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WHY DO REDISTRIBUTIVE POLICIES DIFFER ACROSS COUNTRIES? ANALYZING THE MULTIPLE DIMENSIONS OF PREFERENCES FOR REDISTRIBUTION

BY RYO KAMBAYASHI

Institute of Economic Research, Hitotsubashi University

AND

SÉBASTIEN LECHEVALIER*

Ecole des Hautes Etudes en Sciences Sociales (EHESS)
GREThA (Bordeaux University)
Maison Franco-Japonaise (UMIFRE 19 MEAE-CNRS)

Why are some countries characterized by more income redistribution than others? Based mainly on Trans-Atlantic comparisons, the literature has referred to dissimilarities in preferences for redistribution. In this article, we extend this literature by focusing on multiple dimensions of redistributive preferences and adding Japan to the comparison. More precisely, using data for France, the US, and Japan from ISSP 2009, we apply cross-sectional regression models and the Blinder–Oaxaca decomposition technique to address two distinct questions about preferences for redistribution—the role of government in reducing income gaps and tax progressivity. We find that each of these dimensions are related to different mechanisms: *i.e*. one depends more on individuals' specific situations, such as income/wealth and social beliefs, as stressed in the literature, whereas the other depends more on an unobservable but common factor within a country, such as the historical and cultural background of each society.

JEL Codes: D31, D63, H23

Keywords: inequality, redistribution, progressive taxation, political economy, Blinder–Oaxaca decomposition

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*Correspondence to: Sébastien Lechevalier, EHESS, Centre Chine—Corée—Japon, 54 boulevard Raspail 75006 Paris, France (sebastien.lechevalier@ehess.fr).

1. Introduction

The level of income redistribution varies widely around the world, even among developed countries. According to the OECD, while the pre-tax Gini coefficients in the US, France, and Japan were concentrated within a range of 0.03 points in the mid-2000s, the reduction of inequality through fiscal policies (including social transfers) differs: lowest in the US (−0.11), highest in France (−0.20), and middle in Japan (−0.13). As a result, the range of post-tax Gini coefficients among these countries of 0.09 are three times larger than the range of pre-tax coefficients. Furthermore, there is no sign of convergence. Even after the 2008–2009 Great Financial Crisis and political changes within these countries, the heterogeneity of redistributive policies remains constant, surprisingly. In 2015, the pre- and post-tax ranges of Gini coefficients among these three developed countries were around 0.02 and 0.09, respectively.[1]

Previous studies have explained the persistent heterogeneity of redistributive policies by people's preferences for redistribution, assuming that popular preferences democratically determine them (Bénabou, 2000; Alesina *et al.*, 2001). More precisely, the literature focuses on two major mechanisms. On the one hand, at the individual level (past, current, and future), income and wealth are key determinants of the preference for redistribution. This means that, at the country level, the income and wealth structure of the economy is a key factor that explains the characteristics of the preference for redistribution. On the other hand, at both the individual and country levels, preferences for redistribution are shaped by social beliefs regarding the reasons for one's economic success or failure. Perceptions of the extent to which people control their own fate, as well as the perceptions of the attitudes of those who obtain social benefits, are regarded as major determinants of society's attitudes toward inequality and redistribution (for example, Fong, 2001; Alesina and Angeletos, 2005). The conjunction of these two major mechanisms may explain the persistent differences in redistributive policies across countries, which is the focus of this paper.[2]

More precisely, the purpose of this paper is to empirically extend the literature on the heterogeneity of preferences for redistribution across countries in two ways. First, we include an Asian country, Japan, in the analysis. Note that the rationale behind this is not obvious from a Trans-Atlantic viewpoint; however, we aim to

[1]According to Income Distribution and Poverty Dataset from OECD Statistics (last accessed on 04 Sep 2019 06:56 UTC). More precise Gini coefficients are 0.49 (2005, US), 0.49 (2005, France), and 0.46 (2006, Japan) for pre-tax and 0.38 (2005, US), 0.29 (2005, France), and 0.33 (2006, Japan) for post-tax. The definition of income in this database changed in 2012. The actual Gini coefficients for 2015 are 0.52 (US), 0.50 (France), and 0.51 (Japan) for pre-tax and 0.39 (US), 0.30 (France), and 0.34 (Japan) for post-tax. Therefore, the redistributive policies reduced the Gini coefficients in the mid-2010s by –0.12 (US), –0.22 (France), and –0.17 (Japan).

[2]According to Alesina and Angeletos (2005, p. 960): "Different beliefs about the fairness of social competition and what determines income inequality influence the redistributive policy chosen in a society. But the composition of income in equilibrium depends on tax policies. We show how the interaction between social beliefs and welfare policies may lead to multiple equilibria or multiple steady states. (…) These insights may help explain the cross-country variation in perceptions about income inequality and choices of redistributive policies."

TABLE 1
THE OVERALL DISTRIBUTION OF PREFERENCES IN ALL COUNTRIES (2009 ISSP)

Entire 2009 Sample (N = 46,667)		Tax on the Rich Should Increase	
		Yes	No
Gov. should reduce income gap.	Yes	52.8%	25.6%
	No	10.6%	11.0%

Source: Unweighted count for 2009 ISSP, excluding observations missing either variable. We classify "strongly agree" and "agree" as "YES" and "strongly disagree" and "disagree" as "NO" for government intervention. Similarly, "much too low" and "too low" are classified as "YES" and "much too high" and "too high" as "NO" for taxation. We assign neutral answers equally to "YES" and "NO."

generalize the findings of previous studies on the topic.[3] Second, we examine two different questions about the preferences for redistribution to capture the multiple dimensions of the preference, using a strategy that has been developed in several recent papers (Barnes, 2015, Cavaillé and Trump, 2015, Fong and Poutvaara, 2019, among others). More precisely, from the 2009 edition of the International Social Survey Programme (ISSP) on "Social Inequality", we use the replies to the following questions:

1. "Is it the responsibility of the government to reduce the difference in income between people with high incomes and those with low incomes?"
2. "Generally, how would you describe taxes in <country> today for those with high incomes?" Taxes are <answer>." (with the answer ranging from "much too low" to "much too high")

Although both questions are related to redistributive policies, they consider different aspects of redistribution and, thus, the answers to these are inconsistent, as shown in Table 1. The discrepancies in the answers are captured by the percentage of off-diagonal components, which represents one third of the total. As discussed in Fong and Poutvaara (2019), this indicates that preferences for redistributive policy have multiple dimensions, and we try to interpret them to explain the existing heterogeneity of redistributive preferences between the countries (see also Barnes (2015) as well as Cavaillé and Trump (2015) in this spirit).

These two aspects of our contribution are related to each other, because the two dimensions of preferences are substantially different across the US, France, and Japan, as shown in Table 2. This paper aims to explain the differences in the multiple dimensions of preferences for redistributive policy across the three countries and to relate them to income/wealth and social beliefs, after controlling for individuals' attributes.

Our findings can be summarized as follows. First, we confirm the correlation of the relative position in the income distribution and social beliefs with

[3]For example, Kluegel and Miyano (1995) compare the support for government intervention in five countries (the US, the UK, West Germany, the Netherlands, and Japan) by using the 1987 issue of ISSP and find that Japan is different from other countries in the sense that the citizens on average are simultaneously both more conservative (higher endorsement of success ideology) and more liberal (more egalitarian) than in Western countries. As a result, in all countries but Japan, adherence to success ideology lowers support for government intervention.

TABLE 2
THE DISTRIBUTION OF PREFERENCES IN THE US, FRANCE, AND JAPAN (2009 ISSP)

		Tax on the rich should increase	
		Yes	No
US respondents			
Gov. should reduce income gap.	Yes	29.7%	11.6%
	No	32.7%	26.1%
French respondents			
Gov. should reduce income gap.	Yes	67.8%	15.9%
	No	8.9%	7.3%
Japanese respondents			
Gov. should reduce income gap.	Yes	53.0%	15.8%
	No	19.1%	12.0%

Source: See Table 1.

preferences for redistributive policy, as found in previous studies. Second, we find that the strength of these correlations differs across the various aspects of preferences, as well as across countries. Third, each aspect of preferences is related to different mechanisms: one depends more on individuals' specific situation such as income/wealth and social beliefs, as stressed in the literature, whereas the other depends more on the unobservable but common factors within countries such as historical and cultural background of each society. In the literature, the effect of culture on the preferences for redistribution has been examined through the behavior of immigrants, as in Luttmer and Singhal (2011). However, in our research, this result is obtained through the use of a Blinder–Oaxaca decomposition for the first time in this field, to our knowledge. In addition, our Trans-Atlantic comparison does not lead to the identification of a general mechanism. Some characteristics of the US and France do not exist in Japan; in particular, how the individual situation relates to one's preferences differs in the Japanese case. Overall, to explain the persistent heterogeneity of preferences for redistributive policy across countries, it is necessary to consider several mechanisms at the same time. On the one hand, the composition of types of people in each country partially explains the preferences for redistributive policy; on the other hand, the historical/cultural background of each country, which is unobservable in our paper, still provides a major explanation. Of course, our results depend on cross-sectional analysis of a limited number of countries, neglecting dynamic construction of preferences and/or mutual migration flows between countries. Moreover, the importance of the unobservable background of each country identified in this paper may be a good start to further investigation.

The next section reviews the related literature. In the third section, we introduce the ISSP database and some patterns of preferences for redistributive policy in the US, France, and Japan. The fourth section is dedicated to the analysis of the impact of social beliefs on multiple aspects of preferences in the three countries, using a regression model and its decomposition. The fifth section discusses these results in the context of the intertemporal transition of preferences. We conclude in the sixth section.

2. Individual Determinants of Preferences for Redistribution and Cross-Country Differences: A Survey of the Literature

The literature on preference for redistribution has been heavily influenced by the seminal article by Meltzer and Richard (1981) that models the "size of the government", *i.e*. the amount of redistribution, which is determined by two factors: (i) how people's income or life-cycle income affects their preferred redistribution, and (ii) how individuals perceive the "incentive cost" of redistribution for their fellow citizens (as high taxation and benefits are assumed to reduce agents' incentive to exert effort). People do not necessarily differ in their distributive goals, but they do not assess the incentive cost of redistribution and/or the relative importance of effort/luck with regard to success in the same way. It is possible to interpret (i) as *self-interest* and (ii) as *social beliefs/values*, respectively.

As for the self-interest factor in the preference for redistribution, current income has been a relatively good predictor. However, the literature has struggled to explain the seemingly contradictory following situation: some poor people are opposed to redistribution, although they may gain in theory from it. In reality, this can be seen in the results of elections with a high support rate for conservative candidates from low/middle-class categories (Guillaud, 2013). This may be explained by adding an intertemporal dimension to the income variables (for example, in considering expected lifecycle income), but may also reflect a certain view of the individuals on social mobility in their society. A typical example is the so-called prospect of upward mobility (POUM) hypothesis, introduced by Bénabou and Ok (2001): poor or lower class people oppose redistribution because they expect to climb the social ladder through their individual effort and, in the case they succeed, they do not want to support their fellow citizens, who have not made the same effort. Thus, self-interest motives and social beliefs together contribute to the preferences on redistribution, at the individual level.

Given the relatively good understanding about the general mechanism of individual preferences on redistribution (self-interest, including prospective mobility and social values), our understanding is still insufficient to unravel the mechanism of long-lasting differences across countries empirically. Among the various reasons for this limitation in the literature, we focus here on two: the limited nature of the Trans-Atlantic perspective, which is typical of international comparisons in this field, and the multi-dimensional nature of the preference for redistribution.

First, it is fair to recognize that the Trans-Atlantic perspective is dominant, as seen in the various and influential contributions from Alberto Alesina and his colleagues. This Trans-Atlantic approach is consistent with some theoretical models that emphasize the existence of two worlds. For example, Bénabou and Tirole (2006) characterize two equilibria: the "belief in a just world" equilibrium and the "realistic pessimism" equilibrium that is based on the Trans-Atlantic contrast. In short, these two equilibria correspond to the "American dream" and "European pessimism."[4] However, it is difficult to consider that every society can be classified

[4]These models emphasize the complementarities between social beliefs and welfare policies. This mechanism allows stable diversity across countries without relying exclusively on a cultural explanation, and the insights of models may help explain the cross-country variation in perceptions about income inequality and choices of redistributive policies.

in one of these two equilibria. This is shown by several papers that try to examine many countries as in Kluegel and Miyano (1995), Guillaud (2013), or Pontusson *et al*. (2020), among many others. Richer international comparisons may be needed.

Second, there are on-going important discussions on the uni- versus multi-dimension(s) of preferences for redistribution, not only in economics (Fong and Poutvaara, 2019) but also in the political sciences (Barnes, 2015; Cavaillé and Trump, 2015). In addition, regardless of the field, researchers have commonly found it difficult to empirically capture these different dimensions in surveys. If a continuum of beliefs linearly associated with supporting redistributive policies exists, it is possible to rank individual preferences along a right-conservative versus left-liberal continuum (Alesina and Giuliano, 2009). Then, it is possible to rely on a single item in standard surveys, such as the ISSP, in order to capture preferences for redistribution. However, the existence of this continuum and of a linear relation is contradicted by a simple exercise such as the one we proposed in the introduction of this paper (see Tables 1 and 2).

One effective way to overcome this shortcoming is to use multiple questions that capture the multiple dimensions of preferences on redistribution. Several papers have followed this strategy. Despite their diversity, they generally distinguish, at a theoretical level, the two factors above, namely, economic self-interest and social beliefs/values, as founding principles of the preference of redistribution. This theoretical conceptualization is associated with an empirical effort, whose aim is to better design surveys in order to go beyond general questions on redistribution, such as "Should the government take measures to reduce differences in income levels?" which is asked in surveys such as the ISSP or the European Social Survey (ESS) (see for example Pontusson *et al*., 2020). An alternative is to design experiments, such as in Fong and Poutvaara (2019), which also relies on national surveys, in a complementary way.

This paper extends this strand of the literature and we review below some of the key contributions in this tradition in order to position the present article. First, Cavaillé and Trump (2015) distinguish between "redistribution from" and "redistribution to," and theoretically analyze the determinants of these two dimensions of redistribution. This distinction is clearly consistent with the partition between self-interest and social-affinity motives. These theoretical predictions are then tested in the case of the UK from the mid-1980s to the early 2010s through a rich survey, the British Social Attitudes Survey (BSAS), which allows us to identify several questions that capture the two facets of redistribution. One of the major results of this paper is that it provides an explanation on why the POUM hypothesis holds in the UK over this period: there is convergence between the bottom quintile and top quintile (for different reasons related to two determinants distinguished above) toward less support for redistribution.[5]

Second, Barnes (2015) analytically decomposes the preferences for redistribution into two dimensions that are different from the ones distinguished by Cavaillé and Trump (2015), namely, "the size of government" and "the shape of government." Then, the author mobilizes the 2006 edition of ISSP on the role of

[5]The paper also provides a cross-sectional comparison among the UK, Sweden, Germany, and France in mobilizing the 2008 edition of the EES, but the results are less meaningful.

government and focuses on a cross sectional comparison between 17 countries in grouping two type of questions related to these two dimensions. The paper finds a seemingly contradicting combination, on average, of support for more progressivity and for lower tax levels. The former is explained by the determinants of the "shape of government" and the latter by the determinants of the "size of government." It is also found that the income of respondents is a major determinant of the answer related to progressivity and that the differences among countries is explained partly by the tax structure.

Last but not least, Fong and Poutvaara (2019) extend the theoretical framework of how fairness affects the redistributive preferences by introducing the concept of "target-specific beliefs about the causes of low and high incomes." They argue that, given specific assumptions, each dimension of the preferences for redistribution should be related only to the relevant social belief: if a particular redistributive policy affects only the situation of rich (poor) people, the preferences for such a policy should be related only to the social beliefs that are relevant to rich (poor) people. This mutual independence of the two preferences is indeed useful for integrating them into a single model. In addition, they show that the data for the US and Germany similarly suggest such a statistical relation.

Given the existing literature, our contribution can be summarized as follows. First, following Barnes (2015), Cavaillé and Trump (2015), and Fong and Poutvaara (2019), we consider two different dimensions of the preferences for redistribution in order to better take into account their respective determinants. More precisely, besides the general question of the role of the government in reducing income gaps between low and high income individuals (which can be considered a proxy of the "size of government" as well as any combination of "redistribution of" and "redistribution to",) we investigate more specifically the issue of tax progressivity, which can be interpreted in terms of "redistribution from" or "shape of government." Second, we go beyond the Trans-Atlantic comparison and include a third country, namely Japan. The aim of these two distinct contributions converge toward an effort to enrich our understanding of the diversity of redistributive preferences within and between countries.

3. Data, Empirical Strategy, and Descriptive Results

The ISSP is a survey conducted annually on a representative sample of people in multiple countries. Each questionnaire includes socio-demographic variables and a thematic set of questions. The 2009 edition, carried out in August 2008 for 43 countries, is centered on questions about social inequality and preference for redistribution. The 2009 edition is the only wave that focuses on inequalities that include Japan.[6] As a result, we focus here on the 2009 edition.[7] As the ISSP does not have a panel structure, it is, at most, repeated cross-sectional data at the

[6]Unfortunately, in the previous waves (1987, 1992, 1999), the Japanese data were incomplete.

[7]The survey process, especially the process of interpretation of languages, is summarized in Gendall (2011). The microdata of ISSP 2009 are available from Leibniz-Institute for the Social Sciences (GESIS) with registration. We downloaded the latest version at the time of analysis (23.05.2017). The identifier of the dataset is ZA5400 (v4.0.0) at https://doi.org/10.4232/1.12777.

individual level. Therefore, we do not intend to identify causality in the analysis; however, we do focus on the correlation between multiple aspects of preferences and other factors descriptively.

Among the 43 countries surveyed in the 2009 edition of the ISSP, we focus on data from France, Japan, and the US. In contrast to the Trans-Atlantic view, the Japanese case is particularly interesting, as is already shown in Tables 1 and 2. In addition, Japan is a meaningful case because in the 1970s and 1980s, it reached a low level of inequality, more or less equivalent to the one in Sweden but "without redistribution through fiscal policy," rather through an egalitarian compromise on wage sharing (Dore, 1994). From the 1980s, however, Japan experienced an increase in wage income inequality, of which the key driver was the industrial and labor market dynamics rather than the reform of the tax system (Kambayashi *et al*., 2008; Moriguchi and Saez, 2008). Therefore, the Japanese case, along with the American and French cases, lead us to ask whether an increase in inequality may affect the preferences for redistribution and lead to greater demand for redistribution.

The French, US, and Japanese samples contain 2817, 1581, and 1296 respondents, respectively. With a probability weight variable to correct for the sampling, the sample becomes representative of the population of each country. It also includes a set of socio-demographic variables. The summary statistics for the main variables of interest in ISSP 2009 are provided in Appendix A.1.

3.1. *Choice of Variables and Controls*

We consider two variables that capture different dimensions of the preferences for redistribution: (i) preference for the government's role in reducing income gaps between the rich and the poor and (ii) preference for progressive taxation. As mentioned previously, one's support of redistribution through government intervention is first captured in the survey by the question, "Is it the responsibility of the government to reduce the difference in income between people with high incomes and those with low incomes?"[8] The responses are coded from 1 to 5 (from *strongly disagree*, *disagree*, *neutral*, *agree* to *strongly agree*). This variable is the most commonly used in papers that mobilize ISSP to analyze the preference for redistribution (see for example, Guillaud (2013) who uses the 2006 edition of ISSP on the "Role of Government" and focuses on this question). The second variable that captures some dimension of the preference for redistribution is related to the question "Generally, how would you describe taxes in <country> today for those with high incomes? Taxes are <answer>." The answers range across five categories from *much too low* to *much too high*.

These two questions tackle the preference for redistributional policy from different perspectives. While the first question focuses on the role of the government without specifying it concretely, the second one focuses on the progressivity of the tax system. The way they capture two different and interrelated dimensions of

[8]From this point on, we will refer to redistributive government interventions as "redistributive policies"—not to be confused with progressive taxation policy.

preference for redistribution as well as the main benefits of comparing their determinants are discussed in the next section.

We next introduce the explanatory variables we use in this paper. Regarding economic variables, we include income (divided into five intra-countries quintiles) and assets.[9] Regarding the income variables, we converted the raw income variable into the relative position on the income distribution using an internationally standardized database about income distributions, and we used the fifth quintile as the reference group. The quintiles are defined by the thresholds of national statistics of income distribution from the World Income Database; as a result, the share of each quintile is not always 20 percent in the data.[10]

An advantage of mobilizing the 2009 edition of the ISSP is that it provides a large set of specific variables related to social beliefs, which are of interest for our understanding of the determinants of the preference for redistribution in its various dimensions. The first item addresses one's representation of the society from the viewpoint of the structure of inequalities (see Figure 1). Five possible distributions are tested, but we include dummies for those who believe that the shape is *type A*, an extreme inequality distribution with most people at the bottom, *type B*, still a highly unequal distribution but to a lesser degree, and other, more equal distributions being *types C*, *D, E*. The majority of people believe that their society is either *type A* or *type B* (27.3 percent and 33.9 percent, respectively). This is an important variable to be controlled for, because those that think society is unequal are not necessarily dissatisfied with the level of inequality.

ISSP 2009 also includes questions about social beliefs and the drivers of social mobility. For example, the questions "How important is coming from a wealthy family? How important is having well-educated parents?" capture one's belief about whether social mobility is determined by luck. Similarly, "How important is hard work?" captures people's beliefs about the role of their own effort in social success.

In addition, the survey includes a question that can serve as a proxy for dissatisfaction with inequality, namely "Are the differences in income in your country too large?" If the respondent answers "strongly agree" or "agree," the dummy takes the value of one. Indeed, we expect that being unhappy with income gaps would lead to higher demand for redistributive policies. The correlation between dissatisfaction and the dependent variables can be perceived as the level of people's confidence that the government or a more progressive tax rate can actually reduce income gaps.

Furthermore, we use a certain number of socio-demographic characteristics such as age, gender, years of education, marital status, employment status, and occupation as control variables.

[9]We build the variables measuring "assets" using two questions: "Do you own your home or not?" and "Do you own stock or not?" As housing and stock values are subject to measurement error because of uncertainty of the respondents about the value of their assets "if they sold them," their answers are generally a rough estimate. This is also why we use dummies for the non-owners of capital: the value of the debt declared by respondents is too imprecise to be used as a quantitative variable. However, we consider that dividing respondents in terms of capital into those who own, do not own, or are indebted is precise enough, as they should at least know to what category they belong.

[10]See Appendix A.2 for an explanation of our correction of the raw income variable. As for the variables related to owned capital and debt, the owners of capital are our reference group.

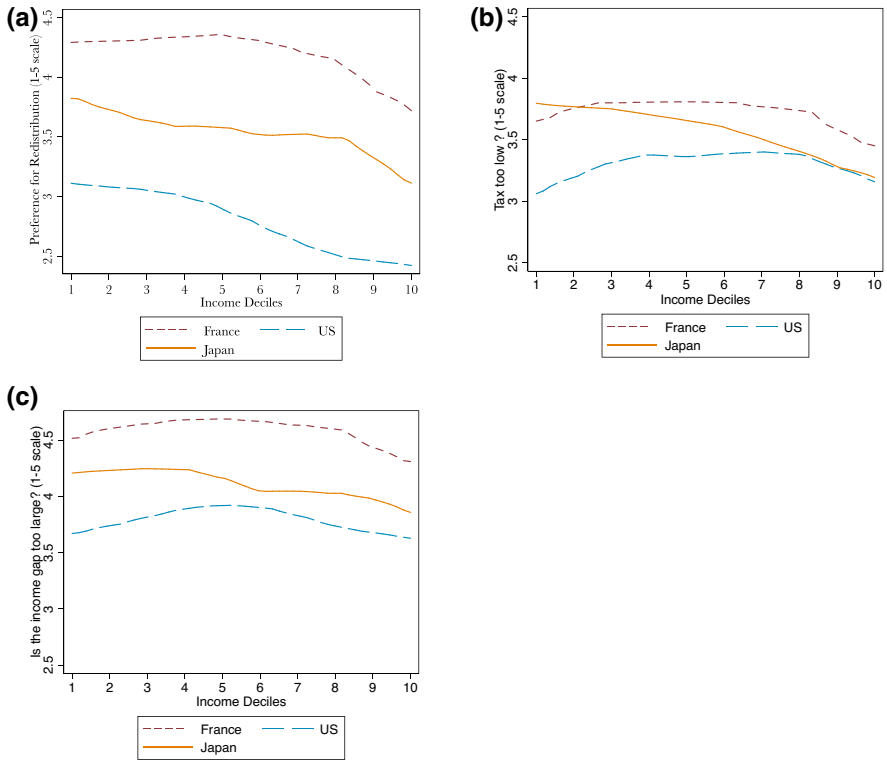
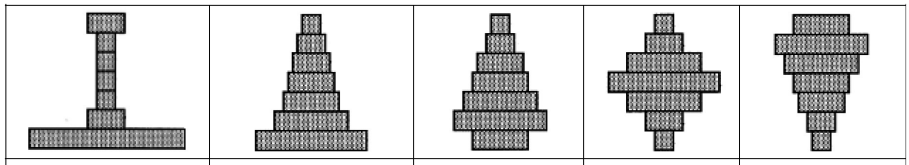


Figure 1. Income and Preferences for Redistribution by Country: Size and Structure [Colour figure can be viewed at wileyonlinelibrary.com]

3.2. *Descriptive Result: Graphical Overview of Preference for Redistribution in Two Dimensions*

Before the regression and decomposition analyses, we provide a descriptive overview of what we believe to be the two major contributions of this article. In discussing the preference for redistribution using two variables that capture two different dimensions and in introducing a country beyond the Trans-Atlantic perspective, we provide a different perspective on this question. In this section, we focus on preference for redistribution by income decile at the country level (Figure 2a).

In short, Figure 2a shows that the support for redistributive policies relates to respondents' income, which tends to reduce as income increases, for all countries. It may be a common feature that rich households tend to generally dislike redistributive policies from a pure income perspective, given people's economic self-interest. We confirm here what has already been shown in Tables 1 and 2: the average levels of preferences are different from country to country. The preference for a government role in reducing income gaps is generally the highest in France and the lowest in the US: the average response for France is 4.15 and 2.69 for the US. Given that this figure is 3.54 for Japan, we find that the US is the only country among



Type A	Type B	Type C	Type D	Type E
A small elite at the top, very few people in the middle and the great mass of people at the bottom.	A society like a pyramid with a small elite at the top, more people in the middle, and most at the bottom.	A pyramid except that just a few people are at the bottom.	A society with most people in the middle.	Many people near the top, and only a few near the bottom.

Figure 2. ISSP 2009: What Does Society Look Like?

the three where there is opposition to redistributive policies at the aggregate level. Furthermore, adding Japan to the comparison of preferences for redistribution in using the variable related to government intervention does not change the analysis substantially, as Japan lies between the US and France.

The picture changes when one considers the preferences for redistribution, as captured by the progressive tax in Figure 2b. We also find a country-level difference, but its size and nature are not the same in the case of the variable related to government intervention. First, the difference is smaller than in the case of government intervention and whether a society prefers progressive taxation to government intervention is different from country to country. In France, the support for redistributive policies locates above the support for a progressive tax in general (average response is 4.15 versus 3.70); in the US, the support for redistributive policies locates below the support for a progressive tax (the average response is 2.69 versus 3.29); in Japan, the locations of the two preferences are similar (the average response is 3.54 versus 3.57). These results are consistent with the fact that the joint distribution of the two preferences is different in each country, as shown in Table 2.

More importantly, when one focuses on the progressive tax and its relation to the income deciles, the slopes look different across countries, contrary to the case of government intervention (Figure 2b). More precisely, in Japan, the support for a progressive tax declines monotonically, as income increases, and looks similar to the case of government intervention. On the contrary, the curves for France and the US look "inverse-U-shaped:" the lower decile income groups do not support the progressive tax as enthusiastically as the middle income groups do. This may suggest that the POUM hypothesis as discussed by Bénabou and Ok (2001) is more present in the attitudes of the American and French citizens, in comparison to what is observed in Japan. Thus, we observe the importance of considering two different variables to capture different dimensions of preferences for redistribution and to introduce a third country, namely Japan.

Overall, Figure 2a,b imply that there are substantial differences across countries that depend on the way the preferences for redistribution are captured. In short, it is potentially misleading to try to draw general lessons from a Trans-Atlantic comparison on a single general variable that captures preferences for

redistribution, namely the government's role in reducing income gaps. When we consider multiple aspects of preferences on redistributive policies, the average priority appears to be opposite between the US and France. In the US, the average support for a higher tax on the rich is systematically higher than the average support for more government intervention. An average French respondent, meanwhile, reports lower support for more progressive taxation in comparison to the support for the size of government intervention. Even when we consider the national average support for redistributive policies, it depends on which aspect we consider. Moreover, when we analyze how the factors are related to different dimensions of preferences, the Japanese case may shed additional light on it. For example, in general, a respondent's income is related to each of the dimensions of the preferences differently, but those relations look similar between France and the US. However, because the Japanese case is different to both the French case and the US case, the Trans-Atlantic comparison results may not be generalized easily, as is implied by the simple introduction of a non-Trans-Atlantic case. Thus, to understand the heterogeneity of redistributive policies, the graph suggests that the difference between the two dimensions of the preferences for redistribution and the difference between countries are important. The next task of this paper is to confirm this interpretation using a statistical model.

Before moving to this statistical model, it may be worthy to discuss the interpretation of the two dimensions of the preferences for redistribution that we consider in this paper. Both of our dependent variables—attitudes toward government role in reducing income gap and toward higher tax on the rich—capture the "demand" for lower inequality and higher redistribution (*i.e.* the preference for redistributive policies) in a somewhat similar manner. However, detailed analysis may reveal differences between them. The preference for government intervention relates not only to such demand, but also to the overall effects of economic and social policy that would result in reducing the income gap between the highest and lowest incomes. In other words, the attitude toward governments' role in reducing inequality is more complex, because, for example, it may relate directly to the trust in government and society.[11] Actual skepticism on the government's ability—whether it be from beliefs regarding the level of nepotism, representation issues, or corruption—can also affect answers to this question. Likewise, if the distance between the political preferences of the respondents and the actual narratives of the government in power is large, then it is likely that the translation of this variable as dissatisfaction with inequality will be valid (for example, in the case that the voter is left and the government is extreme right). Therefore, the variable may capture the direct attitude to the government in power, in addition to the attitude to the state in general. We believe that it is safe to assume that the variable captures the latter. Another aspect of preferences about taxation indicates support for more progressive taxation compared with the status quo scheme. The attitude toward progressive taxation could be measured by a variable that captures the respondents' perceived links between taxation and the supply of redistributive policies. It may be expected that, where there are no visible links between the amount of tax

[11]Trust in society could be captured by questions that pertain to a self-reported level of others' trustworthiness.

paid and welfare benefits, the translation of dissatisfaction in inequality to the demand for a more progressive tax scheme is lower. This depends on political and social caveats at play, such as beliefs about social mobility (and more specifically, the POUM hypothesis), family structures, industrial relations, union participation rate, level of employee–employer co-determination, so on and so forth.

Indeed, the cross-country differences in the preference for redistribution that we observed in Figure 2a,b, may have to do with the general attitudes and beliefs regarding the nature of inequality. Figure 2c shows the relation between the attitude toward inequality and income deciles, and it confirms that the actual level of inequality does not seem to play as big a role as the voters' belief about the inequality: regardless of income deciles, about 90 percent of the French believe that inequality is too large, while it is only about 70 percent in the US and 80 percent in Japan.

Therefore, a distinction between the two questions must be carefully drawn when one interprets the marginal effects of the potential determinants of preferences, especially after controlling for their dissatisfaction about the current situation.[12]

4. Evaluating the Determinants of Preferences for Redistribution: Cross-Country Comparison

This section aims to examine statistically the degree of heterogeneity between countries from the viewpoint of preferences for redistribution, in going one step further than the previous descriptive analysis. Therefore, we estimate statistical models that include the two aforementioned dependent variables: (i) response to whether government *should* reduce the income gap and (ii) whether the tax rate for high income is *too low*.

4.1. *Regression Results*

We first consider the simplest model with income quintiles and social beliefs, after controlling for individual attributes. The dependent variables equal one if the respondent strongly agrees or agrees with the statements posted. The econometric model is

$$(1)\quad Y_i^c = \alpha^c + I_i^c\gamma_1^c + W_i^c\gamma_2^c + B_i^c\delta^c + X_i^c\beta^c + \varepsilon_i^c (c = \text{US},\ \text{France},\ \text{and Japan}),$$

[12]Note that one must consider how the questions are posed to the survey respondents because the level of certainty can change the level of support for the topic significantly. For attitudes on progressive taxation, the question should be asked directly in relation to the rich—who generally have been found to provide greater support—rather than questions that ask vaguely whether one supports progressive taxation. Roberts *et al.* (1994) conduct experiments on different question designs and conclude that this feature of tax-attitude questions stems from the conflict between one's general fairness position and economic self-interests. As a result, we should expect that the question posed in the ISSP survey would draw higher level of agreement than, for instance, questions on progressive taxation, a more generic term. Another important point to note about this variable is that, generally, we can expect this answer to vary if different specific taxes are mentioned. Lewis and White (2006) found, for example, that responses differ when respondents are asked about taxation as a whole or about inheritance tax specifically.

where I_i^c are dummies for the income quintile that the respondent i in country c belongs to, W_i^c are information on wealth and debts, and B_i^c captures *beliefs and attitudes*—if inequality is too large, if society is unequal, and if luck or hard work determines success in the society. X_i^c captures the individual's specific characteristics such as age, gender, marital status, years of education, employment status, and type of employment. We estimate the coefficients by OLS. To capture the heterogeneity between countries, the econometric models are estimated at the country level. A summary of the estimated results is shown in Table 3. (Full results are reported in Appendix A.4.)

Consistent with previous studies, Table 3 shows a general statistical association between income and preference for redistribution; that is, not being in the top quintile means higher preferences for redistribution. Please note that because the threshold is defined outside the database, the share of quintiles is not always 20 percent and varies from country to country. At the same time, such a statistical relation differs from country to country and depends on the question that is asked. In the case of the demand for government role, French respondents up to the fourth quintile have relatively higher demand for redistribution, while it is only up to the third quintile in the US, as in Japan. Moreover, the model seems to suggest that a specific more progressive tax scheme is always less attractive than the general idea of government intervention to reduce income disparities. In France, being in the bottom quintile does not lead to significant differences in the two aspects of preferences compared with the top quintile. For the US, it is the other extreme—people in the bottom quintile are significantly less supportive of a higher tax rate on the rich than those who are in the top quintile, and there is no difference if one is in between the second and the fourth quintiles. This is not the case in Japan, where people in the four lowest quintiles do support a higher tax for high income people. Here again, we confirm, more precisely and rigorously than in the previous section, that the POUM hypothesis applies to France and the US when preference for redistribution is captured by a progressive tax, but not in Japan. Moreover, it is worth noting that the effect of the relative position in the income distribution is generally high for up to the fourth quintile in France and Japan with the effect on the preference for a higher tax on the rich being largest in Japan. Meanwhile, surprisingly, after conditioning the income level, the preference for redistribution does not seem to be affected by the wealth conditions of the respondents, regardless of the country or redistributive preference-related variable that is being considered. This may be because the quality of wealth variables capture other aspects of the preference for redistribution. We estimated the same regression as in Table 3 without the wealth variables, and confirm that the results are substantially unchanged (detailed results are presented in Table 9 in Appendix A.5).

Although we can confirm the statistical association between social beliefs and preference for redistribution as in previous studies, it also differs from country to country in terms of the two questions that we considered. Considering the society to be extremely unequal (*type A*) and unequal (*type B*) leads to a significantly higher preference in both dimensions in the case of France. In the US, however, both beliefs have a significant effect only on the preferences for a higher tax on the rich, but in the case of preferences for government intervention, only believing *type A*, namely "believing that the society is extremely unequal," leads to a significantly

TABLE 3
ROLE OF GOVERNMENT AND HIGHER TOP TAX RATE

	Gov. Should Reduce Income Gap			Tax on the Rich Should Increase		
	1 (Strongly Disagree) to 5 (Strongly Agree)					
	FR	US	JP	FR	US	JP
	Income (ref. = top quintile)					
Bottom quintile	0.22*	0.36*	0.34***	−0.08	−0.31*	0.39*
	(1.92)	(1.89)	(5.82)	(−0.57)	(−2.08)	(2.24)
Second quintile	0.18**	0.43**	0.16*	0.16*	0.00	0.38***
	(2.06)	(3.19)	(1.88)	(1.91)	(0.02)	(4.86)
Third quintile	0.32***	0.34**	0.19**	0.16**	0.04	0.34**
	(4.48)	(2.74)	(2.85)	(2.11)	(0.32)	(2.55)
Fourth quintile	0.26***	0.08	0.15	0.12**	0.13	0.35**
	(4.45)	(1.02)	(1.19)	(2.53)	(1.27)	(2.85)
	Wealth					
Has net financial debt	0.01	0.14	0.22***	−0.10	−0.08	−0.04
	(0.06)	(1.01)	(3.60)	(−0.74)	(−0.47)	(−0.17)
No financial assets nor debt	0.10*	−0.00	0.14	0.09	0.13	−0.22
	(1.66)	(−0.01)	(0.83)	(1.17)	(0.74)	(−1.26)
Has net mortgage debt	0.00	0.27	−0.00	−0.28	0.04	−0.06
	(0.02)	(1.53)	(−0.05)	(−0.79)	(0.20)	(−0.26)
Has no mortgage	0.01	−0.08	−0.05	−0.01	0.17	0.13
	(0.21)	(−1.54)	(−0.45)	(−0.20)	(1.48)	(0.83)
	Beliefs about society (1) (ref. = type C/E)					
"Society is type A"	0.47***	0.15*	0.18	0.40***	0.32***	−0.06
	(7.73)	(2.13)	(1.83)	(5.33)	(4.69)	(−0.42)
"Society is type B"	0.21***	0.02	−0.03	0.26***	0.14*	−0.10*
	(4.15)	(0.27)	(−0.64)	(5.55)	(2.10)	(−1.90)
	Beliefs about society (2)					
"Luck is important"	0.12***	0.19***	0.10	−0.02	−0.15	0.02
	(3.05)	(5.41)	(1.08)	(−0.34)	(−1.72)	(0.47)
"Hardwork is important"	−0.29***	−0.34	−0.37**	−0.30***	−0.41**	−0.24
	(−4.73)	(−0.96)	(−2.42)	(−3.17)	(−3.09)	(−1.81)

(Continues)

TABLE 3 (CONTINUED)

	Gov. Should Reduce Income Gap			Tax on the Rich Should Increase		
	1 (Strongly Disagree) to 5 (Strongly Agree)					
	FR	US	JP	FR	US	JP
	Dissatisfaction					
"Inequality is too large"	1.30***	0.86***	1.09***	0.72***	0.60***	0.58***
	(12.12)	(13.04)	(12.32)	(8.97)	(13.02)	(4.34)
Observations	2565	1481	1027	2441	1439	802
Adjusted R^2	0.230	0.195	0.171	0.133	0.107	0.098

Notes: *t* statistics in parentheses. Other control variables include age, age squared, gender, marital status (4 dummies; never married, married, widowed, divorced), year of education (4 dummies; under 9 years, 9–12 years, 12–16 years, over 16 years), employment status (8 dummies; fulltime, parttime, unemployed, student, retired, house-person, disability, not in labor force.), type of employment (9 dummies; elementary occupation, managers, professional, technician, clerical, service, agriculture, craft, machine operator), and location (4 dummies; big city, suburbun, town, village). See Table 7-A for the full model.

*$p < .10$; **$p < .05$; ***$p < .01$.

higher preference. On the other hand, in Japan, societal beliefs are generally not related to the preferences for redistributive policies. Thus, it is potentially misleading to generalize the results for the US and France regarding some social beliefs. We also find that believing that success can be attributed to luck leads to higher preference for an increased government role in reducing income gaps in the case of France and the US, but not in the case of Japan. By contrast, believing that hard work is important carries a negative coefficient on preference for redistribution in the three countries. More precisely, as expected, believing in one's own hard work as the main determinant of success reduces the preference for government's role by 0.30 for France, and 0.43 for Japan, but it is not statistically significant for the US. Meanwhile, in the case of progressive taxation, believing in hard work reduces the response by around 0.30 on average for France and the US, but not for Japan. Finally, as for dissatisfaction with inequality, its relation to preferences is different from those for income and social beliefs. It may translate, in every country, to greater support for redistribution, regardless of the variable used to capture the preference, with a similar and expected ranking for the three countries.

To summarize our results so far, the regression results generally confirm the previous findings that income and social beliefs are associated with the preference for redistribution. In particular, our findings about France and the US are almost consistent with the results of previous studies. However, the comparison between the two variables that capture different dimensions of the preference for redistribution, as well as the inclusion of the Japanese case, provide different insights. For example, according to our results, the POUM hypothesis is confirmed in the case of the US and France when one considers progressive taxation as a proxy for preference for redistribution but not when one considers government intervention in general, and never for Japan. While our empirical framework adds new findings to the literature as above, this extension helps us to understand the persistent heterogeneity of preferences for redistribution. In this article, we address this question by examining to what extent the statistical association between the main factors and preferences explains the cross-country disparity. More precisely, we apply the so-called Blinder–Oaxaca decomposition technique as discussed in the following subsection.

4.2. *Decomposition Results*

The Blinder–Oaxaca decomposition is a common technique (often used in labor economics, but very rarely in the study of preference for redistribution, to our limited knowledge) to determine which factors contribute to the disparity in means between two groups. We provide here a simple and standard example related to the following question: to what extent do differences in average age and in average educational attainments explain the gender wage gap? If the wage w_i^g for individual i of group $\mathrm{g} \in \{M, F\}$ is linearly related to a vector of explanatory variables Z_i^g (for example, age and educational attainments)

$$w_i^g = Z_i^g \theta^g + \varepsilon_i^g, \tag{2}$$

the difference in the average wage between males and females can be written as follows.

$$\begin{aligned}\overline{w_i^M} - \overline{w_i^F} &= \overline{Z_i^M}\widehat{\theta^M} - \overline{Z_i^F}\widehat{\theta^F} \\ &= \left(\overline{Z_i^M} - \overline{Z_i^F}\right)\widehat{\theta^F} + \left(\widehat{\theta^M} - \widehat{\theta^F}\right)\overline{Z_i^F} + \left(\overline{Z_i^M} - \overline{Z_i^F}\right)\left(\widehat{\theta^M} - \widehat{\theta^F}\right).\end{aligned} \tag{3}$$

Here, $\hat{}$ indicates estimated coefficients. The first term is the contribution of the difference in the composition of the explanatory variables (*i.e.* endowments), and the second term is the contribution of the difference in the estimated coefficients. The last term is usually called the interaction term and does not have a clear economic meaning. If the disparity in mean wage can be explained only by the first term, the gender wage gap comes from the difference in composition of endowments between two groups (for example, the difference in average educational attainments, average age, etc.). On the contrary, if the second term dictates the mean wage disparity, the price distortion may cause the gender wage gap, because even if the endowments are equally distributed between two groups, the gender wage gap will not disappear in this case (Oaxaca, 1973).

By applying this decomposition technique to the estimated results for equation (1), we can estimate which factors explain the difference in the means of these two types of preferences between each pair of countries. The comparison should be done for each combination of two countries (France and the US, France and Japan, and Japan and the US). Table 4 shows a summary of the decomposition of the estimated model in Table 3 (detailed results are reported in Appendix A.3).

The first block summarizes the overall differences in each preference and in each combination of countries. For example, the first column informs that the mean for the preference for government intervention is 4.15 in France and 2.68 in the US, and its difference is shown in the third row, that is 1.47. It is worth noting that for both preferences, the largest difference in the mean is found for France and the US, with France and Japan having the smallest difference.

The second block summarizes the decomposition by distinguishing between the sum of contributions of the average of the explanatory variables (*i.e.* endowments) and the sum of the contributions of the coefficients, and also the unexplained parts. These contributions are converted into shares in each disparity in the third block. For example, within the difference of 1.47 points in the first column, 0.12 points (about 8 percent) comes from the difference in endowments, 1.01 points (about 69 percent) comes from the difference in coefficients, and 0.34 points (about 23 percent) comes from other parts. These shares indicate that, even if the French and Americans have the same income/wealth and social beliefs on average, the French people still prefer more government intervention than the Americans. On the contrary, the difference between France and the US regarding preference for progressive taxation, in the fourth column, can be explained almost entirely by differences in endowments (about 86 percent). The French people prefer progressive taxation, compared with Americans, simply because the average French person has different income/wealth and social beliefs than the average American.

Then, it is possible to draw from the decomposition table the following observations regarding the differences between the two dimensions of preference for redistribution. First, the structure of contributions to the heterogeneity of preferences looks different for the two aspects we consider. On the one hand,

TABLE 4
BLINDER–OAXACA DECOMPOSITION OF TABLE 3

Observations	Gov. Should Reduce Income Gap			Tax on the Rich Should Increase		
	FR-US	FR-JP	JP-US	FR-US	FR-JP	JP-US
	4051	3597	2508	3884	3247	2241
Overall difference						
Group 1	4.15	4.15	3.54	3.71	3.71	3.58
Group 2	2.68	3.54	2.68	3.29	3.58	3.29
Difference(=Group 1- Group 2)	1.47	0.61	0.85	0.42	0.13	0.29
Contribution						
Endowments	0.12	0.18	0.17	0.35	0.03	0.05
Coefficients	1.01	0.34	0.79	0.03	−0.14	0.08
Interaction	0.34	0.09	−0.11	0.03	0.24	0.16
Share						
Endowments	8%	30%	19%	86%	24%	18%
Coefficients	69%	55%	93%	8%	−106%	27%
Interaction	23%	15%	−13%	7%	183%	55%

while we can see substantial heterogeneity of preferences about government intervention between countries, it can be explained by the difference in coefficients as shown in the first to third columns in Table 4. This indicates that even if the means of people's attributes are the same across the three countries, there would still be substantial heterogeneity in supporting government intervention between any pair of countries. More concretely, if the three countries have the same people on average (*i.e.* $Z_i^{FR} = Z_i^{US} = Z_i^{JP}$), the contribution of endowments (the first term in equation (3)) and interaction term (the third term in equation (3)) should disappear. Then, the hypothetical disparity in supporting government intervention between France and the US would remain equal to 1.01, whereas the actual disparity is 1.47. Those hypothetical disparities are 0.34 for between France and Japan and 0.79 for between Japan and the US, while the actual figures are 0.61 and 0.85, respectively. Overall, the fact that disparities remain even under the hypothetical scenario implies that whether support for government intervention exists may depend on what we cannot explain by the differences in people. In other words, to explain the differences in preference for redistribution, we must understand the reason why people in different countries with the same income and same social beliefs support government intervention. This might be related to institutional/cultural background and/or historical dependence.[13]

On the other hand, the contribution of coefficients is not always the most important factor for explaining the heterogeneity between countries in preferences for progressive taxation. As pointed out above, the fourth column (France–US comparison) clearly shows that the major disparity comes from the difference in endowments. It provides a very different implication from the comparison regarding the preference for government intervention: in the case of this variable, if the two countries have the same people, the preference for progressive taxation should be approximately the same. Compared with the preference for government intervention, the preference for progressive taxation may have a different mechanism, depending only on the specific economic/social situations of individual respondents, as discussed by Fong and Poutvaara (2019). Unobservable general cultural background may have little effect. This finding confirms the importance of considering different variables regarding preference for redistributive policies, in accord with Fong and Poutvaara (2019).

This finding is of particular interest from the viewpoint of the impact of cultural factors on the preference for redistribution. Several contributions (*e.g.* Alesina and Glaeser, 2004) have indeed tried to explain the persistence of cross-country differences using cultural determinants. For example, Luttmer and Singhal (2011) find that the preference for "government intervention" is strongly affected by

[13]In this paper, we do not discuss the distinction between institutions and culture, although we are aware it is not only essential to distinguish these two concepts but also to study their interactions, as is well explained by Alesina and Giuliano (2015) or by Amable (2003) from a very different perspective. Our focus is indeed rather on the distinction between economic self-interest and structural long-term determinants, which can alternatively refer to culture or institutions. This discussion is beyond the scope of this paper and left to future research.

cultural factors.[14] Our results suggest a need to discuss the generality of their conclusion: that is, if cultural determinants matter in the case of "government intervention," this is obviously not the case for "progressive taxation". It is possible to interpret our results by considering whether the latter variable is more subject to self-interest mechanisms than the former one. While the benefits and the costs for each individual of a progressive tax system are supposed to be relatively easy to understand (with some exceptions, depending on the structure of the tax system, as explained by Gethin *et al*., 2021), this is not the case for "government intervention," which is more subject to ideological opinions: individuals might support or oppose "government intervention" on ideological grounds rather than because of their short-term or long-term economic self-interest. In particular, the word "government" may act here as a red flag and produce answers that are partially disconnected from economic theory.

A second observation from Table 4 concerns the differences across countries. In short, the introduction of the Japanese case helps explain the heterogeneity of preferences for redistributive policies. In examining the preference for government intervention, including Japan in our analysis is of little benefit because the France–Japan comparison and the Japan–US comparison provide the same information as the France–US comparison, as implied by Figure 2a. However, when we consider the other aspect of the preference for redistributive policies, the statistical association extracted from the Trans-Atlantic comparison differs to the comparisons involving Japan. In the France–Japan comparison and the Japan–US comparison, differences in endowments explain only a small part of the disparity in preferences. Instead, the comparison between France and Japan in the fifth column indicates a negative contribution of the coefficients. This means that if both countries had identical citizens, the preference for progressive taxation is stronger in Japan than in France, which is contrary to reality. Therefore, the specific situation of the average respondent does not sufficiently explain why Japanese people are located in the middle between France and US.

4.3. *Summary of Analysis and Interpretation*

The initial motivation of this paper was to consider multiple dimensions of preferences for redistributive policies and to consider the Japanese case in addition to the classical Trans-Atlantic perspective to better understand the mechanisms behind their persistent heterogeneity across countries. A simple graphical presentation in Section 3.2 implied that income/wealth and social beliefs are related to various dimensions of preferences, as suggested in previous studies. Such

[14]The authors are able to isolate the impact of cultural determinants by focusing on the determinants of preferences among immigrants across 32 countries. This empirical strategy has indeed become common, as the preference for redistribution in an immigrant's country of residence, if a significant determinant of the preference for redistribution in the country of residence, allows us to capture a "cultural" element, which is not explained by the current context. More precisely, the authors use the European Social Survey and focus on one question, which is identical to one of the two questions we consider in our own paper: "the government should take measures to reduce differences in income levels." We are unable to apply the same strategy as Luttmer and Singhal (2011), because of the very small sample of immigrants in the Japanese case. However, our empirical strategy based on the Blinder–Oaxaca decomposition does not need to identify a particular subgroup.

implications were confirmed statistically using a regression model in Section 4.1. The estimated coefficients for the income variables, in particular, were found to be consistent with the POUM hypothesis in France and the US, but only for the case of preference for progressive taxation. At the same time, the regression model allowed us to decompose the disparity in preferences for redistribution between countries into two main factors: contribution of endowments and contribution of coefficient as in Section 4.2. This decomposition showed clearly that preferences are related to different mechanisms: one (progressive taxation on rich) depends more on individuals' specific characteristics such as income/wealth and social beliefs, whereas the other (government intervention) depends more on the unobservable but common factor within countries such as cultural background of society. In addition, the Trans-Atlantic comparison does not lead to the identification of a general mechanism, because some characteristics do not apply to Japan. In particular, how individuals' specific characteristics affect their preferences requires further investigation.

5. Extensions: Time Series Variation and Mutual Dependency of Preferences

In addition, it is important to evaluate how preference of redistribution changes over time, especially depending on the evolution of inequalities. An interesting contribution related to this dynamic dimension is the one by Cavaillé and Trump (2015). The authors test and confirm two hypotheses regarding the evolving preference for redistribution in two dimensions when inequality and ethnic diversity increase. These two hypotheses relate to diverging support for redistribution from the rich (*i.e*. increasing the share of the least well-off and decreasing the share of the most well-off) and decrease of support for redistribution to the poor. For this purpose, they use a unique feature of the BSAS, the continuity of questions of interest between 1986 and 2011.

Unfortunately, the ISSP does not allow us to reproduce this empirical analysis because of a lack of data and the discontinuity of the questions. We can examine country by country, however, for the evolution of each combination of answers to the two considered questions. Remember that, prior to the present section, we considered the two dimensions of preferences separately. Alternatively, it is possible to look at particular combinations of these dimensions of preferences. Figure 3 shows how the respondents in each survey wave responded differently over time to the two questions on the government's role in reducing income gaps and the appropriateness of the tax level on the rich. More precisely, we examine the evolution of the respective shares of the four possible combinations of answers to the two questions (*i.e*. yes–yes, no–no, yes–no, and no–yes).

The majority of the French respondents were supportive of both a larger government role in reducing income gaps and higher taxes for the rich. Moreover, this trend has strengthened between 1999 and 2009. In the case of Japan, this is less true, but a majority still supports both. Around 40 percent of Japanese respondents think that taxes on the rich should increase, but that the government should not try to reduce the income gap. Interestingly, the responses in Japan have been

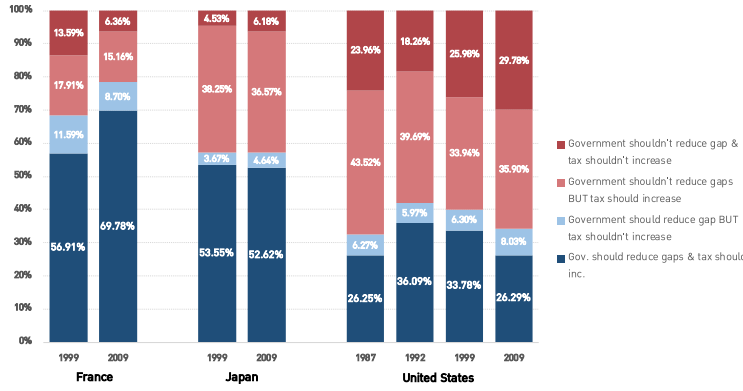


Figure 3. Groups of Respondents by Variation in Responses [Colour figure can be viewed at wileyonlinelibrary.com]

relatively stable for 10 years. Finally, in the case of the US, only 26–36 percent of the respondents support both a larger government role and higher taxes for the rich. Around 40 percent think taxes should increase, but there is less support for a larger government role. In 2009, 30 percent of US respondents disagreed with both issues. The answers to these two questions suggested a shift toward antiredistribution at the beginning of the 1990s. Considering the distribution in 1987, however, it appears that the evolution is not monotonic and can be reversed.

As in Figure 2, Figure 4 shows the decomposition by income quintiles into each combination of responses.

In France, the increase in support for redistribution surprisingly comes from the top, fourth, and third quintiles. On the contrary, in the US, the reduction in support for redistribution since the early 1990s is based on the decline of support and the increase in opposition to redistribution in the bottom and second quintiles. Compared with the Trans-Atlantic countries, there has been little change in Japan in each quintile.

These different patterns within each country show the heterogeneous dynamics of preferences on redistribution between countries, which is not well examined in the literature, including the present paper. It is difficult to extend our discussion to the dynamics of preferences because we can only see the evolving shares of combination of answers regarding the two aspects of preference in time series due to data constraints. In addition, the regression results in the previous section are the outcomes of a static analysis. Given the political turbulence in France and the US, the results shown in Figure 4 suggest that the changes in the distribution of preferences are strongly related to changes in the political arena. The dynamics of preferences should be considered in future studies. This is all the more necessary because our results do not confirm the findings of Cavaillé and Trump (2015) for the UK. More precisely, the US pattern looks similar to the UK pattern; however, this is not the case for the French and Japanese patterns. Thus, further research is required in this field, with a comparable framework for the countries that are studied (see for example Gethin *et al*., 2021).

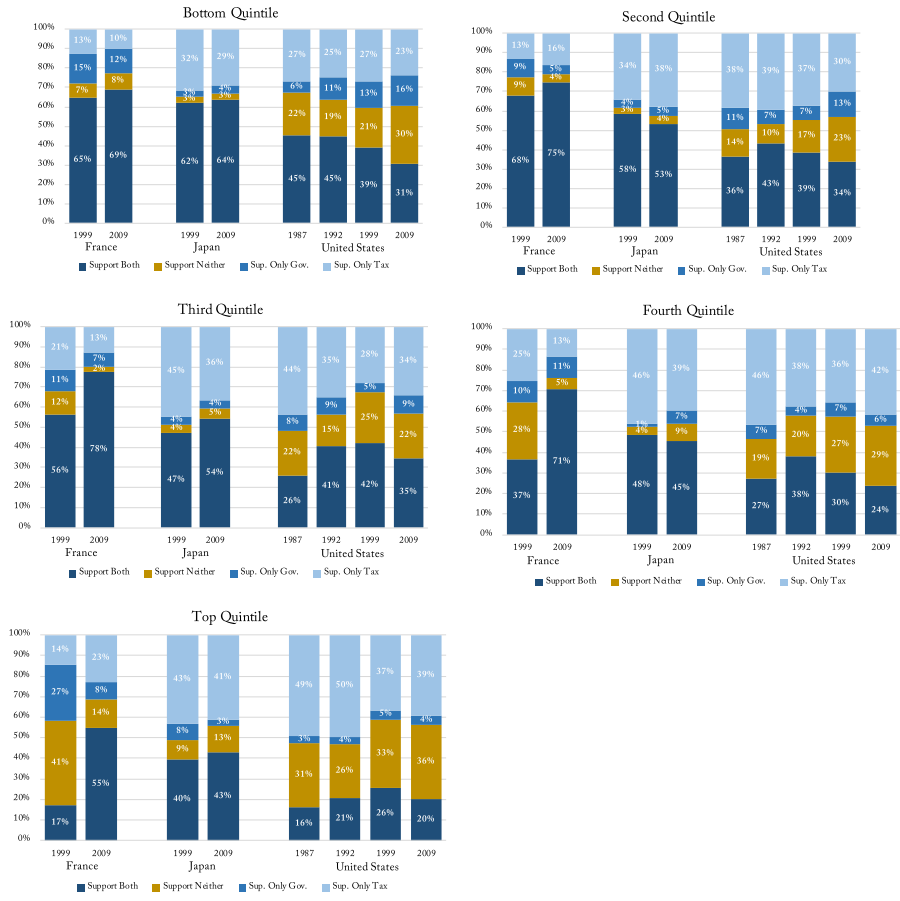


Figure 4. Decomposition by Income Quintiles [Colour figure can be viewed at wileyonlinelibrary.com]

6. Concluding Remarks

To explain differences in redistributive policies across democratic countries, we focus on potential explanatory variables such as social beliefs, income/wealth, and various socioeconomic characteristics. Our contribution to the literature is twofold: (i) we extended previous Trans-Atlantic comparisons by adding Japan, and (ii) we investigated multiple dimensions of the preference for redistribution, namely, the preference for government intervention to reduce income gaps and the preference for higher taxes on the rich. In addition to a linear regression model, we also use a Blinder–Oaxaca decomposition for the first time to our limited knowledge in this literature to analyze the differences across countries regarding not only the coefficients but also the endowments.

Based on the ISSP 2009 Survey, our results can be summarized as follows.

First, we confirm the correlation of relative income and social beliefs with preferences for redistributive policy, as found in the previous literature. Second, we find that these correlations are different not only across the different aspects of

preferences, but also across countries. For example, in all three countries, we identify a significant group of people supporting government intervention to reduce income gaps, but who do not support the idea of higher taxes on the rich. This group is particularly visible in Japan. This observation suggests that the preference for redistribution consists of multiple dimensions, as found by previous studies such as Fong and Poutvaara (2019), Cavaillé and Trump (2015), and Barnes (2015).

Third, we show that each of the aspects of the preferences is related to different mechanisms: one depends more on individuals' specific situations such as income/wealth and social beliefs, as stressed in the literature, whereas the other depends more on unobservable but common factors within countries such as historical, institutional or cultural backgrounds. This is the major benefit of the use of a Blinder–Oaxaca decomposition.

Overall, to explain the persistent heterogeneity of preference for redistributive policy across countries, it is necessary to include several mechanisms at the same time. On the one hand, the composition of types of people in each country partially explains the preference for redistributive policy; on the other hand, the historical/cultural background of each country, which is unobservable in our paper, remains a major determinant. In addition, the Trans-Atlantic comparison does not lead to the identification of a general mechanism. For example, a certain mechanism, which has been identified in France and the US, does not seem to apply to Japan: that is, rich people tend to be unsupportive of redistribution in the three countries for the two dimensions of redistribution we consider, but poor people too are not always supportive of this policy, as previously explained by the POUM hypothesis, among others. The data show that this is true for both sides of the Atlantic, but not for Japan.

Fourth, the introduction of a time dimension to our cross-country comparison may allow us to emphasize the dynamics of heterogeneity of preference, especially in the case where one observes an increase in inequality. This result shows a greater complexity than what is found, for example in Cavaillé and Trump (2015).

Finally, it is worth mentioning some of the limitations of our paper, which can be a starting point for further investigation. First, even though the Blinder–Oaxaca decomposition allowed us to deepen our analysis, it can be applied only to a limited number of countries as this technique requires a pair-by-pair comparison. Furthermore, the Blinder–Oaxaca decomposition allows us to examine the importance of the historical, institutional or cultural backgrounds of each country; however, the nature of these backgrounds remains unobservable. Previous contributions that have emphasized the importance of the family structure, historical shocks, or relation of the people to their land, could be a source of inspiration (for a review, see Alesina and Giuliano, 2009). Another limitation of our paper is that it mainly relies on cross-sectional analysis, neglecting dynamic construction of preferences and/or mutual migration flows between countries. Furthermore, the dynamic extension we proposed in Section 5 of the paper shows that additional data or another database are required to be able to properly analyze the dynamics of preference for redistribution (for example, the impact of increase of inequality on the preference for redistribution).

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