Welfare solidarity in multi-ethnic societies: can social investment reduce the antiimmigrant bias?

Giuliano Bonoli, University of Lausanne,
Juliana Chueri, VU Amsterdam, the Netherlands
Mia Gandenberger, University of Neuchâtel, Switzerland

Abstract:

Migration flows have diversified Western societies, challenging the political viability of inclusive welfare states. This is very clear in research on perceptions of deservingness to social benefits, which consistently shows that immigrants are considered as less deserving of collective help than natives. At the same time, welfare states are being reoriented towards social investment, i.e. they put more emphasis on services that strengthen human capital and improve access to employment rather than on redistribution. In this article we ask whether the shift towards a social investment welfare state is likely to reduce the immigrant deservingness penalty. Theoretically, we rely on two perspectives: social trust and identity theory. Following the literature on social trust, we expect the reorientation of welfare states towards social investment to reduce the negative impact of diversity on solidarity, as those interventions are to an extent immune to free-riding. Alternatively, according to social identity theory, we expect a similar in-group bias independent of the intervention. We rely on vignette experiments conducted in 2021 in Denmark, Sweden, Germany, Switzerland, the UK, and the US to compare the immigrant deservingness penalty between social compensation and social investment interventions. Results show no difference between the immigrant deservingness penalty across the social intervention types, suggesting exclusionary attitudes are driven by in-group favouritism.

Key words: solidarity; multi-ethnic societies; deservingness; welfare state; social investment; migrant penalty; migration policy; social policy.

Introduction

Global migration and the emergence of multi-ethnic societies constitute a challenge for European welfare states. Studies argued that in the context of increasingly ethnically diverse societies, Europe may not be able to sustain the highly redistributive welfare states inherited from post-war years (Alesina & Glaser, 2004, Putnam, 2007; Burgoon 2014; Banting 2017). More recently, the focus has shifted from a concern for an overall collapse of solidarity to the risk of exclusion of immigrants from redistributive arrangements, following the rise of populist radical right-wing parties and the logic of welfare chauvinism (Chueri, 2022; Enggist & Pinggera, 2022; Larsen, 2020; Eick & Larsen 2022).

But why is ethnic diversity a challenge for welfare states? One explanation for this phenomenon is the negative impact of diversity on social trust, which is a fundamental element of welfare states' extractive capacity (Alesina & LaFerrara, 2002; Dinesen et al., 2020; Kumlin et al 2017; Uslaner, 2002; Soroka et al., 2006). When individuals distrust members of the community to pay their fair share, financing expensive welfare states becomes politically difficult (Crepaz, 2008). A second explanation is provided by the social psychology literature on identity theory. It suggests that group formation based on ethnicity, or any other salient shared identity, promotes in-group cooperation and favouritism and fosters out-group hostility (Sherif et al., 1961; Tajfel & Turner, 1986).

Research on perceptions of deservingness provides substantial micro-level evidence of why it is difficult to sustain high levels of redistribution in ethnically diverse societies. A key finding within this strand of research is that "identity"—that is, the degree of ethnic or cultural proximity between the contributor to and the recipient of collective help—is a key determinant of solidarity. Typically operationalized with nationality or ethnicity, a distant identity is consistently associated with lower levels of perceived deservingness (e.g., Knotz et al., 2021; Kootstra, 2016; Reskeens & van der Meer, 2019; van Oorschot, 2000).

The literature on welfare deservingness, however, is based chiefly on perceptions in relation to social compensation policies, in most cases, unemployment benefits or social assistance. Limited attention has been directed towards the deservingness to public services, with valuable exceptions such as van der Aa et al. (2017), Gandenberger et al. (2022), and Jensen and Petersen (2017), who predominantly focus on healthcare. Thus, there is a notable gap in our understanding of deservingness perceptions in relation to so-called "social investment" policies.

Social investment refers to policies that fight inequality and disadvantage by investing in the human capital of those who need help. An investment-based approach in social policy emphasizes interventions that strengthen the capacity of the beneficiaries to become financially independent from collective help, essentially by promoting access to the labour market and to high quality employment. Key policy areas in the realm of social investment are subsidized childcare, active labour market policies, equal opportunity interventions in the field of education, vocational training for disadvantaged groups, lifelong learning policies, and so forth. These policies differ from the so called "compensation" policies, which typically include cash benefits provided by unemployment insurance or minimum income schemes. Social investment interventions differ from social compensation in that their impact relies on the acquisition and deployment of human capital. This implies that dependence on collective help is temporary, and that the overarching objective of policy is to promote independence from state support.

The notion of social investment has been influential in shaping recent and current debates on welfare state reform in Europe (see e.g. Garritzman et al., 2022; Hemerijck, 2017; Morel et al., 2012; Jenson & Saint-Martin 2006), even though the recent surge in inequality has brought redistribution back on the social policy agenda (e.g Kenworthy 2022). The Nordic countries, and particularly Sweden, are the place where social investment policies have gone furthest both in terms of quality and reach. Such policies have also developed in other welfare states but have, so far, failed to reach the level of universality achieved in Northern Europe. In the conservative welfare states of continental Europe, social investment tends to focus on the middle classes, while in the liberal welfare states, found in the UK and US, the focus is on the most disadvantaged (Garritzmann et al 2022).

When it comes to deservingness perceptions, there are reasons to believe that social investment policies operate under a different logic than other forms of social policy and that they could find more support in ethnically diverse societies. Social investment policies require an active involvement of the recipients, rendering them largely immune to suspicions of moral hazard or free riding and shielding them from a rhetoric of "welfare dependence". As a result, issues of social trust can be expected to be less relevant for social investment than for compensation policies (Eick & Larsen, 2022). Moreover, these policies may be perceived to generate higher positive externalities for society, for example, in terms of additional tax revenues, which, in turn, may facilitate the inclusion of outsiders among the "deserving" (Eick & Larsen, 2022).

If, as implied by the social trust literature (e.g. Putnam 2007; Crepaz 2008), negative deservingness perceptions are driven by the lack of trust in multi-ethnic societies, the fact that

social investment policies are largely immune to free riding and generate returns for society should result in a lower or inexistent immigrant deservingness penalty. However, while the social trust literature suggests that social investment policies may enjoy more support in ethnically diverse societies, insights from social psychology, particularly the literature on identity theory, provide a competing hypothesis. Identity theory suggests that the intergroup differences will remain at play, and individuals with exclusive ethnic group boundaries are expected to have a predisposition to favouring their in-groups, regardless of the social policy in question, or more generally independently of any other relevant considerations or rational calculations (Lee & Ottati, 2002). On this basis, we would expect respondents to be equally negative views about foreigners' access to both social investment and compensation policies.

To test these two competing hypotheses, this study examines whether residents have different perceptions of foreigners' deservingness to social investment interventions and compensation policies. We rely on vignette survey experiments to compare residents' perceptions of foreigners' deservingness of a standard compensation policy (unemployment insurance) and two typical social investment interventions: training program for the unemployed and subsidized childcare. This survey was conducted in 2021 in Denmark, Sweden, Germany, Switzerland, the UK, and the US, which represent the main types of welfare state (Esping-Andersen, 1990) and varieties of social investment policy (Garritzman et al., 2022).

Our findings indicate a consistently negative perception of immigrant deservingness across all policy areas. Moreover, in line with expectations drawn from the social psychology literature on identity theory, we find no statistically significant difference between perceptions of foreigners' deservingness to social investment and compensation policies. This finding is valid independently of the welfare regime and of the extent to which respondents support social investment. Overall, our results suggest that the challenge of sustaining a strong welfare state in multi-ethnic societies will persist, even in the context of a putative transition towards social investment.

The article begins by positioning our research question in the relevant literatures: welfare deservingness, social trust, and identity theory. On this basis, we formulate two initial hypotheses regarding differences in the importance of identity as a deservingness criterion for cash benefits and social investment policies. Next, we develop additional hypotheses assuming variation across welfare states and sub-groups of respondents. We then present our methodology and main results. In the final section, we discuss the significance of our findings for both welfare deservingness theory and welfare state research.

Theory

To compare welfare solidarity towards immigrants' access to compensation and social investment policies, we rely on the deservingness perception framework, which postulates that welfare solidarity is conditional on welfare claimants' fulfilment of a number of criteria: control, attitude, effort, reciprocity, identity, and need (van Oorschot, 2000, 2006; van Oorschot et al., 2017; Knotz et al., 2021). In short, those who are generally considered the most deserving of social services and benefits are those who are seen as not responsible for their situation (control), are grateful for receiving help (attitude), attempt to end their need (effort), have contributed to society (reciprocity), are regarded as 'one of us' (identity), and have greater need (Knotz et al., 2022; van Oorschot, 2000, 2006; van Oorschot et al., 2017).

These criteria reflect the idea that access to the welfare state should be conditional on the fulfilment of mutual obligations. The "control" criterion limits the degree to which solidarity is extended to those whose situation of need is determined by their choices (e.g., someone who is unemployed after voluntarily resigning their previous job). The "reciprocity" criterion tends to exclude from collective help those who have not shown willingness to contribute in the past, or who are not making efforts to limit the cost to the group while in a situation of need. And finally, the "need" criterion ensures that solidarity is limited to those who would not be able to cope on their own. These three criteria are clearly functional to the limitation of free-riding opportunities on collective help.

Empirical studies have also consistently observed an adverse effect of the "identity" criterion on welfare solidarity, or an immigrant deservingness penalty (Reeskens & Van der Meer, 2019; Kootstra 2016). As we argue next, this result may be driven by two competing mechanisms. First, the immigrant deservingness penalty may be due to a wish to limit free riding opportunities by restricting access to a group that is regarded with distrust and seen as less likely to follow local societal norms of reciprocity. Alternatively, the limited solidarity towards immigrants may be related to an in-group bias, which is independent of considerations about this out-group assumed tendency to respect societal norms.

Protecting groups from free riders

The legitimacy of generous welfare provision is conditional on the collective respect of norms of reciprocity (Bowels & Gintis, 2000). Those norms are deeply seated moral dispositions that

human groups have developed in order to protect themselves from free riders, i.e., individuals who profit from the group without contributing their fair share to the community (Petersen et al., 2012; Aarøe & Petersen, 2014). While welfare systems have institutionalized mechanisms to prevent "abuse," social trust, understood as general trust in members of the society (Dinesen et al., 2020), is seen as a key element in determining individual willingness to share with other members of the community.

Studies however have found that ethnic diversity has a negative effect on social trust (Alesina & LaFerrara, 2002; Dinesen et al., 2020; Putnam, 2007; Uslaner, 2002; Suruoka et al., 2006). Explanations for this relationship include negative stereotypes of immigrants as having deviant behaviour (Gilens,1999), statistical information about immigrants' overrepresentation among social policy recipients (Guryan & Charles, 2013), or simply distrust of those who do not share a similar culture (Butz & Kehrberg, 2015). The refusal to share with perceived free riders thus leads natives to seek to exclude immigrants from the redistributive arrangements or even to withdraw their support for the welfare state altogether.

Based on this reasoning, we can expect that the ongoing process of welfare states' recalibration from compensation towards social investment will reduce the negative impact of ethnic diversity on welfare solidarity. The very nature of social investment policies makes free riding more difficult (Eick & Larsen, 2022), rendering moral hazard questions less salient than in the case of compensation benefits. First, these interventions generally require an effort on the part of the recipient. Second, social investment policies can be expected to generate returns for society through lower dependence on benefits and higher levels of immigrant integration (this is the case especially for childcare). The latter point should be particularly important for natives who are concerned about migrant cultural integration in the host society. Migrant children would be socialized to the values of the host society through participation in childcare, an outcome that could alleviate such concerns.

Initial empirical evidence suggests that deservingness perceptions concerning immigrants' access to social investment interventions may indeed differ from those referring to compensation social policies. Heuer and Zimmermann's (2020) qualitative study, based on focus groups, found that participants are reluctant to support recently arrived immigrants (such as refugees) with cash benefits but are willing to support them by providing publicly funded vocational training. The support for the latter policy solution was motivated precisely by its "investment" quality, as, thanks to training, the beneficiaries could find jobs and become financially independent. Moreover, comparing public preferences for services and cash benefits, Eick and Larsen (2022) show that respondents were more inclined to grant newly

arrived immigrants' access to social investment services (such as education and childcare) than to cash benefits (social assistance, child cash benefits).

These findings suggest that the limited welfare solidarity towards immigrants is based on some form of reasoning which assumes a higher prevalence of free riders among them. If the policy solution adopted is immune to suspicions of moral hazard, as is the case with social investment interventions, natives will consider immigrants as deserving as other members of the community. Thus, we expect:

H1: The immigrant deservingness penalty will be smaller in social investment than in social compensation policies.

A preference for the in-group

The social psychology literature also shows that (ethnic) diversity is associated with limited solidarity. Based on identity theory, this strand of research shows that in-group bias leads individuals to regard immigrants as less deserving of access to welfare benefits. In this perspective, the greater inclination to share with those who are socially closer stems from an in-group preference rather than a distrust of strangers or out-group members (Brewer, 1999, 2007; Tajfel & Turner, 1979, 1986). According to social identity theory (Tajfel & Turner, 1979), in-group members differentiate out-group from in-group members to protect their own status and satisfy their need for positive self-esteem.

In this context, in-group members are preferred because they share certain characteristics and behaviours. Consequently, in-group members benefit from contingent altruism. Group identification, based on the optimal distinctiveness model of social identity (Brewer, 1991), depends on both the need for the inclusion of the individual and the need for differentiation from others. In-group loyalty, then, is "most effectively engaged by relatively small, distinctive groups or social categories" (Brewer, 1999, p. 434). At the same time, ingroup / out-group boundaries may be fuzzy and social identification can take the form of "concentric loyalties" (Allport, 1954, p. 44) where loyalties with more inclusive groups such as nations are compatible with that towards smaller exclusive groups such as a family or profession.

Identity theory aligns with sociological approaches that understand citizenship as a form of membership and focus on features that determine whether an individual is considered as a "member" of the collective (Hedegaard and Larsen 2022). Recent studies have shown, for

instance, that individuals who have more restrictive views of what it means to be part of the group (e.g. in the US "being truly American") are less likely to be willing to extend benefits to legal immigrants (Banting et al 2022). Like social identity theory, membership-based approaches emphasize the setting of boundaries that distinguish an in-group from an out-group.

Group membership is a multifaceted issue, influenced by factors such as place of birth, ethnicity, or religion, as shown by empirical studies (e.g. Hainmüller et al 2015; Hedegaard & Larsen 2022). Moreover, research has shown the existence of "ethnic hierarchies" that result in a form of stratification of the out-group based on the perceived social distance from the ingroup (Hagendoorn 1993; Ebner and Helbling 2015). Finally, the fact of having directly or indirectly experienced reliance on the welfare state is associated with an overall increase in the perceived deservingness of welfare claimants (Maltby & Kreitzer 2023).

Social experiments investigating resource allocations have consistently demonstrated the existence of in-group favouritism (Cadsby et al., 2016; Jetten et al., 1992; Mullen et al., 1992; Turner et al., 1979). These studies reveal that individuals choose the pursuit of group differentiation, even if it comes at the expense of individual and collective monetary gains (Turner et al., 1979). Subsequent investigations have brought nuance to these findings by highlighting the influence of mediating factors such as group salience, group status, and personal values as moderating variables (Bettencourt et al., 2001; Hertel & Kerr, 2001; Platow et al, 1997). Additional empirical evidence in support of a social identity theory-based explanation is provided by the "natural experiment" of the US welfare reforms of the 1990s. Despite the sweeping reform movement leading to a drastic increase in the level of control and work obligations imposed on social assistance claimants, this reform did not impact the negative perceptions of the deservingness of welfare claimants in the US (Soss & Schram 2007).

This second set of explanations, unlike the first one, is not based on a desire to protect the group from potential free riders, or any other rational consideration. It is based on psychologically grounded preferences to favour in-group members. This mechanism resembles the concept of "taste discrimination" developed by economists in the study of discrimination (Becker, 1957; Guryan & Charles, 2013). Whether the taste for discrimination originates from a deep-seated psychological disposition or depends on personal values, its impact will depend on the characteristics of the person being helped and giving help, and not so much on the type of social policy provided. In other words, we would expect individuals to display a similar level of solidarity towards claimants of compensation and social investment-type social benefits. Thus, we put forward a competing hypothesis:

H2: The immigrant deservingness penalty in relation to social investment interventions will not differ from that of social compensation policies.

The impact of welfare institutions

Our cross-national comparative design allows us to test hypotheses concerning the possible impact that welfare state institutions may have on perceptions of deservingness. More specifically we are interested in cross-national differences in the putative gap between social investment and social compensation policies in relation to the immigrant deservingness penalty.

The comparative welfare state literature typically distinguishes between three main "welfare regimes", i.e. different ways of organizing public support for disadvantaged individuals and groups. The focus of welfare regimes is on welfare institutions and on the way in which they interact with society and the labour market. In short, a distinction is made between the social democratic welfare states that are found mostly in the Nordic countries and emphasise universal benefits and services as well as a strong concern for equality; the conservative-corporatist regime, found in continental Europe, which promotes status maintenance for those who are unable to extract an income for the labour market; and finally, the liberal regime, found in the English speaking world and based on a limited effort to fight poverty while leaving provision for the middle classes to the private sector (Esping-Andersen 1990).

The selection of the six countries that are part of our sample is informed by this literature. As a result, we have two countries that represent the universalist social democratic welfare states found in Northern Europe (Sweden and Denmark); two countries that belong to the conservative-corporatist welfare regime (Switzerland and Germany) and two liberal welfare states (UK and US).

Extensive research has shown that the institutional context, such as the prevailing welfare state regime described above, matters for public attitudes towards redistribution (e.g., Larsen 2008; Svallfors, 1997, 2003; Taylor-Gooby, 1995) and fostering social trust (Crepaz & Damron, 2009; van Oorschot & Arts, 2005). Institutions generate perceptions of appropriateness regarding the role of the state in helping disadvantaged individuals (Rothstein 1998) that are likely to affect the way respondents position themselves in relation to deservingness assessments.

Building especially on the work of Larsen (2008), we expect the difference in the immigrant deservingness gap between social investment and compensation policies to be strongest in the liberal and conservative welfare regimes and weakest in the universal welfare states of Northern Europe. Universal institutions foster social trust and reduce concerns about

free riding, as everybody is entitled to social benefits and services. Such concerns are likely to be more pronounced in the selective liberal welfare states, where entitlement depends on need, and in the conservative welfare states, where entitlement depends on past reciprocity (payment of contributions). As argued above, the advantage of social investment overcompensation policies is that they are, to an extent, "free rider proof". This quality of social investment policies should maximize its effect in the welfare states where concern for free riders is strongest.

H3: In universal welfare regimes the difference in the immigrant deservingness gap between social investment and social compensation will be smaller than in conservative or liberal welfare states.

Respondent level variation

In our main hypothesis (H1), which suggests that the immigrant deservingness penalty will be in general lower in social investment policies relative to compensation ones, we assume that respondents accept the logic of social investment as acting as a protection against free riding and as a set on interventions that can benefit society as a whole. These two assumptions cannot be directly tested with our data, and it would admittedly be difficult to design questions that do this without eliciting socially desirable answers. However, we can still investigate this issue by examining possible differences in response patterns depending on how attractive respondents find social investment. Our hypothesis here is that the effect hypothesised in H1 will be strongest among respondents who support social investment as an important component the welfare state.

We identify (likely) supporters of social investment in two different ways. First, we rely on the literature on policy preferences and social investment, which has shown consistently that support for social investment is higher among individuals with higher education (Garritzman et al 2018), hence our first cross-level interaction is with the respondent's education level (tertiary versus all else). We hypothesise that respondents with higher education are more likely to believe that social investment interventions can have a positive societal impact.

Second, we rely on a question included in our survey on beliefs about the primary purpose of the welfare state. In this question one possible answer reflects well the logic of social investment: "To support people to get better education and new jobs". For the respondent level we therefore expect:

H4: The difference in the immigrant deservingness gap between social investment and compensation policies will be strongest among respondents with tertiary education.

H5: The difference in the immigrant deservingness gap between social investment and compensation policies will be strongest among respondents who believe that the primary role of the welfare state is social investment.

Data and Methods

To test these hypotheses, we conducted three factorial survey experiments, also called vignette experiments, on deservingness to three programmes: unemployment benefit, training as an active labour market policy, and subsidized childcare. The experiments were embedded in a larger survey on welfare state and migration preferences fielded in the summer/fall of 2021 by means of an incentivised online panel provided by a European market research firm.² Our data comprise approximately 1450 respondents from Denmark, Sweden, Switzerland respectively and the United Kingdom and approximately 2700 respondents from both Germany and the United States resulting in approximately 11200 respondents overall.³ We introduced quotas for age (18 - 29, 30 - 39, 40 - 49, 50 - 59, over 60 years), gender, education (low, middle, high) and region (urban or rural).⁴

In vignette experiments, respondents are presented with brief descriptions (here of fictitious individuals) in which certain characteristics are systematically varied. As our designs are rather complex, we follow Auspurg and Hinz (2015) and use a D-efficient design, that groups vignettes into blocks, which are then attributed randomly to respondents.⁵ These experiments offer an opportunity to understand both "socially shared judgment principles and subgroup differences" (Auspurg & Hinz, 2015, p. 9). Additionally, by changing several characteristics at the same time, this method can diffuse attention away from the main subject of interest and reduce the risk of social desirability bias.

Each respondent had to evaluate vignettes focussing on unemployment benefit, training and access to subsidized childcare. For each experiment, respondents were asked to evaluate three vignettes and experiments were assigned in a random order. Further, the characteristics of the claimants varied along the dimensions summarized in Table 1. The unemployment benefits and training/ active labour market policy experiments share all dimensions and levels. The dimensions for the childcare services experiment have been adapted to the somewhat different context of childcare. The rating task was adapted to the type of help provided: a replacement rate for unemployment benefit, and priority in access assuming insufficient supply for trainings and childcare. For all three experiments we used a 0-100 scale. Figure 1 below shows an

example vignette for the unemployment benefits experiment, examples for the other two experiments can be found in the supplementary material (see Figure S1 and S2).

Immigrant status is indicated by the vignette person's nationality. We included nationalities based on increasing socio-cultural distance, trying to replicate a notion of ethnic hierarchies (Hagendoorn 1993). Therefore, we include one neighbouring country, which varies according to the country, an Eastern-European country (Ukraine), a Middle-Eastern country (Afghanistan), and a West-African country (Nigeria). We chose nationalities with an immigrant presence in all six countries. Note that the survey was fielded *before* the Russian aggression against Ukraine in 2022.

For the analysis we excluded vignette evaluations that were done unreasonably fast (less than 5 seconds) or took too long (more than 180 seconds). This resulted in 30,500 evaluations retained for the unemployment benefits experiment, 30,420 for the training experiment, and 30,520 for the childcare services experiment. Due to the multi-level nature of vignette evaluations nested in respondents, we use multi-level models with random intercepts. We also add random slopes for respondents' characteristics when they interact with vignette dimensions. We control for basic demographic characteristics of respondents (age, gender, education, rural/urban, born in country).

Figure 1 here

Table 1 here

Results

We first calculate separate multi-level models with random intercepts for each experiment (unemployment benefit, training, and subsidized childcare) for the six countries studied. Overall, this means that we have 18 different models (3 programmes in 6 countries). For ease of interpretation, we group all foreign vignette persons into one category, resulting in a binary category of nationality ("0" country national and "1" foreign). The breakdown analysis by country of origin of the vignette persons is provided in the supplementary material (see Figure S3, Figure S4 and Figure S5) and is in line with the results presented here. Figure 2 shows the immigrant deservingness penalty, which corresponds to the unstandardized coefficient associated with foreign nationality relative to nationality of the country.

In line with previous research, we found a sizeable immigrant deservingness penalty across countries and social policy interventions. Moreover, Figure 2 shows that, in all six

countries, the immigrant penalty is not statistically different across the three policy areas, leading us to reject H1 (that the immigrant deservingness penalty is lower in social investment policies) and accept H2 (that there is no significant difference between the deservingness penalty in social compensation and investment policies)⁶. Response patterns are also similar across countries, which suggests that differences in welfare institutions play a limited role in mediating welfare generosity toward immigrants' access to benefits and services. Hence, we can also reject H3 which hypothesizes a difference between universal welfare states on the one hand, and conservative and liberal ones on the other.

Figure 2 here

To test H4 and H5, which hypothesize heterogeneous effects among respondents with different education levels and perceptions regarding the key role of the welfare state, we include in our models a cross-level interaction between the vignette attribute (nationality) and respondent characteristics (education level or perceptions regarding the key role of the welfare state). Given the previous conclusion that welfare state institutions have little role in mediating solidarity toward immigrants, we rely on the aggregated respondent sample of the six countries with country-fixed effects.

With regard to the education level, as we can see in Figure 3, respondents with tertiary education rated vignette-persons as more deserving than respondents with a lower education level.⁷ However, the immigrant deservingness penalty is similar among tertiary and non-tertiary educated respondents, and, most importantly, does not change when moving from social compensation to social investment interventions. The models underlying the interactions presented in Figure 3 are provided in the supplementary material (see Figure S6, Figure S7 and Figure S8).

Figure 3 here

Let us now turn to H5, which hypothesized a stronger difference in the immigrant deservingness gap between social investment and compensation policies among respondents who believed that the main role of the welfare state is social investment. It is important to highlight that approximately 12% of the respondents considered the main purpose of the welfare state to be supporting people in obtaining better education and new job opportunities, which aligns with the social investment paradigm. On the other hand, the vast majority of respondents,

accounting for 71%, believe that its primary function is to provide a safety net for the ill, unemployed, and elderly.⁸

As can be seen in Figure 4, respondents who share the basic idea of social investment are less inclined to discriminate against foreigners than those who chose other options. The models underlying the interactions presented in Figure 4 are provided in the supplementary material (see Figure S9, Figure S10 and Figure S11). However, the pattern is very similar across policy areas, meaning that this outcome was not driven by a rationalization regarding the nature of the intervention and its social outcome but rather a predisposition to not discriminate against foreign claimants. Therefore, like in the previous analysis, we do not see any evidence that the immigrant deservingness penalty is lower or disappears when moving from compensation to investment policies.

Figure 4 here

These results leave little doubt with regard to the fact that respondents' solidarity towards immigrants is driven by a very similar logic in the three policy areas, regardless of their social investment or social compensation orientation. Furthermore, our results indicate that the immigrant penalty is unlikely to be associated with some sort of rational strategy that aims to protect society from potential free riders. On the contrary, the results suggest that decisions concerning deservingness are based on a psychological disposition for in-group favouritism. Of the two theoretical perspectives that were considered in this study, our results lend support to social psychology view represented by identity theory.

Discussion and conclusion

The increase in ethnic diversity in Western democracies challenges the political viability of inclusive redistributive schemes. The vast literature on deservingness perceptions gives us important insights, by consistently showing that immigrants are perceived as less deserving of public support in comparison to natives. Following the literature on social trust, we hypothesized that the reorientation of welfare states towards social investment would be associated with a reduction in the immigrant deservingness penalty and thus result in welfare states that could find more support in ethnically diverse societies.

We found no evidence of difference in the immigrant deservingness gap between social compensation and social investment policies. This result thus goes against the claim that the deservingness immigrant penalty fulfils the function of protecting groups form free riders. It

however supports our alternative hypothesis, derived from identity theory, which suggests that preferences for excluding immigrants from social policies stem from in-group bias. This motivation is not a result of rational considerations and is thus independent of the social policy intervention.

We also did not find variation across welfare state types. Following a social trust-based explanation, we would have expected this difference to be larger in those welfare states where concerns about free riding is likely to be strongest, i.e., conservative and, especially, liberal welfare states. The strong focus on contributory principles and needs-based provision in these welfare states invites divisive conceptions of deservingness. Our results contradict this expectation too, by showing very similar patterns across the six countries. In this respect, our results are in line with other studies that find limited evidence on the impact of levels of social trust on perceptions of immigrant deservingness for social benefits (Kumlin et al. 2017). This finding, however, does not challenge previous research showing that institutions influence welfare attitudes and perceptions of immigrants' deservingness to collective help, as our focus concerns only a possible difference in the immigrant deservingness gap between social compensation and social investment policies.

Demonstrating the absence of an effect or a null result is difficult because this can be a consequence of the method chosen. In this case, however, we are rather confident that our method would have allowed us to see an effect if it were there. First, our hypotheses were tested in a vignette experiment, i.e. a design that is known to limit socially desirable answers and has a high level of reliability for exploring sensitive societal values, including perceptions of members of out-groups (Auspurg and Hinz 2015; Hainmueller et al. 2015). Second, we have relatively large samples (1400+ per country), which gives us a fair level of statistical power. Third, the experiment was fielded in six different countries representing a high degree of variation in welfare regimes, and the results are consistent across our entire sample. Fourth, we considered and tested the possibility that the effect we assumed in our hypothesis would be confirmed only among a subgroup of respondents. Fifth, we considered the possible existence of a difference in immigrant deservingness gap in two different and typical social investment policies, which means that our results are not limited to a single component of the social investment welfare state. Of course, we cannot rule out that other research designs will yield different outcomes, but the consistency of our results across countries, policies, and sub-groups of respondents makes it difficult to imagine radically different results with a different specification. In our view, the null result we obtain is rather robust.

Our results contradict previous findings obtained with totally different methods: a qualitative study based on focus groups (Heurer and Zimmermann 2020) and a study based on item-based questions (Eick and Larsen 2022). Both studies provided suggestive evidence that the migrant deservingness penalty may be lower or inexistent when shifting from social compensation to social investment policies. There may be multiple reasons for this divergence in results. First, both previous studies use methods (focus groups and item-based questions) that may be prone to social desirability. Second, discussions within a focus group can be influenced by group dynamics. During the process of deliberation, rationalization often occurs, leading respondents to consider the social consequences of different social policy options. On the contrary, our method elicits some sort of instinctive gut reaction, and it may be the case that the assumed difference in the scope for free riding is not immediately visible for non-expert respondents. We leave to future research to provide a more thorough explanation of why different methods yields different answers to the question of the immigrant deservingness gap in social investment interventions.

In our study we used nationality in order to signal difference and this has some implications. First, the connotation of a given nationality may differ across countries, which may affect the comparability of results. Future research could also explore whether among members of the national community (i.e. citizens) differences in other characteristics that are known to generate discriminatory attitudes (e.g. skin colour, religion, sounding of name) generate different deservingness perceptions.

Finally, it is crucial to emphasize that the type of automatic psychological mechanism we observe holds significance in predicting political behaviour. Research has shown that political elites exploit these gut feelings by employing the deservingness heuristic to gain political advantages (Petersen et al., 2011; Petersen et al., 2013). This process aligns with recent theories on how democracy functions, indicating that political parties primarily mobilize voters based on their social identity and by fostering a sense of "us" versus "them" (Achen & Bartels, 2017; Huddy et al., 2015).

These conclusions should not be taken to imply that the reorientation of western welfare states towards social investment is not a suitable strategy for multi-ethnic societies. On the contrary, there are many reasons to believe that social investment may bring optimal societal outcomes, not least in terms of the potential for immigrant integration (Bonoli 2020). However, they imply that this reorientation alone will not result in a reduction of the tensions that are generated around redistributive policies in multi-ethnic societies.

Deservingness perceptions are the micro-mechanism that explains the difficulties multi-ethnic societies have in running extensive and redistributive welfare states. They are unlikely to change significantly as we move toward more social investment policies. References

- Aarøe, L., & Petersen, M. B. (2014). Crowding out Culture: Scandinavians and Americans Agree on Social Welfare in the Face of Deservingness Cues.". *The Journal of Politics* 76(3), 684-697.
- Achen, C., & Bartels, L. (2017). Democracy for realists: Why elections do not produce responsive government, Princeton University Press.
- Alesina, A., & Glaser, M. (2004). Fighting Poverty in the US and Europe: A World of Difference, Oxford: Oxford University Press.
- Alesina, A., & La Ferrara, E. (2002). Who trusts others? *Journal of public economics*, 85(2), 207-234.
- Allport, G. W. (1954). The Nature of Prejudice, Cambridge, MA: Addison-Wesley.
- Auspurg, K., & Hinz, T. (2015). Factorial survey experiments (Vol. 175), London: Sage.
- Banting, K. (2017). Migration, Diversity, and the Welfare State. In F. D. Bean & S. K. Brown (Eds.), *Encyclopedia of migration*: Springer Netherlands.
- Banting, K., Harell, A., & Kymlicka, W. (2022). Nationalism, Membership and the Politics of Minority Claims-Making. *Canadian Journal of Political Science/Revue canadienne de science politique*, 55(3), 537-560.
- Becker, G. (1957). The economics of discrimination. Chicago: Chicago University Press.
- Bettencourt, B., Charlton, K., Dorr, N., & Hume, D. L. (2001). Status differences and in-group bias: a meta-analytic examination of the effects of status stability, status legitimacy, and group permeability. *Psychological bulletin*, 127(4), 520.
- Bonoli, G. (2020). Immigrant integration and social investment. *Journal of European Social Policy*, 30(5), 616-627.
- Bowles, S., & Gintis, H. (2000). Reciprocity, self-interest, and the welfare state. *Nordic Journal of Political Economy*, 26(1), 33-53.
- Brewer, M. B. (1991). The Social Self: On Being the Same and Different at the Same Time. *Personality and Social Psychology Bulletin*, 17(5), 475-482. Doi: 10.1177/0146167291175001
- Brewer, M. B. (1999). The Psychology of Prejudice: Ingroup Love and Outgroup Hate? *Journal of Social Issues*, 55(3), 429-444.
- Brewer, M. B. (2007). The importance of being we: Human nature and intergroup relations. *American Psychologist*, 62(8), 728-738.
- Burgoon, B. (2014). Immigration, integration, and support for redistribution in Europe. *World Politics*, 66(3), 365-405.
- Butz, A. M., & Kehrberg, J. E. (2015). Social Distrust and Immigrant Access to Welfare Programs in the American States. *Politics & Policy*, 43(2), 256-286.
- Cadsby, C. B., Du, N., & Song, F. (2016). In-group favoritism and moral decision-making. *Journal of Economic Behavior & Organization*, 128, 59-71.
- Chueri, J. (2022). An emerging populist welfare paradigm? How populist radical right-wing parties are reshaping the welfare state. *Scandinavian Political Studies*, 45(4), 383-409.
- Crepaz, M. M. (2008). Trust beyond borders: Immigration, the welfare state, and identity in modern societies. University of Michigan Press.

- Dinesen, P. T., Schaeffer, M., & Sønderskov, K. M. (2020). Ethnic diversity and social trust: A narrative and meta-analytical review. *Annual Review of Political Science*, *23*, 441-465.
- Ebner, C., & Helbling, M. (2015). Social distance and wage inequalities for immigrants in Switzerland. *Work, Employment and Society*, *30*(3), 436-454.
- Eick, G. M., & Larsen, C. A. (2022). Welfare chauvinism across benefits and services. *Journal of European Social Policy*, 32(1), 19-32. Doi: 10.1177/09589287211023047
- Enggist, M., & Pinggera, M. (2022). Radical right parties and their welfare state stances—not so blurry after all?. *West European Politics*, 45(1), 102-128.
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.
- Gandenberger, M. K., Knotz, C. M., Fossati, F., & Bonoli, G. (2022). Conditional Solidarity Attitudes Towards Support for Others During the 2020 COVID-19 Pandemic. *Journal of Social Policy*, 1-19.
- Garritzmann, J.L., Busemeyer, M.R. & Neimanns, E. (2018). Public demand for social investment: New supporting coalitions for welfare state reform in Western Europe? *Journal of European Public Policy*, 25, 844–861.
- Garritzmann, J. L., Häusermann, S., & Palier, B. (Eds.). (2022). The World Politics of Social Investment: Volume II. The Politics of Varying Social Investment Strategies. Oxford: Oxford University Press.
- Gilens, Martin. 1999. Why Americans Hate Welfare: Race, Media, and the Politics of Antipoverty Policy, Chicago, IL: University of Chicago Press.
- Guryan, J., & Charles, K. (2013). Taste-based or Statistical Discrimination: The Economics of Discrimination Returns to its Roots. *The Economic Journal*, 123(572), F417-F432.
- Hagendoorn, L. (1993). Ethnic Categorization and Outgroup Exclusion: Cultural Values and Social Stereotypes in the Construction of Ethnic Hierarchies. *Ethnic and Racial Studies*, 16(1), 27-51.
- Hainmueller, J., Hangartner, D., & Yamamoto, T. (2015). Validating vignette and conjoint survey experiments against real-world behavior. *Proceedings of the National Academy of Sciences of the United States of America*, 112(8), 2395-2400.
- Hemerijck, A. (2017). Social investment and its critics. In A. Hemerijck (Ed.), *The uses of social investment* (pp. 3-42), Oxford: Oxford University Press.
- Hertel, G., & Kerr, N. L. (2001). Priming in-group favoritism: The impact of normative scripts in the minimal group paradigm. *Journal of Experimental Social Psychology*, 37(4), 316-324.
- Heuer, J.-O., & Zimmermann, K. (2020). Unravelling deservingness: Which criteria do people use to judge the relative deservingness of welfare target groups? *Journal of European Social Policy*, 30(4), 389-403.
- Huddy, L., Mason, L., & Aarøe, L. (2015). Expressive partisanship: Campaign involvement, political emotion, and partisan identity. *American Political Science Review*, 109(1).
- Jensen, C., & Petersen, M. B. (2017). The Deservingness Heuristic and the Politics of Health Care. *American Journal of Political Science*, 61(1), 68-83.
- Jenson, J., & Saint-Martin, D. (2006). Building blocks for a new social architecture: the LEGO (TM) paradigm of an active society. *Policy and Politics*, *34*(3), 429-451.
- Jetten, J., Spears, R., & Manstead, A. S. R. (1996). Intergroup norms and intergroup discrimination: Distinctive self-categorization and social identity effects. *Journal of Personality and Social Psychology*, 71, 1222–1233
- Knotz, C. M., Gandenberger, M. K., Fossati, F., & Bonoli, G. (2021). A Recast Framework for Welfare Deservingness Perceptions. Social Indicators Research. doi: 10.1007/s11205-021-02774-9

- Kootstra, A. (2016). Deserving and Undeserving Welfare Claimants in Britain and the Netherlands: Examining the Role of Ethnicity and Migration Status Using a Vignette Experiment'. *European Sociological Review*, 32(3), 325-339.
- Kumlin, S., Wolleboek, D., Fladmoe, A., & Steen-Johnsen, K. (2017). Leap of faith or judgment of deservingness? Generalized trust, trust in immigrants and support for the welfare state. In W. van Oorschot, F. Roosma, B. Meuleman, & T. Reeskens (Eds.), *The social legitimacy of targeted welfare. Attitudes to welfare deservingness* (pp. 281-298). Edward Elgar.
- Larsen, C. A. (2008). The institutional logic of welfare attitudes How welfare regimes influence public support. *Comparative political studies*, 41(2), 145-168.
- Larsen, C. A. (2020). The institutional logic of giving migrants access to social benefits and services. *Journal of European Social Policy*, 30(1), 48-62.
- Lee, Y. T., & Ottati, V. (2002). Attitudes toward US immigration policy: The roles of in-group-out-group bias, economic concern, and obedience to law. *The Journal of Social Psychology*, 142(5), 617-634, 1-17.
- Maltby, E., & Kreitzer, R. J. (2023). How racialized policy contact shapes the social constructions of policy targets. *Policy Studies Journal*, 51(1), 145-162.
- Morel, N., Palier, B., & Palme, J. (Eds.). (2012). *Towards a Social Investment Welfare State?*: *Ideas, Policies and Challenges*. Bristol: The Policy Press.
- Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European journal of social psychology*, 22(2), 103-122.
- Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the Correct Statistical Test for the Equality of Regression Coefficients. *Criminology*, *36*(4), 859–866.
- Petersen, M. B., Slothuus, R., Stubager, R., & Togeby, L. (2011). Deservingness versus Values in Public Opinion on Welfare: The Automaticity of the Deservingness Heuristic. *European Journal of Political Research*, 50(1), 24–52.
- Petersen, M. B., Sznycer, D., Cosmides, L., & Tooby, J. (2012). Who Deserves Help? Evolutionary Psychology, Social Emotions, and Public Opinion about Welfare. *Political Psychology*, 33(3), 395–418.
- Petersen, M. B., Skov, M., Serritzlew, S., & Ramsøy, T. (2013). Motivated reasoning and political parties: Evidence for increased processing in the face of party cues. *Political Behavior*, *35*, 831-854
- Platow, M. J., Harley, K., Hunter, J. A., Hanning, P., Shave, R., & O'Connell, A. (1997). Interpreting in-group-favouring allocations in the minimal group paradigm. *British Journal of Social Psychology*, 36(1), 107-117.
- Putnam, R. (2007). E Pluribus Unum: Diversity and Community in the Twenty-first Century The 2006 Johan Skytte Prize Lecture. *Scandinavian Political Studies*, *30*, 137-174.
- Reeskens, T., & van der Meer, T. (2019). The inevitable deservingness gap: A study into the insurmountable immigrant penalty in perceived welfare deservingness. *Journal of European Social Policy*, 29(2), 166-181.
- Rothstein, B. (1998). *Just institutions matter: the moral and political logic of the universal welfare state*, Cambridge University Press.
- Sherif, M., Harvey, O. J., White, B. J., Hood, W. R., & Sherif, C. W. (1961). *Intergroup conflict and cooperation: The Robbers Cave experiment,* Norman, OK: University Book Exchange.
- Soroka, S. N., Johnston, R., Kevins, A., Banting, K., & Kymlicka, W. (2016). Migration and welfare state spending. *European Political Science Review*, 8(2), 173-194.
- Soss, J. O. E., & Schram, S. F. (2007). A Public Transformed? Welfare Reform as Policy Feedback. *American Political Science Review*, 101(1), 111-127.

- Svallfors, S. (1997). Worlds of welfare and attitudes to redistribution: A comparison of eight western nations. *European Sociological Review*, *13*(3), 283-304.
- Svallfors, S. (2003). Welfare regimes and welfare opinions: a comparison of eight western countries. *Social Indicators Research*, 64(3), 495-520.
- Tajfel, H., & Turner, J. C. (1979). An Integrative Theory of Intergroup Conflict. In W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 33-47). Monterey: Oxford University Press.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of Intergroup relations* (pp. 7-24). Chicago: Nelson Hall.
- Taylor-Gooby, P. (1995). Who wants the welfare state? Support for state welfare provision in European countries. In S. Svallfors (Ed.), *In the Eye of the Beholder. Opinions on Welfare and Justice in Comparative Perspective* (pp. 11-51). The Bank of Sweden Trecentenary Foundation.
- Turner, J. C., Brown, R. J., & Tajfel, H. (1979). Social comparison and group interest in ingroup favouritism. European journal of social psychology, 9(2), 187-204.
- Uslaner, E.M.: *The moral foundations of trust*. Cambridge University Press, New York (2002).
- van der Aa, M., Hiligsmann, M., Aggie, P., & Evers, S. (2017). Healthcare deservingness opinions of the general public and policymakers compared: a discrete choice experiment. In W. van Oorschot, F. Roosma, B. Meuleman, & T. Reeskens (Eds.), *The social legitimacy of targeted welfare. Attitudes to welfare deservingness* (pp. 241-262). Edward Elgar.
- van Oorschot, W., & Arts, W. (2005). The social capital of European welfare states: the crowding out hypothesis revisited. *Journal of European Social Policy*, 15(1), 5-26.
- van Oorschot, W. (2000). Who should get what, and why? On deservingness criteria and the conditionality of solidarity among the public. *Policy and Politics*, 28(1), 33-48.
- van Oorschot, W. (2006). Making the difference in social Europe: deservingness perceptions" among citizens of European welfare states. *Journal of European Social Policy* 16(1), 23-42.
- van Oorschot, W., Roosma, F., Meuleman, B., & Reeskens, T. (Eds.). (2017). *The social legitimacy of targeted welfare. Attitudes to welfare deservingness*, Cheltenham, Edward Elgar.

Funding details:

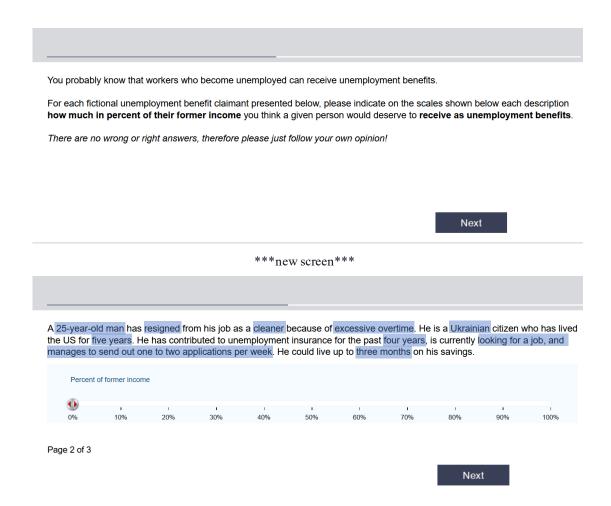
This research was supported by the NCCR – On the Move, funded by the Swiss National Science Foundation grant 51NF40-205605.

Conflicts of interest:

The authors declare no conflict of interest.

Acknowledgements: We would like to thank our colleagues Flavia Fossati, Carlo Knotz and Alyssa Taylor for participating in the survey design and their helpful comments and discussions. Earlier versions of this paper have been presented at the ESPAnet Annual conference 2022 (14-16 September 2022), at the "Social investment working group" seminar, EUI, Florence, 26 October 2022, at the CEE-Sciences Po Workshop on "Deservingness perceptions as driver and effect of public policies. Recent advances in research on deservingness", 3 April 2023 and at the CES annual conference, Reykjavik, 26-30th June. The paper greatly benefitted from the comments made on those occasions. We would like to thank in particular Gianna Eick, Anton Hemerijck and Christian Albrekt Larsen.

Figure 1: Example vignette (Unemployment benefits vignette, US version)

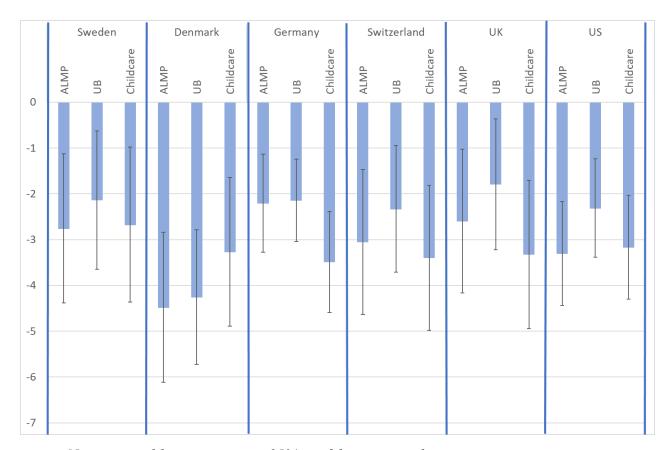


Note: the words that are highlighted refer to the dimensions of the vignette that change randomly in the experiment. The other formulations are presented in table 1.

 Table 1: Vignette dimensions and levels for experiments

Dimension	Levels	
Need	Unemployment benefits / ALMP	Childcare
Financial	could live up to 1 month on savings	trouble making ends meet
need	could live up to 3 months of savings	more or less manage
	could live up to 6 months on savings	are comfortable and able to save
	could live up to 1 year on savings	
Conciliation	-	works full time
need		works part-time
		is not working
		is unemployed and looking for a job
Identity		
Gender	Male	
	Female	
Age	25	25
	40	40
	55	
Marital status	-	single
		married [spouse is working full time]
Residency	Born in country [double citizenship for US]	
	lives in country 10 years	
	lives in country 5 years	
	lives in country 2 years	
Nationality	Swiss [/German/Swedish/Danish/British/US] /	
	German [/Austrian/Norwegian/Swedish/Irish/Canadian] /	
	Ukrainian / Afghan / Nigerian	
Occupation	cleaner	
	lab technician	
	food engineer	
	accountant	
Control	work contradictory to religious values	-
	commute too long (3hrs/day)	
	excessive overtime	
	closure due to COVID	
Effort	not looking for a job currently	has applied for a childcare place and is
	looking for a job, 1-2 application per week	waiting to hear back.
	looking for a job, 3-4 applications per week	Has applied for a childcare place and in the
	looking for a job, 5-6 applications per week	meantime, has organised a temporary
		arrangement with the neighbours.
Reciprocity	contributed 1 year	
	contributed 2 years	
	contributed 4 years [in respective country of residency]	
	contributed 8 years [in respective country of residency]	

Figure 2: Size of the immigrant penalty (unstandardized coefficient of "Foreign national" relative to "Country national") for unemployment benefit (UB), training (ALMP), and subsidized childcare



Note: vertical bars represent a 95% confidence interval.

Figure 3: Deservingness rating for three different types of social interventions, by nationality of vignette person and by education level of respondent.

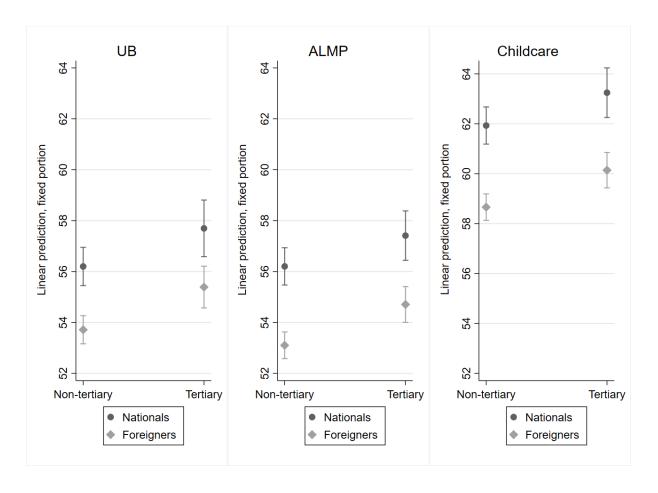
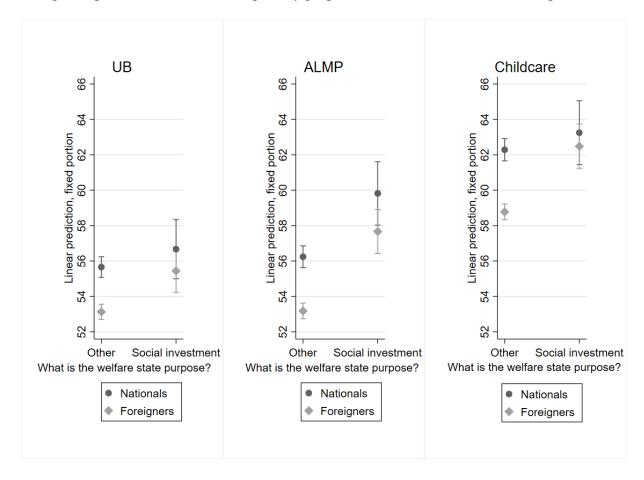


Figure 4: Deservingness rating for three different types of social interventions, by nationality of vignette person and belief on the primary purpose of the welfare state of the respondent.



ENDNOTES

¹ Other alternatives were "To provide a safety net when people become ill, old or unemployed"; "to redistribute money from the rich to the poor"; "None of these"; "Don't know". The question was taken from the INVEDUC project (https://www.polver.uni-konstanz.de/en/busemeyer/projects/current-projects/erc-project-investing-ineducation-in-europe-inveduc/).

² This survey was originally scheduled for the spring of 2020, however, due to the outbreak of the COVID-19 pandemic, fieldwork was postponed until mid-2021 a relatively calm period of the pandemic. Control questions to ascertain if and how respondents were affected personally and professionally by the pandemic were included in the survey. All respondents evaluated four separate, randomly assigned, experiments concerning access to different welfare state services with three vignettes each before answering a range of questions concerning their labour market situation, attitudes towards migration and the welfare state, their political opinion and personal situation, and statement batteries on ethnocentrism and authoritarianism.

³ In Germany and the US, respondents were randomly divided into two groups of 1350. One completed an Implicit Association test (IAT) before evaluating the experiments, the other proceeded directly to the experiments. In order maximise statistical power we kept the whole sample but checked for the robustness of our results by rerunning our analyses only on the subsample that did not take the IAT. We found no substantive difference.

⁴ For the Swiss survey an additional quota for the French or German speaking regions was included.

⁵ For D-efficiency scores above 90 are recommended (Auspurg & Hinz, 2015). The unemployment benefits and training/ALMP experiment design achieves a D-efficiency of 94.7903; the childcare services experiment a D-efficiency of 96.2639. We did not exclude any implausible combinations.

⁶ The coefficients (and confidence intervals) reported were calculated on different models. We therefore checked for differences in the coefficients using the approach developed by Paternoster et al 1998. For each country, we calculated Z-scores for the difference between the coefficient for unemployment benefit on the one hand, and training or childcare on the other. None of the Z-scores reaches significance at the 95% level (see table S1 in supplementary material)

⁷ We used a dummy variable distinguishing between those who reported to have a tertiary (i.e. university) level of education from the rest of the sample.

⁸ Approximately 5% believe the main purpose of the welfare state is to distribute money from the rich to the poor, while the remaining respondents either hold a different belief about its purpose or are unsure.