The relationship between polarisation in attitudes towards income inequality and meritocratic perceptions: Differences between income and education groups

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Abstract

Individuals with a higher social position are more tolerant of current income inequality than individuals with a lower social position. Besides this, attitudes towards income inequality are influenced by inequality-legitimising myths in a given society. Little is known about how these two factors interact. This study combines these two lines of research and argues that different social strata are more polarised in their attitudes towards inequality in societies with strong prevalent meritocratic perceptions. We expect lower-status individuals (i.e. with a lower income or education) to experience a threat to their group esteem and therefore be less likely to support their society's inequalities in societies with such strong meritocratic perceptions. This hypothesis was tested using data from the International Social Survey Programme 2009 (Social Inequality) on 39 countries. The results show that different social strata are indeed more polarised in their attitudes towards inequality in societies where meritocratic perceptions are more prevalent. Our results are robust for income, but not for education. This suggests that in perceived meritocracies, people regard income as the primary indicator of effort and ability.

Introduction

Income inequality has been rising sharply within many countries across the world and has increasingly become the subject of substantial public concerns (Oxfam, 2014; World Economic Forum, 2014). Attitudes towards income inequality[1] differ between individuals and groups within societies, as well as between societies (Kluegel and Smith, 1981; Larsen, 2016; Redmond et al., 2002). For instance, in Portugal and many Eastern European countries, many people consider the current level of income inequality to be too high, whereas this view is less common in the Nordic countries, the US and the Philippines (Hadler, 2005; Larsen, 2016; Redmond et al., 2002). Within countries, one determinant of attitudes towards inequality is social position. Consistently with the structural position thesis (Hadler, 2005), support for the current level of income inequality is stronger among those with a higher social position, e.g. individuals from the higher-income and more highly educated groups (Larsen, 2016; Osberg and Smeeding, 2006),.

Interestingly, this stratified polarisation in attitudes towards inequality is considerably stronger in some countries than in others (Brandt, 2013; Hadler, 2005; Larsen, 2016; Osberg and Smeeding, 2006), but the reasons for these differences remain unclear. This study responds to recent calls for further investigation into this issue (Ku and Salmon, 2013; Osberg and Smeeding, 2006).

Another determinant of attitudes towards inequality is the set of beliefs people hold regarding the causes of inequality (e.g. Hadler, 2005; Larsen, 2016). When income distribution is perceived as meritocratic[2], the inequalities that result from this are thought to be more easily legitimized (Cojocaru, 2014; Hadler, 2005; Kluegel and Smith, 1981; Larsen, 2016; Redmond et al., 2002; Reynolds and Xian, 2014). Meritocracy is widely endorsed in many societies (Marshall et al., 1999; Redmond et al., 2002), especially since the rise of

neoliberalism and its notions of individual responsibility. In a meritocracy, income and social position are allocated according to effort and ability, while criteria such as family background or race are unimportant. Meritocracy's promise of equality of opportunity is of greater fairness concern to people than equality of outcomes (Costa-Lopes et al., 2013; Janmaat, 2013; Reynolds and Xian, 2014).

Little is known, however, about how these often contrasted determinants of attitudes towards inequality – people's social position and a society's meritocratic perceptions – interact. Prevalent meritocratic perceptions can provide a powerful legitimation of inequality, but they can also challenge the group esteem of the lower social strata and therefore lower their approval of the inequalities. We propose that the polarisation in attitudes towards inequality between different social strata may be larger in societies that are popularly perceived as more meritocratic. Examining the possibility of resistance despite the presence of prevalent inequality-legitimizing discourses may provide key insights for this theoretical debate.

Over the last few decades, policymakers and news media have helped spread the message that their societies are meritocratic (e.g. Brown, 2002). Benefit sanctions and workfare policy could implicitly communicate to individuals that being poor is a consequence of their lack of effort to get well-remunerated jobs. Although meritocratic perceptions have become more prevalent around the world, the degree to which they have done so differs between countries (Larsen, 2016; Marshall et al., 1999; Redmond et al., 2002). Previous studies show that meritocratic perceptions are particularly widespread in Scandinavia, New Zealand and Peru, but weak in Brazil, Argentina and Eastern Europe (Bucca, 2016; Larsen, 2016; Marshall et al., 1999; Redmond et al., 2002).

There are important reasons to expect that the 'winners' and 'losers' of the perceived meritocratic distribution will respond differently to these dominant beliefs about inequality. In

a society with strong meritocratic perceptions, a low income and level of education are commonly taken as signs of a lack of ability or laziness, while a high income and level of education are seen as indicating resourcefulness and hard work (Kampen, Elshout and Tonkens, 2013; Sennett, 2003; Young, 1958). As a result, the prevalence of meritocratic perceptions in society has different implications for the self-esteem of different groups, and meritocratic 'winners' and 'losers' may differ in their inclination to support the status quo (Han et al., 2012) and accept inequality (Spears et al., 2010). It is likely that when such perceptions are more prevalent in a society, they pose an additional challenge on the esteem of lower status individuals. Studying these processes is of increasing importance, because they may account for the increasing support for populist right-wing parties – who seem to exploit this challenged self-esteem.

Our main research question is whether the polarisation in attitudes towards income inequality between higher and lower strata is related to the prevalence of meritocratic perceptions in society. Or, phrased in other words, whether the relationship between income or level of education and tolerance for income inequality is moderated by the prevalence of meritocratic perceptions. To answer this question, we used the latest International Social Survey Programme's (ISSP) Social Inequality data (2009) and conducted multi-level regression analyses on 39 countries.

Stronger polarisation in perceived meritocracies

Individuals who have a high income or level of education are likely to support high levels of inequality in society in order to sustain or even further their privileged position. This structural position thesis (Hadler, 2005) has indeed been confirmed in earlier research (Gijsberts, 2002; Kelley and Evans, 1993; Larsen, 2016; Osberg and Smeeding, 2006). For instance, low-status individuals have been found to be less satisfied with the current system

and more supportive of hierarchy-reducing policies (Zimmerman and Reyna, 2013), and they are less likely than high-status individuals to support the current system (Brandt, 2013).

Apart from their own status position, people's attitudes are also driven by fairness and ideological concerns (Cojocaru, 2014; Costa-Lopes et al., 2013; Fehr and Schmidt, 1999). Fairness-driven individuals are thought to accept a high degree of income inequality if it is seen to result from a fair distributive process (Cojocaru, 2014; Janmaat, 2013; Larsen, 2016; Osberg and Smeeding, 2006). For example, strong perceptions of corruption and weak meritocratic perceptions may explain the relatively low support for current levels of income inequality among Eastern Europeans (Larsen, 2016; Redmond, 2002; Suhrcke, 2001). In the current study, however, it is argued that although meritocracy is a widely endorsed ideal, there are contexts in which individuals who perceive society as meritocratic do reject the current income inequality in their society: when they have a low status in a society with strongly prevalent meritocratic perceptions.

Social identity theory (SIT) (Tajfel and Turner, 1979) emphasizes the importance people place on being able to maintain or achieve a positive social identity and prestige. Members of lower social strata may oppose practices that challenge their group's positive social identity (Han et al., 2012; Spears et al., 2010; Tajfel and Turner, 1979). Societies with strong meritocratic perceptions that justify the disadvantage experienced by the lower strata, challenge the social identity of lower-status people. The stronger a society's meritocratic perceptions, the greater the stigma faced by lower-status individuals and the greater the praise received by higher-status individuals. If the society's meritocratic perceptions are especially strong, they may have a strong effect on individuals' tolerance of inequality depending on their social position *beyond people's own beliefs and perceptions about meritocracy*. According to SIT, lower-status individuals can respond to the stigma they face through three possible strategies: social mobility, social creativity and social action (Ellemers, 1993; Tajfel

and Turner, 1979). Which of these strategies is pursued depends on the permeability of group boundaries and the degree to which inequality is stable and seen as legitimate (e.g. Ellemers, 1993).

SIT assumes that *social mobility* – the attempt by individuals to become members of more advantaged groups – is the strategy that members of the disadvantaged group will pursue first (Ellemers, 1993), an assumption that is plausible in capitalist cultures where people's concerns are primarily individualistic. The appeal of this strategy depends on the permeability of group boundaries. According to prevalent belief, group boundaries are more permeable in a meritocracy (Ellemers, 1993), but also in such societies upward social mobility is not open to everyone.

Another coping strategy is *social creativity* (Tajfel and Turner, 1979), which consists in the enhancement of the group rather than of the individual. Aspects on which the in-group is inferior are downplayed while aspects in which the group may be superior are highlighted. For instance, low-status individuals can downplay the importance of a high income and its associated positive attributes, such as strong marketable abilities, and argue that the poor are actually superior in more important regards, such as honesty. They do not necessarily disapprove of the income distribution, but of the importance of a high income for a positive identity. This is in fact one coping strategy through which lower status individuals who believe to live in a meritocratic society, can come to morally disagree with some aspects the meritocratic income distribution. Such an aspect could be the narrow emphasis on marketable abilities only, or the moral rejection of the very importance of effort and ability altogether (Swierstra & Tonkens, 2008; Sennett, 2003). This is also indicated in qualitative studies of the long-term unemployed whose esteem was challenged by the prevalent meritocratic ideology (Kampen et al., 2013). Based on their partial moral rejection of the meritocratic ideal, these individuals then reject the resulting inequalities.

Social action, the third strategy, consists of collective attempts to challenge the social order. These attempts can take highly visible forms, like protesting or organising in unions, but also more subtle forms such as simply expressing disapproval of the current level of inequality (Spears et al., 2010). This study focuses on the extent to which low status individuals respond to a negative social identity by engaging in social action rather than social creativity – namely by disapproving of the current level of income inequality.

Social action and creativity are argued to be most likely when group boundaries are relatively *impermeable* (Ellemers, 1993; Ellemers, Van Knippenberg and Wilke, 1990). Because such a context provides little chance for disadvantaged individuals to move into higher positions, they become more focused on the group's collective interests (Ellemers, 1993). Social action is also said to be more likely to occur when the social order is *unstable*. When the social order is stable, there is little point for disadvantaged individuals to engage in collective social action. Finally, social action is more likely to occur when the social ordering is generally considered as *illegitimate* (Tajfel and Turner, 1979). This would imply that social action would be especially undertaken by those lower status individuals who personally do not share the prevalent belief to live in a meritocracy. However, the current study disagrees on that point and adopts a more nuanced perspective of SIT (Spears et al., 2010). Here it is proposed that people can also engage in social action when they themselves share the prevalent justifying explanations of inequalities. This subjective assessment by individuals of the state of 'what is' (e.g. 'society *is* meritocratic') does not necessarily mean that they morally endorse this perceived status quo (e.g. 'it *should* be meritocratic') (Marshall et al., 1999). For example, Spears et al. (2010) show that in societies where inequalities are presented as legitimate, members of the disadvantaged groups do resist against this, for example by challenging negative stereotypes. Moreover, these individuals have a stronger tendency to do so than their counterparts in a condition presented as 'illegitimate'.

Extrapolating from this finding, we could argue that in societies with strong meritocratic perceptions (i.e. a strong legitimation of inequality), lower-status groups can be expected to be even more critical of current inequalities than their counterparts in societies where meritocratic perceptions are weak. In fact, we expect that lower status individuals (also those who share the prevalent belief that their society is meritocratic), will be induced to morally criticize aspects of the meritocratic ideal – and therefore the inequalities – just as Michael Young (1958) expected. They are induced to do so by the negative external pressure on their group esteem as a result of the negative image of the bottom that is implied in prevalent meritocratic perceptions. Getting rid of one's personal belief that a lower status position is a result of meritocratic factors does not exempt one from exposure to this negative external gaze. People still remain susceptible to how they are viewed by others (e.g. Elster, 2009). Even when lower status individuals do not agree with the meritocratic stereotypes, they are still sensitive to this negative gaze - just as lower status individuals who do believe society is indeed meritocratic.

We would therefore expect *more* polarisation between the social strata in attitudes towards income inequality in societies with strong meritocratic perceptions. This new reading of SIT by Spears et al. (2010) recognizes that disadvantaged individuals can disapprove the inequalities even if these inequalities are presented as the result of differences in ability or performance and therefore as legitimized. Because of the stigmatizing implications for their group esteem, disadvantaged individuals will morally criticize the meritocratic justification of inequalities, also when they share the belief that the inequalities came about meritocratically. Thus, in contrast to the external meritocratic justification of inequality, disadvantaged individuals tend to internally reject meritocracy as a proper justification for their disadvantage. Spears et al. (2010) even expect the disadvantaged to be more likely to resist the status quo when external legitimisation of inequalities is strong, although it should be noted

that this resistance will be more subtle than in more action-based measures such as participating in protests. Whereas prevalent meritocratic perceptions may erode the positive working class consciousness required for lower status groups to visibly protest inequality (Kluegel & Smith, 1981), they still invoke more subtle expressions of dissent because they impose a negative social identity.

In contrast to the lower strata, the esteem of the higher strata is reinforced by prevalent meritocratic perceptions of them as 'winners' who have achieved their high status through their own talent and effort. This higher esteem encourages members of the higher strata to even more strongly endorse the status quo. This again implies that polarisation in attitudes towards inequality between social strata is stronger in societies with stronger meritocratic perceptions.

We argue that income and education are primary markers of meritocratic success or failure. In a perceived meritocracy, economic and educational position are assumed to be determined through individual ability and effort, and income or education become signs of one's ability and effort (Sennett, 2003; Young, 1958). Indeed, greater importance is placed on educational degrees in societies with a greater meritocratic focus on standardised rankings and the assessment of individual abilities because educational degrees are seen as facilitating standardised assessments of quality regardless of race and other non-meritocratic factors (Neves, 2000). In sum, we expect that:

A higher income or level of education is related to higher support for income inequality, whereas a lower income or level of education is more strongly related to lower support for income inequality. This polarisation in attitudes towards inequality is stronger in societies with strong meritocratic perceptions.

Data and methods

To test this hypothesis, we used the ISSP's Social Inequality data (2009), a particularly rich data source on attitudes towards inequality based on standardised data collection with probability-stratified sampling to ensure cross-national comparability (Gendall, 2011). Our working sample consists of 45,699 individuals in 39 countries. On average, 1,172 respondents were available per country. Working sample sizes ranged from 726 for Finland to 2,796 for South Africa. Table 1 here shows the descriptive statistics for our variables, and Tables 1 and 2 in the Online appendix show correlations between key independent variables.

[TABLE 1 here]

Attitudes towards current levels of income inequality

To measure the dependent variable, individuals' *attitude towards current levels of income inequality*, we used the available five-point Likert item asking respondents about the extent they think that 'income differences [in country] are too large'. The previous literature was closely followed in our operationalisation of the variable (Larsen, 2016), which we coded such that higher values represent stronger approval of the current level of income inequality[3].

Socio-economic position: income and education

To measure the key micro-level independent variable, socio-economic position, we used two indicators. The first indicator, *income position,* was measured by asking respondents to self-define their income position on a scale from 1 (bottom) to 10 (top). Thus, income was here operationalised as individuals' country-specific relative income position. The second indicator, *educational attainment,* was measured by asking respondents how many years of education they had completed. To enable sensible calculations with this variable, we applied the following recoding: individuals who were still in school were assumed to have had 13 years of education (eight years of primary education and five years of secondary education),

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whereas individuals who were still in college or university were assumed to have had 15 years of education (eight years of primary education, six years of secondary education and one year of further education). We set the limit at 24 years of education (which corresponds to having a postgraduate degree: eight years of primary schooling, six years of secondary schooling and ten years of further education); all respondents who indicated that they had completed more years of education were recoded as having 24 years of education. This measure has the advantage over educational categories that it is continuous and information loss is therefore minimalised. At the same time, however, the length of educational trajectories may differ cross-nationally, which could introduce some error into the measure. Nevertheless, these cross-national differences are likely to be small. The results were checked against the alternative measure of educational degree, which led to similar results[4].

Meritocratic perceptions

The key macro-level independent variable is countries' *prevalence of meritocratic perceptions*. In the literature, meritocratic perceptions have been measured by asking people to estimate the importance of several meritocratic (e.g. hard work) and/or non-meritocratic (e.g. race) factors in determining people's social status (Bucca, 2016; Larsen, 2016; Marshall et al., 1999; Redmond et al., 2002; Reynolds and Xian, 2014). We aimed to closely replicate recently used measures, especially the measure used by Larsen (2016). Since his five-item scale only measures people's estimated importance of non-meritocratic factors, we added the three available items on the estimated importance of meritocratic factors in the 2009 ISSP (i.e. the first three items in the following list). Respondents were asked to rate 'how important you think it is for getting ahead in life…' of the following attributes: 'having a good education yourself'; 'having ambition'; 'hard work'; 'coming from a wealthy family'; 'knowing the right people'; 'having political connections'; 'having well-educated parents' and 'giving

bribes'. Respondents could indicate their estimated importance, ranging from 'essential' to 'not important at all' on a five-point scale. In total, our eight-item scale has an inter-item reliability of Cronbach's alpha of .73. Table 3 (Online Appendix) shows the correlations between the items of the meritocratic perceptions scale. We recoded scores such that higher values indicate higher meritocratic perceptions. Then, for each respondent we calculated the mean score. In calculating this mean, we excluded respondents with more than two missing items (N = 566). To obtain countries' prevalence of meritocratic perceptions, we calculated respondents' average score on this scale for each country.

Control variables and robustness checks

At the individual level, we controlled for three socio-demographic factors, age, gender and employment status, since both attitudes towards the current inequalities and meritocratic perceptions have been shown to differ between men and women, age groups and employment statuses (Bucca, 2016; Larsen, 2016; Reynolds and Xian, 2014). In addition, we controlled for individuals' personal meritocratic perceptions (and in a robustness check for its potential interaction effect with income and education) in order to single out the distinct contextual effect of living in a society with prevalent meritocratic perceptions.

Moreover, we controlled for individuals' view that they lived in a middle class society, because this view is also related to both tolerance of inequality and meritocratic perceptions (Larsen, 2016). We followed Larsen (2016) in the operationalisation of this variable. It was measured through an item in which respondents were presented five diagrams of possible income distributions in a society. Respondents were asked to indicate which diagram they thought most closely approximated their society. Respondents who picked the diagram with most people located in the middle, were here operationalised as believing that they lived in a middle class society. The variable we used was a dummy variable, distinguishing individuals

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who held this view (1) from individuals who believed they lived in a society with other shapes of income distribution (0).

Another important control variable is *social mobility*. Individuals' history of social mobility may influence their belief that they live in a meritocracy, as well as their view on current income inequality (Alesina and La Ferrara, 2005). People's perception on their social mobility likely has a greater influence than their objective social mobility on how meritocratic perceptions affect their group esteem. Therefore, we used a measure of subjective social mobility. Respondents indicated their own income position and that of their family of upbringing on a scale from 1 to 10. We subtracted the respondents' position from that of their family of upbringing ('Where did the family that you grew up in, fit in then?'), similarly to previous research on the same data (Larsen, 2016). Individuals whose current income position was higher than that of their family of upbringing, were coded as 'socially upwardly mobile'. Those with a negative score (a lower current position than that of their family) were coded as 'socially downwardly mobile'. Individuals whose current position equalled that of their family were coded as stable. We used a dummy variable for each category. We are aware that this is not a measure of class mobility, because individuals did not rank themselves on clearly defined class categories.

At the country level, we controlled for economic output (GDP), the level of income inequality (as measured by the Gini coefficient) and the degree of upward social mobility. Economic output may reflect countries' wealth, which is likely related to both meritocratic perceptions and attitudes towards inequality (Hadler, 2005), but it is an imperfect approximation of national wealth. We controlled for the Gini coefficient to capture the extent to which wealth measured in terms of GDP is equally distributed across society. We used World Bank data to derive countries' GDP for 2009 and the Standardized World Income

Inequality Database (SWIID) to derive countries' Gini-coefficient based on the post-tax disposable household income (Solt, 2014). The SWIID provides the largest set of reliable cross-nationally comparable estimates of income inequality (more information about these data can be found in Solt, 2009). We used the Gini-estimates based on the post-tax disposable household income. Finally, the incidence of upward social mobility was measured by calculating for each country the proportion of respondents whose self-reported income position was higher than the position they reported for their family of upbringing.

In a robustness check, we verified that the results were not affected when the outcome variable was treated dichotomously: inequality-tolerant individuals, i.e. respondents who (strongly) disagreed with the above-mentioned statement were scored as 1, others as 0 (see Online Appendix Table 4).

However, the prevalent perception in a country is not necessarily captured by the aggregated mean of individual responses. For instance, views could be highly polarised. Indeed, countries differ in the degree to which there is consensus or polarisation on views about inequality (Hadler, 2005). Moreover, even *individuals themselves* may not have a uniform view regarding inequality: people can have inconsistent views on reality, which are reflected in their answers to the various scale items (Reynolds and Xian, 2014). Therefore, we conducted a robustness check with an alternative measure, taking the share of respondents in each country who consistently believed their society to be meritocratic[5] (Online appendix Table 5).

In another robustness check, we also controlled for cross-level interactions with the three controls at the country level (GDP, proportion upward mobility and Gini), as they could in fact be alternative explanations for any supportive findings for our hypothesis. We also checked for the potential interaction between people's *individual* meritocratic perceptions and their social position in a robustness check (Online appendix Table 6 and 7). This to ensure

that our cross-national interaction could not be attributed merely to the compositional effect of having more or less individuals that perceive society to be meritocratic.

Finally, we propose a falsification test. Our theoretical distinction between meritocratic 'winners' and 'losers' implies that meritocratic perceptions increase the polarisation of attitudes towards inequality along some lines (income and education), but not along others. Therefore, we checked the interaction between gender and prevalent meritocratic perceptions (Online Appendix Table 8).

Methods

We employed linear multilevel regression analyses. Multilevel modelling takes account of the nested structure of individuals within countries and correspondingly adjusts the size of the standard errors (Hox, 2002). We also checked whether the effects of social position vary significantly between countries. Model 1 includes all the control and independent variables. Model 2 then includes the cross-level interaction term between individuals' social position and the prevalence of meritocratic perceptions. None of the variables introduced multicollinearity issues (see Online Appendix Tables 1 and 2).

As can be seen in Figure 1 and 2a-b, prevalent meritocratic perceptions, polarisation on attitudes towards income inequality, as well as the general inequality tolerance, differ across countries. Meritocratic perceptions are strongly endorsed in Australia, New Zealand and the UK, followed by the Nordic countries and the US. Interestingly, these are countries where the polarisation between income and educational groups is relatively large. Low on both variables are China and most Eastern European countries. Inequality tolerance is highest in the Philippines, Norway and Denmark, and lowest in Hungary, Ukraine and Italy.

[FIGURE 1 here]

[FIGURE 2a-b here]

Results

Table 2 displays the direction, magnitude and statistical significance of the associations between income (and education) and inequality tolerance, including interactions. Model 1 shows the coefficients for the main independent and control variables on individuals' attitudes towards current levels of income inequality. Net of several socio-demographic factors, the results show that a higher income is associated with a higher inequality tolerance (b = .074; p < .001). This income-based difference in inequality tolerance is modest, given that the majority of respondents had an inequality tolerance between 1 and 2. However, the significant random slope for income indicates that the relationship between income and inequality tolerance varies between countries. Apart from income, education is also positively correlated with inequality tolerance, although marginally (b = .006, p < .100). This overall association between education and inequality tolerance differs between countries, as indicated by the significant random slope. Finally, inequality tolerance is higher among individuals with meritocratic perceptions of their society and for those who believe they live in a middle-class society. When meritocratic perceptions are more prevalent in a society, inequality tolerance tends to be higher as well (b = .817, p < .01), even when individual meritocratic perceptions are controlled for.

[TABLE 2 over here]

Model 2a shows that this general positive effect of prevalent meritocratic perceptions on inequality tolerance is not uniform across the income spectrum. Polarisation between higher- and lower-income individuals in attitudes towards income inequality is stronger when meritocratic perceptions are more prevalent. For example, moving (hypothetically) from the

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country where meritocratic perceptions are least prevalent (China, 3.05) to the country where they are most prevalent (New Zealand, 3.92) corresponds to a .132 points greater polarisation between income groups on attitudes towards income inequality. Figure 3 displays this interaction graphically and shows the increase in the income coefficient (or the polarisation between low and high incomes; y-axis) when meritocratic perceptions are more prevalent (x-axis). The size of the income-coefficient in countries with strong prevalent meritocratic perceptions is significantly higher than in low-scoring countries. As well, the confidence intervals (dashed lines in the figure) in countries with weak and strong prevalent meritocratic perceptions (i.e. at the left and right edges of the x-axis, respectively) do not overlap. Because individuals typically do not differ more than one point in their inequality tolerance, this moderation on polarisation is quite large. The significant decline in log-likelihood indicates that adding this interaction term is a model improvement (-2Log Likelihood difference between Model 1 and 2b: Dif – 2LL = 8.684, df = 1).

[FIGURE 3 here]

Finally, Model 2b substitutes the income interaction term with an education interaction term and tests the remaining part of our hypothesis. The interaction term for education did not significantly improve the model fit (Dif – 2LL Model 1 and 2b = -2.859, df = 1). The results show that polarisation regarding inequality tolerance between the higher and less highly educated is stronger in societies with stronger meritocratic perceptions. With each one-unit increase in the prevalence of meritocratic perceptions, polarisation between educational groups regarding attitudes towards income inequality increases by .040 points (p < .05). Comparing the two countries with the weakest and strongest prevalent meritocratic perceptions, polarisation in attitudes differs .035 points. This is a much smaller moderating

effect than our findings on income. Figure 4 displays the interaction effect graphically, showing a smaller difference in the education coefficient (polarisation between the less and more highly educated) between countries scoring low and high on prevalent meritocratic perceptions.

[FIGURE 4 here]

Robustness checks

The Online Appendix displays the results of additional robustness checks. Using a dichotomous outcome variable (Online appendix Table 4) and an alternative measure of the prevalence of meritocratic perceptions (Online appendix Table 5) does not affect the results.

In addition, alternative explanations for the results obtained did not affect the results, except for education: whereas the main analyses showed a small statistically significant coefficient for the interaction effect between education and meritocratic perceptions, this effect lost statistical significance in the robustness models. Finally, the falsification test shows that there is no interaction between prevalent meritocratic perceptions and 'irrelevant' lines of distinction (gender) (Online Appendix Table 8).

Conclusion

In this study, we investigated the relationship between prevalent meritocratic perceptions and the degree of polarisation between social strata on attitudes towards income inequality. Following a new reading of social identity theory (Spears et al., 2010), we expected that while prevalent meritocratic perceptions can serve as a strong 'external' legitimisation of inequality, this legitimising framework can induce subtle resistance (social action) in low-status

individuals. Prevalent meritocratic perceptions can impose serious challenges to their group esteem, while the group esteem of the 'winners' may be additionally bolstered. The meritocratic 'winners' were expected to be the strongest supporters of their society's income inequality.

Our results support this expectation. Overall, lower strata more strongly disapprove of income inequality, and this tendency is stronger in societies with strong meritocratic perceptions. Country-differences in prevalent meritocratic perceptions can indeed explain the large differences between countries in the stratified polarisation on attitudes towards inequality (e.g. Hadler, 2005).

As predicted, this result applies regardless of individuals' own meritocratic perceptions. In addition, amongst alternative determinants, such as the level of inequality in society, prevalent meritocratic perceptions had the strongest impact on the degree of polarisation in attitudes towards inequality.

In the face of a negative social identity, low-status individuals appear to remain loyal to their group and defend its respectability. This holds even for individuals who themselves believe that society is meritocratic. These outcomes give way to a more nuanced reading of SIT by showing that disadvantaged groups are resilient against the prevalent discourse and inequality when their esteem is challenged. Possibly, these individuals reject the superior salience of meritocratic factors for status and respect and demand that other dimensions be valued more highly.

As indicated before, people may believe that an individual's income is determined by a combination of factors (e.g. effort and race), and a robustness check examined the national share of individuals who believe that income is solely determined by meritocratic factors. Greater prevalence of this more 'strict' meritocratic view indeed bolstered income-based polarisation on attitudes towards income inequality (Online Appendix Table 5).

Moreover, within countries the population can be divided in terms of meritocratic perceptions. As a result, the mean level of prevalence of these perceptions is not the best measure of comparison between countries. A robustness check ensured that the results were not mainly a result of cross-national differences in polarisation on meritocratic perceptions (Online Appendix Table 5). Even if the population is divided among how the incomes are distributed, individual attitudes are still affected when the group of of people who strongly perceive the distributive process as meritocratic, is larger.

Most people in the dataset had a modest to very low inequality tolerance. This implies that the results on the effect of meritocratic perceptions and income should be interpreted as mainly relevant for the difference between having a very low versus a modest tolerance for inequality. Our robustness check with a dichotomous dependent variable indicates that the theorised patterns also matter for the difference between strong versus medium and low support for the current level of inequality (Online Appendix Table 4).

By concentrating on attitudes towards the current level of income inequality, we focused on one of the two collective strategies theorised by SIT, the (subtle) social action strategy of lower-status groups. Determining whether this alternative reading is correct requires further research, for instance by conducting experiments that explicate the exact strategy employed by lower-status groups. In addition, it is required to have a close listen to these people concerned. Although the findings in this study indeed do resonate strongly with previous findings based on qualitative fieldwork (e.g. Kampen et al., 2013), more future qualitative work is highly recommended on the theoretical mechanisms that were strongly suggested by this study.

In contrast to income-based polarisation, education-based polarisation was not influenced by the prevalence of meritocratic perceptions. Therefore it is premature to

conclude that strong meritocratic perceptions also strengthen education-based polarisation in attitudes towards inequality. Precisely because a high level of education should be a ticket to a high-paying job in a meritocracy, failure to obtain such a job can be painfully stigmatising for the highly educated. Similarly, less educated individuals who have managed to gain high-paying jobs may be seen as very resourceful. Possibly, a high level of education is not a sufficient mark of achievement in a perceived meritocracy. In this light, future research could study polarisation in attitudes towards education-based inequality, next to attitudes towards income inequality. Unfortunately, the ISSP dataset did not cover this topic.

It should be noted that our macro-level and micro-level measures of meritocratic perceptions are partially dependent, because the macro-level measure is based on aggregated scores on the latter. For this reason, this study controlled for the influence of individual perceptions to distinguish the genuine contextual effect of prevalent meritocratic perceptions. A result from our analyses that turns out to be relevant for current debates is that strong individual meritocratic perception also reduce the tendency among lower-income individuals to support income inequality compared to people with higher incomes, apart from the overall prevalence of meritocratic perceptions. This finding strongly resonates with earlier experimental findings by Ku and Salmon (2013). In their experiment, a random distribution of remunerations generated more support for disadvantageous inequality than a meritocratic distribution. Disadvantaged participants who were told that the distribution was meritocratic expressed more dissent regarding the outcome than those that were randomly disadvantaged. We speculate that not only popular, but also individual meritocratic perceptions are related to different income groups' self-respect.

Studying a heterogeneous mix of countries, as we have done, can be problematic because the historical background of these countries vary strongly. Therefore, we controlled for several of these country differences. Moreover, our selection of a broad range of

industrialised countries increases the generalisability of the results to multiple world regions and lends more confidence to the view that the theorised patterns are actually at play.

Our suggested mechanisms might also shed light on the current embrace of right-wing populism in large parts of the world. Right-wing populists are particularly appealing to low-status individuals because they provide an anti-meritocratic source of group esteem – belonging to the right ethnicity. Moreover, right-wing populists seem to express a sort of resistance against the meritocratic 'winners' in their anti-intellectual narrative. As Wolfgang Streeck (2016) has argued, the current economic system may find itself in a serious legitimacy crisis, and it may be that populists are successfully exploiting this crisis to gain electoral power. Some scholars have argued that researchers should focus on behavioural outcomes of views on inequality such as political participation (Han et al., 2012; Janmaat, 2013). The current study can be seen as a starting point in this research area.

Notes

[1] With regard to attitudes towards income inequality, the present study focuses on individuals' judgment of the current level of income inequality in their society.

[2] The term ‚meritocracy' was originally coined by Michael Young (1958) in a dystopian satire. He did not consider meritocracy as an ideal gold standard, but instead foresaw the meritocratic elite being overtuned by ‚popular' revolt – an instance of social action.

[3] For the sake of the interpretability of the effect sizes, the original 1 to 5 scoring of the variable was left intact.

[4] The results can be requested from the authors.

[5] Previous research and our correlation matrix (Table 3, Online Appendix) suggest that many people perceive that success is determined by both meritocratic and non-meritocratic factors

(Reynolds and Xian, 2014). Therefore, a robustness check uses a more critical measure of prevalent meritocratic perceptions by calculating the share of people that believed that income is only determined by meritocratic factors (see Table 5, Appendix). For this alternative measure, separate item scales were computed for the three 'meritocratic items' (hard work, ambition, own education) and the other five 'non-meritocratic items'. Individuals who scored a minimum of 4 on the first scale and a maximum of 1 on the last scale are labelled as such 'true believers'.

Supplemental material

The Online [Appendices/ Data Supplements/etc.] are available at

http://asj.sagepub.com/supplemental.

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TABLES and FIGURES

Figure 1. Inequality tolerance and prevalent meritocratic perceptions in countries.
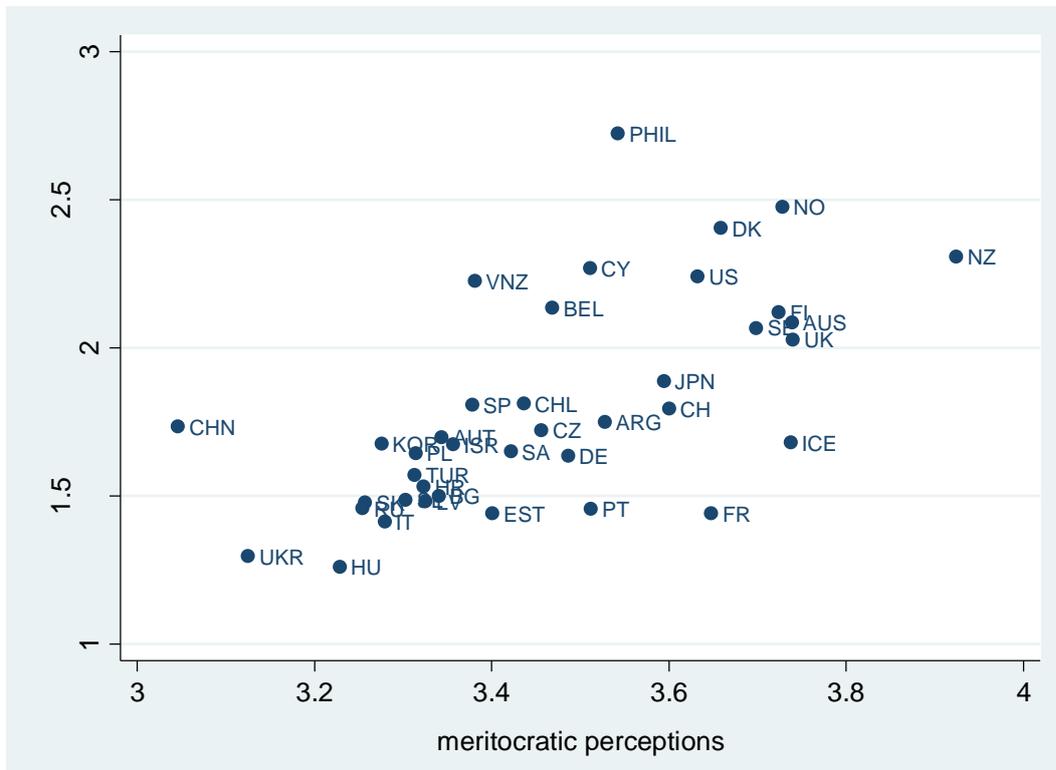
Figure 2: polarisation in attitudes towards income inequality across countries
   (a) Income-based
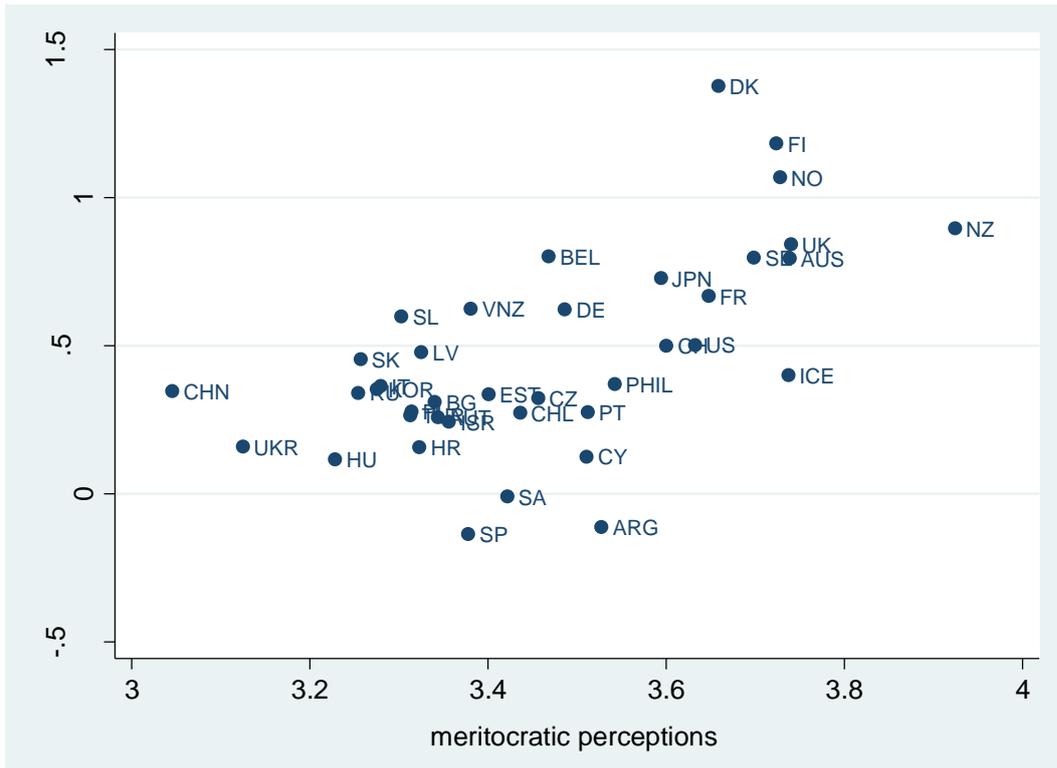
Notes: Income-based polarisation was calculated by taking the average inequality tolerance level of the three highest (self-categorized) income groups (8 to 10) and subtracting from this the average inequality tolerance of the three lowest (self-categorized) income groups (1 to 3).

Source: ISSP (2009)

(b) Education-based
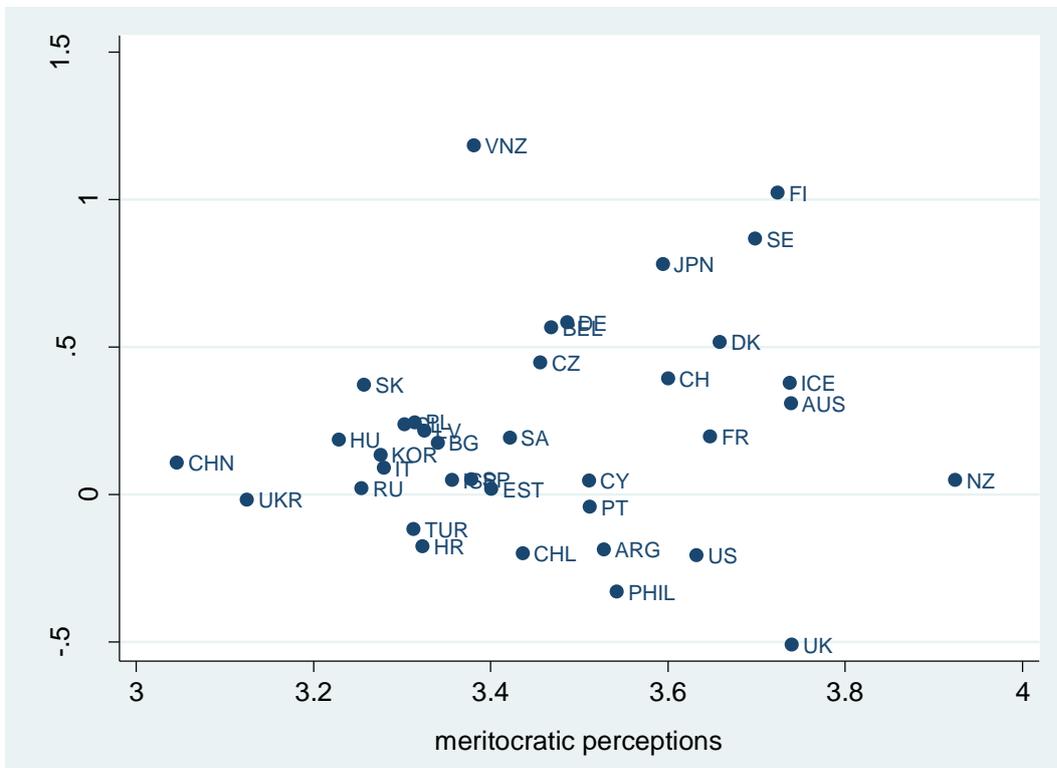
Notes: Education-based polarisation was calculated by taking the average inequality tolerance level of the 33% highest (self-categorized) groups (17 to 24) and subtracting from this the average inequality tolerance of the 33% lowest (self-categorized) income groups (1 to 8).
Source: ISSP (2009)

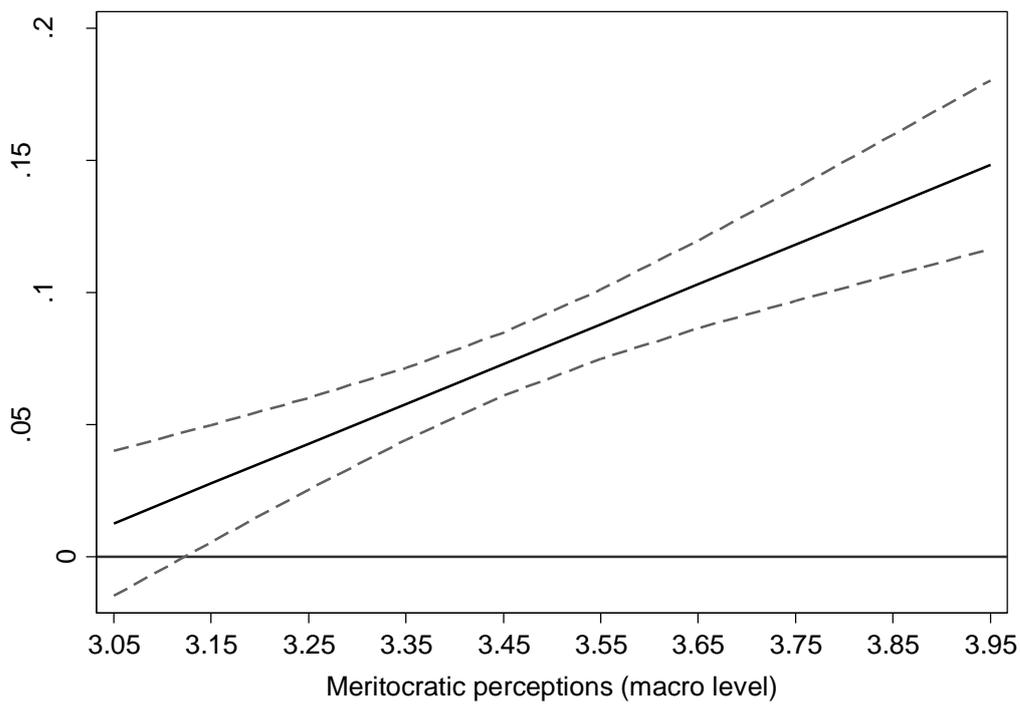**Figure 3.** Interaction between income and prevalent meritocratic perceptions.

Notes: the dashed lines represent a 95 per cent confidence interval. Estimations based on Model 2, Table 2.
Source: ISSP 2009.

Figure 4. Interaction between educational level and prevalent meritocratic perceptions.
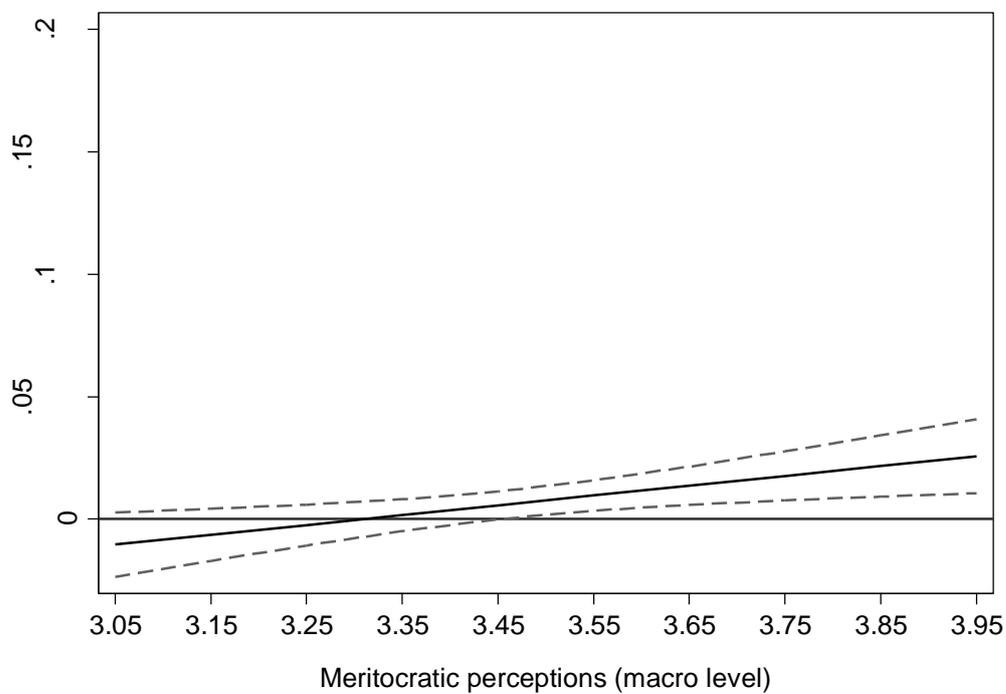
Notes: the dashed lines represent a 95 per cent confidence interval. Estimations based on Model 2, Table 2.
Source: ISSP 2009.

Table 1. Descriptive statistics on individual and country characteristics.

	Min	Max	Mean	SD
Individual level				
Inequality tolerance (continuous)	1	5	1.779	.917
(dichotomous)	0	1	.067	.251
Income	1	10	5.086	1.789
Employment status				
Fulltime	0	1	.466	
Parttime	0	1	.073	
Less than parttime	0	1	.018	
Helping family member	0	1	.005	
Unemployed	0	1	.075	
Student	0	1	.059	
Retired	0	1	.197	
Homemaker	0	1	.073	
Disabled	0	1	.017	
Other	0	1	.019	
Age	15	98	45.869	16.747
Education (a)	1	24	12.119	3.820
Social mobility				
Downward	0	1	.258	
Stable	0	1	.352	
Upward	0	1	.390	
Meritocratic perceptions (continuous)	1.143	5	3.448	.489
(dichotomous)	0	1	.080	.271
Perception of living in middle class society				
Yes	0	1	.178	
No	0	1	.822	
Gender				
Female	0	1	.540	
Male	0	1	.460	
National level				
Meritocratic perceptions (continuous)	*3.046*	*3.924*	*3.445*	*.201*
(dichotomous)	*0*	*1*	*.082*	*.060*
GDP (b)	*1836.874*	*80017.770*	*27616.880*	*19275.850*
Gini (c)	*24.221*	*59.488*	*32.964*	*7.912*
Upward social mobility (d)	*.200*	*.563*	*.379*	*.087*

Notes: N = 45,699 in 39 countries.
    (a) Education was measured in years of education
    (b) GDP is per capita in current dollars for 2009
    (c) Gini is based on post-tax disposable household income
    (d) The proportion of respondents who indicated that they have moved up the social ladder relative to their family of upbringing
Source: ISSP 2009.

Table 2. Multilevel regression analysis on attitudes towards inequality.

	Model 1			Model 2a			Model 2b		
	b	SE		b	SE		b	SE	
Constant	1.756 (.043)		***	1.756 (.033)		***	1.756 (.043)		***
Individual level									
Age	-0.001 (.000)		***	-0.001 (.000)		***	-0.001 (.000)		***
Gender									
Female (ref.)									
Male	0.066 (.008)		***	0.066 (.008)		***	0.067 (.008)		***
Income	0.074 (.008)		***	0.072 (.006)		***	0.074 (.008)		***
Education	0.006 (.003)		+	0.006 (.003)		+	0.006 (.003)		+
Meritocratic perceptions	0.057 (.009)		***	0.057 (.009)		***	0.057 (.009)		***
Perception of living in a middle class society									
No (ref.)									
Yes	0.217 (.011)		***	0.217 (.011)		***	0.217 (.011)		***
Employment status									
Full-time (ref.)									
Part-time	-0.028 (.015)		+	-0.028 (.016)		+	-0.028 (.015)		+
Less than part time	0.016 (.030)			0.016 (.030)			0.016 (.030)		
Helping family member	-0.010 (.054)			-0.010 (.054)			-0.009 (.054)		
Unemployed	0.015 (.016)			0.015 (.016)			0.015 (.016)		
Student	0.089 (.018)		***	0.089 (.018)		***	0.089 (.018)		***
Retired	-0.011 (.014)			-0.012 (.014)			-0.012 (.014)		
Homemaker	0.050 (.017)		**	0.050 (.017)		**	0.050 (.017)		**
Disabled	-0.066 (.031)		*	-0.065 (.031)		*	-0.066 (.031)		*
Other	0.033 (.030)			0.033 (.030)			0.033 (.030)		
Social mobility history									
Downward (ref.)									
Stable	-0.004 (.010)			-0.004 (.010)			-0.004 (.104)		
Upward	-0.023 (.011)		*	-0.023 (.011)		*	-0.023 (.011)		*
National level									
Gini	0.010 (.006)			0.010 (.006)			0.010 (.006)		
GDP	0.000 (.000)			0.000 (.000)			0.000 (.000)		
Upward social mobility	-0.127 (.549)			-0.129 (.550)			-0.137 (.549)		
Meritocratic perceptions	0.817 (.256)		**	0.813 (.257)		**	0.813 (.256)		**
Cross-level interactions									
Income * Meritocratic perceptions (macro)				0.152 (.033)		***			
Education * Meritocratic perceptions (macro)							0.040 (.016)		*
Variance at individual level	.824 (.003)		***	.824 (.003)		***	.824 (.003)		***
Variance at country level	.234 (.027)		***	.235 (.027)		***	.234 (.027)		***
Income (random slope)	.046 (.006)		***	.036 (.005)		***	.046 (.006)		***
Education (random slope)	.019 (.002)		***	.019 (.003)		***	.018 (.002)		***
-2 log likelihood	-56,180.098			-56,171.414			-56,177.239		

Notes: N = 45,699 in 39 countries; unstandardised coefficients; all continuous variables except the individual-level control variables are grand-mean centred; + $p<.10$, * $p<.05$, ** $p<.01$ (two-tailed).
Source: ISSP 2009.