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Experience and Perception of Social Mobility – a Cross-Country Test of the Self-Serving Bias

Nina Weber

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Experience and Perception of Social Mobility – a Cross-Country Test of the Self-Serving Bias

Nina Weber*

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Abstract

Perceptions of social mobility in society are one of the most important determinants of individuals' preferences for redistribution and tolerance for economic inequalities. What shapes these perceptions is however so far little understood. In this paper, I propose and empirically test a behavioural model of social mobility perceptions based on the self-serving bias, using the ISSP Social Inequality Cumulative. The self-serving bias states that people blame external circumstances for their failures and take excessive credit for their successes. The results of my analysis indicate, in line with the expectations of the self-serving bias, that personal experiences with social mobility only influence people's perceptions of societal mobility if the experiences were negative or stagnating. Conversely, those who experienced positive mobility overestimate their personal contribution and, therefore, do not extrapolate from their experience onto perceptions of society at large. Instead, their perceptions are primarily related to their political orientation, with those towards the right of the political spectrum being more optimistic about social mobility and those towards the left being more pessimistic.

Keywords: social mobility, perceptions, self-serving bias, procedural fairness, political orientation

JEL Codes: D31, D72, D91

*Department of Political Economy, King's College London. Author email: nina.s.weber@kcl.ac.uk. I thank Shaun Hargreaves Heap, Karen Jeffrey, Hanna Kleider, Konstantinos Matakos and Jeevun Sandher for helpful feedback and discussions.

1 Introduction

Perceptions of social mobility in society are an important determinant of individuals' preferences for redistribution and tolerance for economic inequality. In cross-country survey data, those who perceive mobility to be low are significantly more likely to support redistribution by governments, while those who perceive mobility to be high are critical of redistribution (Alesina et al. (2018), Bjørnskov et al. (2013), Corneo and Grüner (2002), Davidai and Gilovich (2015)).¹ This relationship is however not just correlational. Experimental studies have found a direct link between varying individuals' perceptions of social mobility and resulting changes in redistributive preferences (Alesina et al. (2018), Shariff et al. (2016)). This is also in line with a more general finding in the experimental literature that people are more tolerant of inequality when they believe it to be the result of effort, rather than luck (e.g. Rey-Biel et al. (2018), Cappelen et al. (2017), Lefgren et al. (2016), Durante et al. (2014), Becker (2013), Cappelen et al. (2013), Krawczyk (2010)). People who view their society as more economically mobile and believe that one can work their way up the income ladder through effort and hard work, tend to be less concerned about economic outcomes and, in turn, favour lower levels of redistribution of those outcomes.

While the relationship between social mobility perceptions and preferences for redistribution is fairly well-established, what causes social mobility perceptions in the first place is less well understood. In previous studies, the only factor robustly associated with mobility perceptions is political orientation, while a person's personal mobility experience surprisingly hardly seems to matter. This finding has recently been interpreted as the political polarisation of reality (Alesina et al. (2020)). In this paper, I argue that this approach however only explains half of the story. I propose a theoretical model of how social mobility preferences are formed, based on the self-serving bias, and test this model empirically using cross-country survey data.

The self-serving bias, which has been identified consistently in laboratory settings, states

¹See also Fong (2006), Jaime-Castillo and Marques-Perales (2014), McCoy and Major (2007).

that people blame external circumstances for their failures and take excessive personal credit for successes (Gilovich et al. (2002), Campbell and Sedikides (1999)). In this paper, I apply the self-serving bias to people's evaluation of their own mobility experience and find that personal experience only matters to perceptions of societal social mobility for individuals who experienced negative or stagnating social mobility while political orientation primarily matters to those who experienced upward mobility. This finding is in line with the expectations of my theoretical model: People with negative mobility experiences blame external circumstances for their perceived failure and therefore extrapolate from their own experience onto society at large. Conversely, people with positive mobility experiences do not recognise the role of external factors in their success and instead, factors such as political orientation become more relevant in shaping perceptions of reality.

To account for the potential of reverse causality, given the subjective nature of the mobility experience measure, I also estimate two instrumental variable models using objective measures of social mobility experience based on socio-economic status and income as the first-stage instruments. Additionally, I provide real social mobility estimates by country and year based on these two objective measures.

The contribution of this paper is twofold: I firstly develop and empirically test a behavioural model of how individuals form perceptions about social mobility. Secondly, I estimate the self-serving bias in a cross-country survey study outside of the laboratory which provides a large-scale test of the external validity of this bias.

The outline of this paper is as follows. Section 2 provides a short overview of the existing literature on perceptions of social mobility, section 3 outlines the theoretical model, section 4 describes the dataset used in this study as well as provides social mobility estimates by country and year and sections 5, 6 and 7 present the results, including two instrumental variable estimations to account for endogeneity concerns. Section 8 concludes.

2 Literature Review

Prior to reviewing existing studies on determinants of social mobility perceptions, I briefly discuss how social mobility has been conceptualised in the literature. Social mobility and perceptions of social mobility are generally defined across two dimensions: absolute versus upward mobility and inter- versus intragenerational mobility. In studies of real levels of social mobility, absolute mobility is commonly measured as the correlation between children's and parents' income or, more broadly, the elasticity of income from one generation to the next, while upward mobility tends to be measured as the opportunity of a child born into the bottom quintile to rise to the top quintile (Chetty et al. (2017), Chetty et al. (2014)). On the other hand, studies on perceptions of social mobility rely almost entirely on upward mobility perceptions. A primary reason for this is that this version of social mobility is more aligned with how the concept is used in public debate and is potentially more intuitively understandable.

A second dimension to take into consideration when measuring social mobility is inter- versus intragenerational mobility. While intergenerational mobility captures the effect of upbringing and family background on a person's socio-economic status, intragenerational mobility captures fluctuations in socio-economic status across a person's lifetime. Both, empirical estimates of real social mobility in society and studies of perceptions of mobility, tend to focus on intergenerational mobility which is due to data limitations as intragenerational mobility measures require long-term panels including individuals' income data. Following previous research, in this paper, I conceptualise social mobility perceptions as intergenerational upward mobility.

The literature on determinants of social mobility perceptions is sparse but four main explanatory variables tend to be the focus of existing studies: real societal social mobility, personal experience with social mobility, political orientation and demographic factors.

If people were well informed, their perceptions of social mobility in society would be

based on real societal levels of mobility.² Contrary to this expectation, one of the more robust findings of studies on social mobility perceptions is that they are almost always inaccurate when compared to real societal levels (Day and Fiske (2019)).³ However, real societal levels of social mobility are not significant in affecting people’s economic preferences while perceptions of social mobility are (Engelhardt and Wagener (2014)).

To my knowledge, the only theoretical model attempting to explain how social mobility perceptions are formed was developed by Piketty (1995). He models individuals as rational agents who learn about social mobility within their society primarily through their own experience. Given that it would be too costly to attempt to learn about the real level of mobility within society through, for example, experimenting with effort levels, people extrapolate perceptions from their own experience. This theory has so far however not received any robust empirical evidence. In fact, the effect of personal mobility experience on perceptions of social mobility is usually weak. For example, Alesina et al. (2018) find that personal upward mobility experience slightly improves beliefs about general social mobility in society, however, the effect is not significant at conventional levels.

The factor most robustly and strongly associated with social mobility perceptions in the existing literature is political orientation (Alesina et al. (2018), Davidai and Gilovich (2015)). People towards the left of the political spectrum tend to perceive social mobility more pessimistically while people towards the right are more optimistic about mobility. Experimental evidence also points towards this relationship being causal, as people display selective learning in line with their political orientation when presented with facts about political issues (Jerit and Barabas (2012)).

Lastly, a number of demographic factors have been found to be associated with different

²How accurate people’s perceptions of social mobility are depends also on the way in which real social mobility is measured. For a recent take on this debate please see Davidai and Gilovich (2018) and Swan et al. (2017).

³Following Wlezién (1995), one could also argue that people simply do not have perceptions of social mobility at a given point in time but only react to changes in real societal mobility. In other words, people may not know the level of social mobility in society but notice when it improves or decreases. In this paper, I am not testing how changes in real social mobility affect perceptions but rather how individuals’ perceptions at a given point in time can be explained.

perceptions of social mobility: Alesina et al. (2018) find that gender, age, education and race are demographic factors which are associated with perceptions. Men, young people and those with a college education are all more pessimistic about social mobility while African Americans are found to be more optimistic in their sample.

3 Theoretical Model

While the existing literature proposes a number of individual factors that may contribute to people’s perceptions of social mobility in society, a coherent model of how these perceptions are formed is so far missing.

The most robust finding in the existing literature is that political orientation predicts people’s social mobility perceptions with people towards the right of the political spectrum being more optimistic and people towards the left being more pessimistic about mobility (Alesina et al. (2018), Davidai and Gilovich (2015)). This relationship is summarised in equation 1: Person i ’s political orientation is given by $0 < \delta < 1$, whereby δ increases as person i ’s political orientation moves to the right. A $\delta > 0.5$ is therefore associated with more optimistic, political right-leaning views of social mobility and vice versa.

$$PoliticalOrientation = \delta_i right + (1 - \delta_i) left \tag{1}$$

Following Piketty (1995), a second factor that may influence people’s perceptions of social mobility is their personal mobility experience. However, while Piketty argues that people extrapolate any personal experience of mobility onto society at large, I suggest this relationship is mediated by the self-serving bias. In particular, whether a person’s own experience with social mobility is positive or negative will impact her assessment of this experience and subsequent beliefs about society.⁴

The self-serving bias states that people tend to view their successes and failures in life

⁴This expectation is based on attributional theory in the psychological literature (Kelley (1967)).

in a ‘self-serving’ way (Gilovich et al. (2002)). While people tend to attribute successes to personal effort and talent, failures are blamed on external circumstances. In the context of social mobility this means that a person who is better off than their parents may believe this to be due to hard work and effort while a person who is worse off than their parents will blame external circumstances like “the system” or bad luck for their negative experience. Equation 2 illustrates this relationship: Person i ’s personal mobility experience is given by $0 < \lambda < 1$ with $\lambda = 0.5$ being stagnating mobility. As λ increases, and person i ’s mobility experience improves, effort becomes more important in assessing outcomes, while a smaller λ increases the relative importance of luck.

$$ProceduralFairness = \lambda_i effort + (1 - \lambda_i)luck \quad (2)$$

The self-serving bias then also allows one to predict when people’s assessment of societal social mobility relies primarily on their view of procedural fairness (equation 2) as opposed to political orientation (equation 1) and vice versa: A person experiencing negative mobility will blame external circumstances for their perceived failure and extrapolate from their own experience onto the system at large. On the other hand, a person experiencing positive mobility will overestimate their own contribution to their success and therefore not extrapolate from their personal experience onto society at large. This leads to people with positive and negative experiences weighing equation 1 and equation 2 differently as illustrated in equation 3: λ increases as person i ’s social mobility experience improves. This leads to a person’s political orientation being the primary determinant of perceptions of mobility as one’s own experience is not used to inform beliefs about society. As λ decreases and one’s mobility experience becomes more negative, procedural fairness views informed by one’s own mobility experience become more important in shaping people’s perceptions of societal mobility.

$$pSM_i = \lambda_i(\delta_i right + (1 - \delta_i)left) + ((1 - \lambda_i)\lambda_i effort + (1 - \lambda_i)luck) + \gamma_i + \epsilon_i \quad (3)$$

Based on this model, how people form perceptions of social mobility therefore depends primarily on whether their own mobility experience is positive or negative. This leads to two main hypotheses:

Hypothesis 1 (H1) *Personal experience is a significant and positive predictor of social mobility perceptions only for those who experienced negative or stagnating mobility.*

$$pSM_{i,eSM \leq 0} = \lambda_i \textit{effort} + (1 - \lambda_i) \textit{luck} + \gamma_i + \epsilon_i \quad (4)$$

Hypothesis 2 (H2) *Political ideology is a significant predictor of social mobility perceptions only for those who experienced positive social mobility.*

$$pSM_{i,eSM > 0} = \delta_i \textit{right} + (1 - \delta_i) \textit{left} + \gamma_i + \epsilon_i \quad (5)$$

The proposed theory could explain the weak empirical evidence for the relationship between personal mobility experience and social mobility perceptions as proposed by Piketty (1995), given that personal mobility experience is usually measured as a binary variable equal to 1 if the person experienced upward mobility (e.g. Alesina et al. (2018)). If the self-serving bias influences people’s perceptions of social mobility, then such a measurement of personal experience would not have an effect on social mobility perceptions, as the mean between those with positive and those with negative or stagnating mobility would not necessarily differ. Instead, there would be a linear relationship between the degree of negative mobility experience and social mobility perceptions but not between the degree of positive mobility experience and perceptions (see equation 3).

To empirically test the validity of this theoretical model, I estimate the relative importance of personal experience as opposed to political orientation in explaining people’s perceptions of social mobility in society for those who experienced negative or stagnating mobility and, vice versa, the relative importance of political orientation as opposed to personal mobility experience for those who experienced upward mobility.

4 Data

The preliminary dataset used in this study is the ISSP Social Inequality Cumulative (Group et al. (2014)) which includes individual-level, representative data for all countries that participated in at least two waves of the ISSP Social Inequality Module, a total of 27. The individual waves of the module were conducted in 1987, 1992, 1999 and 2009, respectively and variables included in the cumulative dataset were included in at least two waves of the Social Inequality module. Out of these four waves, three can be used for the analysis as they include data on all the variables of interest for each individual respondent.⁵ Overall, there are 103,538 respondents included in the dataset of which 26,866 respondents have provided responses to all the relevant questions for this estimation.

Perceptions of Social Mobility: I measure perceptions of social mobility by asking respondents about the relative importance of family wealth, education and social connections in determining people’s success in life.⁶ The importance of these factors captures the notion of luck referred to in equation 2. On the other hand, if a society is upwardly mobile and one can improve one’s socio-economic status through effort then, arguably, these factors should not be as important to one’s success.

I generate an indicator based on individuals’ answers to three separate questions focused on these three factors using principle component analysis (PCA). The resulting index ranges from 0 to 100 with a higher value indicating a higher level of perceived upward social mobility.⁷

⁵Data for West Germany and East Germany were collected separately in all waves but will not be treated separately in the main regression estimations. The data available for Slovakia in 1992 was in fact collected for the whole of Czechoslovakia, which had not yet split into Slovakia and the Czech Republic at that point.

⁶There is an ongoing debate in the literature about how to best measure people’s perceptions of social mobility. The most common measure of perceived social mobility is asking respondents about the likelihood of a person born into one quintile moving to another quintile within an income distribution, most commonly from the bottom to the top quintile. An obvious problem with using such a measure is that it requires people to make fairly complex conjoint probability calculations which may bias people’s responses if they are unable to do so (Tversky and Kahneman (1983), Charness et al. (2010)). The measure I use avoids this complication but captures a similar sentiment of upward mobility within a society.

⁷A detailed description of the individual components and the distribution of the generated index can be found in Appendix A. Country-year-level estimates of the generated index can also be found in Appendix A.

Experienced social mobility (subjective): To measure people’s perception of their own mobility experience I am following previous research (e.g. Corneo and Grüner (2002)) and use item V67 in the ISSP Social Inequality Cumulative which asks respondents about their relative occupational status compared to their father: “Please think of your present job (or your last one if you don’t have one now). If you compare this job with the job your father had when you were [14/15/16], would you say that the level or status of your job is (or was)...”. Respondents can then answer with “Much higher than your father’s”, “Higher”, “About equal”, “Lower” or “Much lower than your father’s”. I have coded respondents who did not know how or could not answer the question as missing variables. The resulting index then ranges from -2 to 2 with negative values indicating a perceived negative experience with social mobility and vice versa.

Political Left-Right Orientation: I am estimating respondents’ political orientation by including a categorical variable based on item PRTY_LR1 in the ISSP cumulative, measuring the party affiliation of respondents on a left-right scale. The variable is based on respondents’ country-level party affiliation which was then recoded on a left-right scale for the ISSP cumulative for cross-country comparability. The categories of this variable are 1 (“Far left”), 2 (“Left, center left”), 3 (“Center, liberal”), 4 (“Right, conservative”) and 5 (“Far right”). A fairly large number of respondents, 9,011, indicated to have no specific party preference or affiliation. Coding these respondents as missing values would probably bias the result as individuals who have no party affiliation are likely to differ in their political preferences and other factors from individuals with a party affiliation. I therefore recoded these respondents as 3 (“Center, liberal”).

Experienced social mobility (objective): To generate an objective measure of respondents’ social mobility experience I match the occupations of respondents and their parents, which are variables included in the ISSP survey, to an index of socio-economic status, following in particular Yaish and Andersen (2012).

The ISSP Social Inequality Module asks respondents for their current occupation as well

as the occupation of the respondents’ father and mother at the time the respondent was around 14 years old. These occupations are then coded based on the International Standard Classification of Occupation 1988 (ISCO88) of the International Labor Office (Office (1990)). The coding scheme differentiates between ten major occupation groups, which are respectively subdivided into more specific occupation groups on three further levels. Classifications become more specific the more numbers different to zero are added to the code. For example, code 4000 includes all “Clerks”, 4100 includes “Office Clerks”, 4120 “Numerical Clerks” and 4122 then only includes “Statistical and Finance Clerks”.

This internationally comparable coding scheme allows to compare occupation types across waves and countries included in the ISSP survey; however, it does not in itself provide any information about the status or income an individual may obtain with a particular occupation type. I therefore match the ISSP occupational data to an index of socio-economic status. To check the robustness of this estimation I also use average country-level income values based on the Luxembourg Income Study (LIS (2019)) as an alternative to the socio-economic status measure. In the following, I provide a short overview of both measures.

1. *International Socio-Economic Index of Occupational Status (ISEI)*: The ISEI, developed by Ganzeboom et al. (1992) and Ganzeboom and Treiman (1996) includes values of socio-economic status for almost all ISCO88 occupation codes. This index captures the mean education and mean income of each occupation while controlling for age. To generate an internationally comparable scale, Ganzeboom et al. use income and education data from 31 datasets covering 16 countries at very different stages of economic development. The resulting ISEI scale ranges from 16 to 90 with a higher score indicating a higher level of socio-economic status. For example, those with the highest possible score are judges while the occupations with the lowest possible score are farm hands and office cleaners. Given the level of detail of the scale, the information on both education- and income-levels it provides, and the international comparability I believe this scale to be the best available measure of socio-economic status for the purpose of this paper. Details of the matching procedure can

be found in Appendix B.

The individual-level experienced social mobility values (eSM) are then derived by subtracting the parental ISEI score ($ISEI_p$) from the respondents ISEI score ($ISEI_r$):

$$eSM_r = ISEI_r - ISEI_p \quad (6)$$

Whereby the parental ISEI score is derived based on the below equation:

$$ISEI_p = \max\{ISEI_f, ISEI_m\} \quad (7)$$

Hereby, $ISEI_f$ is the father's ISEI score and $ISEI_m$ the mother's score. The parental ISEI score ($ISEI_p$) is always equal to the score of the parent with the higher socio-economic status⁸ and the formula used to derive the index ensures that the sign of the generated social mobility-scale is equivalent to the direction of the experienced social mobility. The generated index then ranges from -72, very negative mobility, to 72, very high positive mobility, with $eSM_r = 0$ indicating no social mobility.

2. *Luxembourg Income Data*⁹: The LIS dataset has country-level average hourly earnings as well as a range of additional individual-level and household variables available for a wide range of years. To match this dataset with the ISSP Social Inequality Cumulative I used the ten major groups of the ISCO88 job classifications which are available in the LIS database to calculate average hourly earnings for each of these ten major groups on a country-year level. I then aggregated the ISCO88 classifications for the respondents, the mother and the father in the ISSP survey to the ten major groups and matched the average hourly earnings with

⁸Taking the average of the sum of the scores of both parents would decrease the score of a respondent with two working parents relative to a respondent with one working parent, where the scores of the respective parents with the higher status are equal. Given that the comparison is made to an individual respondent, the sum of the scores of both parents can also not be used.

⁹The ISSP Social Mobility Cumulative includes income data for some respondents but unfortunately not for enough respondents to generate a social mobility index that could be used as an instrumental variable.

the respective group of respondents’ in their country and year of surveying.¹⁰ Unfortunately, the LIS does not go back far enough to provide accurate income data for the parents of respondents in the ISSP survey. I have therefore estimated the income of parents in the same way as that of respondents by matching the average hourly earnings at the time of surveying with the ISCO88 classification of each individual parent.

4.1 ISEI elasticity

To check the validity of the individual-level social mobility scores of respondents and to provide country-level social mobility estimates, I calculated the intergenerational elasticity of ISEI scores for each country and wave available in the dataset. I estimate the intergenerational mobility of the ISEI score by using the Poisson Pseudo Maximum Likelihood (PPML) estimator, which has been identified as one of the most robust estimators for mobility research (Mitnik (2017)). The following model is generally used to estimate the IGE (intergenerational elasticity) of income which I adapt for the ISEI scores (Andrews and Leigh (2009)):

$$y_r = \beta_0 + \beta_1 X_p + AGE_r + AGE_r^2 + \epsilon \quad (8)$$

Whereby y_r denotes the ISEI score of the respondent and X_p the ISEI score of the parents. Following Andrews and Leigh (2009) a polynomial for age is included as a control in the equation. β_1 is then the estimate of the intergenerational elasticity of the ISEI score. To ensure that only respondents of working age are included in the estimation, I restrict the model to respondents between the ages of 25 and 55.

Table 1 reports this estimate of the intergenerational elasticity of the ISEI score for each country and wave included in the sample. A low elasticity score indicates more social mobility and vice versa. For example, the elasticity score 0.27 of the US in 2009 indicates that 27% of

¹⁰The waves available in the LIS database do not match directly onto the waves of the ISSP dataset. Appendix C therefore provides an overview of the waves used for matching by country and year.

the difference between the average ISEI score in the US and that of a respondents' parents will be transferred to the respondent.

Table 1: ISEI elasticity by year (including age 25 to 55)

	1987	1992	1999	2009	Average
<i>Country</i>					
Australia		0.20	0.20	0.20	0.20
Austria	0.45	0.42	0.39	0.37	0.41
Bulgaria				0.38	0.38
Canada			0.19		0.19
Chile			0.47	0.45	0.46
Cyprus			0.36	0.32	0.34
Czech Republic		0.25	0.33	0.35	0.31
France			0.19	0.37	0.28
Germany (East)		0.30	0.27	0.47	0.35
Germany (West)	0.35	0.37	0.40	0.36	0.37
Hungary	0.32	0.33	0.25	0.42	0.33
Israel				0.31	0.31
Italy				0.35	0.35
Japan				0.16	0.16
Latvia			0.20	0.24	0.22
New Zealand		0.25	0.19		0.22
Norway		0.26	0.29	0.28	0.28
Philippines				0.23	0.23
Poland		0.39	0.37	0.35	0.37
Portugal			0.47	0.38	0.43
Russia		0.18	0.28	0.28	0.24
Slovak Republic		0.37	0.25	0.27	0.29
Slovenia			0.42	0.39	0.41
Spain			0.43	0.34	0.39
Sweden			0.28	0.34	0.31
Switzerland	0.24			0.38	0.31
United States		0.20	0.23	0.27	0.23
Average	0.34	0.29	0.31	0.34	0.32

Several patterns can be observed in table 1. Firstly, across all countries, social mobility increased from 1987 to 1992 but has since then steadily decreased. There are further large differences across countries with Canada having the highest average level of social mobility with an elasticity value of 0.19 and Chile and Portugal in 1999, as well as East Germany in 2009, having the lowest level of mobility with a elasticity values of 0.47.

As a preliminary robustness check of the ISEI indicator, I compared the estimates for the 1992 and 1999 waves to the values obtained by Yaish and Andersen (2012) who equally

Table 2: Income elasticity by year (including age 25 to 55)

	1987	1992	1999	2009	Average
<i>Country</i>					
Austria			0.32	0.39	0.36
Canada			0.16		0.16
Czech Republic			0.28	0.24	0.26
Germany (West)	0.24	0.23	0.39	0.36	0.31
Israel				0.26	0.26
Slovak Republic				0.25	0.25
Spain			0.38	0.33	0.36
Switzerland				0.33	0.33
United States		0.19	0.19	0.24	0.21
Average	0.24	0.21	0.29	0.30	0.28

match the ISEI indicator to the ISCO88 codes of respondents, however, for those two waves only. They further compare the scores of respondents and their fathers only and use a Full Maximum-Likelihood estimation model. The correlation of 0.96 suggests that the generated dataset including two more waves and parental occupational status rather than fathers' status only, is a suitable expansion of this existing dataset.

4.2 Income elasticity

I estimate the income elasticity similarly to the ISEI elasticity by using the Poisson Pseudo Maximum Likelihood (PPML) estimator and the model outlined in Section 4.1. Income elasticity estimators are given in table 2.

Unfortunately, income data is only available for nine out of the 27 countries. These countries show a similar trend as discussed before: From 1987 to 1992 income mobility appears to have improved on average but since then has significantly decreased again with the 2009 wave having the lowest level of income mobility on average.

Covariates: To control for demographic factors which have previously been found to be associated with perceptions of social mobility, I control for gender (equal to 1 if female) and marital status (equal to 1 if the respondent is married). I further control for the age of respondents as a quadratic term, include a categorical variable for the education-level

using a cross-country comparative measure and include year- and country-fixed effects as perceptions may have shifted on the aggregate between years, in particular before and after the financial crisis in 2008. Country-level differences in fairness perceptions have previously been found by Alesina and Angeletos (2005).

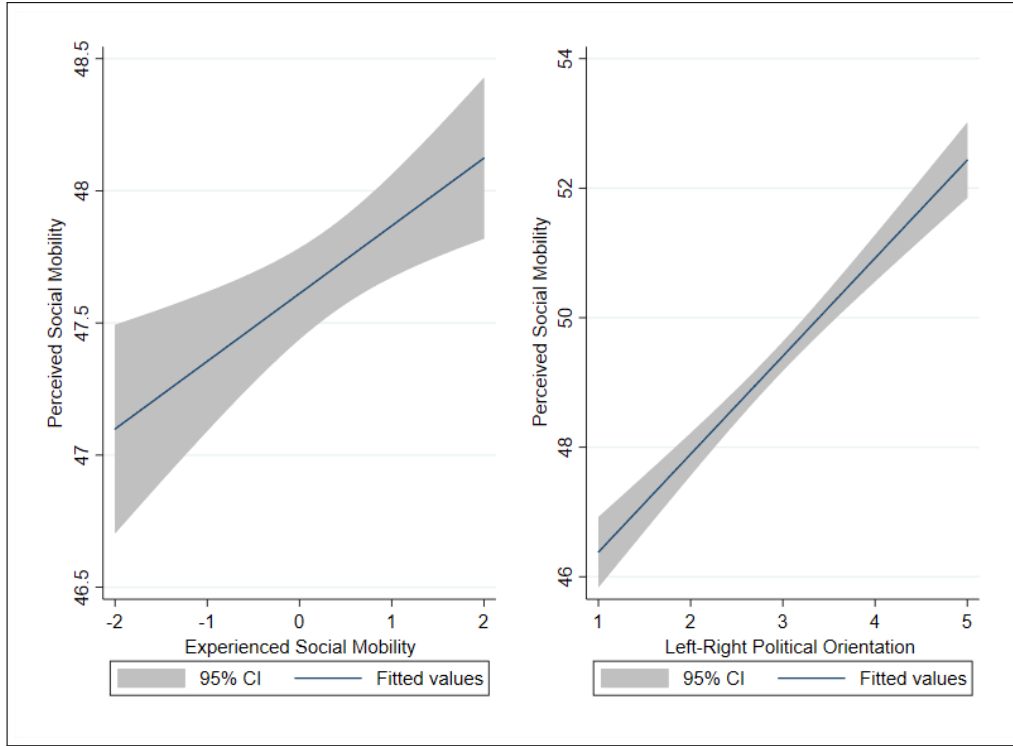
Two covariates of theoretical importance which are difficult to account for methodologically are personal income-levels (Davidai and Gilovich (2015)) and parental socio-economic status (Piketty (1995)). Given that these two variables were used to generate the objective social mobility measures, including them both into the models that use the objective measures is problematic. To account for this issue, I only include parental ISEI-scores as a measure of parental socio-economic status. Instead of including respondents' individual ISEI scores or estimated income-levels, I use a measure of individuals' self-placement within society based on item TOPBOT in the ISSP dataset. Respondents were hereby asked to place themselves on a ten-point scale representing the income distribution of the country they live in. This measure is used as an estimate of people's subjective relative income.

5 Results

Figure 1 illustrates the relationship between self-assessed mobility experience and political orientation with perceptions of social mobility. Both graphs show a significantly positive and linear relationship between the two variables. The underlying expectations of equation 1 and equation 2 therefore appear to hold. In line with previous studies, the overall linear relationship between experience with social mobility and perceived social mobility is only weak while the relationship between political orientation and perceptions is significantly stronger.

Table 3 reports the main results with odd-numbered models focussing on respondents with positive mobility experiences and even-numbered models focussing on those with negative mobility experiences. Models (1) and (2) only include the main explanatory variables

Figure 1: Perceived Social Mobility by Experience and Political Orientation



– mobility experience and political left-right orientation. Models (3) and (4) additionally include year- and country-fixed effects and models (5) and (6) include various additional covariates. Across all model specifications, personal mobility experience significantly and positively influences perceptions of social mobility for those who experienced negative mobility but not for those with positive experiences. In none of the positive experience models is personal mobility experience a significant predictor of social mobility perceptions.

Political orientation, on the other hand, is significant in all OLS-model specifications. The further towards the right of the political spectrum a respondent is the more optimistic her perceptions of social mobility in society become. These findings provide strong preliminary support for hypothesis one but not for hypothesis two as political orientation appears to matter irrespective of the direction of one’s social mobility experience.

Out of the control variables, gender appears to be the strongest predictor of social mobility perceptions with women having significantly more positive perceptions. There is also some evidence for education having a negative effect on social mobility perceptions. For those

Table 3: Perceptions of Social Mobility (OLS)

	Positive (1)	Negative (2)	Positive (3)	Negative (4)	Positive (5)	Negative (6)
Mobility Experience	0.109 (0.410)	0.787*** (0.269)	0.019 (0.412)	1.623*** (0.267)	0.030 (0.522)	1.780*** (0.345)
Left-Right	1.899*** (0.214)	1.528*** (0.203)	1.576*** (0.213)	1.040*** (0.201)	1.343*** (0.268)	0.577** (0.245)
Parental Income					-0.031* (0.017)	-0.027* (0.014)
Education					-0.350* (0.195)	-0.553*** (0.211)
Top Bottom					0.052 (0.169)	0.526*** (0.148)
Female					2.909*** (0.463)	1.740*** (0.415)
Age (quadratic)					0.001 (0.001)	0.000 (0.001)
Marital Status					0.461 (0.512)	1.151** (0.445)
Constant	43.825*** (0.837)	45.485*** (0.639)	47.306*** (0.990)	49.627*** (0.846)	46.863*** (2.768)	46.012*** (2.328)
Year Fixed Effects			✓	✓	✓	✓
Country Fixed Effects			✓	✓	✓	✓
Observations	12,299	14,598	12,299	14,598	8,191	10,090
R-squared	0.007	0.005	0.050	0.066	0.070	0.083

Notes: Estimates come from a linear regression. Robust standard errors are presented in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

who experienced negative mobility, being married and a higher self-placement in the income distribution have positive effects on social mobility perceptions.

Arguably, respondents who experienced positive or negative social mobility differ in other aspects besides their mobility experience, which may influence their perceptions of social mobility at the societal level. Details of which factors are associated with upward mobility can be found in appendix D.

In models (19)-(22) in appendix E, I also estimate predictors of preferences for redistribution to test whether perceptions of social mobility are in fact a significant predictor of these preferences in the given dataset. The results indicate that more optimistic perceptions of social mobility indeed significantly reduce preferences for redistribution. I find that a more conservative political orientation, higher income, higher education and being male is associated with less support for redistribution. These findings are in line with previous studies of redistributive preferences (e.g. Alesina et al. (2018)).

6 Endogeneity

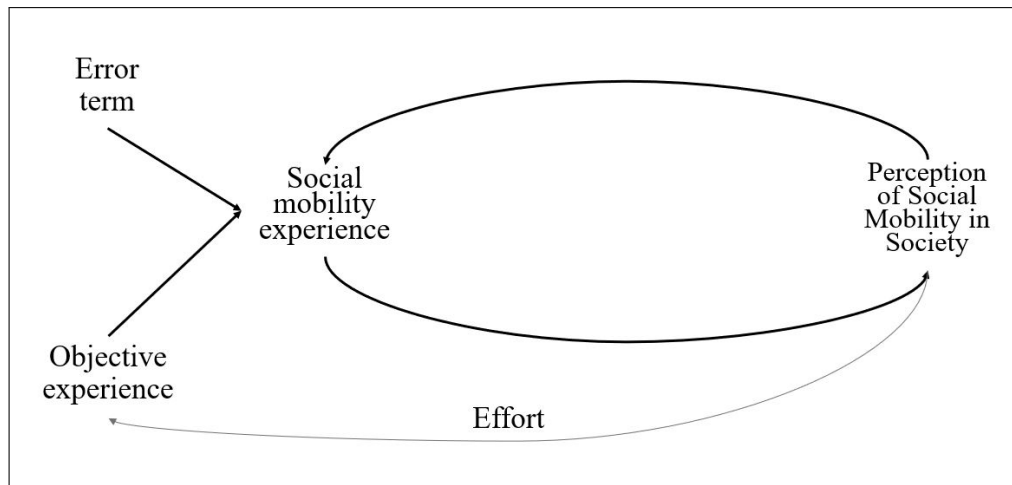
So far, I have assumed self-assessed social mobility experience to be exogenous to perceptions of societal social mobility levels. This is of course a problematic assumption. Information people take, for example, from the media is likely going to influence overall perceptions of social mobility and shape the assessment of personal experiences. To robustly estimate the model proposed in this paper, I therefore need to isolate the part of perceived personal experience that is based on actual objective experience and exogenous to a person's perceptions of society. To do so, I run an instrumental variable regression using an objective measure of respondents' social mobility experience as the first-stage instrument. Arguably, this instrument satisfies the exclusion restriction as objective social mobility experience should only influence respondents' perceptions of societal social mobility through their subjective experience, given that one has to be aware of one's mobility experience for it to influence perceptions.

The correlation between self-assessed social mobility and experienced social mobility using the ISEI indicator is 0.34 whilst the correlation with the income-based indicator is 0.10 as can be seen in the correlation matrix in Appendix F.

A weakness of using objective mobility experience as an instrument is the fact that objective social mobility experience is not entirely randomly assigned. While someone's parental socio-economic status is as good as randomly assigned, personal mobility experience is also impacted by personal effort-levels which in turn could be influenced by a person's perceptions of overall mobility in society, as illustrated in figure 2. There is evidence in the existing literature that the perceived fairness of reward structures in work-place environments impacts people's willingness to exert effort (Janssen (2000)). Whether such a relationship exists at the macro-level between perceived social mobility and exerted effort-levels has, as far as I am aware, not been tested yet.

To account as much as possible for this potential reverse causality, I use an additional question asked in the ISSP survey to estimate the effect of a person's perceived opportunity of

Figure 2: Relationship between mobility experience and perceptions of social mobility



personal upward mobility on her subjective and objective mobility experience. If perceptions of social mobility influenced people’s effort-levels, arguably, such a relationship would require people’s effort and subsequent mobility experience to depend on whether they believed their efforts to be rewarded in the society they live in. Appendix G illustrates that while perceived opportunity is related to people’s self-assessed measure of social mobility, such a relationship does not exist with the objective measure of social mobility. This further supports the validity of respondents’ objective mobility experience as a first-stage instrument.

Nonetheless, the lack of complete random assignment of one’s objective mobility experience means that the instrumental variable regression cannot, at least theoretically, completely overcome the potential endogeneity problem caused by reverse causality. However, given the available data and the nature of the relationship of interest, I believe this estimation to be the best possible attempt at achieving an unbiased estimate of the effect of personal mobility experience on perceptions of societal social mobility.

The results of the IV-regression using the objective measure of socio-economic social mobility as the instrument are stated in models (7)-(12) in table 4. As before, the odd-numbered models focus on respondents with positive mobility experiences and the even-numbered models focus on those with negative mobility experiences.

Table 4: Perceptions of Social Mobility (2SLS)

	Socio-Economic Indicator (ISEI)						Income Indicator (LIS)					
	Positive (7)	Negative (8)	Positive (9)	Negative (10)	Positive (11)	Negative (12)	Positive (13)	Negative (14)	Positive (15)	Negative (16)	Positive (17)	Negative (18)
Mobility Experience	0.032 (0.091)	0.154*** (0.056)	0.029 (0.088)	0.290*** (0.056)	0.107 (0.207)	0.558*** (0.152)	156.414 (166.55)	168.587*** (48.994)	128.833 (112.042)	191.916*** (53.533)	264.876 (265.521)	337.676*** (128.346)
Left-Right	1.442*** (0.283)	0.798*** (0.268)	1.191*** (0.280)	0.310 (0.273)	1.366*** (0.287)	0.064 (0.304)	1.340*** (0.505)	-0.324 (0.441)	1.052** (0.473)	-0.675 (0.477)	1.316** (0.586)	-0.994 (0.666)
Parental Income					0.044 (0.148)	0.354*** (0.112)					0.217 (0.216)	0.306** (0.130)
Education					-0.898 (1.255)	-3.120*** (0.743)					-2.659 (2.823)	-4.187*** (1.400)
Top Bottom					-0.135 (0.336)	-0.020 (0.251)					-0.477 (0.584)	-0.194 (0.389)
Female					2.745*** (0.497)	0.837 (0.522)					3.646*** (1.025)	2.478*** (0.943)
Age (quadratic)					0.001 (0.001)	.001 (0.001)					-0.001 (0.002)	0.001 (0.001)
Marital Status					0.591 (0.577)	0.971* (0.529)					0.836 (1.024)	0.680 (0.973)
Constant	44.025*** (1.397)	46.341*** (0.827)	42.039*** (1.807)	48.336*** (1.381)	45.212*** (3.786)	44.316*** (2.785)	35.891*** (8.241)	43.021*** (1.567)	39.696*** (4.685)	45.604*** (2.072)	35.555*** (5.697)	46.077*** (4.615)
Year Fixed Effects			✓	✓	✓	✓			✓	✓	✓	✓
Country Fixed Effects			✓	✓	✓	✓			✓	✓	✓	✓
Observations	7,313	8,878	7,313	8,878	7,105	8,604	3,220	4,121	3,220	4,121	3,171	4,055
First-stage F	138.99	413.15	151.13	419.49	40.295	99.40	4.55	85.22	14.28	73.48	3.54	18.15
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.06	0.00

Notes: Estimates come from linear IV-regressions. Given that respondents' subjective mobility experience is measured by asking them about their status relative to their father, the objective measures used as first-stage instruments in models (7)-(18) are also limited to the mobility with respondents' fathers. The magnitude of the mobility experience coefficient in models (13)-(18) is due to the income mobility measure being based on standardised values to account for income differences across countries and years. Robust standard errors are presented in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The results indicate a strikingly similar pattern to the previous results in models (1)-(6). Personal mobility experience matters significantly and positively only for those who experienced negative or stagnating mobility. The coefficients are now slightly smaller than in the prior regression models which suggests that part of the effect found previously was in fact due to the reverse relationship – perceptions of social mobility impacting perceptions of one’s own mobility experience. In none of the positive experience models is personal experience relevant to perceptions.

Result 1 (H1) *Personal experience is a significant predictor of social mobility perceptions only for those who experienced negative or stagnating mobility.*

The relationship between political orientation and social mobility perceptions has now slightly changed compared to the previous results. Once country- and year-fixed effects are added, political orientation loses significance for those with negative or stagnating mobility experiences and only the perceptions of those with positive experiences are related to their political orientation. This finding provides some support for hypothesis two and further underlines the suspicion that the previous estimation suffered from reverse causality: Political orientation is relevant to people with negative or stagnating mobility experiences when those individuals are included who’s negative mobility experience is shaped by their perceptions but not when they are excluded through the instrumental variable regression. The results suggest again gender- and education-differences in perceptions as well as a now positive effect of parental income on social mobility perceptions.

7 Income Mobility

To check the robustness of these findings I have also used average gross hourly earnings using the Luxembourg Income Study as an additional instrumental variable. The results of this estimation can also be found in table 4 in models (13)-(18). The overall pattern is very similar to the results in models (7)-(12). Mobility experience only impacts the perceptions

of those with negative experiences whilst political orientation only influences the perceptions of those with positive experiences.

Result 2 (H2) *Political ideology is a significant predictor of social mobility perceptions primarily, but not exclusively, for those who experienced positive social mobility.*

Given the small correlation between the income-based indicator and self-assessed social mobility (see Appendix F) as well as the small F-statistics of models (13) and (17), I used the LIML-estimator to account for the weakness of the instrument. More broadly, the weakness of the income-based indicator, as compared to the socio-economic measure, indicates that people's self-assessed social mobility experience relies more on socio-economic factors than purely on income.

Gender and education are, again, the only control variables significantly impacting perceptions in the same direction as in the previous estimations: women tend to have more optimistic perceptions of social mobility and higher education is associated with more pessimistic perceptions of social mobility; however, only for those who experienced negative or stagnating mobility.

8 Conclusion

Perceptions of social mobility matter to preferences for redistribution as well as people's tolerance for economic inequality. Understanding what shapes these perceptions is thus important. In this paper, I have developed and empirically tested a behavioural model of what shapes social mobility perceptions based on the self-serving bias. People who experienced negative or stagnating social mobility extrapolate from their experience onto their beliefs about society at large. Those with positive mobility experiences, on the other hand, overestimate their own contribution to their positive experience and do not extrapolate from their experience onto general societal perceptions of social mobility. Instead, these individuals' perceptions are primarily correlated to their political orientation. Using the ISSP Social

Inequality Cumulative, I have shown that this expectation holds when estimating the effect of personal mobility experience on perceptions of social mobility at the individual level across 27 countries from 1987 to 2009. The effect remains robust to an instrumental variable estimation using two separate objective measures of personal mobility experience as the first-stage instruments.

While the results of this paper suggest a causal relationship between personal mobility experience and perceptions of social mobility mediated by the self-serving bias, the usage of survey data arguably limits the claim to causality that can be made. A potential avenue for future research would therefore be to experimentally test this relationship further.

The results of this paper also suggest an interesting implication at the aggregate: As more people improve their economic position relative to their parents, thus experiencing positive social mobility, people's own experiences decrease in importance, and political ideology increases in importance when assessing economic opportunities in society. This implication may be one potential driver of political polarisation not previously considered. However, additional research would be necessary to test whether this effect indeed holds at the aggregate.

References

- Alesina, A. and Angeletos, G.-M. (2005). Fairness and redistribution. *American economic review*, 95(4):960–980.
- Alesina, A. and Giuliano, P. (2011). Preferences for redistribution. In *Handbook of social economics*, volume 1, pages 93–131. Elsevier.
- Alesina, A., Stantcheva, S., and Teso, E. (2018). Intergenerational mobility and preferences for redistribution. *American Economic Review*, 108(2):521–54.
- Alesina, A. F., Miano, A., and Stantcheva, S. (2020). The polarization of reality. Technical report, National Bureau of Economic Research.
- Andrews, D. and Leigh, A. (2009). More inequality, less social mobility. *Applied Economics Letters*, 16(15):1489–1492.
- Becker, A. (2013). Accountability and the fairness bias: the effects of effort vs. luck. *Social Choice and Welfare*, 41(3):685–699.
- Bjørnskov, C., Dreher, A., Fischer, J. A., Schnellenbach, J., and Gehring, K. (2013). Inequality and happiness: When perceived social mobility and economic reality do not match. *Journal of Economic Behavior & Organization*, 91:75–92.

- Bourdieu, P. (1986). The forms of capital.
- Campbell, W. K. and Sedikides, C. (1999). Self-threat magnifies the self-serving bias: A meta-analytic integration. *Review of general Psychology*, 3(1):23–43.
- Cappelen, A. W., Konow, J., Sørensen, E. Ø., and Tungodden, B. (2013). Just luck: An experimental study of risk-taking and fairness. *American Economic Review*, 103(4):1398–1413.
- Cappelen, A. W., Moene, K. O., Skjeltbred, S.-E., and Tungodden, B. (2017). The merit primacy effect. *NHH Dept. of Economics Discussion Paper*, (06).
- Charness, G., Karni, E., and Levin, D. (2010). On the conjunction fallacy in probability judgment: New experimental evidence regarding linda. *Games and Economic Behavior*, 68(2):551–556.
- Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., and Narang, J. (2017). The fading american dream: Trends in absolute income mobility since 1940. *Science*, 356(6336):398–406.
- Chetty, R., Hendren, N., Kline, P., Saez, E., and Turner, N. (2014). Is the united states still a land of opportunity? recent trends in intergenerational mobility. *American Economic Review*, 104(5):141–47.
- Corneo, G. and Grüner, H. P. (2002). Individual preferences for political redistribution. *Journal of public Economics*, 83(1):83–107.
- Davidai, S. and Gilovich, T. (2015). Building a more mobile america—one income quintile at a time. *Perspectives on Psychological Science*, 10(1):60–71.
- Davidai, S. and Gilovich, T. (2018). How should we think about americans’ beliefs about economic mobility? *Judgment and Decision making*, 13(3):297.
- Day, M. V. and Fiske, S. T. (2019). Understanding the nature and consequences of social mobility beliefs. In *The Social Psychology of Inequality*, pages 365–380. Springer.
- Durante, R., Putterman, L., and Van der Weele, J. (2014). Preferences for redistribution and perception of fairness: An experimental study. *Journal of the European Economic Association*, 12(4):1059–1086.
- Engelhardt, C. and Wagener, A. (2014). Biased perceptions of income inequality and redistribution.
- Esarey, J., Salmon, T., and Barrilleaux, C. (2012). Social insurance and income redistribution in a laboratory experiment. *Political Research Quarterly*, 65(3):685–698.
- Fong, C. M. (2006). Prospective mobility, fairness, and the demand for redistribution. *Fairness, and the Demand for Redistribution (February 26, 2006)*.
- Ganzeboom, H. B., De Graaf, P. M., and Treiman, D. J. (1992). A standard international socio-economic index of occupational status. *Social science research*, 21(1):1–56.
- Ganzeboom, H. B. and Treiman, D. J. (1996). Internationally comparable measures of occupational status for the 1988 international standard classification of occupations. *Social science research*, 25(3):201–239.
- Gilovich, T., Griffin, D., and Kahneman, D. (2002). *Heuristics and biases: The psychology of intuitive judgment*. Cambridge university press.
- Group, I. R. et al. (2014). International social survey programme: Social inequality i-iv-issp 1987-1992-1999-2009. *GESIS Data Archive, Cologne. ZA5890 Data file Version*, 1(0).
- Jaime-Castillo, A. M. and Marques-Perales, I. (2014). Beliefs about social fluidity and preferences for social policies. *Journal of Social Policy*, 43(3):615–633.

- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and organizational psychology*, 73(3):287–302.
- Jerit, J. and Barabas, J. (2012). Partisan perceptual bias and the information environment. *The Journal of Politics*, 74(3):672–684.
- Kelley, H. H. (1967). Attribution theory in social psychology. In *Nebraska symposium on motivation*. University of Nebraska Press.
- Krawczyk, M. (2010). A glimpse through the veil of ignorance: Equality of opportunity and support for redistribution. *Journal of Public Economics*, 94(1-2):131–141.
- Lefgren, L. J., Sims, D. P., and Stoddard, O. B. (2016). Effort, luck, and voting for redistribution. *Journal of Public Economics*, 143:89–97.
- LIS (2019). Luxembourg income study (lis) database, <http://www.lisdatacenter.org> (multiple countries; 1987-2009). *Luxembourg: LIS*, 1(0).
- McCoy, S. K. and Major, B. (2007). Priming meritocracy and the psychological justification of inequality. *Journal of experimental social psychology*, 43(3):341–351.
- Mitnik, P. (2017). Estimators of the intergenerational elasticity of expected income: A tutorial.
- Office, I. L. (1990). *International standard classification of occupations: ISCO-88*. na.
- Piketty, T. (1995). Social mobility and redistributive politics. *The Quarterly journal of economics*, 110(3):551–584.
- Rey-Biel, P., Sheremeta, R., and Uler, N. (2018). When income depends on performance and luck: The effects of culture and information on giving. In *Experimental Economics and Culture*, pages 167–203. Emerald Publishing Limited.
- Shariff, A. F., Wiwad, D., and Akin, L. B. (2016). Income mobility breeds tolerance for income inequality: Cross-national and experimental evidence. *Perspectives on Psychological Science*, 11(3):373–380.
- Swan, L. K., Chambers, J. R., Heesacker, M., and Nero, S. S. (2017). How should we measure americans’ perceptions of socio-economic mobility? *Judgment and Decision making*, 12(5):507.
- Tversky, A. and Kahneman, D. (1983). Extensional versus intuitive reasoning: The conjunction fallacy in probability judgment. *Psychological review*, 90(4):293.
- Wlezien, C. (1995). The public as thermostat: Dynamics of preferences for spending. *American journal of political science*, pages 981–1000.
- Yaish, M. and Andersen, R. (2012). Social mobility in 20 modern societies: The role of economic and political context. *Social Science Research*, 41(3):527–538.

Appendix A. Perception of Social Mobility Indicator

To capture the perception of social mobility of respondents as accurately as possible, I generated an indicator based on individuals’ answers to three separate questions focused on different aspects of mobility within society using principle component analysis (PCA). Indicator V8 in the cumulative dataset of the ISSP Social Inequality Module asks respondents “How important is coming from a wealthy family for getting ahead in life?”. Respondents can respond with either “Essential”, “Very important”, “Fairly important”, “Not very important” or “Not important at all”.

Table 5: Distribution of Components of the Perceived Social Mobility Index

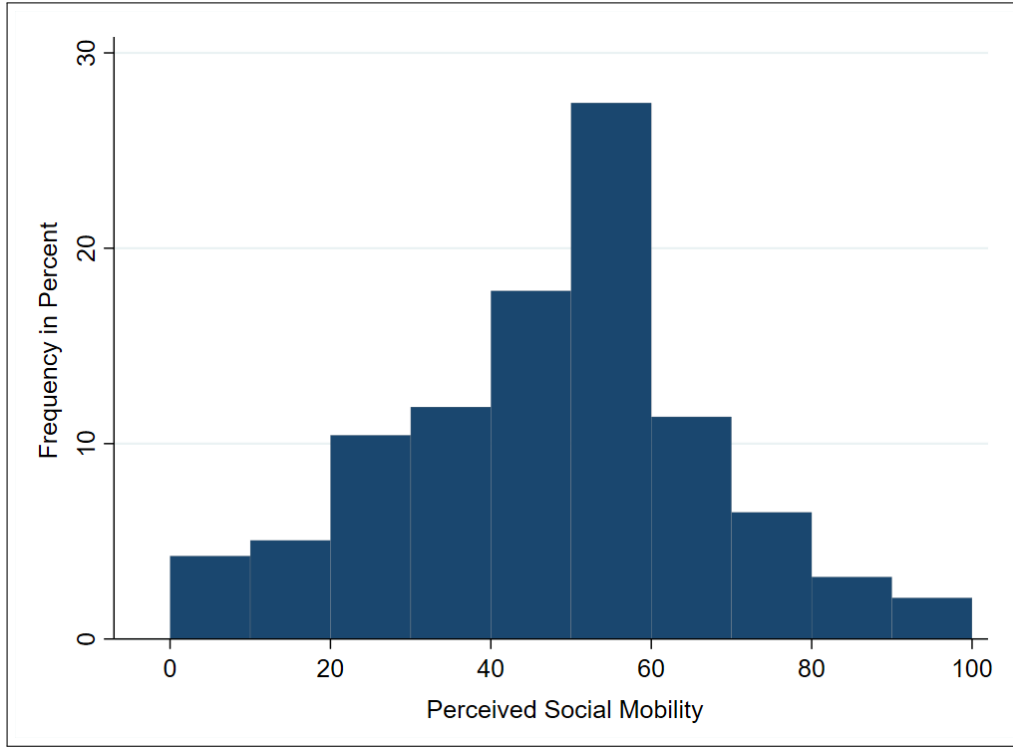
	Essential	Very Important	Fairly Important	Not very important	Not important at all	Total
<i>Indicator</i>						
How important is coming from a wealthy family for getting ahead in life?	8.59%	20.50%	30.91%	27.29%	12.72%	100%
How important is having well-educated parents for getting ahead in life?	7.96%	27.78%	36.60%	20.28%	7.37%	100%
How important is knowing the right people for getting ahead in life?	16.52%	34.20%	33.62%	12.36%	3.29%	100%

Indicator V9 asks respondents “How important is having well-educated parents for getting ahead in life?”. Respondents can again respond with either “Essential”, “Very important”, “Fairly important”, “Not very important” or “Not important at all”. Finally, indicator V14 asks respondents “How important is knowing the right people for getting ahead in life?”. Respondents can again respond with either “Essential”, “Very important”, “Fairly important”, “Not very important” or “Not important at all”. The distribution of responses to all three indicators is reported in table 5. The correlation between indicator V8 and V9 is 0.46, between V8 and V14 0.36 and between V9 and V14 0.24. These three indicators each ask about a different aspect of social mobility – parental wealth, parental education and personal connections – which correspond to the three forms of capital as defined by Bourdieu (1986).

To combine the three questions into one indicator, I have used principal component analysis (PCA) following Esarey et al. (Esarey et al. (2012)) who also use PCA to generate an index of individual-level ‘conservatism’ based on survey data. This method allows me to isolate the underlying common component of perceived social mobility in individuals’

responses to these three separate questions.

Figure 3: Distribution of Perceived Social Mobility Index



The first principal component has by far the largest Eigenvalue of all three potential components and is the only component that is correlated with all three indicators in the correct direction. The compositions of the different components can be found in table 6.

Table 6: Principal Components

	Component 1	Component 2	Component 3
<i>Variable</i>			
V8	0.6308	-0.1546	-0.7604
V9	0.5822	-0.5537	0.5954
V14	0.5130	0.8183	0.2592

To make the interpretation of the values more intuitive I normalised the index and multiplied each value by 100. The resulting index then ranges from 0 to 100 with a higher value indicating a higher level of perceived social mobility. Figure 3 shows the distribution of the

generated index in percent. An overview of country-level mean values of the generated index by waves can be found in table 7.

Table 7: Perceived Social Mobility Index by year (mean)

	1987	1992	1999	2009	Average
<i>Country</i>					
Australia	55.42	49.65		49.10	51.39
Austria	41.26	44.12		42.91	42.76
Bulgaria		42.93		36.73	39.83
Canada		52.95			52.95
Chile				43.73	43.73
Cyprus				47.21	47.21
Czech Republic		57.57		51.03	54.30
France				54.34	54.34
Germany (East)		48.08		40.61	44.35
Germany (West)	45.47	49.08		41.43	45.33
Hungary	49.81	49.77		42.15	47.24
Israel				41.82	41.82
Italy	40.84	41.81		42.50	41.71
Japan				59.28	59.28
Latvia				42.77	42.77
New Zealand		52.16		57.00	54.58
Norway		57.93		55.87	56.90
Philippines		37.28		42.86	40.07
Poland		38.86		35.58	37.22
Portugal				46.39	46.39
Russia		42.94		42.24	42.59
Slovak Republic		50.10		41.21	45.66
Slovenia		51.27		42.81	47.04
Spain				43.29	43.29
Sweden		53.43		53.93	53.68
Switzerland	49.08			51.07	50.08
United Kingdom	51.15	52.63		53.36	52.38
United States	48.34	48.83		44.31	47.16
Average	47.67	51.19		47.91	49.11

Appendix B. Matching Procedure for the socio-economic index of social mobility

The ISEI is available for 533 of the individual ISCO88 occupation types (Ganzeboom and Treiman (1996), Appendix A 221-37). Respondents in the ISSP dataset indicated a total of 566 different ISCO88 occupation types, leading to a total of 670 respondents for which no status score is available based on the ISEI. On top of that 1,059 ISEI values are missing for fathers of respondents and 25 values are missing for respondents' mothers. Most of these respondents are armed forces personnel (347 of respondents, 802 of respondents' fathers and 15 of respondents' mothers) which the ISEI treats differently depending on the role of the individual within the armed forces (Ganzeboom and Treiman (1996), 209). For example, an ordinary soldier has an ISEI score of 40 whilst a non-commissioned officer has a score of 56. Given that the ISSP does not provide any further information on the role of respondents within the military, no ISEI score can reasonably be included for these respondents without biasing the estimate given the large disparity of ISEI scores for different armed forces personnel. Another group of respondents which do not match directly onto the ISEI scores are middle school teachers, as these are divided into those on an academic track and those on a vocational track in their ISEI ranking. The ISEI score difference between the two groups is only four points and so I decided to match respondents and their parents with the occupation 'middle school teacher' to ISEI code 2322 which is the vocational track-subgroup. This covers all ten remaining missing values for respondents' mothers. The remaining 272 missing ISEI values for respondents and 234 missing values for respondents' fathers are all country-specific classifications from Norway and New Zealand that cannot reasonably be assigned to existing ISEI codes without any further information. These respondents are therefore also excluded from the analysis.

Appendix C. Luxembourg Income Study - Matching Procedure

To match the Luxembourg Income Data to ISSP respondents' occupations I retrieved average gross hourly wages for people between the ages of 25 and 55 by ISCO88 occupation type, country and year. Where average gross hourly wages were not available, I used average net hourly wages. Table 8 lists the individual LIS waves used by country and year.

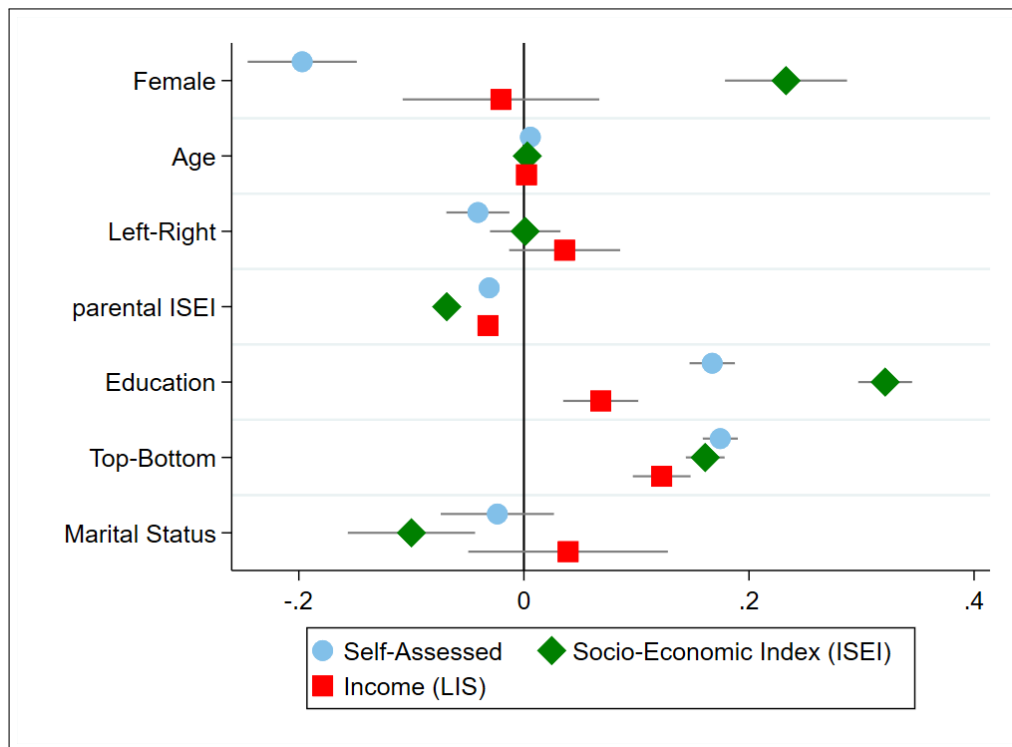
Table 8: Luxembourg Income Waves used by Country and Year

	1987	1992	1999	2009
<i>Country</i>				
Austria			at00p	at10p
Canada			ca98p	
Czech Republic			cz96p	cz10p
Germany (West)	de87p	de91p	de98p	de09p
Israel				il10p
Slovak Republic				sk10p
Spain			es00p	es10p
Switzerland				ch10p
United States		us91p	us00p	us10p

Appendix D. Likelihood of experiencing upward social mobility

Figure 4 reports the likelihood of having experienced positive social mobility by basic demographic characteristics, using the three available measures of social mobility experience: self-assessed, socio-economic and income mobility.

Figure 4: Likelihood of a positive social mobility experience by demographic characteristics



As Figure 4 illustrates, there are some differences between the three alternative indicators. The three demographic factors which have a uniform and significant relationship with respondents' likelihood of having experienced positive mobility are parental ISEI scores, which are negatively associated with a positive mobility experience, as well as education and self-placement on the income distribution, which are both positively associated with experiencing upward mobility. The direction of the correlation between social mobility experience and these three factors is not surprising.

Interestingly, women are significantly more likely to have experienced upward mobility when using the socio-economic scale but assess themselves to have experienced more negative or stagnating mobility than men. Age and marital status mostly do not appear to matter significantly to the likelihood of having experienced upward mobility.

Political orientation does not significantly differ between those who experienced positive

and those who experienced negative or stagnating mobility when looking at the two objective measures. There is a slight but significant negative relationship between the self-assessed measure and political orientation which suggests that those who believe themselves to have experienced negative or stagnating mobility are slightly more left-wing. However, this effect is minimal and only exists for one of the three indicators. This is encouraging for the interpretation of the effect of the left-right indicator on perceptions of social mobility. The other factors which differ between the two groups are controlled for in the main estimation.

Appendix E. Preferences for Redistribution and perceived Social Mobility

The dependent variable, Support for Redistribution, is based on indicator V33 in the cumulative dataset of the ISSP Social Inequality Module. The indicator reports respondents' agreement with the statement "It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes". Respondents can indicate that they either "Strongly agree", "Agree", "Neither agree nor disagree", "Disagree" or "Strongly Disagree". This question was asked in each of the four waves of the ISSP Social Inequality Module and allows therefore to measure preferences for redistribution for a large number of individual respondents.

Following Alesina and Giuliano (Alesina and Giuliano (2011)), I am also looking at support for redistribution as a binary variable in addition to the above described categorical variable. This is necessary as the difference between the individual points on the scale (e.g. "Strongly Agree" versus "Agree") may not be as meaningful for some respondents as the difference between overall agreeing or disagreeing with the statement. To transform item V33 into a binary variable, I have followed Corneo and Grüner's methodology (Corneo and Grüner (2002)) and have coded respondents who answered with "Strongly Agree" or "Agree" as 1 and respondents who answered with "Neither agree nor disagree", "Disagree" or "Strongly Disagree" as 0. This binary variable called 'Support for Redistribution (dichotomous)' now captures whether individuals support redistribution or not. After the recoding there are 65,083 respondents who support redistribution and 32,197 who do not. The results of the estimation are stated in table 9.

Table 9: Preferences for Redistribution

	Support for Redistribution -dichotomous		Support for Redistribution -ordered	
	(19)	(20)	(21)	(22)
Perceived Social Mobility	-0.007*** (0.001)	-0.007*** (0.001)	-0.008*** (0.000)	-0.008*** (0.001)
Left-Right		-0.402*** (0.021)		-0.369*** (0.018)
Income		-0.013*** (0.001)		-0.013*** (0.001)
Education		-0.105*** (0.018)		-0.097*** (0.015)
Top Bottom		-0.188*** (0.013)		-0.191*** (0.011)
Union member		0.143*** (0.043)		0.141*** (0.035)
Female		0.303*** (0.036)		0.276*** (0.030)
Age (quadratic)		0.000 (0.000)		0.000 (0.000)
Marital Status		0.015 (0.039)		-0.018 (0.033)
Constant	0.036 (0.045)	2.827*** (0.209)		
Year Fixed Effects	✓	✓	✓	✓
Country Fixed Effects	✓	✓	✓	✓
Observations	62,893	18,680	62,893	18,680
R-squared	0.085	0.143	0.055	0.084

Notes: Estimates come from binary logit regressions for models (19) and (20) and ordered logistic regressions for models (21) and (22). Given that the index of perceived social mobility ranges from 0 to 100 the coefficients are somewhat smaller than in existing studies. Standard errors are presented in parentheses. Income is here proxied by individual-level ISEI scores. *** p<0.01, ** p<0.05, * p<0.1.

Appendix F. Pairwise correlations between included variables

Table 10: Correlation Matrix

	pSM	seSM	iSM	eSM	Marital Status	Female	Age	Left-Right	parental ISEI	Education	Top-Bottom
Perceived SM	1.00										
Self-Assessed SM	0.03	1.00									
Income Mobility	-0.07	0.10	1.00								
Socio-Econ Mobility	0.02	0.34	0.16	1.00							
Marital Status	0.03	0.08	0.07	0.08	1.00						
Female	0.06	-0.12	-0.04	0.00	-0.09	1.00					
Age	0.02	0.11	0.03	0.10	0.06	0.03	1.00				
Left-Right	0.02	0.01	0.05	0.01	0.03	-0.05	0.04	1.00			
parental ISEI	-0.02	-0.23	-0.12	-0.58	-0.05	-0.00	-0.13	0.01	1.00		
Education	-0.01	0.09	-0.03	0.10	-0.01	-0.01	-0.11	0.03	0.41	1.00	
Top-Bottom	0.01	0.17	0.11	0.09	0.10	-0.07	-0.06	0.08	0.21	0.25	1.00

Appendix G. Perceived Opportunity of personal Upward Mobility

To measure respondents' perceived opportunity of personal upward mobility I used indicator V21 in the ISSP Cumulative which asks respondents how much they agree with the statement: *In (R's country), people like me have a good chance of improving their standard of living.* Respondents could answer that they either “Strongly agree”, “Agree”, “Neither agree nor disagree”, “Disagree” or “Strongly Disagree”. The resulting index then ranges from -2 to 2 with negative values indicating a perceived negative opportunity of personal upward mobility and vice versa.

Table 11: Perceived Opportunity of personal Upward Mobility by Experienced Mobility

	Self-assessed Mobility Experience			Objective (ISEI) Mobility Experience		
	(23)	(24)	(25)	(26)	(27)	(28)
Perceived Opportunity	0.095*** (0.011)	0.137*** (0.011)	0.104*** (0.023)	0.011 (0.013)	0.014 (0.014)	-0.021 (0.022)
Left-Right			-0.050** (0.025)			-0.072*** (0.027)
Income			0.019*** (0.002)			0.111*** (0.002)
Education			-0.070*** (0.026)			-0.500*** (0.031)
Top Bottom			0.089*** (0.016)			-0.095*** (0.015)
Union member			0.174*** (0.046)			0.124** (0.050)
Female			-0.510*** (0.044)			-0.101** (0.046)
Age (quadratic)			-0.000*** (-0.000)			-0.000** (-0.000)
Marital Status			0.139*** (0.050)			0.121** (0.052)
Year Fixed Effects		✓	✓		✓	✓
Country Fixed Effects		✓	✓		✓	✓
Observations	29,102	29,102	7,653	14,593	14,593	6,484
R-squared	0.001	0.01	0.004	0.000	0.001	0.064

Notes: Estimates come from an ordered logit regression. Standard errors are presented in parentheses. Income is here proxied by individual-level ISEI scores. *** p<0.01, ** p<0.05, * p<0.1.