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Understanding migrant deservingness in multi-ethnic societies

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in multi-ethnic societies**

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Professeur Nils Soguel
Vice-doyen

To the beautiful patchwork
I get to call family.

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Preface

This thesis project is part of IP 27 of the NCCR on the move on "Welfare: Inclusion and Solidarity", which looks at both *politically acceptable redistributive arrangements for multi-ethnic societies* and *free movement and national welfare systems*. My thesis is comprised of three papers and a synthesis chapter. As a result of the still on-going COVID-19 pandemic, I had to introduce some changes to my original thesis project both due to postponed field work, but also because of an improved understanding of deservingness on my part as a result of one additional year of research with my team. I now look at *migrant deservingness for different (welfare) state services with a particular focus on the identity criterion.*

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Synthesis report

Introduction

While the still on-going COVID-19 pandemic had temporarily relegated migration to the lower ranks of most talked about issues of public debate, at the latest with the outbreak of the Ukrainian war and the resulting refugee streams, migration is back in the limelight. The differential treatment of Ukrainian refugees vis-à-vis those from other regions of the world has incited much debate and highlights the challenges increasingly diverse societies are faced with. This includes but is not limited to questions such as who should be able to benefit from redistributive policy arrangements and based on which conditions?

Deservingness research tells us that to respond to these questions, people refer to a set of fixed criteria (need, identity, control, effort, and reciprocity) that help them determine who deserves support and who does not or at least less so than others (Knotz et al., 2021b; Petersen, 2015; Petersen et al., 2010, 2012; van Oorschot, 2000, 2006, 2008; van Oorschot et al., 2017). These criteria have proven relevant in the context of the welfare state, for example for deservingness assessments to unemployment benefits (Aarøe & Petersen, 2014; Buss, 2019), health care (Jensen & Petersen, 2017; Van Der Aa et al., 2017), or social assistance (De Wilde, 2017) but also for settlement deservingness (De Coninck & Matthijs, 2020).

In the context of this research, pensioners are considered most deserving, followed by the sick and disabled, the unemployed and finally immigrants (van Oorschot, 2006). This hierarchy does make sense in a way as immigrants are not per se a needy group unlike the others (see also Kootstra, 2016; M. H. Larsen & Schaeffer, 2021, on this point). What is more puzzling is the fact that immigrant claimants of, e.g., unemployment benefits are also less deserving compared to citizens of the country in question regardless of their other attributes (Buss, 2019; Knotz et al., 2021b; Kootstra, 2016; Reeskens & van der Meer, 2019). Reeskens and van der Meer attribute this deservingness gap to an "insurmountable immigrant penalty" (Reeskens & van der Meer, 2019).

The COVID-19 pandemic and the policy responses it inspired were unprecedented in many respects. Especially in the early months of the pandemic it was unclear what such an event would do to perceptions of deservingness and support for redistribution in general, but also the perceived deservingness of migrants in particular. Findings on people's inclination to share from previous (economic) crises have shown both a turn to more conservative responses

(Durr, 1993; Lindvall, 2014) as well as increased support for redistribution (Blekesaune, 2007) or the unemployed (Jeene et al., 2014; Uunk and van Oorschot, 2019). Further, recent welfare state reforms and changes have produced "insiders" and "outsiders" (Emmenegger et al., 2012b; Palier & Thelen, 2010) where immigrants are both often part of the "outsiders" and have been disproportionately affected by the reforms (Emmenegger & Careja, 2012).

Even welfare state policies targeted at improving human capital to tackle inequalities are unable to effectively address the particular challenges immigrants face (Bonoli, 2020; Sainsbury, 2012). What then is the consequence of the lower perceived deservingness and differential treatment of immigrants in societies that are becoming more and more diverse? What happens during times of crisis, such as the COVID-19 pandemic? Will perceptions and policy responses look the same across different countries? Much of the deservingness research has focused on compensatory benefits, while few have looked at deservingness in the context of social investments policies (Eick & Larsen, 2022). How is deservingness attributed in the context of such policies?

Furthermore, migration research shows us that migrants are perceived differently depending on their reason for seeking entry (Bansak et al., 2016), their education (Diehl et al., 2018; Hercog & Sandoz, 2018), their gender or religion (Dahinden & Manser-Egli, 2022; Fischer & Dahinden, 2017) and their racial and ethnic background (De Coninck, 2020; Ford & Mellon, 2020; Hainmueller & Hangartner, 2013). Deservingness research, however, has for the most part measured identity by signalling nationality/origin/citizenship (Buss, 2019; Knotz et al., 2021b, 2021c), sometimes in combination with, among other things, migration status (Kootstra, 2016) or length of residency (M. H. Larsen & Schaeffer, 2021; Reeskens & van der Meer, 2017, 2019).

My investigation of identity ties into this context. While this thesis very much speaks to the research on deservingness, I try to broaden traditional conceptions of identity in the context deservingness assessments, considering findings from other bodies of literature, such as migration studies or investigations of belonging. What interests me, then, is: What happens to the "insurmountable" deservingness gap when we broaden or diversify the groups of immigrants considered? What drives the effect of the identity criterion in the context of deservingness assessments?

To that end, I investigate *migrant deservingness of different welfare state services and across welfare states, with a particular focus on the role of the identity criterion in these*

assessments. I do so guided by these overarching research questions: How are deservingness assessments made during times of crisis? How is deservingness attributed in the context of social investment policies? What drives the effect of the identity criterion? And, finally, how do deservingness assessments differ across welfare states?

I find (in paper I, with my co-authors) that also during the extraordinary circumstances of the COVID-19 pandemic, solidarity with the needy remains conditional and that foreign nationals are less deserving than citizens. Further, also in the context of social investment policies, namely, subsidised childcare, the well-known deservingness criteria matter, in particular need (to consolidate work with family obligations) and identity (see co-authored paper II). There is also cross-country variation according to three types of social investment, that is, inclusive, stratified, and targeted social investment (Häusermann et al., 2022). Finally, by expanding the group of immigrants considered only slightly to include citizens born abroad, I show that neither is the "immigrant penalty" insurmountable, nor is there a universal "citizenship reward". Rather the effect of identity depends on the country and whether respondents perceive the fictional claimants to be part of both the formal (having citizenship) and informal (having been born in the country) "us" (paper III).

In the following sections, I discuss the existing literature and findings on deservingness and related issues to provide my research with the relevant context. I continue with a discussion of my contribution, its policy implications, limitations of this thesis, and an outlook on future avenues for research before concluding this synthesis report. I then share the author manuscript of co-authored paper I that was published in the *Journal of Social Policy* in February 2022. Further, I present a draft of my second paper, co-authored work on deservingness perceptions towards priority access to subsidised childcare. Finally, I include the draft of my single-authored paper focusing on the identity effect in deservingness assessments.

Literature review

Who should get what and under what circumstances, who should have priority if resources are limited and who belongs and who does not are decade, if not century, old questions. This literature review first looks at how migrants, the group of individuals of interest in this thesis, are perceived by residents of their destination countries before describing the institutional context they move to, namely, the migration regimes and welfare state of the six Western countries that are the particular focus of this thesis. This is followed by a review of existing findings on sharing with strangers with a focus on the relationship between ethnic or

racial diversity and support for redistribution at the societal level as well as a closer look at conditional solidarity and identity on the individual level. Finally, I discuss the concept of deservingness and how assessments of deservingness are made at the individual level, as this is the main body of literature my thesis speaks to.

Perceptions of people on the move

People on the move are a diverse group that oftentimes is summarised under the heading "migrant", but which includes people of e.g., different genders or religions, and educational, class, ethnic, or racial background. In the context of this thesis, I understand *migrant* as anyone who has been on the move to live in another country for an extended period of time unless it is specified otherwise (e.g., in relation to the work of others). As the work here is concerned with migrant deservingness to welfare state services in receiving states, this will mostly concern immigrants. To their counterparts, I will refer to as *citizens of (and born in) the country under investigation*. Others refer to this group of individuals as "natives", I will do the same when referring to their work.

In the remainder of this section, I will review various categorisations of migrant subgroups and how they are perceived and valued differently by receiving states and their population. This will not be an exhaustive review but will serve to illustrate that even though *migrant* is often used as a catch-all term, it means different things in different contexts and refers to a variety of individuals.

The reasons for migration are manifold and cannot be neatly fitted into categories, such as voluntary or forced migration (Piguet, 2018). Still, receiving states divide people on the move broadly into "regular" and "irregular" migrants and those fleeing threats to life, physical safety, or health in their country of origin, namely, refugees.[1] The latter usually are deemed to merit protection and support, therefore access and the right to stay: Bansak and colleagues (2016) find that humanitarian concerns have pronounced effect on European voters' assessments of asylum seekers. Those who face prosecution, have consistent asylum testimonies, and have a special vulnerability are "substantially more likely to be accepted" (Bansak et al., 2016, p. 221). Other important factors for the assessment were economic considerations and anti-Muslim sentiment.

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[1] The difference between "regular" and "irregular" is whether the migrant holds valid entry and residence documents, which entitle them to work, pursue education, or join her family (for example of Switzerland see Thurnherr, 2017).

Further, in addition to why a person seeks to enter a given country, their country of origin as well as their racial and ethnic background matter. For example, De Coninck (2020) identifies a preference among the general public for newcomers from the same ethnicity and rich, European countries drawing an online survey fielded in Belgium, France, the Netherlands, and Sweden. Ford and Mellon (2020), too, note a "European premium", although they find it to be variable and not consistent across 21 European countries. Relatedly, Elrick (2020) describes in a historical review of Canada's immigration policy how merit-based policies replaced explicitly racist ones, thereby "managing race, at the intersection of class and status" (Elrick, 2020, p. 1). Also in the context of votes on naturalisations in Swiss municipalities, Hainmueller and Hangartner (2013) find that country of origin determines the support for the naturalisation of candidates more than any other characteristic.

Migrants' skill level, too, is of importance when citizens of the country assess which groups they prefer to enter. Hainmueller and Hopkins (2015) find that in the US, there is a clear preference for educated immigrants in high status jobs (see also Hainmueller & Hiscox, 2010). For example, Switzerland uses skill in the in the selection for admission for third country nationals (immigrants from outside the European Union), with the pronounced preference for highly skilled individuals. However, as Hercog and Sandoz (2018) describe, it is not the specific skill that can lead to admission, but "only if they have the potential to fill an identified employment gap and if cantonal authorities believe that this gap needs to be filled" (Hercog & Sandoz, 2018, p. 511). Ford and Mellon (2020), too, find that this preference for highly-skilled migrants is universal in 21 countries surveyed in the European Social Survey. The authors link this to the perceived higher benefit of such migrants for the national economy.

Gender also matters as a category of difference in the context of migration. Fischer and Dahinden (2017) show how gendered representations of migrants are mobilised in the context of Swiss immigration regulation. Indeed, representations shift from classical representations of gender (distinguishing between active and passive members of society) to a culturalized, post-colonial interpretation of gender roles and towards a normative framing of gender equality (p. 15). The latter is well captured in the term *gendernativism*, which describes the boundary making between the migrant (descendant) and Muslim women as unfree/illiberal on the one side and the free Swiss/European woman on the other (Dahinden & Manser-Egli, 2022, p. 16). This work underscores that multi-dimensional (intersectional) considerations are at play as well (see also Bonjour & Duyvendak, 2018; Diehl et al., 2018; Newman & Malhotra, 2018).

Further, migrants themselves have differentiated perceptions of various sub-groups. Wimmer (2004), for example, finds that Swiss, Italians, and Spanish blue-collar workers, self-employed and clerical workers distinguish themselves from new immigrants from Albania, former Yugoslavia or from Turkey. Older immigrants from Italy and Turkey also differentiate between "legitimate labour immigrants and illegitimate refugees of more recent waves of immigration" (Wimmer, 2004, p. 27). Similarly, Monforte and colleagues (2019) describe how migrants in the UK participating in the process of becoming a citizen by taking a citizenship test (that is those who are considering or preparing for it, took it, have passed or not) adapt themselves a narrative of distinguishing between the "deserving citizens" and the "undeserving others" which reflects the public discourse around citizenship and integration as well as how the citizenship test is conceived and managed by state representatives (Monforte et al., 2019, p. 27).

As we can see, migrants are a diverse group of individuals. Depending on their gender, religion, race or ethnicity, skill level, reason for leaving their home country, and the way they enter their new country of residence migrants are perceived and more importantly valued differently.[2] Unfortunately, all too often this diversity is not considered in investigations of support for redistributive arrangements. The following sections will review the institutional context migrants move to in the six countries of interest for this thesis. To that end, a discussion of each country's history of and with migration will be followed by a review of the institutional context of redistributive arrangements.

Countries of immigration

In the context of this thesis, nation states provide the context for welfare states and the services offered thereunder. Denmark, Germany, Sweden, Switzerland, the United Kingdom (UK), and the United States (US) were selected as they provide variety on these two dimensions: that is, both their history of and with migration and their efforts to manage who arrives and who is allowed to stay in each country; but also, the institutional context of each country's redistributive arrangements. This and the following section will describe the respective variety in more detail.

Denmark, Germany, Sweden, Switzerland, the UK, and the US vary regarding their history of and with migration. Hollifield and colleagues (2022) consider the US a "nation of immigrants" as immigration is closely tied to the foundational narrative (Martin & Orrenius,

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[2] Class also is relevant in this context (Bonjour & Chauvin, 2018).

2022). For hundreds of years, the geographical area that is now the US was the destination of people coming from abroad: European settlers arriving to colonise and displace native peoples and Africans who were forcibly removed from their countries to be enslaved on the other side of the Atlantic (King, 2022) were followed by European peasants (1820-1860), Southern and Eastern Europeans, Chinese, Japanese, and other Asians (from 1880- onset of World War I); and Latin Americans and Asians (after 1965) (Martin & Orrenius, 2022).

This was accompanied by different phases of immigration policy. After a laissez-faire approach for the first hundred years, qualitative restrictions barring foreigners with certain characteristics and coming from particular countries were introduced in the 1870s and 1880s. After 1920, quantitative limits were introduced and since 1980 every generation has seen a new immigration policy addressing the major immigration issue at the time (Martin & Orrenius, 2022, p. 86). At the same time, these policies remain "intricately connected to America's racial hierarchies" (King, 2022, p. 112).

The UK, like the other remaining countries, is considered a (reluctant) country of immigration (Hollifield et al., 2022). During the past century, the former colonial power's immigration policy has shifted between great liberality and great restrictiveness and is closely linked to nationality policy (Hansen, 2022). In the early 20th century, British subjects from the British Empire were largely free to enter the UK, while other migrants were not. During the post-World War II period (1950s and 1960s), citizens of the UK and its colonies as well as those of independent Commonwealth countries enjoyed the same rights and were free to enter the UK. Indeed, many labour migrants entered using their citizenship and searched for jobs once they had arrived in the UK and British subjects from (former) colonies enjoyed privileged access under a work-permit scheme (Hansen, 2022, p. 286).

This relatively liberal phase was followed by great restrictiveness (1970-mid-1990s) and family reunification became the main entry form, while requests for asylum dominated in the 1990s. Then, a second phase of relative liberty began (mid 1990-2010) during which skilled migration was welcomed and a skills-based point system was introduced to manage that type of migration. Additionally, the UK was among the few countries to immediately allow migrants from member states that joined the European Union (EU) in 2004. In the years that followed, immigration gained attention in the public debate and played an important role during the BREXIT campaign and referendum (Hansen, 2022, p. 321). Therefore, immigration policy has become more restrictive again since 2010.

Germany developed from a country of emigration to a country of immigration, even if German policy makers have long avoided to acknowledge it (Martin & Thränhardt, 2022).[3] After World War II, the 1960s guest worker programmes brought workers from Greece, Spain, Turkey, Morocco, Portugal, Tunisia, Yugoslavia and later Italy to Germany based on a rotation principle. The idea was that workers would rotate in and out of Germany, rather than settle. During the recession in 1966-67, this is indeed what happened, however, from early 1970 on workers had gained the right to permanent residency and could remain in Germany even after they lost their jobs. Still, many returned to their home countries with only about 30 % remaining in Germany. A new generation of guest workers (seasonal workers that could remain for 90 days) from Poland and Eastern European countries arrived in the 1980s. Following the 2004 and 2007 EU Enlargements and the respective waiting periods of seven years, these workers also benefited from the freedom of movement within the EU. The 2005 Migration Act sought to both attract more skilled foreigners and to promote the integration of low-skilled ones and their children (Martin & Thränhardt, 2022, p. 329). A 2019 law specifically seeks to attract skilled non-EU migrants.

Refugees arrived in Germany mainly after 1980 with early asylum seekers coming from Turkey, followed by a great number of asylum applications following of the breakup of Yugoslavia in the early 1990s. One important marker of Germany's recent history of migration is the 2015 arrival of large numbers of refugees from mainly Syria, Afghanistan and Iraq. Of those arriving and seeking asylum in 2015, more than half were accepted as refugees, most others received temporary protection, and eleven percent were rejected (Brücker et al., 2020). Most of these asylum seekers are successfully integrated in the labour market following investments made by the German government in language and culture courses (Martin & Thränhardt, 2022, p. 334).

Switzerland, while a destination for those seeking exile since the 16th century, developed from an emigration country to one receiving migrants. All the while, Swiss immigration policy has been caught between economic demands for (cheaper) labour on the one side and the fear of "over-foreignization" on the other (D'Amato, 2022; Piguet, 2006). Over the course of the late 19th and early 20th centuries, the migrant population of Switzerland increased to count 14.7% at the eve of World War I. While it decreased during the interwar

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[3] As a consequence of World War II and the subsequent separation of the German territory and the building of the Berlin Wall in 1961 caused inner German migration from East to West Germany (3.8 million between 1948 and 60000 between 1961 and 1988). Further, "ethnic Germans" moved to (West)Germany in two waves: from 1950-1990, people arrived from Poland and Romania; from 1989-2005, they did so coming from former Soviet republics.

period, after World War II it was on the rise again. As was the case in Germany, foreign workers arrived in Switzerland. While they came predominantly from Italy in the 1950s, later they arrived from Germany, France, Austria, Spain, Yugoslavia, Portugal, and Turkey. Guest worker programmes were intended as seasonal work, where workers would not settle in Switzerland or bring their families. As a consequence, during the oil crisis of the early 1970s, many unemployed guest workers had to leave the country. However, as the economy recovered, new generations arrived from Italy, Spain, Portugal, and Turkey (D'Amato, 2022).

In the late 1970s, guest and seasonal worker permits could be transformed into permanent resident permits allowing workers to reunite with their families. A turning point of Swiss immigration policy was the 2002 bilateral agreement with the EU allowing the free movement of EU citizens in the Schengen area, while for third country nationals (those from outside the EU/EFTA area) were subject to more restrictions. Intra-European migration, which normalised in the years that followed, was the target of the 2014 "mass migration" popular initiative. The initiative, which was accepted by a small margin of about 20'000 votes, demanded the reintroduction of quotas on immigrants from the EU. To appease the EU somewhat, the final implementation of the referendum modified this slightly, calling on employers to give precedence to workers residing in Switzerland over those from abroad. (D'Amato, 2022)

Regarding asylum, Switzerland took a liberal approach in the beginning accepting refugees from Easter European Communist countries late 1950s and 1960s (D'Amato, 2022). Later, from the mid-1970s on, refugees from outside of Europe (Chile, Vietnam, Cambodia) arrived. As a response, procedures and responsibilities between the federal and cantonal governments were streamlined and after 1981 applications for asylum increased drastically. From the mid-1980s, stricter procedures and subsequently the share of accepted applications decreased decidedly (D'Amato, 2022). However, as in other European countries, Switzerland received many asylum applications from the Balkan region throughout the 1990s. After a shift in public opinion, more restrictive policies were introduced in 2006 and subsequent reforms in 2013 and 2016 sought to reform the processing of asylum applications to better cope with increased requests (D'Amato, 2022).

In Denmark and Sweden, immigration policy is closely linked to the welfare state (Brochmann, 2022). At the outset, the basic structure of a restrictive immigration policy and an inclusive integration policy was meant to protect the welfare and labour market model.

Historically, both countries have received immigrants from their Scandinavian neighbours for centuries and immigration from non-OECD countries is mainly a post-1960s phenomenon (Brochmann, 2022, p. 413). However, the two countries have developed different ways of dealing with it.

Sweden was the first of the Scandinavian countries to recruit foreign labour and to become an immigration country. A first wave of labour immigrants arrived from Turkey, Yugoslavia, Morocco, and Pakistan (Brochmann, 2022), which was followed from the mid-1960s with gradually stricter regulations to limit unwanted and unskilled immigration, while allowing that of skilled workers. Non-OECD immigrants continued to arrive as refugees and asylum seekers or family members of those already in the country and citizens from other EU member states enjoyed freedom of movement as part of the Schengen agreement. A second wave of restrictions were introduced in the early 2000s for humanitarian categories of immigrants, while regulations were relaxed for "attractive" immigrants.

Sweden was one of the few countries that immediately allowed migration without restrictions from the Eastern European countries who joined the EU in 2004. Later, in 2008, Sweden introduced a liberalised labour immigration policy for the entire world. In response to the large amounts of refugees arriving in 2015 from the Middle East, national border controls were introduced and temporary protection for asylum seekers took over as the standard approach. This marks a turning point in the Swedish immigration policy and while some restrictions have been moderated, they have not gone back to a pre-2015 regime (Brochmann, 2022).

Denmark is the most restrictive regarding immigration out of the Scandinavian countries (Brochmann, 2022). As in Sweden, a first wave of labour migration was followed by restrictions (the "immigration stops" were introduced in 1973). Denmark, too, is a member of the European Union and the Schengen area, however, with an opt-out position for the common immigration policy (Brochmann, 2022). After 2001, immigration policy took a more restrictive turn in Denmark adding new controls and access policies (e.g. the notion of a "de facto refugee"). In the public debate, migration is clearly linked to welfare state issues and, unlike in other Scandinavian countries, the duties of immigrants to integrate are more emphasised. For Denmark, too, 2015 marks a turning point. Like Sweden, Denmark introduced national border controls and has not gone back to a pre-2015 regime, rather it "reinforced the retrenchments and deepened the transformation of its approach to integration" (Brochmann, 2022, p. 427).

Further restrictions introduced in 2019 detached Denmark from the traditional Scandinavian approach to immigration and integration.

All six countries discussed here are more diverse today than they were sixty or seventy years ago. There are common elements in their history of and with migration, such as the attempt to influence which migrants arrive and how long they stay. However, there are also differences between them regarding their histories of and with migration, from where people arrive, and how they are integrated in the receiving societies. The following section will review the institutional structure of redistributive policies in the six countries and how migrants are able to access welfare state services.

Welfare states

Welfare states across the Western world have successfully institutionalised solidarity (Offe, 1984), the boundaries of which are often closely linked to those of the imagined community the nation state (Anderson, 1991; Ferrera, 2005). These welfare states have developed in various ways resulting in different institutional landscapes and remain popular (Brooks & Manza, 2006, 2007). Based on four dimensions, Esping-Andersen (1990) identifies three welfare regimes: the liberal, the conservative corporatist, and the social democratic.[4] The six Western welfare states that are of interest in the context of this thesis are distributed across these three regimes: the UK and the US are representative of the liberal regime; Denmark and Sweden the social democratic / Nordic regime; and Germany and Switzerland of the conservative corporatist / Christian democratic regime. However, the Swiss welfare state has some liberal elements and therefore does not neatly fit into the conservative / Christian democratic regime category (Kriesi & Trechsel, 2008).

Since the 1990s, the welfare states in all these countries have undergone important changes that have been characterised by a gradual dualization of access to welfare state services (Emmenegger et al., 2012b) and a greater emphasis on social investment policies (Garritzmann et al., 2022a, 2022b). The process of dualization took place in tandem with labour market reforms protecting "insiders" at the expense of "outsiders", those in atypical or non-standard employment (Emmenegger et al., 2012b; Palier & Thelen, 2010). For the access to welfare state services this meant a starker differentiation between occupational insurance/contributory benefits for the former and more assistance and in-work/non-contributory benefits for the latter

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[4] The four dimensions are: variations in decommodification; the stratifying effects of social policies; the relationships between the state, market and family in social provision; and the dynamics between the welfare state and the structure of employment.

(Palier & Thelen, 2010, p. 139). The group of "outsiders" is comprised of members from different societal groups, but women, young labour market participants, low-skilled workers, immigrants and workers of migrant origin are overrepresented (Emmenegger et al., 2012a, p. 307). The actual composition of who is part of both the "insiders" and "outsiders" varies across countries and the welfare state regimes as does their economic and social situation (Häusermann & Schwander, 2012). However, immigrants are disproportionately negatively affected by the welfare reforms (Emmenegger & Careja, 2012, p. 142).

Social investment policies "aim to create, mobilize, and/or preserve human skills and capabilities" (Häusermann et al., 2022) rather than to compensate (through cash transfers) for life course risks such as unemployment. States have implemented these policies and strategies in inclusive, stratified and targeted ways (Häusermann et al., 2022) in accordance with the classification by Esping-Andersen (1990). These policies to invest in human capital, in principle, could be a promising tool to promote the social and economic integration of immigrant and ethnic minorities. However, there are access biases in many social investment policies that prevent migrants from fully benefitting from these services (Bonoli, 2020; Bonoli & Liechti, 2018) as well as additional hurdles such as discrimination in hiring procedures (see e.g., Zschirnt & Ruedin, 2016).

Indeed, migrants have more limited possibilities to fully benefit of the welfare state (Hooijer & Picot, 2015; Morissens & Sainsbury, 2005). Morissens and Sainsbury (2005) find that migrants and ethnic minority migrants are less likely to maintain a "socially acceptable standard of living" (Morissens & Sainsbury, 2005, p. 654) than citizens and they are less likely to be lifted out of poverty through welfare state transfers. In this context, Hooijer and Picot (2015) highlight the importance of the composition of the migrant population as a result of a country's immigration policy and the institutional context of a given welfare state.

The institutional context also matters for how well migrants are able to access the welfare state (Sainsbury, 2006, 2012). Sainsbury (2012) finds that the type of welfare regime is important for effectively reducing poverty, but also assuring immigrants are able to enjoy a socially acceptable standard of living. Social democratic regime countries have been more successful to that end than those with the other two regimes (particularly the liberal regime). Further, the author finds immigrants have lesser substantive and effective social rights than citizens and restricted access to social benefits. Welfare state reforms of the recent years have also disproportionately affected immigrants (Sainsbury, 2012). However, they have not been

uniformly exclusionary with many countries introducing both exclusionary reforms and inclusionary policy changes (Koning, 2021). Using an index on immigrant exclusion from social programmes, Koning (2021) situates the countries of interest in the context of this thesis on a spectrum ranging from rather inclusive (Sweden) to moderately exclusionary (Germany, Denmark, Switzerland, United Kingdom) to rather exclusionary (United States) in 2015.

There is also cross-country variation in the context of the welfare state. Namely, the six countries fall into the three welfare state regimes. Additionally, they vary both in their ability to address the challenges immigrants face and the degree to which they allow immigrants to access social policies. The following section reviews potential challenges and pit falls increased diversity can mean for the welfare state and the general public's support for it. In that context it also looks at why and how sharing with strangers may be more difficult than with members of one's own group.

Sharing with strangers

A common assumption is that in (increasingly) diverse societies, the preference for redistribution is low or would decrease (see e.g., Alesina et al., 2001; Alesina & Glaeser, 2004). Indeed, Schaeffer (2013), when reviewing the literature on ethnic diversity and its impact on social cohesion quantitatively, finds evidence "slightly more confirmatory than confuting" (Schaeffer, 2013, p. 11), with disciplinary differences between findings published in Political Science and Sociology vis-a-vis Economic journals. This disciplinary diversity is in line with the findings of the systematic review by Stichnoth and van der Straeten (2013) focused on public spending and individual support for it in the context of ethnic diversity and the welfare state. However, the authors look at various aspects, such as actual spending, attitudes (measured through social capital and welfare state attitudes), behaviour and experiments and find that evidence of the negative relationship between diversity and public spending "is mixed at best" (Stichnoth & Van der Straeten, 2013, p. 17).

Furthermore, the connection between public attitudes and preferences for public expenditures is not as directly linked as previously assumed. Steele (2016), in analysing individual-level attitudes towards ethnic diversity and attitudes about social spending in 91 countries, finds that the "relationships between ethnic diversity and social spending and ethnic diversity and attitudes about spending do not follow the same pattern" (Steele, 2016, p. 1453). While the relationship is negative for the former, it is slightly positive for the latter. However, variations between countries persist and the author does not find "consistent or universal

effects" (Steele, 2016, p. 1468) of ethnic diversity on preferences for redistribution. She does, however, find that in countries with acute economic inequalities and increases in immigration over the past decade support for redistribution is lower. So, it is not the size of the current immigrant population that has an impact on preferences for redistribution.

At the neighbourhood level, too, it is not clear-cut how diversity is connected to support for redistribution. Steele and Perkins (2018) find that greater perceived racial and ethnic diversity of New York neighbourhoods was associated with greater support for redistribution or social policies. Only in majority white neighbourhoods did the authors find evidence of a reverse (negative) association for black and white respondents. Van der Meer and Reeskens (2021), however, find that in ethnically diverse neighbourhoods in the Netherlands, support of natives for redistribution to economic migrants is lower than that to natives or political refugees. Support for redistribution at the neighbourhood level, then, seems dependent both on the composition of neighbourhood diversity as well as the potential groups of beneficiaries.

In the context of research on populist radical right-wing parties, this preferential support for access to the welfare state for citizens over migrants is called "welfare chauvinism" (Andersen & Bjørklund, 1990, p. 212; see also Careja & Harris, 2022 for a recent review). Indeed, these parties have adopted it as a political strategy and influenced welfare state reforms (Careja et al., 2016; Chueri, 2022). They did so by successfully promoting a "dualistic" welfare state arguing for protectionist policies for the "deserving" and neoliberal ones for the "undeserving" (Chueri, 2022).

Why migrants are so often perceived as undeserving of access to welfare benefits at the individual level or are excluded from such sharing agreements such as the welfare state may have its roots in intergroup bias or other social psychology explanations (Green et al., 2015; Hewstone et al., 2002): The greater inclination to share with those who are socially closer stems from an in-group preference, rather than a dislike of strangers or out-group members (Brewer, 1999, 2007; Tajfel & Turner, 1979, 1986). According to social identity theory (Tajfel & Turner, 1979), by differentiating out-group from in-group members, the latter are able to create or protect the status of the in-group and satisfy their need for positive self-esteem. Further, as already described above, unconditional trust and cooperation opens individuals and the group up to exploitation by others. The decision to share, thus, presents a dilemma of trust where cues such as the intention to reciprocate help identify trustworthy collaborators.

In that context, in-group members are preferred, as they share certain characteristics and behaviours with the individual and thus in-group members benefit from contingent altruism (Brewer, 1999, p. 433). Group identification, based on the optimal distinctiveness model of social identity (Brewer, 1991), depends on the need for inclusion of the individual on the one hand and the need for differentiation from others on the other hand. In-group loyalty, then, is "most effectively engaged by relatively small, distinctive groups or social categories" (Brewer, 1999, p. 434). At the same time, in-group / 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 to smaller exclusive groups such as a family or profession.

Furthermore, between different groups in multi-ethnic societies, in-group preference prevails and there is agreement on a hierarchy of out-group preferences as well as a consensus on the rank of each out-group in this hierarchy (Hagendoom & Hraba, 1987; Hagendoorn, 1993, 1995; Hagendoorn et al., 1998). This is true irrespective of gender or ethnic background (Snellman & Ekehammar, 2005). Though, in the context of studies on who deserves access to welfare state services, the results are mixed: While some find an ethnic ordering of respondents depending on their country of origin (Kootstra, 2016), others do not (Reeskens & van der Meer, 2019).

In other fields of research studying the sharing of resources, the importance of reciprocity is underscored (Bowles & Gintis, 1998, 2000; Fong et al., 2006). Based on the analysis of a number of economic experiments, Bowles and Gintis (Bowles & Gintis, 1998, 2000) identify a *Homo reciprocans* who acts guided by a sense of *strong reciprocity*. This *strong reciprocity* is defined as the "propensity to cooperate and share with others similarly disposed, even at personal cost, and a willingness to punish those who violate cooperative and other social norms even when punishing is personally costly" (Bowles & Gintis, 1998, pp. 2–3). However, it goes beyond norm-enforcement and also includes a strong notion that there should be a "a rough balance of rights and obligations in social exchange" (Bowles & Gintis, 2000, p. 44).

Indeed, the authors find that people are generous and willing to share with others, even strangers, though less so with increasing social distance. Further, they contribute to public goods and participate in collective efforts, while considering free riding an unfair behaviour that must be punished, even at personal cost (Bowles & Gintis, 1998, pp. 13–14). In these

experiments, the underlying norm of reciprocity and conditional obligation towards others explains the differentiated support for the welfare state and its policies (Bowles & Gintis, 1998, 2000; Fong et al., 2006).

The perceived commitment to a shared (national) identity seems to also influence solidarity towards members of non-majority groups. Harell and colleagues (2021) show that in Canada support for their inclusion in redistributive arrangements is positively linked to how immigrants, Aboriginal people and French-speaking Canadians from Quebec are perceived to be members of and committed to the Canadian community. If members of these minority groups are perceived as committed members of society, the willingness to support targeted support spending increases. This is particularly strong for the two native minority groups. Generally, while Quebeckers are perceived to be closest to the English-speaking Canadians in their commitment to the Canadian community, Aboriginal peoples and Immigrants are viewed as less committed and therefore less "part of 'us'" (Harell et al., 2021, p. 16).

Interestingly, though, support towards for targeted and inclusive redistribution towards Aboriginal peoples is strongest, followed by immigrants, and French-speaking Quebeckers.[5] Indeed, the perceived (or actual) target group of a given policy influences the policy measure (C. A. Larsen, 2008) or the evaluation of it (Haselswerdt, 2020). Additionally, the dividing lines between in-group and out-group are not as clear cut into a binary "us" versus "them," but a more complex network of different groups that also relate to each other (Dixon et al., 2020). Further, the notion of the in-group and who belongs to it can change (Fouka & Tabellini, 2022).

In conclusion, increasing diversity does not necessarily mean support for redistributive arrangements, such as the welfare state, will decline. Rather, it depends on the respective composition of societies, the potential groups of recipients, and the policy in question. Further in-group out-group mechanisms play an important role in the assessment of who should benefit from welfare state services: in that context, it is also reciprocal behaviour as well as the perception of commitment and belonging to a common "us". To further understand who merits to be included in redistributive arrangements in the perceptions of the general public the following section will look more closely at these assessments of deservingness.

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[5] Expanding this investigation into who belongs to this "us" in eight other Western welfare states, the authors find perceived (commitment to the) membership to be clearly linked to support for inclusive redistribution (Harell et al., 2022)

Deservingness

Deservingness refers to the degree to which an individual is considered "worthy or unworthy of an outcome" (Kootstra, 2016, p. 327), that is, welfare state access in the context of this thesis. Van Oorschot (2000) identifies five criteria that inform the assessment of who deserves access to welfare state services (see also Cook, 1979; de Swaan, 1988). These *CARIN* criteria refer to *control*, relating to the reasons why the person is in need and their responsibility for it; *attitude*, referring a person's docility and thankfulness for receiving aid; *reciprocity*, the degree of reciprocation of the person towards the community; *identity*, a person's proximity to or membership of the evaluating "us"; and, finally, *need*, the degree to which a person is in need of support. The less in control a person is of their situation, the more grateful, the more they reciprocate, if they belong to the "us", and the more in need of support they are, the more deserving they become.

Situated rather in political science and rooted in the evolutionary psychology of small-scale exchanges, Petersen and colleagues describe deservingness heuristics that underlie the process of determining an individual's deservingness for help (Petersen, 2012; Petersen et al., 2012). As part of these automatic decision-making processes, the assessment whether an individual should be helped is made based on different cues: Here, too, it matters how the individual became in need of help and whether it is signalling the intention to reciprocate. Individuals in need due to circumstances beyond their control are considered deserving of help if they signal effort to contribute to the community (Petersen et al., 2010).

Building on this body of work, Knotz and colleagues (2021b) suggest a redefinition of the common deservingness criteria for the sake of clearer differentiation between the criteria and improved internal coherence (in line with Gerring, 1999). Based on comparisons of different model specifications of deservingness criteria, the authors suggest that deservingness perceptions are driven by the level of the person's *need* (N), the extent to which they are seen as having a shared social *identity* (I), their level of *control* over their situation (C), their current *efforts* to contribute (E), and their past *reciprocal behaviour* (R) (Knotz et al., 2021b, p. 3). The attitude criterion, narrowly defined as only symbolic expressions and gestures that signal gratitude rather than concrete behaviour, is not included, as it does not consistently matter for the evaluation of deservingness.

Deservingness criteria have been applied in different policy areas, namely, unemployment benefits (see e.g. Aarøe & Petersen, 2014; Buss, 2019; Knotz et al., 2021b),

other social benefits (see e.g., Blomberg et al., 2017; De Wilde, 2017; Heuer & Zimmermann, 2020; Kootstra, 2016), health care (Jensen & Petersen, 2017; Knotz et al., 2021c; M. H. Larsen & Schaeffer, 2021, 2021; Reeskens et al., 2021; Van Der Aa et al., 2017), and, more recently, migration policy (De Coninck & Matthijs, 2020). Across these policy areas, deservingness criteria have proven to be good predictors of people's perceptions of who should benefit from collective solidarity, as they all share an underlying assessment of who should receive access to a given good. The following subsection will focus more closely on the identity criterion as this has proven particularly important for the deservingness of migrants to welfare state services.

Identity in the context of deservingness

The identity criterion, which is of particular interest for this thesis, plays an important role in the assessment of deservingness (Kootstra, 2017; Reeskens & van der Meer, 2019; van Oorschot, 2000), and more so over time (De Coninck & Matthijs, 2020). However, identity was not always measured (Laenen & Meuleman, 2019; Sadin, 2017; Van Der Aa et al., 2017) or directly included in the analysis. This was either because the focus was on comparing the deservingness of different groups of needy people (Jeene & van Oorschot, 2014; Laenen & Meuleman, 2017; Lepianka, 2017; Roosma & Jeene, 2017; Uunk & van Oorschot, 2017) or studies were looking at the deservingness of one needy group over time (Buss et al., 2017; C. A. Larsen, 2008; Uunk & van Oorschot, 2019; van Doorn & Bos, 2017). When it was included, the identity criterion was operationalised in various ways either by ethnic background, origin or nationality on its own (Buss, 2019; Knotz et al., 2021b, 2021c) or in combination with migration status (Kootstra, 2016), length of residency (M. H. Larsen & Schaeffer, 2021; Reeskens & van der Meer, 2017, 2019); religion (De Coninck & Matthijs, 2020); or a mix (van Oorschot, 2000).

Early deservingness research comparing different target groups of support finds a hierarchy of deserving groups led by pensioneers, followed by the sick and disabled, the unemployed and finally immigrants (van Oorschot, 2006, 2008). More recent qualitative work has identified a similar ranking of deserving groups, namely, families, the elderly, those with low-income, the unemployed, immigrants, and the well-off (Heuer & Zimmermann, 2020). Yet, as Kootstra (2016) points out, comparing immigrants, with needy groups such as

pensioners, the unemployed or those with low in-come is problematic, because immigrants are not in need of support by virtue of being immigrants.[6]

Comparisons of immigrants to citizens of the country claiming the same benefit, however, also find a differential treatment of migrants ranging from a relatively straightforward differentiation between those with foreign origin and those without (Buss, 2019; Knotz et al., 2021b, 2021c; Reeskens & van der Meer, 2017), to a "double standard" where claimants with ethnic background are punished more severely for "unfavourable" behaviour (Kootstra, 2016) to an "insurmountable immigrant penalty" that immigrants cannot overcome even on their best behaviour (Reeskens & van der Meer, 2019). Longer residency of the those with foreign origin has a positive effect on their perceived deservingness (M. H. Larsen & Schaeffer, 2021; Reeskens & van der Meer, 2017, 2019). So, while not a needy group by definition, immigrants, when compared to native claimants, are considered less deserving of accessing welfare benefits.

Identity is also an important predictor of deservingness when adopting a broader understanding of diversity (Kootstra, 2017). Comparing two majority groups (people, white Britons) and four minority groups (black Britons, ethnic minorities, Muslims, and immigrants), Kootsta (2017) finds that black Britons, white Britons, and people in general are perceived as most deserving of financial government support while ethnic minorities, Muslims and immigrants are seen as least deserving. Further, the author finds that the deservingness criteria "play a greater role in shaping the perceived deservingness of disliked groups than of liked groups" (Kootstra, 2017, p. 277). As such, immigrants score lowest (or second lowest) on the five criteria and particularly so on attitude, reciprocity, and identity. Immigrants, then, are also least deserving when compared to a broader spectrum of majority and minority native claimants.

To conclude, empirically the importance of the identity criterion for deservingness is well established. However, the exact mechanism of why and how it matters remain unclear. The section on people on the move showed that migrants are a very diverse group of people, something that deservingness research has not taken into account sufficiently to date. Indeed, broadening the spectrum of groups considered as part of the assessment, as for example Kootstra (2017) has done, shows the role of the identity criterion may be more complex than merely being perceived as similar or close (Delton et al., 2018; Petersen, 2012; van Oorschot

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[6] See also on this.issue (M. H. Larsen & Schaeffer, 2021).

et al., 2017). Still, as the previous section highlighted, even such assessments of belonging are more complex (see, eg., Harell et al., 2021, 2022).

The role, understanding, and operationalisation of the identity criterion in deservingness assessments then is where this thesis ties into. Therefore, in the remainder of this thesis when I speak of identity, it will refer to the identity criterion. More specifically, it will be the two more traditional operationalisations of the criterion, nationality, and length of residency, that are the focus of this thesis. Gender, age, and occupation are considered as well in the context of papers II and II but are not discussed here more in depth to reduce complexity. In the following section, I discuss my contribution to the literature reviewed here in more detail.

My contribution

The outbreak of the COVID-19 pandemic, which has prevailed during most of my PhD, presented a singular opportunity to see what shape deservingness assessments would take during times of crisis. The policy responses to the pandemic were unprecedented in many respects, and it was unclear at the time how such an event would influence perceptions of deservingness in general, but also the perceived deservingness of migrants in particular. My co-authors and I made use of this opportunity to investigate *how deservingness assessments are made during times of crisis*.

With few exceptions, previous research has investigated perceived deservingness mainly in the context of compensatory welfare services, such as unemployment benefits. It is conceivable that the relevance of the deservingness criteria may differ in the context of social investment policies. So, I together with my co-authors study *how deservingness is attributed in the context of social investment policies (subsidised childcare)*.

The above literature review demonstrated that immigrants are consistently found less deserving of accessing welfare services than citizens of the country under investigation. Further, they are a more diverse group than deservingness research has considered to date. Yet, how migrants are perceived depends on a multitude of factors and then the decision to share is influenced by in-group out-group mechanisms and evaluations of belonging to an abstract "us". Without going too far beyond the existing operationalisations of identity, I am interested *what drives the effect of identity criterion*.

Regarding the institutional context, there is variation regarding welfare state regimes, migrant incorporation, and the history of and with migration in the six countries investigated in this thesis. This multi-country approach permits me to investigate *how deservingness*

assessments differ across welfare states as much previous work has focused on single country studies.

Answers to all these questions contribute to an improved understanding of *migrant deservingness of different welfare state services and across welfare states, particularly the role of the identity criterion in these assessments*. In the following sections I outline my methodological approach, summarise my key findings, describe their significance and policy implications before discussing limitations of this thesis and avenues for future research.

Methodological approach

To recall, the guiding research questions for this thesis are: how are deservingness assessments made during times of crisis? How is deservingness attributed in the context of social investment policies? What drives the effect of the identity criterion? And, finally, how do deservingness assessments differ across welfare states?

All of these questions could be answered using both qualitative or quantitative methods and, indeed, in the context of deservingness research both methods have been applied successfully (for qualitative work see e.g., Heuer & Zimmermann, 2020 and; Laenen et al., 2019; for examples of quantitative work see among others Kootstra, 2017; Petersen et al., 2012; Reeskens & van der Meer, 2019; van Oorschot, 2000). Both for practicability and feasibility reasons, particularly during the pandemic, I decided to take a comparative quantitative approach.

Assessments of deservingness are prone to social desirability, I therefore apply two related methods which allow the testing of causal relationships while minimising potential biases (Auspurg et al., 2014; Hainmueller et al., 2015) and independently of respondent-level characteristics (Jasso, 2006). Both methods also enable the researcher to study multiple theoretical mechanisms simultaneously while also collecting information on respondents to test for subgroup heterogeneity (Auspurg & Hinz, 2015; Hainmueller et al., 2014). Additionally, even though they capture preferences only, they have also been shown to be closely related to real life behaviour (Hainmueller et al., 2015).

In paper I, I use a conjoint design (Hainmueller et al., 2014). Here, respondents are asked to evaluate fictional persons when presented with brief descriptions. The characteristics used to describe these fictional persons are randomly varied and each description is attributed randomly to respondents. For papers II and III, (my co-authors and) I use factorial survey experiments where respondents are asked to evaluate brief descriptions of fictional individuals,

also called vignettes, in which certain characteristics are systematically (rather than randomly) varied (Auspurg & Hinz, 2015; Jasso, 2006). This is recommended for more complex designs as is the case for both experiments (Auspurg & Hinz, 2015, p. 35). To ensure all characteristics are evaluated equally, vignettes are organised in decks based on a D-efficient design (Kuhfeld, 2010) and then these decks are assigned randomly to respondents.[7] We did not exclude any implausible combinations of vignette attributes as we ensured the combinations were plausible, even if not very common.

The experiments were included in two surveys using incentivised online panels in Switzerland (paper I) and Denmark, Germany, Sweden, Switzerland, the UK, and the US (papers II and III) provided by a European market research firm (Gandenberger et al., 2020, 2021). As these panels are not representative in their demographic composition, we used quotas for basic demographic characteristics of the respondents, that is, age, gender, education and the area where they live.[8] Furthermore, samples using online panels have been shown to produce externally valid results (Berinsky et al., 2012; Clifford et al., 2015; Weinberg et al., 2014).

All papers have a comparative component. In paper I, my co-authors and I compare deservingness assessments across three different policy areas. In papers II and III, (my co-authors and) I compare such assessments across the six countries. This is to account for the institutional variation and to allow me to see if it influences deservingness assessments at the individual level.

Key findings
Paper I summary
Paper I studies perceptions of deservingness during the first year of the COVID-19 pandemic. To that end my co-authors, Carlo Knotz, Flavia Fossati, and Giuliano Bonoli, and I fielded three original survey experiments (conjoint) in Switzerland shortly after the first and second infection waves, that is, in April/May 2020 and November/December 2020. The experiments covered three important policy areas at the time, namely, access to government aid for the self-employed, a bed in the intensive care unit, and permission to cross the border. The basic demographic characteristics remained the same across the experiments, however, we

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[7] D-efficiency scores of vignette designs can range from 0 to 100 and it is recommended to use designs with a D-efficiency above 90 (Auspurg & Hinz, 2015). Both the childcare experiment of paper II and the experiment on unemployment benefits in paper III achieve this with a D-efficiency of 94.7903 and 96.2639, respectively.

[8] For the 2020 survey in Switzerland this refers to the French- and German-speaking areas. In the 2021 Survey this refers to rural and urban areas for all six countries as well as an additional quota for language region in Switzerland.

adapted each to provide the relevant information in the respective context. As the pandemic was still unfolding and we were without a theoretical blueprint of what should happen to evaluations of deservingness to aid and support, this paper took a more explorative approach.

We find that, indeed, even during extraordinary circumstances, which the COVID-19 pandemic certainly was at the time, such evaluations are still based on an underlying logic of conditional solidarity. Across all three policy areas, the well-known deservingness criteria of reciprocity, effort, identity, (medical) need, and control play an important role for assessing an individual's deservingness. Particularly contributing to the community, through either past actions or contributions or through current efforts (such as volunteering), impacted the assessments. Additionally, nationals were perceived as more deserving than non-nationals, even in the context of the intensive care experiment. However, the findings of the third experiment on border crossings allow for a more nuanced understanding: As part of that experiment, we included additional information on the legal status of the individual and find that those with more long-term permits are as deserving as citizens and at least in the April/May wave respondents did not differentiate between the Swiss and their immediate neighbours from Germany and France.

Paper II summary

In paper II, my co-authors, Carlo Knotz and Giuliano Bonoli, and I investigate what deservingness might look like in the context of social investment services, particularly childcare services. To that end, we rely on data from an original survey experiment (vignette) fielded in six Western welfare states (Denmark, Germany, Sweden, Switzerland, the United Kingdom, and the United States) in the summer/fall of 2021. Based on the deservingness literature, research on social investment, and recent work on varieties of social investments, we expect the traditional deservingness criteria to matter also in this context (with some adjustments to the specific context of childcare services) and for the evaluations to vary across the six countries.

The cross-national patterns of response indeed are in line with the three types of social investment, namely inclusive (Denmark and Sweden), stratified (Germany and Switzerland), and targeted social investment (UK and US) (Häusermann et al., 2022). At the same time, the traditional deservingness criteria matter also in the context of social investment, that is the prioritisation of parents in need of childcare. Need, both financial and in terms of reconciling work and family life, matters most importantly. Identity, that is, the parents' nationality and

their length of residency, matters as well in all six countries. Parents with foreign nationality or those who have moved to the country only recently are less deserving than those holding the nationality of the country they live in or those that have been born in the country in question.

Paper III summary

In this paper, I focus on the identity criterion in the context of deservingness assessments. Specifically, I investigate whether the "insurmountable immigrant penalty" (Reeskens & van der Meer, 2019) for foreign born individuals is indeed insurmountable. Namely, if it applies to all immigrants regardless of citizenship. Simultaneously, I test if citizens are deemed equally deserving, regardless of their length of residency in the country of which they hold citizenship - that is, whether there is a "citizenship reward". Regarding the role of the institutional context and as access to citizenship varies across countries, I expect respondents in countries with stricter naturalisation requirements to be more susceptible to the citizenship signal of belonging to the shared "us" when assessing the identity criterion. To that end, I expand previous investigations into this lower deservingness of immigrants, by including citizens born abroad in the pool of potential claimants for unemployment benefits. The original survey experiment is included in the same survey as that of paper II fielded in the summer/fall of 2021 in Denmark, Germany, Sweden, Switzerland, the United Kingdom, and the United States.

I show that there is neither a universal "immigrant penalty" for having been on the move, nor is there a "citizenship reward". Rather membership to the collective "us" is assessed in two ways: both formal (holding citizenship) and informal (having been born in the country) factors contribute to the effect of identity in deservingness assessments. How these two aspects matter varies across the six countries. In Germany, Sweden being a citizen or having lived there since birth makes a person equally deserving of collective solidarity. Further, in the UK and to some degree in Switzerland, foreign-born non-citizens who have lived in the respective country for a long time are as deserving as citizens born there. However, in Denmark and the US (and to some degree also in the UK), even holding citizenship does not guarantee recent arrivals the same level of deservingness as their fellow citizens born there.

Summary of findings of additional papers

In addition to these three papers discussed above, I have contributed to a number of published and unpublished work over the course of my PhD that I will briefly discuss here: one theoretical paper on deservingness criteria (Knotz et al., 2021b), three papers studying

solidarity in times of the COVID-19 crisis (Bonoli, Fossati, et al., 2022; Knotz et al., 2021a, 2021c), and four papers reviewing public attitudes across welfare states and policies (Bonoli, Chueri, et al., 2022; Chueri et al., 2022; Fossati et al., 2022; Knotz et al., 2022).

In the theoretical paper, we review and engage with the existing literature on deservingness perceptions in social policy and political science, before highlighting challenges that arise from ambiguous definitions of the deservingness criteria for operationalisations and comparability of results across studies (Knotz et al., 2021b). We therefore propose a redefinition of deservingness criteria (need, identity, control, effort, and reciprocity) and provide an empirical demonstration of the relevance of this recast framework by way of an original survey experiment conducted in Germany and the US in 2019.

The work focussing on solidarity during the COVID-19 pandemic emerged along with paper I and is based on the same survey conducted in the spring and fall of 2020 in Switzerland (Gandenberger et al., 2020). The first of these additional articles focusses more specifically on public attitudes toward pandemic triage, namely, the allocation of access to the intensive care unit (Knotz et al., 2021c, see also experiment II in paper I). We highlight that the general public does not attribute great importance to medical considerations, but rather prioritises patients based on their behaviour before and during their illness and their nationality. The second work in this collection studies priority access to vaccines in Switzerland (Knotz et al., 2021a). In this research note, we asked respondents to rank various societal groups (children, the elderly, the chronically ill, health care workers, police officers, teachers, and the general population) according to when each group should be given access to COVID-19 vaccines. Vulnerable groups, such as health care workers or the elderly, are prioritised. Additionally, we find cross-generational solidarity between younger and older age cohorts, with each group attributing higher priority to the other. Further, while vaccine hesitancy does play a role for younger respondent's prioritisation of older age groups, that of (mostly younger) health care workers by the older groups seems to be genuine.

The final paper on solidarity in times of COVID-19 studies public attitudes toward providing financial help to the self-employed, a group that traditionally remains outside common welfare arrangements and which tends to oppose government interventions (Bonoli, Fossati, et al., 2022). We show that the general public supports the provision of (refundable) financial support to both small- and medium-sized businesses, while respondents are overall more benevolent toward smaller businesses. The self-employed themselves are most in favour

of more generous forms of help, such as non-refundable payments. These collected findings show that solidarity remains intact also during times of crisis, albeit sometimes in a conditional manner. Further, opinions on redistribution are responsive to the crisis context, though it is unclear how persistent this effect is.

The second collection of papers studying public attitudes across welfare states and policies, both under review and still work in progress, are based on the same survey on welfare inclusion and solidarity that served as the basis for papers II and III (Gandenberger et al., 2021). The first paper in this collection studies immigrant deservingness in the context of the social investment welfare state (Bonoli, Chueri, et al., 2022). To that end, we compare deservingness perceptions to unemployment benefits with those to two typical social investment interventions, training for the unemployed and subsidized childcare. We find that for both types of social intervention, immigrants are equally deemed less deserving than nationals. A second paper investigates under which conditions the general public would attribute a non-refundable support grant to medical students with varying characteristics (Fossati et al., 2022). We find that in this context, too, respondents in the six countries prefer to invest in students sharing their nationality rather than those who are objectively gifted or conscientious. This result is strengthened by political ideology.

The two remaining papers on welfare inclusion and solidarity focus on welfare chauvinism. One paper examines the distributive preferences of voters of populist radical-right parties (Chueri et al., 2022). We find that this group is not more authoritarian than other voters. However, the identity criterion is of great importance for this group, and they are particularly exclusionary towards immigrants. Nonetheless, they are not more supportive of a generous welfare state than the average voter, even for, in their view, deserving claimants. We therefore conclude this group of voters is nativist, but not welfare chauvinist. The final paper studies the role of psychological variables and personality traits for welfare chauvinism, that is, ethnocentrism, authoritarianism, social dominance orientation, and implicit bias (Knotz et al., 2022). We find that authoritarianism and implicit bias have no effects, rather welfare chauvinism is driven by negative stereotypes of immigrants (ethnocentrism) and the desire for social hierarchy and in-group dominance (social dominance orientation). The results of this collection of papers shows the persistence of relevance of the deservingness criteria across policies and countries. Yet, it also demonstrates that learned behaviour, such as political views or stereotypes influence the perception of who is deserving of collective help and who is not.

Significance of findings

Most research on deservingness focuses on one welfare state policy in one country. The findings of paper I-III improve our understanding of migrant deservingness by studying deservingness assessments to various welfare state services in times of crisis (paper I), across different countries (paper II), policies (papers I, II, and III) and by dissecting the effect of identity further (paper III).

I show that identity matters, regardless of the policy area or the context (normal vs. crisis), and that its role in deservingness assessments is more complex than previously understood. Findings from paper I indicate that maybe in cases where limited information is available to respondents, they use the identity criterion (particularly nationality) as a proxy for more than assessments of belonging to an abstract "us" but also have implicit assumptions about e.g., the claimant's reciprocal behaviour. This may have been the case in the experiment on access to the intensive care unit. However, as the results of the experiment on border-crossings in that same paper illustrate, the more nuanced the information is that becomes available to them, the more nuanced the effect of identity becomes. Nevertheless, even when information on reciprocal behaviour (both past and future oriented) is provided, the effect of identity persists, as can be seen in papers II and II.

Still, neither are all immigrants automatically less deserving than citizens born in the country, nor are citizens born abroad immediately as deserving. Rather to be perceived as part of the in-group (the "us") has two aspects, which relate to the formal (having citizenship) and the informal (having been born in the country) aspects of membership. In Germany and Sweden, being part of either of these groups makes a person deserving of the collective solidarity. Further, in some cases even foreign-born non-citizens can "earn their place" over time (e.g., in the UK and to some degree in Switzerland). However, in Denmark and the US, even citizenship does not guarantee recent arrivals the same level of deservingness as their fellow citizens born there.

Further, the results from papers II and III where (my co-authors and) I compare deservingness assessments to childcare and unemployment benefits across six Western welfare states indicate that contextual factors, that is institutions, may play a more important role than previously thought. In paper II, together with my co-authors, I show that indeed the institutional context matters for deservingness evaluations as these vary according to three types of social investment, that is, inclusive, stratified, and targeted social investment (Häusermann et al.,

2022). While the mechanism is less straightforward in paper III, there is still cross-country variation that seems to be linked to an underlying conception of citizenship and belonging.

Finally, findings from all papers that are part of this thesis as well as additional collaborative work I have been engaged in show the consistent relevance of the deservingness criteria across policies for determining the deservingness of (fictional) claimants of welfare services. However, the respective importance of each criterion depends both on the policy and institutional context, as well as respondent's personal characteristics, such as their political views, their degree of ethnocentrism, preference for social hierarchy or in-group dominance.

This leads me to conclude that the well-established universal relevance of the deservingness criteria (van Oorschot et al., 2017) is the result of a combination of both an underlying mechanism based in evolutionary psychology (Petersen, 2015; Petersen et al., 2010, 2012) and a learned component in deservingness assessments stemming from institutional and cultural factors that explain how the deservingness criteria matter.

Policy implications

People will continue to move across borders and both receiving and sending states will have to continue to adapt their policy landscape accordingly. The findings collected in this thesis are particularly relevant for those states receiving migrants and who are faced with the challenge of integration while maintaining a functional welfare state that has the support of the general public and most importantly its contributors.

The findings of paper I, as well as the other papers I contributed to on solidarity during the COVID-19 pandemic, clearly underscore the need for accessible crisis communication on the part of policy makers, especially in relation to the ethical guidelines on intensive care, but also about other measures. Further, a certain responsiveness to evolving circumstances, as illustrated by the support for the self-employed illustrates, is necessary to maintain public support for policy measures. Particularly during crisis situations, such support of policy measures is important for their success. However, this support is fragile, as the wealth of false information and conspiracies especially in the context of the COVID-19 pandemic showed.

Regarding childcare, the importance of the need to reconcile work and family life stands out. It clearly shows the support for the (re-)integration of parents into the labour market after the birth of a child due either to holding a general value of universal access to such services, support for the socialisation aspect of attending state-organised childcare, or so that parents are able to contribute (again) to society by working and paying taxes. Regardless, it seems pertinent

for policy makers to increase availability of and access to such services. Particularly, as scarcity considerations may lay at the basis of the importance of the parents' nationality and length of residency in this context. It is in the interest of policy makers to avoid such distributional conflicts, due to the double function of childcare discussed earlier of both of allowing parents to work and thus integrate themselves and contribute to society, but also integrate children into it.

The policy relevance of findings from paper III are less directly visible. In a way, the findings allow us to underscore the importance of naturalisation as an integration catalyst to belonging, particularly in the eyes of the existing citizenry. Taking for example the case of Germany, which assumed its status as a country of immigration somewhat reluctantly, we can see two things: on the one hand, with time perceptions of who belongs to "us" can adapt to include those with foreign nationalities but who have been born in the country. Indeed, in Germany public debate has how started around easing the criteria for naturalisation to account for the reality of being a country of immigration.[9] On the other hand, we can see that citizenship clearly matters in the perceptions of the population of who belongs. Policy makers who want to enable two-way integration and buy-in to the welfare state / national community, should consider easier access to citizenship as a catalyst for integration rather than a crown (Hainmueller et al., 2017).

Overall, the findings highlight a general disposition to share with others, however, not unconditionally so. Further, sharing with those belonging to the same group still seems easier, even if the delimitations of who belongs are not as rigid as previously thought. For policy makers the challenge then is to create welfare state that has the support of all contributors, while providing accessible services to those who need it.

Limitations and future research

This thesis is not without limitations and caveats. As is described above, this thesis applies a comparative quantitative approach. While it is the prominent approach in research on deservingness and it allows us to capture how each of the criteria matter, qualitative work to complement this may have been helpful in further dissecting the drivers of why identity matters in the way that it does. However, the COVID-19 pandemic coincided with the time I had for

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[9] See, e.g., *Innenministerin Faeser will Einbürgerung erleichtern,* Deutsche Welle, 25 November 2022; available at https://p.dw.com/p/4K2On.

data collection of the two surveys (2020 and 2021) making their implementation challenging. It would not have been feasible to also conduct focus groups and individual interviews.

Regarding the survey experiments that serve as the empirical basis for my thesis, one limitation is that they are both almost too complex and not complex enough. In their creation, my colleagues and I had to balance the aspiration for nuance with the complexity this entails for the design of the vignette and conjoint experiments. Particularly in the childcare and the unemployment benefit experiments, we included nine dimensions. This is already towards the higher end of the recommended number of dimensions (Auspurg & Hinz, 2015, p. 19) and made for a challenging vignette creation (though we were able to obtain D-efficient designs).

Still, the added complexity was rewarded. Particularly regarding the identity criterion that is most important for this thesis, the slightly expanded measure of immigrant to include individuals who moved to their country of citizenship only as adults proved to allow for a more nuanced understanding of the identity effect. Future research could expand operationalisations of this dimension to include naturalised citizens or returning migrants. To avoid too complex vignette designs, however, it may also be worthwhile to only focus on the identity criterion. This would allow to further delineate the at this point still somewhat intangible "us" deserving individuals belong to and the less or undeserving do not.

Additionally, the geographical focus of this thesis is limited to Western welfare states. While this is the case for most research on deservingness (except Jensen & Petersen, 2017) it still might limit the generalisability of our findings. While the deservingness criteria may universally inform the formation of deservingness perceptions, the results from paper I show that policy context seems to determine which criteria matters more under what circumstances. Further, as my co-authors and I demonstrate in papers II and III the institutional context matters as well. Therefore, future research should broaden the pool of countries under investigation to for example countries in Asia, Latin America or Africa.

Finally, this thesis clearly looks at migrant deservingness and migration generally through a lens that is predominantly influenced by social policy. This means my frame of reference are the welfare and nation state (for a critical analysis see Wimmer & Glick Schiller, 2002). Future research could consider the increasingly transnational lives of migrants taking place in two or more countries at the same time. Further, as I am taking a quantitative approach, I run the risk of reproducing categories of belonging by design (Chimienti et al., 2021) as the experimental set-up only allows for limited nuance. In a more targeted investigation of the

identity criterion as mentioned above, it would be interesting to investigate what the different categories of migrant, person with migration history / background, etc., mean and how they are relevant for deservingness assessments. Moreover, a review of deservingness through the glasses of migration studies would be worthwhile, in particular in connection to research on how social policy can function as an internal bordering process (Ataç & Rosenberger, 2019).

Concluding remarks and outlook

While I have certainly not answered all the questions raised in the introduction of this synthesis report, this thesis has improved our understanding of *migrant deservingness of different welfare state services and across welfare states and particularly the role of the identity criterion in these assessments*. It did so by studying deservingness assessments to various welfare state services in times of crisis (paper I), across different countries (paper II), and by dissecting the effect of identity further (paper III).

Overall, the results show the pervasive effect of identity for deservingness assessment: it matters across policy fields (papers I-III), during crisis (paper I), and across countries (papers II and III). The fact that identity also matters for the attribution of intensive care beds is of course a rather sobering result (because if solidarity with migrants does not become unconditional during a global pandemic, when will it?). However, findings of paper III that second generation immigrants in Sweden, Germany, and the UK are as deserving as citizens born in the respective country does indicate the assessment of identity is more nuanced when possible. Also, it leads me to believe that there may be more hiding behind results of previous research on identity. Further, I show that the way in which the well-known deservingness criteria matter depends on the policy and country context. This suggests the institutional context may be more important than previously considered and there is a learned component in addition to the underlying evolutionary mechanism that inform the well-established relevance of the deservingness criteria.

The advantage of researching deservingness is that everyone I talk to has an immediate sense of how it should be and who deserves what. Sometimes these conversations hint at rather complex value judgements behind these notions that quantitative work is not able to capture. Future research on the identity criterion would benefit from qualitative interviews or focus groups to address this issue. But also, more research on the role of the institutional context is needed. In both areas, I for one am left with many more questions than when I started.

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Paper I: Conditional Solidarity - Attitudes towards support for others during the 2020 COVID-19 pandemic

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Abstract

The COVID-19 pandemic presents a unique opportunity to study how humans allocate scarce resources in times of hardship. We study public preferences regarding who should get access to government aid for the self-employed, a bed in the intensive care unit, and permission to cross the border using original conjoint survey experiments administered to an incentivised online panel in Switzerland during the first and second waves of the pandemic in 2020. We find that across the three areas, even in extraordinary circumstances such as the COVID-19 pandemic, evaluations of deservingness to aid and support are still based on an underlying logic of conditional solidarity and identity: in all experiments, contributing to the community, be it through past actions and contributions or through current efforts, plays a crucial role in determining an individual's deservingness as does their nationality (and legal status) with nationals being perceived as more deserving than non-nationals.

Keywords: COVID 19 – deservingness perceptions – solidarity – conjoint experiment

Introduction

As the first wave of the COVID-19 pandemic reached Europe, pictures of people hoarding toilet paper and flour started making the rounds in the media. The pandemic, it appeared, brought to light the most basic human instinct of "me first, everyone else second". However, as the news cycle moved on, another story emerged: one of increased solidarity, wherein neighbours, whose interactions were limited to a polite "Hello" or "Goodbye" in the hallways prior to the pandemic, now took care of each other's groceries. Similar developments occurred among countries, where on the one hand, hygiene products were subject to export embargoes, but on the other hand, doctors were posted to the hardest hit regions in other countries, and patients in such regions were relocated to hospitals with intensive care capacities abroad.[1]

In this paper, we study how individuals choose to whom to extend support in times of crisis by analysing deservingness perceptions regarding three central policy areas of this pandemic: 1) with much of the economy in suspense for months as a consequence of the social distancing measures, should self-employed individuals – who by law could not access short-time work schemes –be eligible for state support? 2) Given rising hospitalization rates, who should be admitted to the intensive care unit (ICU) in the case of shortages? And, 3) With extensive travel restrictions and border controls in place, who should still be able to enter a given country?

To analyse how people decide on these essential distributive questions, we conducted three original conjoint survey experiments (Hainmueller et al., 2014) administered to an incentivised online sample in Switzerland in late April and early May 2020 and again in late November to early December 2020.[2] In Switzerland, similar to other countries, extensive policies in the economic, health and mobility domain were implemented by the government to counter the negative effects of the crisis.

The results show that, overall, people's decision-making during times of crisis follows the logic of conditional solidarity. In other words, also during the pandemic people allocate scarce resources according to the logic of conditional solidarity as we know it from other policy domains (Bowles and Gintis, 1998, 2000; Fong et al. 2006; Knotz et al., 2021a; Petersen, 2012, 2015; Petersen et al., 2012; van Oorschot, 2000; van Oorschot et al., 2017). Conditional solidarity means those perceived as deserving of collective help are those who 1) have shown themselves to be faithful contributors to the common good in the past; 2) make efforts to

improve their own situation or give back to the community at present or in the near future; and 3) are perceived as similar in terms of national or ethnic background. In contrast, those who have not contributed in the past, those who have acted counter to the common interest and those who are perceived as different are less likely to be considered deserving of collective support.

Our findings are important for two reasons. For one, the COVID-19 pandemic is already now seen as a "once-in-a-century" crisis. And while this was at the time also true for the Great Recession not long ago (e.g. Pontusson and Raess, 2012), the current crisis is different due to the fact that it combines a public health and an economic crisis, and, one might add, a crisis for many who rely on free cross-border mobility. Research on deservingness perceptions has developed mostly with a focus on "normal times". Yet, solidarity is a human disposition that acquires its utmost importance in times of crisis. As a result, it is important to document for the historical record what determines solidarity also in situations that that are uncommon in the extent of suffering that they generate. Second, our study contributes to a more general understanding of deservingness perceptions and their variation across policy areas and target groups. We study deservingness perceptions in policy areas that have received different amounts of scholarly attention, ranging from moderate (health care in general; e.g. Jensen and Petersen, 2017; van der Aa et al., 2017) to very little (international mobility; see e.g. De Coninck and Matthijs, 2020). Deservingness perceptions in the case of aid to the self-employed have, to our knowledge, not been studied yet.

This article continues with a literature review of the determinants of deservingness perceptions. We then formulate expectations regarding how people are likely to attribute deservingness during the COVID-19 crisis. Next, we present our data, methodology, and the three experiments. Finally, we discuss the results and conclude by situating our findings in the greater context of deservingness research and its policy implications.

Who deserves to be helped?

The COVID-19 pandemic is a unique event in recent history. Consequently, public reactions to this novel situation are equally without a blueprint. To provide a theoretical basis for our research, we first turn to studies of deservingness to welfare state programmes. Here, we can rely on a large body of literature that has identified the factors that determine perceptions of deservingness to social benefits in "normal" times, and in particular on more recent sub-strands that focus on deservingness to health care and migration. Second, we consider studies on the impact of different types of crises on people's inclination to help others. Within this field,

we rely on the literature investigating the impact of economic crises and natural disasters. Both fields of the literature are briefly reviewed in the next sections.

Conditional solidarity

Who will be helped by a community is closely linked to how deserving of help an individual is perceived to be (see e.g. Meuleman et al., 2020; Reeskens and van der Meer, 2019; van Oorschot, 2000, 2006, 2008; van Oorschot et al., 2017). Studying deservingness perceptions to social benefits for the unemployed, van Oorschot and colleagues identify five criteria that are relevant for the assessment of deservingness (van Oorschot, 2000, 2006; van Oorschot et al., 2017): control, attitude, reciprocity, identity, and need (CARIN). Individuals who request assistance due to bad luck and thus cannot be considered responsible for their situation (control), who are docile and thankful in their interactions with the state services (attitude), who have contributed in the past or are making efforts to do so in the present (reciprocity), who are members of the same in-group (identity) and who are under financial strain (need) are considered deserving of state help.

Research inspired by evolutionary psychology provides theoretical underpinnings for these results. From this perspective, assessments of deservingness are based on automatic and deeply rooted decision-making processes that stem from small-scale social exchanges in early human societies. Under these conditions, supporting each other and protecting the group from free riders were essential features for a group's survival (Petersen, 2015; Petersen et al., 2010). From an evolutionary psychological perspective, Petersen and colleagues (2012) argue that mechanisms developed in early human societies have survived and are now visible in deservingness perceptions, for instance, regarding social benefits. A person in need who signals the intention or (credible) effort to reciprocate in the future, activates compassion and thus increases society's support for help. Conversely, individuals who signal the opposite, activate anger and thus cause a lower inclination to help in their peers. Sharing is thus conditional on (credible) effort to reciprocate, protecting against potential cheaters who might exploit unconditional generosity within a society (Petersen, 2015).[3]

To sum up, and building on both bodies of work, our starting assumption is that deservingness perceptions are driven by the level of the person's need, the extent to which they are seen as having a shared social identity, their level of control over their situation, their current efforts to contribute, and their past reciprocal behaviour (see also Knotz et al., 2021a, p. 3).

Deservingness across policy areas

The underlying logic of conditional solidarity has been found to be a powerful predictor of people's perceptions of deservingness in different policy fields also beyond unemployment benefits (see e.g. Aarøe and Petersen, 2014; Buss, 2019; Buss et al., 2017; Knotz et al.; 2021a; Reeskens and van der Meer, 2019; van Oorschot, 2008), that is, other social benefits (see e.g. De Wilde, 2017; Kootstra, 2016), health care (see e.g. Jensen and Petersen, 2017; Van Der Aa et al., 2017) and, recently, migration policy (De Coninck and Matthijs, 2020).While the literature on the deservingness of the unemployed to respective benefits is rather extensive (as highlighted above), to our knowledge the deservingness to such aid specifically for the self-employed has not been studied. We therefore limit ourselves in the following to a review of deservingness in the context of health care and migration.

Research on deservingness to health care services shows that in this policy field, perceptions are very much driven by need (van Delden et al., 2004; van der Aa et al., 2017). Indeed, Jensen and Petersen (2017) argue that health care "is fundamentally special" (2017, p. 68), as deservingness heuristics automatically categorise the sick as deserving. Similarly, van der Aa and colleagues (2017), applying the CARIN criteria to health care policy in the Netherlands, find medical need to be the most important factor in the allocation of health care resources. However, control, attitude, and reciprocity also matter in this context.[4] Indeed, there are other studies on deservingness perceptions to health care that find similar patterns to those in other policy areas such as unemployment benefits. These studies find, for example, that a patient's deservingness to medical care depends on whether their own behaviour contributed to their illness (Ubel et al., 2001; Wittenberg et al., 2003), but also their nationality (O'Dell et al., 2019), or their gender (Furnham, 1996). Thus, whether or not health care really is different when it comes to deservingness perceptions is overall still an open question.

In the context of public attitudes in the context of migration deservingness also matters (see e.g. Monforte et al., 2019; for a critical discussion see Carmel and Sojka, 2021). Here too, similar criteria as above inform the attribution of what is in essence the deservingness to access, settle or naturalise. Bansak and colleagues (2016) find that humanitarian concerns have a pronounced effect on European voters' assessments of asylum seekers. Those who face prosecution, have consistent asylum testimonies, and have a special vulnerability are "substantially more likely to be accepted" (Bansak et al., 2016, p. 221). Other important factors for the assessment were economic considerations and anti-Muslim sentiment. Similarly, Hainmueller and Hangartner (2013) find that in Swiss referendums on citizenship applications

of foreign residents, the country of origin was the main determinant of an application's success. Other applicant characteristics, such as better economic credentials, being born in Switzerland or having a longer residency period, increased the chances for a naturalisation success, however, much less so than origin. A recent application of the CARIN criteria to the context of migrant settlement, based on data of the European Social Survey and a cross-national survey, also underlines the relevance of, particularly, reciprocity, attitude, and identity in this policy field (De Coninck and Matthijs, 2020).

Solidarity in times of crisis

In the above section, we describe how people attribute deservingness in different policy areas in "normal" times, namely, based on conditional solidarity. While we are not able to directly compare attitudes before and during the pandemic, we believe it is important to consider that sudden shocks can change political attitudes – and that insights learned from pre-pandemic research might not necessarily apply during the pandemic. To look for clues as to how notions of solidarity and deservingness may look like in this unprecedented context, we resort to literature developed for economic crises and natural disasters to relevant provide indications.

On the one hand, economic crises have been shown to impact people's inclination to share. Research shows that the redistribution policy preferences of the public strongly respond to changes in the economic situation of a country (Durr, 1993). For the United States, Durr (1993) finds that expectations of a strong economy lead to greater support for redistributive policies, whereas expectations of economically difficult times ahead lead to a shift towards more conservative policies. In a close examination of the political consequences of two great economic crises of the past century, the Great Depression (1929) and the Great Recession (2008), Lindvall (2014) detects similar patterns regarding citizens' voting behaviour. In both cases, the author finds a shift towards more right-wing parties in the immediate years after the beginning of the crisis, which he attributes in part to economic voting but also to a punishment of the incumbent government.

On the other hand, studies have also found that people become more supportive of redistribution and the welfare state (Blekesaune, 2007) in times of economic downturns, and that they see the unemployed as more deserving when unemployment increases (Jeene et al., 2014; Uunk and van Oorschot, 2019). Likewise, research on people's predisposition towards sharing with those in need during natural disasters suggests that people show increased pro-social behaviour towards others directly after events such as floods or earthquakes (Cassar,

Healy, and von Kessler, 2017; Chantarat et al., 2019; Rao et al., 2011). In the aftermath of the 2008 earthquake in Wenchuan, China, Rao et al. (2011) find for instance that with increasing proximity to the epicentre, people displayed more pro-social behaviour.

Expectations

Given the novelty and the uniqueness of the context we study, we decided not to develop precise hypotheses but to formulate expectations based on the literature discussed in the above sections. Additionally, as we have pointed out throughout the paper, we are unable to map any *change* of preferences within the respondent (before/after the pandemic). Rather we are only able to map their preferences at two points of the pandemic and thus assess their attitudes during the pandemic.

Conceivably, and as suggested by the literature on solidarity during economic crises and in natural disasters, an event like the COVID-19 pandemic could affect peoples' support redistribution and consequently who they perceive to be deserving of support. However, it is unclear, if and how exactly this would affect the attribution mechanism behind the deservingness perceptions, namely, which criteria matter and how.

We therefore adopt a more exploratory approach regarding the differences in the relative roles of deservingness criteria during the pandemic. That said, a comparatively large effect of the level of need, in line with some of the findings on deservingness in health care, may be plausible for the attribution of ICU beds. The same would be plausible for reciprocal behaviour in the context of economic aid and identity in the context of migration. The self-employed, who as a group remain outside most contribution-based welfare state agreements (although they of course pay taxes), might incite more scepticism than "regular unemployed" and reciprocal behaviour may become more important. In the context of migration, the importance of origin or identity is evident.

At the same time, based on the literature on deservingness in the context of different policies, we could expect broadly similar patterns across these three areas, with past and present reciprocal behaviour and the similarity of identity playing large roles. That would mean we could expect that regardless of the crisis situation, *the criteria of reciprocity, effort, control, identity and (medical) need collectively matter for deservingness perceptions across the three policy fields also during this pandemic*. Despite the differences in how scarce the "good to share" (ICU beds, state-funded aid packages, or access permissions to a given country) is,

respondents are faced with a redistributive question in essence and rely on the deeply rooted heuristics for assessing potential partners in sharing agreements.

Data and method

In our empirical analysis, we focus on three important policy problems that became topical during the health crisis and imply deservingness assessments: 1) providing financial help to self-employed people who could not work because of the lockdown; 2) prioritising access to ICU beds in the case of insufficient supply; and 3) determining who could access the country despite travel restrictions. To investigate people's assessments of deservingness in these three situations, we conducted three original survey experiments in Switzerland. The analysis relies on data collected between late April to early May and late November to mid December 2020 by means of an incentivised online panel provided by an international market research firm. To ensure that the sample is as representative of the Swiss population as possible, we introduce quotas for age (18-24, 25-34, 35-44, 45-54, 55-64, 65-74, over 75), gender, education (low, middle, high) and region (French or German speaking). Our data comprise 1535 respondents who rated a total of 3,070 vignettes for three separate experiments in wave I and 1498 respondents who rated 2996 vignettes in wave II.[5]

Switzerland is a representative case to study deservingness perceptions because the per capita COVID-19 infection rate was broadly comparable to that of other countries, but not so high that the health care system could no longer cope with the number of infected residents. Moreover, at least during the first wave of the pandemic, policy reactions were similar to those adopted in many other countries: a partial lockdown was adopted, and public life slowed conspicuously, although the measures were less drastic than those introduced in extreme cases such as Italy, Spain, or France. Finally, Switzerland is ideal to study the perception of travel restrictions in the population given its large number of migrant workers and cross-border commuters and the high salience of the migration issue, as the history of popular votes on the topic of (im)migration has shown.

We use survey experiments, as they allow testing causal relationships while minimising social desirability bias (Hainmueller et al., 2015), since assessing the deservingness of individuals to government help, to an admission to the ICU and to entering Switzerland is likely to be subject to social desirability. This assessment can be achieved by randomly varying specific traits in schematic descriptions that respondents are asked to evaluate, which in turn makes it harder for survey participants to identify the manipulated dimensions, thereby

minimising social desirability bias. Especially when studying sensitive topics, this is a very important precondition to gather valid measurements. Furthermore, this approach allows us to study multiple theoretical mechanisms simultaneously while gathering respondent-level information to test for subgroup heterogeneity. Of course, this way we are only able to capture an intent and not actual behaviour. However, studies that do compare stated and real behaviour show a high degree of correspondence between the two (Hainmueller et al., 2015).

For each experiment, respondents were presented two fictitious individuals and were asked to indicate on a scale from 0 to 10 ("lowest priority" to "highest priority") the priority with which these individuals should 1) receive financial aid if self-employed and unable to work because of the pandemic; 2) have priority access to an ICU bed; and 3) be granted entry into Switzerland.[6] Based on the respondents' rating we created a continuous dependent variable on deservingness, higher values indicating higher deservingness of the vignette person. The levels of each attribute in an experiment and the order in which the experiments were presented to the respondents were randomised. The experimental section was followed by several questions relating to the respondent's personal situation and political opinions.

We presented the descriptions in bullet points, including several attributes at once, to reduce the cognitive effort for respondents. While order effects of the attributes cannot be excluded, as we did not randomise the order of attributes, flow vignette texts are a common choice in factorial survey experiments (Auspurg and Hinz, 2015), and ratings do not differ depending on whether vignettes are presented as running texts or tables (Sauer et al., 2020). Finally, we exclude implausible combinations of attributes in each experiment to ensure that the scenarios appear as realistic as possible. Indeed, as the robustness checks show, the scenarios are assessed to be (very) realistic by respondents overall.[7]

We estimate the average marginal component effects (AMCE), as presented in Hainmueller et al. (2014), for each experiment separately. The AMCE represents the marginal effect of an attribute (dimension) averaged over the joint distribution of the remaining attributes (Hainmueller et al., 2014, p. 10). This approach allows for the estimation of causal effects of each attribute in the experiments. We conducted the analyses using the *cjoint* R package created by Barari and collaborators (2018) specifically for the estimation of such effects.

We run a number of tests to ensure the assumptions necessary to run the AMCE are met (Hainmueller et al., 2014).[8] For wave I, the tests for experiments I and II indicate that there are indeed carry-over effects between the first and second evaluation of vignettes present in our

data. We therefore follow the recommendation by Hainmueller et al. (2014) and use only the data of the first task for those experiments. For wave II, we find no carry-over effects and therefore use both tasks of all three experiments. Finally, we drop observations where respondents performed the experiments either implausibly quickly (<5 seconds) or very slowly (>180 seconds). This leaves us with the following number of evaluations for wave I and II, respectively: 1461 and 2016 evaluations for experiment I; 1457 and 2014 evaluations for experiment II; and 2978 and 2032 for experiment III.

Experiments

In all experiments, we seek to describe a realistic individual and hold the basic demographic information constant: gender (male, female), age (25, 40, 55, or 70 years old), and nationality (Swiss, German/French, Turkish or Nigerian).[9] For the first experiment on *state help for the self-employed*, we present respondents with fictitious profiles of self-employed individuals and ask them to indicate the respective priority with which each described person should receive economic support by the state. The profiles vary on ten dimensions with the intention to capture past and current behaviour: in addition to the basic information, the vignette includes information on: the employment situation of the person's partner (employed, self-employed or unemployed) and their financial responsibilities towards others (no responsibilities, two children, sister in Switzerland or sister abroad); the activity they exercise (hairdresser, Uber driver, undeclared household help or dentist) and how long they have been exercising this activity (just started, 5 or 10 years); whether they sought to find other sources of revenue (yes or no); and, finally, whether they had been engaging in any volunteering activities (none, cleaning in hospital or buying groceries for elderly neighbours).[10]

*** Figure 1 around here ***

In the second experiment, we present profiles of fictitious patients diagnosed with COVID-19 and seeking *admission to the ICU* of the local hospital (also discussed in Authors, 2021 under review). Notably, as we also underlined for our respondents, we are concerned with access to the unit overall and not to ventilators specifically. Respondents are asked to indicate the respective priority by which they would attribute ICU access to each described patient. Aside from the basic dimensions, the patient's characteristics vary on five dimensions: the severity of the disease (light, moderate, severe breathing difficulties) and the prognosed chances of recovery (good, unclear, no chance); their behaviour prior to the diagnosis (complying or not with social distancing guidelines, volunteering as in experiment I); and their behaviour since

their diagnosis (complying exactly or only partially with doctor's recommendations).[11] These characteristics provide information about past behaviour, but also about medically relevant criteria that would inform a medical professional's decision making.

For the final experiment, we choose a simplified setup of a person *seeking to enter Switzerland* as it may occur in everyday life. The basic dimensions are the same as previously. Additionally, we vary legal status over four levels (Swiss citizenship (dual for those with other nationalities), permanent residency permit, a simple work and stay permit or visa) and the reason for seeking to cross the border over six levels: three of these are work-related (work in health sector, as farm help, or in a supermarket) and three are more personal (visit a doctor, family, or friends). Respondents are asked to indicate the respective priority to cross the border they attribute to each fictional vignette person.[12]

Results

While the results initially appear to paint a diverse picture of solidarity, a common story emerges in all three experiments and across both waves: respondents are willing to share on the basis of the past and current behaviour of the person in need and their characteristics. In other words, people follow the logic of conditional solidarity also during the pandemic.

In all experiments, *reciprocity* in the form of contributing to the community, be it through past actions and contributions or current efforts, plays a crucial role in determining an individual's deservingness. For the self-employed, the results for both wave I and II are summarised in Figure 2, there is a clear distinction between declared and undeclared workers concerning their perceived deservingness of state help. Individuals who remain outside of sharing arrangements (by failing to declare their incomes) are attributed a very low priority for receiving financial help (the lowest in the experiment). This negative effect of non-compliance is the strongest in the experiment, even though household help or gardening are typically low-skilled, low-paid jobs and probably characterised by a high incidence of undeclared work. Similarly, individuals not following the social distancing recommendations in the ICU experiment, results summarised in Figure 3, are severely punished by being attributed the lowest deservingness, while those complying conscientiously with their doctor's orders are perceived as more deserving than those who do not comply. Finally, efforts to contribute to society through volunteering are rewarded in both experiments.

*** Figure 2 about here***

*** Figure 3 about here***

This distinction between those who will contribute or are committed to Switzerland and the well-being of its citizens and those who will not (or at least are perceived that way) is also apparent in the experiment on access to Switzerland during the lockdown, results summarised in Figure 4: those wishing to cross the border to work in Switzerland are clearly more deserving than those who wish to see family or friends. Among workers, those in the health sector are most deserving. Here, however, it is possible that expectations around reciprocity are mixed with collective selfishness, as health care workers are in high demand during a pandemic. However, in the same experiment, no difference is made between Swiss (dual) citizens and those with a residence permit (and work/stay permit in wave II), indicating that long-term ties to the community favour the deservingness of help of the individual. Moreover, those with less stable permits (visas) are considered less deserving than citizens.

Another rather stable and consistent effect across all three experiments is that of *identity*, which we operationalised with nationality, age, and gender, as well as legal status in the third experiment. In all three experiments we find no significant effects of gender and age, the latter is somewhat encouragingly surprising in the context of the ICU experiment, as age was such a prevalent point of public debate surrounding possible shortages.[13] Nationality is significantly linked to solidarity in all experiments: There is a distinction in deservingness between Swiss and non-Swiss individuals, supporting the theories on in- and out-group formation. Even if the effect is not significant in wave I for the self-employed experiment and in the third experiment the distinction is made between Swiss and German/French individuals on the one hand and Turkish and Nigerian individuals on the other.

*** Figure 4 about here***

Finally, the effect of *need* on deservingness varies across the three experiments. In the experiment concerning state help for the self-employed, the negative effect of non-compliance is actually stronger than the positive effect of need. Nevertheless, a higher priority for such help is attributed to individuals with financial responsibilities for more than just themselves, namely, partners who are self-employed or unemployed (in wave I only), children, or other family members. For the ICU experiment, individuals with severe breathing difficulties are most deserving of a bed in the unit. This is unsurprising since, as discussed in the theory section, research on deservingness to health care services highlights the overwhelming importance of need in this context. However, this is only true for individuals with severe breathing difficulties, not those with moderate breathing difficulties. In the third experiment, we find that those wishing to see a doctor are less deserving than those who seek entry to work. Thus, it appears,

at least in the case of who should be allowed to enter Switzerland, that economic considerations outweigh the need of the individual wishing to cross the border, a fact that others have also noted in the evaluation of asylum seekers (Bansak et al., 2016).

Taken together, these results show that assessments concerning an individual's deservingness indeed follow a logic of conditional solidarity (Bowles & Gintis, 1998, 2000; Fong et al., 2006; Petersen, 2015; van Oorschot, 2000). Giving back to the community, through both past contributions and forward-looking actions, is important across scenarios, as is the respect for norms and responsible behaviour and the person's identity. Thus, the criteria of reciprocity, effort, identity, and need are relevant for deservingness assessments, irrespective of the context. Our experiments were not suitable to investigate the relevance of another important determinant of deservingness perception: control. The situations we asked respondents to assess were the result of the pandemic, and the vignette-persons had very little control over the situation of need they found themselves in. The only exemption is non-compliance with social distancing rules in the ICU experiment, where we see that control matters significantly.

Conclusion

The COVID-19 pandemic represents a unique opportunity to analyse deservingness assessments in a crisis context, specifically, the provision of government aid to the self-employed, the rationing of ICU care, and the restriction of cross-border movement. Based on three survey experiments at two points during the pandemic, we demonstrate that in times of crisis, solidarity with the needy follows the logic of conditional solidarity, with the well-known deservingness criteria playing a very important role: reciprocity, effort, identity, (medical) need and control (Bowles and Gintis, 2000; Petersen, 2015; Petersen et al., 2012; van Oorschot, 2000, 2006; van Oorschot et al., 2017).

However, as the differentiated impact of the different criteria across policy fields indicates, the importance of a given criterion may differ depending on the specific context or situation in which the deservingness of a given individual is assessed. In the context of relief for Hurricane Katrina victims, for example, Fong and Luttmer (2009) find strong evidence of subjective ethnic or racial group loyalty, which proves to be a powerful predictor for giving to members of that same group. This predictor of racial bias is even stronger than the objective race of the respondent (Fong and Luttmer, 2009, p. 85). It could very well be that in a context such as the United States, where race and racially based discrimination are such salient issues,

questions of identity may outweigh or dominate other deservingness criteria, such as control, even in the aftermath of a natural disaster (Henkel et al., 2006; Reid, 2013).

With this study, we contribute to the literature on deservingness perceptions by showing that, first, even in times of a global pandemic, traditional models of conditional solidarity apply. These results are stable across the first two waves of the pandemic (i.e., April and October 2020). Additionally, we innovate by demonstrating that beyond traditional applications of deservingness theory, the criteria of conditional solidarity apply to other policy areas, including economic support for the self-employed and cross-border mobility. Third, our study shows that identity also matters in relation to deservingness to health care, confirming recent findings within the literature on deservingness perceptions (Larsen and Schaeffer, 2021).

We also contribute to a growing literature on deservingness in times of crisis (Larsen and Schaeffer, 2021; Reeskens et al., 2021). True, ideally, in order to assess the impact of the pandemic on deservingness perceptions, we would have fielded a first wave of the experiment prior to the pandemic. However, we still believe that it is worthwhile to map which attitudes people display in such an unprecedented time. Clearly, future research would also need to validate whether our findings indeed translate to other (crisis) settings. Here, it would be of interest to understand which circumstances trigger the relative importance of each of the criteria in a given crisis situation or policy field.

Our research has policy implications as well. The COVID-19 pandemic demonstrates that solidarity is crucial in times of crisis. Despite certain groups being at a greater risk of experiencing more severe (and in some cases deadly) courses of the disease, everyone is more or less equally susceptible to contracting or spreading it. Many of the measures to curb the spread of the virus, such as physical distancing and wearing a mask, rely on everyone accepting small limitations on the part of the individual for the common good. While the great majority of people do follow these official guidelines, at the time of writing, they have been called into question by some parts of the population.[14] To successfully maintain the support of the various health safety measures and the support packages for those suffering economically as a consequence of the de facto halt of public life in the first half of 2020, understanding the mechanisms that underlie people's solidarity with those in need is crucial for political authorities to successfully appeal to said solidarity.[15] It is also important to accessibly communicate to the public the reasoning behind a given decision making, e.g. of the ethical rationale behind triage guidelines to the public (Knotz et al., 2021b).

Endnotes

[1] *Germany bans export of medical protection gear due to coronavirus*, Reuters, 4 March 2020, available at: https://www.reuters.com/article/health-coronavirus-germany-exports/germany-bans-export-of-medical-protection-gear-due-to-coronavirus-idUSL8N2AX3D9.

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Burger L., Miller J., *German, Swiss hospitals to treat coronavirus patients from eastern France*, Reuters, 21 March 2020, available at: https://uk.reuters.com/article/uk-health-coronavirus-germany-france/german-swiss-hospitals-to-treat-coronavirus-patients-from-eastern-france-idUKKBN2180TH.

[2] The panel was representative in terms of the distributions of age, gender, education, and language region (German- and French-speaking).

[3] Indeed, the notion of reciprocity has also been identified as an important factor for sharing in the field of economics (see also Bowles and Gintis, 1998, 2000; Fong, Bowles, and Gintis, 2006).

[4] The authors do not measure the impact of identity, as the application of identity-based criteria is unconstitutional in the Netherlands and thus beyond the scope of potential policy reforms (Van Der Aa et al., 2017, p. 247).

[5] For more details regarding the experimental set see the experimental protocol in the supplementary material. For the distribution of basic demographic information of the respondents please refer to figures S12 to S15.

[6] The exact rating tasks were: Experiment 1: Please indicate to which degree this person should benefit from State support. Experiment 2: Please indicate with which priority this person should be attributed a bed in the ICU. Experiment 3: Please indicate with which priority this person should be permitted to enter Switzerland.

[7] Please refer to figure S7 in the supplementary material.

[8] Please refer to the section on Assumptions tests for AMCE and tables S8 to S13 in the supplementary material.

[9] The German language questionnaire referred to Germans, the French language questionnaire referred to French.

[10] In this experiment we exclude the category of 70 years old, as we are concerned with working individuals. We exclude the implausible combinations of the vignette person being 25 years old and having ten years of experience or being a dentist, as a person is unlikely to have finished the necessary education at that age.

[11] Again, we exclude the implausible combination of the vignette person being 70 years old and buying groceries for their elderly neighbours, as well as that of a person having light breathing difficulties and no chances of survival.

[12] We exclude the implausible combination of the vignette person being Swiss and having any other legal status than citizenship or being 70 years old and wanting to enter to work.

[13] In order to test the expectation of an identity driven effect for gender and age, we checked for the existence of an interaction effect between the respondent's own identity and the characteristics of the vignette person (e.g. female respondents would give priority to female vignette-persons). We found no consistent evidence of such an effect.

[14] See, e.g., *Tausende demonstrieren in Liestal gegen Corona-Massnahmen*, Swissinfo, 20 March 2021; available at: https://www.swissinfo.ch/ger/alle-news-in-kuerze/tausende-demonstrieren-in-liestal-gegen-corona-massnahmen/46465010 or *Mehrere tausend Massnahmen-Gegner demonstrieren in Winterthur,* SRF*,* 18 September 2021, available at: https://www.srf.ch/news/schweiz/protest-gegen-corona-politik-mehrere-tausend-massnahmen-gegner-demonstrieren-in-winterthur.

[15] This was successfully done e.g. in the Swiss Canton of Geneva where an initiative to exclude non-declared works from receiving aid packages fails to receive the majority. *Les Genevois d'accord d'indemniser les travailleurs précaires,* Swissinfo, 7 March 2021, avialable at : https://www.swissinfo.ch/fre/toute-l-actu-en-bref/les-genevois-d-accord-d-indemniser-les-travailleurs-pr%C3%A9caires/46427256

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Figures

Geben Sie bitte an in welchem Ausmass diese Person von staatlicher Hilfe profitieren sollte.
0=gar nicht; 10=sehr stark

- Herr M., ist ein **25 Jahre** alter, **Teilzeit** erwerbender **Coiffeur**.
- Er hat einen **türkischen Pass**, und seine **Partnerin ist als Angestellte** tätig. Sie sind finanziell für **zwei Kinder** verantwortlich.
- Herr M. ist **seit 5 Jahren erfolgreich in dieser Tätigkeit** etabliert und sieht in der aktuellen Krise **keine Möglichkeit alternative Einnahmequellen zu generieren**.
- In der aktuellen Krise ist er **nicht als Freiwilliger** tätig.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| gar nicht | | | | | | | | | | sehr stark |

Zurück

Figure 1 Illustration of the online implementation of experiment 1 on state help for the self-employed.
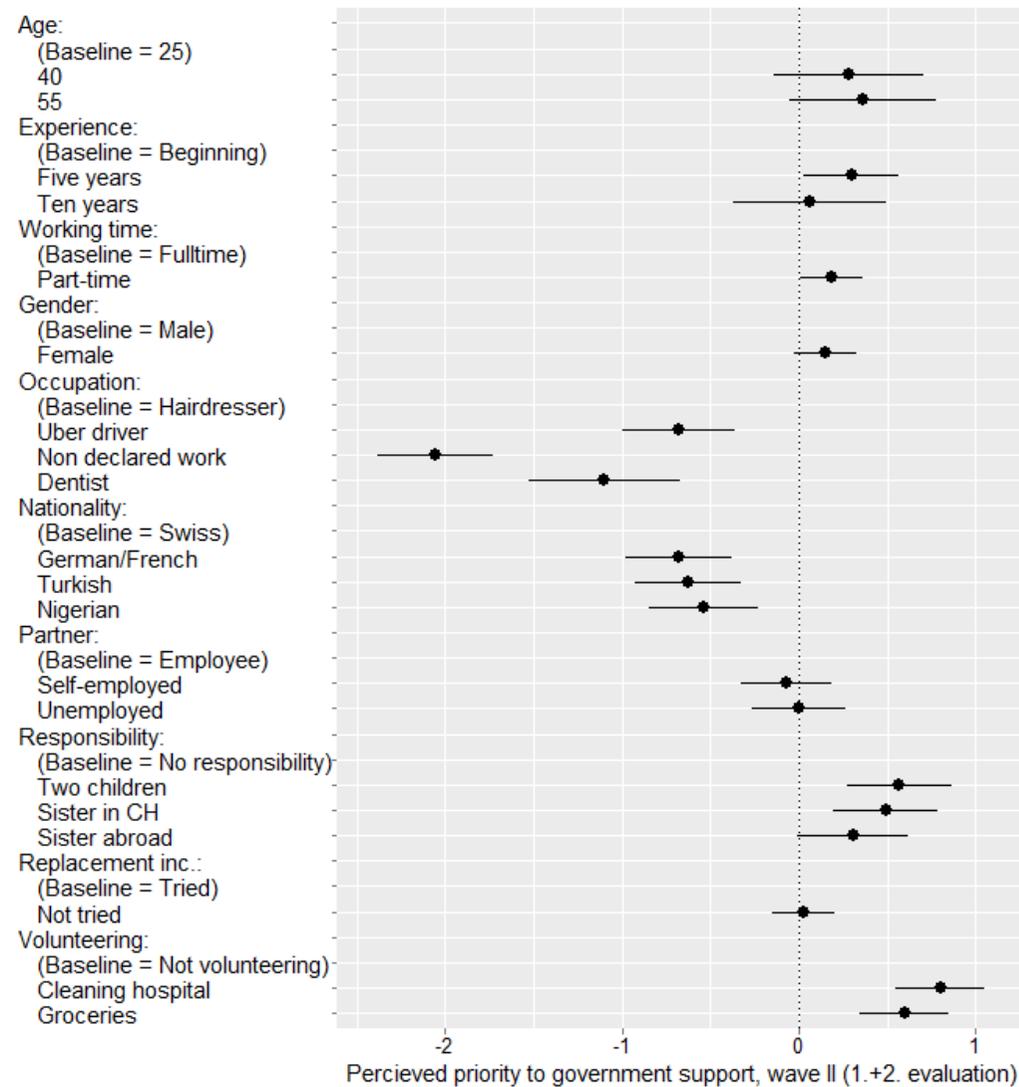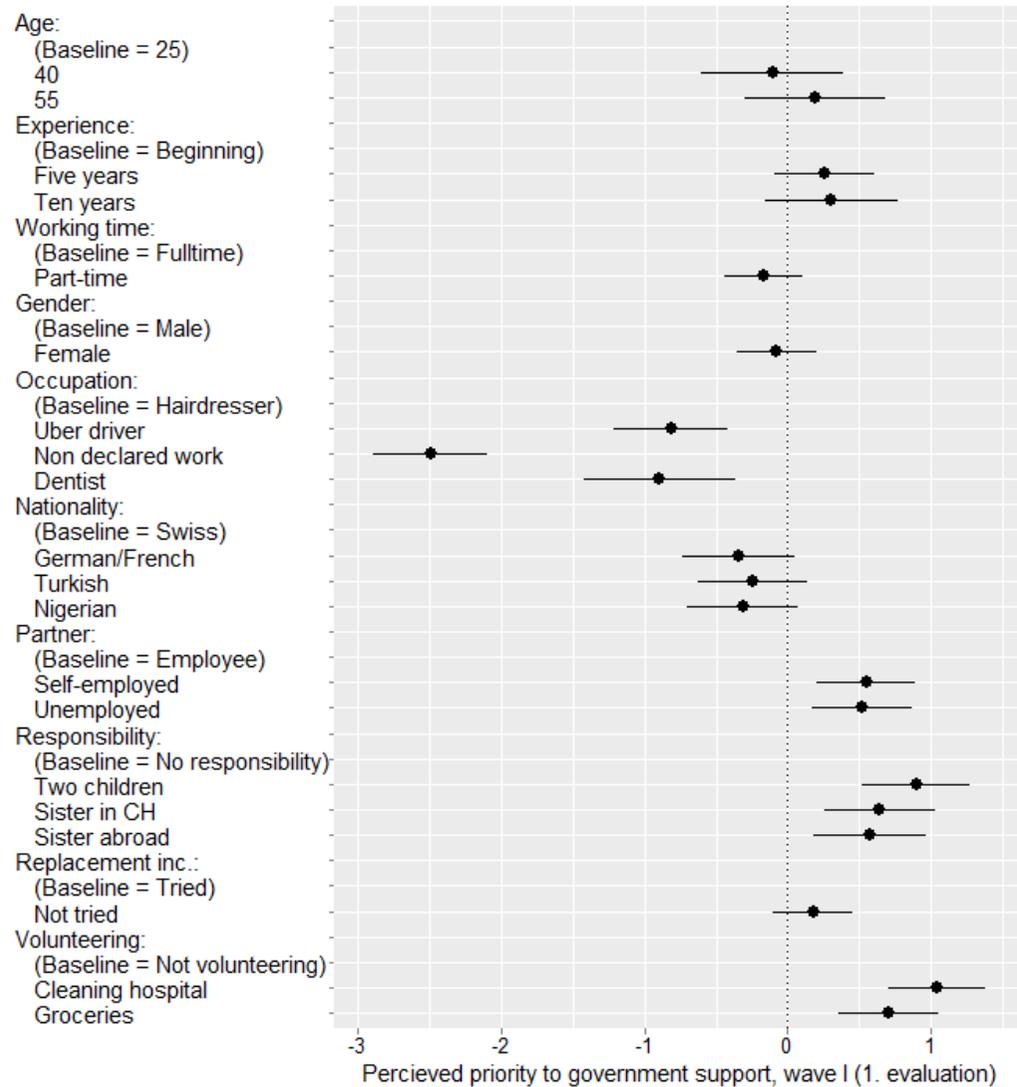
Figure 2 Average Marginal Component Effects of self-employed attributes on perceived priority for government support. Horizontal lines indicate 95% confidence intervals. Wave I: N = 1464, first evaluation task only; wave II: N = 2016, both evaluation tasks.
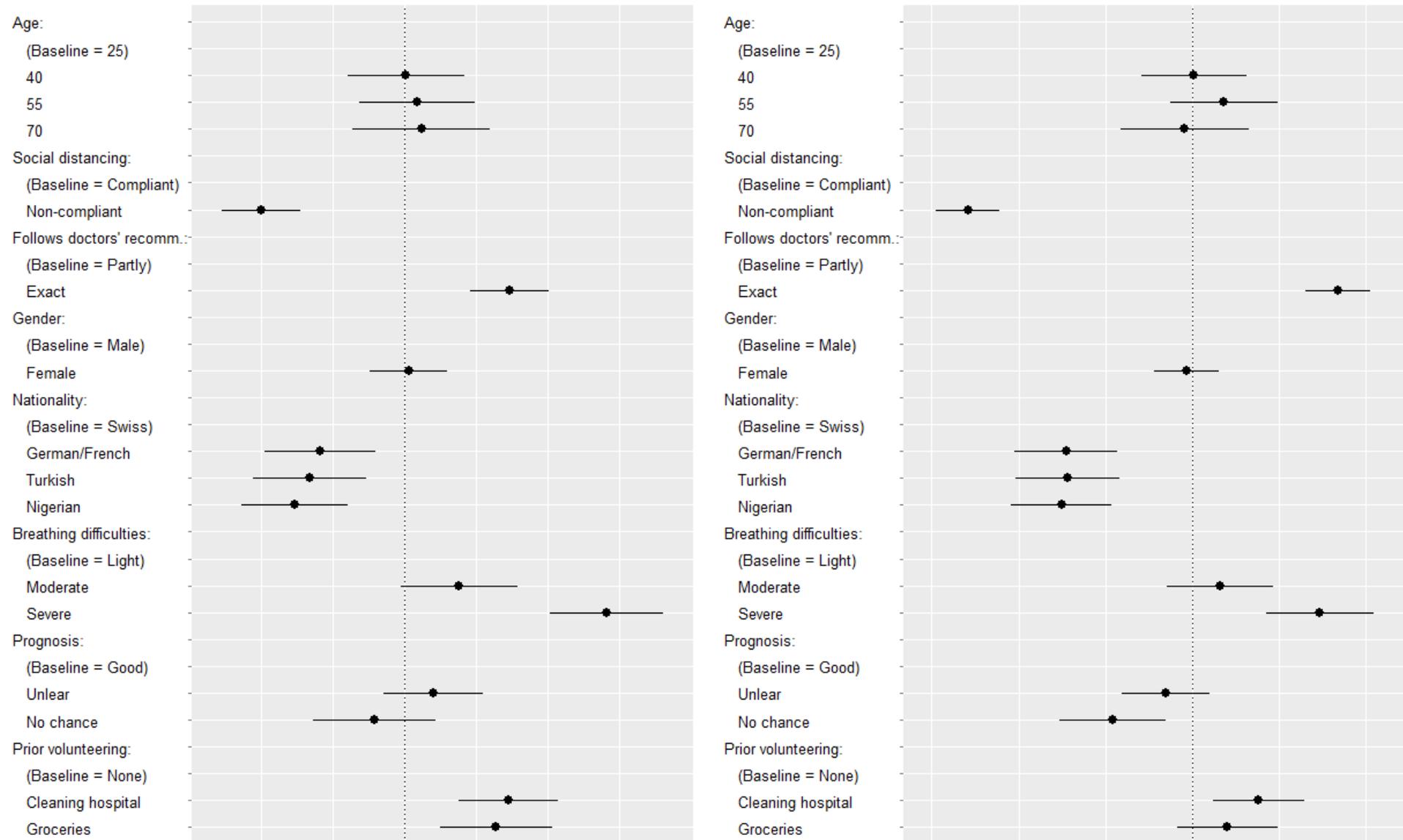
Figure 3 Average Marginal Component Effects of patient attributes on perceived priority of ICU admission. Horizontal lines indicate 95% confidence intervals. Wave I: N = 1457, first evaluation task only; wave II: N = 2014, both evaluation tasks.
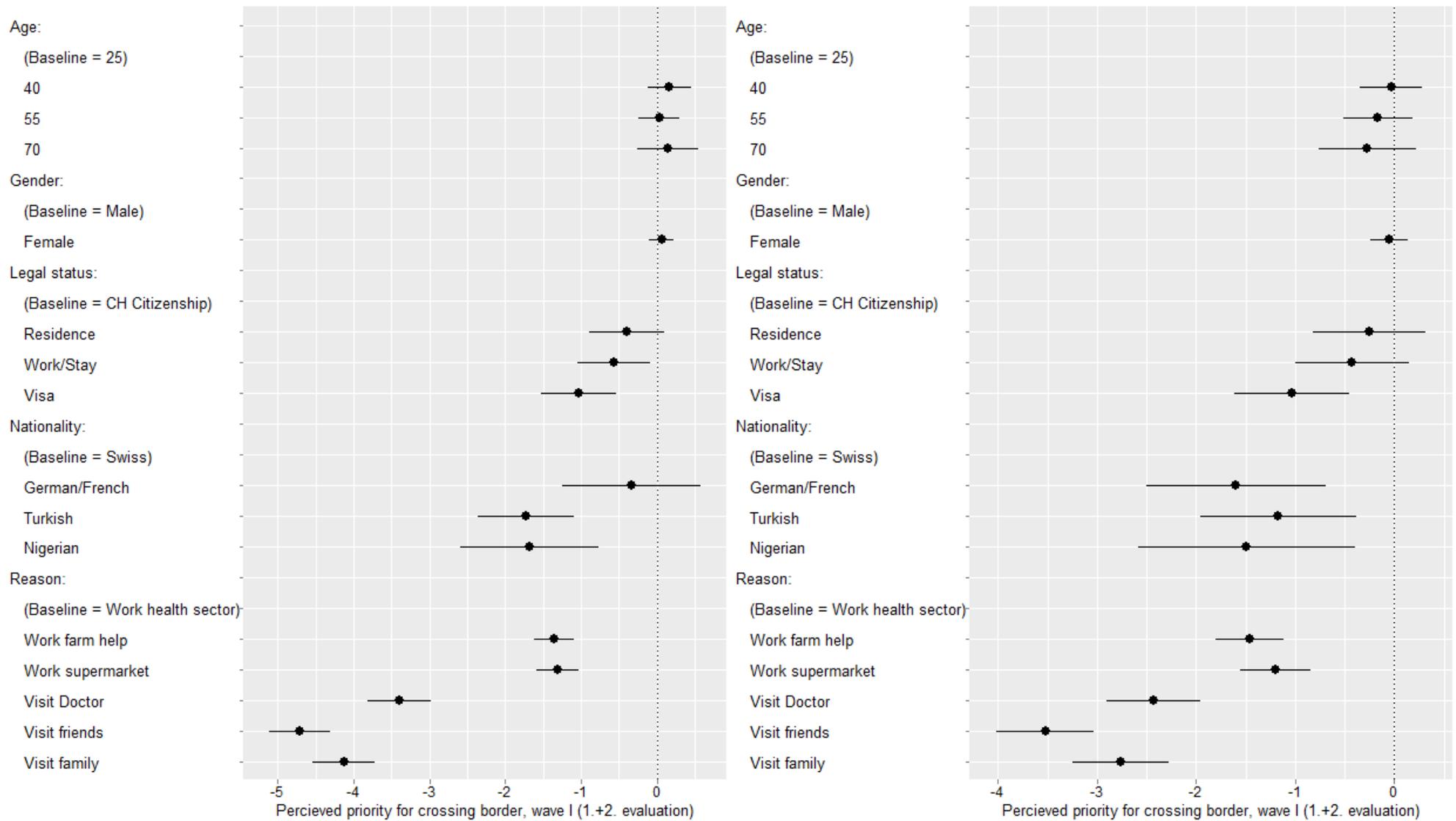
Figure 4 Average Marginal Component Effects of individual attributes on perceived priority for access to Switzerland. Horizontal lines indicate 95% confidence intervals. Wave I: N = 2978, both evaluation tasks; wave II: N = 2032, both evaluation tasks.

Experimental Protocol

The survey was fielded twice: first, between April 22 and May 4, 2020, which corresponds to the period just after the peak of the infections in Switzerland, and second, from 19 November to 14 December 2020, which was just after the peak of the second (and more severe) wave in Switzerland.

Respondents were recruited via an online panel run by an international market research firm (Bilendi). Participants in Bilendi's online panel sign up voluntarily to participate in the panel in general, and then receive invitations to participate in surveys such as our own in return for a very small monetary reward. Our survey was web-based and self-administered. Participants could opt out at any time.

We obtained a sample of 1535 participants, who rated a total of 3070 vignettes per experiment in wave I and a sample of 1498 respondents, who rated 2996 vignettes per experiment. To ensure the representativeness of this sample, quotas for age (18-24, 25-34, 35-44, 45-54, 55-64, 65-74, over 75), gender (male, female), education (low, middle, high) and a soft quota for regional affiliation (French or German speaking). Given that the Italian speaking region comprises only 4% of the Swiss population, we refrained from translating the survey into Italian. The samples overlap only partly (around 60 percent of wave I also participated in wave II). We therefore treat our data as repeated cross-sections, not panel data.

The screening questions for each of the quotas were placed before the experimental section. The experimental section comprised four survey experiments. We discuss only three of these in this paper. As can be seen below, an introductory screen describes the fictitious situation, gives the necessary context and explains the expected evaluation. Respondents are able to go back and forth between the introductory screen and the descriptions within each experiment, but not between experiments. The experimental section was followed by questions related to personal behaviour and concerning personal attitudes concerning politics, the pandemic, and migration.

We exclude data from respondents who performed the rating tasks either very quickly (<5 seconds) or very slowly (>180 seconds). For wave I we retain 1461 observations for our analysis of experiment I and 1457 observations for experiment II. For experiment III, we exclude respondents who answered too quickly or too slowly on either task and retain 1489 observations for each task (2978 in total). For wave II we retain 2016, 2014, and 2032 observations for experiments I, II, and III respectively.

Table S1: Introductory page survey and translation	
Original wording	*Translation*
Willkommen zur Befragung «Politik in der COVID-Pandemie» **Inhalt Fragebogen:** Im folgenden Fragebogen, werden wir Ihnen einige Fragen zu Ihren Präferenzen zu verschiedenen Politikmassnahmen stellen, die sich auf die aktuelle Pandemie beziehen. Danach werden wir Ihnen noch einige Fragen zu Ihrer Person und Ihrer Einschätzung der Krise stellen. **Anonymität:** Wir werden Ihre Daten komplett anonym behandeln und diese nur für wissenschaftliche Zwecke nutzen. **Teilnahme:** Falls Sie nicht teilnehmen möchten schliessen Sie einfach Ihren Browser. Wenn Sie sich dafür entscheiden an dieser Befragung teilzunehmen, klicken Sie bitte auf "Weiter".	**Welcome to the survey "Politics during the COVID pandemic"** **Questionnaire content**: In the following questionnaire, we will ask you some questions about your preferences for different policy measures related to the current pandemic. We will then ask you further questions about yourself and your assessment of the crisis. **Anonymity**: We will treat your data completely anonymously and use them only for scientific purposes. **Participation:** If you do not wish to participate, simply close your browser. If you decide to participate in this survey, please click on "Continue".

Table S2: Experiment 1 introductory text, translation	
Original wording	*Translation*
Wir möchten Ihre Präferenzen bezüglich **staatlicher Hilfe für Selbständig-erwerbende abfragen**. Bitte lesen Sie die folgenden Beschreibungen und geben Sie an, **wie stark Sie damit einverstanden sind, dass diese Personen staatliche Hilfe erhalten.** Stellen Sie sich dabei vor, dass alle beschriebenen **Personen wegen der Krise ihre Aktivität einstellen mussten.**	We would like to learn your preferences regarding **government aid for self-employed persons**. Please read the following descriptions and indicate **to what extent you agree that these persons should receive government aid**. Imagine that all the **people described had to stop their activities because of the crisis.**
Es gibt keine richtige oder falsche Antwort, uns interessiert lediglich Ihre Meinung zu diesem Thema.	There is no right or wrong answer, we are only interested in your opinion
0=stimme gar nicht zu; 10=stimme sehr stark zu	*0=don't agree at all; 10=very much agree*

Figure S1: Online implementation introductory text experiment # 1

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Hilfsmassnahmen für Selbständigerwerbende

Wir möchten Ihre Präferenzen bezüglich **staatlicher Hilfe für Selbständigerwerbende abfragen**. Bitte lesen Sie die folgenden Beschreibungen und geben Sie an, **wie stark Sie damit einverstanden sind, dass diese Personen staatliche Hilfe erhalten.** Stellen Sie sich dabei vor, dass alle beschriebenen **Personen wegen der Krise ihre Aktivität einstellen mussten.**

Es gibt keine richtige oder falsche Antwort, uns interessiert lediglich Ihre Meinung zu diesem Thema.
0=stimme gar nicht zu; 10=stimme sehr stark zu.

Weiter

Table S3: Vignette dimensions and levels experiment # 1, exact wording and translation		
Dimension	*Level*	*Translation*
Gender	1) Herr M., ist ein 2) Frau M, ist eine	1) Mr M., is a 2) Ms M, is a
Age	1) 25 Jahre alte/r, 2) 40 Jahre alte/r, 3) 55 Jahre alte/r,	1) 25 year-old 2) 40 year-old 3) 55 year-old
Employment	1) Vollzeit erwerbende/r 2) Teilzeit erwerbende/r	1) fulltime 2) part-time
Job	1) **Coiffeur/euse**. 2) *Uber* **Fahrer/in**. 3) schwarz arbeitende/r **Putzhilfe** [für Frauen] / **Gärtner**. [für Männer] 4) **Zahnarzt/Zahnärztin**.	1) **Hairdresser** 2) **Uber driver** 3) **Undeclared cleaning aid** [for women] / **gardener** [for men] 4) **dentist**
Nationality	1) Sie/Er hat einen **Schweizer** Pass, 2) Sie/Er hat einen **deutschen** Pass, [französischen Pass in der franz. Version] 3) Sie/Er hat einen **türkischen** Pass, 4) Sie/Er hat einen **nigerianischen** Pass,	1) He/she has a **Swiss** passport, 2) He/she has a **German** passport, [French passport in the **French** version] 3) He/she has a **Turkish** passport, 4) He/she has a **Nigerian** passport,
Partner	1) und Ihr/Seine Partner/in ist als **Angestellte/r tätig**. 2) und Ihr/Seine Partner/in ist **auch als Selbständigerwerbende/r tätig**. 3) und Ihr/Seine Partner/in ist **arbeitslos**.	1) and your partner is **an employee**. 2) and your partner **is also self-employed**. 3) and your partner is **unemployed**.
Responsibility	1) Sie sind finanziell **weder für Kinder noch für weitere Familienmitglieder verantwortlic**h. 2) Sie sind finanziell für **zwei Kinder** verantwortlich. 3) Sie unterstützen **seit Beginn der Krise** eine Schwester, die in der **Schweiz** wohnt, finanziell. 4) Sie unterstützen **seit Beginn der Krise** eine Schwester, die im **Ausland** wohnt, finanziell.	1) They are **not financially responsible for children or other family members**. 2) They are financially responsible for **two children.** 3) **Since the beginning of the crisis**, the have provided financial support to a sister living in **Switzerland**. 4) **Since the beginning of the crisis**, they have provided financial support to a sister living **abroad**.
Experience	1) Frau / Herr M./V. **hat Anfang des Jahres** diese Tätigkeit neu begonnen 2) Frau/Herr M. ist **seit 5 Jahren** erfolgreich in dieser Tätigkeit etabliert 3) Frau/Herr M. ist **seit 10 Jahren** erfolgreich in dieser Tätigkeit etabliert	1) Mrs / Mr M./V. started this activity again **at the beginning of the year** 2) Mrs/Mr M. has been successfully established in this activity **for 5 years** 3) Mrs/Mr M. has been successfully established in this activity for **10 years**
Alternative Sources	1) und seit Beginn der Krise hat er/sie **versucht alternative Einnahmequellen** zu generieren. 2) und sieht in der aktuellen Krise **keine Möglichkeit alternative Einnahmequellen** zu generieren.	1) and since the beginning of the crisis he/she has **tried to generate alternative sources of income**. 2) and **sees no possibility to generate alternative sources of income** in the current crisis.
Volunteering	1) In der aktuellen Krise ist er/sie **nicht als Freiwillige/r tätig**. 2) Er/Sie ist **als Freiwillige/r tätig** und reinigt Gemeinschafsbereiche im Krankenhaus. 3) Er/Sie kümmert sich freiwillig um den Einkauf für ältere Personen in der Nachbarschaft.	1) In the current crisis he/she is **not volunteering**. 2) He/she is **volunteering** and cleaning community areas in the hospital. 3) He/she volunteers to do the shopping for elderly people in the neighbourhood.

Table S4: Introductory text experiment # 2 and translation	
Original wording	***Translation***
Im Folgenden präsentieren wir Ihnen kurze Beschreibungen fiktionaler Personen, bei denen Covid-19 diagnostiziert wurde und die nun um Aufnahme in die Intensivstation ihres lokalen Krankenhauses bitten. Allerdings ist dort die Anzahl Betten (mit und ohne Beatmungsgerät) beschränkt und es ist daher notwendig eine Prioritätenordnung festzulegen.	Below we present short descriptions of fictional people who have been diagnosed with Covid-19 and who are now asking to be admitted to the intensive care unit of their local hospital. However, the number of beds (with and without ventilators) is limited and it is therefore necessary to prioritise.
Wir bitten Sie für jede der Personen auf der Skala anzuzeigen für wie wichtig Sie es halten, dass die Person ein Bett auf der Intensivstation bekommt (0 = niedrigste Priorität bis 10 = höchste Priorität).	We ask you to indicate for each of the people on the scale how important you think it is this person gets a bed in the intensive care unit (0 = lowest priority to 10 = highest priority)
Bitte beachten Sie auch hier: Es gibt keine richtigen oder falschen Antworten. Uns interessiert lediglich Ihre Meinung zu diesem Thema.	Please also note here: There are no right or wrong answers. We are only interested in your opinion on this topic.

Figure S2: Online implementation introductory text experiment # 2

Intensivbetten Zuteilung

Im Folgenden präsentieren wir Ihnen kurze Beschreibungen fiktionaler Personen, bei denen Covid-19 diagnostiziert wurde und die nun um Aufnahme in die Intensivstation ihres lokalen Krankenhauses bitten. Allerdings ist dort die Anzahl Betten (mit und ohne Beatmungsgerät) beschränkt und es ist daher notwendig eine Prioritätenordnung festzulegen.

Wir bitten Sie für jede der Personen auf der Skala anzuzeigen für wie wichtig Sie es halten, dass die Person ein Bett auf der Intensivstation bekommt *(0 = niedrigste Priorität bis 10 = höchste Priorität)*.

Bitte beachten Sie: Es gibt keine richtigen oder falschen Antworten. Uns interessiert lediglich Ihre Meinung zu diesem Thema.

Weiter

Table S5: Vignette dimensions and levels experiment # 2, exact wording and translation		
Dimension	*Level*	*Translation*
Gender	1) Herr B. [M] 2) Frau B. [M]	1) Mr. B [M] 2) Ms/Mrs B. [M]
Identity	1) hat einen Schweizer Pass, 2) hat einen deutschen Pass, 3) hat einen türkischen Pass, 4) hat einen nigerianischen Pass,	1) has a Swiss passport, 2) has a German passport, 3) has a Turkish passport, 4) has a Nigerian passport
Age	1) ist 25 Jahre alt und 3) ist 40 Jahre alt und 4) ist 55 Jahre alt und 5) ist 70 Jahre alt und	1) is 25 years old and 2) is 40 years old and 3) is 55 years old and 4) is 70 years old and
Need	1) hat leichte Atembeschwerden. 2) hat moderate Atembeschwerden. 3) hat schwere Atembeschwerden.	1) has slight breathing difficulties. 2) has moderate breathing difficulties. 3) has severe breathing difficulties.
Control	1) Er/Sie hat sich bis zur Diagnose an die Vorgaben zum Social Distancing gehalten und hat das Haus nur verlassen, um Einkäufe zu erledigen. 2) Er/Sie hat sich bis zur Diagnose weiterhin mit Freund.innen und Verwandten in grösseren Gruppen getroffen.	1) He/she has adhered to the guidelines on social distancing until diagnosis and has only left the house to go shopping. 2) He/she continued to meet with friends and relatives in larger groups until diagnosis.
Prognosis	1) Die Ärzte prognostizieren gute Genesungschancen. 2) Die Ärzte sind sich nicht sicher, ob eine Genesung möglich ist. 3) Die Ärzte vermuten, es besteht wohl keine Chance auf Genesung.	1) Doctors predict good chances of recovery. 2) The doctors are not sure whether recovery is possible. 3) The doctors suspect that there is probably no chance of recovery.
Effort	1) Herr/Frau B. hält sich seit der Diagnose nur teilweise an die Empfehlungen der Ärzte, sich auszuruhen und viel Flüssigkeit zu sich zu nehmen. 2) Herr/Frau B. hält sich seit der Diagnose genau an die Empfehlungen der Ärzte, sich auszuruhen und viel Flüssigkeit zu sich zu nehmen.	1) Mr. / Mrs. B. has only partially followed the doctors' recommendations since the diagnosis to rest and drink plenty of fluids. 2) Since the diagnosis, Mr. / Mrs. B. has followed the doctors' recommendations to rest and drink plenty of fluids.
Reciprocity	1) Er/sie hat sich vor der Diagnose nicht freiwillig engagiert. 2) Er/sie hat vor der Diagnose freiwillig im Krankenhaus geputzt. 3) Er/sie hat vor der Diagnose für ältere Nachbar.innen die Einkäufe erledigt.	1) He/she did not volunteer before the diagnosis. 2) He/she has volunteered to clean the hospital before the diagnosis. 3) He/she has done the shopping for elderly neighbours before the diagnosis.

Figure S3: Online implementation vignettes experiment # 2

Geben Sie bitte an, mit welcher Priorität diese Person ein Bett auf einer Intensivstation erhalten sollte
0=niedrigste Priorität; 10=höchste Priorität.

- Frau B. hat einen deutschen Pass, ist 25 Jahre alt und hat leichte Atembeschwerden.
- Sie hat sich bis zur Diagnose an die Vorgaben zum Social Distancing gehalten und hat das Haus nur verlassen, um Einkäufe zu erledigen.
- Die Ärzte sind sich nicht sicher, ob eine Genesung möglich ist.
- Frau B. hält sich seit der Diagnose nur teilweise an die Empfehlungen der Ärzte, sich auszuruhen und viel Flüssigkeit zu sich zu nehmen.
- Sie hat vor der Diagnose freiwillig im Krankenhaus geputzt.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

niedrigste Priorität   höchste Priorität

Zurück

Table S 6 Introductory text experiment # 3 and translation	
Original wording (Wave I)	***Translation***
Wave I	
Wie Sie wissen wurden in den vergangenen Wochen einige **Reisebeschränkungen** in Reaktion auf die momentane COVID-19 Pandemie erlassen. Unten präsentieren wir Ihnen kurze Beschreibungen fiktionaler **Personen, die aus verschiedenen Gründen in die Schweiz einreisen möchten**. Wir bitten Sie für jede der Personen auf der Skala anzuzeigen für wie wichtig Sie es halten, dass die Person in die Schweiz einreisen darf. Dabei gibt es keine richtige oder falsche Antwort, uns interessiert lediglich Ihre Meinung zu diesem Thema. *0= niedrigste Priorität; 10= höchste Priorität.*	As you know, some **travel restrictions** have been imposed in recent weeks in response to the current COVID-19 pandemic. Below we present short descriptions of **fictional persons who wish to enter Switzerland for various reasons.** For each of the persons on the scale, we ask you to indicate how important you consider it to be for the person to be allowed to enter Switzerland. There is no right or wrong answer, we are only interested in your opinion on the subject. *0= lowest priority; 10= highest priority.*
Wave II	
Wie Sie wissen wurden während der sogenannten «ersten Welle» verschiedene internationale **Reisebeschränkungen** in Reaktion auf die COVID-19 Pandemie erlassen. Bitte stellen Sie sich vor, dass solche Beschränkungen erneut erlassen würden. Unten präsentieren wir Ihnen kurze Beschreibungen fiktionaler **Personen, die aus verschiedenen Gründen in die Schweiz einreisen möchten**. Wir bitten Sie für jede der Personen auf der Skala anzuzeigen für wie wichtig Sie es halten, dass die Person in die Schweiz einreisen darf. Dabei gibt es keine richtige oder falsche Antwort, uns interessiert lediglich Ihre Meinung zu diesem Thema. *0= niedrigste Priorität; 10= höchste Priorität.*	As you know, during the so-called "first wave" some **travel restrictions** have been imposed in response to the current COVID-19 pandemic. Please imagine that such restrictions would be implemented again. Below we present short descriptions of **fictional persons who wish to enter Switzerland for various reasons.** For each of the persons on the scale, we ask you to indicate how important you consider it to be for the person to be allowed to enter Switzerland. There is no right or wrong answer, we are only interested in your opinion on the subject. *0= lowest priority; 10= highest priority.*

Figure S4: Online implementation introductory text experiment # 3 (Wave I)

| Table S7 Vignette dimensions and levels experiment # 3, exact wording and translation		
Dimension	*Level*	*Translation*
Gender	1) Herr G. 2) Frau G.	1) Mr. G. 2) Ms/Mrs. G.
Nationality	1) [blank] 2) ist Deutsche/r, 3) ist Türke/in, 4) ist Nigerianer/in,	1) [blank] 2) is German, 3) is Turkish, 4) is Nigerian,
Legal status	1) besitzt [ebenfalls] die Schweizer Staatsbürgerschaft 2) hat eine gültige Niederlassungsbewilligung (C-Bewilligung) 3) hat eine gültige Aufenthalts- bzw. Arbeitserlaubnis (Ci, B, L, oder G Bewilligung) 4) hat eine gültige Reiseerlaubnis (Visum)	1) [also] has Swiss citizenship 2) has a valid settlement permit (C permit) 3) has a valid residence or work permit (Ci, B, L, or G permit) 4) has a valid travel permit (visa)
Age	1) und ist 25 Jahre alt. 2) und ist 40 Jahre alt. 3) und ist 55 Jahre alt. 4) und ist 70 Jahre alt.	1) and is 25 years old. 2) and is 40 years old. 3) and is 55 years old. 4) and is 70 years old.
Reason	1) Er/Sie ist in der Schweiz im Gesundheitswesen tätig. 2) Er/Sie ist in der Schweiz als Erntehilfe beschäftigt. 3) Er/Sie ist in der Schweiz in einem Supermarkt beschäftigt. 4) Er/Sie möchte eine/n Ärztin/Arzt in der Schweiz besuchen. 5) Er/Sie möchte Freund.innen in der Schweiz besuchen. 6) Er/Sie möchte Verwandte in der Schweiz besuchen.	1) He/she works in the health care sector in Switzerland. 2) He/she is employed in Switzerland as a harvest aid. 3) He/she is employed in Switzerland in a supermarket. 4) He/she would like to visit a doctor in Switzerland. 5) He/she would like to visit a friend in Switzerland. 6) He/she would like to visit relatives in Switzerland.

Figure S5: Online implementation vignettes experiment # 3

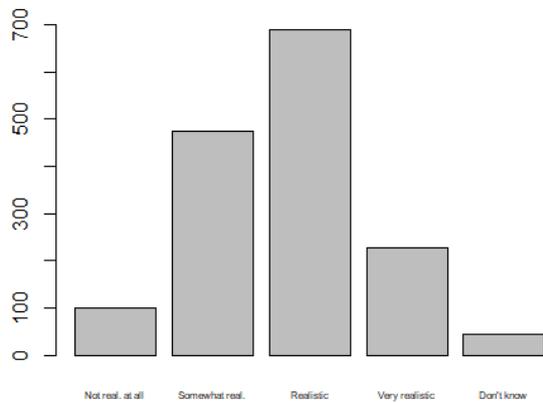**Figure S6: Respondent certainty of evaluation**
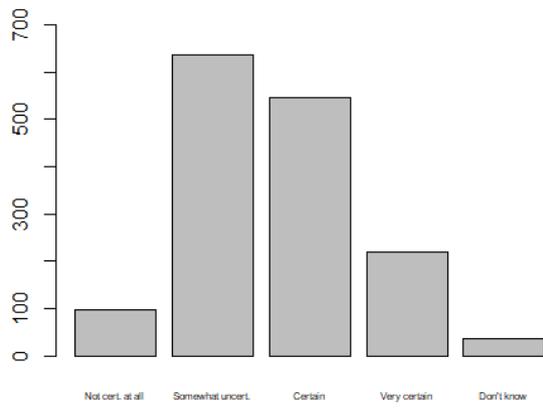
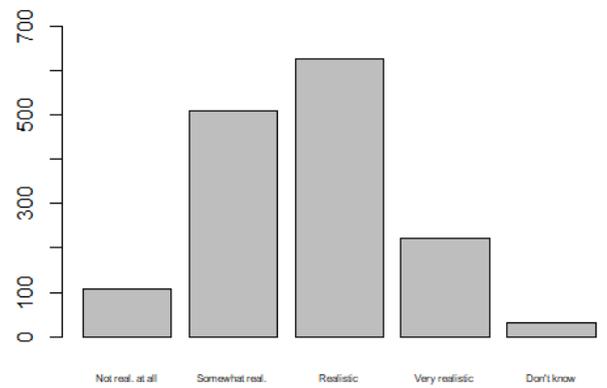How certain did you feel in evaluating the last two vignettes? (Wave I)
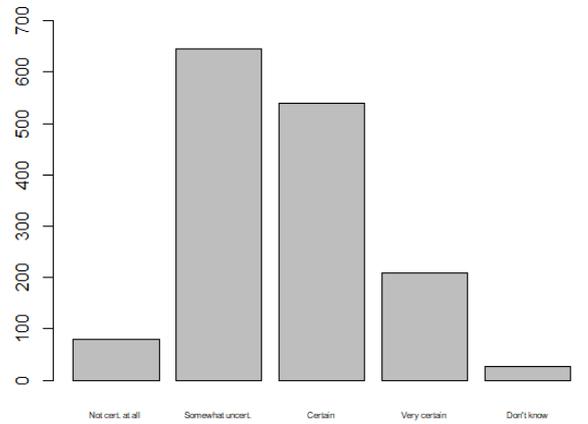
How certain did you feel in evaluating the last two vignettes? (Wave II)

Figure S7: Realism of vignette person

How realistic did you find the last two vignettes? (Wave I)

How realistic did you find the last two vignettes? (Wave II)

Assumptions tests for AMCE

Carry over effects

To ensure stability of AMCE between the first and second vignette evaluations, we test for carry-over effects (Hainmueller, Hopkins, and Yamamoto, 2014). To that end, we estimate linear regression models for each of the experiments that include covariates for all profile characteristics, each interacted with an indicator for the position of the rating task, and then test the joint significance of all interaction terms using a Wald test. As can be seen in the tables below, for wave I, the tests for experiments I and II indicate that there are indeed carry-over effects present in our data. We therefore follow the recommendation by Hainmueller et al. (2014) and use only the data of the first task for those experiments. For wave II, we find no carry-over effects and therefore use both tasks of all three experiments.

Hainmueller J., Hopkins D. J., Yamamoto T. (2014). Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments. *Political Analysis*, *22*(1), 1–30.

Table S8 Test for no effect of experiment position		
	Wave I	**Wave II**
Experiment	*Result*	
1	X2 = 33.0, df = 60, P(> X2) = 1.0	X2 = 62.1, df = 60, P(> X2) = 0.4
2	X2 = 52.1, df = 45, P(> X2) = 0.22	X2 = 41.8, df = 45, P(> X2) = 0.61
3	X2 = 43.3, df = 45, P(> X2) = 0.54	X2 = 26.5, df = 45, P(> X2) = 0.99

Table S9 Test for no effect of vignette position		
	Wave I	**Wave II**
Experiment	*Result*	
1	**X2 = 35.7, df = 20, P(> X2) = 0.016**	X2 = 10.5, df = 20, P(> X2) = 0.96
2	**X2 = 28.6, df = 15, P(> X2) = 0.018**	X2 = 17.8, df = 15, P(> X2) = 0.27
3	X2 = 17.0, df = 15, P(> X2) = 0.32	X2 = 19.9, df = 15, P(> X2) = 0.17

The AMCE assumes the completely random allocation of attribute levels (Hainmueller, Hopkins, and Yamamoto, 2014), which was ensured through the technical setup of the experiments. To test if this allocation was successful, we compute chi-squared tests on contingency tables of individual respondent variables (gender, age group, linguistic region, education) and profile attributes of each experiment. In wave I, for experiments I and II, both tests indicate successful randomisation. For experiment III, the test reveals an unbalanced distribution of one attribute across respondents' gender. However, analysing the results conditional on respondents' gender reveals that men and women evaluate that attribute very similarly (see Figure S9 below), and we therefore proceed with the analysis. For wave II, the tests reveal successful randomisation for all experiments.

Hainmueller J., Hopkins D. J., Yamamoto T. (2014). Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments. *Political Analysis*, *22*(1), 1–30.

| Table S11 Test for successful randomisation (Experiment 1)			
		Wave I	**Wave II**
Respondent Variable	*Attribute*	*Result*	
r_gender	gender	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
r_gender	age	X-squared = 0.57418, df = 2, p-value = 0.7504	X-squared = 0.75226, df = 2, p-value = 0.6865
r_gender	fulltime	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
r_gender	job	X-squared = 1.2859, df = 3, p-value = 0.7325	X-squared = 0.48582, df = 3, p-value = 0.922
r_gender	natio	X-squared = 2.9054, df = 3, p-value = 0.4064	X-squared = 3.0739, df = 3, p-value = 0.3804
r_gender	partner	X-squared = 0.044049, df = 2, p-value = 0.9782	X-squared = 0.52186, df = 2, p-value = 0.7703
r_gender	responsibility	X-squared = 0.25408, df = 3, p-value = 0.9684	X-squared = 4.6259, df = 3, p-value = 0.2013
r_gender	experience	X-squared = 1.0607, df = 2, p-value = 0.5884	X-squared = 2.1334, df = 2, p-value = 0.3441
r_gender	revenues	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
r_gender	volunteering	X-squared = 0.021201, df = 2, p-value = 0.9895	X-squared = 0.36467, df = 2, p-value = 0.8333
r_agegroup	gender	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_agegroup	age	X-squared = 8.0247, df = 12, p-value = 0.7832	X-squared = 5.9525, df = 12, p-value = 0.9185
r_agegroup	fulltime	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_agegroup	job	X-squared = 10.026, df = 18, p-value = 0.9311	X-squared = 10.008, df = 18, p-value = 0.9316
r_agegroup	natio	X-squared = 10.177, df = 18, p-value = 0.926	X-squared = 10.127, df = 18, p-value = 0.9277
r_agegroup	partner	X-squared = 5.9619, df = 12, p-value = 0.918	X-squared = 5.5785, df = 12, p-value = 0.9358
r_agegroup	responsibility	X-squared = 17.147, df = 18, p-value = 0.513	X-squared = 15.505, df = 18, p-value = 0.6271
r_agegroup	experience	X-squared = 3.6641, df = 12, p-value = 0.9888	X-squared = 1.9336, df = 12, p-value = 0.9995
r_agegroup	revenues	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_agegroup	volunteering	X-squared = 9.1709, df = 12, p-value = 0.6883	X-squared = 6.3418, df = 12, p-value = 0.8979
region	gender	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
region	age	X-squared = 0.73963, df = 2, p-value = 0.6909	X-squared = 2.3542, df = 2, p-value = 0.3082
region	fulltime	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
region	job	X-squared = 0.39897, df = 3, p-value = 0.9405	X-squared = 0.15325, df = 3, p-value = 0.9848

		Wave I	Wave II
region	natio	X-squared = 1.5957, df = 3, p-value = 0.6604	X-squared = 1.3201, df = 3, p-value = 0.7244
region	partner	X-squared = 0.11695, df = 2, p-value = 0.9432	X-squared = 1.1594, df = 2, p-value = 0.5601
region	responsibility	X-squared = 1.9124, df = 3, p-value = 0.5908	X-squared = 1.5007, df = 3, p-value = 0.6821
region	experience	X-squared = 0.25231, df = 2, p-value = 0.8815	X-squared = 0.33558, df = 2, p-value = 0.8455
region	revenues	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
region	volunteering	X-squared = 0.062463, df = 2, p-value = 0.9693	X-squared = 0.52158, df = 2, p-value = 0.7704
r_education	gender	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_education	age	X-squared = 8.2932, df = 12, p-value = 0.7618	X-squared = 2.6476, df = 12, p-value = 0.9976
r_education	fulltime	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_education	job	X-squared = 5.757, df = 18, p-value = 0.9971	X-squared = 11.922, df = 18, p-value = 0.8513
r_education	natio	X-squared = 12.573, df = 18, p-value = 0.8163	X-squared = 15.024, df = 18, p-value = 0.6603
r_education	partner	X-squared = 3.963, df = 12, p-value = 0.9841	X-squared = 11.15, df = 12, p-value = 0.5161
r_education	responsibility	X-squared = 19.117, df = 18, p-value = 0.3847	X-squared = 7.673, df = 18, p-value = 0.9831
r_education	experience	X-squared = 4.5117, df = 12, p-value = 0.9723	X-squared = 6.783, df = 12, p-value = 0.8716
r_education	revenues	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_education	volunteering	X-squared = 5.985, df = 12, p-value = 0.9168	X-squared = 6.1387, df = 12, p-value = 0.9089

Table S12 Test for successful randomisation (Experiment 2)			
		Wave I	**Wave II**
Respondent Variable	*Attribute*	*Result*	
r_gender	gender	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
r_gender	iden	X-squared = 0.32896, df = 3, p-value = 0.9545	X-squared = 2.2461, df = 3, p-value = 0.5229
r_gender	age	X-squared = 2.8862, df = 3, p-value = 0.4095	X-squared = 1.7884, df = 3, p-value = 0.6175
r_gender	need	X-squared = 1.4521, df = 2, p-value = 0.4838	X-squared = 0.7775, df = 2, p-value = 0.6779
r_gender	con	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
r_gender	prog	X-squared = 0.2427, df = 2, p-value = 0.8857	X-squared = 0.41479, df = 2, p-value = 0.8127
r_gender	eff	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
r_gender	rec	X-squared = 0.4237, df = 2, p-value = 0.8091	X-squared = 0, df = 1, p-value = 1
r_agegroup	gender	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_agegroup	iden	X-squared = 7.6154, df = 18, p-value = 0.9838	X-squared = 17.429, df = 18, p-value = 0.4938
r_agegroup	age	X-squared = 19.808, df = 18, p-value = 0.3437	X-squared = 16.921, df = 18, p-value = 0.5285
r_agegroup	need	X-squared = 8.6954, df = 12, p-value = 0.7287	X-squared = 7.9359, df = 12, p-value = 0.7901
r_agegroup	con	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_agegroup	prog	X-squared = 3.4956, df = 12, p-value = 0.9909	X-squared = 6.5155, df = 12, p-value = 0.8879
r_agegroup	eff	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_agegroup	rec	X-squared = 5.6208, df = 12, p-value = 0.934	X-squared = 6.4553, df = 12, p-value = 0.8914
region	gender	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
region	iden	X-squared = 4.015, df = 3, p-value = 0.2599	X-squared = 1.1443, df = 3, p-value = 0.7664
region	age	X-squared = 2.7035, df = 3, p-value = 0.4396	X-squared = 2.8295, df = 3, p-value = 0.4187
region	need	X-squared = 0.11837, df = 2, p-value = 0.9425	X-squared = 0.10495, df = 2, p-value = 0.9489
region	con	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1

		Wave I	Wave II
region	prog	X-squared = 0.95462, df = 2, p-value = 0.6205	X-squared = 1.2186, df = 2, p-value = 0.5437
region	eff	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
region	rec	X-squared = 2.8523, df = 2, p-value = 0.2402	X-squared = 1.0524, df = 2, p-value = 0.5908
r_education	gender	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_education	iden	X-squared = 13.968, df = 18, p-value = 0.7312	X-squared = 10.707, df = 18, p-value = 0.9064
r_education	age	X-squared = 18.489, df = 18, p-value = 0.4239	X-squared = 11.274, df = 18, p-value = 0.8824
r_education	need	X-squared = 6.7335, df = 12, p-value = 0.8747	X-squared = 4.387, df = 12, p-value = 0.9754
r_education	con	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_education	prog	X-squared = 9.7062, df = 12, p-value = 0.6417	X-squared = 7.499, df = 12, p-value = 0.823
r_education	eff	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_education	rec	X-squared = 5.4509, df = 12, p-value = 0.9412	X-squared = 4.8721, df = 12, p-value = 0.9621

| Table S13 Test for successful randomisation (Experiment 3)			
		Wave I	**Wave II**
Respondent Variable	*Attribute*	*Result*	
r_gender	gender	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
r_gender	nat	X-squared = 2.7934, df = 3, p-value = 0.4246	X-squared = 1.8883, df = 3, p-value = 0.5959
r_gender	legal	X-squared = 1.4306, df = 3, p-value = 0.6984	X-squared = 2.1041, df = 3, p-value = 0.5511
r_gender	age	X-squared = 0.77688, df = 3, p-value = 0.855	X-squared = 1.2377, df = 3, p-value = 0.744
r_gender	**reason**	**X-squared = 15.459, df = 5, p-value = 0.00857**	X-squared = 4.8077, df = 5, p-value = 0.4398
r_agegroup	gender	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_agegroup	nat	X-squared = 10.266, df = 18, p-value = 0.9229	X-squared = 13.134, df = 18, p-value = 0.7835
r_agegroup	legal	X-squared = 13.086, df = 18, p-value = 0.7864	X-squared = 12.834, df = 18, p-value = 0.8013
r_agegroup	age	X-squared = 15.059, df = 18, p-value = 0.6579	X-squared = 8.4572, df = 18, p-value = 0.971
r_agegroup	reason	X-squared = 27.309, df = 30, p-value = 0.607	X-squared = 23.468, df = 30, p-value = 0.7955
region	gender	X-squared = 0, df = 1, p-value = 1	X-squared = 0, df = 1, p-value = 1
region	nat	X-squared = 5.2944, df = 3, p-value = 0.1515	X-squared = 0.94373, df = 3, p-value = 0.8149
region	legal	X-squared = 4.9173, df = 3, p-value = 0.178	X-squared = 2.41, df = 3, p-value = 0.4918
region	age	X-squared = 2.205, df = 3, p-value = 0.531	X-squared = 0.50941, df = 3, p-value = 0.9168
region	reason	X-squared = 3.9253, df = 5, p-value = 0.5602	X-squared = 7.2862, df = 5, p-value = 0.2002
r_education	gender	X-squared = 0, df = 6, p-value = 1	X-squared = 0, df = 6, p-value = 1
r_education	nat	X-squared = 15.408, df = 18, p-value = 0.6338	X-squared = 18.147, df = 18, p-value = 0.446
r_education	legal	X-squared = 11.575, df = 18, p-value = 0.8684	X-squared = 13.244, df = 18, p-value = 0.7769
r_education	age	X-squared = 12.962, df = 18, p-value = 0.7938	X-squared = 15.806, df = 18, p-value = 0.6061
r_education	reason	X-squared = 21.747, df = 30, p-value = 0.8631	X-squared = 28.985, df = 30, p-value = 0.5184

Figure S8: Experiment 3, Wave 1– deservingness evaluations based on gender
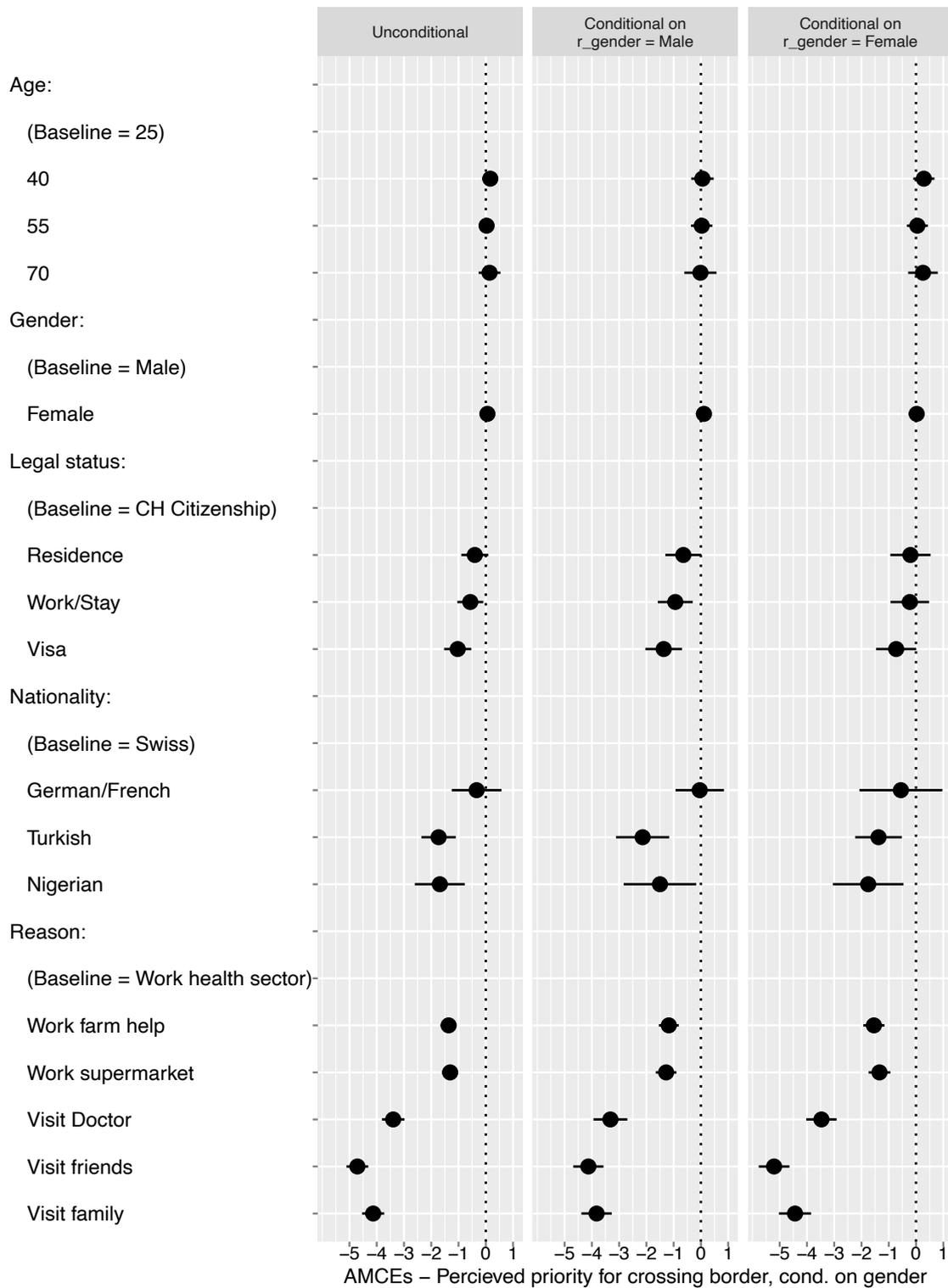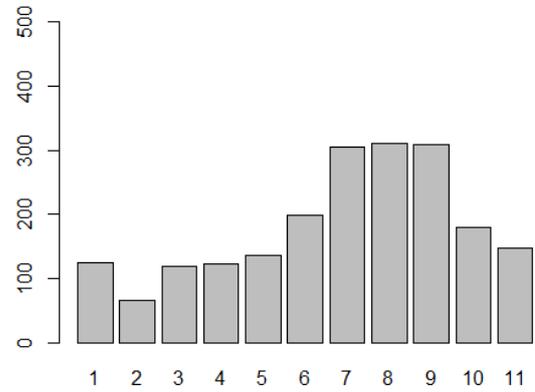

Average Marginal Component Effects of individual attributes on perceived priority for access to Switzerland conditional on respondent gender. Horizontal lines indicate 95% confidence intervals.

Descriptive statistics

Figure S9: Distribution of dependent variable Experiment 1 (Frequencies)
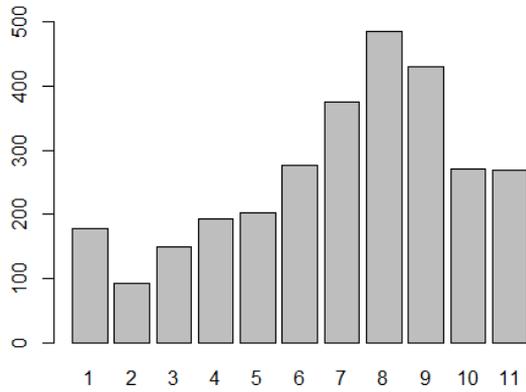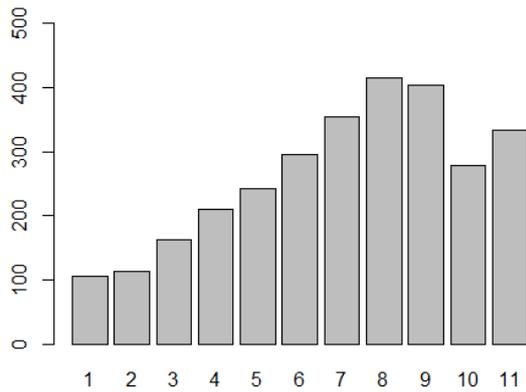

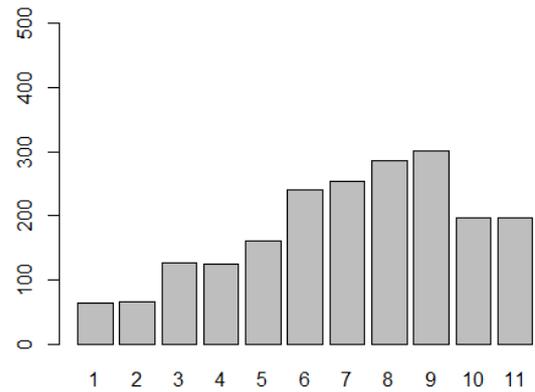Exp 1: Distribution of deservingness evaluations (Wave I)   Exp 1: Distribution of deservingness evaluations (Wave II)

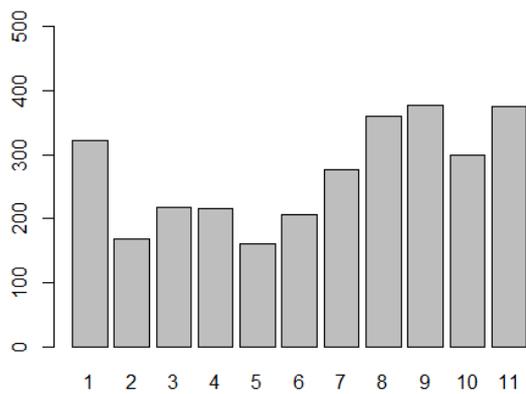**Figure S10: Distribution of dependent variable Experiment 2 (Frequencies)**

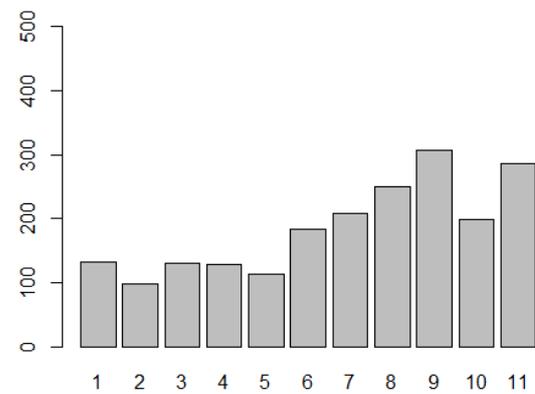Exp 2: Distribution of deservingness evaluations (Wave I)   Exp 2: Distribution of deservingness evaluations (Wave II)

Figure S11: Distribution of dependent variable Experiment 3 (Frequencies)
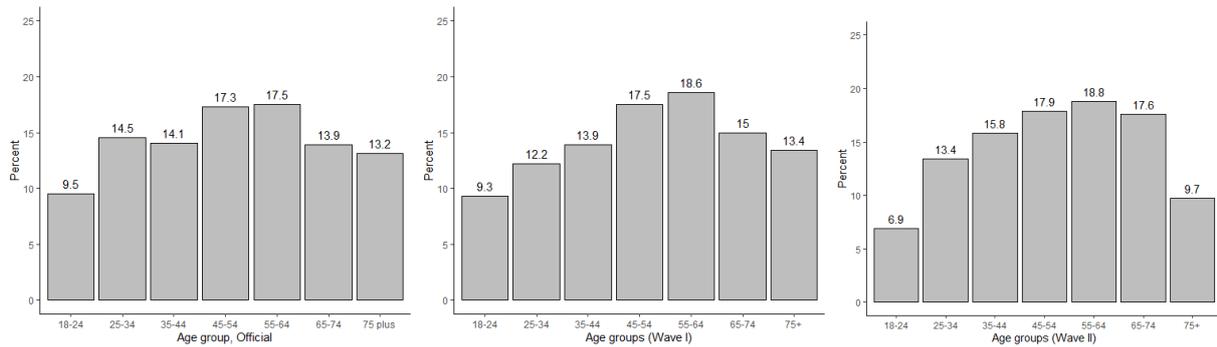

Exp 3: Distribution of deservingness evaluations (Wave I)   Exp 3: Distribution of deservingness evaluations (Wave II)

Figure S12: Age distribution of survey samples and comparison with official statistics
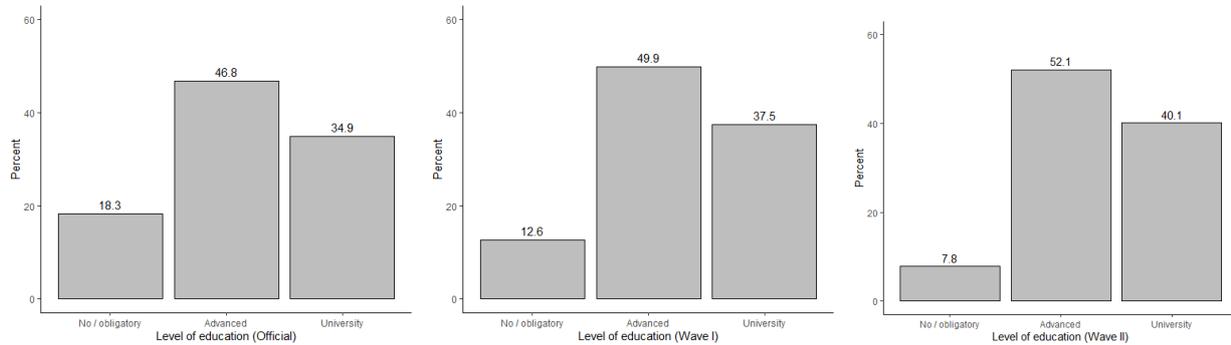

Notes: Official figures based on 2019 STATPOP data of the Swiss Federal Office for Statistics: https://www.bfs.admin.ch/bfs/de/home/statistiken/bevoelkerung/stand-entwicklung/alter-zivilstand-staatsangehoerigkeit.assetdetail.13707177.html, last access on 11 January 2021, official figures computed for population aged 18 and older.

Figure S 13: Gender distribution of survey samples and comparison with official statistics
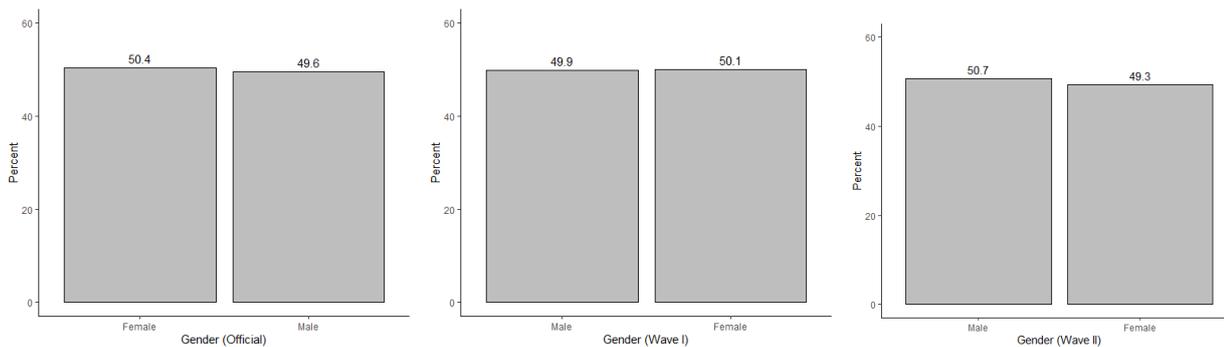
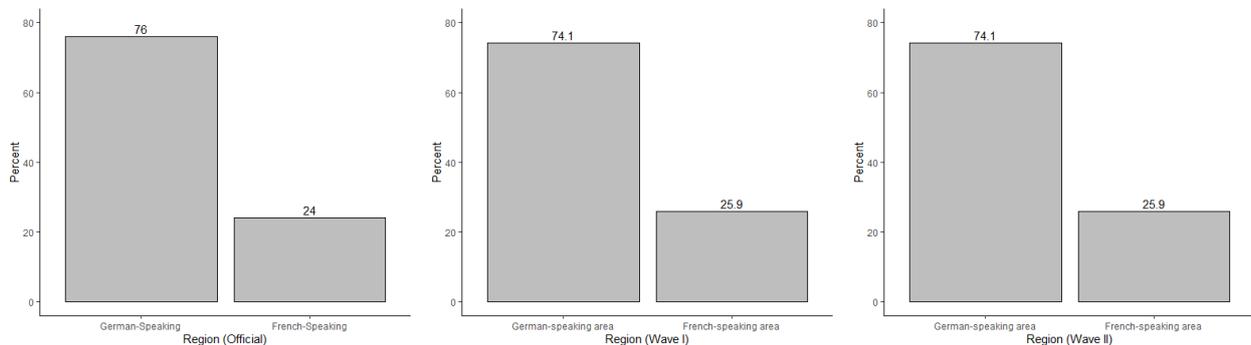*Notes:* Official figures based on 2019 STATPOP data of the Swiss Federal Office for Statistics: https://www.bfs.admin.ch/bfs/de/home/statistiken/bevoelkerung/stand-entwicklung/bevoelkerung.html, last access on 11 January 2021, official figures computed for population aged 18 and older. We screened out respondents who indicated that they did not want to reveal their gender at the beginning of the survey.

Figure S 14: Distribution of educational attainment within survey samples and comparison with official statistics

Figure S 15: Distribution of respondents over linguistic regions and comparison with official statistics

Paper II: Who deserves the spot? Attitudes towards priorities in access to subsidized childcare

Giuliano Bonoli, Mia Gandenberger, Carlo Knotz

Abstract

Research on perceptions of deservingness to welfare state services has to date mainly focused on cash benefits. In this paper, we expand existing research by studying public attitudes towards prioritization in access to social investment services, specifically, subsidised childcare. Based on the well-established corpus of deservingness research, previous findings on social investment policies, and recent work on the varieties of social investment, we expect the traditional deservingness criteria to matter in a slightly adjusted manner and for results to vary across countries. To test our argument, we rely on an original survey experiment conducted in the summer/fall of 2021 in six Western countries (Denmark, Sweden, Germany Switzerland, the United Kingdom, and the United States). We find that cross-national patterns of responses broadly reflect the categorisation of three types of social investment, that is, inclusive, stratified, and targeted social investment (Häusermann et al., 2022). Further, we find that some of the well-known determinants of deservingness perceptions play an important role in the attribution of priorities of parents who need childcare: most clearly need (both financial and in terms of reconciling work and family life) and identity (operationalised with the parents' nationality and their length of residency). This is true in all six countries covered. We conclude that patterns of deservingness perceptions to subsidized childcare services are determined by a mix of institutional factors (that differ across welfare regimes) and more fundamental attitudes towards helping those in need.

Introduction

Deservingness research is a vibrant area of welfare state research, made even more relevant because of the emergence of multicultural societies and the associated conflicts over both culture and finances (Hainmueller & Hopkins, 2014; Hooijer, 2021). The bulk of research has focused on cash benefits and very little has been written on deservingness of social investment interventions. Yet, questions of deservingness are relevant also for social investment. This is the case particularly for subsidized childcare, which in many countries and regions is in short supply (Schober, 2020; Vandenbroeck, 2020). As a matter of fact, some countries have had to set priorities in determining access to this service since supply is insufficient to satisfy demand. Here, we investigate preferences of the general public regarding such prioritisation of access of parents to subsidised childcare.

There are reasons to believe that deservingness perceptions to social investment policies may differ from what we have learned in decades of research based on cash benefits. Social investment differs from redistribution in relation to how it is supposed to help fight disadvantage. While cash benefit programs protect against income losses during periods of need, social investment is more future-oriented. Specifically, recipients of social investment interventions are expected to increase their future financial autonomy through labour market participation and to access to better jobs. Put differently, social investment policies are based on the notion that there will be a return for the taxpayer who finances these interventions. This is particularly the case of subsidised childcare that may facilitate access to the labour market for parents at risk of welfare dependency, but also improve child development and facilitate labour market integration of future workers born in situations of disadvantage. Taken together, this has some important implications for deservingness perceptions.

Therefore, if we accept that the investment dimension of social investment interventions may be considered an attractive feature by taxpayers, then a key criterion for deservingness is likely to be the ability to profit from an investment. For childcare, it may mean giving priority to those parents who really need childcare in order to keep their job or to enter the labour market if they are not working. That is where the intervention is most likely to make a difference in terms of the monetary returns to society.

Existing research on preferences regarding access to subsidised childcare within the general public is rare (for an exception, see Eick & Larsen, 2022). As a result, we look for our theoretical underpinnings in neighbouring literatures: the well-established corpus of deservingness research, previous findings on social investment policies, and recent work on the varieties of social investment. First, following the highly influential strand of welfare

deservingness research (e.g., van Oorschot, 2000), we hypothesise that the usual deservingness criteria, with some adaptation, will play a key role as determinants of deservingness perceptions. In other words, respondents will find that parents who are most in need, who share the same identity, and who have contributed to society in the past will be prioritised.

The second theoretical view we rely on assumes a link between institutions and perceptions of appropriateness in relation to social policies. Institutions embody and transmit values with regard to, among other things, who should be prioritised in getting access to a given service. Institutions contribute to maintaining norms on what is seen as fair and appropriate in a society (Larsen, 2008; Rothstein, 1998). Following recent work on varieties of social investment by Häusermann et al. (2022), we argue that childcare policy as an institution varies across western welfare states. In the Nordic countries, childcare is a universal service, provided at a very low cost to every parent whose child needs it. In Continental Europe, the expansion of subsidized childcare is a more recent development, and problems of shortage are commonplace. In this context, subsidized childcare is a service for the middle classes, as testified by work on the Matthew effect which is particularly strong in continental Europe (Van Lancker, 2013). Finally, in liberal welfare states, subsidized childcare is above all a targeted service, meant to help disadvantaged parents leave welfare state support and enter the labour market. According to the latter perspective, we will expect deservingness perceptions to vary cross-nationally in ways that will be presented below but that are related to this characterization of childcare policy cross-nationally.

We examine these two broad perspectives in six Western welfare states: Denmark, Sweden, Germany, Switzerland, the United Kingdom (UK) and the United States (US). These countries have been chosen to provide the variety we need to assess the validity of the two perspectives briefly outlined above. In each of these countries, we carried out a survey experiment asking respondents to prioritise parents looking for a subsidised childcare spot. We find that both perspectives are confirmed by the data. Most known deservingness criteria, particularly need and identity, play a key role everywhere. However, we also find cross-national differences that reflect the different role played by social investment and childcare policy.

With this article we contribute to several strands of literature. First, we complement the literature on welfare deservingness by studying perceptions of a typical social investment service. As argued above, research on this topic is very limited, yet social investment is a major theme in social policy making throughout the OECD world and beyond (Garritzmann, Palier, et al., 2022). Second, we demonstrate that institutional context can influence deservingness assessments as illustrated by the cross-national variation we find in line with the three types of

social investment (Häusermann et al., 2022). Third, we contribute to the social policy literature on childcare (e.g., Pavolini & Van Lancker, 2018; Vandenbroeck, 2020) which has dealt with issues of prioritization and access biases but has not yet investigated public perceptions on these issues.

Literature review

Determinants of deservingness perceptions

Research on deservingness perceptions has identified a small number of factors that are associated with how deserving of collective help a person is regarded. In a seminal article, van Oorschot (2000) argued that deservingness perceptions are determined by five main factors: control, attitude, reciprocity, identity and need, conveniently summarized with the acronym "CARIN". *Control* refers to the degree of control an individual has on the situation of need in which they find themselves, *attitude* describes the fact of being grateful for help or, in contrast, believing to be entitled to it; *reciprocity* indicates whether the person in need has done or will do something for society; *identity* reflects the degree of proximity to the person in need, and is usually operationalised with migrant status or nationality; and finally, *need*, refers to the extent to which someone depends on collective help for their livelihood (van Oorschot, 2000).

Subsequent work has basically confirmed the validity of the CARIN model, with several studies highlighting the importance of the various criteria (see e.g., Gandenberger et al., 2022; Kootstra, 2016; Laenen et al., 2019; Meuleman et al., 2020; Reeskens & van der Meer, 2019; van Oorschot, 2006). One important addition to this strand of analysis has been the distinction between two types of *reciprocity*: that in relation to past contributions, which refers for example to the payment of taxes or social contributions; and reciprocity with regard to future contributions, which refers to efforts made to end the situation of need (Kootstra, 2016; Reeskens & van der Meer, 2019; van Oorschot, 2006). Knotz et al.(2021) suggest that the two components of reciprocity should be formally distinguished and turned into two different criteria: *reciprocity* and *effort*. A parallel line of investigation inspired by evolutionary psychology has reached similar conclusions, emphasising particularly the importance of control and reciprocity as determinants of deservingness perceptions (Petersen et al., 2012).

Deservingness to social investment

The vast majority of studies on welfare deservingness consider perceptions of deservingness to cash benefits, most typically unemployment benefit. However, we know surprisingly little about who public opinion believes should be more deserving of social services and social investment interventions more generally. A small number of studies help shed some

light on this issue. Comparing public preferences for in-kind services and cash benefits Eick and Larsen (2022) find, based on original survey data collected in Denmark, Germany, and the UK, that respondents were more inclined to grant immigrants access to in-kind services (childcare) than to cash benefits (child benefits). Similarly, Heuer and Zimmermann (2020) find that while immigrants tend to be ranked lowest in terms of deservingness to cash benefits, their position in relation to social investment interventions (such as vocational training) improves considerably.[1] The reasoning observed among study participants refers to the notion of return on investments discussed above, as they explain support with the idea that someone receiving vocational training is likely to pay back to society through higher future earnings and taxes (Heuer & Zimmermann, 2020, p. 396).

In a study on deservingness to active labour market policies, Gielens et al. (2019) find that the ideological orientation of respondents impacts on how they evaluate deservingness to receiving support. Unfortunately for our purposes, their "support" dimension contains both cash benefits and reemployment services, so that it is not possible to see if the social investment part of the support elicits different deservingness perceptions. Finally, studying childcare fees, Busemeyer and Goerres (2020) find that respondents supported a fee schedule related to parental income. Even though they do not speak to the deservingness literature, their findings imply the presence of the need criterion in assessing deservingness to help in paying for childcare.

The impact of institutions

Institutions are related to public attitudes (e.g., Brooks & Manza, 2007; Svallfors, 1997, 2003; Taylor-Gooby, 1995). While social investment has a logic that is different from social protection, it is also true that, like for other social policies, there is more than one variety of social investment. In this respect, we rely on recent work by Häusermann and colleagues (2022): in one of the most comprehensive comparative studies of the spread of social investment policies in OECD countries and beyond, they argue that one can identify at least three different types of social investment: inclusive, stratified, and targeted (Häusermann et al., 2022).

These three types reflect the well-known classification of welfare regimes popularized by Esping-Andersen (1990). In the Nordic countries, one finds "inclusive social investment". In this context, access to key social investment services, such as childcare, is understood as a

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[1] We note that Heuer and Zimmermann (2020) suggest the existence of "social investment" as an additional deservingness criterion whereas we consider it as a different type of social policy.

citizen's right. For the field of childcare, a more apt label for this variety of social investment may be *universal* rather than inclusive.

In conservative welfare states, instead, social investment has developed in a stratified form. In line with the overall orientation of conservative welfare states, stratified social investment is focused on the middle classes and contributes to maintain social inequalities. It is the type of social investment that is most likely to produce Matthew effects, which further contribute to preserve inequalities. In these countries, social investment-oriented reforms have often resulted from an alliance between centre-left political actors and employers (Garritzmann, Häusermann, et al., 2022; Häusermann et al., 2022).

Finally, in liberal welfare state, social investment tends to be targeted on the most disadvantaged. Here social investment interventions are part of an effort to move welfare clients off benefits and into the labour market. This is true also for subsidized childcare, a policy that tends to be targeted on disadvantaged families and is often linked to participation in welfare to work schemes. For example, in the US, public subsidies for providing childcare to middle class families were never a serious option. The dominant idea has always been that the private sector should fill the demand for childcare with state efforts directed toward the most disadvantaged, especially those on welfare (Morgan, 2006, chapter 5).

Before moving on to our hypotheses, we need to acknowledge that childcare is a somewhat particular type of social investment policy. Indeed, the institutional, political, and structural context can influence and shape gender equality (Iversen & Rosenbluth, 2010). Additionally, cultural factors such as the gendered norms about how parents should balance their labour market participation with childcare matter for its provision (Buchmann et al., 2010; Pfau-Effinger, 2010). Indeed, there is a common notion that (married) mothers of young children are expected to reduce their labour force involvement in favour of childcare (Treas & Widmer, 2000, p. 1431). However, this view varies cross the six countries under investigation here and does so roughly in line with the three welfare state regimes (Charles & Cech, 2010; Treas & Widmer, 2000). Consequently, while this is not the main focus of this paper, we are nonetheless mindful that gendered norms may influence assessments of deservingness to subsidised childcare.

Hypotheses

On the basis of the theoretical discussion in the previous section, we move on to identify and discuss our hypotheses. As described in the section above, research on welfare deservingness has focused essentially on cash benefits and has demonstrated the pervasive

quality of the criteria identified. We have reasons to believe that things might be different when it comes to social investment interventions, particularly childcare. This is because of the mechanism assumed to be at work in social investment interventions, i.e., the notion that policies fight disadvantage and promote social cohesion by facilitating the labour market participation of the target groups. However, theoretically, the well-known deservingness criteria could also play a role here as they have proven to consistently matter across various policies.

> H1: *Deservingness to social investment.* The well-known deservingness criteria matter for the attribution of priority in the context of social investment policies.

Additionally, we expect to find some cross-national variation in perceptions of deservingness to social investment policies, and in particular subsidised childcare. In social democratic countries where access to key social investment services, such as childcare, is understood as a citizen's right questions of deservingness are likely to be pointless. If forced to answer questions on deservingness to childcare services, most respondents in these countries will refuse to set priorities and rate everyone as extremely deserving.

> H2: *Inclusive social investment.* We expect respondents in social democratic welfare states to universally attribute high deservingness levels to all, regardless of their features.

We expect deservingness perceptions in conservative welfare states to be shaped by utilitarian thinking, by giving priority to those who will generate the highest returns for society and for firms. Therefore, priority in access to subsidized childcare will be given to middle-class dual-earner couples, as they are the ones whose non-work will generate the highest opportunity costs for the economy and for taxpayers, that is, the insiders that are typically favoured in these welfare states (Emmenegger et al., 2012). In contrast, we expect unemployed people, low-income workers, immigrants, possibly single mothers, to be lower on the priority list. In terms of deservingness criteria, we would expect conciliation need and identity to be key determinants in conservative welfare states. In contrast, financial need should play a smaller role, since the intention is to prioritize middle class families.

> H3: *Stratified social investment*: In conservative welfare states, we expect majorities of respondents to prioritise conciliation need over financial need. The priority will be for middle-class two earner parents.

In liberal welfare states, we would expect unemployed people, who represent a burden for the public purse, to be allocated a high priority. The same for single parents, who, especially

in liberal welfare states, are exposed to a high risk of poverty and exclusion form the labour market (Zagel & Hübgen, 2018). Migrants, to the extent that they may be perceived as being more likely to risk welfare dependency, may also be given priority to be able to contribute to society by engaging on the labour market. In contrast, high income parents, are likely to be given a low priority as these will be expected to buy market-based unsubsidised childcare services.

> H4: *Targeted social investment*. In liberal welfare states, we expect disadvantaged parents to be given priority over those who belong to the middle and upper classes. More specifically, unemployed parents, single parents, immigrants, and low-income parents will be given a higher priority.

Data and methods

Deservingness assessments are prone to social desirability bias if we were to openly ask for respondents' stated preferences. Therefore, we rely —as is custom in this field of research— on factorial survey experiments, also called vignette experiments, as they offer a way to better understand respondents' judgment principles. (Auspurg & Hinz, 2015; Jasso, 2006). As part of vignette experiments, participants (in our case respondents) are presented with small passages of text (vignettes) in which certain dimensions (characteristics) are systematically varied and the vignettes are randomly assigned to participants. That way attention is diffused from any one characteristic, as dimensions are not easily distinguishable to the untrained eye. Vignette experiments have been shown to have high external validity (Hainmueller et al., 2015).

Operationalisation

To better account for the context of subsidized childcare some adaptations to the operationalisation of the deservingness criteria in our vignettes are necessary. First and foremost, we decided to exclude the "control" criterion, even though it has been found to be among the most important determinants of deservingness perceptions. Arguably, there is some control over the creation of the need for childcare. However, the extent of this control varies with the ease of access to contraception, social status, country of residence, and many other conditions. In this experiment, we did not want to mix the deservingness assessment of who should have access to childcare with a value judgement of who should have children. Indeed, generally, the fact of needing childcare is associated to a wish to reconcile work and family life. Both having children and being in employment are pro-social behaviours. It would not make sense to sanction individuals who, by adopting these prosocial behaviours, need childcare as a result. Therefore, we do not consider control as a relevant criterion in this context. Further, we

decided to drop the "attitude" criterion, which is in reality seldom used in empirical studies on welfare deservingness and has little if any explanatory power (Knotz et al., 2021).

Additional adjustments are required for the operationalisation of the "need" criterion. In the context of childcare services, the notion of need can be understood in two different ways: financial need and "conciliation" need. Financial need is very similar to the notion of need used in research on cash benefits, i.e., the extent to which a person can rely on their own financial means to access the service. Conciliation need, instead, is specific to childcare and refers to the urgency with which the childcare services are needed to allow parents to stay in or to gain access to the labour market. We therefore included different scenarios of the parent's engagement in the labour market to model the urgency with which a childcare spot is needed.

We operationalise "identity" by indicating the parent's nationality and length of residency as is often done in deservingness research. Regarding nationality we selected nationalities based on increasing social/cultural and geographic distance: a neighbouring 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. In addition to the traditional operationalisations of the "identity" criteria, we included additional information on the parent's gender, their marital status, and their occupation.

Table 1 Vignette dimensions and levels	
Dimension	Levels (Number of levels)
Need	
Conciliation (Employment status)	works full time | works part-time | is not working | is unemployed and looking for a job (4)
Financial (Family fin. status)	trouble making ends meet | more or less manage | are comfortable and able to save (3)
Identity	
Gender	Male | Female (2)
Marital status	Single | married [spouse is working full time] (2)
Residency	Born in country [double citizenship for US] | lives in country 10 years | lives in country 5 years | lives in country 2 years (4)
Nationality	Swiss [/German/ Swedish/ Danish/ British/ US] | German [/Austrian/ Norwegian/ Swedish/ Irish/ Canadian] | Ukrainian | Afghan | Nigerian (5)
Occupation	cleaner | lab technician | food engineer | accountant (5)
Effort	has applied for a childcare place and is waiting to hear back. | has applied for a childcare place and in the meantime, has organised a temporary arrangement with the neighbours. (2)
Reciprocity	contributed 1 year | contributed 2 years | contributed 4 years [in respective country of residency] | contributed 8 years [in respective country of residency] (4)

The "effort" criterion too needs to be adapted to the context of childcare. The criterion signals the intention to put an end to a person's situation of need and reliance on collective support, much like a jobseeker sending out applications for new positions. The equivalent in the context of childcare, we argue, is that of a temporary solution for childcare. This shows that the person is not simply waiting for collective help, while the need for childcare remains intact. Finally, regarding "reciprocity" we followed the common operationalisation with increasing years of taxes paid. Table 1 above summarises these operationalisations of the different dimensions and their respective levels.

The experiment

The experiment is embedded in a more extensive survey on welfare state and migration preferences fielded in the summer/fall of 2021 relying on an incentivised online panel provided by a European market research firm.[2] In Denmark, Sweden, Switzerland, and the UK we collected approximately 1450 respondents. For Germany and the US our data includes approximately 2700 respondents each.[3] We employed 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]

Respondents were asked to evaluate three vignettes and indicate the priority they would attribute to the parent to receive a childcare slot on a scale from 0 to 100 (see introductory text and example in Figure 1). All fictional parents were described as 35 years old with two children. The characteristics of the parents varied along the dimensions summarised in Table 1 and discussed above. As we included a large number of dimensions, a D-efficient design is recommended rather than a pure random sampling to generate the vignettes (Auspurg & Hinz, 2015, p. 35). We therefore employed a D-efficient design, accounting for all two-way interactions and no exclusions of dimension combinations, that was generated using the algorithms designed by Kuhfeld (2010) and implemented in SAS.[5] For the analysis we exclude

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[2] Due to the outbreak of the COVID-19 pandemic, fieldwork was postponed from the summer of 2020 to the summer of 2021. We included control questions to ascertain if and how respondents were affected personally and professionally by the pandemic. All respondents were asked to evaluate four randomly attributed experiments on access to different welfare state services with three vignettes each. They were then asked 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. One completed an additional experiment (Implicit Association Test) before evaluating the experiments, the other proceeded directly to the vignette experiments. The results of this experiment are subject of another article (Knotz et al., 2022). Being exposed to the experiment does not significantly impact the ratings.

[4] See distribution of the sample by country in Figures S1 - S6 in the supplementary material. For the Swiss survey an additional quota for the French or German speaking regions was included.

[5] Our design achieves a D-efficiency score of 96.2639, which is above the recommended threshold of 90 out of 100 (Auspurg & Hinz, 2015).

> Introductory text:
> In some places, there is **shortage of childcare places** that are **subsidized** by the government, and decisions must be made regarding who should have **priority in obtaining a subsidized childcare** place.
> Let us assume that all the following individuals seek childcare. All of them are 35 years old and have two children.
> Please tell us if you think that they should be given a low (0) or a high priority (100).
> *There are no right or wrong answers, we are interested in your opinion on this topic.*
> *****
>
> Example vignette:
>
> *A single mother has applied for a childcare place and is waiting to hear back. She is an Irish citizen who has lived the UK for ten years. Financially, she and her family more or less manage on their current income. She works full time as a lab technician and has paid taxes for the past eight years.*
> Lowest priority (0) ---> Highest priority (100)
>
> *Figure 1 Introductory text and example vignette (UK version)*

vignette evaluations that were done unreasonably fast (less than 5 seconds) or took too long (more than 180 seconds). This resulted in 3644 evaluations in Denmark, 8069 in Germany, 3737 in Sweden, 3911 in Switzerland, 3546 in the UK, and 7614 in the US.

Due to the multi-level nature of our data with vignette evaluations nested within respondents, we estimate hierarchical models with random intercepts, controlling for basic demographic characteristics of respondents (age, gender, education, rural/urban, born in country). In Switzerland we also control for language region. Later on, to compare coefficients across the different country models, we rely on the method suggested by Paternoster and colleagues (Paternoster et al., 1998).

Results

Deservingness criteria

Figure 2 presents the result of our survey experiment in six countries.[6] On a first glance, we can see that the deservingness criteria we included in the analysis seem to matter across the six welfare states. Additionally, upon closer scrutiny, we can identify rather clear cross-national differences reflecting to some extent also the hypotheses concerning institutional differences discussed above in the theory section.

Need seems to be the most important determinant of deservingness perceptions. Financial need is a very clear determinant everywhere. Being described as a family that is

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[6] Respondents made use of the full range of the answering scale (see Figure S13 in the supplementary material). Overall, the majority of respondents in all six countries thought the vignettes were (very) realistic, while they expressed some uncertainty with their evaluations (see Figures S7-S12 in the supplementary material).

"financially comfortable" is the feature that is associated with the biggest penalty in all six countries. Conciliation need is also a key determinant. Being out of the labour force is associated with the second strongest penalty in terms of priority everywhere except the UK. Furthermore, being a single parent is associated with a higher priority in every country, as shown by the negative and significant marginal effect of being "married" everywhere.

Next to need we find a clear effect of identity, that is, nationality and length of residence in the country. In all six countries, foreign nationals from distant countries are considered less deserving, whereas foreigners form nearby countries are sometimes given the same priority as nationals (the Irish in the UK and Norwegians in Sweden). Length of residence also plays an important role everywhere as expected, with longer period of residence being associated with a smaller penalty or even no penalty in some countries, relative to those who were born in the country.

Reciprocity based on past contribution (number of years during which the parent has paid taxes) matters. The effect is relatively small and significant only for the parent who has paid taxes for 8 years relative to 1 year but clearly there in Germany, Switzerland, the UK, and the US. However, the period during which a parent has paid taxes has no impact on perceived deservingness in the two Nordic countries included in our sample. Concerning effort, we observe a positive marginal effect of having found a temporary alternative only in Sweden and in the UK. In the other countries the effect is close to 0, but mostly positive. Effort matters in a limited way in relationship to childcare. This contrasts with the findings of deservingness perceptions (e.g., Kootstra, 2016).

Cross-national variation

Let us now turn to the hypotheses based on welfare institutions and on the type of social investment orientation that is dominant in a country. We would have expected in the Nordic countries, where childcare is understood as a right, to find very little differentiation across profiles and very high levels of perceived deservingness overall (H2). That is not the case. First, comparing average predicted values by country (see Table S1 in the supplementary material) we realise that country differences are limited and that the countries with the higher predicted deservingness score are Germany and Switzerland and not the Nordic countries. This may reflect a (justified) perception of scarcity rather that an understanding of the service as universal. Second, the various vignette features are associated with deservingness in ways that are similar to what we observe for other non-Nordic countries.
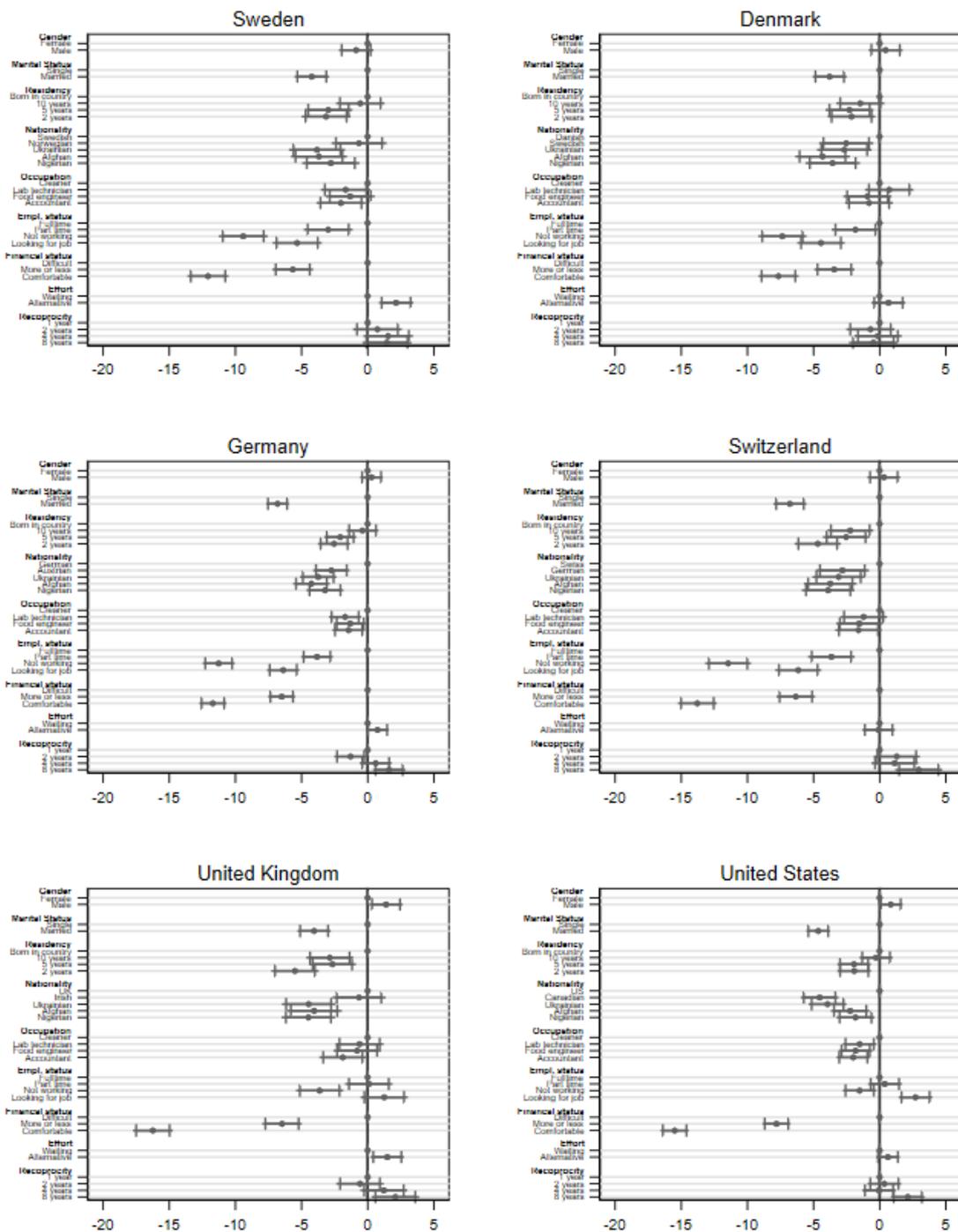
Figure 2 Estimated difference in deservingness score (priority on a scale of 0-100); random-effects regression estimates; respondent controls included (age, gender, education, rural/urban, language region (CH only)). Complete models included in Table S3 in the supplementary material.

Upon closer scrutiny, however we uncover some intriguing differences that reflect our institution-based expectations. First, as already noted, the fact of having paid taxes for a longer period of time does not matter in Denmark and Sweden (differences are not significant) but makes a difference in the other four countries. This is compatible with the view that childcare
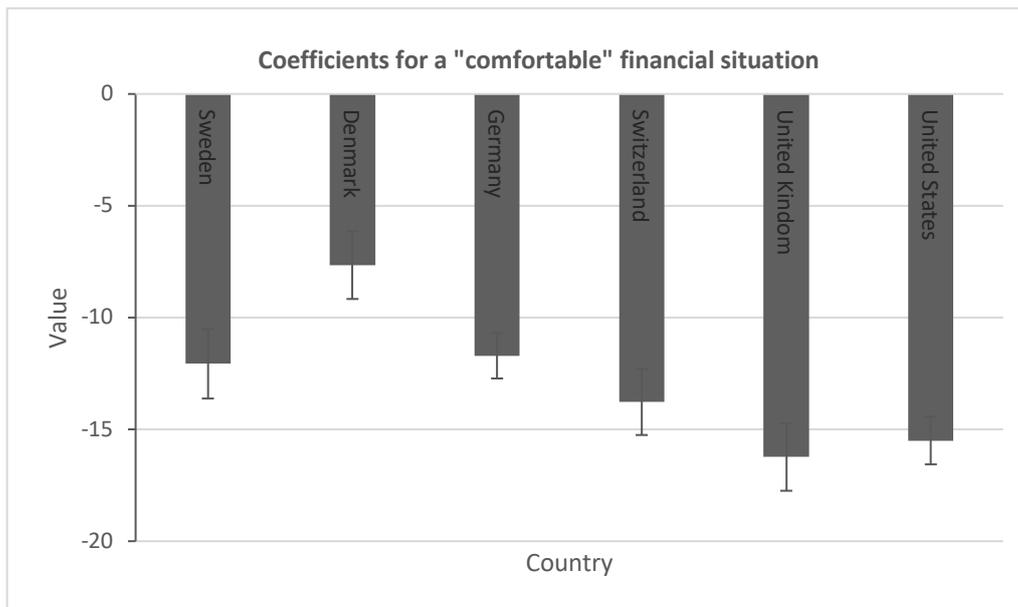
Figure 3 Size of penalty for the rich. Coefficients (absolute values) for a financial situation described as "comfortable" versus "has troubles making ends meet". See Table S2 for a matrix showing the statistical significance of differences between coefficients.

in these countries is understood as a universal service. Second, the need criterion matters everywhere, but if we compare the penalty attributed to a rich household (described as having a comfortable financial situation) this is lowest in Denmark (Figure 3). In Sweden the penalty is also rather low, a result which again is consistent with the view that subsidized childcare is a universal service to which everyone is entitled. Our institution-based hypothesis is only partly confirmed for the Nordic countries, and more for Denmark than for Sweden.

In Switzerland and Germany, we expected middle class dual-earner couples, i.e., the insiders par excellence, to be top prioritised (H3). Two-earner couples are indeed prioritised, but so are they everywhere else. Regarding income, instead, things are different since higher income profiles are always considered less deserving.

Finally, in the UK and in the US, where social investment policies follow the logic of targeting, we expected the unemployed to be prioritized as well as other groups who are at a higher risk of reliance on the welfare state (H4). This is indeed the case. The unemployed are seen as a priority group over all other profiles in these welfare states, unlike in the other countries. In addition, we see that the financial need criterion is applied most forcefully in the two liberal welfare states. As shown in Figure 3, the penalty associated with a "comfortable"

financial situation is highest in the UK and in the US. This result is also perfectly compatible with an institution-based hypothesis that regards subsidised childcare as a service for the poor.

Respondent characteristics

We also conduct additional analyses to understand if and how relevant respondent characteristics may influence the deservingness evaluations. First, we look at respondents' views regarding reconciling work and family (as a proxy for gendered norms discussed in the theory section). Indeed, views on whether a woman should cut down her work for the sake of her family roughly fall into groups along the welfare state regimes (see Figures S14 in the supplementary material). However, the interaction of these views with the vignette persons gender, marital status, and the interaction of the two is not significant (see Figures S15 – S20 in the supplementary material). Nonetheless, male and female respondents seem to evaluate financial need differently with women attributing a lower deservingness than men to families living comfortably on their current income (except for Switzerland, see Figure S21 in the supplementary material). This may be due to differential perceptions of the scarcity of childcare.

Further, respondent's political views, captured by a self-placement on a left-right-scale, matter for the evaluation of the vignette person's identity (citizen / non-citizen), the effort to find an alternative solution and their financial need (see Figures S22 – S27 in the supplementary material). Respondents who declared themselves to be more right-wing attribute a lower deservingness than those who declared themselves to be more left-wing. However, the effect varies across the six countries and is not significant in all cases. Finally, respondent's age, education level, area of living, whether they have children under the age of twenty-five, or their employment status did not consistently impact the evaluations.[7]

Overall, our results show that the known deservingness criteria, at least those that are relevant for determining access to childcare, play a role. At the same time, the cross-national differences we observed make sense in relation to the different roles social investment and childcare policy in particular play in the different countries. These results do not greatly depend on respondent characteristics. What are the implications of these findings for theory? And for the policy debate on childcare? We turn to these questions in the next section.

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[7] Results not included here, available upon request.

Conclusion

In this paper we extend research on deservingness from the traditional applications on cash benefits to social investment, specifically, childcare services. We show that the traditional deservingness criteria are also relevant for studying social investment policies (with some adaptation). While identity, reciprocal behaviour—both past and forward looking—matter for deservingness assessments for access to childcare, it is particularly need, both financial and that to reconcile family life with labour market participation, which is relevant for attributions of priorities in this context. This indicates that while the same criteria are important also for deservingness assessments to social investment services, the policy in question is important for which criteria matters more (see also Gandenberger et al., 2022; Reeskens & van der Meer, 2017).

Additionally, we show that the institutional context cannot be disregarded: the cross-national patterns of responses broadly reflect the categorisation of three types of social investment, that is, inclusive (Denmark and Sweden), stratified (Germany and Switzerland), and targeted social investment (the UK and US) (Häusermann et al., 2022). This leads us to conclude that while the deservingness perceptions are strongly influenced by a set of criteria or "cues", socialisation and a learned logic of appropriateness can still influence how strongly these criteria matter. In the case of childcare policy, which still is more diverse across the Western welfare states we look at, this logic seems to have impacted respondents' evaluations more importantly than it might in the context of unemployment policies that are more streamlined in the six countries.

Our paper comes with some limitations. Here, we have analysed the pattern of deservingness perceptions in relation to a typical social investment policy, i.e., subsidized childcare. To understand more precisely if there is a systematic difference in deservingness perceptions to social investment and social consumption policies, one would need a direct comparison of very similar consumption and investment policies. We decided against such a direct comparison here as childcare services are difficult to compare directly to other child related benefits. Findings from Fossati and colleagues (2022) show that in the context of awards of education stipends for medical students the deservingness criteria inform the attribution of such stipends. However, we would argue that child cash benefits, for example, lack the conciliation need dimension of the parents and parental leave is not as well established (or existent) in all countries we investigate. Additionally, it is connected to other societal debates and issues that are difficult to capture and control for in a vignette. Other welfare benefits where both traditional cash benefits and social investment are more established are better suited.

Bonoli and colleagues (2022), for example, compare deservingness to access to unemployment benefits and trainings and find no differences between the two with regard to which deservingness criteria matter.

Additionally, while we are able to show which criteria are important, we cannot explain what drives their importance with certainty. Looking at conciliation need, the importance could be due to a universal support for parents; the idea that all children should follow the same socialisation; or because by accessing childcare parents are enabled to work, thereby repaying and contributing to society. We leave this for future research to investigate.

In terms of policy implication two findings stand out: the importance of conciliation need and identity. The former clearly shows public support for parents' ability to reconcile labour market participation with family life and obligations. The importance of parents' identity for the attribution of priority access may stem from the (lived and perceived) scarcity of childcare places in many Western countries, triggering an "us first" mechanism. This is particularly important to address as childcare and school both function as important places for integration of second-generation immigrants and allow their parents to integrate themselves into the labour market and larger society (Dronkers et al., 2011; Van Lancker & Pavolini, 2022; Wenz & Hoenig, 2020).

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Supplementary material

Sweden - Sample

Figure S1 Distribution of sample of respondents by age, gender, education, and area of living (Swedish sample).

Denmark - Sample

Figure S2Distribution of sample of respondents by age, gender, education, and area of living (Danish sample).

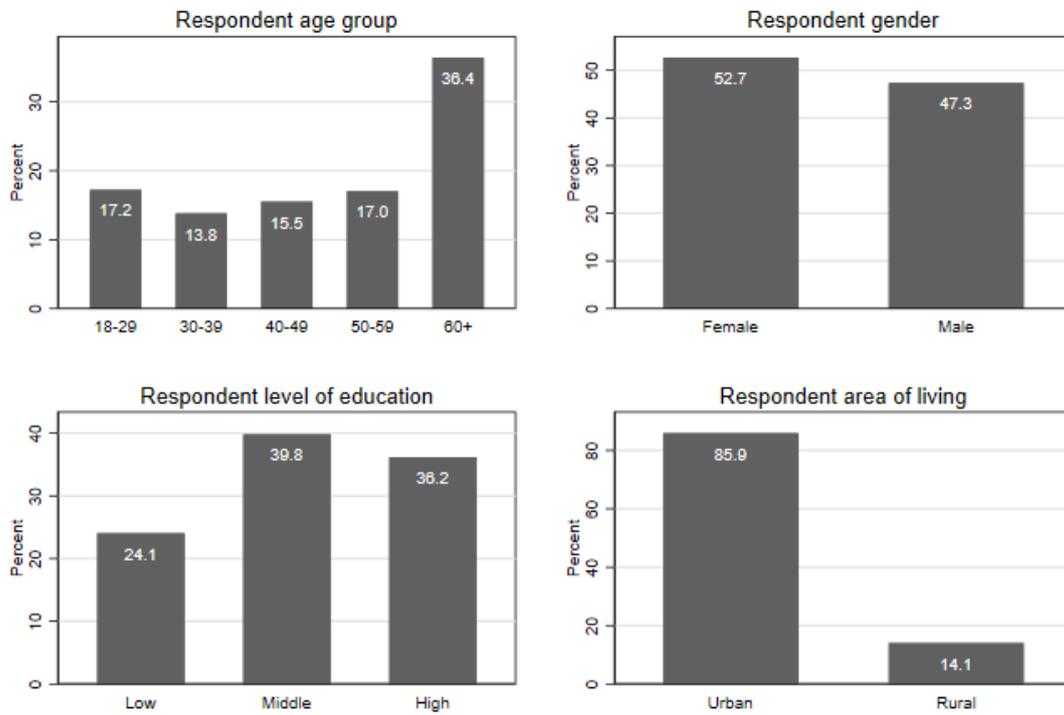*Figure S3 Distribution of sample of respondents by age, gender, education, and area of living (German sample).*

Figure S4 Distribution of sample of respondents by age, gender, education, and area of living (Swiss sample).

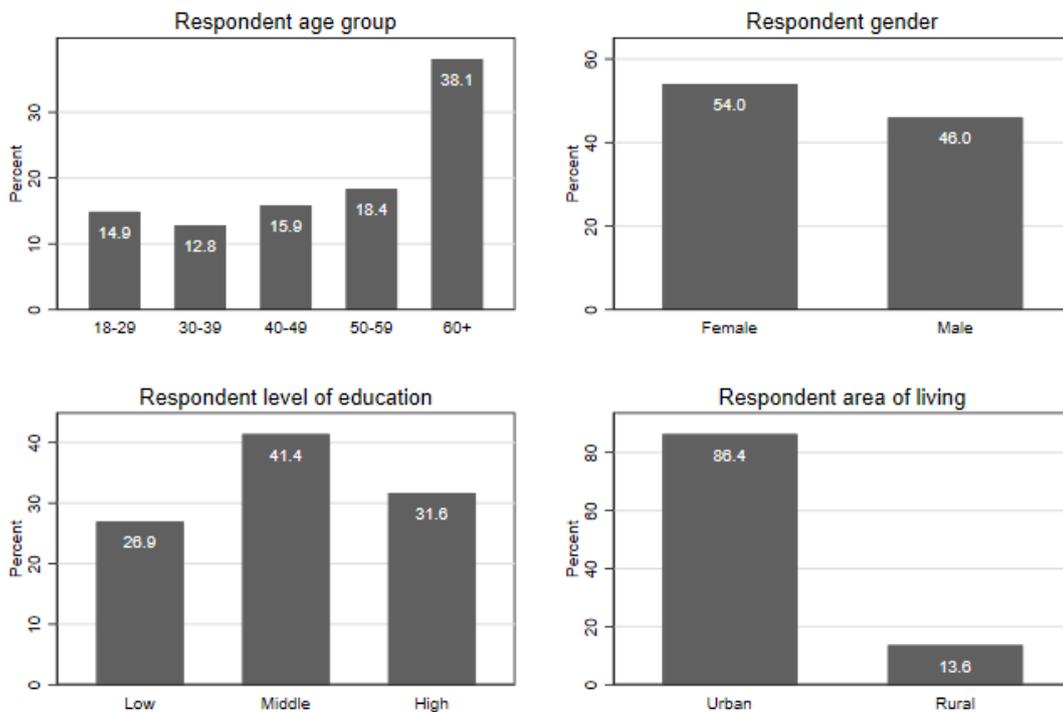*Figure S5 Distribution of sample of respondents by age, gender, education, and area of living (UK sample).*

Figure S6 Distribution of sample of respondents by age, gender, education, and area of living (UK sample).

Sweden

Figure S7 Evaluation of vignettes (Swedish sample, only respondents who saw childcare vignette last).

Denmark

Figure S8 Evaluation of vignettes (Danish sample, only respondents who saw childcare vignette last).

Germany
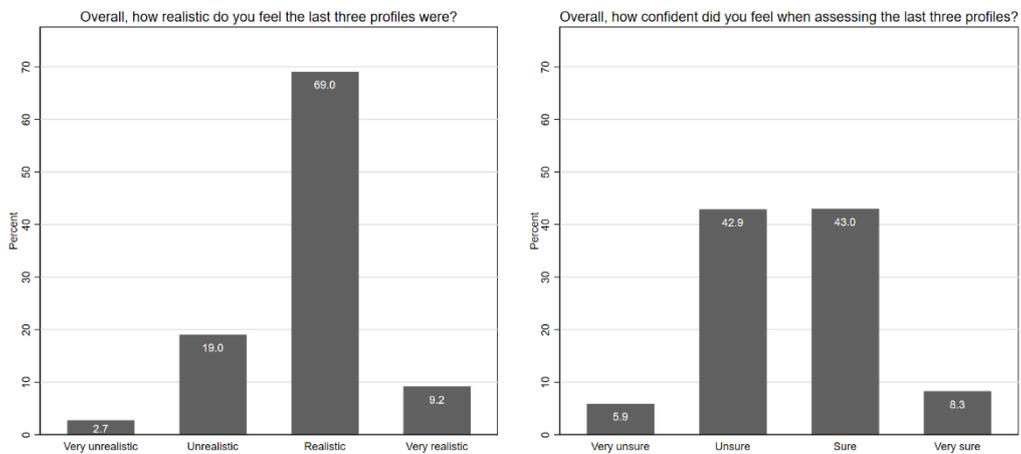
Figure S9 Evaluation of vignettes (German sample, only respondents who saw childcare vignette last).

Switzerland

Figure S10 Evaluation of vignettes (Swiss sample, only respondents who saw childcare vignette last).

United Kingdom
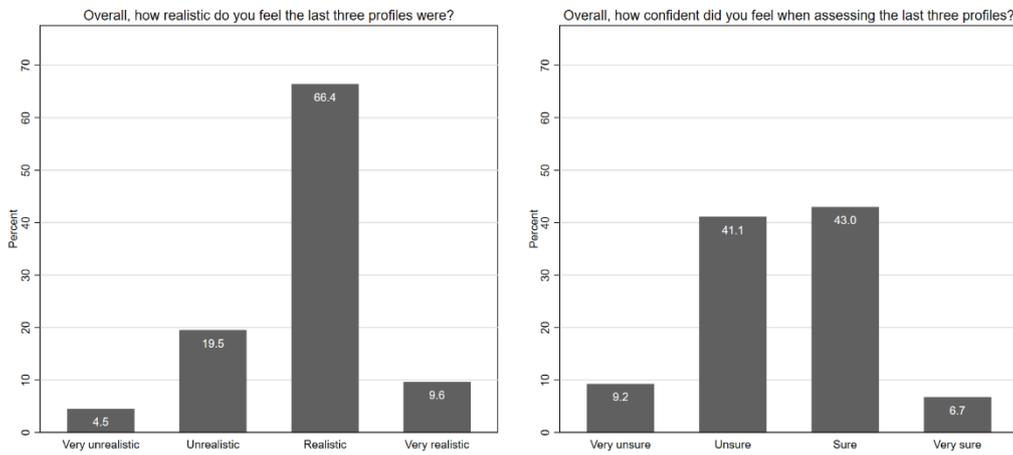
Figure S11 Evaluation of vignettes (UK sample, only respondents who saw childcare vignette last).

United States
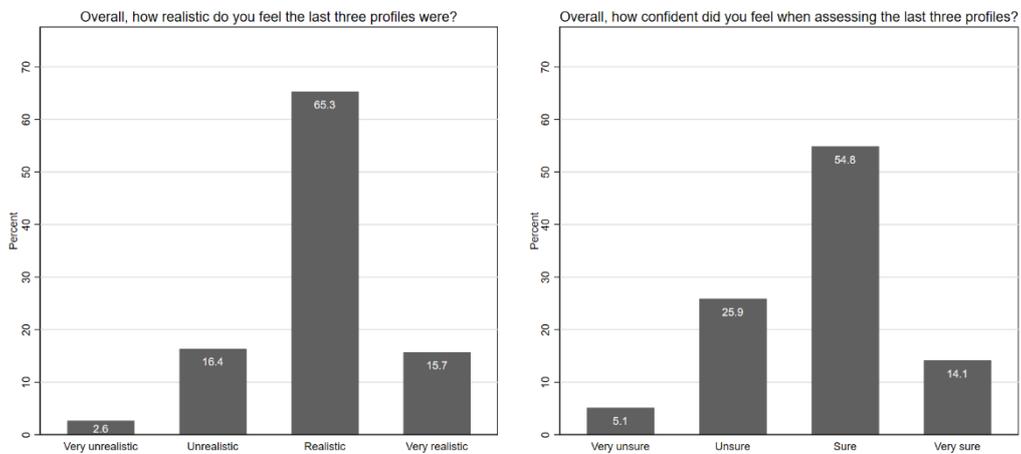
Figure S12 Evaluation of vignettes (US sample, only respondents who saw childcare vignette last).
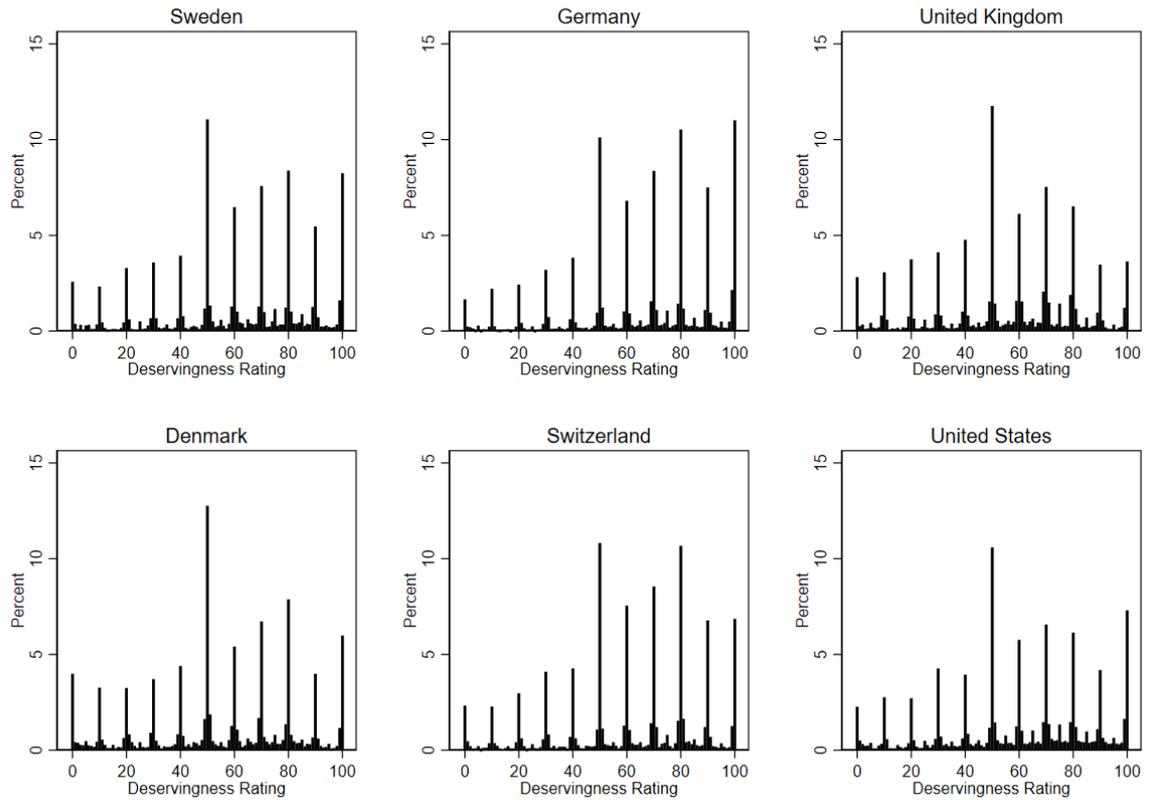
Figure S13 Distribution of deservingness ratings (percent of former income, dependent variable) by country.

Table S1 Mean rating and standard deviation			
Deservingness rating	Observations	Mean	Std. dev.
Denmark	3,644	55.02168	27.7155
Germany	8,069	65.03842	26.22876
Sweden	3,736	60.08485	27.21148
Switzerland	3,911	60.7328	26.34033
United Kingdom	3,546	54.63001	26.05416
United States	7,614	58.94458	27.18152

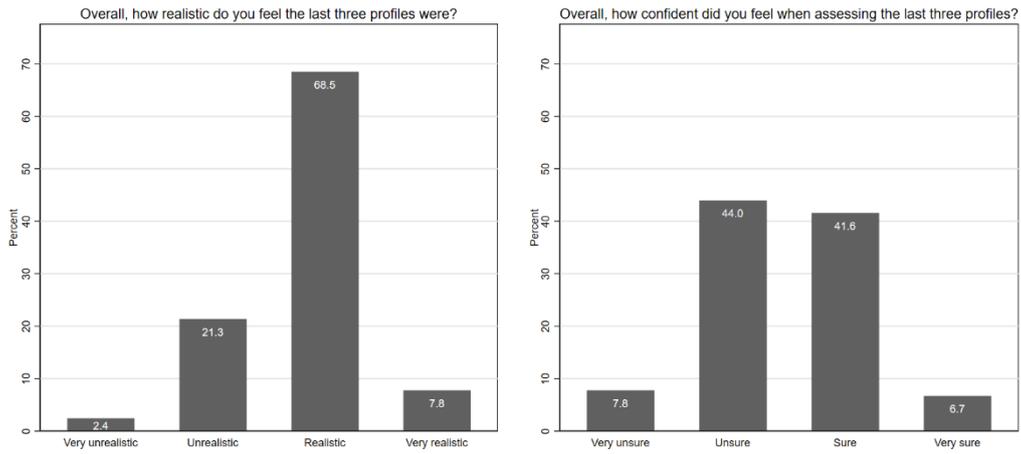| Table S2 Paternoster calculations for differences between coefficients						
	Denmark	Germany	Sweden	Switzerland	United Kingdom	United States
Denmark	-					
Germany	4.344	-				
Sweden	3.992	0.388	-			
Switzerland	5.691	2.280	1.572	-		
United Kingdom	7.874	4.890	3.781	2.289	-	
United States	8.293	5.043	3.571	1.854	-0.786	-
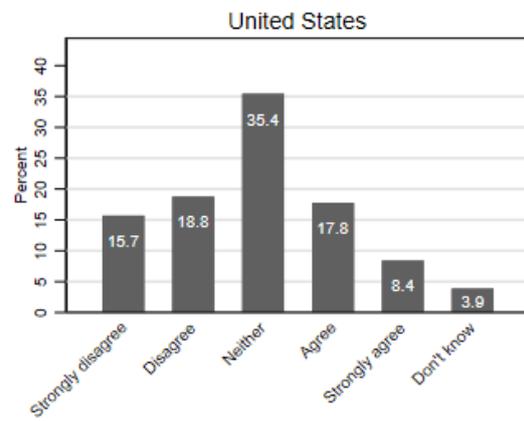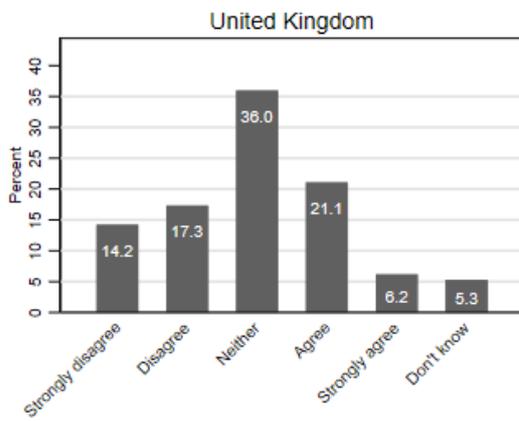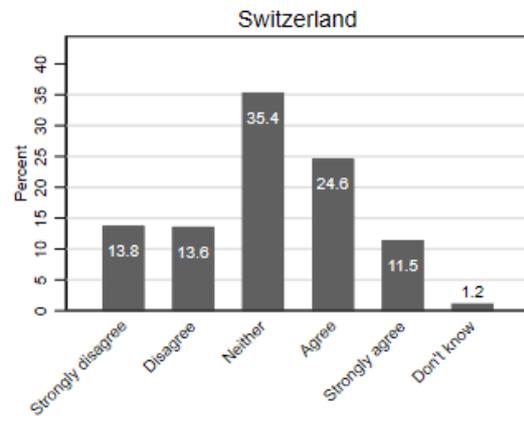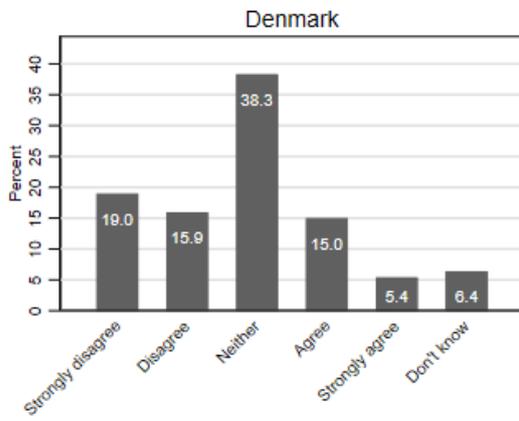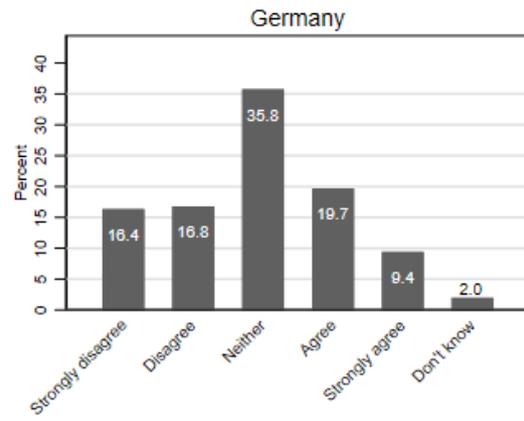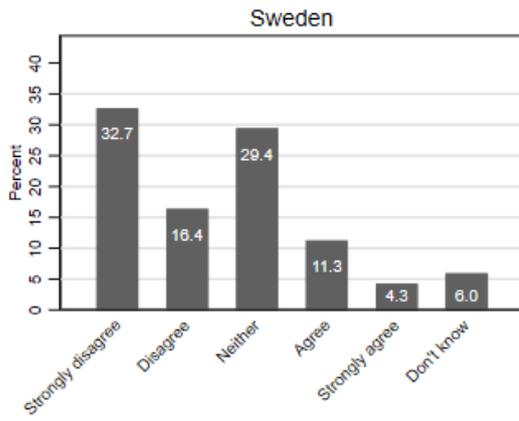
Figure S14 Distribution of evaluation of the statement "A woman should be prepared to cut down on her paid work for the sake of her family."

Sweden
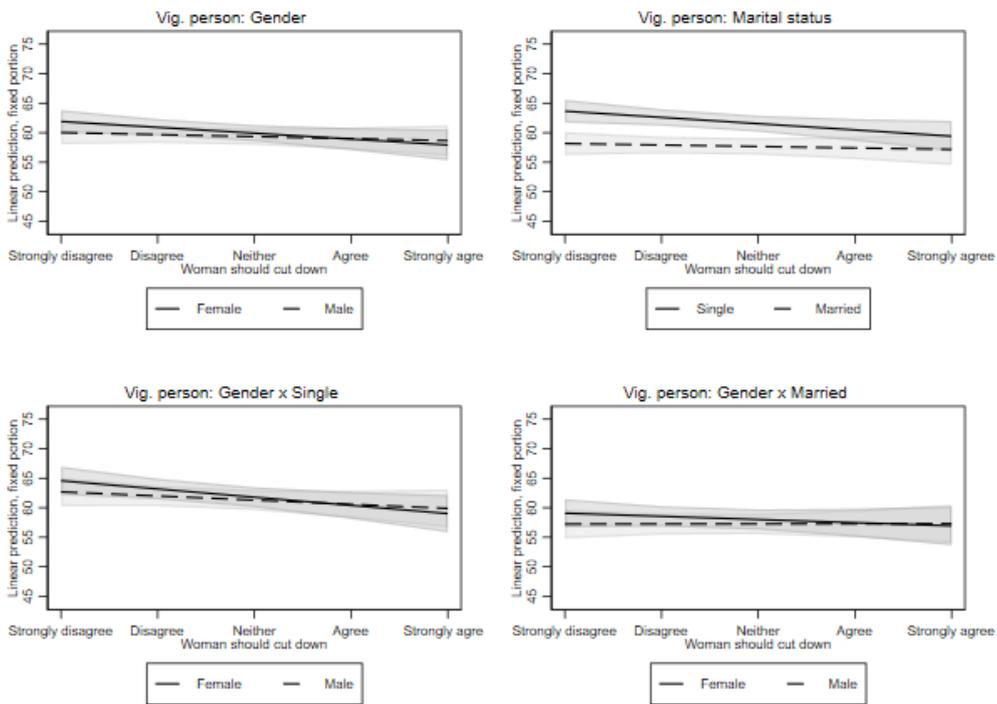
Figure S15 Marginal effect plot of respondent's views on maternal employment interacted with vignette person characteristics (Swedish sample).

Denmark
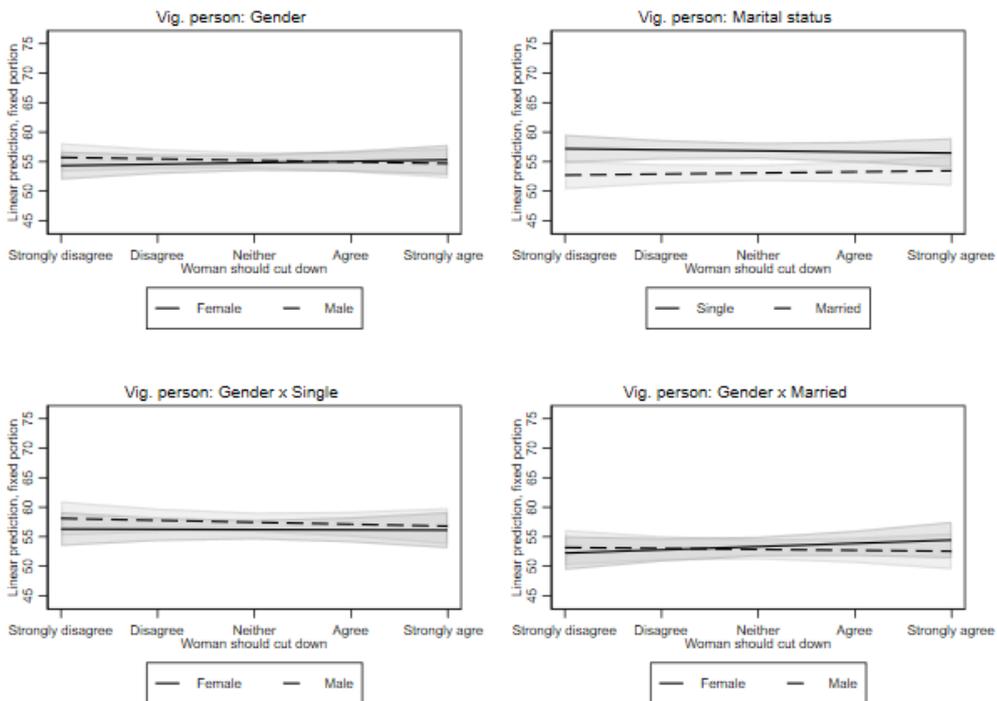
Figure S16 Marginal effect plot of respondent's views on maternal employment interacted with vignette person characteristics (Danish sample).
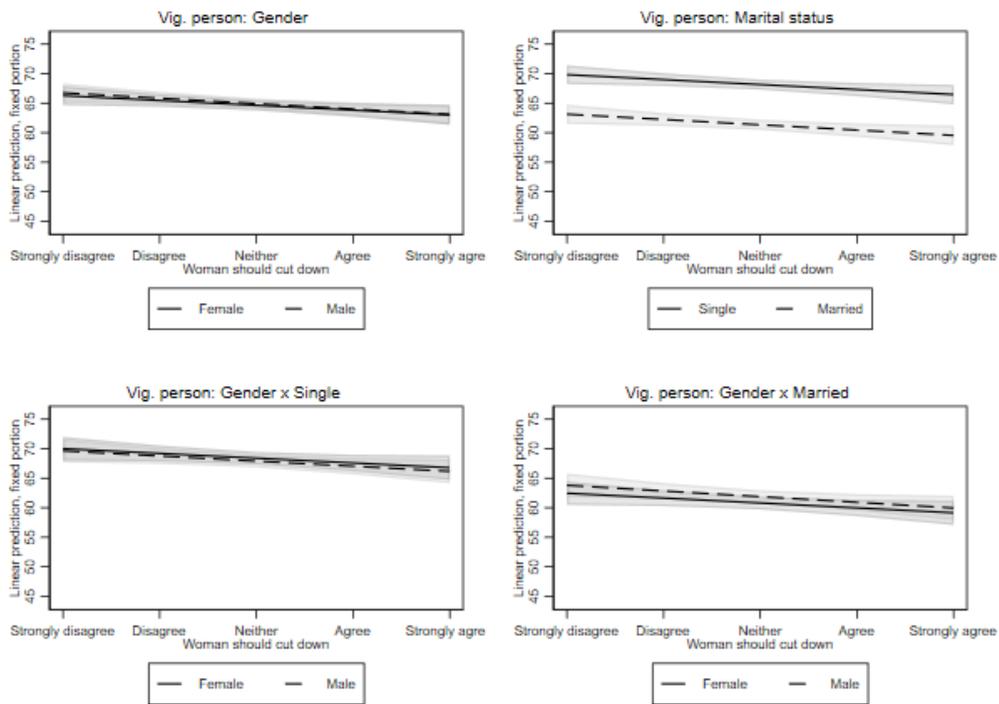
Germany

Figure S17 Marginal effect plot of respondent's views on maternal employment interacted with vignette person characteristics (German sample).

Switzerland
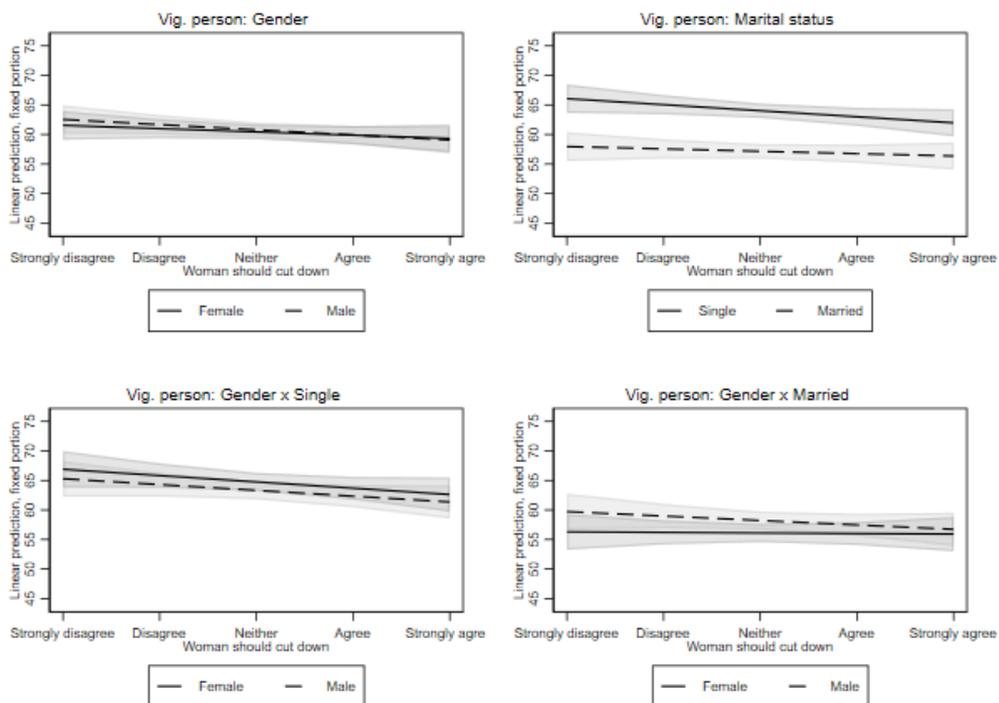
Figure S18 Marginal effect plot of respondent's views on maternal employment interacted with vignette person characteristics (Swiss sample).

United Kingdom
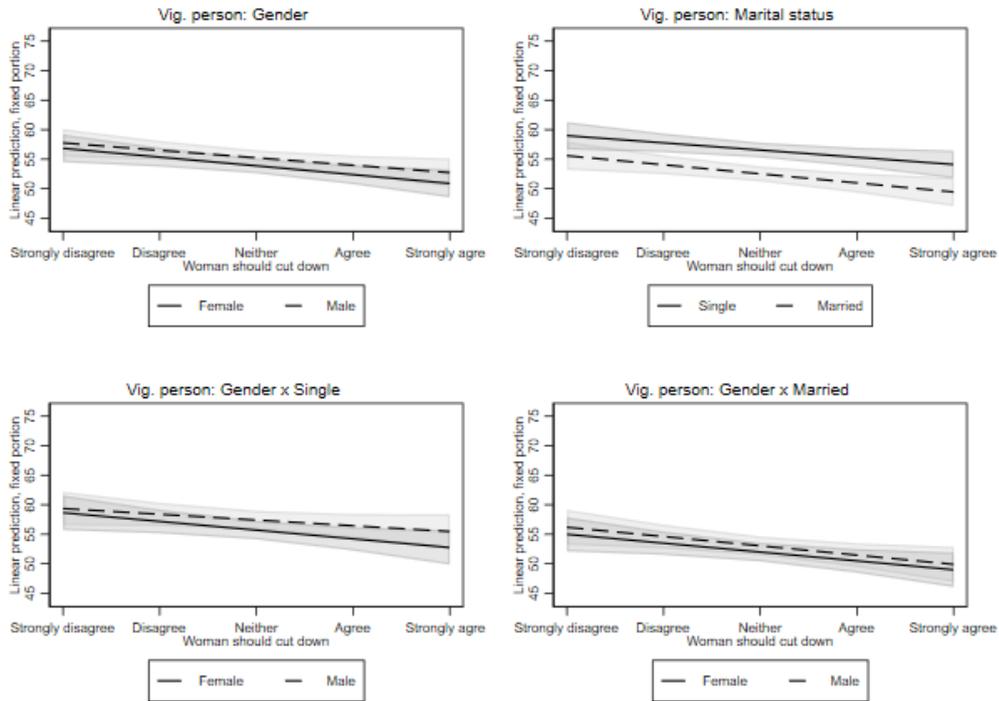
Figure S19 Marginal effect plot of respondent's views on maternal employment interacted with vignette person characteristics (UK sample).

United States
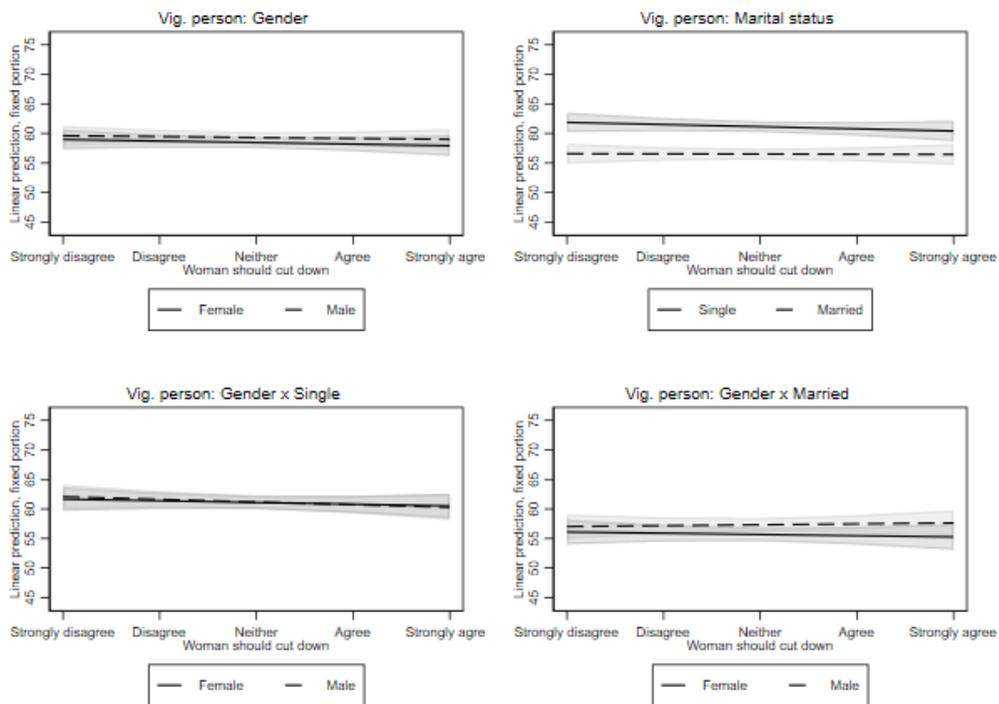
Figure S20 Marginal effect plot of respondent's views on maternal employment interacted with vignette person characteristics (US sample).
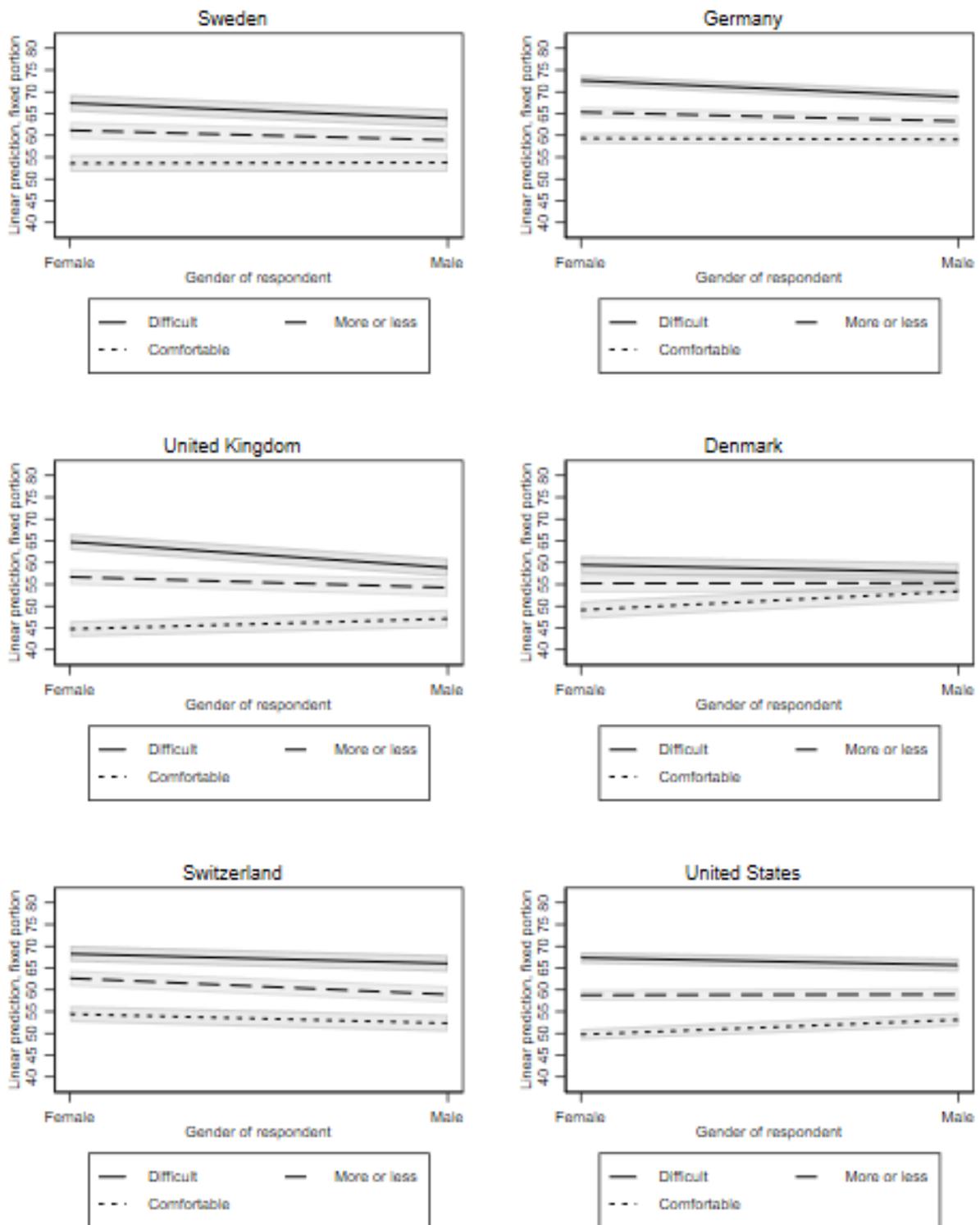
Figure S21 Marginal effect plot of respondent gender interacted with vignette person's financial need (all countries).

Sweden
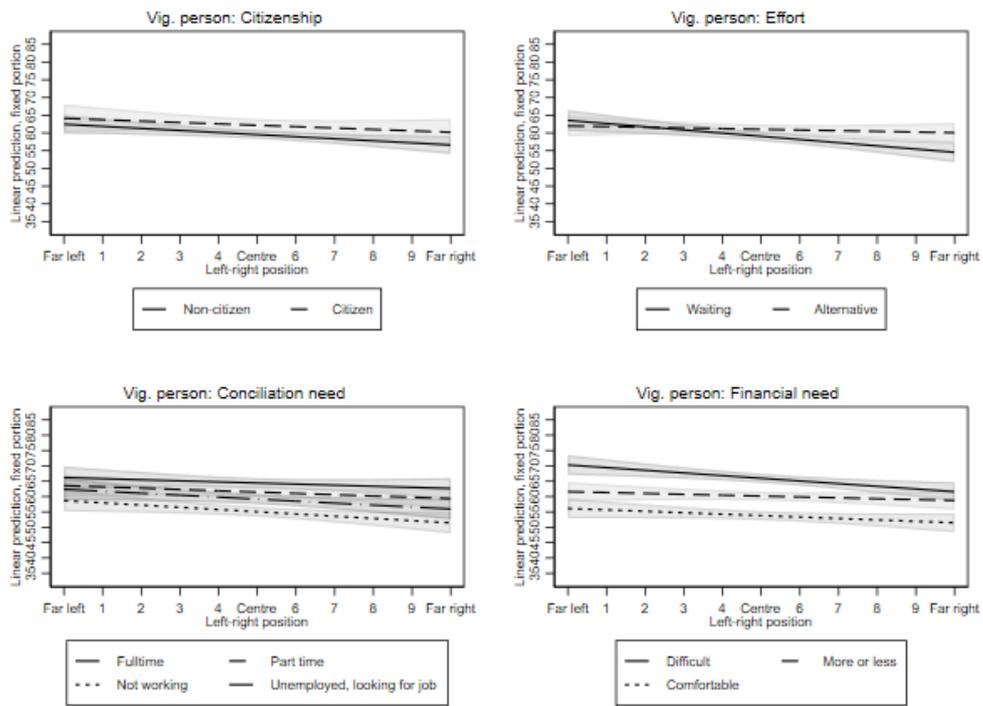
Figure S 22 Marginal effect plot of respondent's political views interacted with vignette person characteristics (Swedish sample).

Denmark
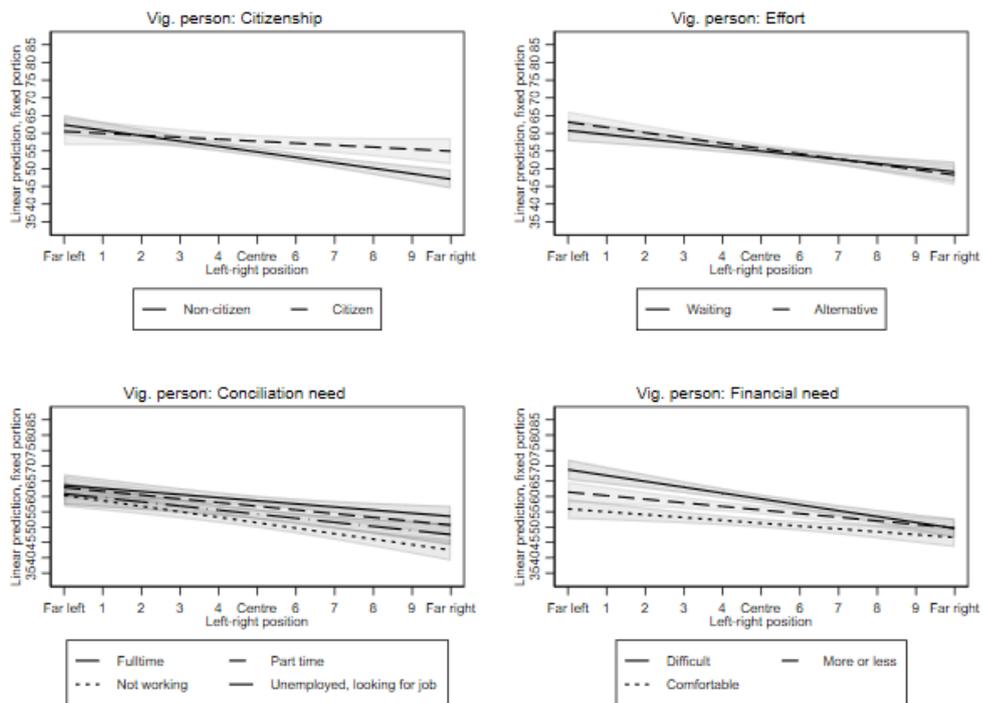
Figure S 23 Marginal effect plot of respondent's political views interacted with vignette person characteristics (Danish sample).
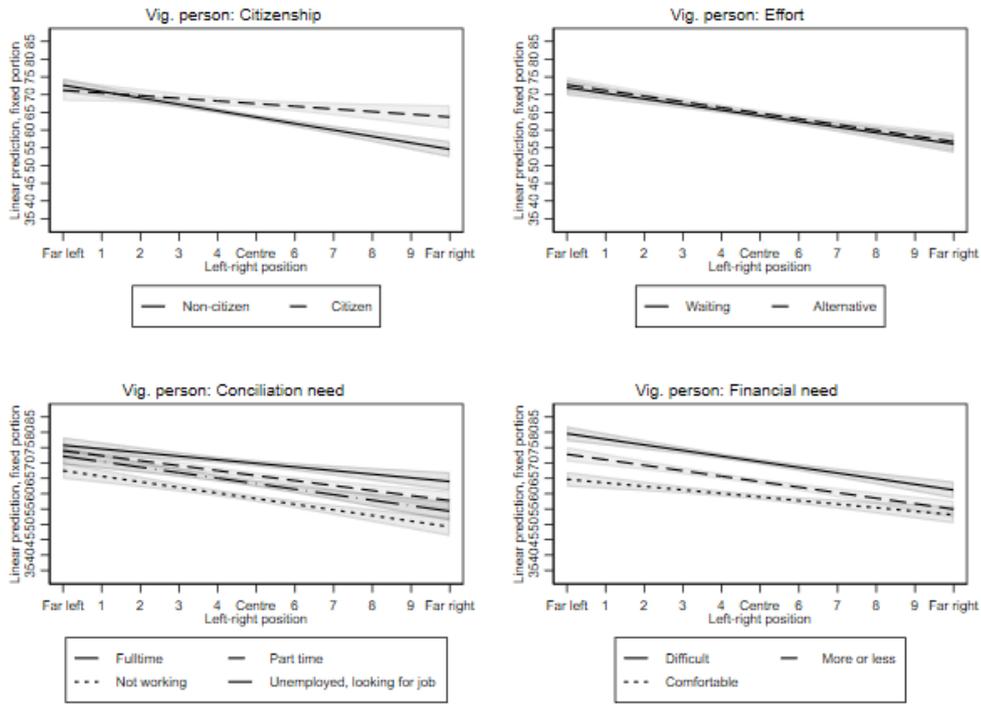
Germany

Figure S24 Marginal effect plot of respondent's political views interacted with vignette person characteristics (German sample).

Switzerland
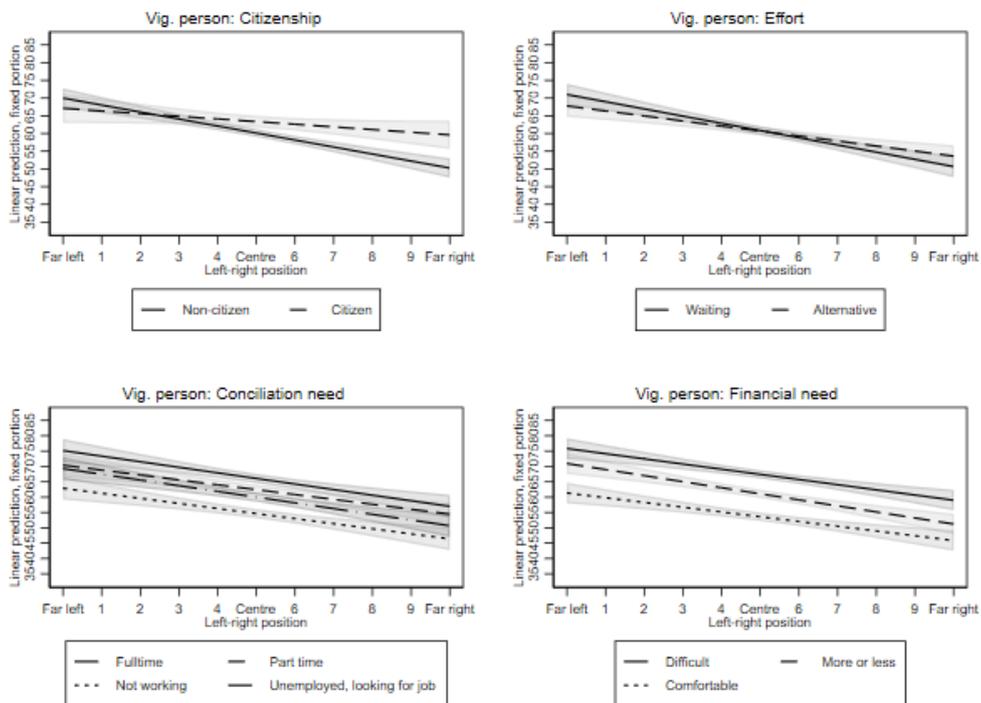
Figure S25 Marginal effect plot of respondent's political views interacted with vignette person characteristics (Swiss sample).

United Kingdom
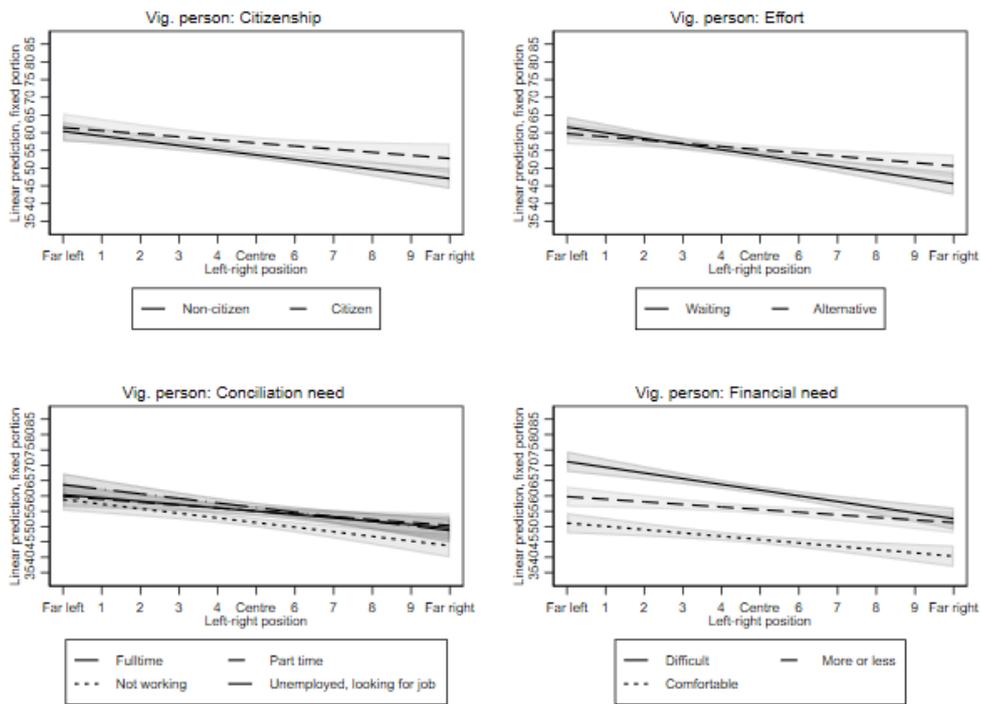
Figure S26 Marginal effect plot of respondent's political views interacted with vignette person characteristics (UK sample).

United States
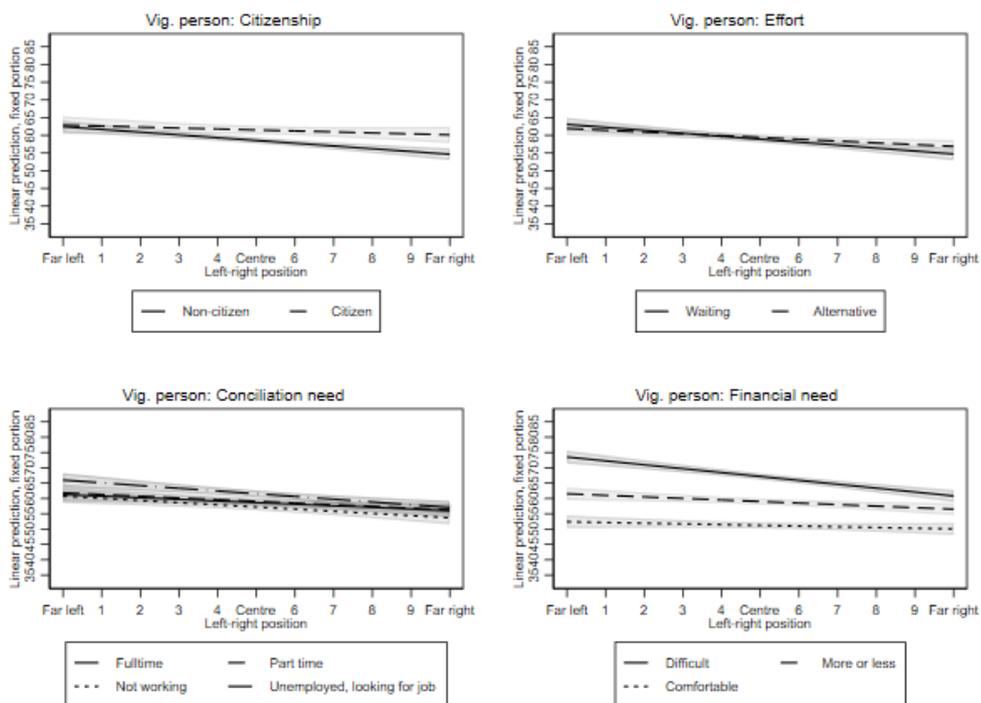
Figure S27 Marginal effect plot of respondent's political views interacted with vignette person characteristics (US sample).

| Table S3 Estimated difference in deservingness score all country models with controls												
	Denmark		Germany		Sweden		Switzerland		United Kingdom		United States	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Female	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Male	0.445	-0.652	0.292	-0.435	-0.872	-0.662	0.311	-0.631	1.382*	-0.643	0.839+	-0.456
Single	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Married	-3.780***	-0.654	-6.814***	-0.437	-4.224***	-0.664	-6.784***	-0.633	-4.054***	-0.642	-4.648***	-0.455
Born in country	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
10 years	-1.467	-0.925	-0.392	-0.616	-0.562	-0.931	-2.225*	-0.888	-2.865**	-0.908	-0.273	-0.636
5 years	-2.282*	-0.923	-2.079***	-0.615	-2.969**	-0.926	-2.539**	-0.891	-2.670**	-0.903	-1.942**	-0.644
2 years	-2.129*	-0.917	-2.539***	-0.62	-3.150***	-0.943	-4.684***	-0.891	-5.502***	-0.916	-1.929**	-0.648
US	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Canadian	-2.532*	-1.047	-2.749***	-0.705	-0.657	-1.061	-2.823**	-1.027	-0.654	-1.022	-4.544***	-0.727
Ukrainian	-2.678*	-1.052	-3.741***	-0.706	-3.835***	-1.078	-3.108**	-1.017	-4.467***	-1.035	-3.942***	-0.732
Afghan	-4.322***	-1.052	-4.253***	-0.706	-3.685***	-1.078	-3.738***	-1.017	-4.052***	-1.066	-2.236**	-0.741
Nigerian	-3.556***	-1.052	-3.230***	-0.71	-2.791*	-1.103	-3.895***	-1.018	-4.482***	-1.036	-1.826*	-0.732
Cleaner	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Lab technician	0.715	-0.929	-1.706**	-0.623	-1.668+	-0.953	-1.217	-0.899	-0.613	-0.924	-1.516*	-0.649
Food engineer	-0.928	-0.931	-1.321*	-0.619	-1.322	-0.941	-1.544+	-0.893	-0.801	-0.918	-1.816**	-0.647
Accountant	-0.805	-0.921	-1.444*	-0.625	-2.021*	-0.943	-1.604+	-0.899	-1.882*	-0.9	-1.996**	-0.647
Fulltime	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Part time	-1.833*	-0.918	-3.833***	-0.612	-2.985**	-0.941	-3.652***	-0.902	0.084	-0.913	0.39	-0.65
Not working	-7.356***	-0.927	-11.263***	-0.614	-9.409***	-0.939	-11.458***	-0.882	-3.633***	-0.909	-1.518*	-0.647
Unemployed looking for job	-4.438***	-0.914	-6.386***	-0.62	-5.335***	-0.945	-6.159***	-0.886	1.246	-0.909	2.707***	-0.647
Difficult	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
More or less	-3.432***	-0.775	-6.504***	-0.519	-5.667***	-0.782	-6.340***	-0.747	-6.479***	-0.764	-7.804***	-0.539
Comfortable	-7.652***	-0.774	-11.703***	-0.52	-12.070***	-0.791	-13.782***	-0.749	-16.238***	-0.768	-15.498***	-0.544
Waiting	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)

Alternative	0.661	-0.653	0.747+	-0.436	2.150**	-0.663	-0.083	-0.633	1.480*	-0.645	0.624	-0.457
1 year	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
2 years	-0.695	-0.928	-1.294*	-0.622	0.731	-0.937	1.289	-0.887	-0.581	-0.913	0.354	-0.646
4 years	-0.135	-0.914	0.602	-0.615	1.545	-0.95	1.132	-0.9	1.221	-0.907	-0.051	-0.649
8 years	-0.483	-0.932	1.621**	-0.622	1.455	-0.944	2.952**	-0.903	2.092*	-0.915	2.123**	-0.647
Respondents' age	-0.021	-0.037	-0.016	-0.025	0.054	-0.035	-0.05	-0.032	-0.118***	-0.034	-0.165***	-0.024
Respondent's education low	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Respondent's education medium	1.164	-1.586	0.862	-0.956	4.781**	-1.637	-1.603	-1.582	-0.318	-1.574	-2.034	-2.829
Respondent's education high	4.867**	-1.741	0.924	-1.111	4.670**	-1.655	1.387	-1.689	2.670+	-1.599	-1.435	-2.836
Respondent's gender	0.92	-1.267	-2.017**	-0.773	-1.866	-1.183	-2.647*	-1.085	-1.957+	-1.133	0.608	-0.844
Respondent's area of living (rural/urban)	-0.016	-1.892	2.202*	-0.955	0.265	-1.751	-1.54	-1.244	0.429	-1.539	-2.998*	-1.181
r_language							-1.899	-1.247				
Constant	66.689***	-3.628	82.450***	-2.222	70.044***	-3.543	88.921***	-3.577	74.283***	-3.064	85.316***	-3.365
lns1_1_1	2.985***	-0.026	2.832***	-0.02	2.891***	-0.028	2.807***	-0.029	2.832***	-0.029	2.895***	-0.019
lnsig_e	2.918***	-0.015	2.923***	-0.01	2.952***	-0.014	2.930***	-0.014	2.893***	-0.015	2.932***	-0.01
N	3644		8069		3736		3908		3546		7614	
aic	33523.267		73557.519		34366.531		35648.724		32216.31		69779.47	
bic	33703.091		73760.396		34547.078		35836.847		32395.343		69980.67	
ll	-16732.633		-36749.759		-17154.265		-17794.362		-16079.155		-34860.7	
+ p<0.10 * p<0.05 ** p<0.01 *** p<0.001												

Paper III: Members only. Understanding the Role of Identity in Deservingness Assessments to Unemployment Benefits

Mia Gandenberger

Abstract

Increasingly diverse societies are faced with the question of who deserves to be included in redistributive arrangements and who does not. Such assessments of deservingness are made based on a set of fixed criteria: need, identity, control, effort, and reciprocity (see e.g. Knotz et al., 2021a; Petersen et al., 2010; Petersen, 2015; van Oorschot, 2000, 2006; van Oorschot et al., 2017). With respect to identity, others note an "insurmountable immigrant penalty" (Reeskens & van der Meer, 2019) for foreign-born individuals. Here, I expand previous investigations into this lower deservingness of immigrants by including citizens born abroad in the pool of potential claimants for unemployment benefits. Based on an original survey experiment fielded in the summer/fall of 2021 in Denmark, Germany, Sweden, Switzerland, the United Kingdom, and the United States, I show that it is neither an "immigrant penalty" per se nor a "citizenship reward" but rather a question of membership to the collective "us". Namely, those who do not formally (non-citizens) or informally (foreign-born) belong are perceived as less deserving than those who do (citizens born in the country). I also find variation across the six countries under investigation.

Introduction

In a world with many people on the move in search for better opportunities, fleeing conflict and hardship, joining those who already left, or returning home after some time abroad, societies are becoming more and more diverse. Due to this diversification, questions about how to adapt the redistributive social welfare systems have regained attention in election campaigns and the public discourse,[1] but also in research (Alesina, Stantcheva, et al., 2018; Alesina & Glaeser, 2004; Careja & Harris, 2022; Crepaz, 2022).

One strand of research is focused on the public's opinion regarding access to welfare. This literature investigates who is perceived as deserving of welfare services in general based on a set of criteria, namely, need, identity, control, effort, and reciprocity (Knotz et al., 2021a; Petersen et al., 2010; see Petersen, 2012, 2015; van Oorschot, 2000; van Oorschot et al., 2017). In that context, previous work has investigated if and how assessments of deservingness differ for immigrants (see e.g. Kootstra, 2016; Reeskens & van der Meer, 2019; van Oorschot, 2008). Comparing immigrants to different societal groups, they are perceived as the least deserving of collective solidarity behind pensioners, the sick and disabled, and the unemployed (van Oorschot, 2006, 2008). This is unsurprising as immigrants are not needy by virtue of being immigrants, unlike the other groups (see discussion of this also in Kootstra, 2016; M. H. Larsen & Schaeffer, 2021). Nevertheless, their lower holds also when immigrant benefit claimants are compared to majority claimants (see e.g., Buss, 2019; Kootstra, 2016; Reeskens & van der Meer, 2019). This unfavourable assessment of immigrants is due to what Reeskens and van der Meer call the "insurmountable immigrant penalty" (2019), whereby immigrants are deemed less deserving simply by virtue of being immigrants. Yet, Kootstra (2016) finds that members of ethnic minorities born in the country are treated almost equally to majority claimants.

Therefore, the effect of identity is probably more complex. However, much of previous deservingness research has investigated this criterion as foreign origin/nationality/citizenship on its own (Buss, 2019; Knotz et al., 2021a, 2021b) or in combination with, e.g., migration status (Kootstra, 2016) or length of residency (M. H. Larsen & Schaeffer, 2021; Reeskens & van der Meer, 2017, 2019). All these operationalisations share an understanding of an immigrant as a foreign national arriving in a given country (or having been born there to parents

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[1] For example, during elections in Denmark in June 2019 or in the context of social welfare legislation introduced in Austria in spring 2019.

of foreign origin). This however does not capture the full spectrum of people on the move and therefore one cannot effectively isolate the "immigrant penalty".

In this paper, I seek to test if the "immigrant penalty" is indeed insurmountable. In doing so, I continue the investigation into the role of identity in deservingness assessments by expanding previous measures of it to include citizens born abroad into the pool of potential immigrant claimants. Further, I study whether and how this differs across six Western welfare states. To that end, I rely on data from an original factorial survey experiment on perceived deservingness to unemployment benefits fielded in the summer/fall of 2021 in Denmark, Germany, Sweden, Switzerland, the United Kingdom (UK) and the United States (US).

I find that the identity effect is not purely an "immigrant" penalty nor is there a "citizenship reward". Rather it stems from someone not being part of both the formal "us" (having citizenship) and the informal "us" (having been born in the country). In some countries (Germany, Sweden), being part of either of these groups makes a person deserving of the collective solidarity. Second, in some cases even foreign-born non-citizens can "earn their place" over time (the UK and to some degree in Switzerland). Interestingly, in Denmark, the UK, and the US, recently arrived citizens born abroad are less deserving than those born in each respective country. Non-citizens are less deserving than citizens born in Denmark and the US.

This paper continues with a review of the literature and then formulates theoretical expectations. Subsequently, I present the experiments and results before I offer some concluding remarks.

Literature review

Increasingly visible migration flows in Europe and globally over the past decades have caused public debate about how to best integrate those arriving from abroad (see e.g. Bevelander & Hollifield, 2022 for recent review). Part of that discussion is focused on how to share (if at all) the welfare state with immigrants (see e.g., C. A. Larsen, 2020; Wright, 2022). Additionally, this new social reality feeds into a discussion on who deserves access to various welfare state services and based on what conditions (e.g. Petersen, 2015; Petersen et al., 2012; van Oorschot, 2000; van Oorschot et al., 2017). This section will review literature on welfare deservingness and then focus on how and why identity matters for deservingness assessments. It will conclude with a brief summary of the institutional context in the six countries under investigation here.

Welfare deservingness

Research on deservingness finds that people rely on a set of criteria to help them determine who deserves support and who does not or at least less so (Petersen, 2015; Petersen et al., 2010, 2012; van Oorschot, 2000, 2006, 2008; van Oorschot et al., 2017). Building on this existing work on deservingness, Knotz and colleagues (2021a) propose a redefinition of the deservingness criteria, whereby a person's deservingness is determined depending on the extent of their *need*, how much they are perceived as sharing a social *identity*, their *control* over their situation, their *efforts* to contribute to the common good, and their past *reciprocal behaviour*.

Deservingness criteria have proven relevant in the context of the welfare state for example for deservingness assessments to unemployment benefits (Aarøe & Petersen, 2014; Buss, 2019), health care (Jensen & Petersen, 2017; Van Der Aa et al., 2017), or social assistance (De Wilde, 2017) but also for settlement deservingness (De Coninck & Matthijs, 2020) and during times of crisis (Gandenberger et al., 2022; Knotz et al., 2021b; M. H. Larsen & Schaeffer, 2021; Reeskens et al., 2020).

Being part of "us"

In the context of deservingness research, immigrants are consistently found to be less or least deserving compared to citizens of the country in question. Usually, the identity criterion by ethnic background or origin alone (Buss, 2019; Knotz et al., 2021a) and in combination with migration status (Kootstra, 2016), length of residency (M. H. Larsen & Schaeffer, 2021; Reeskens & van der Meer, 2017, 2019); religion (De Coninck & Matthijs, 2020); but also simply as nationality (Knotz et al., 2021b) or in combination with legal status (Gandenberger et al., 2022) or a mix (van Oorschot, 2000).

Comparing different societal groups van Oorschot (2006, 2008) finds that pensioners are considered most deserving, followed by the sick and disabled, the unemployed and finally immigrants. Heuer and Zimmermann (2020) find a similar ordering in recent qualitative work. However, this comparison is not entirely adequate as immigrants are not in need of collective solidarity by virtue of being immigrants, unlike for example pensioners or the unemployed (see discussion of this in Kootstra, 2016; and M. H. Larsen & Schaeffer, 2021).

Nonetheless, the lower deservingness of immigrants is also observed in comparisons between claimants to unemployment benefits (for example) with foreign nationality/origin and citizens of the country under investigation (Buss, 2019; Knotz et al., 2021a; Kootstra, 2016; Reeskens & van der Meer, 2019). This ranges from of a double standard in evaluating

unfavourable behaviour (Kootstra, 2016) to an "insurmountable immigrant penalty" (Reeskens & van der Meer, 2019) that cannot be overcome even if immigrants are on their best behaviour. However, those with foreign origins who have lived in the county longer are perceived as more deserving (M. H. Larsen & Schaeffer, 2021; Reeskens & van der Meer, 2017, 2019). Indeed, while Kootstra (2016) finds a general preference for citizens over immigrants, she also notes that members of ethnic minorities born in the country are treated almost equally to majority claimants.

The differential treatment of foreign national immigrants and citizens is at least in part due to an in-group bias that is also well documented in other fields of research (Alesina, Miano, et al., 2018; Hewstone et al., 2002; Tajfel et al., 1971). In-group members are preferred, as they share certain characteristics and behaviours with the individual and thus in-group members can rely on norms of, e.g., reciprocity to be upheld more easily (Brewer, 1999). However, group boundaries can be fuzzy (Allport, 1954) and information on a welfare claimant's nationality or immigration background can be used as indicators for determining group membership (Alesina, Miano, et al., 2018). Those perceived as members of or close to the imagined community of the welfare state are then deserving of collective solidarity (Anderson, 1991).

Indeed, the perceived commitment to the "us" in question matters. Harell and colleagues (2021) show that in Canada support for their inclusion in redistributive arrangements is positively linked to how immigrants, Aboriginal people, and French-speaking Canadians from Quebec are perceived to be members of and committed to the Canadian community. If members of these minority groups are perceived as committed members of society, the willingness to support targeted support spending increases. This is particularly strong for the two minority groups with citizenship. Aboriginal peoples and immigrants are viewed as less committed to the Canadian community and therefore less "part of 'us'" (Harell et al., 2021, p. 16). Interestingly, though, support for targeted and inclusive redistribution towards Aboriginal peoples is strongest, followed by immigrants, and French-speaking Quebeckers. Expanding this investigation of a "membership penalty" (Harell et al., 2022, p. 110) to eight other Western welfare states, the authors find perceived membership to be clearly linked to support for inclusive redistribution.[2] In addition to "external boundaries", the authors therefore highlight

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[2] Membership here is measured by identification with the country, care about its concerns and needs, willingness to make sacrifices for it, and contributions to society (Harell et al., 2022).

that "internal hierarchies" too inform people's propensity to share with strangers (Harell et al., 2022, p. 113).

Internal hierarchies or perceptions of different societal groups can take different shapes. Kootstra (2017) investigated the perceived deservingness of financial government support of two British majority groups (people in general, white Britons) and four minority groups (black Britons, ethnic minorities, Muslims, and immigrants). The results show that black Britons, white Britons, and "people in general" more deserving than ethnic minorities, Muslims, and immigrants. The author attributes the unexpectedly high deservingness of black Britons among other things to the positive perception of this group within British society and the interwovenness with the overall society. Further, Kootstra notes the long history of debate on racial equality and anti-racist norms, or social desirability may have impacted the assessments.

Citizenship as formalised belonging

In today's world organised in nation states, citizenship or nationality function as one signal of belonging to a country (in some cases earned, see Joppke, 2021). Following this logic, Hedegaard and Larsen (2022) study attitudes towards naturalisation and do so by arguing citizenship is a club-good. In this logic, citizens (current members) evaluate prospects (immigrants who wish to naturalise) based on a number of traits (criteria) they deem important. Depending on how well the prospects fare on these criteria, they are awarded citizenship (the club membership). The authors find education, employment, cultural proximity, and length of residency to matter in these assessments and similar preferences across the four countries they study (Denmark, Germany, Netherlands, and Sweden).

Citizens-to-be engage in similar narratives of deservingness concerning citizenship. Monforte and colleagues (2019) describe how migrants in the UK participating in the process of becoming a citizen by taking a citizenship test (that is those who are considering or preparing for it, took it, have passed or not) adapt themselves to a narrative of distinguishing between the "deserving citizens" and the "undeserving others". This reflects the broader definition of citizens as self-governing "responsible", "productive", and "trustworthy" subjects (Monforte et al., 2019, p. 26). The authors identify three forms of distinction between those deserving and the undeserving: values of trust and respect, specific forms of social and cultural capital, and values of commitment and honesty. These reflect the public discourse around citizenship and integration as well as how the citizenship test is conceived and managed by state representatives (Monforte et al., 2019, p. 27).

The effect of the identity criterion is linked to an assessment of belonging to an abstract "us". The research discussed in this and the previous subsection shows this is done based on citizenship or nationality, but also on perceptions of commitment to the common "us" as well as the time spent living in the country under investigation.

Institutional context

The welfare state institutions and immigration and naturalization policies may affect welfare deservingness perceptions vis-à-vis immigrants (C. A. Larsen, 2020, p. 20). Even if not everyone has detailed knowledge of the legislative details concerning, e.g., naturalisation, we know institutions matter for public attitudes (e.g., Brooks & Manza, 2007; C. A. Larsen, 2008; Svallfors, 1997, 2003; Taylor-Gooby, 1995).

As deservingness research focusses on the access to certain welfare state services, the focus has been mostly on immigrant receiving states. This is also the case here as I focus on Denmark, Germany, Sweden, Switzerland, the UK, and the US. These six countries fall roughly into the three welfare states regimes according to Esping-Andersen (1990): Denmark and Sweden representatives of the social-democratic regime; the UK and US the liberal regime; and Germany and Switzerland of the conservative Christian-democratic regime, though arguably the latter does not neatly fall into the category due to some liberal elements (Kriesi & Trechsel, 2008).

Table 1 Summary of naturalisation requirements						
	Country					
Requirement	*Denmark*	*Germany**[*]	*Sweden*	*Switzerland*	*United Kingdom*	*United States*
Legal residency	9 years	8 years	5 years	10 years	5 years	5 years
Language ability	yes	yes		yes	yes	yes
Civic knowledge	yes	yes		yes	yes	yes
Financial independence	yes	yes		yes	yes	
Debt free	yes		yes	yes	yes	
No criminal offences/record	yes	yes	(waiting period)	yes	yes	yes
Good moral character / living according to values		yes		yes	yes	yes
Employment	yes			yes		
Commitment to values		yes		yes		yes
Oath of allegiance	yes					yes
[*]In Germany and the US naturalised citizens have to renounce their original citizenship (with some exceptions).						

Looking at the openness of the welfare state to immigrants in comparison to citizens, I observe a slightly different variation (Koning, 2021; Sainsbury, 2006, 2012). Koning (2021) situates the six countries under investigation here on a spectrum ranging from rather inclusive (Sweden) to moderately exclusionary (Germany, Denmark, Switzerland, United Kingdom) to rather exclusionary (United States) in 2015. This is in line with Sainsbury's (2012) findings, namely, that Denmark is more restrictive than Sweden, Germany more restrictive than France, and the US more restrictive than the UK. Koning (2021) finds Switzerland to be more exclusionary than Germany. So, within the context of the welfare state regimes, there are both more and less restrictive countries with regard to immigrant access of welfare state services.

In addition to their welfare state, the countries' relationship with immigration and immigrants is of concern here as well. While the US is "a nation of immigrants" (Martin & Orrenius, 2022), the others have only come to terms with their status as immigration states recently (Hollifield et al., 2022). All six countries have sought to manage immigration in various ways leading to more open and more restrictive phases of immigration policy since the end of World War II (Brochmann, 2022; D'Amato, 2022; Hansen, 2022; Martin & Orrenius, 2022; Martin & Thränhardt, 2022). Concerning naturalisation policies, that is, the requirements for inclusion of foreign national immigrations to the citizenry, however, there are some differences between these six countries. The requirements are summarised in Table 1.

In brief, also according to the MIPEX indicator *Access to Nationality,* which evaluates these requirements, the US has the most favourable conditions for immigrants becoming a citizen (Solano & Huddleston, 2020). It is closely followed by Sweden as well as the UK, the latter with less slightly less favourable conditions. Denmark, Germany, and Switzerland have more extensive requirements with regards to residency, language ability, and civic knowledge

Table 2 Summary of institutional context

Context	Country					
	Denmark	*Germany*	*Sweden*	*Switzerland*	*United Kingdom*	*United States*
Welfare state regime (following Esping-Andersen, 1990)	Social democratic	Conservative	Social democratic	Conservative	Liberal	Liberal
Immigrant access (2015 IESPI scores taken from Koning, 2021, p. 831)	Moderately restrictive (47)	Moderately restrictive (42)	Rather inclusive (26)	Moderately restrictive (49)	Moderately restrictive (50)	Rather restrictive (60)
Access to nationality (MIPEX)	Halfway favourable (41)	Halfway favourable (42)	Favourable (83)	Slightly unfavourable (28)	Favourable (61)	Favourable (88)

among other things. Switzerland achieves the lowest score for slightly unfavourable conditions for immigrant naturalisation.

To conclude, the institutional context of welfare and immigration policy within which deservingness assessments take place is complex. Therefore, Table 2 summarises each dimension relevant for the remainder of this article.

Hypothesis

The above literature review allows us to draw out several hypotheses. First, as we have seen above, the effect of the identity criterion is linked to an assessment of belonging to an abstract "us". Regarding the identity criterion more specifically, therefore, different, mutually exclusive scenarios are possible: first, following the logic of the "immigrant penalty" I expect a *lower deservingness of immigrants, including those with citizenship (H1)*.

At the same time, in line with the understanding of citizenship as the demarcation line between the deserving and undeserving, I expect citizens a "citizenship reward", namely, *all citizens are all equally deserving, regardless of their length of residency (H2)*.

Further, in line with previous deservingness research, I expect to find *similar patterns of deservingness perceptions based on the deservingness criteria of need, identity, control, effort, and reciprocity (H3)* across the six Western welfare states under investigation here.

Finally, concerning the identity criterion, cross-country variation is conceivable, simply because who can formally become part of the national "us" depends on the country and the bar to pass varies in height. I expect *respondents in those countries with more difficult naturalisation requirements to attribute more value to the citizenship signal than those with more moderate or liberal requirements (H4)*, because citizenship is more exclusive.

Data and method

In deservingness research, factorial survey experiments, sometimes also called vignette experiments, are the common method of choice. They offer a way to obtain a better and deeper understanding of respondents' judgement principles than stated preferences (Auspurg & Hinz, 2015). In this type of experiments, participants are asked to judge small passages of text (vignettes) in which certain characteristics are systematically varied. Vignettes are randomly assigned to participants. Together, this allows the identification of "both socially shared judgment principles and subgroup differences" (Auspurg & Hinz, 2015, p. 9). Additionally, this methodology might help diffuse attention sufficiently from the aim of detecting discrimination,

as different elements are not easily distinguishable to the untrained eye. This strategy has worked previously for others, e.g., Auer and colleagues (2019), to avoid social desirability bias on the part of the respondents.

As already mentioned above, most previous operationalisations of identity in the context of deservingness share the conceptualisation of an immigrant as a foreign-national arriving in a given country (or having been born to parents of foreign origin). To address my research question effectively, however, I need to include citizens born abroad to be able to isolate the effect of having been on the move. This is what I do here. To that end, while staying in the framework of traditional operationalisations of identity, I include information on the claimants' nationality and length of residency.[3] I also provide information on their age, gender, and occupation as well as on why the claimant became unemployed (control), how long they have paid contributions in the past (reciprocity), their job searching activities (effort) and how long they would be able to survive on their current income (need).

The experiment is 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

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[Introductory text]
You probably know that workers who become unemployed can receive unemployment benefits.
For each fictional unemployment benefit claimant presented below, please indicate on the scales shown below each description **how much in percent of their former income** you think a given person would deserve to **receive as unemployment benefits**.

There are no wrong or right answers, therefore please just follow your own opinion!

new screen
A 25-year-old woman has resigned from her job as a cleaner because the commute of 3hrs / day was too long. She is a British citizen who has lived in the UK for two years. She has contributed to the unemployment insurance for the past year, is currently looking for a job, and manages to send out three to four applications per week. She could survive up to one month on her savings.

Percent of former income (0%) --------------------------------------> (100%)

Figure 1 Example vignette (UK version)

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[3] Nationalities were included based on increasing social/cultural and geographic distance: one neighbouring country, an Eastern-European country (Ukraine), a Middle Eastern country (Afghanistan), and a West-African country (Nigeria). I chose nationalities with an immigrant presence in all six countries. While the withdrawal of US troops from Afghanistan and the subsequent refugee crisis falls in the field time of the survey, I do not find an effect of this in my results. The survey was fielded before the current war in Ukraine.

The role of gender, age, and occupation are subject of another article.

provided by a European market research firm.[4] The data comprise approximately 1450respondents from Denmark, Sweden, Switzerland respectively and the United Kingdom and approximately 2700 respondents from both Germany and the United States.[5]

Respondents were asked to evaluate three vignettes and indicate on a scale from 0 to 100 how much in percent of their former income a given fictional unemployment claimant should receive in unemployment benefits (see example in Figure 1). The characteristics of the claimants varied along the dimensions summarised in Table 3 below. For complex designs such as this one, D-efficient designs—instead of pure random sampling—are recommended to generate the vignettes (Auspurg & Hinz, 2015, p. 35). Consequently, I employed a D-efficient design, generated using the algorithms designed by Kuhfeld (2010) and implemented in SAS.[6] I accounted for all two-way interactions and did not exclude any combinations of dimensions.

For the analysis I exclude vignette evaluations that were done unreasonably fast (less than 5 seconds) or took too long (more than 180 seconds). This resulted in 8,053 evaluations in Germany, 3,618 in Denmark, 3,681 in Sweden, 3,929 in Switzerland, 3,586 in the UK and 7,635 in the US. To ensure that the samples are as representative of the respective populations as possible, I introduced quotas for age (18 – 29, 30 – 39, 40 – 49, 50 – 59, over 60 years), gender (male, female), education (low, middle, high) and region (urban or rural).[7]

Due to the multi-level nature of vignette evaluations nested in respondents, I use multi-level models with random intercepts, controlling for basic demographic characteristics of respondents (age, gender, education, rural/urban, born in country). In Switzerland I also control for language region and in the US for ethnic and racial background of the respondents.[8] For part of the analyses, I combine the residency variable into a dummy variable indicating where the claimant was born (in country/abroad). I also do this for nationality where I group claimants into citizens and non-citizens.

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[4] This survey was originally scheduled for the spring of 2020, however, due to the outbreak of the COVID-19 pandemic, fieldwork was postponed until 2021. 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 different 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. The experiments were attributed in a random order.

[5] In Germany and the US, respondents were randomly divided into two groups of approximately 1350. One completed an Implicit Association test before evaluating the experiments, the other proceeded directly to the experiments.

[6] The design achieves a D-efficiency score of 94.7903. The recommended threshold is 90 out of 100 (Auspurg & Hinz, 2015).

[7] See the distribution of each country sample in Figures S1 – S6 in the supplementary material. For the Swiss survey an additional quota for the French or German-speaking regions was included.

[8] Results not discussed.

Table 3 Dimensions and levels of the experiment on unemployment benefits

Dimension	Levels (number of levels)
Need	could live up to 1 month on savings | could live up to three months of savings | could live up to 6 months on savings | could live up to 1 year on savings (4)
Identity	
Residency	Born in country [double citizenship for US] | lives in country 10 years | lives in country 5 years | lives in country 2 years (5)
Nationality	Swiss [/German/Swedish/Danish/British/US] | German [/Austrian/Norwegian/Swedish/Irish/Canadian] | Ukrainian | Afghan | Nigerian (5)
Gender	Male | Female (2)
Age	25 | 40 | 55 (3)
Occupation	cleaner | lab technician | food engineer | accountant (4)
Control	work contradictory to religious values | commute too long (3hrs/day) | excessive overtime | closure due to COVID (4)
Effort	not looking for a job currently | looking for a job, 1-2 application per week | looking for a job, 3-4 applications per week | looking for a job, 5-6 applications per week (4)
Reciprocity	contributed 1 year | contributed 2 years | contributed 4 years [in respective country of residency] | contributed 8 years [in respective country of residency] (4)

Results

As described earlier, I am primarily interested in the effect of identity captured by citizenship/nationality and length of residency. Nonetheless, let us turn to the overall results summarised in Figure 2 for context first: in all six countries, the control criterion has the most important effect on respondent's ratings. Vignette persons who have been let go because of the company closing due to the pandemic are much more deserving than those who left their jobs. Further, effort is the second most important criterion. Those vignette persons trying to end their situation of need by sending out applications are more deserving than those who are not looking for a new job. The relative importance of the other criteria is not uniform across the six countries. For some, reciprocity is the criterion with the third largest effect (Germany, Switzerland, US), for others it is identity (Denmark, UK) or need (Sweden).[9]

Turning to the main point of interest, the identity criterion, there is no consistent or significant ordering of countries of origin. Neither is there a common significant effect of the nationalities included. Respondents in the UK make no difference for neighbours, those in the other countries simply divide into co-citizens and those with foreign nationality. In all countries

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[9] Respondents utilised the full range of the answering scale available to them (see Figure S13 in the supplementary material). Overall, the great majority of respondents in all six countries thought the vignettes were (very) realistic, while they expressed some uncertainty with their evaluations (see Figures S7-S12 in the supplementary material).
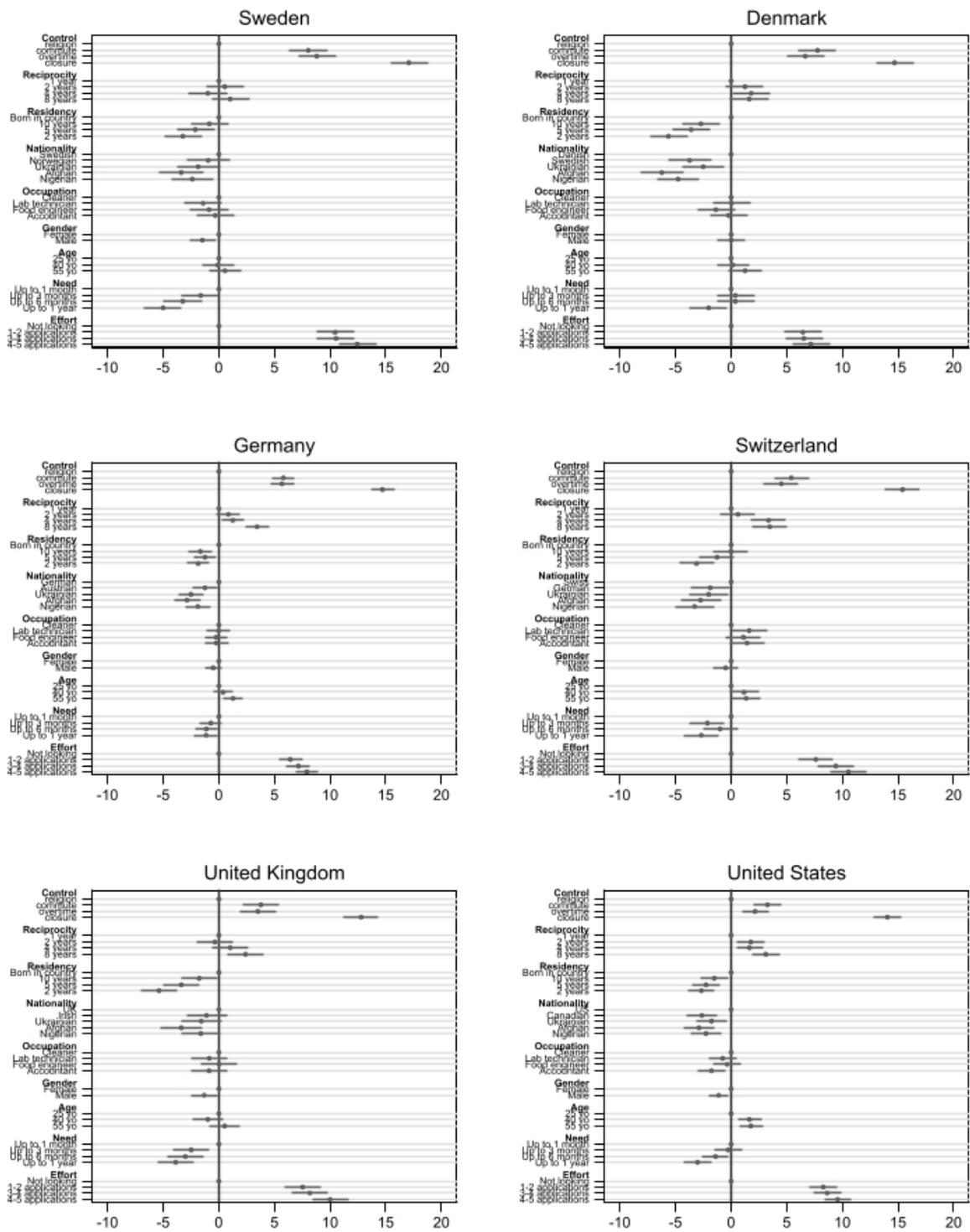
Figure 2 Results for all vignette dimensions. Estimated difference in deservingness score; random-effects regression estimates, respondent controls included. Full models included in Table S2 in the supplementary material.

recent arrivals are less deserving. The effect of occupation, gender, and age varies across countries.

Figure 3 depicts the interaction effect of having citizenship and the place of birth, abroad or in the respective country. In all countries foreign-born non-citizens are least deserving compared to citizens born in the country. However, in Germany, Sweden, and the United Kingdom there is no significant differences between those born in the country with and without citizenship and those citizens born abroad. In Denmark and the United States, citizens and non-citizens born abroad are less deserving than citizens born in Denmark or the United States. This is also true for non-citizens born in Denmark or dual citizens in the United States. In Switzerland, non-citizens are less deserving than citizens born in Switzerland, while there is no significant difference between the two groups with citizenships.

Taking a closer look at the length of residency (see Figure 4), there are some differences across countries. In some cases, Germany, Sweden, and Switzerland, citizens born abroad are always as deserving as their counterparts born in the country. This is not the case for Denmark, the United Kingdom, the United States, but only after five years of residency (Denmark and United Kingdom) and ten years (United States). The length of residency is particularly important for foreign-born non-citizens. While recent arrivals are always less deserving than citizens born in the country, with time, they become as deserving in Sweden and Switzerland, after five years, and after ten years in Germany. Second-generation non-citizens, so the children of immigrants born in the country, are as deserving as citizens in Germany, Sweden, the United Kingdom, whereas this is not the case in Denmark, Switzerland, and the United States. The latter case is particularly interesting as here second-generation immigrants born in the US also hold the US citizenship.[10]

To conclude, the effect of the identity criterion is indeed more complex than previously thought. It is not the case that Neither are all citizens automatically equally deserving of access to unemployment benefits (contrary to H2), nor are all immigrants less deserving than citizens born in the country (contrary to H1). Additionally, the effect varies across countries (though not entirely in line with H4). With regards to the other criteria, the pattern of relative importance is similar though not identical across the six countries I investigated (mostly confirming H3).

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[10] I ran additional analyses to discern whether respondent characteristics, such as age, gender, education, their area of living, their employment status, or political views influence these evaluations. For the great majority this is not the case (results not shown, available on request). Only respondent's political views (measured by self-placement on a left-right scale) matter for the evaluation of citizenship in Germany, Sweden, and Switzerland (see Figures S14 – S19 in the supplementary material).

Figure 3 Deservingness based on place of birth and citizenship status. Estimated difference in deservingness score; random-effects regression estimates, respondent controls included. Models available in Table S4 in the supplementary material.
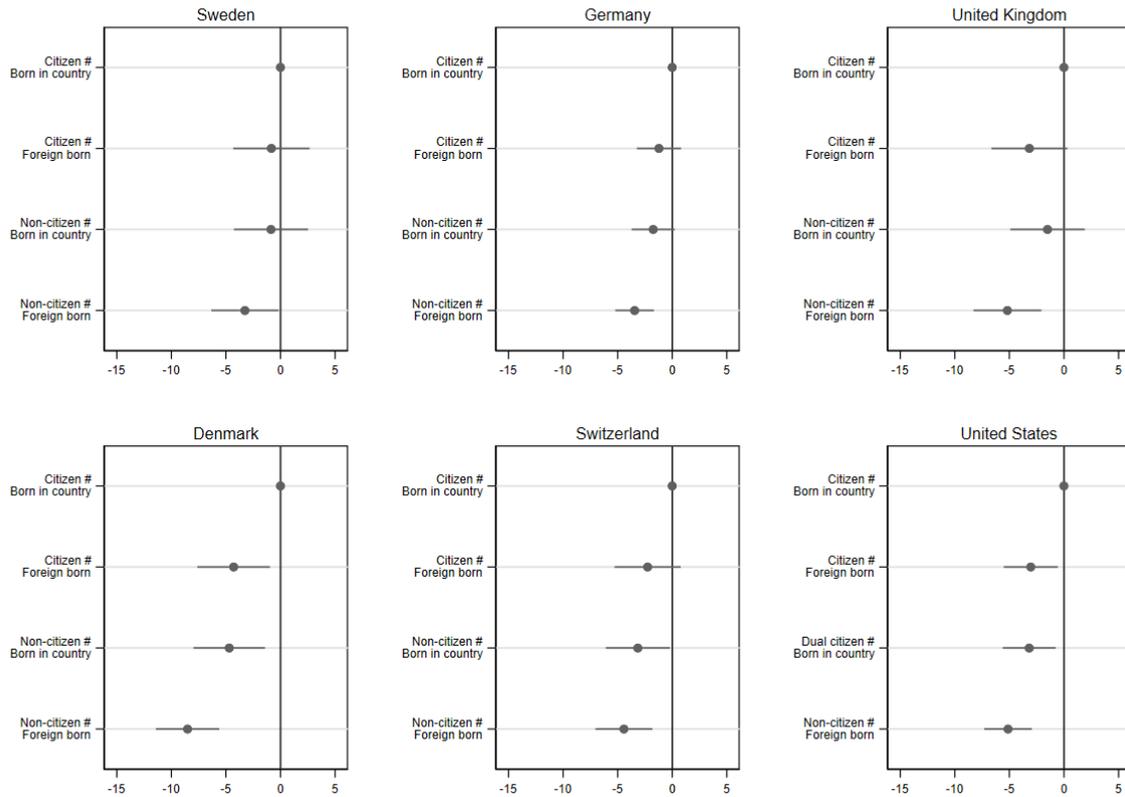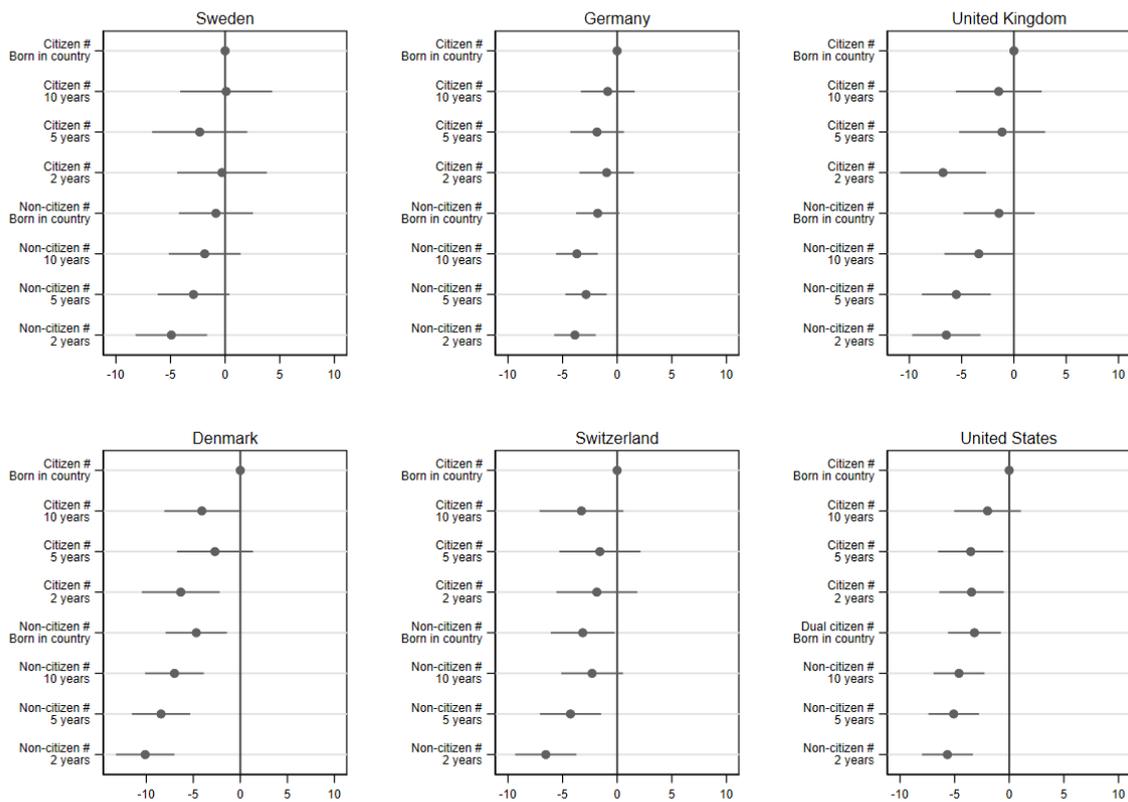

Figure 4 Deservingness based on length of residency and citizenship status. Estimated difference in deservingness score; random-effects regression estimates, respondent controls included. Models available in Table S3.

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Conclusion

This paper reviews deservingness assessments to unemployment benefits in six Western welfare states, namely, Denmark, Germany, Sweden, Switzerland, the UK, and the US. More specifically, I focus on the identity criterion in these assessments. To that end, I broaden the group of immigrants considered as part of potential claimants in for unemployment benefits to include not only foreign-born non-citizens (as seen in earlier literature), but also citizens born abroad moving to their country of citizenship. This allows us to test whether the "immigrant penalty" (Reeskens & van der Meer, 2019) is indeed insurmountable and whether citizens benefit from a "citizenship reward".

I find that the "insurmountable immigrant penalty" is not insurmountable: with increasing lengths of residency foreign-born non-citizens can close the deservingness gap to citizens born in Germany, Sweden, Switzerland (to some degree), and the UK. Further, second-generation immigrants with foreign citizenship are as deserving as citizens in Germany, Sweden and the UK, which aligns with Kootstra's findings (2016). However, in Denmark and the US non-citizens are always less deserving than citizens born in the respective country and in the US even those with dual citizenship are less deserving than those with "only" United States citizenship.

I had expected respondents living in countries with more demanding naturalisation requirements to attribute more value to the signal of citizenship. Indeed, in Switzerland and Germany, those with citizenship are deemed deserving regardless of where they have been born. Also in line with this expectation, I find that in the UK and the US, with more favourable conditions for access to nationality, citizenship does not function as such an important signal. However, the findings in the two Scandinavian countries are somewhat contrary to this hypothesis at first glance: in Sweden (as a country with relatively easy access to citizenship) citizens are deserving regardless of their place of birth. Conversely, in Denmark (which has relatively demanding requirements) I find that recently arrived Danes are not as deserving as those who were born in Denmark.

These findings may point to differing understandings of what it means to be part of the respective "us". In Sweden, being part of either category, formal (being a citizen) or informal (having been born in the country), is sufficient to be judged deserving of collective help. In Denmark, however, it seems that even holding formal membership is not enough to fully belong to the "club" of the deserving. This mirrors findings on ethnic and civic understandings of

citizenship where having been born in the country or having national ancestry is particularly important for ethnic citizenship, while adhering to the laws is not sufficient in that conception of citizenship (Reeskens & Hooghe, 2010).[11] This suggest that further research into the role of citizenship concepts and national identity for deservingness assessments could be an interesting avenue for future research, particularly in the context of the identity criterion.

To conclude, I find that the previously detected differential treatment of immigrants is not purely due to having been on the move, nor due to not holding the right citizenship. Rather it is an interaction of migration history and citizenship, so both formal and informal membership of the "us" in question. Having migrated does not necessarily make an individual less deserving than a citizen born in the destination country. However, neither does having citizenship automatically make someone as deserving. This means there is neither a universal "immigrant penalty" nor a "citizenship reward".

Here, I focus on only one policy in Western welfare states, which impacts the generalisability of my findings. The differential treatment of foreign-born immigrants compared to citizens born in the country under investigation is a relatively common finding in deservingness research. What I do here is a first step in dissecting the identity effect by allowing for more nuance in defining immigrants. For these purposes, it would have been interesting to include the reason for migrating in my experiment. However, creating survey experiments demands the balancing the value of added nuance with increasing complexity. In this case, introducing an additional dimension would have made an already rather complex experiment only more so. I hope future work can further this investigation.

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[11] Ethnic citizenship refers to having been born in the country, adhering to the dominant religion; and having national ancestry. Civic citizenship is expressed through respecting the law, speaking the language, and feeling like a citizen of a given country (Reeskens & Hooghe, 2010, p. 591). These items have different meanings according to the national context.

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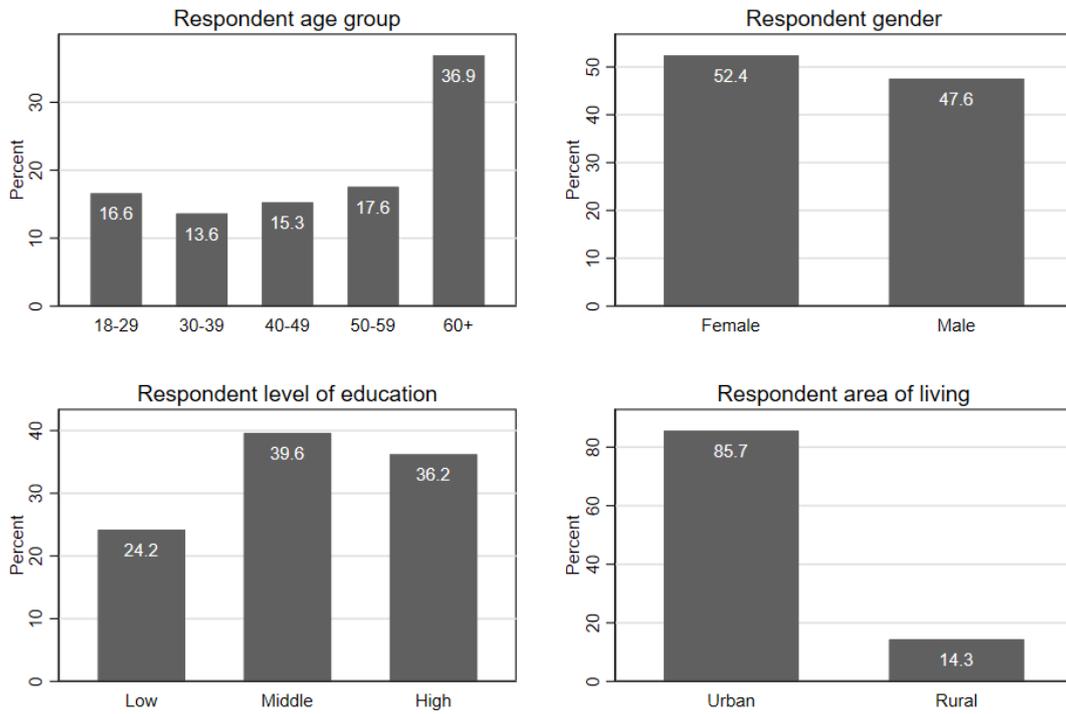
Sweden - Sample

Figure S1 Distribution of sample of respondents by age, gender, education, and area of living (Swedish sample).

Denmark - Sample
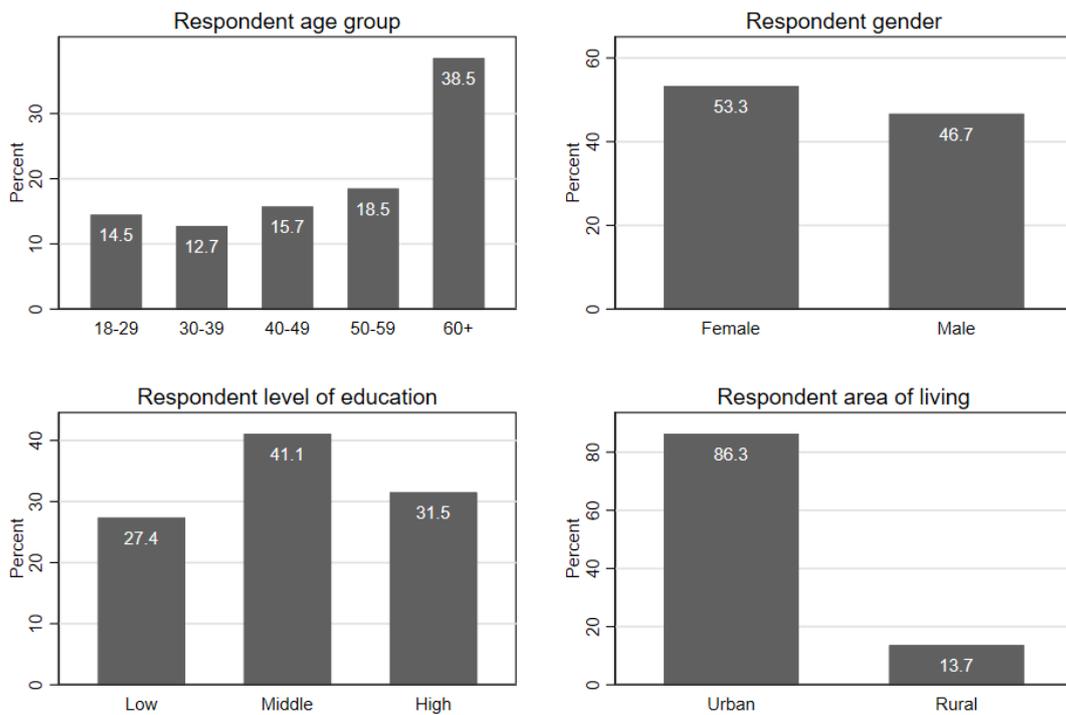
Figure S2 Distribution of sample of respondents by age, gender, education, and area of living (Danish sample).

Germany - Sample
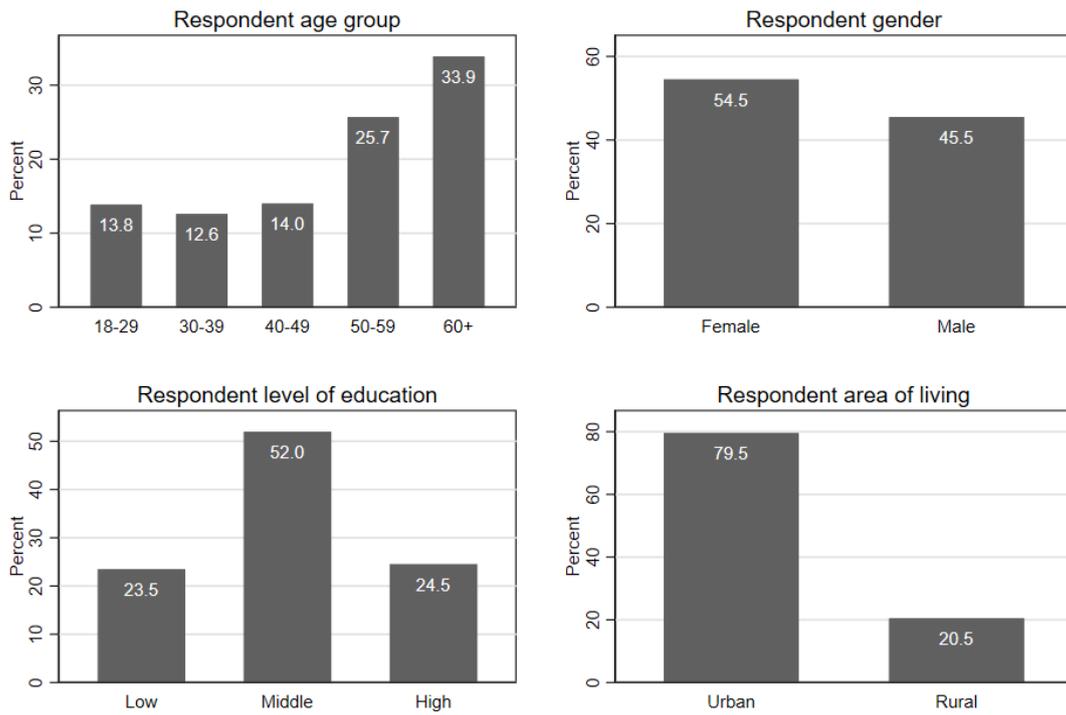
Figure S3 Distribution of sample of respondents by age, gender, education, and area of living (German sample).

Switzerland - Sample
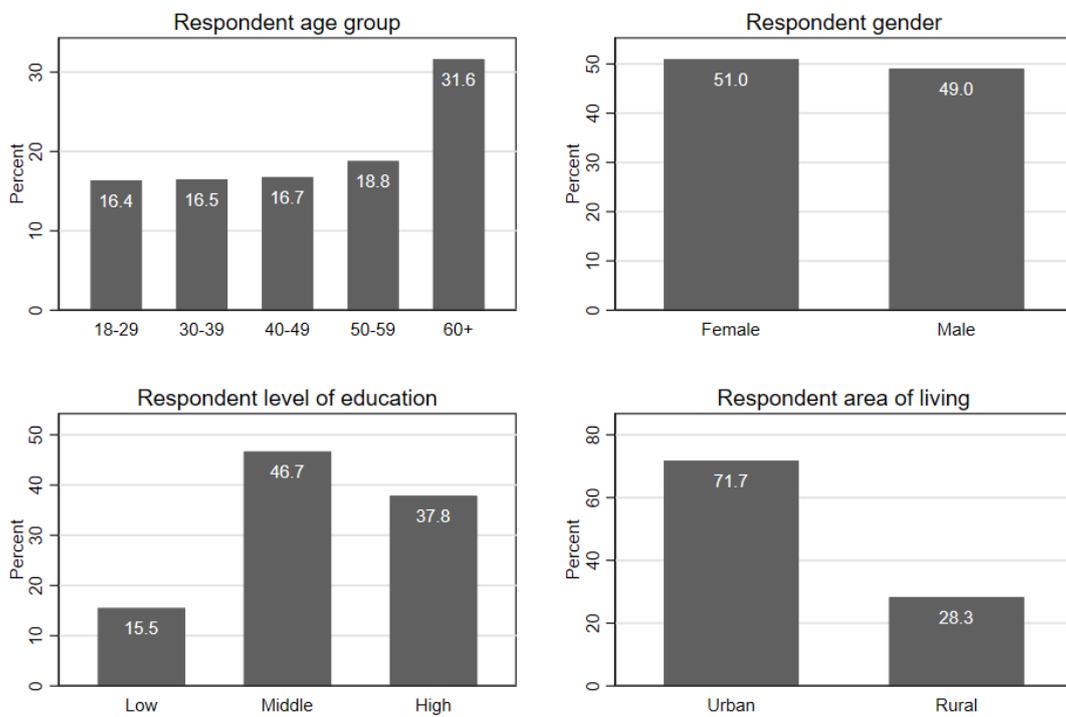
Figure S4 Distribution of sample of respondents by age, gender, education, and area of living (Swiss sample).
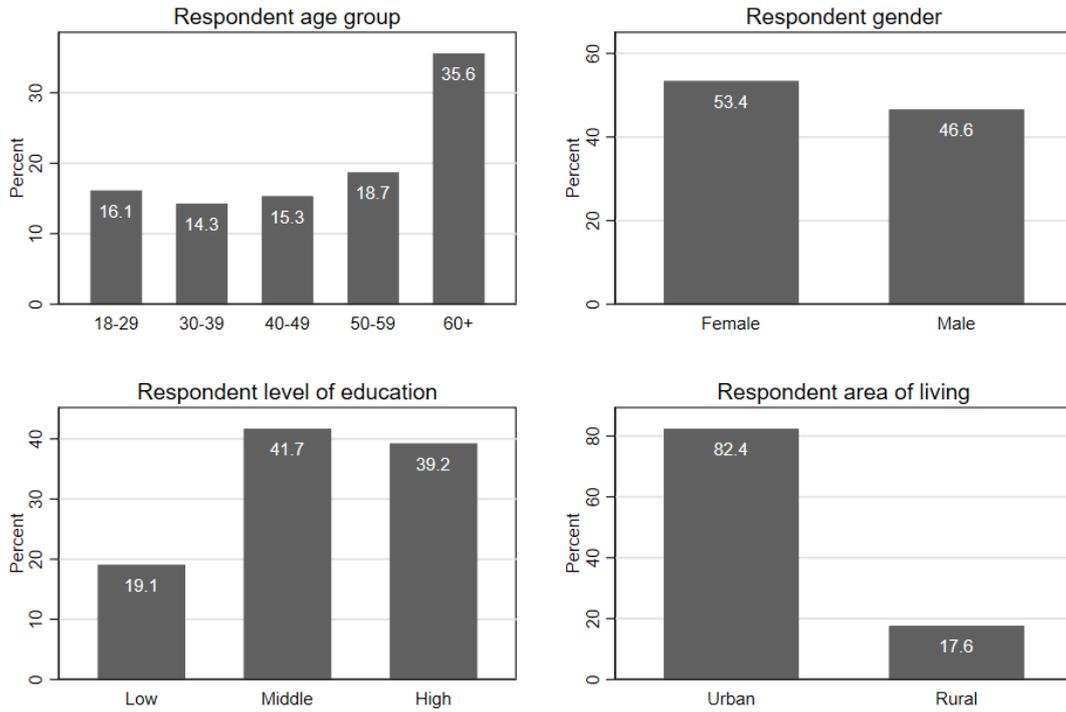
Figure S5 Distribution of sample of respondents by age, gender, education, and area of living (UK sample).
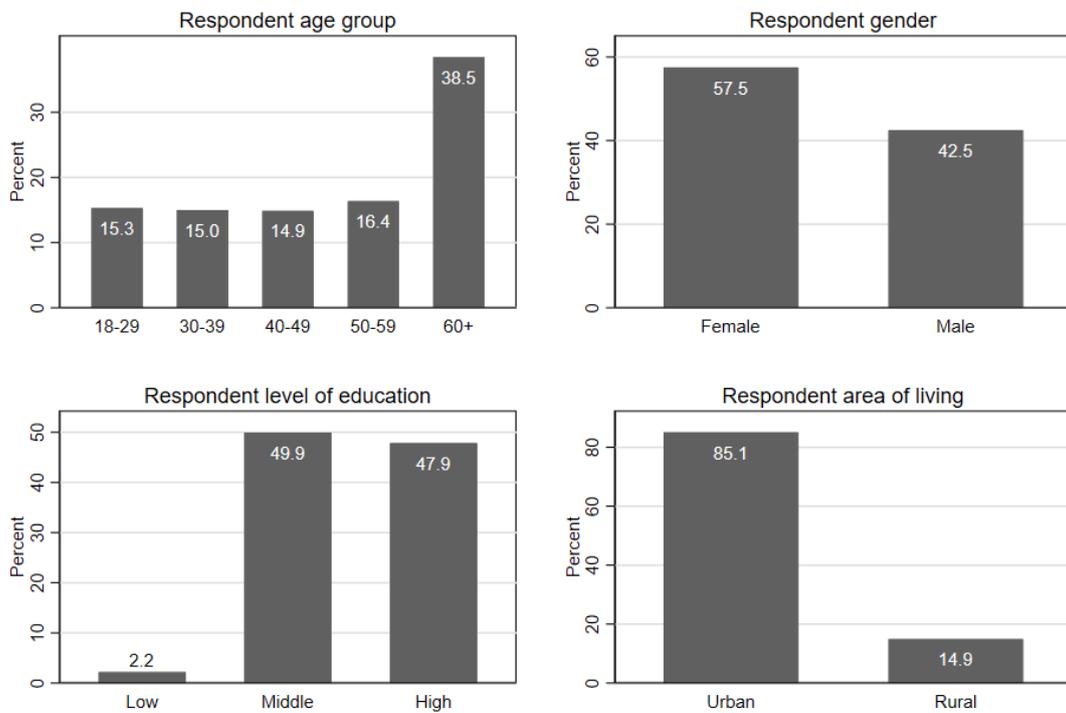
Figure S28 Distribution of sample of respondents by age, gender, education, and area of living (UK sample).

Sweden
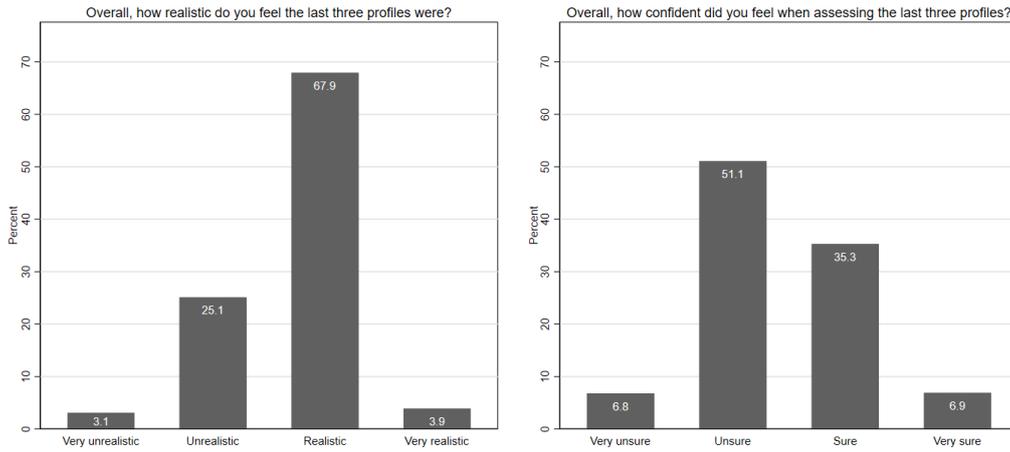
Figure S7 Evaluation of vignettes (Swedish sample, only respondents who saw unemployment benefit vignette last).

Denmark
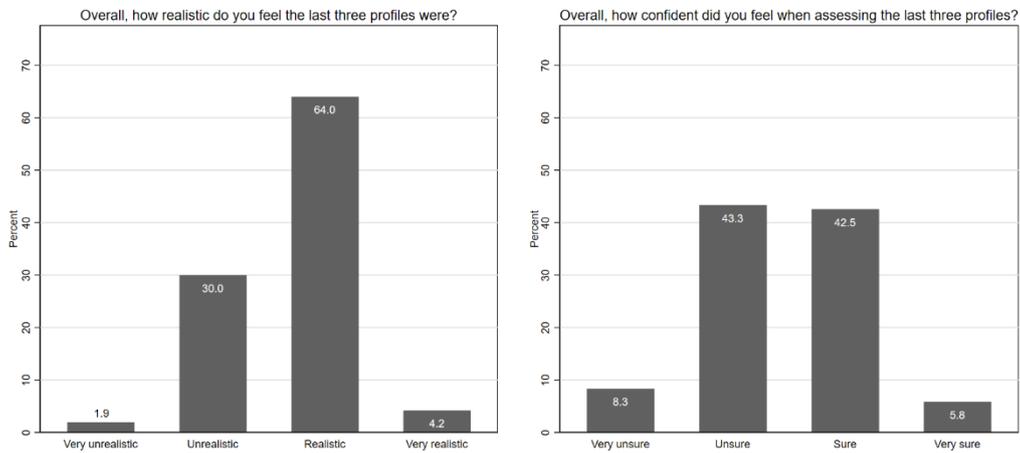
Figure S8 Evaluation of vignettes (Danish sample, only respondents who saw unemployment benefit vignette last).

Germany
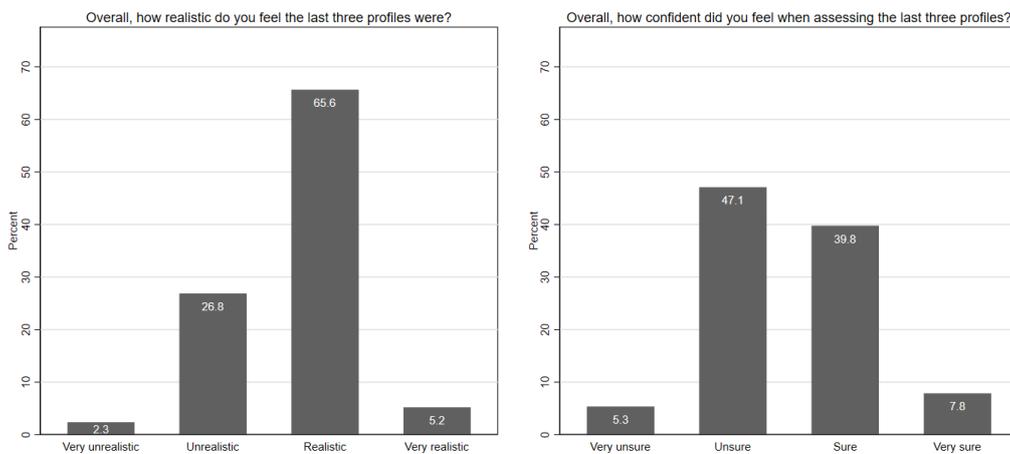
Figure S9 Evaluation of vignettes (German sample, only respondents who saw unemployment benefit vignette last).

Switzerland

Figure S10 Evaluation of vignettes (Swiss sample, only respondents who saw unemployment benefit vignette last).

United Kingdom

Figure S11 Evaluation of vignettes (UK sample, only respondents who saw unemployment benefit vignette last).

United States
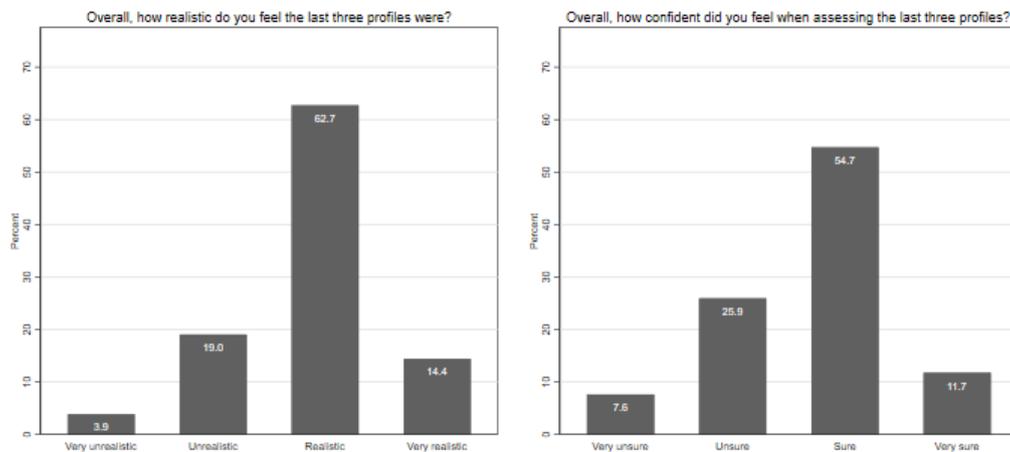
Figure S12 Evaluation of vignettes (US sample, only respondents who saw unemployment benefit vignette last).

Figure S13 Distribution of deservingness ratings (percent of former income, dependent variable) by country.

Table S1 Mean rating and standard deviation			
Deservingness rating	Observations	Mean	Std. dev.
Denmark	3,618	53.12272	26.59674
Germany	8,053	57.37675	23.41109
Sweden	3,681	54.40391	26.82221
Switzerland	3,929	59.51922	24.86074
United Kingdom	3,586	45.34105	25.56602
United States	7,635	51.03654	27.51659

Sweden
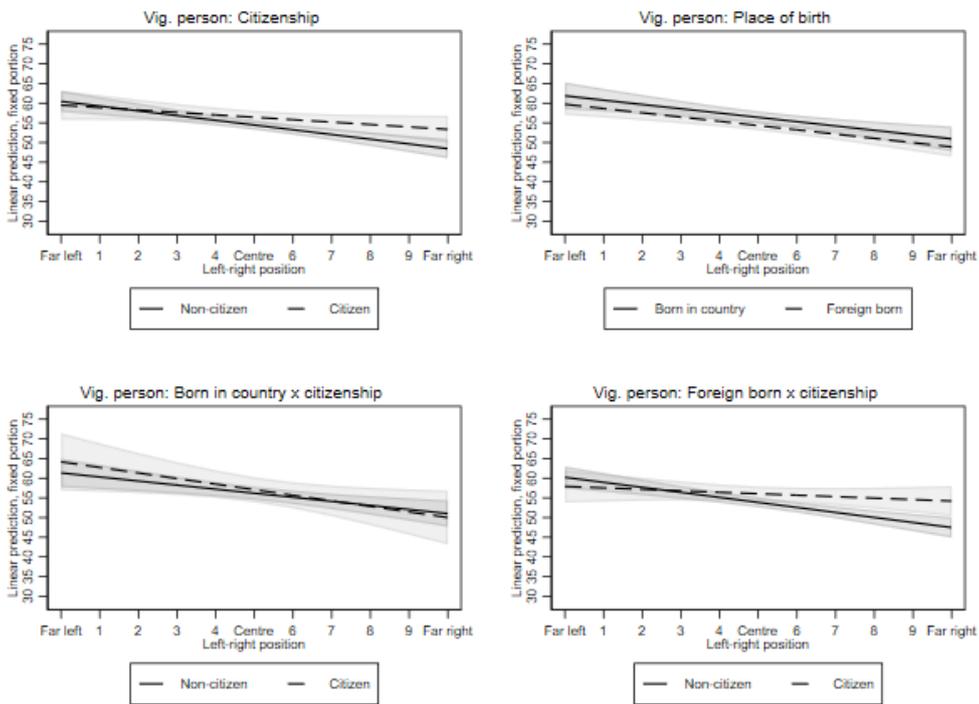
Figure S14 Marginal effect plot of respondent's political views interacted with vignette person characteristics (Swedish sample).

Denmark

Figure S15 Marginal effect plot of respondent's political views interacted with vignette person characteristics (Danish sample).

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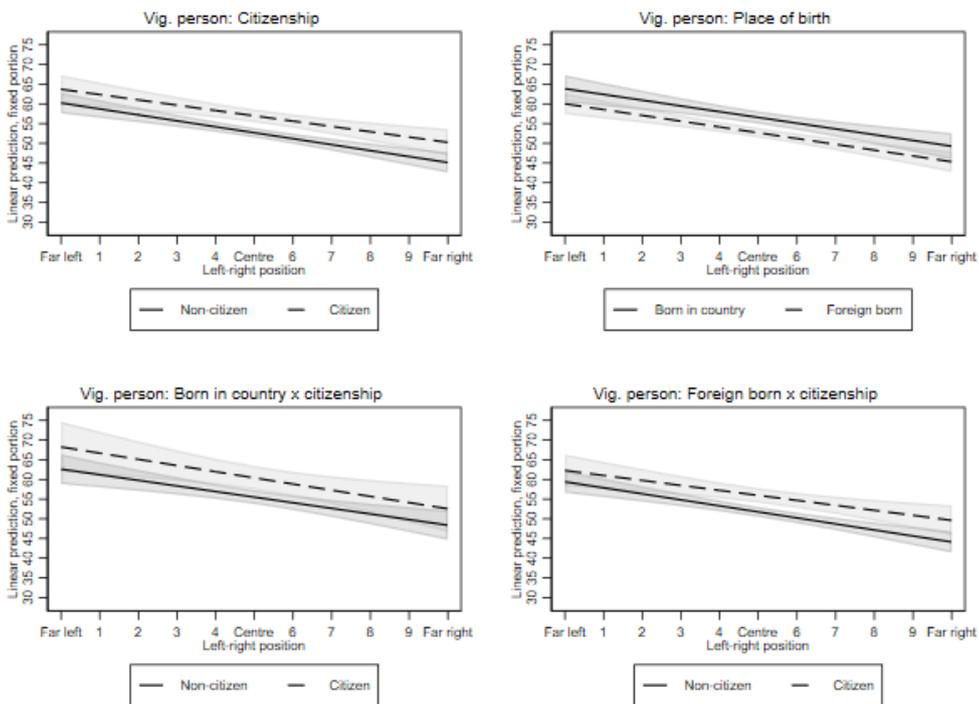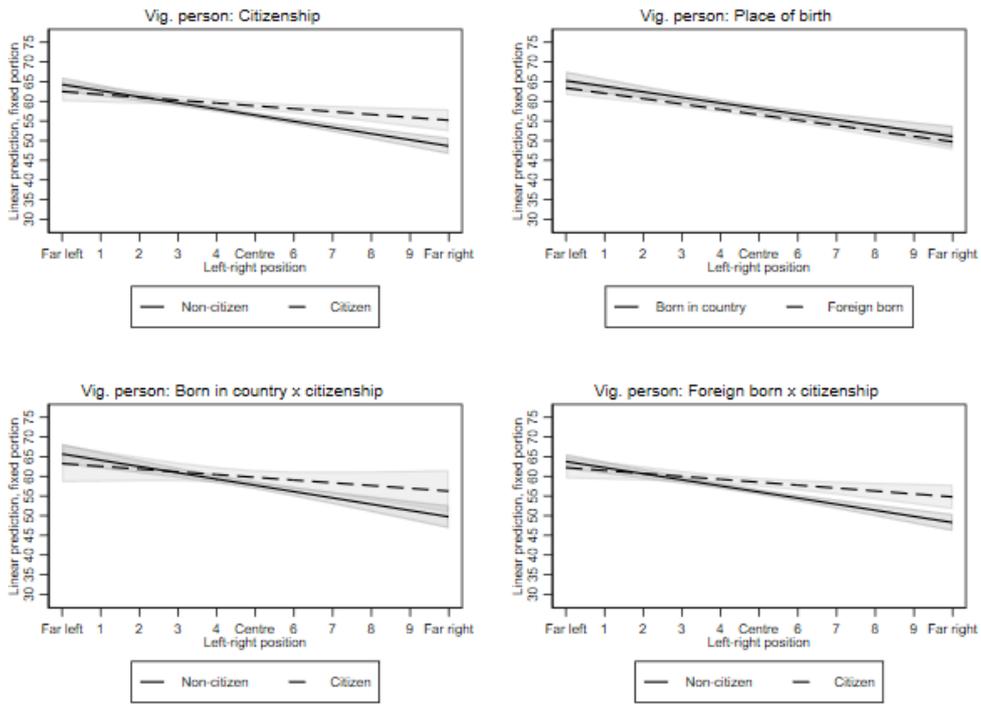
Germany

Figure S16 Marginal effect plot of respondent's political views interacted with vignette person characteristics (German sample).

Switzerland
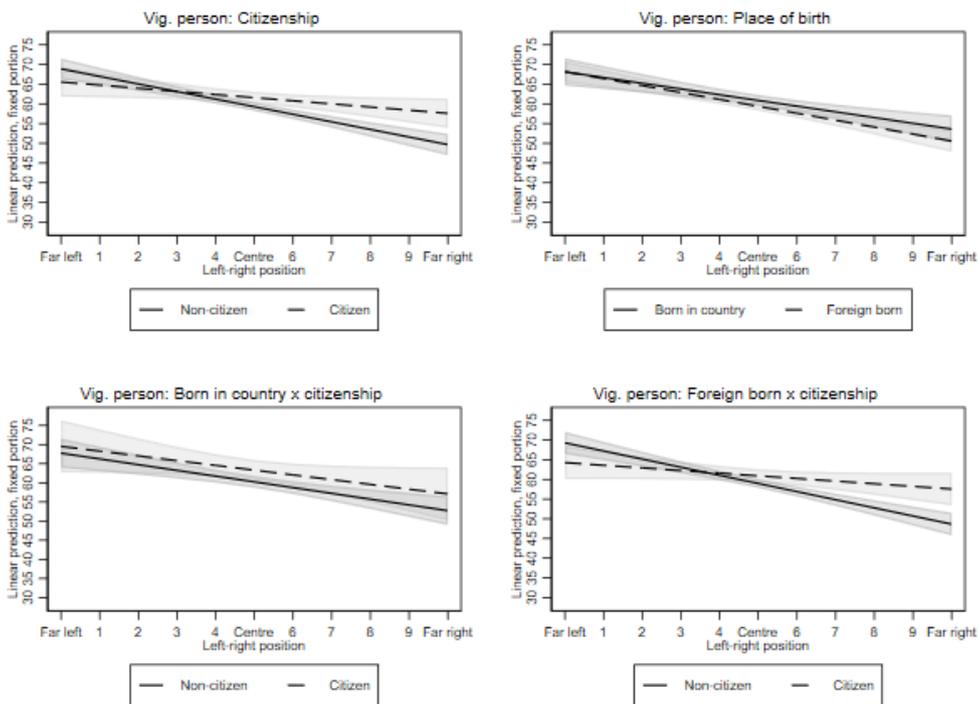
Figure S17 Marginal effect plot of respondent's political views interacted with vignette person characteristics (Swiss sample).

United Kingdom
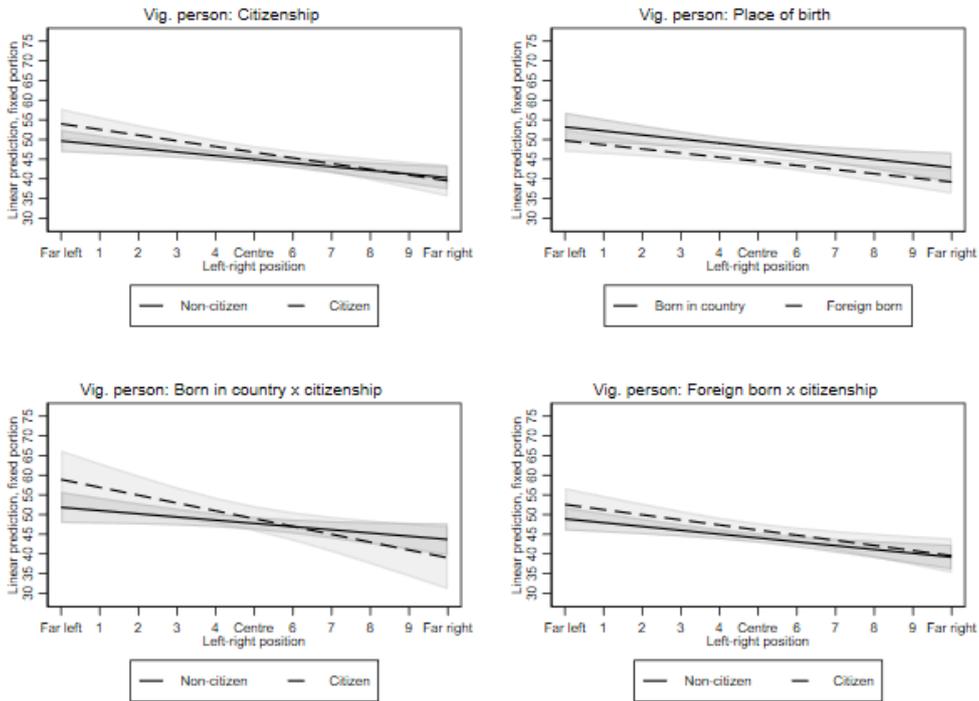
Figure S18 Marginal effect plot of respondent's political views interacted with vignette person characteristics (UK sample).
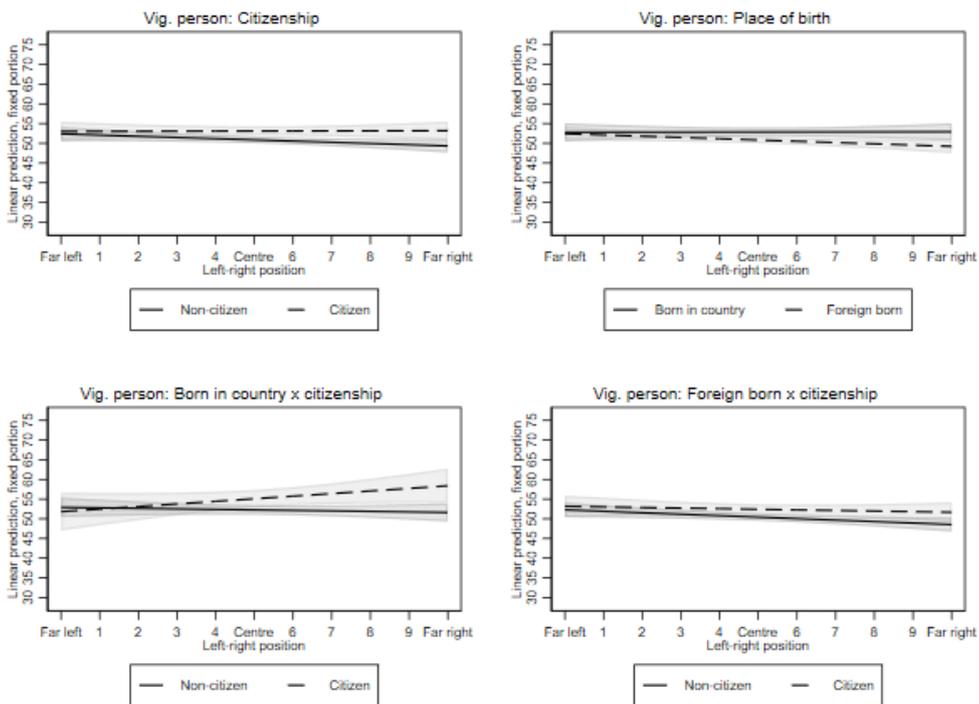
United States

Figure S19 Marginal effect plot of respondent's political views interacted with vignette person characteristics (US sample).

Table S2 Models for all countries												
	Germany		Switzerland		Sweden		Denmark		United Kingdom		United States	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Control												
Religion	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Commute	5.817***	(0.528)	5.416***	(0.797)	8.045***	(0.872)	7.768***	(0.871)	3.801***	(0.815)	3.266***	(0.625)
Overtime	5.700***	(0.529)	4.515***	(0.796)	8.817***	(0.866)	6.686***	(0.870)	3.500***	(0.825)	2.178***	(0.625)
Closure	14.732***	(0.529)	15.387***	(0.804)	17.087***	(0.865)	14.704***	(0.865)	12.766***	(0.824)	14.040***	(0.625)
Reciprocity												
1 year	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
2 years	0.849	(0.525)	0.600	(0.795)	0.563	(0.872)	1.254	(0.863)	-0.326	(0.824)	1.768**	(0.625)
4 years	1.257*	(0.528)	3.357***	(0.795)	-0.976	(0.876)	1.823*	(0.866)	1.042	(0.826)	1.678**	(0.618)
8 years	3.462***	(0.525)	3.466***	(0.816)	1.040	(0.867)	1.638+	(0.867)	2.406**	(0.827)	3.103***	(0.629)
Identity												
Born in country	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
10 years	-1.660**	(0.525)	-0.026	(0.808)	-0.807	(0.858)	-2.688**	(0.871)	-1.776*	(0.833)	-1.531*	(0.628)
5 years	-1.226*	(0.522)	-1.274	(0.801)	-2.100*	(0.870)	-3.567***	(0.871)	-3.345***	(0.838)	-2.260***	(0.628)
2 years	-1.830***	(0.524)	-3.079***	(0.789)	-3.205***	(0.860)	-5.606***	(0.872)	-5.355***	(0.814)	-2.679***	(0.621)
US	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Canadian	-1.241*	(0.594)	-1.864*	(0.914)	-0.929	(0.995)	-3.703***	(0.972)	-1.087	(0.935)	-2.640***	(0.717)
Ukrainian	-2.518***	(0.583)	-2.024*	(0.904)	-1.821+	(0.977)	-2.512**	(0.968)	-1.548+	(0.927)	-1.769*	(0.696)
Afghan	-2.830***	(0.607)	-2.710**	(0.917)	-3.385***	(1.011)	-6.208***	(0.993)	-3.364***	(0.959)	-2.888***	(0.716)
Nigerian	-1.889**	(0.584)	-3.288***	(0.899)	-2.380*	(0.960)	-4.774***	(0.957)	-1.611+	(0.920)	-2.261**	(0.693)
Cleaner	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Lab technician	-0.035	(0.526)	1.632*	(0.804)	-1.407	(0.880)	0.050	(0.880)	-0.844	(0.823)	-0.771	(0.624)
Food engineer	-0.236	(0.531)	1.089	(0.811)	-0.899	(0.891)	-1.336	(0.876)	0.035	(0.829)	-0.358	(0.634)
Accountant	-0.195	(0.530)	1.446+	(0.810)	-0.304	(0.882)	-0.196	(0.865)	-0.891	(0.828)	-1.766**	(0.633)
Female	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Male	-0.517	(0.371)	-0.474	(0.567)	-1.455*	(0.611)	0.004	(0.614)	-1.305*	(0.581)	-1.113*	(0.442)

25 yo	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
40 yo	0.385	(0.446)	1.172+	(0.685)	-0.062	(0.732)	0.184	(0.733)	-0.980	(0.698)	1.677**	(0.528)
55 yo	1.310**	(0.455)	1.337+	(0.685)	0.581	(0.746)	1.251+	(0.749)	0.546	(0.705)	1.793***	(0.540)
Need												
Up to 1 month	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Up to 3 months	-0.701	(0.527)	-2.141**	(0.806)	-1.643+	(0.874)	0.404	(0.860)	-2.471**	(0.826)	-0.285	(0.631)
Up to 6 months	-1.129*	(0.525)	-0.974	(0.805)	-3.231***	(0.872)	0.396	(0.868)	-3.016***	(0.827)	-1.417*	(0.627)
Up to 1 year	-1.149*	(0.524)	-2.677***	(0.796)	-5.002***	(0.861)	-2.017*	(0.866)	-3.864***	(0.829)	-3.017***	(0.624)
Effort												
Not looking	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
looking, sends out 1-2 appl./week	6.453***	(0.532)	7.606***	(0.801)	10.479***	(0.869)	6.463***	(0.871)	7.533***	(0.835)	8.266***	(0.627)
looking, sends out 3-4 appl./week	7.146***	(0.534)	9.419***	(0.814)	10.509***	(0.884)	6.560***	(0.874)	8.199***	(0.846)	8.620***	(0.639)
looking, sends out 5-6 appl./week	7.912***	(0.525)	10.554***	(0.822)	12.468***	(0.865)	7.191***	(0.879)	9.996***	(0.830)	9.599***	(0.625)
Respondents' age	-0.094***	(0.023)	-0.057+	(0.031)	-0.008	(0.035)	-0.058+	(0.035)	-0.157***	(0.036)	-0.187***	(0.025)
Respondents' level of education (low)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Respondents' level of education (middle)	0.627	(0.873)	0.312	(1.539)	4.074*	(1.648)	-0.355	(1.503)	0.772	(1.621)	-4.517	(2.844)
Respondents' level of education (high)	0.197	(1.019)	1.150	(1.650)	4.845**	(1.670)	3.194+	(1.655)	2.454	(1.649)	-3.541	(2.857)
Respondent's gender (female)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Respondent's gender (male)	-1.749*	(0.707)	-3.471**	(1.059)	-1.990+	(1.190)	-1.253	(1.202)	-0.629	(1.170)	2.056*	(0.872)
Respondent's area of living (urban)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Respondent's area of living (rural)	-0.145	(0.873)	-0.972	(1.209)	1.502	(1.753)	0.527	(1.785)	0.342	(1.590)	-4.115***	(1.225)
Respondent born in country	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Respondent not born in country	1.542	(1.571)	1.348	(1.284)	4.740**	(1.801)	4.275	(2.752)	4.919**	(1.797)	1.506	(1.702)
CH German-speaking			0.000	(.)								
CH French-speaking			0.959	(1.215)								
US Non-white											0.000	(.)
US White											-1.266	(1.145)
Constant	52.519***	(1.733)	51.095***	(2.619)	41.685***	(2.984)	48.857***	(2.858)	47.157***	(2.810)	57.200***	(3.243)

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lns1_1_1	2.775***	(0.018)	2.810***	(0.027)	2.924***	(0.026)	2.940***	(0.026)	2.916***	(0.026)	2.951***	(0.018)
lnsig_e	2.754***	(0.010)	2.817***	(0.014)	2.851***	(0.015)	2.843***	(0.015)	2.781***	(0.015)	2.898***	(0.010)
N	8037.000		3900.000		3639.000		3599.000		3543.000		7618.000	
aic	71029.610		34933.341		33015.113		32653.258		31784.106		69674.364	
bic	71267.332		35152.747		33225.895		32863.664		31993.979		69917.204	
ll	-35480.805		-17431.671		-16473.556		-16292.629		-15858.053		-34802.182	
Standard errors in parentheses												
+ p<0.1; * p<0.05;** p<0.01; *** p<0.001												

Table S3 Models for all countries with interaction of "citizenship" and "length of residency"												
	Germany		Switzerland		Sweden		Denmark		United Kingdom		United States	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Control												
Religion	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Commute	5.845***	(0.528)	5.371***	(0.798)	8.109***	(0.873)	7.662***	(0.872)	3.912***	(0.816)	3.248***	(0.625)
Overtime	5.756***	(0.530)	4.535***	(0.796)	8.883***	(0.867)	6.659***	(0.872)	3.570***	(0.827)	2.174***	(0.625)
Closure	14.749***	(0.528)	15.414***	(0.804)	17.126***	(0.866)	14.645***	(0.867)	12.754***	(0.825)	14.014***	(0.625)
Reciprocity												
1 year	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
2 years	0.850	(0.525)	0.626	(0.795)	0.665	(0.872)	1.347	(0.865)	-0.276	(0.825)	1.762**	(0.626)
4 years	1.284*	(0.528)	3.255***	(0.795)	-1.000	(0.878)	1.825*	(0.869)	1.175	(0.828)	1.655**	(0.619)
8 years	3.519***	(0.526)	3.487***	(0.815)	1.125	(0.867)	1.635+	(0.868)	2.531**	(0.827)	3.067***	(0.629)
Identity												
Citizen # Born in country	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Citizen # 10 years	-0.864	(1.259)	-3.272+	(1.958)	0.094	(2.149)	-4.084*	(2.037)	-1.451	(2.096)	-1.984	(1.560)
Citizen # 5 years	-1.842	(1.252)	-1.584	(1.895)	-2.331	(2.224)	-2.694	(2.064)	-1.129	(2.100)	-3.524*	(1.526)
Citizen # 2 years	-0.959	(1.273)	-1.860	(1.890)	-0.286	(2.094)	-6.333**	(2.112)	-6.779**	(2.097)	-3.453*	(1.506)
Non-citizen # Born in country	-1.785+	(1.007)	-3.153*	(1.494)	-0.842	(1.731)	-4.681**	(1.667)	-1.424	(1.735)	-3.186**	(1.234)

Non-citizen # 10 years	-3.687***	(0.976)	-2.295	(1.442)	-1.869	(1.677)	-7.003***	(1.594)	-3.351*	(1.681)	-4.602***	(1.190)
Non-citizen # 5 years	-2.848**	(0.966)	-4.273**	(1.428)	-2.896+	(1.675)	-8.431***	(1.581)	-5.508**	(1.681)	-5.088***	(1.184)
Non-citizen # 2 years	-3.867***	(0.972)	-6.537***	(1.432)	-4.927**	(1.673)	-10.118***	(1.588)	-6.463***	(1.665)	-5.662***	(1.190)
Cleaner	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Lab technician	-0.023	(0.526)	1.618*	(0.803)	-1.367	(0.881)	-0.002	(0.881)	-0.931	(0.822)	-0.782	(0.624)
Food engineer	-0.269	(0.531)	1.053	(0.811)	-0.900	(0.891)	-1.404	(0.876)	-0.063	(0.828)	-0.368	(0.634)
Accountant	-0.233	(0.530)	1.512+	(0.810)	-0.378	(0.883)	-0.388	(0.865)	-0.951	(0.826)	-1.799**	(0.633)
Female	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Male	-0.529	(0.371)	-0.518	(0.567)	-1.442*	(0.612)	-0.045	(0.615)	-1.325*	(0.582)	-1.087*	(0.443)
25 yo	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
40 yo	0.357	(0.444)	1.021	(0.681)	-0.080	(0.730)	0.284	(0.732)	-0.909	(0.697)	1.711**	(0.527)
55 yo	1.290**	(0.451)	1.305+	(0.683)	0.551	(0.744)	1.280+	(0.748)	0.503	(0.704)	1.847***	(0.538)
Need												
Up to 1 month	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Up to 3 months	-0.668	(0.527)	-2.218**	(0.805)	-1.739*	(0.874)	0.465	(0.862)	-2.545**	(0.825)	-0.272	(0.631)
Up to 6 months	-1.107*	(0.525)	-1.036	(0.805)	-3.270***	(0.873)	0.389	(0.870)	-3.076***	(0.828)	-1.395*	(0.627)
Up to 1 year	-1.092*	(0.524)	-2.738***	(0.796)	-5.055***	(0.862)	-1.925*	(0.868)	-3.922***	(0.829)	-3.003***	(0.625)
Effort												
Not looking	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
looking, sends out 1-2 appl./week	6.444***	(0.532)	7.665***	(0.800)	10.470***	(0.870)	6.538***	(0.873)	7.612***	(0.837)	8.281***	(0.627)
looking, sends out 3-4 appl./week	7.134***	(0.534)	9.471***	(0.814)	10.455***	(0.886)	6.659***	(0.876)	8.237***	(0.847)	8.632***	(0.640)
looking, sends out 5-6 appl./week	7.899***	(0.525)	10.638***	(0.821)	12.497***	(0.866)	7.265***	(0.881)	10.003***	(0.831)	9.592***	(0.625)
Respondents' age	-0.094***	(0.023)	-0.057+	(0.031)	-0.008	(0.035)	-0.059+	(0.035)	-0.157***	(0.036)	-0.187***	(0.025)
Respondents' level of education (low)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Respondents' level of education (middle)	0.614	(0.874)	0.368	(1.539)	4.092*	(1.648)	-0.376	(1.505)	0.829	(1.621)	-4.513	(2.844)
Respondents' level of education (high)	0.170	(1.019)	1.222	(1.649)	4.870**	(1.670)	3.206+	(1.656)	2.519	(1.649)	-3.523	(2.857)
Respondent's gender (female)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)

	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Respondent's gender (male)	-1.741*	(0.707)	-3.479**	(1.059)	-1.983+	(1.190)	-1.234	(1.204)	-0.671	(1.170)	2.050*	(0.872)
Respondent's area of living (urban)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Respondent's area of living (rural)	-0.158	(0.873)	-0.994	(1.209)	1.433	(1.754)	0.650	(1.788)	0.362	(1.589)	-4.117***	(1.225)
Respondent born in country	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)	0.000	(.)
Respondent not born in country	1.488	(1.572)	1.338	(1.283)	4.710**	(1.802)	4.239	(2.755)	4.897**	(1.796)	1.514	(1.702)
CH German-speaking			0.000	(.)								
CH French-speaking			0.947	(1.214)								
US Non-white											0.000	(.)
US White											-1.256	(1.145)
Constant	52.270***	(1.869)	51.605***	(2.801)	40.675***	(3.234)	49.187***	(3.087)	46.788***	(3.105)	57.799***	(3.359)
lns1_1_1	2.775***	(0.018)	2.810***	(0.027)	2.924***	(0.026)	2.940***	(0.026)	2.915***	(0.026)	2.951***	(0.018)
lnsig_e	2.755***	(0.010)	2.817***	(0.014)	2.852***	(0.015)	2.845***	(0.015)	2.782***	(0.015)	2.899***	(0.010)
N	8037.000		3900.000		3639.000		3599.000		3543.000		7618.000	
aic	71034.920		34929.885		33017.428		32665.981		31786.095		69676.221	
bic	71272.642		35149.290		33228.210		32876.387		31995.968		69919.060	
ll	-35483.460		-17429.942		-16474.714		-16298.990		-15859.048		-34803.110	
Standard errors in parentheses												
+ p<0.1; * p<0.05;** p<0.01; *** p<0.001												

Table S4 Models for all country with interaction of "citizenship" and "place of birth"												
	Germany		Switzerland		Sweden		Denmark		United Kingdom		United States	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Control												
Religion	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Commute	5.855***	-0.528	5.437***	-0.8	8.100***	-0.873	7.722***	-0.875	3.884***	-0.819	3.241***	-0.625

Overtime	5.739***	-0.529	4.518***	-0.799	8.822***	-0.868	6.640***	-0.874	3.606***	-0.829	2.150***	-0.625
Closure	14.775***	-0.528	15.389***	-0.807	17.075***	-0.867	14.632***	-0.869	12.772***	-0.828	13.995***	-0.625
Reciprocity												
1 year	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
2 years	0.84	-0.525	0.64	-0.798	0.692	-0.874	1.283	-0.868	-0.281	-0.827	1.754**	-0.625
4 years	1.287*	-0.528	3.257***	-0.797	-0.949	-0.879	1.868*	-0.871	1.114	-0.831	1.641**	-0.619
8 years	3.524***	-0.526	3.515***	-0.817	1.125	-0.869	1.577+	-0.87	2.562**	-0.83	3.051***	-0.629
Identity												
Citizen # Born in country	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Citizen # Foreign born	-1.214	-1.033	-2.256	-1.547	-0.835	-1.783	-4.290*	-1.7	-3.163+	-1.776	-3.039*	-1.265
Non-citizen # Born in country	-1.741+	-1.007	-3.149*	-1.498	-0.872	-1.735	-4.690**	-1.672	-1.501	-1.742	-3.181**	-1.234
Non-citizen # Foreign born	-3.447***	-0.903	-4.426***	-1.333	-3.261*	-1.572	-8.516***	-1.481	-5.179**	-1.588	-5.120***	-1.111
Cleaner	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Lab technician	-0.033	-0.526	1.614*	-0.807	-1.301	-0.882	0.02	-0.883	-0.904	-0.825	-0.784	-0.624
Food engineer	-0.277	-0.531	1.071	-0.813	-0.752	-0.892	-1.521+	-0.877	-0.099	-0.831	-0.376	-0.635
Accountant	-0.21	-0.53	1.418+	-0.812	-0.259	-0.884	-0.526	-0.866	-1.031	-0.83	-1.779**	-0.633
Female	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Male	-0.524	-0.371	-0.458	-0.569	-1.440*	-0.613	-0.07	-0.617	-1.345*	-0.584	-1.064*	-0.442
25 yo	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
40 yo	0.375	-0.444	1.007	-0.683	-0.08	-0.731	0.265	-0.734	-1.059	-0.699	1.713**	-0.527
55 yo	1.296**	-0.451	1.355*	-0.685	0.542	-0.745	1.341+	-0.749	0.547	-0.706	1.854***	-0.538
Need												

Up to 1 month	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Up to 3 months	-0.654	-0.527	-2.092**	-0.808	-1.794*	-0.875	0.495	-0.864	-2.559**	-0.829	-0.267	-0.631
Up to 6 months	-1.113*	-0.525	-1.122	-0.807	-3.309***	-0.874	0.454	-0.873	-3.057***	-0.831	-1.422*	-0.627
Up to 1 year	-1.091*	-0.524	-2.708***	-0.798	-5.096***	-0.863	-1.927*	-0.87	-4.083***	-0.831	-3.019***	-0.624
Effort												
Not looking	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
looking, sends out 1-2 appl./week	6.481***	-0.532	7.644***	-0.803	10.546***	-0.871	6.611***	-0.874	7.481***	-0.839	8.303***	-0.627
looking, sends out 3-4 appl./week	7.151***	-0.534	9.425***	-0.817	10.543***	-0.887	6.602***	-0.879	8.096***	-0.85	8.624***	-0.64
looking, sends out 5-6 appl./week	7.919***	-0.525	10.531***	-0.824	12.642***	-0.866	7.363***	-0.882	9.917***	-0.833	9.597***	-0.625
Respondents' age	-0.094***	-0.023	-0.057+	-0.031	-0.008	-0.035	-0.059+	-0.035	-0.157***	-0.036	-0.187***	-0.025
Respondents' level of education (low)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Respondents' level of education (middle)	0.631	-0.874	0.288	-1.538	4.124*	-1.648	-0.363	-1.503	0.789	-1.622	-4.519	-2.844
Respondents' level of education (high)	0.189	-1.019	1.147	-1.648	4.830**	-1.67	3.190+	-1.654	2.513	-1.65	-3.531	-2.857
Respondent's gender (female)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Respondent's gender (male)	-1.732*	-0.707	-3.416**	-1.058	-2.000+	-1.19	-1.278	-1.202	-0.606	-1.171	2.044*	-0.872
Respondent's area of living (urban)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Respondent's area of living (rural)	-0.149	-0.873	-0.941	-1.208	1.415	-1.754	0.618	-1.785	0.312	-1.591	-4.107***	-1.224
Respondent born in country	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)	0	(.)
Respondent not born in country	1.499	-1.572	1.327	-1.282	4.757**	-1.801	4.232	-2.752	4.786**	-1.798	1.514	-1.702
CH German-speaking			0	(.)								
CH French-speaking			0.953	-1.214								
US Non-white											0	(.)
US White											-1.256	-1.145

Constant	52.186***	-1.869	51.686***	-2.804	40.570***	-3.236	49.197***	-3.087	47.056***	-3.111	57.816***	-3.359
lns1_1_1	2.775***	-0.018	2.808***	-0.027	2.923***	-0.026	2.937***	-0.026	2.915***	-0.026	2.951***	-0.018
lnsig_e	2.755***	-0.01	2.821***	-0.014	2.854***	-0.015	2.849***	-0.015	2.787***	-0.015	2.899***	-0.01
N	8037		3900		3639		3599		3543		7618	
aic	71030.53		34942.79		33020.27		32671.42		31801.67		69671.99	
bic	71240.29		35137.12		33206.26		32857.07		31986.85		69887.07	
ll	-35485.3		-17440.4		-16480.1		-16305.7		-15870.8		-34805	
Standard errors in parentheses												
+ p<0.1; * p<0.05;** p<0.01; *** p<0.001												