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ABSTRACT

This article uses an original survey experiment to assess whether the social and employment rights available to refugees affects the openness of citizens in receiving countries to greater refugee flows. Some authors have argued that more extensive rights for immigrants make citizens more reluctant towards immigration flows. We test this argument in the context of the reception of Ukrainian refugees in the United Kingdom. Our results show that exposing individuals to information on the welfare entitlements of refugees does have a small negative effect (about −0.53 on average on a 0–10 scale) on their openness to greater refugee flows. Meanwhile, exposing individuals to information on the ability of refugees to work and possibly contribute to the economy has no discernible positive effect on openness to refugee flows. The impact of the treatments is strongly conditioned by pre-existing views on immigration: the negative effect of information on welfare entitlement is more than three times larger among respondents who held already negative views of immigration.

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Welfare state; immigration; asylum policy; Ukraine; public opinion

Introduction

The flow of refugees fleeing the war in Ukraine after the Russian invasion of February 2022 has been the largest exodus of forced migrants in Europe in decades. By October 2023, 6.2 million refugees from Ukraine had been recorded globally (UNHCR 2022). In Europe, particularly in Poland, large numbers of individuals, mostly women, children and elderly people, had to be resettled and supported. These large refugee flows raised the question of popular acceptance in a potentially fraught political and economic context. For decades, policymakers in receiving countries have been concerned with the resistance of public opinion vis-à-vis incoming refugee flows (IPSOS 2019; Ivarsflaten 2005). The rise in inflation and the additional demands that these flows have placed on public services may have enhanced these concerns despite the large wave of solidarity towards

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Ukrainians observed in Europe. In general, there are many arguments against subordinating asylum policy, which should respond to need and humanitarian concerns, to public opinion, which may be dictated by superficial cues and stereotypes. However, it is difficult for any policy to ignore public concerns.

In this context, it is important to understand the factors that can influence openness towards refugee flows in receiving countries, for instance through measures of policy design. A common fear among citizens in receiving countries is that refugee flows can constitute an economic and welfare burden for host societies. A survey conducted in 2019 in 26 countries showed for instance that 54% of respondents agreed with the statement that 'most foreigners […] who want to migrate as refugees really aren't refugees' and 'just want to come here for economic reasons, or to take advantage of our welfare services' (IPSOS 2019). To address these fears, some authors have wondered whether restricting the social rights of migrants may lead citizens in receiving countries to accept more of them (Milanovic 2016, 2019, 142; Ruhs 2015). This argument assumes that there is a negative relationship between the (social) rights of migrants – and thereby their potential cost to the public purse – and the size of immigration flows that citizens in receiving countries are willing to accept. While this argument sounds coherent, the assumption that there is a trade-off between *rights* and *numbers* at the individual level is still an open empirical question.

In this article, we test this argument within the context of UK policy toward Ukrainians fleeing their country after the Russian invasion of 2022. This case is an interesting place to look for evidence of the rights-numbers trade-off, since the UK stance features restrictive entry rights and generous social rights. Unlike the EU, the UK has required visas for Ukrainian refugees to be obtained through a number of schemes (Ukraine Family Scheme, Homes for Ukraine, Ukraine Extension Scheme). It has let in fewer Ukrainians per capita than almost any other European country. However, compared to other migrants to the UK, Ukrainians have enjoyed more generous social rights. Upon arrival, they were entitled to a range of income-related welfare benefits and have the right to work provided they comply with the usual requirements (paying taxes, payroll contributions).

At the same time, UK public opinion may be less sensitive to cost considerations for Ukrainians compared to other asylum seekers. Existing research has shown that fleeing conflict is considered one of the most legitimate motives for migration (Bansak, Hainmueller, and Hangartner 2016). Moreover, the salience of the conflict with Russia and a strong level of sympathy for Ukraine in European countries in the first months of the war may have softened public opinion, especially compared to previous refugee waves or irregular migrants (Yougov 2022). Thus, if we find evidence of the trade-off in this case, we can reasonably expect it to be stronger for economic and irregular migrants or refugees from outside Europe.

In our experiment, respondents are exposed to different pieces of information on current UK policy, regarding welfare rights, work obligations, or both. By providing information about existing policy measures, we differ from existing research which presents hypothetical policy packages (see, e.g. Helbling, Maxwell, and Traunmüller 2023). Respondents are then asked about their preferences on the number of visas that should be granted. We find that exposing respondents to information about the welfare entitlement of Ukrainian refugees does have a small negative impact on the number of refugees

citizens are willing to accept. This effect is stronger among people with already negative views about immigration.

The contribution of this article is twofold. First, while there has been a burgeoning literature on the impact of immigration on welfare and redistribution preferences in recent years (Afonso and Devitt 2016; Alesina, Miano, and Stantcheva 2018; Avdagic and Savage 2021; Brady and Finnigan 2014; Schmidt-Catran and Spies 2016), the relationship in the opposite direction needs to be further explored, namely how welfare state arrangements shape immigration policy preferences. Second, this paper also contributes to the literature on the multidimensionality of immigration policy preferences. Whereas a great deal of research has looked at the determinants of these preferences, only recently did research look at the *conditionality* of these preferences: individual attitudes towards immigration closure or openness may be conditional on a number of factors, such as the characteristics of immigrants (Bansak, Hainmueller, and Hangartner 2016; Ford 2011) or the characteristics of immigration policies themselves (Helbling, Maxwell, and Traunmüller 2023). This article contributes to the latter body of research by asking whether admission preferences are conditioned on the social rights granted to immigrants upon arrival (Fox 2017; Römer 2017; Sainsbury 2012).

The (social) rights/numbers trade-off in in refugee policy

One of the important political dilemmas in the organisation of refugee policy is reconciling the humanitarian needs of refugees with the political tolerance of host countries, which is usually perceived as tenuous. On the one hand, wars and other humanitarian disasters create large refugee flows and exacerbate the need for countries at peace to offer safe refuge and honour their humanitarian commitments. On the other hand, there needs to be some basic level of acceptance among citizens in receiving countries towards these refugee flows (Bansak, Hainmueller, and Hangartner 2016). Some argue that not accommodating concerns about immigration can feed resentment and stimulate ever increasing demands for restriction (Kaufmann 2018).

In many countries, immigration is perceived as disruptive and therefore faces a great deal of political opposition. Research has shown that restrictive asylum and immigration policies are widely popular, at least in the abstract, because of concerns relating, for instance, to national identity (Ivarsflaten 2005; Louis et al. 2007). However, recent research has also shown that admission preferences are not absolute but conditional on a number of factors. For instance, the potential contribution of asylum seekers to the economy of the receiving country plays a non-negligible role in shaping preferences towards applicants for asylum (Bansak, Hainmueller, and Hangartner 2016). The individual characteristics of the refugees, such as their employment potential, have been found to be important factors in shaping the readiness of citizens in receiving countries to accept them. Controlling for motives for migration as well as a number of other individual factors, Bansak, Hainmueller, and Hangartner (2016) have shown that asylum applicants with higher professional status are rated as more 'acceptable' to grant them asylum.

However, these individual factors cannot be really manipulated by receiving countries, and are therefore of limited use for policy reform. Moreover, using them as selection criteria in asylum policy (e.g. accepting only refugees that are 'tolerable' for local populations or come only from specific countries) is highly problematic and can raise

serious ethical problems. The purpose of asylum policy is to provide shelter to people fleeing war or oppression, and admission criteria should be based on their motives for claiming asylum rather than their education, ethnic origin or 'acceptability' among the receiving population (Gibney 2018).

If the characteristics of asylum seekers who seek refuge are largely beyond the control of receiving states, the rights granted to them post-entry are not, at least within the constraints of international law. And these rights, applying to all refugees independently of individual characteristics, can also impact the admission preferences of citizens. Helbling, Maxwell, and Traunmüller (2023) find for instance that admission preferences in immigration policy are conditional on immigrant rights: respondents favourable to immigration are ready to accept smaller numbers if more rights post-entry are granted to immigrants. Among this set of rights once in the country, access to the social safety net is especially relevant in the case of asylum seekers. Because of their motives for migration, asylum seekers may find it especially difficult to integrate in local labour markets and may therefore be more likely to depend on the welfare system (Cholewinski 1999; Vandevoordt and Verschraegen 2019).

For citizens in receiving countries, the welfare entitlement of immigrants may be perceived as a source of greater fiscal burden. Spencer and Pobjoy (2011, 37) argue for instance that cost considerations are the primary rationale used by the UK government to restrict immigrant rights, for instance when it comes to family reunion or access to public services such as healthcare or education. Ruhs (2015) and Ruhs and Martin (2008) argue that there is a trade-off between numbers and rights in labour migration policy: countries can only uphold open labour migration policies if the rights of migrants (and their potential cost) are limited.

Could this trade-off also apply to asylum seekers? Admittedly, asylum seekers and economic migrants are different. The public also tends to view them differently (Abdelaaty and Steele 2022), albeit somewhat ambivalently: while Bansak, Hainmueller, and Hangartner (2016) find that fleeing conflicts is seen as more acceptable grounds for migration than economic motives, Meidert and Rapp (2019) find that refugees are seen more negatively than (European Union) labour migrants in Germany. Nonetheless, considering their higher risk of welfare dependency in host societies, there is reason to believe that the trade-off logic could apply to asylum seekers as well. The implication would be that granting more (social, civil and political) rights to asylum seekers would generate greater public opposition, and because policymakers are usually sensitive to voter concerns, could also reduce the actual number of admitted asylum seekers. If extensive welfare entitlement reduced the number of asylum seekers able to leave conflict areas, this could be considered a suboptimal policy outcome.

However, this specific assumption has yet to be tested empirically. Here, we probe the logic that citizens will be more reluctant to admit larger numbers of refugees if these refugees enjoy greater access to welfare benefits by testing our first hypothesis in an experimental setting:

> H1: Informing residents of receiving countries that refugees have access to welfare benefits decreases their preferred number of refugees to be admitted.

The flip side of this logic is articulated by Milanovic (2019, 142ff.), who argues that restricting migrant rights would allow for greater openness. This could happen through an

unbundling of the right to stay and work in a rich country, on the one hand, and the full range of rights enjoyed by its citizenry, on the other. In Milanovic's view, this would help deliver the economic potential of international migration by making it politically more acceptable in rich countries. More openness would come at the price of fewer (social) rights, assuming that individual attitudes are mostly driven by cost considerations.

Can openness preferences be swayed both positively or negatively?

So far, we have hypothesised that immigration preferences can become more restrictive as the social rights, and therefore potential cost to taxpayers, of refugee flows increase. However, it is also important to know whether these preferences can be swayed towards more openness as well, for instance when there is an expectation of a potential fiscal benefit. We can cautiously expect a migrant's right to work to send such a signal to taxpayers, possibly making citizens more willing to accept larger numbers of refugees.

Although many European countries impose employment bans of varying lengths on asylum seekers, there are numerous benefits to refugees' right to work. First, labour market entry enables refugees' financial autonomy in the host country. Marbach, Hainmueller, and Hangartner (2018) have shown that restricting the right to work of asylum seekers has lasting negative effects on their integration and employment prospects, besides creating large financial burdens for host societies in terms of welfare expenditures and foregone tax revenues. Second, the right of labour market access signals a contribution to the host country's economy and the potential to reciprocate the support given to them. Concerns about reciprocity are known to underlie preferences about granting immigrants access to welfare (Van Oorschot 2006). These concerns may also percolate into immigration preferences. Emmenegger and Klemmensen (2013) illustrate this using data from the European Social Survey. They find that among proponents of income redistribution, those who place a premium on reciprocity tend to be more opposed to immigration. Given that immigrants are often accused of freeriding on the welfare state of host societies, we expect that information indicating the right to contribute will have a positive effect on respondents' openness.

> H2 (reciprocity hypothesis): Informing residents of receiving countries that refugees have access to the labour market and are subject to similar obligations as normal residents in terms of taxes increases their preferred number of refugees to be admitted.

There are reasons, however, to be cautious in our expectations about the effect of the right to work on admission preferences. First, the right to work may not be unambiguously perceived as a vector of reciprocity, but rather as a privilege given to immigrants. Second, it may be perceived as an unwelcome source of competition on the labour market. Hence, expectations about this hypothesis are less straightforward than for the first hypothesis.

Negativity bias

In the real world, individuals may be exposed to information about refugee access to both the labour market and welfare. As such, it is also of interest to understand how their preferences are affected by information about both of these dimensions. One potential expectation may be that the effects of these rights cancel each other out. That is, the negative effects of information about costs are offset by the potential positive effects of

information about benefits. However, we have reasons to expect that this will not be the case. Other research using experimental evidence has shown that economic considerations of cost are not straightforward. Avdagic and Savage (2021) find that negative frames about the fiscal contributions of immigrants do have a negative impact on attitudes towards redistribution, but that positive frames do not necessarily have a positive impact. They reason that this may be due to a *negativity bias*, whereby individuals are more attentive to negative information. Their argument relies on prospect theory, which holds that people attach greater weight to potential losses than potential benefits, leading them to be loss-averse (Tversky and Kahneman 1991). As such, insofar as rights affect preferences, we expect individuals to be more attentive to the potential costs than benefits. Our final hypothesis thus reads as follows.

> H3 (negativity bias hypothesis) informing citizens that refugees have access to the labour market and welfare benefits decreases their preferred number of refugees to be admitted.

Finally, it might be that different categories of citizens interpret the welfare entitlements of asylum seekers differently. We can expect individuals who have more negative views about immigration to be more sensitive to its possible cost.

We should note that a great deal of research has shown that cultural factors, more than economic considerations, shape attitudes towards immigration, and that concerns about the impact of immigration on national culture tend to be more powerful predictors of immigration attitudes than pure economic interests (Hainmueller and Hopkins 2014). Concerns about labour market competition have been found to play only a small role in the formation of immigration preferences. Hence, it might well be that individuals have fixed preferences about the appropriate number of asylum seekers and these preferences cannot be swayed by the rights of migrants, their welfare entitlements or considerations of possible costs.

Method and data

In this article, we tested the relationship between rights and openness using a factorial survey experiment. A number of studies have looked at connected issues using observational designs. Kulin, Eger, and Hjerm (2016) find that 'supporting both immigration and welfare is unlikely', meaning that people may internalise the trade-off between immigration openness and social rights. A common drawback, however, is an inability to rule out potential reverse causality: they cannot show that welfare arrangements *cause* more restrictive immigration attitudes. A small number of studies have broached the topic using experimental designs with an eye to addressing the endogeneity problem. Helbling, Maxwell, and Traunmüller (2023) tested whether German citizens' preferences about the openness of immigration policy depends on their rights post-entry. Their study however uses fictional policy reform proposals and may therefore face issues of external validity. Here, we chose to use information on a little-known but real policy to test the causal impact of rights on openness.

UK policy on Ukrainian refugees

On 3 March 2022, EU ministers of justice and home affairs unanimously agreed to grant residence and working rights to Ukrainian refugees, making unprecedented recourse to a

2001 Temporary Protective Directive. In contrast, the UK required Ukrainians to apply for, and receive, a visa prior to entry into the UK. They could do so by applying at a Visa Application Center (VAC), all of which were closed in Ukraine at the time of writing,[1] or by applying via two special schemes, the Ukraine Family Scheme (introduced March 1) or the Homes for Ukraine Scheme (open for applications as of March 18). The former was intended for Ukrainians who had family members living in the UK. The latter enables residents of the UK to sponsor Ukrainian refugees by providing lodging (free of charge) for at least six months, in exchange for a stipend of £350 per month. The applications for both are online, but need to be supplemented with a visit to a VAC if the applicant does not have a valid Ukrainian passport at the time of application.

Successful entry under either scheme guarantees immediate access to Universal Credit – a means-tested, tax-financed encompassing welfare payment that replaced a number of sectoral welfare payments (Millar and Bennett 2017) – as well as job support, housing benefits, pension credits and childrens' disability allowance (Department for Work and Pensions 2022). Other asylum seekers in the UK must wait up to three months before being able to receive income-related benefits. It is important to highlight that this specific measure was not very publicised, and not widely known to the public.[2]

According to government statistics, the total number of visas granted under both schemes was 124.400 (out of 154.500 applications) as of 7 June 2022 (Gov.uk 2024). The UK has repeatedly come under fire, including by the government's own party members, for the cumbersome application process required of refugees and the slow processing times. Of the seven million refugees fleeing Ukraine, the UK had taken in fewer per capita than all but one of 28 EU countries, with Germany accepting some 8.7 times as many (Home Office 2022). We used these characteristics to look at the impact of exposing individuals to information about different characteristics of the scheme on openness preferences.

Study design

The advantage of a factorial survey where treatment is randomly assigned to a representative sample is that it combines advantages of experimental and observational research designs. Concretely, this method should be externally and internally valid (Auspurg and Hinz 2014). As the treatment assignment was randomised, there should not be any confounders. The sampling procedure in turn ensures that our findings, within a set of limitations, can be generalised to the broader population from which our sample was obtained.

We conduct a between-subjects vignette experiment. This means that each individual is exposed to 1 treatment only (Aguinis and Bradley 2014, 360). We opted for a vignette over a conjoint design for two reasons. First, presenting policy packages with various combinations of welfare and work rights could clue our respondents into our variables of interest and heighten the risk of social desirability bias. Second, because we were interested in seeing how the theory of the rights-numbers trade-off fares in a real world context, and because of ethical concerns of treating respondents with false information about an ongoing crisis, we opted against hypothetical policy packages that a conjoint experiment would have required. However, our third treatment, which combines

information about both welfare and work rights, has some advantage that conjoint experiments offer (of more accurately mimicking how individuals receive data in the real world).

Respondents are randomly assigned into one of four groups. The first group receives no treatment (apart from some anchoring information) before the outcome variable is measured, and serves as the baseline group. The second group receives the welfare access treatment. The third group receives the labour market treatment and the fourth group is presented with both the labour market and welfare treatment. No further details about individual-level migrant characteristics (e.g. gender, age or skills) are provided as our sample size was unable to accommodate further variation, and we were primarily interested in the impact of rights. Therefore, our study cannot speak to the impact of individual-level migrant characteristics that may influence their perceived deservingness.

We estimate linear regression models using ordinary least squares (OLS) and robust standard errors to correct for potential heteroscedasticity. We estimate models based on Equation (1). Each individual i is randomly assigned to one of the four groups j. The outcome Y for individual i, namely the preferred number of visas for Ukrainians fleeing war, is a function of the treatment they received and the other covariates.

$$\mathrm{Yi} = \alpha 1 + \beta 1 \mathrm{treatment\ j} + \beta 2 \mathrm{Controls} + \varepsilon \mathrm{i} \quad (1)$$

Sample

We fielded our survey experiment on a sample of 1203 individuals representative of the UK population in terms of age, gender and ethnicity through the platform Prolific academic between 31 May and 2 June 2022. The study was pre-registered on the Open Science Foundation Platform.[3] Prior to the analysis, we ran a power analysis with parameters to detect a 0.5 variation on a 10-point scale and a standard deviation of 2 (see below for details of our dependent variable), which indicated a minimum sample size of 253 per group. We ran it with 300 individuals per treatment group. Comparing sample characteristics to data from the office of national statistics, the sample is representative by gender, age and ethnicity but displayed an over-representation of highly-educated people (BA degrees and higher) and an under-representation of individuals with lower levels of education (GCSE and lower) compared to the distribution in the UK population. Admittedly, this can be a problem in terms of external validity given that education has been found to be one of the major drivers of immigration attitudes (Hainmueller and Hiscox 2007; Hainmueller and Hopkins 2014). To address this, we constructed weights for education that rebalanced the sample more in line with the UK population and increase external validity, which we present in the appendix. We use the unweighted results in our primary analysis.

Dependent variable

Our dependent variable is the preferred number of visas to be extended to Ukrainian asylum seekers. The question is phrased as follows:

> Assuming that the conflict continues, how many additional visas do you think the UK should grant Ukrainians fleeing the war in the next 3 months? Answer on this scale

> where 0 means "much fewer visas than in the last 3 months" and 10 "many more visas than in the last 3 months"

This is measured on a scale that ranges from 0 to 10, where 5 is the mid-way option and indicates a preference for giving out roughly the same number visas as in the preceding three months, 0 and 10 indicate far fewer and far more visas than the present number, respectively.

Treatments

Each group – including the control group – receives the same information regarding the number of visas extended to Ukrainian refugees in the preceding 3 months. The anchoring information was provided as follows to all respondents:

> As you may know, the war in Ukraine has led many Ukrainians to flee their country and seek refuge in other European countries. Since 24 February 2022, nearly 6,7 million Ukrainians have left their country. In order to come to the UK, Ukrainians need a valid visa. As of 24 May 2022, about 115,000 visas for Ukrainian refugees have been issued by the UK Government. 60,000 Ukrainian visa holders have now arrived in the UK

While respondents in the control group t0 were asked directly about the preferences on refugee numbers, respondents in groups t1, t2 and t3 were exposed to the following information, respectively:

Treatment 1: Welfare. *'Under current government policy, Ukrainians arriving in the UK with a valid visa can claim Universal Credit (UC) immediately. Universal Credit is a tax-funded benefit to support people on low incomes, out of work or unable to work. The monthly standard UC allowance for a single person over 24 is £334.91, with an additional £244 for each dependent child, as well as payments to help with housing costs if necessary'.*

Treatment 2: Work. *'Under current government policy, Ukrainians arriving in the UK with a valid visa have the right to work as soon as they arrive. When employed, they have a responsibility to pay the right amount of income tax and national insurance contributions, like other UK residents'.*

Treatment 3: Work and welfare. *Under current government policy, Ukrainians arriving in the UK with a valid visa have the right to work as soon as they arrive. When employed, they have a responsibility to pay the right amount of income tax and national insurance contributions, like other UK residents.*

Ukrainians arriving in the UK with a valid visa can also claim Universal Credit (UC) immediately. Universal Credit is a tax-funded benefit to support people on low incomes, out of work or unable to work. The monthly standard UC allowance for a single person over 24 is £334.91, with an additional £244 for each dependent child, as well as payments to help with housing costs if necessary.

The welfare treatment t1 indicates the social rights Ukrainian refugees will have upon entry. The labour market treatment t2, signals that Ukrainian refugees can work on equal terms as UK natives, as well as pay the same taxes and social contributions. Treatment t3 combines these two treatments.

Covariates

We include several covariates in our models. Because the treatment is randomised, these variables are not expected to affect the effect of our treatment. However, including them may increase the precision of our estimates (Mutz 2011, 124) and also allow us to investigate potential effect heterogeneity.

We first include common demographic characteristics. These include age, gender (male, female, non-binary/other). We also take into account a number of socio-economic variables. We measure *education level* differentiating between low, medium and highly educated individuals[i]. We also include a measure of *personal income* before tax with a five-point categorical variable that ranges from: (1) less than £17,400; (2) between £17,400 and £22,700; (3) between £22,700 and £30,100; (4) between £30,100 and £43,700 £; and (5) more than £43,700. This corresponds to 5 quintiles for 2019–2020 as indicated by HM Revenue and Customs.[4]

In addition to demographic and socio-economic variables, we also consider attitudes and political preferences of our respondents. We include a measure of *ideological self-placement* utilising a measure of where a respondent places themselves on a left-right scale where 0 represents very left-wing and 10 represents very right-wing. For *party preference*, we take a question asking respondents who they would vote for if an election were to take place today. We also have a question that relates to an individual's *attitudes about immigration's impact on the host country* (0–10), where higher values indicate a more positive outlook on the impact of immigration. To gauge *support for redistribution*, we relied on a question measured on a 10-point scale asking respondents to indicate the extent of agreement with the statement that redistribution has to be ramped up. Lastly, we include a measure of *region of residence*.[5]

Results

We conducted a balance check to see if the randomisation of treatment assignment proceeded as planned. The groups are balanced with respect to most covariates. As for descriptives, it is interesting to note that both views about immigrants' impact on the host country and openness to Ukrainian refugees were fairly favourable in the sample. The median value of the dependent variable is a 6 on the 0–10 point scale, meaning that the median respondent in the sample wants a greater take-up of refugees from Ukraine. On a 0–10 scale measuring whether people think that immigration is bad or good, the median answer is a 7, meaning a fairly pro-immigration sample. This needs to be taken into account while interpreting the results.

The results are presented in Figure 1 (Table with underlying coefficients in the Appendix), showing coefficient plots for our baseline model (m1), a model including socioeconomic characteristics (m2) and a model including all covariates, including both socioeconomic and attitudinal variables (m3). All models shown include robust standard errors.

We start with our baseline model, which contains only our treatments (Model 1). We find here that informing individuals about the welfare rights of Ukrainian refugees (H1) has a negative effect that is statistically significant, albeit not at the highest level. The effect is about −0.53 on a scale from 0 to 10 (−0.085 standard deviations). There is thus some evidence that the welfare rights of refugees are in tension with preferences regarding openness. Providing information about Ukrainian refugees' rights to work doesn't have a statistically significant effect on attitudes towards openness (H2), which raises the question of whether this 'positive' treatment was really considered as such by respondents, as we will discuss later. Finally, our work and welfare treatment has a negative sign but fails to reach statistical significance. There is some evidence of a

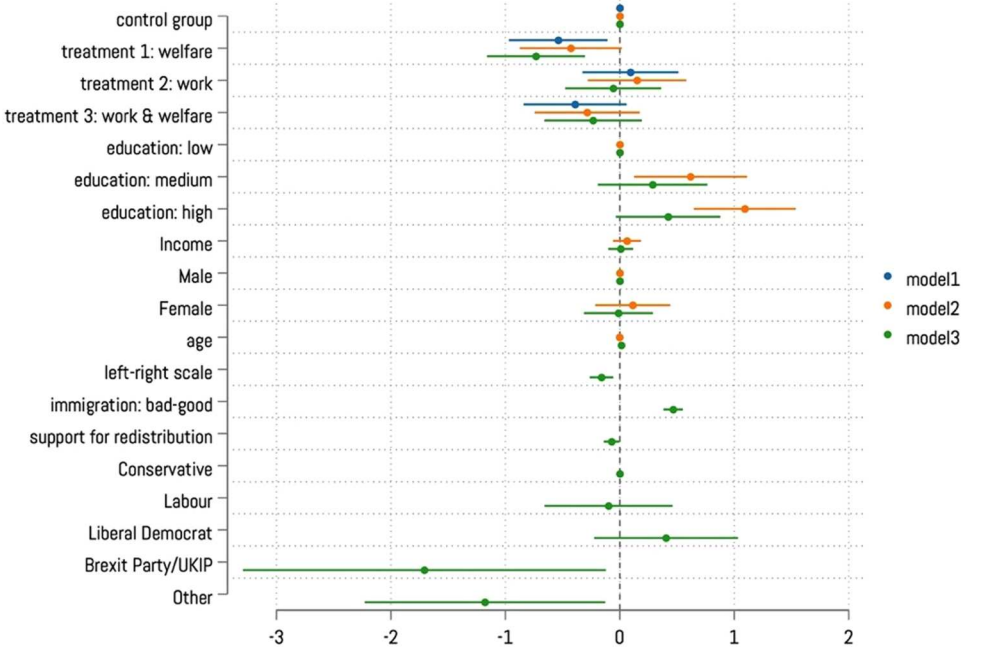

Figure 1. Determinants of preferred number of Ukrainian refugees (0–10 scale).

negativity bias, but the effect of the treatment is not strong enough to draw clear cut conclusions. Overall, we find a small negative effect of welfare entitlement, no effect of work entitlement and no significant effect of a combination of both.

As we move on to our model containing socio-demographic controls, we see the coefficients diminishing somewhat; the negative effect misses statistical significance in this model. As for covariates, we can see education as a positive and highly significant correlate of openness to refugees, in line with existing research. In contrast, gender, age or region do not explain any difference.

Model 3 shows how individuals' attitudes and ideological preferences affect their willingness to take in Ukrainian refugees. As expected, those with a more right-wing ideology favour extending fewer visas to Ukrainian refugees. As for party preferences, Brexit party/UKIP voters prefer taking in the fewest number of Ukrainian refugees, but we do not find significant differences between Labour and Conservative voters. Unsurprisingly, pre-existing individual attitudes toward immigration also significantly impact their preferences regarding the admission of Ukrainian refugees, which mostly absorbs the significance of education observed in Model 2. In addition, supporters of redistribution do not perceive a tension between their support for redistribution and the admission of Ukrainian refugees. Greater support for redistribution is associated with a preference for more Ukrainian refugees.

Maybe the most interesting of our results lie with the heterogeneity of effects. We conducted a number of analyses looking at how respondents with different characteristics responded to the treatments. We focus here on pre-existing immigration attitudes and education as the clearest examples of how the treatment was moderated by individual attitudinal characteristics. Table 1 shows the results of analyses run separately by

subgroups of prior immigration attitudes, using only the treatments as dependent variables. To reiterate, on a scale ranging from 0 to 10, respondents were asked pre-treatment whether they thought immigration was a bad (0) or good (10) thing for the United Kingdom. Here we divided them in three groups: people who think immigration is generally bad (values 0–3), neither good nor bad (values 4–6) and good (7–10).

Running the analysis on these three groups separately shows that the negative effect of the welfare and combined treatment is much larger in the subgroup with negative prior immigration preferences. In this group, the effect of the treatment combining work and welfare is even stronger, and highly significant. This points to a possible compounding effect of these two pieces of information among people who have negative views of immigration already. The high level of significance is remarkable given that this subgroup of respondents is the smallest of the three (120 individuals) and yet the differences in responses are large enough to bypass the significance threshold. This could point to a mechanism whereby individuals with negative prior views of immigration process information on rights through a negative lens and become even more restrictive. In contrast, among people with positive views of immigration, we can see a small negative effect of the welfare treatment, but the sign for the other treatments, unlike for other groups, is positive, but doesn't reach significance.

We ran a similar analysis, but using this time education groups to see if people with different levels of education responded differently to the different treatments. As argued above, education has been found to be the single most important driver of immigration preferences in a range of literature (Hainmueller and Hiscox 2007; Hainmueller and Hopkins 2014). Here again, we can see significant differences: the negative effect of the welfare and combined treatment was about two times stronger among individuals with lower levels of education (in this case GCSE and lower), again with a higher degree of significance for the combined treatment. In contrast the treatments had no significant effect in changing preferences for asylum numbers among people with middle (A levels) or high (BA and higher) levels of education. People with lower levels of education not only have more negative views of immigration, but their preferences are also more easily swayed in a restrictive direction when exposed to new information. What is again striking is the strong and significant negative effect of the work and welfare treatment in this subgroup of respondents. Again, this may have been due to a compounding

Table 1. Effect per immigration preference subgroup.

	Whole Sample	Immigration: Bad	Immigration: Neither Good Nor Bad	Immigration: Good
treatment 1: welfare	−0.538*	−1.762*	−0.642	−0.571*
	(0.220)	(0.736)	(0.349)	(0.263)
treatment 2: work	0.0930	−1.057	−0.186	0.196
	(0.214)	(0.811)	(0.321)	(0.254)
treatment 3: work & welfare	−0.391	−2.457***	−0.485	0.170
	(0.230)	(0.710)	(0.326)	(0.271)
Observations	1203	120	449	634
Adjusted R^2	0.007	0.077	0.003	0.015

Robust standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2. Effect per education subgroup.

	Whole Sample	Education: Low	Education: Middle	Education: High
treatment 1: welfare	−0.538*	−1.011*	−0.680	−0.259
	(0.220)	(0.493)	(0.456)	(0.298)
treatment 2: work	0.0930	−0.368	−0.325	0.434
	(0.214)	(0.498)	(0.463)	(0.275)
treatment 3: work & welfare	−0.391	−1.689***	−0.238	0.0151
	(0.230)	(0.501)	(0.516)	(0.288)
Observations	1203	219	308	676
Adjusted R^2	0.007	0.043	−0.001	0.004

Robust standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

effect, namely that people with a lower education level seem to especially dislike the idea that refugees are both entitled to benefits and have the right to work (Table 2)[6].

In the appendix to this paper, we ran several additional analyses and interactions using individual characteristics for similar heterogeneous effects. Because our sample was characterised by an overrepresentation of individuals with higher levels of education compared to the British population, we also ran analyses using weights for education, which gave more weight to individuals with lower levels of education. These weighted analyses showed a larger effect than of the first treatment, and a significant negative effect for the combined treatment.

Conclusion

In this paper, we used a survey experiment to explore the drivers of immigration openness at the individual level. Our specific aim was to analyse the extent to which welfare entitlements of incoming refugees shape public preferences on total numbers at the micro-level, given existing research on the possible existence of a trade-off at the macro-level between immigrant rights and immigration openness (Milanovic 2016; Ruhs 2015). Here we focused on public attitudes toward Ukrainian refugees in the UK context. In line with our first hypothesis (H1), we found that priming respondents with information about welfare rights does decrease the preferred number of refugees admitted, suggesting that there is a trade-off between rights and openness at the level of individual attitudes. However, this effect is small. Contrary to our expectations, we did not find a significant *positive* effect of work rights on openness. We also found a substantial degree of heterogeneity in effects across individual characteristics: the negative effect of welfare entitlement was much stronger among respondents with already negative views of immigration. This suggests a mechanism whereby people's prior (negative) views of immigration have an amplifying effect on new information: in our treatment, people with negative views of immigration interpreted all treatments (even those intended to be positive) in a restrictive light.

We did not find support for our second hypothesis (H2), according to which priming respondents with information about refugees' rights to work would trigger a sense of reciprocity and cool concerns about the fiscal costs of refugees. Instead, our work treatment had no significant effect. This may be due to the association of labour market access with various other consequences for respondents. For instance, while ability to work may signal reciprocity for some, others may perceive it as a source of additional competition,

as having a depressive effect on wages or working conditions, or as an additional entitlement. The differences in interpretation may be due to variables that we cannot account for in our study design, but could be explored in further research. We did find support for our third and final hypothesis (H3), namely that priming respondents with both work and welfare rights information would decrease their openness. This lends support to Avdagic and Savage's (2021) finding that positive frames are less effective at shaping public preferences compared to negative frames, which attract more attention and have a more lasting impact on individual memory. This effect was especially pronounced among people with negative views.

A number of implications and avenues for future research can be drawn from our findings. First, we have shown that individual attitudes about openness to refugees can be swayed by measures of policy design. This is especially the case among people who are more critical about immigration. People who are more favourable about immigration or highly educated are in general less likely to be influenced by cost considerations: they were on average not responsive to treatments. Among people who are more critical of immigration and the lower educated, however, information about rights seems to have an essentially negative effect. Among this group of respondents, it seems possible to influence openness attitudes, but only towards more restriction. This group of respondents seems to process information about rights of refugees in a way that drives them towards more restriction, in line with existing research that shows that simply connecting welfare and immigration reduces people's support for redistribution (Alesina, Miano, and Stantcheva 2018). In light of these results highlighting the *asymmetry* of the effect, and even if we did not directly test the effect of *cutting* the welfare benefits of immigrants, we can be somewhat sceptical about the prospect of welfare restrictions being able to *increase* openness along the lines proposed by Milanovic. This could be tested more directly in future research.

It is worth noting – besides the effect of our stimuli – that the majority of our respondents preferred to maintain or increase the number of visas awarded to Ukrainian refugees. The Russian invasion on European territory is perceived as 'closer to home' for many UK residents compared to other conflicts, possibly eliciting a greater threat perception and therefore sympathy for Ukrainian refugees. Nonetheless, in the context of blustery debates about the threat that immigration poses to solidarity, this does suggest that public tolerance for refugees is not as unavoidably scarce and sensitive as many studies suggest.

Notes

1. Ukrainian refugees are recommended to apply at a VAC in Poland, Romania, Hungary or Moldova. They must submit biometric data, such as fingerprints.
2. A newspaper search on the platform Factiva for the combination of 'Ukrainians' and 'benefits' covering the period from 22 February 2022 (when the war broke out) to 31st May 2022 (when the survey was fielded) in The Daily Telegraph, The Times, The Guardian and the Daily Mail only returned two articles mentioning the welfare entitlement of Ukrainians in the title.
3. Pre-analysis Plan: https://osf.io/a4nj9/.
4. See https://www.gov.uk/government/statistics/percentile-points-from-1-to-99-for-total-income-before-and-after-tax.
5. England, Scotland, Wales, Northern Ireland.

6. It may be that this treatment was understood differently among high- and low-educated respondents, the latter believing that Ukrainians can combine work and welfare benefits. This may explain the stronger negative effect.

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Appendix

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Treatment group	1203	1.499	1.118	0	3
Dependent Variable	1203	6.422	2.736	0	10
left-right scale	1203	4.253	2.126	0	10
immigration: bad-good	1203	6.506	2.343	0	10
support for redistribution	1203	4.765	2.629	1	12
Education (low/medium/high)	1203	2.38	.775	1	3
Income quintile	1144	2.492	1.397	1	5
Gender	1196	.523	.515	0	2
Age	1203	45.62	15.66	18	90
UK citizen	1194	.946	.225	0	1
Country	1203	1.23	.65	1	4

Table A1. Main effect models (same Models as Figure 1).

	M1: baseline		M2: baseline + socio-demographic controls		M3: baseline + all controls	
control group	0	(.)	0	(.)	0	(.)
treatment 1: welfare	−0.538*	(0.220)	−0.428	(0.228)	−0.733***	(0.218)
treatment 2: work	0.0930	(0.214)	0.150	(0.220)	−0.0578	(0.213)
treatment 3: work & welfare	−0.391	(0.230)	−0.286	(0.234)	−0.234	(0.217)
education: low			0	(.)	0	(.)
education: medium			0.617*	(0.252)	0.286	(0.244)
education: high			1.092***	(0.227)	0.422	(0.233)
Income			0.0626	(0.0625)	0.00782	(0.0556)

(*Continued*)

Table A1. Continued.

	M1: baseline		M2: baseline + socio-demographic controls		M3: baseline + all controls	
Male			0	(.)	0	(.)
Female			0.113	(0.167)	−0.0121	(0.153)
Non-binary/third gender			2.366***	(0.714)	0.733	(0.524)
age			−0.00254	(0.00521)	0.0129*	(0.00504)
UK citizen: No			0	(.)	0	(.)
UK citizen: Yes			0.253	(0.348)	0.449	(0.375)
England			0	(.)	0	(.)
Scotland			0.374	(0.313)	0.0601	(0.378)
Wales			0.537	(0.391)	0.698	(0.359)
Northern Ireland			0.421	(0.410)	1.147*	(0.524)
left-right scale					−0.160**	(0.0527)
immigration: bad-good					0.466***	(0.0431)
support for redistribution					−0.0719*	(0.0348)
Conservative					0	(.)
Labour					−0.0988	(0.285)
Liberal Democrat					0.404	(0.320)
Scottish National Party					0.137	(0.564)
Plaid Cymru					−1.778	(1.039)
Green Party					0.343	(0.341)
Brexit Party/UKIP					−1.708*	(0.808)
Other					−1.179*	(0.536)
I would not vote					−0.837**	(0.321)
Observations	1203		1136		999	
Adjusted R^2	0.007		0.034		0.309	

Robust standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A2. Main effects, with education weighting.

	M1: baseline		M2: baseline + socio-demographic controls		M3: baseline + all controls	
control group	0	(.)	0	(.)	0	(.)
treatment 1: welfare	−0.639**	(0.235)	−0.546*	(0.243)	−0.868***	(0.235)
treatment 2: work	−0.00126	(0.227)	0.00565	(0.234)	−0.270	(0.233)
treatment 3: work & welfare	−0.677**	(0.251)	−0.585*	(0.254)	−0.516*	(0.243)
education: low			0	(.)	0	(.)
education: medium			0.588*	(0.250)	0.297	(0.239)
education: high			1.047***	(0.227)	0.441	(0.229)
Income			0.0851	(0.0676)	0.0239	(0.0621)
Male			0	(.)	0	(.)
Female			0.135	(0.183)	0.0152	(0.171)
Non-binary/third gender			2.389***	(0.704)	0.768	(0.544)
age			−0.00491	(0.00559)	0.00871	(0.00556)
Uk citizen: No			0	(.)	0	(.)
UK citizen: Yes			0.0848	(0.376)	0.314	(0.408)
England			0	(.)	0	(.)
Scotland			0.388	(0.359)	−0.102	(0.458)
Wales			0.709	(0.404)	0.849*	(0.388)
Northern Ireland			0.364	(0.505)	1.101*	(0.542)
left-right scale					−0.123*	(0.0616)
immigration: bad-good					0.467***	(0.0494)
					−0.102**	(0.0387)

(*Continued*)

Table A2. Continued.

	M1: baseline		M2: baseline + socio-demographic controls		M3: baseline + all controls	
support for redistribution						
Conservative					0	(.)
Labour					−0.315	(0.336)
Liberal Democrat					0.391	(0.358)
Scottish National Party					0.208	(0.683)
Plaid Cymru					−2.064	(1.145)
Green Party					0.0990	(0.398)
Brexit Party/UKIP					−1.929**	(0.662)
Other					−1.128*	(0.520)
I would not vote					−1.006**	(0.340)
Observations	1203		1136		999	
Adjusted R^2	0.012		0.046		0.305	

Robust standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A3. Effect per immigration subgroup, including all controls.

	Whole Sample		Immigration: Bad		Immigration: Nor Good Nor Bad		Immigration: Good	
control group	0	(.)	0	(.)	0	(.)	0	(.)
treatment 1: welfare	−0.733***	(0.218)	−1.811*	(0.770)	−0.284	(0.400)	−0.676*	(0.277)
treatment 2: work	−0.0578	(0.213)	−1.310	(1.045)	0.389	(0.368)	−0.0563	(0.271)
treatment 3: work & welfare	−0.234	(0.217)	−2.464**	(0.761)	−0.0852	(0.374)	0.154	(0.274)
left-right scale	−0.160**	(0.0527)	−0.238	(0.145)	−0.0345	(0.105)	−0.225***	(0.0647)
immigration: bad-good	0.466***	(0.0431)	0.218	(0.297)	0.633**	(0.208)	0.466***	(0.0844)
support for redistribution	−0.0719*	(0.0348)	−0.137	(0.130)	−0.0157	(0.0612)	−0.0598	(0.0470)
Conservative	0	(.)	0	(.)	0	(.)	0	(.)
Labour	−0.0988	(0.285)	0.376	(1.031)	−0.104	(0.430)	0.0843	(0.472)
Liberal Democrat	0.404	(0.320)	−0.794	(1.311)	0.0342	(0.656)	0.735	(0.457)
Scottish National Party	0.137	(0.564)	−1.155	(1.966)	0.397	(0.979)	0.127	(0.809)
Plaid Cymru	−1.778	(1.039)	−5.430***	(1.561)	0.813	(0.968)	−2.276	(1.416)
Green Party	0.343	(0.341)	−0.194	(1.813)	0.391	(0.593)	0.572	(0.515)
Brexit Party/UKIP	−1.708*	(0.808)	−2.808**	(0.886)	−2.014	(2.939)	−3.304***	(0.467)
Other	−1.179*	(0.536)	−2.074	(1.241)	−1.240	(1.018)	0.426	(0.845)
I would not vote	−0.837**	(0.321)	−0.979	(1.113)	−1.069**	(0.410)	−0.0705	(0.648)
education: low	0	(.)	0	(.)	0	(.)	0	(.)
education: medium	0.286	(0.244)	−0.428	(0.914)	0.344	(0.361)	0.276	(0.355)
education: high	0.422	(0.233)	0.215	(0.860)	0.518	(0.349)	0.456	(0.334)
Income	0.00782	(0.0556)	−0.198	(0.263)	0.0277	(0.105)	0.0416	(0.0690)
Male	0	(.)	0	(.)	0	(.)	0	(.)
Female	−0.0121	(0.153)	0.0611	(0.802)	0.0372	(0.288)	−0.0247	(0.184)
Non-binary/third gender	0.733	(0.524)			0.442	(0.510)	0.543	(0.572)
age	0.0129*	(0.00504)	0.0145	(0.0255)	0.00822	(0.00941)	0.0167**	(0.00608)
Uk citizen: No	0	(.)	0	(.)	0	(.)	0	(.)
UK citizen: Yes	0.449	(0.375)	−5.508***	(1.415)	0.170	(0.962)	1.090**	(0.351)
England	0	(.)	0	(.)	0	(.)	0	(.)
Scotland	0.0601	(0.378)	−1.988*	(0.943)	−0.0217	(0.584)	0.365	(0.561)
Wales	0.698	(0.359)	1.278	(1.498)	0.720	(0.755)	0.584	(0.453)
Northern Ireland	1.147*	(0.524)	4.624***	(1.125)	0.887	(0.942)	0.0877	(0.694)

(*Continued*)

Table A3. Continued.

	Whole Sample	Immigration: Bad	Immigration: Nor Good Nor Bad	Immigration: Good
Observations	999	105	353	541
Adjusted R^2	0.309	0.219	0.036	0.183

Robust standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A4. Effect per education subgroup, including all controls.

	Whole Sample		Immigration: Bad		Immigration: Nor Good Nor Bad		Immigration: Good	
control group	0	(.)	0	(.)	0	(.)	0	(.)
treatment 1: welfare	−0.733***	(0.218)	−1.301*	(0.522)	−0.915*	(0.450)	−0.502	(0.287)
treatment 2: work	−0.0578	(0.213)	−1.018	(0.562)	−0.334	(0.421)	0.362	(0.273)
treatment 3: work & welfare	−0.234	(0.217)	−1.733**	(0.564)	0.0960	(0.455)	0.0786	(0.274)
left-right scale	−0.160**	(0.0527)	0.0459	(0.155)	−0.135	(0.0925)	−0.230**	(0.0701)
immigration: bad-good	0.466***	(0.0431)	0.480***	(0.102)	0.479***	(0.0825)	0.476***	(0.0575)
support for redistribution	−0.0719*	(0.0348)	−0.233*	(0.0963)	−0.0581	(0.0644)	−0.0263	(0.0468)
Conservative	0	(.)	0	(.)	0	(.)	0	(.)
Labour	−0.0988	(0.285)	−0.578	(0.755)	−0.0568	(0.542)	0.312	(0.376)
Liberal Democrat	0.404	(0.320)	0.684	(0.892)	0.283	(0.610)	0.464	(0.401)
Scottish National Party	0.137	(0.564)	1.033	(2.331)	2.711*	(1.208)	−0.382	(0.649)
Plaid Cymru	−1.778	(1.039)	−3.047	(2.147)	−4.175***	(1.015)	−0.701	(1.432)
Green Party	0.343	(0.341)	−0.536	(0.880)	0.241	(0.653)	0.891*	(0.425)
Brexit Party/UKIP	−1.708*	(0.808)	−2.043*	(0.846)	−1.538	(1.791)	−1.210	(1.630)
Other	−1.179*	(0.536)	0.342	(0.945)	−1.383	(1.015)	−0.711	(0.790)
I would not vote	−0.837**	(0.321)	−1.138	(0.755)	−0.687	(0.604)	−0.526	(0.472)
Income	0.00782	(0.0556)	0.0913	(0.169)	−0.0559	(0.121)	0.0125	(0.0676)
Male	0	(.)	0	(.)	0	(.)	0	(.)
Female	−0.0121	(0.153)	−0.106	(0.413)	−0.0384	(0.301)	−0.0836	(0.198)
Non-binary/third gender	0.733	(0.524)			0.894	(0.972)	0.670	(0.605)
age	0.0129*	(0.00504)	−0.00243	(0.0149)	0.00440	(0.0108)	0.0242***	(0.00636)
Uk citizen: No	0	(.)	0	(.)	0	(.)	0	(.)
UK citizen: Yes	0.449	(0.375)	−1.208	(1.702)	−1.386	(0.743)	0.910*	(0.407)
England	0	(.)	0	(.)	0	(.)	0	(.)
Scotland	0.0601	(0.378)	−0.952	(1.843)	−1.744	(0.938)	0.575	(0.414)
Wales	0.698	(0.359)	1.711*	(0.841)	0.440	(0.776)	0.599	(0.444)
Northern Ireland	1.147*	(0.524)	0.513	(0.859)	1.992	(1.246)	0.765	(0.708)
Observations	999		180		246		573	
Adjusted R^2	0.309		0.241		0.319		0.309	

Robust standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.