# Europeans support a proportional allocation of asylum seekers

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What type of common asylum regime would Europeans support? We conducted a survey asking 18,000 citizens of 15 European countries about their preferences regarding different mechanisms for allocating asylum seekers across countries. A large majority supports an allocation that is proportional to each country's capacity over the status quo policy of allocation based on the country of first entry. This majority support is weakened but persists even among a randomly assigned subset of respondents who were made aware that moving to proportional allocation would increase the number of asylum seekers allocated to their own country. These results suggest that citizens care deeply about the fairness of the responsibility-sharing mechanism, rather than only the consequences of the asylum policy. The findings also highlight a potential pathway towards reform of the Common European Asylum System.

As Europe faces the most severe refugee crisis since World War II, reform of the Common European Asylum System (CEAS) has emerged as an urgent policy challenge for European governments. With more than 1.3 million new asylum claims lodged in Europe in 2015 alone<sup>1</sup>, policymakers are struggling to design robust and fair asylum policies that honour international commitments and treaties, such as the 1951 Refugee Convention, and also inspire domestic public support. The crisis increasingly threatens the social cohesion of many European countries and has called into doubt the ability of democratic governments to collaborate in providing effective humanitarian protection for refugees.

One of the main reasons why the refugee crisis has become so intractable is the lack of a fair responsibility-sharing mechanism involving all countries that are part of the Dublin Regulation, which determines the allocation of asylum applications across member states. By 'Dublin countries', we refer to all European Union member states that currently apply the Dublin Regulation, as well as Norway, Iceland, Switzerland and Liechtenstein, which are part of the European Free Trade Association. Denmark has a separate but similar agreement with the European Union. Under the current Dublin Regulation, which is a binding law for all member states of the European Union, the first Dublin country an asylum seeker enters is responsible for registering the asylum claim. Since its inception, this allocation rule has been criticized for creating a disproportionate burden for the external border countries of the European Union, where most asylum seekers first arrive<sup>2-4</sup>. Within the constraints of the Dublin Regulation, governments also have other policy tools and opt-out clauses within European Union immigration and asylum law to influence the number of asylum applications they receive, which further compounds the problem

of unequal allocation<sup>5</sup>. In the face of the current crisis, the Dublin system has buckled under the rapid increase in asylum applications, leading to chaos and the trapping of refugees in limbo<sup>6</sup>. The fallout has included considerable costs for the European economies, particularly the temporary suspensions of the Schengen Agreement and re-installation of border controls by some countries.

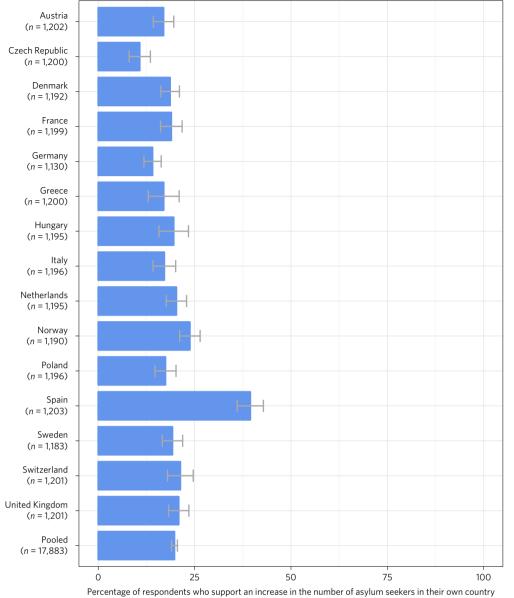
As a result, there has been intense pressure to reform the CEAS, and some have proposed moving to a proportional allocation mechanism whereby asylum seekers are allocated based on each country's capacity<sup>7,8</sup>. However, progress on this front has been slow. The allocation of asylum seekers across Dublin countries presents a classic problem of international commitment and cooperation<sup>9-11</sup>. On the one hand, member countries would collectively benefit from coordinating humanitarian protection for refugees and avoiding the costs that result from unregulated and often chaotic refugee flows. On the other hand, each country individually has an incentive to free ride and take in as few asylum seekers as possible, especially given that policymakers seeking re-election face widespread public backlash against government efforts to accommodate asylum seekers. Indeed, as Fig. 1 shows, across the 15 European countries we surveyed, not a single one has a majority population willing to accept more asylum seekers with open arms.

Despite the salience of the crisis for the public and the contentious policy debates on how to reform the CEAS, we know little about the type of common asylum regime that European voters want. Can the Dublin countries forge a consensus, or do domestic preferences vary so widely as to rule out any institutional reform that would fairly allocate asylum seekers? While some scholars have examined public attitudes towards asylum seekers in general<sup>12–15</sup>, we are not aware of other studies that cross-nationally examine mass attitudes on how to allocate asylum seekers in the CEAS. Moreover, there is a general lack of evidence regarding domestic support for the design of international institutions. This is a notable lacuna in the social science literature given that the successful functioning of international institutions hinges on whether their design is widely supported by domestic voters and upholds shared norms about equality and fairness<sup>16</sup>.

Using a large-scale survey involving 18,000 eligible voters from national samples in 15 European countries that belong to the CEAS, we provide evidence on mass attitudes towards European asylum allocation. The chosen countries represent traditional, major European Union powers, as well as new members, border and interior countries, non-European Union countries that are part of the CEAS, and countries with few and many asylum seekers. The Methods and Supplementary Information include details about the sample, design and statistical analysis. We used entropy

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**Figure 1** | **Public support for increasing the number of asylum seekers.** Percentage of respondents who support increasing the number of asylum seekers in their own country for each of the 15 surveyed countries. Estimates employ sample weights. Corresponding normality-based 95% confidence intervals are shown. Pooled *n* = 17,883.

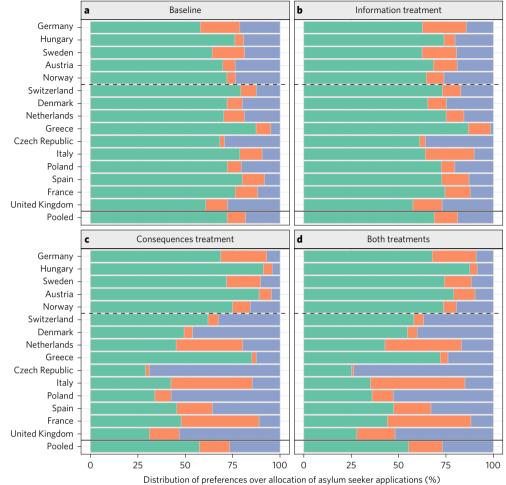
balancing<sup>17</sup> to re-weight the samples to match the age, education and gender distributions of the populations in each country. In the Supplementary Information, we also report the unweighted results, which are substantively indistinguishable from the weighted results.

In our survey, we asked voters to choose between three allocation rules. The first is the Dublin Regulation status quo, which allocates asylum seekers based on the country of first entry. The second is a proportional allocation that distributes asylum seekers in proportion to each country's capacity (defined by population size, gross domestic product (GDP) and other factors). This proportional allocation scheme has been proposed by the European Commission and, as further explained below, is rooted in the fairness principle of proportional equality. The third allocation rule is an equal allocation, under which each country receives an equal number of asylum seekers. While this scheme has not been formally proposed in the current asylum debate, it appeals to the related fairness principle of numerical equality. Therefore, including this option allows us to measure the extent to which respondents distinguish between these two fundamental conceptions of fairness in the asylum context (see Supplementary Information for the phrasing used in the questions).

In forming their preferences among the three allocation mechanisms, respondents face a conflict between consequentialist considerations and norms of distributive justice. Respondents who care mostly about the consequences of the asylum policy will likely prefer the allocation rule that brings the fewest asylum seekers to their country. However, respondents might also be driven by normative considerations and care about fairness in the design of the asylum allocation mechanism. Both the proportional and equal allocation rules are based on fundamental principles of distributive justice. In particular, the concept of proportional allocation is grounded in Aristotle's celebrated maxim of proportional equality, which stipulates, "Equals should be treated equally, and unequals, unequally in proportion to relevant similarities and differences" (Nicomachean Ethics). According to this principle, an allocation of a joint burden between members of a group is considered just if it distributes the burden in proportion to the members' relevant

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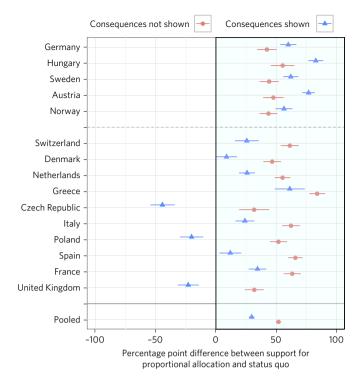
**Figure 2** | **Public support for various allocations of asylum seekers.** Percentage of respondents who prefer proportional, equal or status quo allocation given random assignment to one of four conditions. **a**, The baseline condition (n = 4,530) asked for the respondents' preferences without any additional intervention. **b**, The information treatment (n = 4,438) informed respondents of the status quo policy and policy-relevant arguments. **c**, The consequences treatment (n = 4,423) informed respondents of the number of asylum seekers that their country would receive under each allocation. **d**, The fourth condition included both the information treatment and the consequences treatment (n = 4,492). Countries are ordered such that the country at the bottom would see the largest increase in the number of asylum seekers when moving from the status quo to proportional allocation, and the country at the top would see the largest decrease. The dashed horizontal line separates the countries that would see an increase versus a decrease. Estimates employ sample weights.

capacities. Previous research suggests that the norm of proportional equality is often deeply ingrained in people's understanding of fairness in the world<sup>18-22</sup>, and we therefore expect that respondents might be attracted to the idea that countries with higher capacities should shoulder a larger responsibility in the asylum context. In contrast, the equal allocation rule is grounded in the distributive justice principle of numerical equality, which stipulates that the allocation of a joint burden is just if members are treated equally. The numerical equality principle—a special case of proportional equality—may appeal to respondents because it is simple, does not depend on a potentially arbitrary assessment of the countries' capacities and is commonly used as a distributive fairness norm in a vast array of policy areas, from voting rights ('one person, one vote') to military conscription.

In our study, we expect that respondents' normative and consequentialist considerations act as colliding forces, and we designed a set of randomly assigned manipulations (described below) to determine which force overrides the other when the two are in conflict. The answer is not only of theoretical interest but also has major implications for the viability of a potential reform of the Dublin Regulation. Figure 2 shows which asylum allocation mechanism Europeans from each country prefer. Figure 2a shows the results for the baseline condition, which did not include any additional interventions but simply asked respondents to indicate their preferences regarding each of the three mechanisms: proportional allocation, equal allocation or country of first entry. A large majority (72%) of respondents prefer proportional allocation, and this overwhelming support holds in every country, ranging between 58% (Germany) and 87% (Greece). This suggests that respondents are strongly attracted to the norm of proportional equality. In stark contrast, only 18% of voters prefer the country of first entry, even though this has been the status quo since the inception of the Dublin system in the 1990s. In addition, only 10% of respondents prefer an equal allocation, suggesting that few voters are attracted to the alternative fairness principle of numerical equality in this context.

This strong public support for moving towards a system of proportional allocation is surprising given that most countries would receive a higher number of asylum seekers under proportional allocation than under the status quo. In fact, if voters primarily care about the consequences of the policy, we would expect support for proportional allocation to be stronger in countries that would

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**Figure 3** | **Support for proportional versus status quo allocation of asylum seekers.** Difference in the percentage of respondents who support proportional allocation versus status quo allocation by country of first entry given random assignment to the consequences treatment. Countries are ordered such that the country at the bottom would see the largest increase in the number of asylum seekers when moving from the status quo to proportional allocation, and the country at the top would see the largest decrease. The dashed horizontal line separates the countries that would see an increase versus a decrease. Estimates employ sample weights. Corresponding normality-based 95% confidence intervals are shown. Pooled n = 17,883.

receive fewer asylum seekers under this allocation rule compared with country of first entry.

The countries in Fig. 2 are ordered such that the country at the bottom would see the largest increase and the country at the top would see the largest decrease in the number of asylum seekers when moving from the status quo to proportional allocation, with the dashed horizontal line separating the countries that would see an increase versus a decrease. Under the baseline condition, we find no systematic relationship between the change in the number of asylum seekers a country would experience and the support for proportional allocation compared with country of first entry (P=0.25 for Spearman's  $\rho$ ).

Given the overwhelming support for proportional allocation across Europe, even in countries that would have to shoulder a greater responsibility compared with the status quo, one might ask whether respondents prefer proportional allocation over the other allocation mechanisms because they do not fully understand the implications of each option or because they incorrectly assume that proportional allocation is actually the status quo. To test for this, our survey randomly assigned half of the respondents in each country to receive an additional information treatment. This informed respondents that allocation based on the country of first entry is the status quo regulation and also presented arguments typically used in public debate to justify the various allocations (see the Methods for the wordings of all randomized treatments, and the Supplementary Information for covariate balance checks across the treatment conditions in each country).

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Figure 2b shows that when respondents receive the information treatment, the distribution of support for the three allocation mechanisms is virtually identical to the distribution in the baseline condition, demonstrating that the additional information does not systematically alter the respondents' preferences. (Of the 15 country-specific chi-squared tests of independence between allocation mechanism preferences and information treatment assignment, only one was statistically significant at level of  $\alpha = 0.05$ ). In an additional analysis shown in the Supplementary Information, we also find that respondents' levels of knowledge about the refugee crisis do not systematically moderate the effect of the information treatment. These findings suggest that respondents widely share the norm of proportional equality, that this principle is so entrenched that it is unaffected by status quo bias and that respondents need not possess extensive policy knowledge or be presented with arguments in its favour to grasp its normative appeal.

To examine the strength of the normative considerations, our survey also cross-randomized a consequences treatment. It explicitly primed respondents' consequentialist preferences by providing additional information about the number of asylum applications that would be assigned to the respondent's country under each of the three allocation rules (see Supplementary Information for details). This manipulation makes it easy for respondents who are driven by a consequentialist logic to identify the specific allocation that would minimize the number of asylum seekers for their country. To make the consequences treatment as realistic as possible, we piped in the actual number of asylum applications reported over the 2015 period by Eurostat for each country as the expected number of asylum seekers under the country of first entry answer option. Using the real numbers for the status quo ensured that we captured the relevant benchmark for any policy reform since these numbers reflect both the current regulations as well as any departures from the rules (see Supplementary Information for details). To compute the numbers for the equal allocation rule, we evenly divided the total number of applications among all 15 countries, and for the proportional allocation rule, we relied on country-specific weights based on the official allocation proposal made by the European Commission, which includes the following elements: 40% population, 40% total GDP, 10% number of past applications and 10% unemployment rate8.

The results for respondents who were assigned to the consequences treatment are shown in Fig. 2c, while the results for respondents who were assigned to both the consequences treatment and the information treatment are shown in Fig. 2d. There are two key findings. First, prompting respondents with the consequences clearly has an important impact on support for proportional allocation. If their country benefits from proportional allocation (those shown above the dashed line), provision of the actual numbers increases support, while if their country faces a higher responsibility under proportional allocation, provision of the numbers reduces support. This relationship holds for each of the 15 countries and suggests that consequentialist considerations play a significant role in shaping preferences for the allocation of asylum seekers. Second, even when respondents see the implied numbers, a majority of 56% of respondents still prefer proportional allocation, despite the fact that it would increase the number of asylum seekers for most countries. In contrast, only 27% of respondents prefer the status quo allocation and only 17% of respondents prefer an equal allocation under this condition; in fact, a higher percentage supports equal allocation over the status quo in several countries.

Figure 3 shows the difference in support for proportional allocation versus the status quo, which is particularly relevant for the viability of a potential policy reform. When they are not shown the numbers of asylum seekers, large majorities of respondents prefer proportional allocation over the status quo in all countries. Furthermore, when respondents are prompted about the consequences, there

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are still more respondents who prefer proportional allocation than those who prefer the status quo in all but three countries, including seven of the ten countries in which proportional allocation would result in an increase in the number of asylum seekers. Even in the three countries that prefer the status quo (the Czech Republic, Poland and the United Kingdom), there is still meaningful support, with more than 25% of respondents in each preferring proportional allocation. In the Supplementary Information, we also show that a similar pattern holds when we consider the respondents' full ranking of all three allocation mechanisms. In addition, we show that strong support for proportional allocation over the status quo remains robust-with and without the consequences treatmentacross various subsets of respondents, including those on the left, centre and right of the political spectrum, those with low and high political knowledge, and those who support a decrease and increase in the number of asylum seekers in general.

Overall, these findings suggest that considerations of both consequences and fairness shape voters' preferences over asylum allocation policy. Yet when the two collide, the norm of proportional equality overrides consequentialist preferences for most voters.

To ameliorate the refugee crisis, European countries need to work together to provide adequate humanitarian protection, share responsibilities and realize the full gains from international cooperation. The results of our study suggest that there is firm ground for greater cooperation, and they have important implications for theory and policy.

For theory, the results provide evidence that in the context of a highly salient international policy decision—where voters have strong preferences and stakes are high—the norm of proportional equality can preponderate over narrow consequentialist considerations. Voters care not only about the consequences of this policy reform, but also about the inherent fairness of the design of the asylum system. Clearly, more work is needed to better understand domestic support for the design of other international institutions. However, the power of the proportional equality norm in the highly contentious context of asylum allocation suggests that it might enable coordination in other areas where the international provision of public goods is controversial, such as climate change mitigation, environmental protection and financial bailouts.

The results also inform policy. Recent public backlash against efforts to accommodate asylum seekers has created a serious challenge for reform of the CEAS, as such reform would entail increasing the number of asylum seekers allocated to most countries. However, our results suggest that voters would tolerate an increase in the number of asylum seekers allocated to their own country as long as responsibilities are fairly shared across Europe. This points to a viable pan-European consensus to move towards a responsibility-sharing mechanism that allocates asylum seekers in proportion to the countries' capacities.

It is important to emphasize that the strong public support for proportional allocation uncovered by this study does not imply that reforming the asylum system will be frictionless. Recall that in three of the fifteen countries, a majority of respondents support the status quo when prompted to consider the consequences. However, in each of these countries more than one-quarter of these respondents still support proportional allocation, suggesting that policymakers could potentially reach a consensus. More broadly, public support for proportional allocation could be either weakened or strengthened if voters were exposed to the countervailing forces of political framing by opponents and advocates of the reform.

It is possible that support could be weakened if opponents are able to raise the salience of the potential costs of increasing the number of asylum seekers in those countries whose responsibility would grow under the reform. However, given that we conducted our survey at the height of the European refugee crisis, it should have been the case that our respondents were already heavily primed about these concerns. In addition, our consequences treatment made this consideration highly salient and easily accessible to respondents by explicitly informing them of how many asylum seekers each policy option would entail for their own country. Furthermore, in the framing battle surrounding this policy reform, advocates would also fiercely promote fairness considerations to justify moving to a proportional allocation; for instance, by emphasizing to voters that other countries with similar capacities would also take on a similar responsibility. Although our study did not test this explicitly, it stands to reason that prompting voters with such fairness considerations would, if anything, further increase support for the proportional allocation.

In summary, the extensiveness of the support for proportional allocation over the current regulations across Europe suggests that a reform could be broadly agreeable to the public, which is critical in giving policymakers latitude to take action. At the very least, they should be emboldened by this evidence that there is little reason to fear reprisal in the court of public opinion.

#### Methods

Sample. We conducted our survey in 15 European countries that belong to the CEAS. The sample included Austria, the Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Spain, Sweden, Switzerland and the United Kingdom. In each country, we surveyed about 1,200 eligible voters, such that the total sample size was about 18,000 respondents (see Supplementary Information for details). The international survey firm Respondi recruited respondents from the population of eligible voters in each country to which the survey was administered online. We used entropy balancing to re-weight our sample data to match the country-specific demographic margins from the populations. We excluded 147 respondents for whom weights could not be constructed due to missing data. The Supplementary Information provides detailed information about the survey translation, recruitment process, response rate, survey length, compensation, descriptive statistics and unweighted results. Informed consent was obtained from each participant at the beginning of the survey. The survey was approved by Stanford University's Institutional Review Board (protocol ID: 34881) and conducted according to the University of Zurich's policy for human subjects research.

**Study design.** In each country, each respondent was randomly assigned to one of four conditions: (1) a baseline condition; (2) a condition under which respondents were exposed to the information treatment; (3) a condition under which respondents were exposed to the consequences treatment; and (4) a condition under which respondents were exposed to the both the information treatment and the consequences treatment. Randomization was automated, thus the investigators were blinded to the treatment assignment allocation during the survey administration.

For the baseline condition, we asked respondents after a short introductory text (see the Supplementary Information for details) the following question to measure what type of allocation mechanism for asylum seekers they prefer:

"In your opinion, how should the number of asylum applications per country be determined? The number of asylum applications allocated to each European country should be

- based on the country of first entry (e.g. asylum seekers are required to submit their asylum application in the European country in which they initially arrive).
- the same for every European country (e.g. asylum seekers are allocated such that each European country receives the same number of asylum applications).
- proportional to the country's capacity (e.g. asylum seekers are allocated to each European country depending on its population, GDP, unemployment rate, and number of past applications)."

The information treatment was designed to examine whether preferences change when we provide voters with policy-relevant information about the different allocation mechanisms. The information prompt that respondents assigned to the information treatment received immediately before being asked the question about the preferred allocation read as follows:

"Under current regulations, asylum seekers are generally required to submit their applications in the country through which they first entered Europe (i.e. the 'country of first entry'). The goal behind this policy is to maximize efficiency. However, some people have pointed

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out that the current policy puts an unfair burden on border countries that are more likely to serve as entry points for asylum seekers. Accordingly, they recommend allocating asylum applications either equally across all countries or based on each country's capacity."

The Supplementary Information provides more details about the rationale of the information treatment.

The consequences treatment was designed to examine whether preferences change when we explicitly prime the consequentialist preferences of respondents. Respondents assigned to the consequences treatment received an alternative version of the question about the preferred allocation, in which a sentence was added at the end of each option specifying the associated number of asylum applications. The alternative question, using the example of the United Kingdom, read as follows:

"In your opinion, how should the number of asylum applications per country be determined? The number of asylum applications allocated to each European country should be

- based on the country of first entry (e.g. asylum seekers are required to submit their asylum application in the European country in which they initially arrive). This would mean approximately 38,700 applications allotted to the United Kingdom.
- the same for every European country (e.g. asylum seekers are allocated such that each European country receives the same number of asylum applications). This would mean approximately 43,200 applications allotted to the United Kingdom.
- proportional to the country's capacity (e.g. asylum seekers are allocated to each European country depending on its population, GDP, unemployment rate, and number of past applications). This would mean approximately 159,600 applications allotted to the United Kingdom."

This randomized manipulation makes explicit what the consequences of the various allocation mechanisms would be in terms of the number of asylum seekers assigned to the respondent's country. It also makes it easy for respondents who are driven by consequentialist preferences to pick out the allocation that would mean the lowest number of asylum seekers allocated to their own country. The Supplementary Information provides more details about the rationale of the consequences treatment.

In the fourth condition, respondents received both the information treatment and the consequences treatment.

**Variable definitions.** The Supplementary Information provides the measures and question wordings for all variables used in the analysis.

**Statistical analysis.** The statistical analysis underlying the figures in the main text employs the entropy balancing weights. The unweighted results are very similar and are detailed in the Supplementary Information. Subgroup analyses and summary statistics are also reported in the Supplementary Information.

**Code availability.** Replication code can be accessed at Dataverse: http://dx.doi. org/10.7910/DVN/PTKD7K.

**Data availability.** Replication data can be accessed at Dataverse: http://dx.doi. org/10.7910/DVN/PTKD7K.

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#### References

- 1. Operational Portal Refugee Situations: Mediterranean Situation (UNHCR, 2016); http://data.unhcr.org/mediterranean/regional.php
- 2. Raitio, J. The Principle of Legal Certainty in EC Law (Kluwer
- Academic, 2003).
  Ngalikpima, M. & Hennessy, M. "Dublin II Regulation: Lives on Hold"— European Comparative Report (European Council on Refugees and Exiles, 2013); http://www.refworld.org/docid/513ef9632.html
- McDonough, P., Kmak, M. & van Selm, J. Sharing Responsibility for Refugee Protection in Europe: Dublin Reconsidered (European Council on Refugees and Exiles, 2008).
- Neumayer, E. Asylum destination choice. What makes some West European countries more attractive than others? *Eur. Union Polit.* 5, 155–180 (2004).

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- Bozorgmehr, K. & Wahedi, K. Reframing solidarity in europe: frontex, frontiers, and the fallacy of refugee quota. *Lancet Public Health* 2, e10–e11 (2016).
- 7. Thielemann, E. R. Between interests and norms: explaining burden-sharing in the European Union. J. Refug. Stud. 16, 253–273 (2003).
- 8. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A European Agenda on Migration (European Commission, 2015); http://ec.europa.eu/anti-trafficking/sites/antitrafficking/files/communication\_ on\_the\_european\_agenda\_on\_migration\_en.pdf
- 9. Suhrke, A. Burden-sharing during refugee emergencies: the logic of collective versus national action. J. Refug. Stud. 11, 396–415 (1998).
- Betts, A. Public goods theory and the provision of refugee protection: the role of the joint-product model in burden sharing theory. J. Refug. Stud. 16, 274-296 (2003).
- 11. Thielemann, E. R. & Dewan, T. The myth of free-riding: refugee protection and implicit burden-sharing. *West Eur. Polit.* 29, 351–369 (2006).
- 12. Fetzer, J. S. Public Attitudes Toward Immigration in the United States, France, and Germany (Cambridge Univ. Press, 2000).
- Ivarsflaten, E. Threatened by diversity: why restrictive asylum and immigration policies appeal to Western Europeans. J. Elect. Public Opin. Parties 15, 21-45 (2005).
- Wike, R., Stokes, B. & Simmons, K. Europeans fear wave of refugees will mean more terrorism, fewer jobs. *Pew Research Center* (11 July 2016); http://www.pewglobal.org/2016/07/11/europeans-fear-wave-of-refugees-willmean-more-terrorism-fewer-jobs
- Bansak, K., Hainmueller, J. & Hangartner, D. How economic, humanitarian, and religious concerns shape European attitudes toward asylum seekers. *Science* 354, 217–222 (2016).
- Bechtel, M. M. & Scheve, K. F. Mass support for global climate agreements depends on institutional design. *Proc. Natl Acad. Sci. USA* 110, 13763–13768 (2013).
- Hainmueller, J. Entropy balancing for causal effects: a multivariate reweighting method to produce balanced samples in observational studies. *Polit. Anal.* 20, 25–46 (2011).
- Gosepath, S. in *The Stanford Encyclopedia of Philosophy* (ed. Zalta, E. N.) (The Metaphysics Research Lab, 2011); https://plato.stanford.edu/archives/ spr2011/entries/equality/
- Moulin, H. in *Handbook of Social Choice and Welfare* Vol. 1 (eds Arrow, K., Sen, A. K. & Suzumura, K.) 289–357 (Elsevier, 2002).
- Gachter, S. & Riedl, A. Dividing justly in bargaining problems with claims. Soc. Choice Welf. 27, 571–594 (2006).
- Herrero, C., Moreno-Ternero, J. D. & Ponti, G. On the adjudication of conflicting claims: an experimental study. Soc. Choice Welf. 34, 145–179 (2010).
- Bosmans, K. & Schokkaert, E. Equality preference in the claims problem: a questionnaire study of cuts in earnings and pensions. *Soc. Choice Welf.* 33, 533–557 (2009).

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### Author contributions

K.B., J.H. and D.H. conceived the research, designed the analyses, conducted the analyses and wrote the manuscript.

### Additional information

Supplementary information is available for this paper.

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#### **Competing interests**

The authors declare no competing interests.