that if we were to agree with Plato that the "should earn" ratio should not exceed 4:1 (Plato, 1967 & 1968) and draw the line separating egalitarians from inegalitarians at that criterion, we would label a lot more people in each country "inegalitarian" than using a 10:1 criterion. However, although George Orwell ([1941] 2018) once suggested that 10:1 would be a reasonable pay differential, relative to actual contemporary CEO/ worker pay ratios a 10:1 pay ratio is very small.
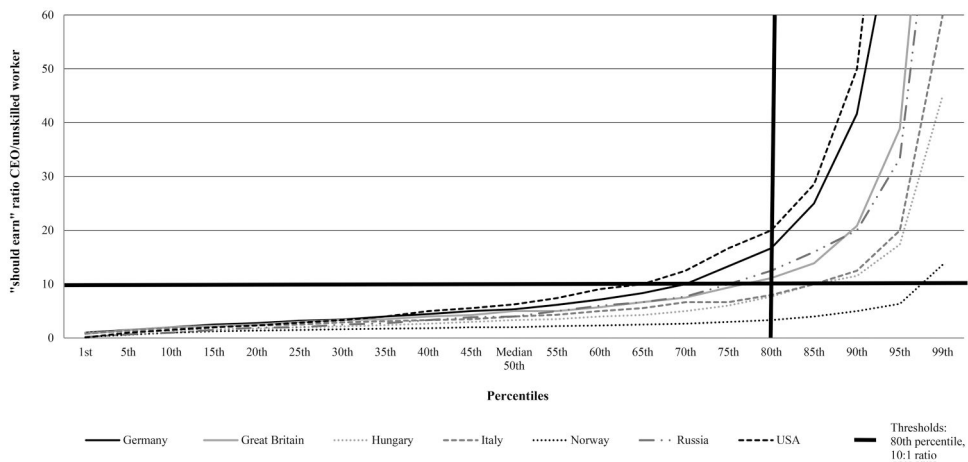
Figure 3b. The "should earn" ratio: CEO/unskilled worker percentiles of distribution of respondents' attitudes. Extract from Figure 3a. Thresholds at 80/20% and a ratio of 10:1. Data from 2019.

Table 2. Estimating the Attitudes in 2019 of the More Egalitarian 80% and the Most Inegalitarian 20%.

| Country | c | Attitudes among the egalitarian 80% | | Attitudes among the inegalitarian 20% | | Goodness of fit R^2 |
		β_1	SE	β_2	SE	
Germany	−18.21	.58	.27	92.77	.01	.065
Great Britain	−3.753	.21	.04	27.75	2.70	.228
Hungary	−0.790	.09	.02	9.65	1.32	.264
Italy	−0.753	.11	.02	10.15	1.28	.273
Norway	0.229	.04	.01	3.11	.44	.218
Russia	−3.336	.18	.02	19.53	1.45	.361
USA	−18.744	.63	.27	107.47	19.69	.055

Regression formula: $Y = c + \beta_1 * R + \beta_2 * D * (R-80)$.

Only 2% of Norwegians meet or exceed this criterion and only about 12% of Italians and 13% of Hungarians. Although this is considerably less than the 28% of Germans and 37% of Americans who think the CEO/worker pay ratio should be 10:1 or greater, even in Germany and the U.S., there is still at least a 2:1 majority of egalitarians.

Summarizing disagreements about "should earn" ratios

Our reading of the data suggests two hypotheses: (1) a large egalitarian majority of the population disagrees relatively little among themselves or with similar large majorities in other developed countries in believing in fairly small "should earn" pay differentials and (2) an inegalitarian minority find quite large wage differentials acceptable while disagreeing among themselves within each country and between countries about how large is still acceptable.

We examine the differences between the more egalitarian 80% and the more inegalitarian 20% using regression analysis to estimate how much attitudes toward the "should earn" ratio change between percentiles as one moves up the distribution of "should earn" attitudes from most egalitarian to most inegalitarian. Table 2 reports the results of estimating, for each country in 2019, the regression:

(1) $Y = c + \beta_1 * R + \beta_2 * D * (R - 80)$

    Y = CEO 'Should Earn" Salary/Unskilled Worker "Should Earn" Salary

    R = Respondent's Percentile Rank in distribution of Y

    D = 0 if R < 80

    D = 1 if R ≥ 80

The coefficient β_1 estimates the size of the differences between people from each percentile rank to the next in the distribution of "should earn" pay ratio attitudes – its small size produces the flatness of the "should earn" pay ratio gradient among most of the population. The coefficient β_2 measures the "additional support" for more inegalitarian pay ratios throughout the more inegalitarian 20%. Its statistical significance tests the hypothesis that there is a structural shift in attitudes at the 80th percentile – for percentile ranks greater than 80, each percentile rank differs from adjoining percentile ranks by $[\beta_1 + \beta_2]$. We expect β_1 to be much smaller than β_2 and we expect β_2 to vary significantly across countries – in particular, we expect β_2 to be large and strongly significant in Germany and the U.S., small in Norway and intermediate elsewhere.

For the more egalitarian 80% of respondents, there is a quite gradual gradient in the CEO/Worker should earn ratio. The differences between each percentile rank $[\beta_1]$ range from 0.04 (Norway) to 0.63 (USA). For the most inegalitarian 20%, the divergences in the CEO/Worker should earn ratio are much larger. In Germany and the U.S., each successive percentile within the more inegalitarian 20% differs by an additional factor $[\beta_2]$ which is 92.8 in Germany and 107.5 in the U.S.,[24] implying substantially more toleration of large pay ratios and much less consensus about how large.

Who are the inegalitarian "few"?

There are in fact very few Chief Executive Officers, and only one person in a hundred will ever be in the top 1%. Because the very rich are very few in number it is fundamental to the stability of inequality that they need the support/acquiescence/obedience of others to maintain their position. Who are the other, not-as-affluent people who believe in large "income differences"?

Previous research suggests women are less tolerant of income inequality than men (Thang et al. 2021) – gender differences in attitudes toward social policy and political parties are pervasive in polling data, perhaps partly because women are more likely to be personally affected by the gender pay gap and may also be socialized to greater empathy. Similarly, low-income households are probably more likely to be in favor of smaller income differences since they would personally benefit in case of more governmental redistribution.[25] Social class tends to be highly correlated with family income and education, but controlling for income and education, "elite-self-perception" (a.k.a. snobbery) as being a member of a high social class is likely correlated with inegalitarian attitudes. As well, if older cohorts are less oriented toward post-materialistic, egalitarian values than younger people (Inglehart 1977), age may well predict acceptance of inegalitarian norms.

We conducted a Multilevel Logistic Regression Analyses across the seven countries and across all years to examine the correlation of these indicators[26] with being a member of the inegalitarian few. As Table A4 in the appendix shows, the most inegalitarian

20% are not homogeneous across all seven countries and years but results generally are consistent with expectations. Older males with above-average income and education who self-identify as being of a higher social class are, unsurprisingly, more likely to be inegalitarian. Despite the theoretical assumption that social class highly depends on education level and family income, interaction effects across these indicators turned out to be non-significant.

Egalitarians may have roughly similar attitudes to pay differentials in all seven countries, but Figure 2 showed significant variations around the 80% threshold, which might suggest differences in the characteristics of the inegalitarian few across countries – National Exceptionalism as a minority phenomenon. Table 3, therefore, reports B-coefficients from two Logistic Regression Analyses of socio-demographic indicators by country across years. As dependent variables we used the two different definitions of (in)egalitarianism.

Looking at the columns that show the results for the 80/20 split, we can see that gender, age, and high family income are significant predictors across all countries: consistent with the general model in Table A4 in the Appendix older, more affluent males have a higher possibility of belonging to the most inegalitarian "few". However, countries do differ. In the three countries where the "few" show the most inegalitarian attitudes (Germany, Great Britain, and the U.S.), self-perceived lower social class has a strong negative correlation with probability of inegalitarianism, but this does not seem to be the case in Hungary, Italy, and Russia. Having above-average education is clearly correlated with group-belonging in Hungary, Italy, Russia, and the U.S., but is not in Germany, Great Britain, and Norway.

Generally, Norway shows the least coherent picture, which is not too surprising, considering the Norwegian graph in Figure 2. The regression results underline what the figure suggests: the more inegalitarian few are not so special in Norway and not so inegalitarian. (The 99th percentile most inegalitarian Norwegian thinks that a CEO should make 13.6 times a worker's salary, while the top 25% of Americans and Germans think they should make at least that.) Norwegian society seems to agree pretty broadly that the difference in salary between a CEO and an unskilled factory worker should not be large. Although any ranking of respondents will always produce a top 20%, when differences are small there is little information content in that ranking.

Using the complementary approach introduced in Section "How much should a CEO earn compared to a factory worker?" in which inegalitarians are defined as those favoring a pay ratio of 10:1 or larger between CEOs and unskilled workers, shows that in those countries where the two different approaches of identifying the inegalitarian few do not lead to a significant change in group size and composition, results are very similar. In Hungary, Italy, and especially Norway, where larger majorities share egalitarian views and therefore the complementary approach causes a significant reduction of the inegalitarians' group size, however, some differences can be observed. In Hungary, social class loses its significant effect, in Italy the effect of all significant indicators somewhat increases and in Norway, the remnants of a coherent picture disappear due to the small group size.

Discussion

This paper started with the observation that there are substantial differences among developed countries in income inequality and in how much government does to reduce

Table 3. Predictors of inegalitarianism, 20% (1987–2019) and > 10:1 ratio (1981–2019).

	Germany		Great Britain		Hungary		Italy		Norway		Russia		USA	
Definition of Inegalitarianism	20%	> 10:1	20%	> 10:1	20%	> 10:1	20%	> 10:1	20%	> 10:1	20%	> 10:1	20%	> 10:1
Inegalitarian % from country sample	20	19.6	20	21.9	20	9.6	20	8.1	20	1.4	20	24.7	20	29.8
Nagelkerke R^2	.089	.118	.140	.148	.068	.122	.062	.225	.038	.117	.028	.042	.126	.169
Sex (male)	.622	.618	.690	.661	.345	.449	.519	.479	.418	.547**	.327	.362	.698	.600
Age	.028	0.22	.037	.033	.012	.006*	.016	.011	-.007**	-.003	.002	.001	.027	.020
Education[a]														
Middle education	.291	.299	.272**	.302	.678	.718	.526	.498	.035	.746*	.396	.406	.382	.655
High education	.371	.416	.243*	.464	1.127	1.213	.621	.474**	.119	.701*	.542	.617	.690	1.012
Income[b]														
Middle income	.027	.045	-.015	.299**	-.059	.211	.139	.001	-.161	-.611*	.245**	.302	.179*	.317
High income	.231**	.302	.293**	.709	.264**	.524	.477	.611	.258**	.004	.362	.287	.414	.675
Class[c]														
Lower Class	-.854	-.508**	-.809**	-.775**	.027	-.038	-.323	-.306	.884	1.251**	.082	-.227*	-.676	-.539
Working class	-.230	-.232	-.703	-.604	-.123	-.205	-.020	-.254	-.332**	.814**	-.138	-.201	-.396	-.254
Lower middle class	-.043	-.117	-.248*	-.109	.217*	.098	.026	.041	-.034	.360	.068	.113	-.469	-.322
Middle Class							reference category							
Upper middle/upper class	.400	.302	.058	.208	.053	.216	-.050	-.287	.136	.329	.143	.129	.307**	.325

Notes:

a Reference category: low education.
b Reference category: low family income.
c Reference category: middle class; Upper and upper/middle class were clustered due to low case numbers.
[1] Significance levels: No asterix: highly significant < 0.010; **: <0.050; *: <0.100. Value indicated in grey: not significant at all.
[2] The analysis also controls for the survey year. Effects are not significant and, therefore not reported.

it. While median voter "political economy" models would predict that one should observe more income redistribution where market income inequality is greater, in the United States one observes less.[27] In partial response to the "missing redistribution" of U.S. public policy, the "American exceptionalism" literature has argued that there is something different about American values, compared to "European" attitudes, and that more inequality is, essentially, what most Americans want.

But are attitudes to inequality actually much different across developed countries — and if so, how? This paper has argued that the overwhelming majority of people everywhere, including most Americans, think that income differences are too large, that ethical inequality is considerably less than actual inequality and that the ratio between what top executives should earn and what factory workers (or shop assistants) should earn is quite small, compared to the current actual pay ratio. However, it also shows that cross-national similarity of values among most people co-exists with dissimilarities among an inegalitarian minority. When overall averages are compared on the various dimensions of attitudes toward inequality, average scores do differ across countries, but those differences are primarily driven by substantial differences among the inegalitarian few, not by the insubstantial disagreements of the egalitarian many.

What might this imply? Which matters more for public policy – the similarities of the egalitarian many or the differences of the inegalitarian few? The answer depends heavily on whether one thinks that, fundamentally, it is mass public opinion or elite opinion (perhaps accompanied by mass inertia or distraction or fatalism) that in the end determines policy choices.

This paper has found substantial cross-country differences in the attitudes toward income inequality of the inegalitarian few. Those who find "elite governance" models plausible may therefore argue that the research issues to focus on are the correlation between inegalitarian attitudes and elite membership, the determinants of the preferences for inequality of economic and political elites and the mechanisms in existence for the maintenance of elite cohesiveness and constituencies of support.[28] Direct examination of the personal attitudes of the top one percent is rare, partly because they are so few in number and so unlikely to respond to surveys that survey data is rarely available (Page et al. 2013). In comparing the attitudes of the inegalitarian 20% with those of an egalitarian 80% this paper has instead emphasized the importance of the attitudes of the significant (20%) minority who support inegalitarian outcomes in several countries – a theme somewhat similar in emphasis to an old British tradition which tried to explain why "Working Class Tories" in the U.K. preferred the political party supporting the maintenance of traditional class hierarchy[29] over the more egalitarian political option which would be more consistent with their objective class self-interest.

Our data series begin in 1987, so we cannot examine whether the disagreement about fair pay differentials between an inegalitarian few and the egalitarian many predates the late 1980s, and how important it may (or may not) have been for historical political instability. However, in contemporary societies, we conjecture that the depth of this disagreement cannot be good for political stability. Events in the United States may be illustrating the point. The U.S. appears to be a country which combines majority egalitarianism with both greater under-estimation by respondents of the actual degree of

inequality in earnings and less belief that it is the responsibility of government to reduce income differences. Some features of political instability in the United States, such as the influence of racism and the out-sized impact of well-financed lobby groups, may be more important there than elsewhere. However, this paper has found that in the United States, as in other affluent countries, the vast majority of citizens have long had, and continue to share, an aversion to wide differences in income.

As Baron and McCaffery (2005, 2006) some time ago demonstrated experimentally, popular perceptions of redistribution policy by the state are highly susceptible to "spin." In thinking about attitudes to inequality, it has also long been observed that many individuals seem to have a "split-consciousness," since the same person will often simultaneously report both support for egalitarian principles (such as distribution according to need) and inegalitarian attitudes (such as the moral depravity of the poor). This implies that the "framing" of policy choices can be crucial and that the politics of income redistribution policies may be quite unstable. Since the trend to widening actual differentials at the top of the income distribution is well-established, the growing discrepancy between the majority's perceptions of actual and fair inequality does not sound like a likely recipe for long-term social or political stability.

Conclusion

We conclude that most people in the seven countries we examine have broadly similar and quite egalitarian attitudes to pay differentials and that cross-country differences in attitudes to inequality are concentrated in an inegalitarian few, who differ substantially in their preferences, both from the egalitarian majority within the same country and often from the inegalitarian minorities of other countries. Because cross-country comparisons of average attitudes toward inequality mingle the majority and the minority, we suggest that such comparisons can mislead analyses. We, therefore, argue that analysis of why countries differ in redistributive social policies should focus on who the inegalitarian minority are and why their attitudes toward inequality differ from those of the egalitarian majority.

Notes

1. See for example Osberg, Smeeding, and Schwabisch (2004); OECD (2015); Edlund, Bechert and Quandt (2017).
2. Among others, see Piketty (1995); Benabou and Ok (2001); Alesina and La Ferrara (2005); Alesina, Di Tella, and MacCulloch (2004); Alesina and Angeletos (2005).
3. People in many countries use the same production technologies, may be employed by the same multi-national enterprise and increasingly often use the same software for socialization (e.g. Facebook) or entertainment (e.g. Netflix) during their leisure time.
4. The contributors to Kluegel et al. 1995a and 1995b), who summarized the 1991 survey results of the International Social Justice Project (ISJP 2014), concluded that public attitudes to social justice are complex, sensitive to both process and outcome and sometimes quasi-contradictory – but they do not suggest that preferences for equality in the United States are fundamentally different from other affluent capitalist nations. Similarly, Kelley and Evans (1993: 114) placed American attitudes to legitimate income inequality, controlling for differences in social structure, in the middle of their sample of nine countries.

5. Inglehart and Norris (2016), for example, used two entirely European data sets to test their hypotheses about the rise of Trump in U.S. politics.
6. Table A0 presents case numbers for all national samples across years.
7. We agree that there is an important debate about whether the former Soviet Union and COMECON nations were actually "socialist" but wish to avoid that debate for present purposes.
8. Appendix Table A1 presents the numbers underlying Figure 1. Cross-national comparisons depend on survey item measurement equivalence, which can never be fully guaranteed in different settings – see Smith (2011), Pennell et al. (2017) and Bechert (2018).
9. Imagine a society composed of lawyers earning $100,000 and carpenters earning $25,000. If the focus of enquiry is inequality in the "differences between types of individuals" sense, these incomes are all one needs to know. However, to discuss inequality in the "distribution within a population" sense, one needs to know how many lawyers and carpenters there are. A statistical measure (like the top 10% income share or the Gini index) can change either because relative income ratios change or because the percentages of the population who are lawyers or carpenters change – and it is plausible that some observers may judge these two situations differently (see Osberg 2017 for fuller discussion).

   In general, if $y_i = X_i \beta + u_i$ (where y_i is a person's income and their characteristics are described by a vector X_i and the income differentials associated with those characteristics are summarized in the vector β, with the unexplained component u_i) then the frequency distribution $f(y)$ and any inequality statistics calculated from it (such as decile income shares or a Gini index) depends on $f(X_i)$ and on β, as well as on u_i. But inequality in the sense of average differences "between types of persons" is only about β.
10. The Gini index has a maximum value of 1 (complete inequality – only one person has any income) and a minimum of zero (perfect equality – when all responses are identical). It is calculated as:

    $$G = \frac{1}{2\bar{y} n \ (n-1)} \sum_{i \neq J}^{n} \sum_{j}^{n} |y_i - y_j|$$

    When inequality in incomes is being measured, yi and yj refer to the incomes of individuals i and j respectively while n is the population size, Σ is the summation operator and $\bar{y}$ is mean income.
11. We have also calculated other summary indices (e.g. Coefficient of Variation, Theil) of both "should earn" and "do earn" inequality – with very much the same implications. Szirmai (1991) used Dutch data to calculate the percentage difference in the Theil index of should earn and do earn inequality as an index of "Tendency to Equalize."
12. This calculation of a Gini index implicitly assumes an equal number of people in each occupation. This is clearly not true or what any respondent actually believes is empirically true, but it does standardize relative population weights for occupations across all respondents and all nations. Because the list of occupations examined in the ISSP varies across survey years, estimates of GiniA and GiniE are comparable within survey years, but not across years.
13. Extreme outliers with a ratio >10,000 were excluded from the analyses. These were six cases. Four from the U.S. and two from Great Britain.
14. "Shop Assistants" are typically paid wages that are quite similar to those of factory workers. Figure A1 in the appendix replicates the same figures using the beliefs in 2019 of ISSP respondents about what the Chairman of a Large National Company should earn, expressed as a ratio to what the same respondent thinks a shop assistant should earn. In the U.S. "retail salesperson" (41-2031) is the term used by the Bureau of Labor Statistics – in 2021, full-time annual earnings in the U.S. ranged between $21,840 (10th percentile) and $45,460 (90th percentile) with a median of $29,120 – (Bureau of Labor Statistics 2021a) For Production Workers (51-9199) wages in 2021 ranged from $23,700 to $49,980 with a median of $32,930 (Bureau of Labor Statistics 2021b). All our discussion of the CEO/factory worker "should earn" pay ratio is also applicable to Shop assistants.
15. In the Table A3a-e presents the percentiles of attitudes for all years in steps of five.

16. The methodology of data collection changed in 2009, and the other occupational groups mentioned in the survey became predominantly high income rather than working class, so one has to be cautious that at least part of such a striking shift in attitudes might be an artefact of changed survey methods.

17. The ISSP asks respondents to estimate the earnings of a "Chairman of a Large National Company" and both subjective and objective estimates of average CEO pay are sensitive to what counts as "large". In 2019, CEOs of S&P 500 companies received, on average, $14.8 million in total compensation (AFL-CIO 2019) but the CEOs of smaller firms often get less.

18. Respondents to the ISSP are much more accurate in "do earn" estimation of the earnings of factory workers than in their estimation of actual CEO pay. An imbalance in estimation errors is quite understandable – in all countries, there are a great many people working in factories, and very few CEOs, so randomly selected survey respondents have much better chances to personally observe the actual low wages of factory workers than the actual high pay of CEOs. Nevertheless, the ethical question that respondents are asked is what they think a CEO should earn, and what they think an unskilled factory worker should earn.

19. As Gimpelson and Treisman (2018) and Page and Goldstein (2016) also found that Americans systematically overestimate average income and underestimate the level of inequality, but it is subjective beliefs that matter for political preferences.

20. The Bureau of Labor Statistics "production worker" average annual wage includes some skilled workers. In the 2009 ISSP, the average respondent's "do earn" estimate of the earnings of unskilled factory worker was $25,000 – substantially less.

21. Germany 2021: 9.60€ minimum hourly wage for unskilled workers x 2000 hours (40 hours per week for 50 weeks per year) = minimum wage per year = 19,200.

22. OECD.Stat (2021).

23. ZDF (2022).

24. Hence $[\beta_1 + \beta_2]$ is 93.4 in Germany and 108.1 in the USA.

25. Corneo and Grüner call this the "homo-economicus effect" (Corneo and Grüner 2002, 85).

26. The first level controls for the combined variation of country and years. The number of countries is too small to allow for checking on country-effects specifically. On the second level, socio-demographic indicators are examined. Since exact harmonization of the education and income variables across countries and decades is impossible, both variables were recoded into three-level variables high/middle/low income/education for each sample separately.

27. The over-time trends within countries are no kinder to the median voter hypothesis than the cross-sectional evidence – see Kenworthy and McCall (2007:16).

28. See, for example, Page, Seawright, and Lacombe (2019).

29. Parkin (1967).

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Appendix
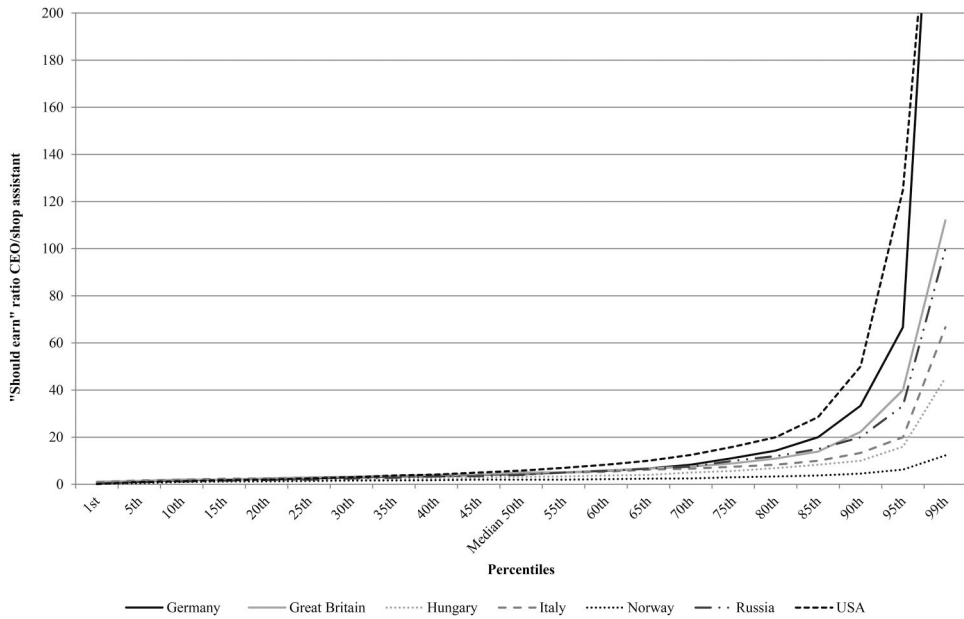
Figure A1. The "should earn" ratio: CEO/shop assistant percentiles of distribution of respondents' attitudes. Data from 2019.
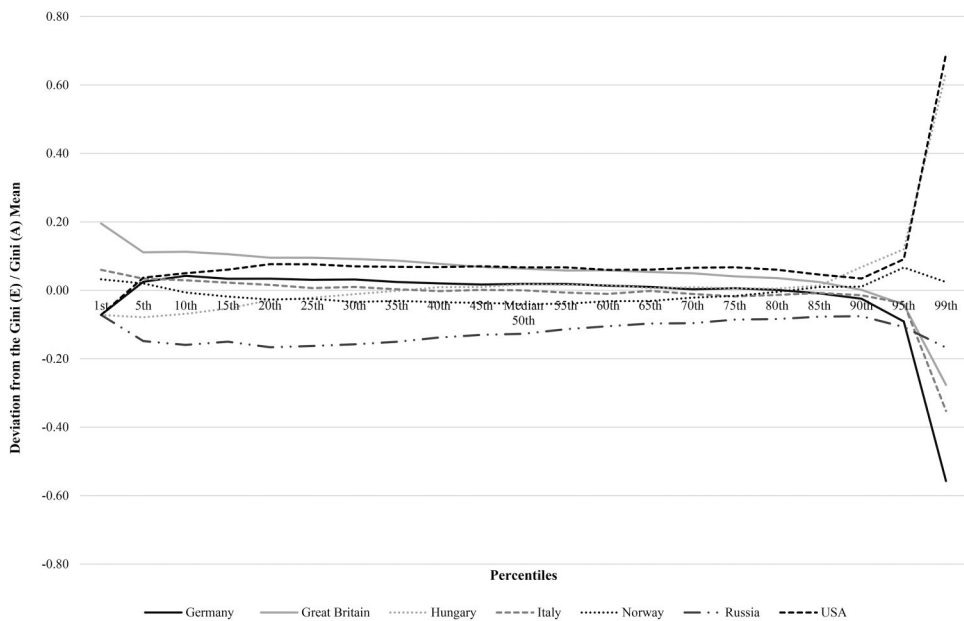
Figure A2. Deviation from mean of Gini (E)/Gini (A) by percentile. Data from 2019.
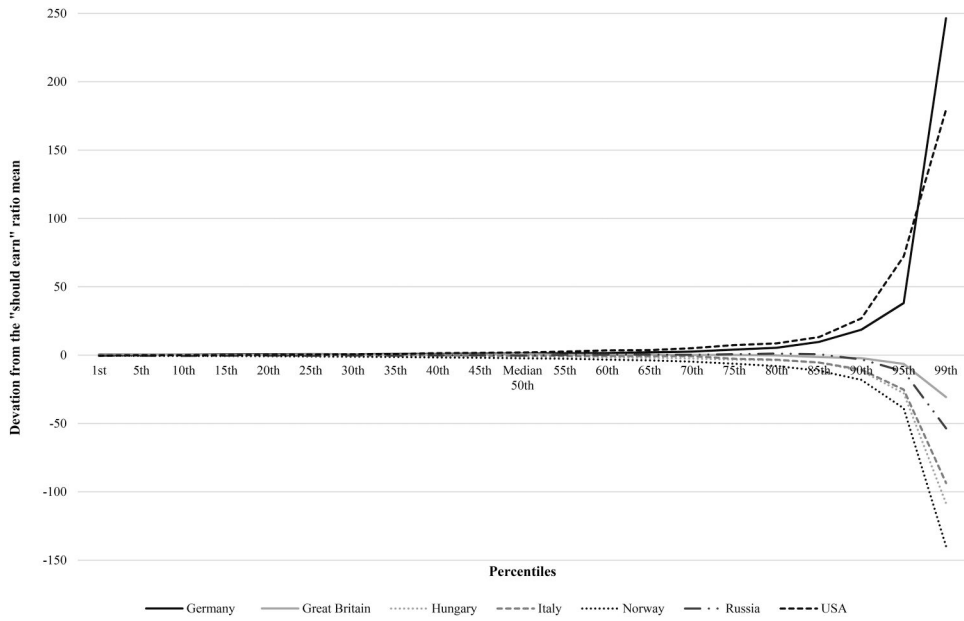
Figure A3. Deviation from the mean "should earn" ratio CEO/unskilled worker by percentile. Data from 2019.

Table A0. Case Numbers.

Country	Year	Case Numbers
Germany (DE)	2019	1325
	2009	1395
	1999	1432
	1992	3391
	1987	1397
Great Britain (GB)	2019	1724
	2009	958
	1999	819
	1992	1034
	1987	1181
Hungary (HU)	2019	1015
	2009	1010
	1999	1208
	1992	1235
	1987	2606
Italy (IT)	2019	1215
	2009	1084
	1999	/
	1992	1000
	1987	1000
Norway (NO)	2019	1323
	2009	1456
	1999	1268
	1992	1538
	1987	/
Russia (RU)	2019	1597
	2009	1603
	1999	1705
	1992	1983
	1987	/
United States (US)	2019	1852
	2009	1581
	1999	1272
	1992	1273
	1987	1605

Table A1. Table on Figure 1. Attitudes to inequality: Are income differences too large?.

Country	Year	Agree	Strongly Agree	Disagree	Strongly Disagree	Total
DE	2019	40.00	49.40	−2.90	−0.50	86.00
	2009	36.27	51.11	−4.09	−0.65	82.65
	1999	50.90	28.30	−6.30	−0.60	72.30
	1992	45.92	38.45	−4.45	−0.41	79.50
	1987	48.10	23.80	−8.90	−1.60	61.40
GB	2019	40.92	35.17	−3.36	−1.13	71.60
	2009	47.19	28.40	−6.09	−1.36	68.14
	1999	48.99	30.73	−5.23	−0.61	73.88
	1992	43.29	36.19	−7.10	−0.96	71.43
	1987	48.76	25.45	−9.52	−1.35	63.33
HU	2019	35.17	61.55	−0.06	0.00	96.67
	2009	19.55	77.35	−0.32	−0.11	96.47
	1999	25.74	66.64	−3.06	−0.36	88.96
	1992	38.37	44.33	−6.36	−1.43	74.91
	1987	33.65	39.52	−8.94	−2.00	62.24
IT	2019	49.47	42.80	−0.66	−0.16	91.44
	2009	25.96	65.71	−0.78	−0.66	90.23
	1999	/	/	MISSING	/	/
	1992	35.89	53.13	−3.74	−0.14	85.14
	1987	43.09	43.14	−5.33	−0.68	80.22
NO	2019	48.22	17.54	−11.34	−1.89	52.53
	2009	46.57	11.47	−15.38	−2.06	40.59
	1999	49.37	22.08	−11.83	−1.74	57.89
	1992	47.69	22.25	−11.82	−2.61	55.51
	1987	/	/	MISSING	/	/
RU	2019	18.05	72.30	−3.30	−2.27	84.79
	2009	30.13	61.50	−1.00	−0.38	90.25
	1999	15.62	77.41	−1.12	−1.10	90.81
	1992	27.17	50.95	−3.41	−2.77	71.93
	1987	/	/	MISSING	/	/
US	2019	28.71	42.27	−6.96	−2.95	61.07
	2009	35.79	26.51	−13.21	−3.65	45.44
	1999	38.44	23.35	−8.57	−2.99	50.24
	1992	48.31	27.10	−9.48	−1.63	64.30
	1987	41.35	14.25	−15.75	−3.05	36.79

Table A2. Table on Figure 2a. Ratio of Gini (E) and Gini (A) by percentile in 2019.

	DE	GB	HU	IT	NO	RU	US
1st	0.00	0.27	0.00	0.13	0.10	0.00	0.00
5th	0.32	0.40	0.22	0.33	0.31	0.15	0.33
10th	0.43	0.50	0.32	0.42	0.38	0.23	0.44
15th	0.48	0.55	0.39	0.47	0.43	0.30	0.51
20th	0.53	0.60	0.47	0.52	0.47	0.33	0.58
25th	0.57	0.64	0.52	0.55	0.52	0.38	0.62
30th	0.62	0.68	0.57	0.60	0.55	0.43	0.66
35th	0.64	0.71	0.62	0.62	0.59	0.47	0.69
40th	0.67	0.73	0.66	0.65	0.62	0.52	0.72
45th	0.70	0.76	0.70	0.69	0.65	0.56	0.76
Median	0.74	0.78	0.74	0.72	0.68	0.59	0.79
55th	0.77	0.81	0.76	0.74	0.71	0.64	0.82
60th	0.80	0.84	0.80	0.77	0.75	0.68	0.84
65th	0.82	0.87	0.82	0.81	0.78	0.72	0.87
70th	0.85	0.90	0.86	0.84	0.83	0.75	0.91
75th	0.89	0.92	0.89	0.87	0.87	0.80	0.95
80th	0.92	0.95	0.92	0.91	0.91	0.84	0.98
85th	0.94	0.98	0.97	0.95	0.96	0.88	1.00
90th	0.97	1.00	1.07	0.98	1.01	0.92	1.03
95th	1.00	1.05	1.21	1.05	1.16	0.98	1.18
99th	1.16	1.44	2.35	1.36	1.74	1.55	2.41

Table A3a. The "should earn" ratio: Chairman of a large national company/unskilled worker percentiles of distribution of respondents' attitudes: data from 1987.

	DE	GB	HU	IT	NO	RU	US
1st	1.00	1.00	0.75				0.83
5th	1.50	1.33	1.14				1.39
10th	1.75	1.92	1.33				1.94
15th	2.00	2.25	1.50				2.30
20th	2.34	2.50	1.67				2.50
25th	2.50	2.86	1.83				3.00
30th	2.80	3.23	2.00				3.33
35th	3.13	3.57	2.00				3.83
40th	3.33	4.00	2.14				4.12
45th	3.72	4.38	2.33				5.00
Median	4.00	5.00	2.50	MISSING	MISSING	MISSING	5.00
55th	4.29	5.45	2.50				5.63
60th	5.00	6.00	2.67				6.67
65th	5.00	6.36	2.86				7.13
70th	6.00	7.14	3.00				8.33
75th	6.80	8.33	3.23				10.00
80th	8.00	9.79	3.33				11.92
85th	10.00	11.67	3.75				15.00
90th	13.45	14.29	4.21				20.29
95th	23.29	21.43	5.00				40.00
99th	44.86	41.67	7.11				70.74

Table A3b. The "should earn" ratio: Chairman of a large national company/unskilled worker percentiles of distribution of respondents' attitudes: data from 1992.

	DE	GB	HU	IT	NO	RU	US
1st	0.83	1.00	0.67	1.00	0.25	0.25	0.74
5th	1.43	1.72	1.00	1.33	0.67	1.00	1.33
10th	1.75	2.00	1.43	1.52	1.05	1.43	2.00
15th	2.00	2.50	1.64	1.61	1.25	1.75	2.31
20th	2.50	3.00	1.80	1.82	1.39	2.00	2.67
25th	2.67	3.33	2.00	1.89	1.50	2.50	3.00
30th	3.01	4.00	2.20	2.02	1.57	2.67	3.33
35th	3.33	4.17	2.50	2.22	1.67	3.33	4.00
40th	3.57	5.00	2.62	2.29	1.76	3.50	4.20
45th	4.00	5.00	2.94	2.52	1.93	4.00	5.00
Median	4.29	5.40	3.20	2.67	2.00	5.00	5.00
55th	5.00	6.25	3.33	2.86	2.06	5.00	6.25
60th	5.00	7.14	3.75	3.28	2.22	5.00	6.67
65th	6.00	8.33	4.00	3.36	2.42	6.67	7.69
70th	6.67	9.01	5.00	4.00	2.67	7.14	10.00
75th	7.50	10.00	5.00	4.18	2.78	9.00	12.00
80th	8.33	10.91	6.00	4.68	3.00	10.00	15.00
85th	10.00	13.33	7.42	5.02	3.33	12.50	20.00
90th	14.29	16.67	10.00	6.37	4.00	16.67	25.00
95th	20.00	25.00	12.50	9.23	5.00	26.79	41.67
99th	40.00	49.16	20.00	12.18	6.67	80.91	83.33

Table A3c. The "should earn" ratio: Chairman of a large national company/unskilled worker percentiles of distribution of respondents' attitudes: data from 1999.

	DE	GB	HU	IT	NO	RU	US
1st	1.20	0.35	0.68		0.22	1.00	0.80
5th	1.85	1.53	1.33		0.52	1.67	1.43
10th	2.22	2.00	1.67		1.01	2.17	1.87
15th	2.50	2.50	2.00		1.43	2.67	2.38
20th	2.86	2.78	2.40		1.59	3.33	2.67
25th	3.21	3.33	2.50		1.75	3.50	3.20
30th	3.33	3.85	3.00		2.00	4.00	3.33
35th	3.80	4.17	3.33		2.00	5.00	4.00
40th	4.00	4.67	3.75		2.14	5.00	4.00
45th	4.29	5.00	4.17		2.38	5.33	5.00
Median	5.00	5.60	5.00	MISSING	2.50	6.67	5.00
55th	5.00	6.15	5.00		2.61	6.67	6.00
60th	5.71	6.67	6.00		2.78	8.33	6.67
65th	6.00	7.50	6.67		3.00	10.00	8.00
70th	6.67	8.33	7.50		3.33	10.00	10.00
75th	7.50	10.00	8.62		3.50	13.33	10.00
80th	9.09	11.11	10.00		4.00	16.67	13.33
85th	10.00	13.33	12.50		4.44	20.00	20.00
90th	12.50	16.67	15.42		5.00	25.00	28.38
95th	16.67	27.78	25.00		5.00	50.00	40.00
99th	26.67	58.82	60.78		6.67	198.70	60.55

Table A3d. The "should earn" ratio: Chairman of a large national company/unskilled worker percentiles of distribution of respondents' attitudes: data from 2009.

	DE	GB	HU	IT	NO	RU	US
1st	1.00	0.20	0.90	0.83	0.17	0.40	0.62
5th	1.67	1.25	1.43	1.24	0.57	1.00	1.50
10th	2.00	2.00	2.00	1.50	1.11	1.67	2.00
15th	2.50	2.31	2.24	2.00	1.33	2.00	2.50
20th	3.00	2.50	2.50	2.00	1.50	2.50	2.86
25th	3.33	2.94	3.00	2.50	1.67	3.00	3.33
30th	4.00	3.33	3.33	2.65	1.67	3.33	4.00
35th	4.36	3.58	3.75	3.00	1.78	3.64	4.44
40th	5.00	4.00	4.00	3.33	2.00	4.00	5.00
45th	5.33	5.00	5.00	3.33	2.14	5.00	5.85
Median	6.25	5.00	5.00	4.00	2.33	5.00	6.67
55th	6.67	6.00	5.56	4.17	2.50	5.00	8.00
60th	8.00	6.67	6.50	5.00	2.67	6.67	10.00
65th	9.27	7.50	6.67	5.26	2.86	7.00	12.00
70th	10.00	9.38	8.00	6.15	3.33	9.09	15.00
75th	13.33	10.00	10.00	6.67	3.33	10.00	18.39
80th	16.67	12.50	10.00	7.69	4.00	11.11	25.00
85th	25.00	16.67	12.50	10.00	4.83	15.00	32.05
90th	45.82	21.25	15.38	12.50	5.71	20.00	50.00
95th	100.00	38.53	20.00	19.23	8.00	33.33	135.53
99th	500.00	271.33	30.00	80.82	25.18	80.00	634.21

Table A3e. The "should earn" ratio: Chairman of a large national company/unskilled worker percentiles of distribution of respondents' attitudes: data from 2019.

	DE	GB	HU	IT	NO	RU	US
1st	1.00	0.78	1.00	0.82	0.20	0.20	0.10
5th	1.50	1.48	1.20	1.39	0.61	0.67	1.00
10th	2.00	2.00	1.40	1.88	1.00	1.00	1.50
15th	2.50	2.25	1.62	2.00	1.25	1.50	2.00
20th	2.78	2.50	1.75	2.33	1.38	1.92	2.34
25th	3.20	3.00	2.00	2.50	1.50	2.00	2.86
30th	3.43	3.33	2.16	2.92	1.63	2.50	3.33
35th	4.00	3.50	2.40	3.13	1.75	2.75	4.00
40th	4.45	4.00	2.67	3.33	1.82	3.33	5.00
45th	5.00	4.27	3.00	3.50	2.00	3.86	5.56
Median	5.33	5.00	3.33	4.00	2.00	4.00	6.25
55th	6.15	5.00	3.52	4.32	2.22	5.00	7.42
60th	7.14	5.71	4.00	5.00	2.33	6.00	9.09
65th	8.33	6.67	4.29	5.56	2.50	6.67	10.00
70th	10.00	7.50	5.00	6.67	2.67	7.69	12.50
75th	13.33	9.38	6.02	6.67	3.00	10.00	16.67
80th	16.67	11.11	7.69	8.00	3.33	12.50	20.00
85th	25.00	13.89	10.00	10.00	4.00	16.00	28.57
90th	41.67	20.83	11.54	12.50	5.00	20.00	50.00
95th	83.33	38.89	17.39	20.00	6.35	33.33	117.54
99th	400.00	122.84	45.05	60.00	13.63	100.00	333.33

Table A4. Predictors of inegalitarianism 1987–2019: results from a multilevel logistic model.

Model	N = 46,130	M0	SE	M1	SE
	Intercept	−1.392	0.013	−2.602	0.105
Random effects variances	Country/year[a]	0.000		0.015	
Fixed effects coefficients	Gender (male)			0.536	0.031
	Age			0.018	0.001
	Education[b]				
	Mid education			0.318	0.041
	High education			0.442	0.048
	Income[c]				
	Mid. Income			0.071*	0.041
	High income			0.348	0.041
	Social Class[d]				
	Lower class			−0.322	0.088
	Working class			−0.332	0.039
	Lower middle class			−0.050	0.051
	Middle class			Ref.	
	Upper middle/upper class			0.187	0.055

Notes:
[a]Total variance 0.000 (Intercept country/year variance) + 1 (Residual) = 1/Intra-class correlation coefficient: 0.000 / 1 = 0% of the variance can be attributed to differences between countries/years.
[b]Reference category: low education.
[c]Reference category: low income.
[d]Reference category: Middle social class.
[1]Dependent variable: dichotomous indicator for (in)egalitarianism, split at 80/20 percent.
[2]Significance levels: No asterisk: highly significant <0.010; **: <0.050; * <0.100. Value indicated in grey: not significant at all.